GW - 107

REPORTS

YEAR(S):

2006-2003

GW 107R

2005 ANNUAL GROUNDWATER REMEDIATION REPORT
Jal No. 4 Plant
Lea County, New Mexico

FEBRUARY 8, 2006

Prepared for:

El Paso Natural Gas Company
2 North Nevada Street
Colorado Springs, Colorado 80903

Prepared by:

The Benham Companies, LLC
infrastructure & environment
One West Third Street, Suite 100
Tulsa, Oklahoma 74103

BENHAM
infrastructure & environment

Via Federal Express

February 8, 2006

Mr. Edwin E. Martin
New Mexico Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87504

RE: 2005 Annual Groundwater Remediation Report Jal No. 4 Plant Lea County, New Mexico

Dear Mr. Martin:

El Paso Natural Gas Company hereby submits the enclosed "2005 Annual Groundwater Remediation Report Jal No. 4 Plant Lea County, New Mexico". The Annual Report details remediation efforts for the year 2005.

If you have any questions concerning the Annual Report please call me (719) 520-4433 or Buddy Richardson at (918) 492-1600.

Sincerely,

Scott T. Pope P.G.
Principal Environmental Scientist

xc: Mr. Chris Williams, NMOCD, Hobbs - w / enclosures; **Via Federal Express**
Mr. Darrell Campbell, EPNG - w / enclosures
Mr. Buddy Richardson, BI - w / enclosures
Mr. Ed Nichols, EPNG – ROW - w / o enclosures
Jal 4 file - w / enclosures

El Paso Natural Gas Company 2 North Nevada Street Colorado Springs, Colorado 80903

2005 ANNUAL
GROUNDWATER REMEDIATION REPORT
JAL NO. 4 PLANT
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2005 ANNUAL GROUNDWATER REMEDIATION REPORT
JAL NO. 4 PLANT
LEA COUNTY, NEW MEXICO
February 8, 2006

1.0 INTRODUCTION

The Benham Companies, LLC (Benham), has been retained by El Paso Natural Gas Company (EPNG) to compile the 2005 Annual Groundwater Remediation Report for the Jal No. 4 Plant (Plant) located in Lea County, New Mexico. The remedial activities conducted at the Plant have been performed under EPNG's Project Work Plan, dated February 1995 (Plan). This Plan was approved by the New Mexico Oil Conservation Division (NMOCD) on April 27, 1995, with subsequent revisions approved on August 10, 1995, July 8, 1997 and July 30, 2002.

The Plant property was comprised of approximately 181 acres of land located west of State Highway 18, approximately 9 miles north of the town of Jal, New Mexico. The location of the Plant property and topographic features are shown on Figure 1. The Plant property occupied portions of Sections 31 and 32 of Township 23 South, Range 37 East, and Sections 5 and 6 of Township 24 South, Range 37 East, all in Lea County, New Mexico.

The Plant was constructed by EPNG in 1952 to treat, compress and transport natural gas to EPNG's main transmission lines. EPNG discontinued their use of the Plant in 1987, leasing portions of the Plant property to Christie Gas Corporation (Christie) that same year. EPNG eventually sold the Plant to Christie in 1991. In December 2002, Christie sold the Plant to Texas LPG Storage Company (Texas LPG).

1.1 Program Wells and Sampling Schedule

To assess brine and hydrocarbon impacts to the shallow groundwater system in the Plant area EPNG has installed eighteen monitoring wells, one piezometer, and two recovery wells on Plant property and adjoining properties to the east (located hydraulically downgradient). EPNG had designated fifteen monitoring wells as ***"program monitoring wells"*** from which groundwater samples are frequently collected and submitted to an analytical laboratory for analysis. The locations of these wells are shown on Figures 2 through 7.

On April 14, 2003 the NMOCD approved a modification to the groundwater sampling program for the Site. These modifications established the following sampling program:

- 1st Quarter - sample monitoring wells ACW-13, ACW-14 and ACW-15 and analyze for: benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX), total dissolved solids (TDS), specific conductance, chloride and sodium.
- 2nd Quarter - sample monitoring wells ACW-13, ACW-14 and ACW-15 and analyze for: BTEX, TDS, specific conductance, chloride and sodium.
- 3rd Quarter - sample monitoring wells ACW-13, ACW-14 and ACW-15 and analyze for: BTEX, TDS, specific conductance, chloride and sodium.
- 4th Quarter - sample all program and non-program wells for and analyze for: BTEX, TDS, specific conductance, chloride and sodium.

A list of EPNG's program monitoring wells and the calendar year 2005 sample collection schedule for each well is as follows:

Monitoring Well	Sampled February, May, August and December	Sampled December Only
ACW-1		X
ACW-2A		X
ACW-3		X
ACW-4		X
ACW-5		X
ACW-6		X
ACW-7		X
ACW-8		X

Monitoring Well	Sampled February, May, August and December	Sampled December Only
ACW-9		X
ACW-10		X
ACW-11		X
ACW-12		X
ACW-13	X	
ACW-14	X	
ACW-15	X	

Program monitoring wells ACW-8 and ACW-3 were first pilot tested as recovery wells in April and June 2005, respectively. These wells were converted to permanent and permitted groundwater recovery wells in October 2005. Sampling of these wells continued following their conversion to recovery wells.

1.2 Non-Program Wells and Sampling Schedule

In addition to these program monitoring wells, EPNG also collects groundwater samples from two non-program monitoring wells (ENSR-1 and ENSR-3), one piezometer (PTP-1), one upgradient water supply well (EPNG-1) and two downgradient active water supply wells (Oxy Production Well and Doom Production Well). Monitoring well ENSR-2 was converted into a groundwater recovery well and connected to the remediation system active at the Site in 2002 and was not sampled during sample year 2003. However, sampling of ENSR-2 resumed in 2004 and continued in 2005. The ENSR wells are located within the Plant process areas as shown on Figures 2 through 7. Water supply well EPNG-1 is located at the northwest corner of the Plant property. The Oxy Production Well is located approximately in the center of Section 5 of Township 24 South, Range 37 East and provides potable water to Oxy's Myers Langlie Mattix Unit Water Injection Station. The locations of the Oxy injection station and supply well are shown on Figures 2 through 7. The Doom Production Well is a private water supply well that provides water to the residence of Jimmie J. and Rebecca J. Doom and is located in the approximate center of the northwest quarter of Section 8 of Township 24 South, Range 37 East. The location of the Doom Production Well is not shown on the figures provided; as this well is located approximately 5,800 feet south of the Oxy water injection station.

A list of the non-program wells and their calendar year 2005 sample collection schedule is as follows:

Well	Sampled February, May, August and December	Sampled December Only
ENSR-1		X
ENSR-2		X
ENSR-3		X
EPNG-1		X
PTP-1		X
Oxy Production Well	X	
Doom Production Well	X	

1.3 Depth to Groundwater Measurements

During each quarterly sampling event and prior to disturbing the water columns within each well, EPNG personnel measured the static depths to groundwater within the well casings using an electronic water level indicator. All depths to groundwater were measured relative to the surveyed top of casing (TOC) datum so that groundwater elevations could be determined. Table 1 provides a summary of the depths to groundwater, TOC elevations, and groundwater elevations that have been compiled throughout EPNG's monitoring program.

1.4 Sampling Procedures

The groundwater samples were collected by EPNG personnel in accordance with EPA methods and quality assurance/quality control guidance. All groundwater monitoring wells and production well EPNG-1 were purged thoroughly prior to sample collection using temporary electric submersible pumps. The pumps are then removed and dedicated bailers were used to remove a groundwater sample from the top of the water column. Groundwater produced during purging operations was contained and disposed of within the Plant's lined Surface Impoundment #9.

The groundwater samples taken from recovery wells ACW-3, ACW-8, ENSR-2, RW-1 and RW-2, and from the OXY and Doom water supply wells are collected from the discharge piping (spigot samples).

Upon collection, the groundwater samples were placed directly into laboratory-prepared containers, labeled as to source, packed on ice, and placed under chain-of-custody control for transfer to the laboratory. The results of the 2005 groundwater analyses and all previous analyses are summarized in Table 2. The complete 2005 laboratory analytical reports and chain-of-custody documents are provided in Appendix A.

2.0 RESULTS OF MONITORING ACTIVITIES

The following Sections summarize the field measurements and laboratory analytical results obtained throughout the 2005 sampling program. These data have been compared with historic data to assess any trends that may be apparent. To facilitate these comparisons, 45 trend graphs have been prepared that show the TDS, chloride, sodium and benzene concentrations that have been detected within the groundwater samples taken from the fifteen program monitoring wells. These graphs are presented in the section of this report tabbed "Graphs".

2.1 Field Measurements

The depth to groundwater measurements taken during each of the sampling events are summarized on Table 1. These data indicate that the depths to groundwater across the Plant are approximately 100 feet below ground surface and that the static groundwater elevations exhibit little seasonal variability. In 2005, the depth to groundwater elevations observed in monitoring well ACW-4 appear to be influenced by groundwater withdrawals from recovery wells ENSR–2 and RW-1.

Groundwater potentiometric surface maps have been prepared for each sampling quarter. These maps are presented on Figures 2 through 5. As is shown on these figures, the groundwater flow direction across the Plant is, in general, from the northwest to the southeast (S46°E). The hydraulic gradient across the Plant is approximately 0.002 feet per foot. Generally, the groundwater flow direction and hydraulic gradient at the Site appear to have changed little since 1997. Notable exceptions are those localized areas near the active recovery wells where the groundwater flow direction and hydraulic gradient have been altered by the extraction of groundwater from these wells.

2.2 Inorganic Constituents

The primary inorganic parameters being utilized to assess plume migration at the Plant include: TDS, chloride and sodium. Benham has reviewed the concentration trend graphs for these parameters in each of the program monitor wells. Based upon this review, it is Benham's opinion that certain trends are apparent in the levels of these parameters. The following table summarizes Benham's opinions of the trends that are observable in 2005 from the inorganic database provided herein. The trends observed in calendar year 2004 are shown in parentheses.

MONITORING WELL	CONCENTRATION TRENDS		
	TDS	CHLORIDE	SODIUM
ACW-1	↓ (↓)	↓ (↓)	↓ (↓)
ACW-2A	↓ (↓)	↓ (↓)	↔ (↓)
ACW-3	↔ (↓)	↓ (↓)	↑ (↓)
ACW-4	↓ (↓)	↓ (↓)	↓ (↓)
ACW-5	↓ (↓)	↔ (↔)	↓ (↔)
ACW-6	↓ (↓)	↓ (↓)	↓ (↓)
ACW-7	↔ (↔)	↓ (↑)	↑ (↑)
ACW-8	↓ (↓)	↓ (↓)	↓ (↓)
ACW-9	↔ (↑)	↔ (↔)	↔ (↑)
ACW-10	↑ (↑)	↔ (↑)	↔ (↔)
ACW-11	↑ (↑)	↔ (↑)	↑ (↑)
ACW-12	↔ (↔)	↓ (↔)	↔ (↔)
ACW-13	↑ (↑)	↔ (↔)	↔ (↔)
ACW-14	↔ (↔)	↔ (↔)	↔ (↔)
ACW-15	↔ (↔)	↔ (↔)	↔ (↔)

Key: ↔ denotes no observable trend, ↓ denotes a decreasing trend, ↑ denotes an increasing trend.

In general, these trends indicate that the overall levels of inorganic constituents are decreasing in six wells, increasing in one well, and have no observable trends in eight wells. The wells and their overall trends for inorganic constituents can be grouped as follows:

Monitoring Wells with Decreasing Overall Inorganic Levels

ACW-1
ACW-2A
ACW-4
ACW-5
ACW-6
ACW-8

Monitoring Well with Increasing Overall Inorganic Levels

ACW-11

Monitoring Wells with No Observable Trend in Overall Inorganic Levels

ACW-3
ACW-7
ACW-9
ACW-10
ACW-12
ACW-13
ACW-14
ACW-15

Figure 6 presents an isopleth of the chloride concentrations detected in groundwater during the 2005 sampling program. Within the New Mexico Administrative Code (NMAC) 20.6.2.3103 (B) the State has established Other Standards for Domestic Water Supply that includes a standard of 250 mg/L for chloride in groundwater that contains TDS levels of 10,000 mg/L or less. On this isopleth, the value posted at each well location represents the chloride concentration detected in the groundwater sample(s) taken from that well during the 2005 monitoring program (highest detected value if more than one sample was collected).

Decreasing or stable chloride trends are evident in the monitoring wells immediately adjacent to recovery wells RW-1, ENSR-2, and RW-2 (i.e., monitoring wells ACW-2A, ACW-4, and ACW-9, respectively). These trends indicate the remediation system is effective in removing the highest levels of brine impact and that fresher groundwater is converging upon these wells.

2.3 Organic Constituents

The primary organic constituent being utilized to assess plume migration at the Plant is benzene. NMAC regulation 20.6.2.3103 (A) has established a Human Health Standard of 0.01 mg/L (10 µg/L) for benzene in groundwater containing TDS levels of 10,000 mg/L or less. Benham has reviewed the concentration trend graphs for benzene in each of the program monitor wells. Based upon this review it is Benham's opinion that certain trends are apparent in the levels of this compound. The following table summarizes Benham's opinions of the trends that are observable in 2005 from the benzene database provided herein. The trends observed in calendar year 2004 are shown in parentheses.

MONITOR WELL	BENZENE CONCENTRATION TREND
ACW-1	↔ (↔)
ACW-2A	↓ (↓)
ACW-3	↓ (↓)
ACW-4	↔ (↔)
ACW-5	↔ (↔)
ACW-6	↔ (↔)
ACW-7	↑ (↑)
ACW-8	↔ (↓)
ACW-9	↔ (↔)
ACW-10	↔ (↔)
ACW-11	↔ (↔)
ACW-12	↓ (↔)
ACW-13	↔ (↔)
ACW-14	↔ (↔)
ACW-15	↔ (↔)

Key: ↔ denotes no observable trend, ↓ denotes a decreasing trend, ↑ denotes an increasing trend.

In general, these trends indicate that benzene levels are stable or decreasing across the Plant property (4 decreasing and 2 stable trends), and are predominantly stable off-site (7 stable, 1 decreasing, and 1 increasing). The only increasing benzene trend in an off-site well appears to be present in well ACW-7.

Figure 7 presents an isopleth of the benzene concentrations detected in groundwater during the 2005 sampling program. On this isopleth, the value posted at each well location represents the highest benzene concentration detected in any groundwater sample taken from that well during the 2005 monitoring program. As can be seen on Figure 7, benzene was detected in 10 on-site wells and only 2 off-site wells. The highest benzene concentration observed in 2005 was detected in the groundwater sample taken from on-site recovery well RW-1 (136 µg/L).

During 2005, the benzene levels detected in on-site wells ENSR-2 (49.4 µg/L), ENSR-3 (13.0 µg/L), ACW-2A (22.9 µg/L), ACW-3 (103 µg/L), ACW-4 (96.6 µg/L), ACW-8 (98.4 µg/L), ACW-11 (22.2 µg/L), PTP-1 (13.7 µg/L), RW-1 (136 µg/L), and off-site well ACW-7 (17.8 µg/L) exceeded the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard of benzene of 10 µg/L. These benzene levels appear to be stable or decreasing except for monitoring well ACW-7. The benzene concentration found in ACW-7 is the only off-site groundwater sample that exceeds the State's regulatory standard and although the overall benzene concentration trend may be increasing the levels since 2003 appear to be stabilizing or even decreasing. In October 2005, EPNG converted ACW-3 and ACW-8 to groundwater recovery wells. These recovery wells are located hydraulically upgradient of ACW-7 and their operation should result in a reduction in the benzene concentrations in this area.

3.0 GROUNDWATER REMEDIATION SYSTEM

To date, EPNG has installed two groundwater recovery wells to mitigate impacts to the shallow groundwater system. These wells are identified as RW-1 and RW-2 and the locations of these wells are shown on Figures 2 through 7. Due to chronic scaling problems that have occurred within the electrical submersible pump in RW-1, monitoring well ENSR-2 was tested as a recovery well in 2000 and operated intermittently as a replacement well for RW-1 in 2001 and 2002. ENSR-2 was permitted as a stand-alone recovery well on January 27, 2003. As shown on Figures 2 through 7, ENSR-2 is located on Plant property in very close proximity to RW-1 and to areas that have likely been sources for brine and hydrocarbon impacts to groundwater. Whenever possible, groundwater is pumped from both on-site recovery wells RW-1 and ENSR-2 and from off-site recovery well RW-2. RW-2 is located hydraulically downgradient relative to recovery wells RW-1 and ENSR-2 and is approximately 780 feet east of the Plant property boundary. Program monitoring wells ACW-8 and ACW-3 were pilot tested as groundwater recovery wells in April and June 2005, respectively. These two wells were permitted in October 2005 and were configured as permanent recovery wells and made operational this same month.

EPNG has installed below-grade pipelines that connect all these new groundwater recovery wells to a Class II water disposal well located immediately north of the Plant in the northwest quarter (NW/4), of the southwest quarter (SW/4), of Section 32,Township 23 South, Range 37 East. This well, referred to as the Shell State #13 SWD, was approved for disposal by NMOCD on October 23, 1979 and has a perforated injection interval of 3,866 to 3,982 feet below ground level. Shell State #13 SWD is currently owned and operated by Texas LPG. Texas LPG provides EPNG with access to the disposal well for the purpose of disposing of all groundwater recovered from the remediation system. EPNG has agreed to purchase and TX LPG has agreed to sell, the Shell State #13 SWD. The transaction is expected to be complete in the first quarter of 2006. This will greatly improve EPNG's access to the disposal well and should significantly reduce the remediation system downtimes.

Continuous groundwater recovery began from recovery well RW-1 in October 1999, RW-2 in January 2000, ENSR-2 in August 2000, and ACW-3 and ACW-8 in October 2005. Table 3 provides a summary of the volumes of groundwater pumped from each of these wells in 2005.

Groundwater recoveries from recovery wells RW-1, RW-2, ENSR-2, ACW-3, and ACW-8 in calendar year 2005 totaled 2,333,140 gallons, 3,493,310 gallons, 2,241,812 gallons, 704,320 gallons and 1,141,993 gallons respectively, and had an annual combined total of 9,914,575 gallons. This is the largest volume of groundwater removed by the remediation system since startup. This total volume is equivalent to 30.43 acre-feet of water. EPNG has obtained from the New Mexico State Engineers Office permission to withdraw a total of 125 acre feet per year from the following sources:

- 35 acre feet per year from RW-1 (modified to include ENSR-2) effective June 1997
- 35 acre feet per year from RW-2 effective June 1997
- 20 acre feet per year from ACW-3 effective October 2005
- 35 acre feet per year from ACW-8 effective October 2005

A summary of the amount of groundwater recovered from each of the recovery wells is presented on the following table. This table presents the total number of gallons recovered per well per year. In addition, the total amount of water recovered per year is presented in gallons and in acre-feet.

Groundwater Recovery Volumes

Year	RW-1 (gallons)	RW-2 (gallons)	ENSR-2 (gallons)	ACW-3 (gallons)	ACW-8 (gallons)	Total (gallons)	Total (acre-feet)
1999	319,280	0	0	0	0	319,280	1.0
2000	1,575,510	3,967385	780,240	0	0	6,323,135	19.4
2001	0	1,672,990	566,126	0	0	2,239,116	6.9
2002	267,869	2,919,520	1,675,670	0	0	4,863,059	14.92
2003	501,640	1,598,630	1,629,400	0	0	3,729,670	11.45
2004	1,241,510	2,029,620	1,130,850	0	0	4,401,980	13.51
2005	2,333,140	3,493,310	2,241,812	704,320	1,141,993	9,914,575	30.43
Cumulative Total	**6,238,949**	**15,681,455**	**8,024,098**	**704,320**	**1,141,993**	**31,790,815**	**97.61**

4.0 CONCLUSIONS

Based upon Benham's review of the data presented herein, the following conclusions are presented:

- The uppermost occurrence of groundwater in the Plant area occurs within a shallow groundwater system with saturation occurring at approximately 100 feet BGL. The base of the groundwater system occurs at approximately 170 feet BGL.

- The groundwater elevations within this shallow groundwater system have shown little fluctuation since EPNG's investigation began in 1989.

- Groundwater flow directions at the Plant within the shallow groundwater system appear quite stable, with groundwater flowing from the northwest to the southeast (S46°E). The hydraulic gradient is approximately 0.002 feet per foot. The potentiometric surface, groundwater flow direction, and hydraulic gradient are substantially altered around EPNG's active recovery wells.

- The shallow groundwater system beneath a portion of the Plant property has been impacted by oilfield brines. The groundwater analytical data indicate that a chloride plume has migrated hydraulically downgradient from the Plant area. During 2005, the groundwater samples taken from 11 on-site and 7 off-site monitoring/recovery wells contained levels of chloride that exceed the EPA's Secondary Drinking Water Standard and New Mexico's Domestic Water Supply Standard of 250 mg/L.

- In general, the chloride concentrations found in groundwater appear to be decreasing along the eastern property boundary of the Plant in the former source areas. Chloride concentrations downgradient of the Plant property are either stable or decreasing.

- The shallow groundwater system beneath a portion of the Plant property has also been impacted by benzene. The groundwater analytical data indicate that these benzene impacts have migrated hydraulically downgradient of the Plant and extend onto adjacent properties. The levels of benzene detected in the groundwater taken from ten on-site wells exceed the NMWQCC standard of 10 µg/L. The groundwater sample taken from monitoring well ACW-7 is the only off-site sample that contained benzene at a level greater than this State standard.

- In general, benzene concentrations in groundwater appear to be decreasing along the eastern property boundary of the Plant. Of all the on-site and off-site monitoring wells, only the benzene levels detected in monitoring well ACW-7 appear to have a slightly increasing trend, and even this trend appears to be starting to stabilize or decrease.

- Based upon the groundwater analytical data obtained to date, EPNG's groundwater remediation has been successful at reducing the levels of both organic and inorganic contaminants within the groundwater beneath and hydraulically downgradient of the Plant property.

5.0 RECOMMENDATIONS

Based upon a thorough review of the data contained within this report, Benham has formulated the following recommendations:

- Continue operation of the current groundwater remediation system at maximum design capacity. Each recovery well should be routinely monitored to identify groundwater recovery volumes, pumping rates, pumping times, and the quality of groundwater being discharged (via field measurements of specific conductance and chloride concentration).

- EPNG should continue to pursue ways to minimize the operational downtimes of the groundwater remediation system. Changes to the disposal system made in 2004 (i.e., work over of the Shell State #13 disposal well and the installation of a valve and piping that will allow recovered groundwater to be diverted to Texas LPG's surface impoundments during the Plant's peak disposal periods) coupled with the acquisition of the Shell State #13 disposal well (expected to occur in the first quarter of 2006) should greatly reduce system downtime.

- Remediation efforts should focus on capturing the most highly impacted groundwater. Particular emphasis should be placed upon evaluating vertical variations in brine concentrations that may be present within the groundwater system. Groundwater computer models indicate that most of the organic and inorganic contaminant plumes fall within the hydraulic capture zones of the current recovery wells. If the future groundwater analytical data show that the contaminants are not continuing to be adequately reduced EPNG should evaluate the need for installing additional groundwater recovery wells or for the conversion of existing monitoring wells to recovery wells.

TABLES

Table 1 : Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-01	110 to 130	3,300.87	02/19/97	106.65	3,194.22
			05/07/97	105.59	3,195.28
			08/19/97	105.61	3,195.26
			10/21/97	105.71	3,195.16
			02/24/98	105.62	3,195.25
			05/12/98	105.59	3,195.28
			08/11/98	105.61	3,195.26
			10/20/98	105.67	3,195.20
			02/23/99	105.72	3,195.15
			05/11/99	105.66	3,195.21
			08/11/99	105.68	3,195.19
			10/18/99	105.73	3,195.14
			02/22/00	105.81	3,195.06
			05/09/00	105.90	3,194.97
			08/07/00	105.99	3,194.88
			10/26/00	106.10	3,194.77
			02/20/01	106.19	3,194.68
			05/01/01	105.90	3,194.97
			08/01/01	105.89	3,194.98
			10/22/01	106.05	3,194.82
			02/20/02	106.30	3,194.57
			04/29/02	106.30	3,194.57
			09/24/02	106.04	3,194.83
			11/03/02	106.30	3,194.57
			03/31/03	106.22	3,194.65
			05/20/03	106.41	3,194.46
			08/18/03	106.39	3,194.48
			11/04/03	106.19	3,194.68
			02/25/04	106.19	3,194.68
			05/13/04	106.15	3,194.72
			08/25/04	106.46	3,194.41
			11/09/04	106.57	3,194.30
			05/25/05	106.38	3,194.49
			08/23/05	106.52	3,194.35
			12/12/05	106.56	3,194.31
ACW-2a	98 to 118	3,300.88	05/12/99	106.00	3,194.88
			10/18/99	106.09	3,194.79
			05/08/00	107.27	3,193.61
			10/26/00	107.51	3,193.37
			05/02/01	106.31	3,194.57
			10/22/01	106.85	3,194.03
			04/30/02	106.82	3,194.06
			09/24/02	106.55	3,194.33
			11/03/02	107.00	3,193.88
			03/31/03	107.04	3,193.84
			05/20/03	106.87	3,194.01
			08/18/03	107.74	3,193.14
			11/04/03	106.57	3,194.31
			02/25/04	106.53	3,194.35
			05/13/04	106.46	3,194.42
			08/25/04	107.67	3,193.21
			11/09/04	107.77	3,193.11
			02/15/05	107.50	3,193.38
			05/25/05	107.47	3,193.41
			08/23/05	108.25	3,192.63
			12/12/05	107.54	3,193.34
ACW-03	112 to 132	3,300.34	05/08/00	105.98	3,194.36
			10/26/00	106.21	3,194.13
			05/01/01	105.94	3,194.40
			10/23/01	106.15	3,194.19
			04/30/02	106.30	3,194.04
			09/24/02	106.13	3,194.21
			11/03/02	106.44	3,193.90
			03/31/03	106.31	3,194.03
			05/20/03	106.42	3,193.92
			08/18/03	106.53	3,193.81
			11/03/03	106.19	3,194.15

Table 1 : Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-03 (cont.)			02/25/04	106.18	3,194.16
			05/13/04	106.12	3,194.22
			08/25/04	106.61	3,193.73
			11/09/04	106.69	3,193.65
			02/15/05	106.53	3,193.81
			05/23/05	106.68	3,193.66
ACW-04	154 to 169	3,299.48	05/08/00	113.57	3,185.91
			10/26/00	113.25	3,186.23
			05/02/01	106.00	3,193.48
			10/22/01	107.99	3,191.49
			04/30/02	107.88	3,191.60
			09/24/02	107.71	3,191.77
			11/02/02	107.90	3,191.58
			03/31/03	107.90	3,191.58
			05/20/03	107.76	3,191.72
			08/18/03	113.13	3,186.35
			11/04/03	107.34	3,192.14
			02/25/04	107.18	3,192.30
			05/13/04	107.07	3,192.41
			08/25/04	110.90	3,188.58
			11/09/04	110.51	3,188.97
			02/15/05	109.64	3,189.84
			05/25/05	109.40	3,190.08
			08/23/05	112.98	3,186.50
			12/12/05	107.43	3,192.05
ACW-05	105 to 115	3,294.75	02/19/97	103.08	3,191.67
			05/07/97	103.06	3,191.69
			08/19/97	103.07	3,191.68
			10/22/97	103.06	3,191.69
			02/24/98	103.10	3,191.65
			05/13/98	103.10	3,191.65
			08/11/98	103.15	3,191.60
			10/21/98	103.22	3,191.53
			02/23/99	103.26	3,191.49
			05/13/99	103.17	3,191.58
			08/11/99	103.17	3,191.58
			10/21/99	103.25	3,191.50
			02/22/00	103.30	3,191.45
			05/10/00	103.32	3,191.43
			08/07/00	103.40	3,191.35
			10/26/00	103.50	3,191.25
			02/20/01	103.62	3,191.13
			05/06/01	103.57	3,191.18
			08/01/01	103.46	3,191.29
			10/24/01	103.70	3,191.05
			02/20/02	103.70	3,191.05
			04/30/02	103.70	3,191.05
			09/24/02	103.57	3,191.18
			11/06/02	103.81	3,190.94
			03/31/03	103.72	3,191.03
			05/20/03	103.85	3,190.90
			08/18/03	103.79	3,190.96
			11/05/03	103.70	3,191.05
			02/25/04	103.77	3,190.98
			05/13/04	103.73	3,191.02
			08/25/04	103.88	3,190.87
			11/12/04	103.97	3,190.78
			02/15/05	103.88	3,190.87
			05/25/05	103.93	3,190.82
			08/23/05	103.92	3,190.83
			12/13/05	103.90	3,190.85
ACW-06	110 to 120	3,300.53	02/19/97	107.53	3,193.00
			05/08/97	107.50	3,193.03
			08/18/97	107.51	3,193.02
			10/22/97	107.57	3,192.96
			02/24/98	107.54	3,192.99
			05/13/98	107.55	3,192.98
			08/11/98	107.57	3,192.96

Table 1 : Summary of Depth to Groundwater Measurements,
Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-06 (cont.)			10/21/98	107.70	3,192.83
			02/23/99	107.68	3,192.85
			05/13/99	107.62	3,192.91
			08/11/99	107.60	3,192.93
			10/21/99	107.68	3,192.85
			02/22/00	107.72	3,192.81
			05/10/00	107.75	3,192.78
			08/07/00	107.84	3,192.69
			10/26/00	107.90	3,192.63
			02/20/01	108.00	3,192.53
			05/06/01	107.95	3,192.58
			08/01/01	107.87	3,192.66
			10/24/01	108.09	3,192.44
			02/20/02	108.07	3,192.46
			04/29/02	108.08	3,192.45
			09/24/02	107.94	3,192.59
			11/04/02	108.16	3,192.37
			03/31/03	108.08	3,192.45
			05/20/03	108.20	3,192.33
			08/18/03	108.08	3,192.45
			11/05/03	108.15	3,192.38
			02/25/04	108.12	3,192.41
			05/13/04	108.09	3,192.44
			08/25/04	108.24	3,192.29
			11/12/04	108.28	3,192.25
			02/15/05	108.24	3,192.29
			05/25/05	108.26	3,192.27
			08/23/05	108.27	3,192.26
			12/13/05	108.30	3,192.23
ACW-07	105 to 115	3,295.36	05/12/99	102.62	3,192.74
			10/21/99	102.75	3,192.61
			05/10/00	102.92	3,192.44
			10/26/00	103.20	3,192.16
			05/06/01	103.08	3,192.28
			10/24/01	103.35	3,192.01
			04/30/02	103.35	3,192.01
			09/24/02	103.21	3,192.15
			11/05/02	103.45	3,191.91
			03/31/03	103.36	3,192.00
			05/20/03	103.47	3,191.89
			08/18/03	103.42	3,191.94
			11/05/03	103.25	3,192.11
			02/25/04	103.28	3,192.08
			05/13/04	103.21	3,192.15
			08/25/04	103.57	3,191.79
			11/12/04	103.71	3,191.65
			02/15/05	103.55	3,191.81
			05/24/05	103.65	3,191.71
			08/23/05	103.70	3,191.66
			12/12/05	103.82	3,191.54
ACW-08	140 to 173	3,297.27	05/11/99	104.17	3,193.10
			10/18/99	104.29	3,192.98
			05/09/00	104.40	3,192.87
			10/26/00	104.64	3,192.63
			05/01/01	104.48	3,192.79
			10/24/01	104.60	3,192.67
			04/29/02	104.81	3,192.46
			09/24/02	104.51	3,192.76
			11/04/02	104.72	3,192.55
			03/31/03	104.71	3,192.56
			05/20/03	104.85	3,192.42
			08/18/03	104.82	3,192.45
			11/03/03	104.62	3,192.65
			02/25/04	104.70	3,192.57
			05/13/04	104.62	3,192.65
			08/25/04	104.92	3,192.35
			11/09/04	104.97	3,192.30
			02/15/05	104.91	3,192.36

Table 1 : Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-09	140 to 160	3,302.47	02/19/97	110.24	3,192.23
			05/08/97	110.25	3,192.22
			08/19/97	110.26	3,192.21
			10/23/97	110.28	3,192.19
			02/24/98	110.29	3,192.18
			05/13/98	110.30	3,192.17
			08/11/98	110.32	3,192.15
			10/21/98	110.40	3,192.07
			02/23/99	110.54	3,191.93
			05/13/99	110.45	3,192.02
			08/11/99	110.45	3,192.02
			10/22/99	110.50	3,191.97
			02/22/00	111.18	3,191.29
			05/12/00	111.89	3,190.58
			08/07/00	111.22	3,191.25
			10/26/00	112.20	3,190.27
			02/20/01	112.41	3,190.06
			05/04/01	110.85	3,191.62
			08/01/01	110.70	3,191.77
			10/25/01	112.17	3,190.30
			02/20/02	111.98	3,190.49
			05/01/02	111.29	3,191.18
			09/24/02	111.08	3,191.39
			11/06/02	112.11	3,190.36
			03/31/03	111.56	3,190.91
			05/20/03	111.90	3,190.57
			08/18/03	111.17	3,191.30
			11/06/03	110.99	3,191.48
			02/25/04	111.01	3,191.46
			05/13/04	110.99	3,191.48
			08/25/04	112.52	3,189.95
			11/10/04	112.42	3,190.05
			02/15/05	112.16	3,190.31
			05/25/05	112.49	3,189.98
			08/23/05	111.81	3,190.66
			12/14/05	112.46	3,190.01
ACW-10	140 to 160	3,297.57	02/19/97	106.31	3,191.26
			05/08/97	106.32	3,191.25
			08/19/97	106.33	3,191.24
			10/23/97	106.35	3,191.22
			02/24/98	106.38	3,191.19
			05/14/98	106.38	3,191.19
			08/11/98	106.41	3,191.16
			10/22/98	106.54	3,191.03
			02/23/99	106.52	3,191.05
			05/14/99	106.45	3,191.12
			08/11/99	106.47	3,191.10
			10/22/99	106.52	3,191.05
			02/22/00	106.39	3,191.18
			05/12/00	106.63	3,190.94
			08/07/00	106.77	3,190.80
			10/26/00	106.89	3,190.68
			02/20/01	106.99	3,190.58
			05/06/01	106.82	3,190.75
			08/01/01	106.76	3,190.81
			10/25/01	107.01	3,190.56
			02/20/02	107.08	3,190.49
			05/01/02	107.05	3,190.52
			09/24/02	106.91	3,190.66
			11/08/02	107.09	3,190.48
			03/31/03	107.07	3,190.50
			05/20/03	107.17	3,190.40
			08/18/03	107.09	3,190.48
			11/06/03	107.08	3,190.49
			02/25/04	107.02	3,190.55
			05/13/04	106.98	3,190.59

Table 1 : Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-10 (cont.)			08/25/04	107.21	3,190.36
			11/11/04	107.32	3,190.25
			02/15/05	107.20	3,190.37
			05/25/05	107.28	3,190.29
			08/23/05	107.23	3,190.34
			12/14/05	107.36	3,190.21
ACW-11	140 to 160	3,299.33	02/19/97	106.01	3,193.32
			05/06/97	105.95	3,193.38
			08/19/97	106.00	3,193.33
			10/21/97	106.02	3,193.31
			10/20/98	106.17	3,193.16
			05/12/98	106.00	3,193.33
			08/11/98	106.07	3,193.26
			10/20/98	106.17	3193.16
			02/23/99	106.20	3,193.13
			05/12/99	106.07	3,193.26
			08/11/99	106.15	3,193.18
			10/20/99	106.16	3,193.17
			02/22/00	106.27	3,193.06
			05/09/00	106.31	3,193.02
			08/07/00	106.54	3,192.79
			10/26/00	106.65	3,192.68
			02/20/01	106.70	3,192.63
			05/01/01	106.45	3,192.88
			08/01/01	106.40	3,192.93
			10/23/01	106.57	3,192.76
			02/20/02	106.79	3,192.54
			04/29/02	106.78	3,192.55
			09/24/02	106.60	3,192.73
			11/06/02	106.80	3,192.53
			03/31/03	106.75	3,192.58
			05/20/03	106.92	3,192.41
			08/18/03	106.85	3,192.48
			11/04/03	106.72	3,192.61
			02/25/04	106.76	3,192.57
			05/13/04	106.69	3,192.64
			08/25/04	106.93	3,192.40
			11/10/04	106.92	3,192.41
			02/15/05	106.91	3,192.42
			05/23/05	107.01	3,192.32
			08/23/05	107.11	3,192.22
			12/13/05	107.20	3,192.13
ACW-12	150 to 170	3,299.56	02/19/97	109.32	3,190.24
			05/08/97	109.32	3,190.24
			08/20/97	99.29	3,200.27
			10/23/97	109.39	3,190.17
			02/24/98	109.38	3,190.18
			05/14/98	109.35	3,190.21
			08/11/98	109.40	3,190.16
			10/22/98	109.51	3,190.05
			02/23/99	109.54	3,190.02
			05/14/99	109.44	3,190.12
			08/11/99	109.54	3,190.02
			10/22/99	109.52	3,190.04
			02/22/00	109.50	3,190.06
			05/11/00	109.57	3,189.99
			08/07/00	109.65	3,189.91
			10/26/00	109.78	3,189.78
			02/20/01	109.90	3,189.66
			05/03/01	109.75	3,189.81
			08/01/01	109.76	3,189.80
			10/25/01	109.99	3,189.57
			02/20/02	109.97	3,189.59
			05/01/02	109.98	3,189.58
			09/24/02	109.77	3,189.79
			11/07/02	109.91	3,189.65
			03/31/03	109.99	3,189.57
			05/20/03	110.13	3,189.43
			08/18/03	110.03	3,189.53
			11/06/03	110.02	3,189.54

Table 1 : Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-12 (cont.)			02/25/04	110.00	3,189.56
			05/13/04	109.98	3,189.58
			08/25/04	110.13	3,189.43
			11/11/04	110.20	3,189.36
			02/15/05	110.12	3,189.44
			05/25/05	110.17	3,189.39
			08/23/05	110.13	3,189.43
			12/14/05	110.21	3,189.35
ACW-13	153 to 173	3,289.46	02/20/97	99.28	3,190.18
			05/08/97	99.29	3,190.17
			08/20/97	99.29	3,190.17
			10/23/97	99.27	3,190.19
			02/24/98	99.31	3,190.15
			05/14/98	99.31	3,190.15
			08/11/98	99.36	3,190.10
			10/22/98	99.40	3,190.06
			02/23/99	99.45	3,190.01
			05/14/99	99.38	3,190.08
			08/11/99	99.44	3,190.02
			10/22/99	99.44	3,190.02
			02/23/00	99.48	3,189.98
			05/11/00	99.47	3,189.99
			08/07/00	99.53	3,189.93
			10/26/00	99.50	3,189.96
			02/20/01	99.65	3,189.81
			05/06/01	99.62	3,189.84
			08/01/01	99.61	3,189.85
			10/25/01	99.61	3,189.85
			02/20/02	99.72	3,189.74
			05/01/02	99.73	3,189.73
			09/24/02	99.61	3,189.85
			11/07/02	99.80	3,189.66
			03/28/03	99.79	3,189.67
			05/19/03	99.83	3,189.63
			08/19/03	99.83	3,189.63
			11/06/03	99.86	3,189.60
			02/26/04	99.84	3,189.62
			05/12/04	99.81	3,189.65
			08/24/04	99.87	3,189.59
			11/11/04	99.94	3,189.52
			02/14/05	99.84	3,189.62
			05/24/05	99.83	3,189.63
			08/22/05	99.84	3,189.62
			12/15/05	99.90	3,189.56
ACW-14	157 to 177	3,291.18	02/19/97	NM	NM
			05/06/97	NM	NM
			08/20/97	100.41	3,190.77
			10/22/97	100.38	3,190.80
			02/24/98	100.47	3,190.71
			05/13/98	100.42	3,190.76
			08/11/98	100.47	3,190.71
			10/21/98	100.54	3,190.64
			02/23/99	100.57	3,190.61
			05/13/99	100.49	3,190.69
			08/09/99	100.49	3,190.69
			10/21/99	100.55	3,190.63
			02/22/00	100.56	3,190.62
			05/10/00	100.52	3,190.66
			08/07/00	100.61	3,190.57
			10/26/00	100.62	3,190.56
			02/20/01	100.75	3,190.43
			05/03/01	100.72	3,190.46
			08/01/01	100.75	3,190.43
			10/24/01	100.75	3,190.43
			02/19/02	100.80	3,190.38
			04/30/02	100.80	3,190.38
			09/24/02	100.71	3,190.47
			11/04/02	100.80	3,190.38

Table 1 : Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-14 (cont.)			03/26/03	100.89	3,190.29
			05/20/03	100.97	3,190.21
			08/20/03	100.95	3,190.23
			11/05/03	100.96	3,190.22
			02/26/04	100.94	3,190.24
			05/12/04	100.86	3,190.32
			08/24/04	100.93	3,190.25
			11/12/04	100.99	3,190.19
			02/14/05	100.94	3,190.24
			05/24/05	100.93	3,190.25
			08/22/05	100.94	3,190.24
			12/14/05	101.01	3,190.17
ACW-15	150 to 170	3,290.54	10/23/99	102.39	3,188.15
			02/23/00	102.41	3,188.13
			05/11/00	102.42	3,188.12
			08/07/00	102.45	3,188.09
			10/26/00	102.42	3,188.12
			02/20/01	102.55	3,187.99
			05/06/01	102.51	3,188.03
			08/01/01	102.58	3,187.96
			10/25/01	102.56	3,187.98
			02/19/02	102.57	3,187.97
			05/02/02	102.65	3,187.89
			09/24/02	102.55	3,187.99
			11/07/02	102.68	3,187.86
			03/28/03	102.74	3,187.80
			05/19/03	102.72	3,187.82
			08/19/03	102.75	3,187.79
			11/07/03	102.78	3,187.76
			02/26/04	102.75	3,187.79
			05/12/04	102.76	3,187.78
			08/24/04	102.78	3,187.76
			11/11/04	102.75	3,187.79
			02/14/05	102.75	3,187.79
			05/24/05	102.75	3,187.79
			08/22/05	102.76	3,187.78
			12/13/05	102.78	3,187.76
ENSR-1	123 to 148	3,305.40	02/25/04	108.63	3,196.77
			05/13/04	108.60	3,196.80
			08/25/04	108.57	3,196.83
			11/10/04	108.40	3,197.00
			12/13/05	108.33	3,197.07
ENSR-3	123 to 148	3,303.80	02/25/04	108.11	3,195.69
			05/13/04	108.07	3,195.73
			08/25/04	108.14	3,195.66
			11/10/04	108.10	3,195.70
			12/12/05	108.21	3,195.59
PTP-1	110 to 130	3,304.41	02/25/04	108.67	3,195.74
			05/13/04	108.65	3,195.76
			08/25/04	108.72	3,195.69
			11/10/04	108.60	3,195.81
			12/12/05	108.68	3,195.73

Notes:

1. TOC : Top of Casing
2. AMSL : Above Mean Sea Level
3. NM : No Measurement Taken
4. BGL: Below Ground Level

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #01	ACW #01	05-Mar-93	—	—	—	—	—	—	—	—	—	14,350	—	8,505	4,045	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	15-Sep-93	—	—	—	—	—	—	—	—	—	10,360	—	6,016	2,915	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	10-Nov-93	—	—	—	—	—	—	—	—	—	11,780	—	7,340	3,683	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	20-Apr-94	—	—	—	—	—	—	—	—	—	16,520	—	8,430	5,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	27-Oct-94	—	—	—	—	—	—	—	—	—	14,630	—	8,440	3,700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	16-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	14,000	8.3	8,200	4,100	240	—	1.8	25	<2.0	—	—	—	—	0.9	—	66	—	—	<0.025
ACW #01	ACW #01	27-Jun-95	4.6	4.6	<2.5	—	—	—	140	—	—	1,400	8.4	8,400	6,700	260	—	1.9	22	<2.0	—	—	—	—	1.0	—	74	—	—	<0.025
ACW #01	ACW #01	29-Aug-95	6	<10	<5	—	—	—	<15	—	—	21,000	8.2	12,000	3,300	210	—	2.2	18	<20	—	—	—	—	0.8	—	67	—	—	<0.025
ACW #01	ACW #01	06-Feb-96	6.1	3	1.9	—	—	—	2.8	—	—	16,000	8.3	9,700	5,200	280	—	2.1	0.88	0.02	—	—	—	—	1.0	—	78	—	—	<0.006
ACW #01	ACW #01	06-Feb-96	5.6	2.7	3	—	—	—	<7.5	—	—	16,170	8.2	9,440	5,770	293	—	2.06	2.1	<1.25	—	—	—	—	1.1	—	84	—	—	<0.1
ACW #01	ACW #01	08-May-96	6.3	2.03	<1.0	—	—	—	<3.0	—	—	14,620	8.2	8,190	4,130	268	—	<1.25	2.2	<1.25	—	—	—	—	1.0	—	93	—	—	0.01
ACW #01	ACW #01	13-Aug-96	3.5	1.2	<1.0	—	—	—	<2.0	—	—	12,000	8.1	7,400	3,500	270	—	1.9	4.9	<0.05	—	—	—	—	1.1	—	110	—	—	0.019
ACW #01	ACW #01	05-Nov-96	5.6	2.5	<1.0	—	—	—	1.3	—	—	11,000	8.1	7,200	3,700	250	—	2	4.4	<0.05	—	—	—	—	1.0	—	81	—	—	<0.007
ACW #01	ACW #01	06-May-97	14	15	<5.0	—	—	—	5.7	—	—	14,800	—	8,800	5,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	21-Nov-97	6.1	4.8	<0.5	—	—	—	2.4	—	—	20,800	8.4	12,000	7,800	320	—	<2	2.1	<0.5	—	—	—	—	1.0	—	83	—	—	<0.01
ACW #01D	ACW #01D	21-Nov-97	6.7	5.7	<0.5	—	—	—	2.1	—	—	20,700	8.2	12,000	7,500	320	—	2	2.2	<0.5	—	—	—	—	0.9	—	76	—	—	<0.01
S98-0170	ACW #01	12-May-98	6.8	11	4.4	—	—	—	3.4	—	—	16,000	—	9,600	5,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0458	ACW #01	20-Oct-98	7	4	<2 Jm	—	—	—	<2 Jm	—	—	20,300	8.18	12,900	6,100	260	17.7	<5	2.3	<0.05	—	—	—	—	1.1	—	100	—	—	<0.0025
M99-0005	ACW #01	11-May-99	—	—	—	—	—	—	—	—	—	16,900	—	8,500	5,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0187	ACW #01	19-Oct-99	7.5	3.6	<2	—	—	—	<4	—	—	14,800	8.02	7,800	5,500	210	20.6	<4	2.2	<0.05	—	0.047	0.62	0.33	1.2	<0.002	160	<0.005	<0.005	<0.0025
M00-0081	ACW #01	09-May-00	—	—	—	—	—	—	—	—	—	19,300	—	11,300	7,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0219	ACW #01	26-Oct-00	<2	<2	<2	—	—	—	8.3	—	—	15,500	8.13	9,900	5,500	300	15.2	<2	2.3	<1	—	—	0.30	0.29	1.0	<0.01	120	<0.01	—	<0.005
M01-0133	ACW #01	01-May-01	—	—	—	—	—	—	—	—	—	14,200	—	7,640	5,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0469	ACW #01	22-Oct-01	<2	<2	<2	—	—	—	11.0	—	—	12,400	7.92	6,580	4,400	380	20.3	<5	2.5	<2.5	—	<0.05	0.21	0.24	0.92	<0.005	82	<0.01	<0.01	<0.005
2002040220-03	ACW #01	29-Apr-02	—	—	—	—	—	—	—	—	—	12,400	—	6,730	4,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-6	ACW #01	03-Nov-02	<5.0	<5.0	<5.0	<10		<5.0	<15	—	—	6,400	7.65 H	4,000	1,900	420	—	1.4	<0.40	<0.20	—	—	0.13	—	1.1	—	180	—	—	—
2003101363-9	ACW #01	04-Nov-03	2.2	<2.0	<2.0	—	—	—	<6.0	—	—	5,530	7.2	1,510	2,480	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-3	ACW #01	09-Nov-04	<1.0	1.7	<1.0	—	—	—	<2.0	—	—	5,780	7.5	5,140	2,570	—	19.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-3	ACW #01	12-Dec-05	<10	<10	<10	—	—	—	<30	—	—	7,650	7.0	3,500	1,770	—	21.8	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #02A	ACW #02A	06-May-97	140	100	<50	—	—	—	<100	—	—	26,800	—	17,000	11,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #02A	ACW #02A	20-Oct-97	89	100	13	—	—	—	26	—	—	24,400	9.2	16,000	8,600	<10	—	5	7.6	<0.5	—	—	—	—	1.1	—	3	—	—	<0.01
S98-0167	ACW #02A	11-May-98	120	210	20	—	—	—	33	—	—	26,000	—	16,000	8,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0455	ACW #02A	19-Oct-98	180	340	38	—	—	—	72	—	—	25,200	9.40	20,200	7,800	17	18.3	<5	12	<0.05	—	—	—	—	1.4	—	3.0	—	—	<0.0025
M99-0013	ACW #02A	12-May-99	—	—	—	—	—	—	—	—	—	24,400	—	12,000	7,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0181	ACW #02A	18-Oct-99	17 P	42 P	8.1 P	—	—	—	14 P	—	—	24,000	9.42	13,000	7,600	25	19.8	<4	16	<0.05	—	0.35	3.6	0.48	2.3	0.016	4.2	<0.005	0.0041	0.0086
M00-0078	ACW #02A	08-May-00	—	—	—	—	—	—	—	—	—	21,500	—	13,600	7,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0215	ACW #02A	26-Oct-00	35	78	16	—	—	—	32	—	—	19,100	9.75	12,800	6,500	28	14.1	<2	11	<1	—	—	1.4	0.31	1.2	0.018	6.4	0.018	—	0.034
M01-0136	ACW #02A	02-May-01	—	—	—	—	—	—	—	—	—	18,500	—	10,900	5,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0468	ACW #02A	22-Oct-01	39	34	30	—	—	—	57	—	—	19,900	9.88	12,100	4,600	6.5	19.8	<10	11	<5	—	0.16	1.4	0.26	1.4	0.016	3.3	<0.01	<0.01	<0.005
2002040220-11	ACW #02A	30-Apr-02	—	—	—	—	—	—	—	—	—	22,300	—	14,000	6,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-4	ACW #02A	03-Nov-02	61	32	35	47		<20	47	—	—	19,000	9.85 H	8,800	8,900	3.2	—	<0.50	14	<0.20	—	—	1.6	—	0.98	—	4.5	—	—	—
2003101363-11	ACW #02A	04-Nov-03	45.6 P	17.9 P	24.8 P	—	—	—	41.3 P	—	—	18,530	9.8	9,050	4,740	—	23.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-12	ACW #02A-D	04-Nov-03	44.6 P	18.5 P	23.4 P	—	—	—	37.7 P	—	—	—	—	9,280	4,560	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-4	ACW #02A	09-Nov-04	47.9	17.1	15.0	—	—	—	28.4	—	—	13,730	9.8	11,300	4,290	—	20.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-4	ACW #02A	12-Dec-05	22.9	12.2 J	<20	—	—	—	<60	—	—	23,500	9.0	13,200	5,520	—	18.6	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #03	ACW #03	06-May-97	350	22	110	—	—	—	43	—	—	18,500	—	11,000	6,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #03	ACW #03	20-Oct-97	160	8.2	69	—	—	—	32	—	—	23,000	—	13,000	7,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0157	ACW #03	11-May-98	130	21	41	—	—	—	19	—	—	24,000	—	15,000	8,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0456	ACW #03	19-Oct-98	—	—	—	—	—	—	—	—	—	20,800	—	12,400	7,700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0011	ACW #03	12-May-99	—	—	—	—	—	—	—	—	—	19,600	—	10,100	6,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0185	ACW #03	19-Oct-99	—	—	—	—	—	—	—	—	—	18,900	—	9,120	6,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0077	ACW #03	08-May-00	—	—	—	—	—	—	—	—	—	19,400	—	11,900	7,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0217	ACW #03	26-Oct-00	—	—	—	—	—	—	—	—	—	17,500	—	11,900	7,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0132	ACW #03	01-May-01	—	—	—	—	—	—	—	—	—	19,200	—	9,900	9,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0474	ACW #03	23-Oct-01	—	—	—	—	—	—	—	—	—	18,800	—	10,600	7,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-13	ACW #03	30-Apr-02	—	—	—	—	—	—	—	—	—	18,500	—	10,600	6,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-3	ACW #03	03-Nov-02	37	<10	28	<20		<10	<30	—	—	13,000	7.56 H	13,000	4,700	13	—	2.2	<0.40	<0.20 H	—	—	0.043	—	1.0	—	220	—	—	—
2003101363-3	ACW #03	03-Nov-03	7.7	4.0	8.3	—	—	—	2.9 J	—	—	11,080	6.8	8,310	4,070	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-8	ACW #03	09-Nov-04	13.7	5.4	7.0	—	—	—	6.60	—	—	12,290	6.3	8,580	4,980	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050596-1	ACW #03	23-May-05	5.5	1.1 J	3.6	—	—	—	2.9 J	—	—	16,570	6.8	11,567	5,600	—	22.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-24	ACW #03	14-Dec-05	103	34.2	23.7	—	—	—	19.3	—	—	21,100	6.9	12,600	6,500	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #01	ACW #01	05-Mar-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	15-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	10-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	20-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	27-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	16-May-95	0.38	—	72	0.062	—	—	—	12	—	33	—	2,600	—	<0.020	700	—	—	—	470
ACW #01	ACW #01	27-Jun-95	0.59	—	92	0.077	—	—	—	15	—	35	—	3,200	—	<0.02	710	—	—	—	510
ACW #01	ACW #01	29-Aug-95	0.18	—	78	0.069	—	—	—	11	—	28	—	2,400	—	<0.02	820	—	—	—	590
ACW #01	ACW #01	06-Feb-96	0.56	—	100	0.069	—	—	—	16	—	36	—	4,300	—	<0.010	830	—	—	—	620
ACW #01	ACW #01	06-Feb-96	0.7	—	102	0.1	—	—	—	17	—	41	—	3,900	—	<0.1	759	—	—	—	630
ACW #01	ACW #01	08-May-96	0.6	—	118	0.09	—	—	—	18	—	54	—	3,070	—	<0.05	310	—	—	—	718
ACW #01	ACW #01	13-Aug-96	0.68	—	100	0.078	—	—	—	8.6	—	41	—	2,400	—	0.008	730	—	—	—	690
ACW #01	ACW #01	05-Nov-96	0.59	—	98	0.062	—	—	—	11	—	16	—	3,000	—	0.011	810	—	—	—	610
ACW #01	ACW #01	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	21-Nov-97	0.6	—	110	0.06	—	—	—	20	—	14	—	3,900	—	0.04	680	—	—	—	—
ACW #01D	ACW #01D	21-Nov-97	0.5	—	100	0.07	—	—	—	20	—	13	—	4,000	—	0.03	670	—	—	—	—
S98-0170	ACW #01	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0458	ACW #01	20-Oct-98	0.74	—	110	0.062	—	—	—	16	—	15	—	3,800	—	<0.05	840	840	<25	<25	700
M99-0005	ACW #01	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0187	ACW #01	19-Oct-99	1.6	<0.005	110	0.13	<0.0002	0.013	<0.02	13	—	24	<0.005	3,100	<0.005	<0.05	780	780	<25	<25	870
M00-0081	ACW #01	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0219	ACW #01	26-Oct-00	3.6	<0.05	82	0.21	<0.0002	—	—	9.5	<0.1	25	<0.02	2,600	—	<0.1	720	720	<25	<25	640
M01-0133	ACW #01	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0469	ACW #01	22-Oct-01	2.3	<0.05	60	0.18	<0.0002	<0.01	<0.04	11	<0.1	26	<0.02	3,000	<0.005	<0.1	600	600	<25	<25	450
2002040220-03	ACW #01	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-6	ACW #01	03-Nov-02	6.9	—	120	0.33	—	—	—	18	—	45	—	1,500	—	—	500	500	<2.0	<2.0	930
2003101363-9	ACW #01	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	958	—	—	—	—	—	—	—
2004111601-3	ACW #01	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	696	—	—	—	—	—	—	—
2005121523-3	ACW #01	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	1,240	—	—	—	—	—	—	—
ACW #02A	ACW #02A	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #02A	ACW #02A	20-Oct-97	0.2	—	<1	<0.01	—	—	—	12	—	10	—	6,000	—	<0.02	2,200	—	—	—	—
S98-0167	ACW #02A	11-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0455	ACW #02A	19-Oct-98	0.37	—	0.96	<0.0025	—	—	—	12	—	12	—	6,400	—	<0.05	2,400	1500	860	<25	11
M99-0013	ACW #02A	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0181	ACW #02A	18-Oct-99	0.30	<0.005	1.1	0.0041	0.00051	0.085	0.041	14	—	26	<0.005	6,100	0.037	<0.05	2,700	1700	990	<50	15
M00-0078	ACW #02A	08-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0215	ACW #02A	26-Oct-00	1.0	<0.05	1.0	0.011	0.0002	—	—	8.5	<0.1	28	<0.02	3,600	—	<0.1	870	870	<25	<25	18
M01-0136	ACW #02A	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0468	ACW #02A	22-Oct-01	0.4	<0.05	0.23	0.0062	0.00066	0.053	<0.04	8.9	<0.1	36	<0.02	5,200	0.027	<0.1	3,700	1,300	2,400	<125	9.2
2002040220-11	ACW #02A	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-4	ACW #02A	03-Nov-02	0.81	—	<2.0	<0.010	—	—	—	25	—	36	—	5,800	—	—	3,500	1,300	2,200	<2.0	<13
2003101363-11	ACW #02A	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	4,160	—	—	—	—	—	—	—
2003101363-12	ACW #02A-D	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	4,280	—	—	—	—	—	—	—
2004111601-4	ACW #02A	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	3,950	—	—	—	—	—	—	—
2005121523-4	ACW #02A	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	5,570	—	—	—	—	—	—	—
ACW #03	ACW #03	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #03	ACW #03	20-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0157	ACW #03	11-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0456	ACW #03	19-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0011	ACW #03	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0185	ACW #03	19-Oct-99	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—
M00-0077	ACW #03	08-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0217	ACW #03	26-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0132	ACW #03	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0474	ACW #03	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-13	ACW #03	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-3	ACW #03	03-Nov-02	10	—	98	0.48	—	—	—	28	—	55	—	4200	—	—	960	960	<2.0	<2.0	960
2003101363-3	ACW #03	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	2,830	—	—	—	—	—	—	—
2004111601-8	ACW #03	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	2,800	—	—	—	—	—	—	—
2005050596-1	ACW #03	23-May-05	—	—	—	—	—	—	—	—	—	—	—	4,331	—	—	—	—	—	—	—
2005121523-24	ACW #03	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	4,720	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #04	ACW #04	06-May-97	29	12	<5.0	—	—	—	<10	—	—	48,500	—	25,000	21,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #04	ACW #04	20-Oct-97	170	150	<5.0	—	—	—	110	—	—	172,000	7.3	94,000	58,000	2,100	—	33	<0.5	<0.5	—	—	—	—	0.7	—	580	—	—	<0.01
S98-0168	ACW #04	12-May-98	190	170	60	—	—	—	100	—	—	160,000	—	99,000	74,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0454	ACW #04	19-Oct-98	190	140	49	—	—	—	90	—	—	121,000	6.74	83,100	56,000	1,800	17.6	<20	0.51	<0.5	—	—	—	—	1.1	—	610	—	—	<0.0025
M99-0012	ACW #04	12-May-99	—	—	—	—	—	—	—	—	—	131,000	—	84,800	45,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0184	ACW #04	19-Oct-99	240	160	44	—	—	—	81	—	—	95,000	6.95	46,300	44,000	1,300	20.7	<20	0.64	<0.05	—	<0.025	0.092	0.15	1.4	<0.002	650	<0.005	0.018	0.0080
M00-0079	ACW #04	08-May-00	—	—	—	—	—	—	—	—	—	106,000		72,300	47,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0216	ACW #04	26-Oct-00	63	17	41	—	—	—	190	—	—	25,600	7.73	16,300	10,000	88	15.1	<2	12	<1	—	—	0.47	0.87	2.0	<0.01	57	<0.01	—	<0.005
M01-0137	ACW #04	02-May-01	—	—	—	—	—	—	—	—	—	29,600	—	17,400	12,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0467	ACW #04	22-Oct-01	12	3	32	—	—	—	100	—	—	35,300	7.15	21,400	13,000	200	20.2	<20	8.2	<10	—	<0.05	0.31	0.81	1.5	<0.005	290	<0.01	<0.01	<0.005
2002040220-12	ACW #04	30-Apr-02	—	—	—	—	—	—	—	—	—	35,600	—	24,500	15,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-5	ACW #04	03-Nov-02	84	17	27	34		11	45	—	—	33,000	7.71 H	24,000	11,000	450	—	1.9	1.3	0.69	—	—	0.21	—	1.1	—	440	—	—	—
2003101363-10	ACW #04	04-Nov-03	44.8	5.5	15.0	—	—	—	26.5	—	—	22,400	6.9	20,900	14,200	—	21.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-7	ACW #04	09-Nov-04	189 R	42.9	69.8	—	—	—	101	—	—	54,400	7.0	19,700 (20,000)	10,800	—	20.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-5	ACW #04	12-Dec-05	96.6	55.7	76.1	—	—	—	136	—	—	25,100	7.7	13,900	5,520	—	18.9	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	10-Mar-93	—	—	—	—	—	—	—	—	—	10,400	—	6,110	2,544	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	17-Jun-93	—	—	—	—	—	—	—	—	—	4,480	—	323	1,228	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-Sep-93	—	—	—	—	—	—	—	—	—	4,140	—	3,064	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	09-Nov-93	—	—	—	—	—	—	—	—	—	4,390	—	3,202	720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	21-Apr-94	—	—	—	—	—	—	—	—	—	4,131	—	3,300	800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	28-Oct-94	—	—	—	—	—	—	—	—	—	4,500	—	3,112	550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	31-Jan-95	—	—	—	—	—	—	—	—	—	4,050	—	2,848	499	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	3,900	7.0	2,800	530	1,100	—	1.3	<1.0	3.5	—	—	—	—	0.9	—	270	—	—	<0.025
ACW #05	ACW #05	27-Jun-95	<2.5	<2.5	<2.5	—	—	—	<5.0	—	—	3,800	7.3	2,800	460	800	—	1.1	<1.0	3.4	—	—	—	—	1.0	—	270	—	—	<0.025
ACW #05	ACW #05	30-Aug-95	<5	<10	<5	—	—	—	<15	—	—	3,900	7.0	2,700	510	890	—	1	<10	<20	—	—	—	—	1.1	—	240	—	—	<0.025
ACW #05	ACW #05	06-Feb-96	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	3,800	7.5	2,200	510	920	—	0.92	0.12	4.7	—	—	—	—	1.4	—	240	—	—	<0.006
ACW #05	ACW #05	06-Feb-96	<2.5	<2.5	<2.5	—	—	—	<7.5	—	—	3,090	7.3	2,745	506	835	—	<1.25	0.29	4.9	—	—	—	—	1.4	—	240	—	—	<0.1
ACW #05	ACW #05	08-May-96	<1.0	<1.0	<1.0	—	—	—	<3.0	—	—	3,650	7.2	2,460	519	653	—	4.5	0.42	5	—	—	—	—	0.8	—	167	—	—	0.01
ACW #05	ACW #05	13-Aug-96	<1.0	1.2	<1.0	—	—	—	<2.0	—	—	3,400	7.3	2,500	500	710	—	1	0.7	5.4	—	—	—	—	2.0	—	200	—	—	<0.006
ACW #05	ACW #05	06-Nov-96	1.1	1.4	1.2	—	—	—	<2.0	—	—	3,300	7.5	2,300	500	710	—	1.2	0.57	<0.05	—	—	—	—	1.9	—	180	—	—	<0.007
ACW #05	ACW #05	07-May-97	0.84	1.2	0.93	—	—	—	<1.0	—	—	3,020	—	2,000	430	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	22-Oct-97	0.9	1.6	0.8	—	—	—	1.9	—	—	3,160	7.7	2,000	470	320	—	1.7	0.6	6	—	—	—	—	1.3	—	170	—	—	<0.01
S98-0183	ACW #05	13-May-98	0.79	1.5	0.77*	—	—	—	12*	—	—	3,100	—	2,800	570	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0470	ACW #05	21-Oct-98	—	—	—	—	—	—	—	—	—	2,930	—	1,910	440	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0020	ACW #05	13-May-99	—	—	—	—	—	—	—	—	—	3,190	—	1,960	450	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0196	ACW #05	21-Oct-99	<2	2.7	<2	—	—	—	<4	—	—	3,250	7.23	1,890	1,000	440	18.5	<2	0.77	6.5	—	0.094	0.0061	0.034	1.1	<0.002	190	0.019	<0.005	<0.0025
M00-0092	ACW #05	10-May-00	—	—	—	—	—	—	—	—	—	3,180	—	1,960	750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0234	ACW #05	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	2,650	7.3	1,920	860	750	18.5	<40	0.85	5.3	—	—	<0.1	0.051	1.1	<0.01	200	0.028	—	0.0095
M01-0157	ACW #05	06-May-01	—	—	—	—	—	—	—	—	—	3,030	—	1,920	540	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0481	ACW #05	24-Oct-01	—	—	—	—	—	—	—	—	—	3,120	—	1,860	590	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-17	ACW #05	30-Apr-02	—	—	—	—	—	—	—	—	—	3,110	—	1,900	570	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-20	ACW #05	06-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	3,000	7.26 H	2,200	560	520	—	0.99	0.88	4.7	—	—	<0.0050	—	0.92	—	160	—	—	—
2003101363-19	ACW #05	05-Nov-03	1.2 J	1.1 J	1.3 J	—	—	—	<6.0	—	—	3,000	7.1	1,040	613	—	22.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-26	ACW #05	12-Nov-04	0.42 J	<1.0	0.51 J	—	—	—	<2.0	—	—	3,450	6.6	2,540	708	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-13	ACW #05	13-Dec-05	<2.0	<2.0	1.1 J	—	—	—	<6.0	—	—	3,820	6.4	2,640	771	—	20.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-14	ACW #05D	13-Dec-05	<2.0	<2.0	1.2 J	—	—	—	<6.0	—	—	—	—	2,510	675	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	18-Jun-93	—	—	—	—	—	—	—	—	—	8,220	—	5,027	2,108	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-Sep-93	—	—	—	—	—	—	—	—	—	11,130	—	6,656	2,737	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	08-Nov-93	—	—	—	—	—	—	—	—	—	8,540	—	5,646	2,154	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	21-Apr-94	—	—	—	—	—	—	—	—	—	11,080	—	6,930	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	28-Oct-94	—	—	—	—	—	—	—	—	—	11,988	—	6,910	2,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	31-Jan-95	—	—	—	—	—	—	—	—	—	11,530	—	6,755	2,873	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	10,000	8.1	6,400	2,800	110	—	1.4	31	<2.0	—	—	—	—	0.9	—	70	—	—	<0.025
ACW #06	ACW #06	27-Jun-95	14	<2.5	<2.5	—	—	—	<5.0	—	—	10,000	9.0	8,600	3,500	110	—	1.8	44	<2.0	—	—	—	—	1.1	—	64	—	—	<0.025
ACW #06	ACW #06	29-Aug-95	7	<10	<5	—	—	—	<15	—	—	12,000	8.4	7,100	3,000	110	—	1.8	26	<20	—	—	—	—	0.9	—	42	—	—	<0.025
ACW #06	ACW #06	06-Feb-96	6.6	3.2	<1.0	—	—	—	<2.0	—	—	11,000	8.0	6,600	2,600	72	—	1.3	3.8	<0.0071	—	—	—	—	1.1	—	91	—	—	<0.006
ACW #06	ACW #06	06-Feb-96	<2.5	<2.5	<2.5	—	—	—	<7.5	—	—	10,320	7.8	5,630	3,180	79	—	1.52	10	<1.25	—	—	—	—	1.3	—	76	—	—	<0.1
ACW #06	ACW #06	08-May-96	4.08	1.58	<1.0	—	—	—	<3.0	—	—	10,620	7.7	6,460	2,880	48	—	<1.25	6.4	<1.25	—	—	—	—	1.3	—	35	—	—	0.02
ACW #06	ACW #06	14-Aug-96	4.2	2.6	<2.0	—	—	—	<2.0	—	—	11,000	7.9	7,100	2,900	88	—	1.8	21	<0.05	—	—	—	—	1.2	—	85	—	—	<0.006
ACW #06	ACW #06	06-Nov-96	4.5	1.5	<1.0	—	—	—	<2.0	—	—	12,000	8.6	7,700	3,400	74	—	1.3	18	<0.05	—	—	—	—	1.2	—	98	—	—	<0.007
ACW #06	ACW #06	06-Nov-96	4.6	1.5	<1.0	—	—	—	<2.0	—	—	12,000	8.6	7,700	3,600	62	—	1.3	18	<0.05	—	—	—	—	1.1	—	88	—	—	<0.007

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #04	ACW #04	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #04	ACW #04	20-Oct-97	0.2	—	360	6.1	—	—	—	250	—	13	—	33,000	—	<0.02	500	—	—	—	—
S98-0168	ACW #04	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0454	ACW #04	19-Oct-98	0.14	—	370	7.0	—	—	—	170	—	10	—	37,000	—	<0.05	480	480	<25	<25	3100
M99-0012	ACW #04	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0184	ACW #04	19-Oct-99	0.23	<0.005	370	12	<0.0002	0.0076	<0.02	170	—	14	<0.005	42,000	0.14	<0.05	500	500	<25	<25	3200
M00-0079	ACW #04	08-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0216	ACW #04	26-Oct-00	1.7	<0.05	28	0.50	<0.0002	—	—	23	<0.1	25	<0.02	3,600	—	<0.1	1600	1600	<25	<25	260
M01-0137	ACW #04	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0467	ACW #04	22-Oct-01	1.5	<0.05	110	0.58	0.00086	0.032	<0.04	32	<0.1	30	<0.02	7,300	0.0066	<0.1	970	970	<25	<25	1200
2002040220-12	ACW #04	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-5	ACW #04	03-Nov-02	1.6	—	150	1.2	—	—	—	96	—	37	—	8,400	—	—	560	560	<2.0	<2.0	1700
2003101363-10	ACW #04	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	7,300	—	—	—	—	—	—	—
2004111601-7	ACW #04	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	22,000	—	—	—	—	—	—	—
2005121523-5	ACW #04	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	5,490	—	—	—	—	—	—	—
ACW #05	ACW #05	10-Mar-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	17-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	21-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	28-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	31-Jan-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-May-95	0.46	—	39	0.026	—	—	—	6.6	—	57	—	540	—	<0.020	320	—	—	—	980
ACW #05	ACW #05	27-Jun-95	0.34	—	40	0.02	—	—	—	6.9	—	56	—	530	—	<0.020	320	—	—	—	240
ACW #05	ACW #05	30-Aug-95	<0.10	—	36	<0.015	—	—	—	8.7	—	44	—	550	—	<0.020	310	—	—	—	810
ACW #05	ACW #05	06-Feb-96	1.5	—	32	0.026	—	—	—	6.5	—	64	—	580	—	0.015	260	—	—	—	740
ACW #05	ACW #05	06-Feb-96	2	—	32	0.1	—	—	—	8.1	—	66	—	580	—	<0.1	284	—	—	—	730
ACW #05	ACW #05	08-May-96	0.2	—	24	<0.05	—	—	—	8	—	35	—	506	—	<0.05	190	—	—	—	515
ACW #05	ACW #05	13-Aug-96	0.024	—	28	<0.007	—	—	—	6.3	—	58	—	520	—	0.033	320	—	—	—	620
ACW #05	ACW #05	06-Nov-96	0.3	—	25	0.008	—	—	—	6	—	27	—	520	—	0.022	350	—	—	—	560
ACW #05	ACW #05	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	22-Oct-97	0.5	—	24	<0.01	—	—	—	5	—	26	—	480	—	<0.02	320	—	—	—	—
S98-0183	ACW #05	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0470	ACW #05	21-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0020	ACW #05	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0196	ACW #05	21-Oct-99	0.15	<0.005	24	0.011	<0.0002	<0.005	<0.02	6.3	—	26.0	<0.005	540	0.0055	0.81	270	270	<25	<25	560
M00-0092	ACW #05	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0234	ACW #05	02-Nov-00	1.6	<0.05	23	0.032	<0.0002	—	—	6.1	<0.1	34	<0.02	450	—	<0.1	280	280	<25	<25	590
M01-0157	ACW #05	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0481	ACW #05	24-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-17	ACW #05	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-20	ACW #05	06-Nov-02	0.89	—	23	0.014	—	—	—	13	—	51	—	490	—	—	320	320	<2.0	<2.0	490
2003101363-19	ACW #05	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	421	—	—	—	—	—	—	—
2004111601-26	ACW #05	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	411	—	—	—	—	—	—	—
2005121523-13	ACW #05	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	394	—	—	—	—	—	—	—
2005121523-14	ACW #05D	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	388	—	—	—	—	—	—	—
ACW #06	ACW #06	18-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	08-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	21-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	28-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	31-Jan-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-May-95	3.9	—	19	0.079	—	—	—	<5.0	—	48	—	2,200	—	<0.020	1,300	—	—	—	200
ACW #06	ACW #06	27-Jun-95	5.8	—	16	0.082	—	—	—	<5.0	—	44	—	3,000	—	<0.080	1,500	—	—	—	130
ACW #06	ACW #06	29-Aug-95	0.54	—	16	0.04	—	—	—	<5.0	—	42	—	2,500	—	<0.020	1,500	—	—	—	200
ACW #06	ACW #06	06-Feb-96	4.6	—	23	0.12	—	—	—	3.6	—	62	—	2,700	—	0.029	1,400	—	—	—	320
ACW #06	ACW #06	06-Feb-96	5	—	21	0.1	—	—	—	3.6	—	50	—	2,400	—	<0.1	1,315	—	—	—	275
ACW #06	ACW #06	08-May-96	4.1	—	21	0.14	—	—	—	4	—	40	—	2,380	—	<0.05	1,396	—	—	—	175
ACW #06	ACW #06	14-Aug-96	4.5	—	23	0.13	—	—	—	3.4	—	60	—	2,900	—	0.024	1,400	—	—	—	310
ACW #06	ACW #06	06-Nov-96	5.3	—	27	0.16	—	—	—	3.8	—	32	—	2,800	—	0.032	1,600	—	—	—	360
ACW #06	ACW #06	06-Nov-96	4	—	22	0.13	—	—	—	3.6	—	27	—	2,400	—	0.019	1,600	—	—	—	310

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #06	ACW #06	08-May-97	8.2	2.8	2.6	—	—	—	2.7	—	—	8,450	—	5,500	2,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	22-Oct-97	10	3.8	1.4	—	—	—	1.2	—	—	10,200	8.2	6,500	2,900	100	—	3	16.5	<0.05	—	—	—	—	0.9	—	68	—	—	<0.01
ACW #06D	ACW #06D	22-Oct-97	9.5	3.1	1.2	—	—	—	1.2	—	—	10,700	8.3	6,200	2,900	98	—	3	17.2	<0.05	—	—	—	—	0.9	—	68	—	—	<0.01
S98-0181	ACW #06	13-May-98	15	12	<0.50	—	—	—	3.8	—	—	12,000	—	10,000	3,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0469	ACW #06	21-Oct-98	11	6	3	—	—	—	3	—	—	11,600	8.00	6,530	3,000	74	20.1	<5	25	<0.05	—	—	—	—	1.2	—	64	—	—	<0.0025
M99-0019	ACW #06	13-May-99	—	—	—	—	—	—	—	—	—	11,200	—	6,620	2,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0195	ACW #06	21-Oct-99	<20	<20	<20	—	—	—	<40	—	—	11,500	8.54	6,170	2,800	230	19.1	<4	28	<0.05	—	0.083	1.7	0.35	1.3	0.0061	69	0.0045	0.0084	<0.0025
M00-0089	ACW #06	10-May-00	—	—	—	—	—	—	—	—	—	10,300	—	6,290	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0232	ACW #06	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	8,520	8.2	4,350	3,100	340	18.4	—	22.9	<0.05	—	—	0.82	0.28	1.5	<0.01	83	<0.01	—	0.016
M01-0156	ACW #06	06-May-01	—	—	—	—	—	—	—	—	—	9,020	—	5,240	2,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0480	ACW #06	24-Oct-01	5.6	<2	<2	—	—	—	18	—	—	8,350	8.2	4,730	2,400	220	19.5	<10	22	<2.5	—	0.180	0.58	0.21	1.3	<0.005	57	<0.01	<0.01	<0.005
2002040220-10	ACW #06	29-Apr-02	—	—	—	—	—	—	—	—	—	8,910	—	4,800	2,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-15	ACW #06	05-Nov-02	18	<10	<10	<20		<10	<30	—	—	7,300	8.49 H	4,400	1,800	150	—	1.5	19	<0.20	—	—	2.4	—	1.5	—	100	—	—	—
2003101363-17	ACW #06	05-Nov-03	8.9	2.9	2.2	—	—	—	3.0 J	—	—	6,960	8.0	2,180	1,490	—	22.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-28	ACW #06	12-Nov-04	<10	<10	<10	—	—	—	<20	—	—	5,970	7.5	3,430	1,060	—	21.1	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-29	ACW #06D	12-Nov-04	<10	<10	<10	—	—	—	<20	—	—	—	—	3,490	1,230	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-11	ACW #06	13-Dec-05	<20	<20	<20	—	—	—	<60	—	—	5,910	8.3	3,340	1,160	—	20.5	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #07	ACW #07	07-May-97	7.3	2.5	3.1	—	—	—	1.7	—	—	13,200	—	8,100	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #07	ACW #07	22-Oct-97	6.4	3.4	3	—	—	—	3	—	—	13,800	7.3	7,500	4,400	50	—	4	4	<0.05	—	—	—	—	0.6	—	200	—	—	<0.01
S98-0182	ACW #07	13-May-98	7.0	3.2	2.1*	—	—	—	1.7*	—	—	14,000	—	11,000	4,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0467	ACW #07	21-Oct-98	8	3	2	—	—	—	<2	—	—	14,000	7.05	8,290	4,400	130	20.3	<5	3.8	<0.05	—	—	—	—	0.77	—	220	—	—	<0.0025
M99-0017	ACW #07	12-May-99	—	—	—	—	—	—	—	—	—	14,300	—	7,420	4,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0194	ACW #07	21-Oct-99	7.2	5.3	2.4	—	—	—	<4	—	—	14,700	7.05	8,010	4,800	160	18.7	<4	3.4	<0.05	—	0.11	0.091	1.2	0.79	<0.002	270	<0.005	<0.005	<0.0025
M00-0088	ACW #07	10-May-00	—	—	—	—	—	—	—	—	—	14,900		8,900	7,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0231	ACW #07	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	12,500	7.1	8,400	5,100	200	19.0	<20	3.0	<0.05	—	—	<0.1	0.94	0.75	<0.01	240	0.012	—	0.0052
M01-0152	ACW #07	06-May-01	—	—	—	—	—	—	—	—	—	16,400	—	8,980	6,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0153	ACW #07D	06-May-01	—	—	—	—	—	—	—	—	—	16,300	—	9,640	6,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0477	ACW #07	24-Oct-01	7.4	<2	<2	—	—	—	2.4	—	—	17,400	7.11 H	9,180	8,500	110	21.0	<20	2.9	<5	—	0.29	<0.1	1.30	0.74	<0.005	230	0.012	<0.01	<0.005
2002040220-14	ACW #07	30-Apr-02	—	—	—	—	—	—	—	—	—	17,400	—	9,120	6,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-16	ACW #07	05-Nov-02	12	1.1	2.4	<2.0		<1.0	<3.0	—	—	14,000	7.18 H	8,900	5,200	120	—	1.5	<0.40	<0.20	—	—	0.070	—	0.74	—	260	—	—	—
2003101363-18	ACW #07	05-Nov-03	19.3	1.3 J	4.7	—	—	—	2.4 J	—	—	13,750	6.9	2,050	5,650	—	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-27	ACW #07	12-Nov-04	14.0	0.54 J	3.2	—	—	—	1.3	—	—	14,290	6.7	10,400	5,610	—	20	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-7	ACW #07	24-May-05	17.8	<2.0	3.7	—	—	—	3.1 J	—	—	16,460	6.9	11,667	5,515	—	23.1	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-12	ACW #07	13-Dec-05	16.4	<10	5.1 J	—	—	—	<30	—	—	16,690	6.9	9,900	4,940	—	19.9	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #08	ACW #08	06-May-97	99	10	4.1	—	—	—	3.9	—	—	89,200	—	50,000	29,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #08	ACW #08	21-Nov-97	36	3.9	2	—	—	—	14	—	—	49,200	7.0	29,000	17,000	800	—	<5	0.6	<0.5	—	—	—	—	0.6	—	440	—	—	<0.01
S98-0173	ACW #08	12-May-98	37	4.5	2.9	—	—	—	1.6	—	—	48,000	—	28,000	34,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0459	ACW #08	20-Oct-98	140	13	6	—	—	—	6	—	—	44,200	6.79	28,700	24,000	740	17.9	<10	0.82	<0.05	—	—	—	—	0.62	—	370	—	—	<0.0025
M99-0010	ACW #08	11-May-99	—	—	—	—	—	—	—	—	—	52,500	—	29,800	21,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0186	ACW #08	19-Oct-99	32	6.2	3.7	—	—	—	<4	—	—	36,400	7.09	17,700	15,000	580	20.5	<10	0.86	<0.05	—	<0.025	<0.005	0.11	0.83	<0.002	500	<0.005	<0.005	<0.0025
M00-0086	ACW #08	09-May-00	—	—	—	—	—	—	—	—	—	62,900	—	41,800	32,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0218	ACW #08	26-Oct-00	15	<2	2.1	—	—	—	10	—	—	36,300	6.85	26,000	17,000	740	15.0	<2	0.92	<1	—	—	<0.1	0.15	0.79	<0.01	440	<0.01	—	<0.005
M01-0134	ACW #08	01-May-01	—	—	—	—	—	—	—	—	—	51,300	—	28,200	25,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0475	ACW #08	23-Oct-01	41	5	3.1	—	—	—	<2	—	—	33,400	7.02	20,000	11,000	590	21.6	<20	1.1	<10	—	<0.05	<0.1	0.12	0.62	<0.005	410	<0.01	<0.01	<0.005
2002040220-08	ACW #08	29-Apr-02	—	—	—	—	—	—	—	—	—	69,400	—	53,400	30,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-10	ACW #08	04-Nov-02	10	1.5	1.2	<2.0		<1.0	<3.0	—	—	11,000	7.60 H	6,200	3,900	260	—	<0.50	<0.40	0.93 H	—	—	0.0055	—	0.27	—	140	—	—	—
2003101363-4	ACW #08	03-Nov-03	7.0	<2.0	<2.0	—	—	—	<6.0	—	—	12,330	6.7	8,670	5,350	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-9	ACW #08	09-Nov-04	25.3	2.1	1.6	—	—	—	1.2 J	—	—	16,200	6.9	10,100	6,280	—	21.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-6	ACW #08 (SPL)	23-May-05	80	13	<5	<5	<5	<5	<5	—	—	61,480	6.6	—	—	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-6	ACW #08 (Accutest)	23-May-05	81.9	13.0	4.0	—	—	—	6.0	—	—	61,480	6.6	41,700	22,100	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-25	ACW #08	14-Dec-05	98.4	11.1	19.4	—	—	—	8.2	—	—	50,100	6.6	29,000	14,200	—	17.7	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #06	ACW #06	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	22-Oct-97	2.6	—	19	0.11	—	—	—	3	—	21	—	2,200	—	<0.02	1,400	—	—	—	—
ACW #06D	ACW #06D	22-Oct-97	2.3	—	19	0.11	—	—	—	3	—	21	—	2,200	—	<0.02	1,400	—	—	—	—
S98-0181	ACW #06	13-May-98	—	—	—	—	—	—	—	—	—	0.56	—	—	—	—	—	—	—	—	—
S98-0469	ACW #06	21-Oct-98	2.4	—	23	0.099	—	—	—	2.7	—	22	—	2,640	—	<0.05	1,600	1,600	<25	<25	250
M99-0019	ACW #06	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0195	ACW #06	21-Oct-99	2.2	<0.005	19	0.087	<0.0002	0.080	0.030	2.3	—	29	<0.005	2,900	<0.005	<0.05	1,500	1,400	130	<25	250
M00-0089	ACW #06	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0232	ACW #06	02-Nov-00	9.7	<0.05	22	0.13	<0.0002	—	—	6.9	<0.1	30	<0.02	710	—	<0.1	1,200	1,200	14	<25	300
M01-0156	ACW #06	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0480	ACW #06	24-Oct-01	1.8	<0.05	16	0.081	<0.0002	0.052	<0.04	2.9	<0.1	35	<0.02	1,900	<0.005	<0.1	1,100	1,100	<25	<25	210
2002040220-10	ACW #06	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-15	ACW #06	05-Nov-02	9.0	—	13	0.12	—	—	—	11	—	110	—	2,100	—	—	1400	1400	<2.0	<2.0	320
2003101363-17	ACW #06	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	1,440	—	—	—	—	—	—	—
2004111601-28	ACW #06	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	1,190	—	—	—	—	—	—	—
2004111601-29	ACW #06D	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	1,260	—	—	—	—	—	—	—
2005121523-11	ACW #06	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	1,420	—	—	—	—	—	—	—
ACW #07	ACW #07	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #07	ACW #07	22-Oct-97	14.4	—	80	0.2	—	—	—	3	—	18	—	2,500	—	<0.2	730	—	—	—	—
S98-0182	ACW #07	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0467	ACW #07	21-Oct-98	15	—	91	0.15	—	—	—	4.3	—	23	—	3,100	—	<0.05	830	830	<25	<25	920
M99-0017	ACW #07	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0194	ACW #07	21-Oct-99	14	<0.005	93	0.13	<0.0002	0.025	<0.02	3.8	—	23	<0.005	3,300	<0.005	<0.05	870	870	<25	<25	1000
M00-0088	ACW #07	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0231	ACW #07	02-Nov-00	12	<0.05	87	0.11	<0.0002	—	—	4.2	<0.1	31	<0.02	710	—	<0.1	840	840	<25	<25	960
M01-0152	ACW #07	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0153	ACW #07D	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0477	ACW #07	24-Oct-01	15	0.075	100	0.11	<0.0002	0.025	<0.04	4.2	<0.1	43	<0.02	3,600	<0.005	<0.1	820	820	<25	<25	990
2002040220-14	ACW #07	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-16	ACW #07	05-Nov-02	13	—	100	0.12	—	—	—	15	—	51	—	3,600	—	—	870	870	<2.0	<2.0	1,100
2003101363-18	ACW #07	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	3,180	—	—	—	—	—	—	—
2004111601-27	ACW #07	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	3,140	—	—	—	—	—	—	—
2005050586-7	ACW #07	24-May-05	—	—	—	—	—	—	—	—	—	—	—	3,707	—	—	—	—	—	—	—
2005121523-12	ACW #07	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	3,600	—	—	—	—	—	—	—
ACW #08	ACW #08	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #08	ACW #08	21-Nov-97	1.3	—	210	2.2	—	—	—	57	—	19	—	9,300	—	<0.02	520	—	—	—	—
S98-0173	ACW #08	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0459	ACW #08	20-Oct-98	1.5	—	200	1.7	—	—	—	46	—	19	—	11,000	—	<0.05	430	430	<25	<25	1,700
M99-0010	ACW #08	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0186	ACW #08	19-Oct-99	2.7	<0.005	230	2.4	<0.0002	0.031	<0.02	99	—	16	<0.005	12,000	0.048	<0.05	490	490	<25	<25	2,300
M00-0086	ACW #08	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0218	ACW #08	26-Oct-00	3.3	<0.05	220	2.1	<0.0002	—	—	69	<0.1	24	<0.02	3,600	—	<0.1	410	410	<25	<25	2,000
M01-0134	ACW #08	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0475	ACW #08	23-Oct-01	2.6	0.12	200	1.9	<0.0002	<0.01	<0.04	58	<0.1	26	<0.02	11,000	0.037	<0.1	350	350	<25	<25	1,800
2002040220-08	ACW #08	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-10	ACW #08	04-Nov-02	1.5	—	53	0.48	—	—	—	51	—	23	—	3,000	—	—	210	210	<2.0	<2.0	570
2003101363-4	ACW #08	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	2,850	—	—	—	—	—	—	—
2004111601-9	ACW #08	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	2,420	—	—	—	—	—	—	—
2005050586-6	ACW #08 (SPL)	23-May-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-6	ACW #08 (Accutest)	23-May-05	—	—	—	—	—	—	—	—	—	—	—	14,600	—	—	—	—	—	—	—
2005121523-25	ACW #08	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	12,400	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #09	ACW #09	17-Jun-93	—	—	—	—	—	—	—	—	—	5,900	—	4,435	2,288	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	14-Sep-93	—	—	—	—	—	—	—	—	—	3,100	—	2,119	915	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	09-Nov-93	—	—	—	—	—	—	—	—	—	3,670	—	2,300	1,184	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	22-Apr-94	—	—	—	—	—	—	—	—	—	3,900	—	2,508	1,150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	01-Dec-94	—	—	—	—	—	—	—	—	—	5,450	—	3,510	1,650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	31-Jan-95	—	—	—	—	—	—	—	—	—	7,110	—	4,240	2,083	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	17-May-95	<5	22	<5	<5	<5	<5	<15	—	—	11,000	6.6	6,800	5,600	440	—	2.1	<1.0	<2.0	—	—	—	—	0.4	—	820	—	—	<0.025
ACW #09	ACW #09	28-Jun-95	<2.5	<2.5	<2.5	—	—	—	<5.0	—	—	9,100	7.0	6,200	3,500	360	—	1.9	<1.0	<2.0	—	—	—	—	0.4	—	770	—	—	<0.025
ACW #09	ACW #09	30-Aug-95	<5	<10	<5	—	—	—	<15	—	—	7,150	6.5	4,500	2,500	370	—	1.5	<10	<20	—	—	—	—	0.4	—	640	—	—	<0.025
ACW #09	ACW #09	07-Feb-96	1.8	<1.0	<1.0	—	—	—	<2.0	—	—	7,500	7.7	5,400	2,400	320	—	1.5	0.16	0.039	—	—	—	—	0.4	—	570	—	—	<0.006
ACW #09	ACW #09	07-Feb-96	<2.5	<2.5	<2.5	—	—	—	<7.5	—	—	7,450	6.8	4,620	2,300	341	—	1.85	0.36	<1.25	—	—	—	—	0.4	—	600	—	—	<0.1
ACW #09	ACW #09	08-May-96	<1.0	<1.0	<1.0	—	—	—	<3.0	—	—	7,530	6.8	4,210	2,210	322	—	3	0.35	<1.25	—	—	—	—	<0.5	—	508	—	—	0.01
ACW #09	ACW #09	14-Aug-96	1.4	1.6	<1.0	—	—	—	<2.0	—	—	4,400	7.4	3,600	1,200	180	—	1.2	1.4	0.13	—	—	—	—	0.4	—	490	—	—	<0.006
ACW #09	ACW #09	07-Nov-96	2.3	2.2	<1.0	—	—	—	<2.0	—	—	4,200	7.3	3,100	1,200	—	—	—	1.1	0.055	—	—	—	—	0.3	—	360	—	—	<0.007
ACW #09	ACW #09	19-Feb-97	1.3	4.0	10	—	—	—	4.2	—	—	4,110	—	2,500	1,260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	08-May-97	2.6	2.6	1.4	—	—	—	1.7	—	—	2,800	—	2,100	830	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	23-Oct-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	3,380	7.2	1,600	880	130	—	1.3	1.2	<0.05	—	—	—	—	0.2	—	270	—	—	<0.01
S98-0185	ACW #09	13-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	5,100	—	4,500	1,600	—	—	—	1.1	—	—	—	—	—	—	—	—	—	—	—
S98-0472	ACW #09	21-Oct-98	6	<2	<2	—	—	—	<2	—	—	13,200	6.49	8,980	4,100	440	20.8	<5	0.40	<0.05	—	—	—	—	0.49	—	1,200	—	—	<0.0025
M99-0022	ACW #09	13-May-99	—	—	—	—	—	—	—	—	—	11,100	—	6,400	3,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0199	ACW #09	22-Oct-99	<2	<2	<2	—	—	—	<2	—	—	8,580	6.78	5,950	2,900	280	19.6	<4	0.71	<0.05	—	0.030	0.0066	0.13	0.43	<0.002	820	<0.005	<0.005	<0.0025
M00-0100	ACW #09	12-May-00	—	—	—	—	—	—	—	—	—	7,830	—	4,810	2,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0101	ACW #09D	12-May-00	—	—	—	—	—	—	—	—	—	7,960	—	4,930	3,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0237	ACW #09	03-Nov-00	<2	<2	<2	—	—	—	<4	—	—	7,630	6.8	5,860	3,000	230	19.0	<20	0.68	<0.05	—	—	<0.1	0.14	0.57	<0.01	500	<0.01	—	0.0062
M00-0238	ACW #09D	03-Nov-00	<2	<2	<2	—	—	—	<4	—	—	7,620	6.8	11,200	2,900	260	19.1	<20	0.66	<0.05	—	—	<0.1	0.13	0.57	<0.01	490	<0.01	—	0.0073
M01-0147	ACW #09	06-May-01	—	—	—	—	—	—	—	—	—	8,300	—	4,640	2,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0483	ACW #09	25-Oct-01	<2	<2	<2	—	—	—	2	—	—	7,820	6.8 H	4,390	4,000	200	20.1	<5	0.88	<1.25	—	<0.05	<0.1	0.10	0.46	<0.005	280	<0.01	<0.01	<0.005
M01-0484	ACW #09D	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	7,700	6.84 H	4,400	3,700	190	19.9	<5	0.99	<1.25	—	0.075	<0.1	0.11	0.49	<0.005	290	<0.01	<0.01	<0.005
2002040220-19	ACW #09	01-May-02	—	—	—	—	—	—	—	—	—	8,160	—	3,800	2,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-20	ACW #09D	01-May-02	—	—	—	—	—	—	—	—	—	7,070	—	3,760	2,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-21	ACW #09	06-Nov-02	1.1	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	7,800	6.87 H	3,700	1,800	220	—	1.8	0.47	0.22	—	—	0.0082	—	0.60	—	260	—	—	—
2003101363-23	ACW #09	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	5,280	6.8	3,830	1,820	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-17	ACW #09	10-Nov-04	0.82 J	<1.0	<1.0	—	—	—	<2.0	—	—	8,540	6.5	4,680	2,150	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-19	ACW #09	14-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	5,970	6.7	3,100	1,350	—	19.9	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	18-Jun-93	—	—	—	—	—	—	—	—	—	1,061	—	701	1,027	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	14-Sep-93	—	—	—	—	—	—	—	—	—	1,349	—	1,190	421	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	09-Nov-93	—	—	—	—	—	—	—	—	—	1,800	—	1,238	420	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	22-Apr-94	—	—	—	—	—	—	—	—	—	2,440	—	1,638	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	28-Oct-94	—	—	—	—	—	—	—	—	—	2,592	—	1,694	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	01-Feb-95	—	—	—	—	—	—	—	—	—	2,660	—	1,426	619	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	17-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	3,900	6.9	2,300	1,600	300	—	1.1	<1.0	1.1	—	—	—	—	0.3	—	320	—	—	<0.025
ACW #10	ACW #10	28-Jun-95	<2.5	<2.5	<2.5	—	—	—	<5.0	—	—	3,100	7.3	2,300	1,900	230	—	0.98	<1.0	<2.0	—	—	—	—	0.3	—	280	—	—	<0.025
ACW #10	ACW #10	30-Aug-95	<5	<10	<5	—	—	—	<15	—	—	3,100	7.0	2,200	790	210	—	0.9	<10	<20	—	—	—	—	0.2	—	280	—	—	<0.025
ACW #10	ACW #10	07-Feb-96	3.9	<1.0	<1.0	—	—	—	<2.0	—	—	3,200	7.8	2,300	850	230	—	0.88	0.24	0.42	—	—	—	—	0.3	—	320	—	—	<0.006
ACW #10	ACW #10	07-Feb-96	4.3	<2.5	<2.5	—	—	—	<7.5	—	—	3,100	7.1	2,100	829	242	—	<1.25	0.44	<1.25	—	—	—	—	0.3	—	320	—	—	<0.1
ACW #10	ACW #10	08-May-96	1.22	<1.0	<1.0	—	—	—	<3.0	—	—	2,322	7.2	1,290	603	190	—	4.5	0.46	2.2	—	—	—	—	<0.5	—	206	—	—	<0.01
ACW #10	ACW #10	14-Aug-96	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	2,400	7.6	1,900	560	160	—	0.82	1.4	0.58	—	—	—	—	0.3	—	210	—	—	<0.006
ACW #10	ACW #10	07-Nov-96	1.2	1.5	<1.0	—	—	—	<2.0	—	—	250	7.5	1,800	610	170	—	0.83	1.1	0.49	—	—	—	—	0.2	—	200	—	—	<0.007
ACW #10	ACW #10	08-May-97	1.3	1	<0.5	—	—	—	<1.0	—	—	1,880	—	1,500	480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	23-Oct-97	1.14	1.17	<0.5	—	—	—	0.58	—	—	2,870	7.2	1,500	670	210	—	1.2	1	0.36	—	—	—	—	0.2	—	220	—	—	<0.01
S98-0187	ACW #10	14-May-98	—	—	—	—	—	—	—	—	—	2,400	—	1,200	540	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0473	ACW #10	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	2,900	7.06	1,960	800	210	20.8	<2	0.90	0.83	—	—	—	—	0.29	—	300	—	—	<0.0025
M99-0023	ACW #10	13-May-99	—	—	—	—	—	—	—	—	—	2,810	—	1,660	730	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0201	ACW #10	22-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	2,470	7.23	1,720	660	160	19.4	<2	1.2	0.62	—	0.037	0.010	0.091	0.26	<0.002	260	<0.005	<0.005	<0.0025
M00-0099	ACW #10	11-May-00	—	—	—	—	—	—	—	—	—	3,620	—	2,430	1,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0243	ACW #10	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	3,100	7.1	2,840	980	220	16.4	<2	1.0	<1	—	—	<0.1	0.15	0.37	<0.01	470	<0.01	—	0.0061
M01-0158	ACW #10	06-May-01	—	—	—	—	—	—	—	—	—	3,660	—	2,360	1,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0487	ACW #10	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	3,350	7.02	2,270	930	220	19.8	2.1	1.0	<0.5	—	0.057	<0.1	0.10	0.30	<0.005	300	<0.01	<0.01	<0.005
2002040220-21	ACW #10	01-May-02	—	—	—	—	—	—	—	—	—	3,440	—	1,970	1,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-25	ACW #10	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	2,600	7.15 H	2,000	740	250	—	0.64	1.4	0.86	—	—	0.0086	—	0.27	—	290	—	—	—
2003101363-21	ACW #10	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	2,580	6.6	2,160	795	—	18.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-21	ACW #10	11-Nov-04	0.51 J	<1.0	<1.0	—	—	—	<2.0	—	—	2,670	6.7	1,990	720	—	19.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-20	ACW #10	14-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	3,000	6.9	1,640	638	—	19.1	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #09	ACW #09	17-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	14-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	22-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	01-Dec-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	31-Jan-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	17-May-95	0.17	—	280	1	—	—	—	16	—	49	—	910	—	0.025	320	—	—	—	4,500
ACW #09	ACW #09	28-Jun-95	0.28	—	250	0.98	—	—	—	15	—	51	—	1,000	—	<0.020	300	—	—	—	2,700
ACW #09	ACW #09	30-Aug-95	0.19	—	220	0.86	—	—	—	14	—	43	—	880	—	<0.040	240	—	—	—	2,000
ACW #09	ACW #09	07-Feb-96	0.48	—	180	0.71	—	—	—	14	—	47	—	810	—	<0.010	300	—	—	—	2,200
ACW #09	ACW #09	07-Feb-96	0.4	—	175	0.7	—	—	—	16	—	56	—	810	—	<0.1	291	—	—	—	2,220
ACW #09	ACW #09	08-May-96	0.4	—	183	0.49	—	—	—	17	—	60	—	687	—	<0.05	209	—	—	—	2,020
ACW #09	ACW #09	14-Aug-96	0.66	—	160	0.65	—	—	—	13	—	53	—	730	—	0.027	220	—	—	—	1,900
ACW #09	ACW #09	07-Nov-96	0.4	—	110	0.44	—	—	—	10	—	—	—	510	—	0.029	—	—	—	—	—
ACW #09	ACW #09	19-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	23-Oct-97	0.6	—	84	0.31	—	—	—	10	—	17	—	320	—	0.05	200	—	—	—	—
S98-0185	ACW #09	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0472	ACW #09	21-Oct-98	0.63	—	400	1.4	—	—	—	25	—	31	—	1,400	—	<0.05	340	340	<25	<25	4,600
M99-0022	ACW #09	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0199	ACW #09	22-Oct-99	0.96	<0.005	230	0.80	<0.0002	0.0062	<0.02	22	—	29	<0.005	990	0.032	<0.05	270	270	<25	<25	3,000
M00-0100	ACW #09	12-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0101	ACW #09D	12-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0237	ACW #09	03-Nov-00	1.4	<0.05	160	0.43	<0.0002	—	—	18	<0.1	32	<0.02	670	—	<0.1	500	500	<25	<25	1,900
M00-0238	ACW #09D	03-Nov-00	1.4	<0.05	150	0.42	<0.0002	—	—	18	<0.1	31	<0.02	630	—	<0.1	510	510	<25	<25	1,900
M01-0147	ACW #09	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0483	ACW #09	25-Oct-01	1.2	0.058	89	0.22	<0.0002	<0.01	<0.04	14	<0.1	36	<0.02	1,200	0.034	<0.1	460	460	<25	<25	1,100
M01-0484	ACW #09D	25-Oct-01	1.3	0.067	96	0.23	<0.0002	<0.01	<0.04	14	<0.1	36	<0.02	1,300	0.036	<0.1	440	440	<25	<25	1,100
2002040220-19	ACW #09	01-May-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-20	ACW #09D	01-May-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-21	ACW #09	06-Nov-02	1.9	—	97	0.19	—	—	—	33	—	48	—	1,400	—	—	600	600	<2.0	<2.0	1,000
2003101363-23	ACW #09	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	1,430	—	—	—	—	—	—	—
2004111601-17	ACW #09	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	1,220	—	—	—	—	—	—	—
2005121523-19	ACW #09	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	941	—	—	—	—	—	—	—
ACW #10	ACW #10	18-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	14-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	22-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	28-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	01-Feb-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	17-May-95	0.12	—	110	0.037	—	—	—	8	—	43	—	170	—	<0.020	190	—	—	—	1,300
ACW #10	ACW #10	28-Jun-95	0.28	—	94	0.029	—	—	—	7.5	—	46	—	160	—	<0.020	190	—	—	—	1,200
ACW #10	ACW #10	30-Aug-95	<0.20	—	95	0.034	—	—	—	52	—	42	—	150	—	<0.040	180	—	—	—	1,100
ACW #10	ACW #10	07-Feb-96	0.24	—	110	0.032	—	—	—	8.4	—	36	—	190	—	0.011	200	—	—	—	1,200
ACW #10	ACW #10	07-Feb-96	0.4	—	107	<0.1	—	—	—	9.4	—	54	—	190	—	<0.1	194	—	—	—	1,240
ACW #10	ACW #10	08-May-96	0.1	—	92	<0.05	—	—	—	8	—	62	—	127	—	<.05	137	—	—	—	893
ACW #10	ACW #10	14-Aug-96	0.14	—	71	0.019	—	—	—	7	—	47	—	140	—	0.037	170	—	—	—	810
ACW #10	ACW #10	07-Nov-96	0.22	—	70	0.017	—	—	—	7.4	—	20	—	150	—	0.025	170	—	—	—	800
ACW #10	ACW #10	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	23-Oct-97	0.2	—	71	0.02	—	—	—	6	—	20	—	140	—	<0.02	200	—	—	—	—
S98-0187	ACW #10	14-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0473	ACW #10	22-Oct-98	0.099	—	110	0.0068	—	—	—	9.0	—	27	—	180	—	<0.05	180	180	<25	<25	1,200
M99-0023	ACW #10	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0201	ACW #10	22-Oct-99	0.26	<0.005	84	0.020	<0.0002	<0.005	<0.02	7.9	—	19	<0.005	170	0.013	<0.05	160	160	<25	<25	1,000
M00-0099	ACW #10	11-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0243	ACW #10	06-Nov-00	0.27	<0.05	140	0.026	<0.0002	—	—	16	<0.1	30	<0.02	330	—	<0.1	180	180	<25	<25	1,800
M01-0158	ACW #10	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0487	ACW #10	25-Oct-01	0.19	0.068	95	0.021	<0.0002	<0.01	<0.04	9.6	<0.1	35	<0.02	180	0.028	<0.1	160	160	<25	<25	1,100
2002040220-21	ACW #10	01-May-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-25	ACW #10	08-Nov-02	0.22	—	110	0.016	—	—	—	15	—	55	—	270	—	—	180	180	<2.0	<2.0	1,200
2003101363-21	ACW #10	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	182	—	—	—	—	—	—	—
2004111601-21	ACW #10	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	176	—	—	—	—	—	—	—
2005121523-20	ACW #10	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	162	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #11	ACW #11	19-Jun-93	—	—	—	—	—	—	—	—	—	25,000	—	18,670	9,737	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	15-Sep-93	—	—	—	—	—	—	—	—	—	10,570	—	6,820	3,437	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	09-Nov-93	—	—	—	—	—	—	—	—	—	10,160	—	6,592	3,620	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Apr-94	—	—	—	—	—	—	—	—	—	16,290	—	9,520	6,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	20,060	—	13,280	6,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	20,550	—	12,900	6,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
ACW #11	ACW #11	01-Feb-95	—	—	—	—	—	—	—	—	—	32,200	—	19,880	11,582	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	17-May-95	<5	<10	<5	—	—	—	<15	—	—	12,000	6.8	7,200	4,400	250	—	1.9	<1.0	<2.0	—	—	—	—	0.3	—	740	—	—	<0.025
ACW #11	ACW #11	27-Jun-95	5.1	<2.5	<2.5	—	—	—	<5.0	—	—	11,000	7.2	7,000	6,500	210	—	1.6	<1.0	<2.0	—	—	—	—	0.4	—	720	—	—	<0.025
ACW #11	ACW #11	29-Aug-95	8	<10	<5	<5	<5	<5	<15	—	—	10,000	6.8	6,000	3,400	220	—	2.2	6.2	<2.0	—	—	—	—	0.3	—	550	—	—	<0.025
ACW #11	ACW #11	07-Feb-96	6.9	<1.0	<1.0	—	—	—	<2.0	—	—	11,000	7.8	7,400	3,400	230	—	1.5	0.15	0.087	—	—	—	—	0.3	—	660	—	—	<0.006
ACW #11	ACW #11	07-Feb-96	7.6	<2.5	<2.5	—	—	—	<7.5	—	—	11,030	7.2	6,740	3,770	248	—	1.6	0.39	<1.25	—	—	—	—	0.4	—	668	—	—	<0.1
ACW #11	ACW #11	08-May-96	6.76	<1.0	<1.0	—	—	—	<3.0	—	—	9,840	7.3	5,080	3,120	206	—	<1.25	0.37	<1.25	—	—	—	—	<0.5	—	484	—	—	0.02
ACW #11	ACW #11	13-Aug-96	7.9	2.2	<1.0	—	—	—	<2.0	—	—	12,000	7.3	10,000	4,200	230	—	2	1.0	0.18	—	—	—	—	0.4	—	540	—	—	0.013
ACW #11	ACW #11	05-Nov-96	32	1.7	<1.0	—	—	—	1.2	—	—	29	7.3	25,000	13,000	560	—	2.9	0.4	0.31	—	—	—	—	0.3	—	1,200	—	—	<0.007
ACW #11	ACW #11	06-May-97	21	5.3	3.1	—	—	—	3.5	—	—	10,200	—	6,700	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Nov-97	28	3.1	<0.5	—	—	—	2.8	—	—	27,900	7.6	16,000	9,800	520	—	<4	<0.5	0.16	—	—	—	—	0.3	—	1,000	—	—	<0.01
S98-0174	ACW #11	12-May-98	70	8.2	1.3	—	—	—	4.3	—	—	36,000	—	22,000	13,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0460	ACW #11	20-Oct-98	51	<2	<2	—	—	—	<2	—	—	42,500	6.60	29,600	17,000	680	18.5	<10	0.43	0.11	—	—	—	—	0.32	—	1,500	—	—	<0.0025
M99-0014	ACW #11	12-May-99	—	—	—	—	—	—	—	—	—	19,800	—	11,100	7,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0192	ACW #11	20-Oct-99	14	4.5	<2	—	—	—	<4	—	—	19,300	6.94	13,600	7,800	340	19.1	<4	0.60	0.055	—	0.096	0.0088	0.42	0.30	<0.002	1,100	<0.005	<0.005	0.0039
M00-0087	ACW #11	09-May-00	—	—	—	—	—	—	—	—	—	31,500	—	21,000	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0227	ACW #11	01-Nov-00	16	<2	<2	—	—	—	<4	—	—	25,700	6.82	21,900	10,000	490	13.1	<2	<0.4	<1	—	—	<0.1	0.37	0.46	<0.01	1,730	<0.01	—	<0.005
M01-0135	ACW #11	01-May-01	—	—	—	—	—	—	—	—	—	32,800	—	20,000	15,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0476	ACW #11	23-Oct-01	59	<2	<2	—	—	—	<2	—	—	47,800	6.55	32,900	17,000	800	21.5	<20	0.41	<10	—	<0.05	<0.1	0.26	0.36	<0.005	2,500	<0.01	<0.01	<0.005
2002040220-09	AC W #11	29-Apr-02	—	—	—	—	—	—	—	—	—	34,200	—	25,500	15,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-19	AC W #11	06-Nov-02	13	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	11,000	6.98 H	9,700	4,600	320	—	1.5	<0.40	1.4	—	—	0.0083	—	0.33	—	1,200	—	—	—
2003101363-8	ACW #11	04-Nov-03	2.7	<2.0	<2.0	—	—	—	<6.0	—	—	7,950	6.8	3,470	4,520	—	19.5	—	—	—	—	—	0.0266	—	—	<0.0040	—	<0.010	—	<0.025
2004111601-14	ACW #11	10-Nov-04	19.3	<1.0	0.53 J	—	—	—	<2.0	—	—	21,200	6.6	18,300 (14,700)	7,950	—	21.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-5	ACW #11	23-May-05	22.2	<2.0	<2.0	—	—	—	<6.0	—	—	22,200	6.6	17,700	8,339	—	22.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-10	ACW #11	13-Dec-05	18.7	<2.0	<2.0	—	—	—	<6.0	—	—	27,000	6.5	10,400	4,580	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	19-Feb-97	<0.5	<0.5	1.5	—	—	—	<1.0	—	—	1,610	—	950	380	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12D	ACW #12D	19-Feb-97	2.9	<0.5	<0.5	—	—	—	<1.0	—	—	1,630	—	960	390	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	08-May-97	3	0.89	<0.5	—	—	—	<1.0	—	—	1,240	—	900	290	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	20-Aug-97	1.2	<0.5	<0.5	—	—	—	<1.0	—	—	1,120	8.1	740	260	85	—	0.6	1.3	0.2	—	—	—	—	0.2	—	84	—	—	<0.01
ACW #12D	ACW #12D	20-Aug-97	1.4	<0.5	<0.5	—	—	—	<1.0	—	—	1,150	8.1	740	280	90	—	0.7	1.3	0.3	—	—	—	—	0.2	—	91	—	—	<0.01
ACW #12	ACW #12	23-Oct-97	1.4	0.58	<0.5	—	—	—	<1.0	—	—	1,810	7.5	850	380	120	—	1	1	0.34	—	—	—	—	0.2	—	150	—	—	<0.01
S98-0058	ACW #12	24-Feb-98	7.3	<0.50	<0.50	—	—	—	<1.0	—	—	2,050	7.9	1,200	470	150	—	0.8	2.2	0.4	—	—	—	—	—	—	170	—	—	—
S98-0059	ACW #12D	24-Feb-98	6.7	<0.50	<0.50	—	—	—	<1.0	—	—	2,090	7.9	1,220	490	160	—	0.9	2.1	0.5	—	—	—	—	—	—	170	—	—	—
S98-0188	ACW #12	01-Jun-98	<0.50	1.2	<0.50	—	—	—	<1.0	—	—	2,000	7.5	1,500	—	—	—	—	—	0.41	—	—	—	—	—	—	210	—	—	—
S98-0189	ACW #12D	01-Jun-98	4.4	2.5	6.1	—	—	—	2.5	—	—	2,300	7.4	1,700	540	150	—	0.74	1.3	0.54	—	—	—	—	—	—	200	—	—	—
S98-0294	ACW #12	11-Aug-98	2	<2	<2	<2	<2	<2	<6	—	—	1,790	7.61	1,240	440	130	19.8	<2	1.3	1.4	—	—	—	—	—	—	180	—	—	—
S98-0295	ACW #12D	11-Aug-98	2	<2	<2	<2	<2	<2	<6	—	—	2,020	7.51	1,300	520	140	19.3	<1	1.1	<2.5	—	—	—	—	—	—	180	—	—	—
S98-0474	ACW #12	22-Oct-98	6	<2	<2	<2	<2	<2	<6	—	—	2,280	7.39	1,520	610	170	20.0	<2	0.99	0.44	—	—	—	—	0.27	—	210	—	—	<0.0025
S98-0475	ACW #12D	22-Oct-98	6	<2	<2	<2	<2	<2	<6	—	—	2,310	7.36	1,690	600	170	20.1	<2	0.90	0.51	—	—	—	—	0.26	—	200	—	—	<0.0025
S99-0083	ACW #12	23-Feb-99	6	<2	<2	<2	<2	<2	<6	—	—	2,020	7.68	1,240	500	120	12.3	<2	1.2	0.18	—	—	—	—	—	—	200	—	—	—
S99-0084	ACW #12D	23-Feb-99	5	<2	<2	<2	<2	<2	<6	—	—	2,050	7.67	1,280	480	140	12.8	<2	1.1	0.23	—	—	—	—	—	—	190	—	—	—
M99-0024	ACW #12	14-May-99	4	<2	<2	<2	<2	<2	<6	—	<0.25	2,390	7.47	1,440	500	120	23.8	<2	0.86	0.14	—	—	—	—	0.28	—	210	—	—	0.0063
M99-0026	ACW #12D	14-May-99	4	<2	<2	<2	<2	<2	<6	—	<0.25	2,350	7.42	1,410	590	150	23.9	<2	0.86	0.18	—	—	—	—	0.26	—	210	—	—	0.0044
M99-0087	ACW #12	11-Aug-99	5.3	<2	<2	<2	<2	<2	<6	—	—	2,650	7.35	1,750	750	160	21.7	<0.2	0.85	0.45	—	—	—	—	—	—	270	—	—	—
M99-0088	ACW #12D	11-Aug-99	2.4	<2	<2	<2	<2	<2	<6	—	—	2,630	7.33	1,880	810	160	21.1	<1	0.85	0.53	—	—	—	—	—	—	280	—	—	—
M99-0202	ACW #12	22-Oct-99	4.7	<2	<2	<2	<2	<2	<6	—	—	2,180	7.50	1,620	650	130	19.8	<2	0.98	0.41	—	0.034	0.0094	0.13	0.26	<0.002	220	<0.005	<0.005	<0.0025
M99-0204	ACW #12D	22-Oct-99	4.4	<2	<2	<2	<2	<2	<6	—	—	2,170	7.48	1,390	560	140	19.8	<2	0.95	0.32	—	0.031	0.0084	0.13	0.26	<0.002	230	<0.005	<0.005	<0.0025
M00-0024	ACW #12	22-Feb-00	<2	<2	<2	—	—	—	<2	—	—	1,950	7.38	1,260	680	130	16.4	<1.0	1.1	<0.5	—	—	—	—	—	—	210	—	—	—
M00-0098	ACW #12	11-May-00	<5	<5	<5	—	—	—	<10	—	—	1,590	7.88	989	470	100	18.5	0.47	1.2	0.15	—	—	—	—	—	—	150	—	—	—
M00-0197	ACW #12	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	1,800	7.63	1,270	460	110	25.4	0.47	1.1	0.087	—	—	—	—	—	—	140	—	—	—
M00-0240	ACW #12	03-Nov-00	<2	<2	<2	—	—	—	<4	—	—	2,520	7.5	1,780	890	130	19.2	<20	1.1	0.30	—	—	<0.1	0.14	0.29	<0.01	200	<0.01	—	0.0059
M01-0011	ACW #12	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	2,230	7.44 H	1,210	670	140	21.5	0.74	0.88	0.28	—	—	—	—	—	—	190	—	—	—
M01-0145	ACW #12	03-May-01	2.4	<2	<2	—	—	—	<2	<5	—	2,100	7.4	1,060	570	110	22.2	1.4	1.00	<1	—	—	—	—	—	—	160	—	—	—
M01-0146	ACW #12D	03-May-01	2.1	<2	<2	—	—	—	<2	<5	—	2,120	7.44	1,150	510	110	22.5	1.3	0.97	<1	—	—	—	—	—	—	160	—	—	—
M01-0405	ACW #12	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	—	—	2,080	7.34	1,290	490	120	24.6	<2	0.97	<1	—	—	—	—	—	—	180	—	—	—
M01-0486	ACW #12	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	1,890	7.43 H	1,220	1400	110	19.7	<2	1.10	<0.5	—	<0.05	<0.1	0.11	0.25	<0.005	160	<0.01	<0.01	<0.005

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #11	ACW #11	19-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	15-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	01-Feb-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	17-May-95	0.36	—	260	0.23	—	—	—	16	—	42	—	1,200	—	<0.020	230	—	—	—	3,300
ACW #11	ACW #11	27-Jun-95	0.29	—	270	0.2	—	—	—	16	—	45	—	980	—	<0.020	210	—	—	—	2,800
ACW #11	ACW #11	29-Aug-95	0.17	—	210	0.088	—	—	—	16	—	44	—	880	—	<0.020	220	—	—	—	2,700
ACW #11	ACW #11	07-Feb-96	0.38	—	230	0.13	—	—	—	26	—	47	—	1,500	—	<0.010	210	—	—	—	2,600
ACW #11	ACW #11	07-Feb-96	0.5	—	224	0.1	—	—	—	31	—	46	—	1,400	—	<0.1	200	—	—	—	2,590
ACW #11	ACW #11	08-May-96	0.3	—	220	0.09	—	—	—	29	—	50	—	1,160	—	<0.05	111	—	—	—	2,110
ACW #11	ACW #11	13-Aug-96	0.28	—	190	0.061	—	—	—	24	—	47	—	1,700	—	0.12	160	—	—	—	2,100
ACW #11	ACW #11	05-Nov-96	0.25	—	430	0.14	—	—	—	35	—	21	—	5,100	—	0.068	170	—	—	—	4,700
ACW #11	ACW #11	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Nov-97	0.4	—	330	0.22	—	—	—	27	—	18	—	2,700	—	0.21	170	—	—	—	—
S98-0174	ACW #11	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0460	ACW #11	20-Oct-98	0.68	—	520	0.35	—	—	—	41.0	—	22	—	5,100	—	<0.05	180	180	<25	<25	5,900
M99-0014	ACW #11	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0192	ACW #11	20-Oct-99	0.68	<0.005	280	0.17	<0.0002	0.0045	<0.02	27	—	19	<0.005	2,300	0.013	<0.05	140	140	<25	<25	3,900
M00-0087	ACW #11	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0227	ACW #11	01-Nov-00	1.1	<0.05	560	0.37	0.00028	—	—	33	<0.1	26	<0.02	4,440	—	<0.1	190	190	<25	<25	6,600
M01-0135	ACW #11	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0476	ACW #11	23-Oct-01	1.4	0.53	840	0.38	0.00049	<0.01	<0.04	57	<0.1	31	<0.01	9,500	0.068	<0.1	160	160	<25	<25	9,700
2002040220-09	AC W #11	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-19	AC W #11	06-Nov-02	1.3	—	410	0.26	—	—	—	50	—	48	—	3,000	—	—	220	220	<2.0	<2.0	4,800
2003101363-8	ACW #11	04-Nov-03	—	<0.010	—	—	—	—	<0.040	—	—	—	<0.010	1,740	—	<0.020	—	—	—	—	—
2004111601-14	ACW #11	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	2,270	—	—	—	—	—	—	—
2005050586-5	ACW #11	23-May-05	—	—	—	—	—	—	—	—	—	—	—	4,022	—	—	—	—	—	—	—
2005121523-10	ACW #11	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	2,240	—	—	—	—	—	—	—
ACW #12	ACW #12	19-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12D	ACW #12D	19-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	20-Aug-97	0.5	—	31	0.05	—	—	—	23	—	18	—	100	—	<0.02	130	—	—	—	—
ACW #12D	ACW #12D	20-Aug-97	0.4	—	34	0.05	—	—	—	22	—	19	—	100	—	<0.02	120	—	—	—	—
ACW #12	ACW #12	23-Oct-97	0.2	—	54	0.03	—	—	—	13	—	20	—	120	—	<0.02	160	—	—	—	—
S98-0058	ACW #12	24-Feb-98	—	—	60	—	—	—	—	10	—	21	—	120	—	—	160	—	—	—	—
S98-0059	ACW #12D	24-Feb-98	—	—	60	—	—	—	—	10	—	21	—	120	—	—	150	—	—	—	—
S98-0188	ACW #12	01-Jun-98	—	—	73	—	—	—	—	9	—	23	—	130	—	—	150	150	—	—	—
S98-0189	ACW #12D	01-Jun-98	—	—	71	—	—	—	—	9	—	22	—	130	—	—	150	150	—	—	—
S98-0294	ACW #12	11-Aug-98	—	—	62	—	—	—	—	9.8	—	21	—	130	—	—	140	140	<25	<25	710
S98-0295	ACW #12D	11-Aug-98	—	—	61	—	—	—	—	9.7	—	24	—	130	—	—	160	160	<25	<25	700
S98-0474	ACW #12	22-Oct-98	0.17	—	80	0.032	—	—	—	10	—	23	—	140	—	<0.05	150	150	<25	<25	850
S98-0475	ACW #12D	22-Oct-98	0.17	—	72	0.029	—	—	—	10	—	24	—	130	—	<0.05	150	150	<25	<25	810
S99-0083	ACW #12	23-Feb-99	—	—	73	—	—	—	—	8.8	—	25	—	160	—	—	160	160	<25	<25	810
S99-0084	ACW #12D	23-Feb-99	—	—	68	—	—	—	—	8.5	—	26	—	160	—	—	160	160	<25	<25	750
M99-0024	ACW #12	14-May-99	0.16	—	74	0.026	—	—	—	9.5	—	23	—	150	—	<0.05	150	150	<25	<25	840
M99-0026	ACW #12D	14-May-99	0.16	—	73	0.025	—	—	—	9.0	—	26	—	140	—	<0.05	150	150	<25	<25	810
M99-0087	ACW #12	11-Aug-99	—	—	96	—	—	—	—	9.0	—	29	—	160	—	—	140	140	<25	<25	1100
M99-0088	ACW #12D	11-Aug-99	—	—	98	—	—	—	—	9.2	—	36	—	160	—	—	140	140	<25	<25	1100
M99-0202	ACW #12	22-Oct-99	0.14	<0.005	0.77	0.024	<0.0002	0.0043	<0.02	8.4	—	21	<0.005	140	0.0088	<0.05	140	140	<25	<25	860
M99-0204	ACW #12D	22-Oct-99	0.16	<0.005	79	0.024	<0.0002	<0.005	<0.02	8.7	—	20	<0.005	140	0.0086	<0.05	140	140	<25	<25	890
M00-0024	ACW #12	22-Feb-00	—	—	71	—	—	—	—	9.2	—	22	—	130	—	—	130	130	<25	<25	800
M00-0098	ACW #12	11-May-00	—	—	51	—	—	—	—	9.3	—	28	—	120	—	—	140	140	<25	<25	590
M00-0197	ACW #12	07-Aug-00	—	—	45	—	—	—	—	10	—	33	—	110	—	—	140	140	<25	<25	520
M00-0240	ACW #12	03-Nov-00	1.9	<0.05	71	0.053	<0.0002	—	—	16	<0.1	29	<0.02	280	—	<0.1	140	140	<25	<25	800
M01-0011	ACW #12	20-Feb-01	—	—	68	—	—	—	—	11	—	31	—	170	—	—	150	150	<25	<25	750
M01-0145	ACW #12	03-May-01	—	—	56	—	—	—	—	9.2	—	32	—	150	—	—	140	140	<25	<25	630
M01-0146	ACW #12D	03-May-01	—	—	57	—	—	—	—	8.9	—	31	—	150	—	—	150	150	<25	<25	630
M01-0405	ACW #12	01-Aug-01	—	—	64	—	—	—	—	9.6	—	28	—	140	—	—	140	140	<25	<25	710
M01-0486	ACW #12	25-Oct-01	0.29	<0.05	56	0.032	<0.0002	<0.01	<0.04	9.3	<0.1	34	<0.02	120	0.011	<0.1	140	140	<25	<25	630

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M02-0046	ACW #12	20-Feb-02	—	—	—	—	—	—	—	—	—	2,200	7.27	1,370	720	120	—	<10	0.85	0.24	—	—	—	—	—	—	180	—	—	—
M02-0046	ACW #12 R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-22	ACW #12	01-May-02	2.6	<2.0	<2.0	—	—	—	<2.0	<5.0	—	2,030	7.43	1,180	490	130	—	<2.0	1.0	<2.0	—	—	—	—	—	—	170	—	—	—
2002040220-23	ACW #12D	01-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	1,900	7.48	1,100	440	140	—	<2.0	1.1	<2.0	—	—	—	—	—	—	150	—	—	—
2002110896-24	ACW #12	07-Nov-02	3.7	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1,800	7.61 H	1,300	450	150	—	0.50	1.1	0.64	—	—	0.0066	—	0.24	—	150	—	—	—
2003101363-22	ACW #12	06-Nov-03	1.0 J	<2.0	<2.0	—	—	—	<6.0	—	—	1,605	6.9	1,220	410	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-22	ACW #12	11-Nov-04	1.8	<1.0	<1.0	—	—	—	<2.0	—	—	2,270	6.9	1,300	449	—	20.1	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-21	ACW #12	14-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	2,090	7.0	1,130	393	—	19.3	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	20-Feb-97	<0.5	<0.5	1.5	—	—	—	<1.0	—	—	681	—	440	53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	08-May-97	0.61	0.58	<0.5	—	—	—	<1.0	—	—	643	—	460	57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13D	ACW #13D	08-May-97	0.65	0.62	<0.5	—	—	—	<1.0	—	—	630	—	460	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	20-Aug-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	654	8.3	440	55	96	—	0.4	1.3	0.99	—	—	—	—	0.2	—	39	—	—	<0.01
ACW #13	ACW #13	23-Oct-97	0.59	0.76	<0.5	—	—	—	<1.0	—	—	728	8.3	400	50	95	—	0.4	1.3	1	—	—	—	—	0.2	—	34	—	—	<0.01
S98-0060	ACW #13	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	727	8.4	450	59	100	—	0.5	1.6	1.2	—	—	—	—	—	—	31	—	—	—
S98-0190	ACW #13	01-Jun-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	700	8.0	450	—	—	—	—	—	1.2	—	—	—	—	—	—	40	—	—	—
S98-0296	ACW #13	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	679	7.93	467	48	110	19.7	<5	1.6	3.3	—	—	—	—	—	—	43	—	—	—
S98-0476	ACW #13	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	686	7.94	439	47	92	19.9	<5	1.3	1.3	—	—	—	—	0.23	—	48	—	—	<0.0025
S99-0085	ACW #13	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	792	8.18	493	74	93	12.6	0.3	1.5	0.74	—	—	—	—	—	—	44	—	—	—
M99-0027	ACW #13	14-May-99	<2	<2	<2	<2	<2	<2	<6	—	<0.25	693	7.96	403	45	96	24.1	0.4	1.3	1.4	—	—	—	—	0.25	—	46	—	—	0.0062
M99-0089	ACW #13	11-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	676	7.95	359	41	97	21.9	1.2	1.4	1.4	—	—	—	—	—	—	49	—	—	—
M99-0205	ACW #13	22-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	674	7.98	436	48	93	20.0	0.36	1.4	1.3	—	0.11	0.013	0.057	0.23	<0.002	49	0.0055	<0.005	<0.0025
M00-0028	ACW #13	23-Feb-00	<2	<2	<2	—	—	—	<2	—	—	697	7.84	479	53	98	16.9	<1.0	1.5	1.4	—	—	—	—	—	—	44	—	—	—
M00-0096	ACW #13	11-May-00	<5	<5	<5	—	—	—	<10	—	—	697	8.00	459	47	120	18.2	0.33	1.3	1.5	—	—	—	—	—	—	48	—	—	—
M00-0198	ACW #13	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	676	7.90	363	41	100	25.6	0.31	1.3	1.2	—	—	—	—	—	—	49	—	—	—
M00-0199	ACW #13D	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	662	7.94	381	44	95	25.7	0.30	1.4	1.2	—	—	—	—	—	—	50	—	—	—
M00-0242	ACW #13	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	1,330	7.7	947	360	110	16.7	<2	1.4	1.0	—	—	<0.1	0.061	0.26	<0.01	55	<0.01	—	<0.005
M01-0013	ACW #13	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	893	7.81 H	518	110	90	21.6	0.39	1.3	1.4	—	—	—	—	—	—	48	—	—	—
M01-0159	ACW #13	07-May-01	<2	<2	<2	—	—	—	<2	<5	—	685	7.79 H	444	57	110	26.6	0.34	1.3	1.5	—	—	—	—	—	—	47	—	—	—
M01-0406	ACW #13	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	—	—	694	7.73	402	42	98	23.3	<2	1.4	1.6	—	—	—	—	—	—	46	—	—	—
M01-0407	ACW #13D	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	—	—	690	7.73	439	45	98	23.6	<2	1.3	1.6	—	—	—	—	—	—	42	—	—	—
M01-0490	ACW #13	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	690	7.75	422	42	96	20.0	<1	1.4	1.5	—	<0.05	<0.1	0.046	0.22	<0.005	45	<0.01	<0.01	<0.005
M02-0047	ACW #13	20-Feb-02	<2.0	2.1	<2.0	—	—	—	<2.0	—	—	680	7.67	389	44	88	—	2.7	1.4	1.4	—	—	—	—	—	—	44	—	—	—
M02-0047	ACW #13 R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-24	ACW #13	01-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	760	7.73 H	407	54	140	—	<1	1.5	1.4	—	—	—	—	—	—	52	—	—	—
2	ACW #13	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	807	7.76 H	643	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	ACW #13D	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	789	7.73 H	603	130	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-23	ACW #13	07-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	740	7.59 H	450	45	140	—	<0.50	1.4	1.6	—	—	0.010	—	0.23	—	53	—	—	—
2003030318/T4112-1	ACW #13	28-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	772	7.6 H	502	46.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-3	ACW #13	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	747	7.5 H	502	47.0	—	—	—	—	—	—	—	—	—	—	—	49.400	—	—	—
2003080979-3	ACW #13	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	661	6.89	460	41.7	—	—	—	—	—	—	—	—	—	—	—	52.400	—	—	—
2003101363-20	ACW #13	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	759	6.8	490	43.8	—	18.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2004020197-6	ACW #13	26-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	724	7.0	476	43.0	—	18.9	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-4	ACW #13	12-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	759	7.0	492	41.7	—	22.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-4	ACW #13	24-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	660	7.4	496	45.0	—	22.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-20	ACW #13	11-Nov-04	0.50 J	<1.0	<1.0	—	—	—	<2.0	—	—	987	7.2	558	50.0	—	18.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-4	ACW #13	14-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	1,036	7.4	520	61.0	—	19.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-9	ACW #13	24-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	811	7.2	447	32.0	—	24.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-4	ACW #13	22-Aug-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	884	6.8	513	71.0	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-26	ACW #13	15-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	917	6.9	551	172	—	17.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-27	ACW #13D	15-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	548	88.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M02-0046	ACW #12	20-Feb-02	—	—	64	—	—	—	—	8.6	—	36	—	140	—	—	140	140	<25	<25	750
M02-0046	ACW #12 R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-22	ACW #12	01-May-02	—	—	61	—	—	—	—	8.9	—	35	—	130	—	—	140	140	<25	<25	670
2002040220-23	ACW #12D	01-May-02	—	—	54	—	—	—	—	8.8	—	33	—	110	—	—	150	150	<25	<25	600
2002110896-24	ACW #12	07-Nov-02	0.24	—	63	0.020	—	—	—	11	—	44	—	150	—	—	150	150	<2.0	<2.0	640
2003101363-22	ACW #12	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	126	—	—	—	—	—	—	—
2004111601-22	ACW #12	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	137	—	—	—	—	—	—	—
2005121523-21	ACW #12	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	131	—	—	—	—	—	—	—
ACW #13	ACW #13	20-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13D	ACW #13D	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	20-Aug-97	0.3	—	14	0.02	—	—	—	10	—	20	—	79	—	<0.02	160	—	—	—	—
ACW #13	ACW #13	23-Oct-97	0.2	—	14	<0.01	—	—	—	15	—	21	—	84	—	<0.02	170	—	—	—	—
S98-0060	ACW #13	24-Feb-98	—	—	14	—	—	—	—	17	—	21	—	87	—	—	170	—	—	—	—
S98-0190	ACW #13	01-Jun-98	—	—	14	—	—	—	—	10	—	21	—	85	—	—	170	170	—	—	—
S98-0296	ACW #13	11-Aug-98	—	—	14	—	—	—	—	9.4	—	15	—	85	—	—	170	170	<25	<25	170
S98-0476	ACW #13	22-Oct-98	0.37	—	16	0.017	—	—	—	7.5	—	23	—	87	—	<0.05	170	170	<25	<25	190
S99-0085	ACW #13	23-Feb-99	—	—	15	—	—	—	—	7.0	—	23	—	110	—	—	180	180	<25	<25	170
M99-0027	ACW #13	14-May-99	0.17	—	15	0.0084	—	—	—	5.3	—	28	—	86	—	<0.05	170	170	<25	<25	180
M99-0089	ACW #13	11-Aug-99	—	—	16	—	—	—	—	5.0	—	26	—	86	—	—	170	170	<25	<25	190
M99-0205	ACW #13	22-Oct-99	0.23	<0.005	15	0.018	<0.0002	0.0044	<0.02	5.9	—	19	<0.005	89	<0.005	<0.05	160	160	<25	<25	190
M00-0028	ACW #13	23-Feb-00	—	—	14	—	—	—	—	6.3	—	14	—	82	—	—	160	160	<25	<25	170
M00-0096	ACW #13	11-May-00	—	—	16	—	—	—	—	6.6	—	30	—	88	—	—	170	170	<25	<25	190
M00-0198	ACW #13	08-Aug-00	—	—	15	—	—	—	—	5.8	—	<2.0	—	82	—	—	160	160	<25	<25	180
M00-0199	ACW #13D	08-Aug-00	—	—	16	—	—	—	—	6.0	—	37	—	84	—	—	160	160	<25	<25	180
M00-0242	ACW #13	06-Nov-00	0.34	<0.05	19	0.024	<0.0002	—	—	11	<0.1	29	<0.02	210	—	<0.1	170	170	<25	<25	220
M01-0013	ACW #13	20-Feb-01	—	—	16	—	—	—	—	7.5	—	34	—	130	—	—	160	160	<25	<25	190
M01-0159	ACW #13	07-May-01	—	—	6	—	—	—	—	4.6	—	33	—	88	—	—	180	180	<25	<25	180
M01-0406	ACW #13	01-Aug-01	—	—	16	—	—	—	—	6.1	—	29	—	86	—	—	170	170	<25	<25	180
M01-0407	ACW #13D	01-Aug-01	—	—	14	—	—	—	—	6	—	30	—	80	—	—	160	160	<25	<25	160
M01-0490	ACW #13	25-Oct-01	0.17	<0.05	15	0.02	<0.0002	<0.01	<0.04	6	<0.1	34	<0.02	78	<0.005	<0.1	170	170	<25	<25	170
M02-0047	ACW #13	20-Feb-02	—	—	14	—	—	—	—	5.0	—	36	—	78	—	—	160	160	<25	<25	180
M02-0047	ACW #13 R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-24	ACW #13	01-May-02	—	—	18	—	—	—	—	5.0	—	33	—	78	—	—	170	170	<25	<25	200
2	ACW #13	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	80	—	—	—	—	—	—	—
3	ACW #13D	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	83	—	—	—	—	—	—	—
2002110896-23	ACW #13	07-Nov-02	0.21	—	19	<0.010	—	—	—	6.6	—	10	—	96	—	—	180	180	<2.0	<2.0	210
2003030318/T4112-1	ACW #13	28-Mar-03	—	—	—	—	—	—	—	—	—	—	—	57.000	—	—	—	—	—	—	—
2003050551-3	ACW #13	19-May-03	—	—	16.200	—	—	—	—	—	—	—	—	69.800	—	—	182	—	—	—	190
2003080979-3	ACW #13	19-Aug-03	—	—	17.800	—	—	—	—	—	—	—	—	78.600	—	—	193	—	—	—	204
2003101363-20	ACW #13	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	77.400	—	—	—	—	—	—	—
2004020197-6	ACW #13	26-Feb-04	—	—	—	—	—	—	—	—	—	—	—	80.500	—	—	—	—	—	—	—
2004050647-4	ACW #13	12-May-04	—	—	—	—	—	—	—	—	—	—	—	76.500	—	—	—	—	—	—	—
2004081157-4	ACW #13	24-Aug-04	—	—	—	—	—	—	—	—	—	—	—	77.700	—	—	—	—	—	—	—
2004111601-20	ACW #13	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	79.1	—	—	—	—	—	—	—
2005020148-4	ACW #13	14-Feb-05	—	—	—	—	—	—	—	—	—	—	—	78.3	—	—	—	—	—	—	—
2005050586-9	ACW #13	24-May-05	—	—	—	—	—	—	—	—	—	—	—	69.600	—	—	—	—	—	—	—
2005081051-4	ACW #13	22-Aug-05	—	—	—	—	—	—	—	—	—	—	—	84.600	—	—	—	—	—	—	—
2005121523-26	ACW #13	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	82.900	—	—	—	—	—	—	—
2005121523-27	ACW #13D	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	79.200	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #14	ACW #14	20-Feb-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	830	—	570	86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	07-May-97	0.88	1.1	0.52	—	—	—	<1.0	—	—	746	—	480	72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	20-Aug-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	691	7.8	460	80	82	—	0.4	1.6	0.94	—	—	—	—	0.2	—	45	—	—	<0.01
ACW #14	ACW #14	22-Oct-97	<0.5	1.2	<0.5	—	—	—	1.5	—	—	747	8.1	440	71	95	—	0.5	1.5	0.9	—	—	—	—	0.2	—	46	—	—	<0.01
S98-0173	ACW #14	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	0.58 J	—	—	755	8.2	470	40	130	—	0.5	2	1.8	—	—	—	—	—	—	46	—	—	—
S98-0184	ACW #14	13-May-98	0.75	<0.50	<0.50	—	—	—	<1.0	—	—	880	7.9	530	58	110	—	<2	1.7	1.7	—	—	—	—	—	—	47	—	—	—
S98-0293	ACW #14	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	730	7.76	496	160	110	19.2	<5	1.9	2.5	—	—	—	—	—	—	48	—	—	—
S98-0471	ACW #14	21-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	771	7.70	466	71	100	20.2	<2	1.9	1.7	—	—	—	—	0.25	—	52	—	—	0.0026
S99-0080	ACW #14	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	859	7.92	524	88	92	12.2	0.3	1.8	1.9	—	—	—	—	—	—	47	—	—	—
M99-0021	ACW #14	13-May-99	<2	<2	<2	<2	<2	<2	<6	—	<0.25	764	7.89	500	62	100	23.5	0.4	1.6	2.0	—	—	—	—	0.27	—	49	—	—	0.016
M99-0086	ACW #14	09-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	791	7.80	471	58	120	21.3	0.3	1.6	1.8	—	—	—	—	—	—	52	—	—	—
M99-0197	ACW #14	21-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	753	7.79	469	68	100	20.4	0.37	1.8	2.0	—	0.078	0.013	0.046	0.24	<0.002	48	<0.005	<0.005	<0.0025
M00-0023	ACW #14	22-Feb-00	<2	<2	<2	—	—	—	<2	—	—	738	7.65	499	53	97	16.1	<1.0	1.6	2.0	—	—	—	—	—	—	62	—	—	—
M00-0093	ACW #14	10-May-00	<5	<5	<5	—	—	—	<10	—	—	761	7.66	485	61	110	21.2	0.38	1.5	1.8	—	—	—	—	—	—	51	—	—	—
M00-0195	ACW #14	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	750	7.69	439	65	110	25.4	0.27	1.5	1.8	—	—	—	—	—	—	50	—	—	—
M00-0230	ACW #14	01-Nov-00	<2	<2	<2	—	—	—	<4	—	—	1,630	7.78	1,090	420	120	17.1	<2	1.6	1.4	—	—	<0.1	0.068	0.30	<0.01	65	<0.01	—	<0.005
M01-0017	ACW #14	21-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	883	7.78 H	517	100	100	21.7	<2	1.6	2.1	—	—	—	—	—	—	47	—	—	—
M01-0144	ACW #14	03-May-01	<2	<2	<2	—	—	—	<2	<5	—	809	7.66	499	89	100	22.7	1	1.6	3.7	—	—	—	—	—	—	54	—	—	—
M01-0411	ACW #14	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	771	7.90	476	70	110	22.8	0.42	1.6	1.9	—	—	—	—	—	—	45	—	—	—
M01-0482	ACW #14	24-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	761	7.63	449	71	100	20.0	<2	1.8	1.8	—	<0.05	<0.1	0.041	0.22	<0.005	46	<0.01	<0.01	<0.005
M02-0042	ACW #14	19-Feb-02	<2.0	3.1	<2.0	—	—	—	7.1	—	—	759	7.57 H	427	65	87	—	0.38	1.7	1.8	—	—	—	—	—	—	46	—	—	—
M02-0042	ACW #14 R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-18	ACW #14	30-Apr-02	<2.0	<2.0	<2.0	—	—	—	<4.0	—	—	844	7.39 H	505	74	250	—	<1.0	2.9	1.7	—	—	—	—	—	—	57	—	—	—
1	ACW #14	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	749	7.71 H	482	58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-11	ACW #14	04-Nov-02	2.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	840	7.78 H	670	76	150	—	<0.50	1.8	1.9	—	—	0.012	—	0.27	—	60	—	—	—
2002110896-12	ACW #14D	04-Nov-02	1.8	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	830	7.65 H	550	73	150	—	0.61	1.8	2.0	—	—	0.011	—	0.27	—	61	—	—	—
2003030318/T4096-3	ACW #14	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	768	7.7 H	508	55.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-6	ACW #14	20-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	822	7.6 H	570	67.0	—	—	—	—	—	—	—	—	—	—	—	55.600	—	—	—
2003050551-7	ACW #14D	20-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	822	8.0 H	534	71.0	—	—	—	—	—	—	—	—	—	—	—	53.500	—	—	—
2003080979-6	ACW #14	20-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	746	6.96	494	58.7	—	—	—	—	—	—	—	—	—	—	—	53.000	—	—	—
2003080979-7	ACW #14D	20-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	494	62.1	—	—	—	—	—	—	—	—	—	—	—	53.100	—	—	—
2003101363-14	ACW #14	05-Nov-03	1.8 J	<2.0	<2.0	—	—	—	<6.0	—	—	825	7.4	550	67.1	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2004020197-7	ACW #14	26-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	752	7.1	512	52.0	—	18.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2004020197-8	ACW #14D	26-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	500	51.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-5	ACW #14	12-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	786	7.6	490	57.1	—	23.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-5	ACW #14	24-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	747	7.6	520	54.0	—	23.1	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-25	ACW #14	12-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	926	6.7	572	55.0	—	17.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-5	ACW #14	14-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	1,081	7.5	520	54.0	—	20.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-6	ACW #14D	14-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	528	60.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-8	ACW #14	24-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	820	7.1	508	64.0	—	23.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-5	ACW #14	22-Aug-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	846	6.9	526	58.0	—	23.9	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-17	ACW #14	14-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	869	6.9	539	53.0	—	19.6	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0206	ACW #15	23-Oct-99	3.2	5.3	<2	—	—	—	<4	—	—	1,010	8.24	587	180	87	21.2	<2	1.6	0.81	—	0.79	0.0089	0.11	0.21	<0.002	66	0.022	<0.005	0.0039
M00-0026	ACW #15	23-Feb-00	<2	<2	<2	—	—	—	<2	—	—	665	7.71	402	42	84	16.6	<1.0	1.4	1.2	—	—	—	—	—	—	62	—	—	—
M00-0027	ACW #15D	23-Feb-00	<2	<2	<2	—	—	—	<2	—	—	660	7.71	394	42	92	16.6	<20	1.5	1.1	—	—	—	—	—	—	58	—	—	—
M00-0095	ACW #15	11-May-00	<5	<5	<5	—	—	—	<10	—	—	654	7.95	431	49	91	18.4	0.34	1.4	0.86	—	—	—	—	—	—	47	—	—	—
M00-0200	ACW #15	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	605	7.94	340	35	84	25.6	0.25	1.4	0.91	—	—	—	—	—	—	45	—	—	—
M00-0236	ACW #15	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	1,380	7.8	876	360	100	18.4	<20	1.4	0.93	—	—	<0.1	0.064	0.27	<0.01	53	<0.01	—	<0.005
M01-0014	ACW #15	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	725	7.89 H	423	64	78	21.5	0.33	1.3	1	—	—	—	—	—	—	40	—	—	—
M01-0015	ACW #15D	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	727	7.87 H	413	65	81	21.7	0.34	1.3	1	—	—	—	—	—	—	38	—	—	—
M01-0160	ACW #15	07-May-01	<2	<2	<2	<2	<2	<2	<6	<5	—	629	7.81 H	416	52	84	26.0	0.28	1.3	0.99	—	—	—	—	—	—	42	—	—	—
M01-0161	ACW #15D	07-May-01	<2	<2	<2	<2	<2	<2	<6	<5	—	628	7.84 H	396	46	80	25.8	0.31	1.3	1	—	—	—	—	—	—	42	—	—	—
M01-0410	ACW #15	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	627	8.03	397	82	75	22.9	0.39	1.3	0.98	—	—	—	—	—	—	38	—	—	—
M01-0489	ACW #15	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	627	7.86	393	56	85	19.9	<1	1.4	1	—	<0.05	<0.1	0.042	0.22	<0.005	37	<0.01	<0.01	<0.005
M02-0043	ACW #15	19-Feb-02	<2.0	3.4	2.0	—	—	—	11	—	—	629	7.83 H	369	27	79	—	0.31	1.4	0.97	—	—	—	—	—	—	35	—	—	—
M02-0043	ACW #15 R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0044	ACW #15D	19-Feb-02	<2.0	<2.0	<2.0	—	—	—	7.0	—	—	628	8.11 H	355	31	76	—	0.32	1.4	0.81	—	—	—	—	—	—	52	—	—	—
M02-0044	ACW #15D R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
200240220-27	ACW #15	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	670	7.79 H	404	30	110	—	<1	1.4	1.0	—	—	—	—	—	—	42	—	—	—
4	ACW #15	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	777	7.91 H	552	130	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-26	ACW #15	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	640	7.76 H	380	30	110	—	<0.50	1.5	1.3	—	—	0.010	—	0.25	—	47	—	—	—
2002110896-27	ACW #15D	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	620	7.78 H	410	29	110	—	<0.50	1.3	1.3	—	—	0.011	—	0.23	—	46	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #14	ACW #14	20-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	20-Aug-97	0.5	—	15	0.03	—	—	—	5	—	20	—	81	—	0.03	150	—	—	—	—
ACW #14	ACW #14	22-Oct-97	0.3	—	16	0.01	—	—	—	5	—	20	—	81	—	<0.02	180	—	—	—	—
S98-0173	ACW #14	24-Feb-98	—	—	16	—	—	—	—	5	—	22	—	87	—	—	180	—	—	—	—
S98-0184	ACW #14	13-May-98	—	—	18	—	—	—	—	6	—	24	—	97	—	—	170	170	—	—	—
S98-0293	ACW #14	11-Aug-98	—	—	16	—	—	—	—	5.5	—	25	—	90	—	—	170	170	<25	<25	190
S98-0471	ACW #14	21-Oct-98	0.20	—	19	0.014	—	—	—	6.2	—	25	—	97	—	<0.05	170	170	<25	<25	210
S99-0080	ACW #14	23-Feb-99	—	—	17	—	—	—	—	6.0	—	25	—	110	—	—	180	180	<25	<25	190
M99-0021	ACW #14	13-May-99	0.17	—	18	0.011	—	—	—	5.7	—	28	—	95	—	<0.05	170	170	<25	<25	200
M99-0086	ACW #14	09-Aug-99	—	—	19	—	—	—	—	5.3	—	24	—	91	—	—	170	170	<25	<25	210
M99-0197	ACW #14	21-Oct-99	0.21	<0.005	18	0.012	<0.0002	<0.005	<0.02	5.8	—	21	<0.005	98	0.0062	<0.05	170	170	<25	<25	200
M00-0023	ACW #14	22-Feb-00	—	—	22	—	—	—	—	5.4	—	46	—	97	—	—	160	160	<25	<25	250
M00-0093	ACW #14	10-May-00	—	—	19	—	—	—	—	6.6	—	34	—	110	—	—	170	170	<25	<25	200
M00-0195	ACW #14	07-Aug-00	—	—	18	—	—	—	—	6.0	—	39	—	95	—	—	170	170	<25	<25	200
M00-0230	ACW #14	01-Nov-00	0.27	<0.05	23	0.037	<0.0002	—	—	14	<0.1	25	<0.02	300	—	<0.1	170	170	<25	<25	260
M01-0017	ACW #14	21-Feb-01	—	—	18	—	—	—	—	7.2	—	33	—	110	—	—	170	170	<25	<25	190
M01-0144	ACW #14	03-May-01	—	—	20	—	—	—	—	6.8	—	35	—	100	—	—	160	160	<25	<25	220
M01-0411	ACW #14	02-Aug-01	—	—	17	—	—	—	—	5.8	—	35	—	89	—	—	160	160	<25	<25	180
M01-0482	ACW #14	24-Oct-01	0.26	<0.05	16	0.012	<0.0002	<0.01	<0.04	6.0	<0.1	34	<0.02	82	0.0085	<0.1	160	160	<25	<25	190
M02-0042	ACW #14	19-Feb-02	—	—	16	—	—	—	—	5.9	—	9.8	—	82	—	—	170	170	<25	<25	180
M02-0042	ACW #14 R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-18	ACW #14	30-Apr-02	—	—	21	—	—	—	—	6.3	—	31	—	90	—	—	180	180	<25	<25	230
1	ACW #14	25-Sep-02	—	—	—	—	—	—	—	—	—		—	81	—	—	—	—	—	—	—
2002110896-11	ACW #14	04-Nov-02	0.38	—	22	0.018	—	—	—	7.6	—	50	—	97	—	—	180	180	<2.0	<2.0	240
2002110896-12	ACW #14D	04-Nov-02	0.40	—	23	0.018	—	—	—	7.7	—	51	—	99	—	—	180	180	<2.0	<2.0	240
2003030318/T4096-3	ACW #14	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	62.200	—	—	—	—	—	—	—
2003050551-6	ACW #14	20-May-03	—	—	20.800	—	—	—	—	—	—	—	—	77.800	—	—	186	—	—	—	224
2003050551-7	ACW #14D	20-May-03	—	—	20.100	—	—	—	—	—	—	—	—	75.600	—	—	195	—	—	—	216
2003080979-6	ACW #14	20-Aug-03	—	—	20.300	—	—	—	—	—	—	—	—	88.400	—	—	197	—	—	—	216
2003080979-7	ACW #14D	20-Aug-03	—	—	20.300	—	—	—	—	—	—	—	—	88.900	—	—	198	—	—	—	216
2003101363-14	ACW #14	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	87.500	—	—	—	—	—	—	—
2004020197-7	ACW #14	26-Feb-04	—	—	—	—	—	—	—	—	—	—	—	89.800	—	—	—	—	—	—	—
2004020197-8	ACW #14D	26-Feb-04	—	—	—	—	—	—	—	—	—	—	—	89.100	—	—	—	—	—	—	—
2004050647-5	ACW #14	12-May-04	—	—	—	—	—	—	—	—	—	—	—	87.300	—	—	—	—	—	—	—
2004081157-5	ACW #14	24-Aug-04	—	—	—	—	—	—	—	—	—	—	—	85.500	—	—	—	—	—	—	—
2004111601-25	ACW #14	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	88.7	—	—	—	—	—	—	—
2005020148-5	ACW #14	14-Feb-05	—	—	—	—	—	—	—	—	—	—	—	88.0	—	—	—	—	—	—	—
2005020148-6	ACW #14D	14-Feb-05	—	—	—	—	—	—	—	—	—	—	—	82.9	—	—	—	—	—	—	—
2005050586-8	ACW #14	24-May-05	—	—	—	—	—	—	—	—	—	—	—	82.000	—	—	—	—	—	—	—
2005081051-5	ACW #14	22-Aug-05	—	—	—	—	—	—	—	—	—	—	—	87.400	—	—	—	—	—	—	—
2005121523-17	ACW #14	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	92.100	—	—	—	—	—	—	—
M99-0206	ACW #15	23-Oct-99	0.75	<0.005	20	0.051	<0.0002	0.040	<0.02	28	—	30	<0.005	130	<0.0005	0.096	130	130	<25	<25	250
M00-0026	ACW #15	23-Feb-00	—	—	15	—	—	—	—	5.7	—	27	—	81	—	—	170	170	<25	<25	220
M00-0027	ACW #15D	23-Feb-00	—	—	15	—	—	—	—	5.8	—	24	—	82	—	—	180	180	<25	<25	210
M00-0095	ACW #15	11-May-00	—	—	14	—	—	—	—	4.9	—	29	—	76	—	—	170	170	<25	<25	170
M00-0200	ACW #15	08-Aug-00	—	—	14	—	—	—	—	9.1	—	34	—	77	—	—	170	170	<25	<25	160
M00-0236	ACW #15	02-Nov-00	0.22	<0.05	18	0.026	<0.0002	—	—	16	<0.1	27	<0.02	250	—	<0.1	180	180	<25	<25	210
M01-0014	ACW #15	20-Feb-01	—	—	14	—	—	—	—	8.6	—	31	—	100	—	—	160	160	<25	<25	160
M01-0015	ACW #15D	20-Feb-01	—	—	13	—	—	—	—	7.5	—	31	—	96	—	—	180	180	<25	<25	150
M01-0160	ACW #15	07-May-01	—	—	14	—	—	—	—	5.8	—	32	—	80	—	—	180	180	<25	<25	160
M01-0161	ACW #15D	07-May-01	—	—	14	—	—	—	—	6.2	—	32	—	81	—	—	180	180	<25	<25	160
M01-0410	ACW #15	02-Aug-01	—	—	13	—	—	—	—	9.2	—	35	—	76	—	—	170	170	<25	<25	150
M01-0489	ACW #15	25-Oct-01	0.17	<0.05	13	0.0073	0.0003	<0.01	<0.04	72	<0.1	34	<0.02	72	<0.005	<0.1	170	170	<25	<25	150
M02-0043	ACW #15	19-Feb-02	—	—	12	—	—	—	—	18	—	18	—	74	—	—	170	170	<25	<25	140
M02-0043	ACW #15 R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0044	ACW #15D	19-Feb-02	—	—	15	—	—	—	—	9.6	—	18	—	49	—	—	160	160	<25	<25	190
M02-0044	ACW #15D R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
200240220-27	ACW #15	02-May-02	—	—	15	—	—	—	—	5.8	—	33	—	77	—	—	180	180	<25	<25	170
4	ACW #15	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	72	—	—	—	—	—	—	—
2002110896-26	ACW #15	08-Nov-02	0.16	—	16	<0.010	—	—	—	6.1	—	50	—	85	—	—	190	190	<2.0	<2.0	180
2002110896-27	ACW #15D	08-Nov-02	0.15	—	15	<0.010	—	—	—	5.9	—	53	—	81	—	—	180	180	<2.0	<2.0	180

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
2003030318/T4112-2	ACW #15	28-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	700	8.0 H	472	31.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-5	ACW #15	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	651	7.7 H	442	30.0	—	—	—	—	—	—	—	—	—	—	—	45.300	—	—	—
2003080979-4	ACW #15	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	650	6.99	438	29.1	—	—	—	—	—	—	—	—	—	—	—	44.600	—	—	—
2003101363-26	ACW #15	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	644	7.0	436	26.1	—	16.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2004020197-5	ACW #15	26-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	600	6.7	410	27.0	—	18.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-3	ACW #15	12-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	655	7.0	436	27.1	—	22.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-3	ACW #15	24-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	587	7.2	382	26.0	—	22.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-24	ACW #15	11-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	760	7.3	468	29.0	—	21.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-3	ACW #15	14-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	937	7.0	444	30.0	—	18.9	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-10	ACW #15	24-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	655	7.3	513	61.0	—	23.9	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-11	ACW #15D	24-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	458	34.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-3	ACW #15	22-Aug-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	743	6.9	456	31.0	—	24.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-22	ACW #15	14-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	754	7.1	452	32.0	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0241	RW #1	03-Nov-00	130	40	73	—	—	—	120	—	—	62,000	8.3	43,900	32,000	790	19.3	<200	6.0	0.10	—	—	0.82	0.47	2.4	<0.05	760	<0.05	—	<0.025
2004111601-5	RW #1	09-Nov-04	114 R	24.1	70.3	—	—	—	62.1	—	—	67,670	8.2	39,900	23,700	—	20.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-33	RW #1	15-Dec-05	136	20.7	90.5	—	—	—	91.8	—	—	48,800	8.5	32,600	13,600	—	16.9	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0239	RW #2	03-Nov-00	<5	<5	<5	—	—	—	<10	—	—	7,340	6.8	5,660	2,800	240	19.3	<20	0.44	0.11	—	—	<0.1	0.18	<0.1	<0.01	610	0.012	—	<0.005
M01-0485	RW #2	25-Oct-01	—	—	—	—	—	—	—	—	—	8,380	—	5,050	2,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-22	RW #2	06-Nov-02	1.5	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	8,700	6.78 H	5,800	3,500	260	—	2.0	<0.40	<0.20	—	—	0.014	—	0.65	—	730	—	—	—
2004111601-16	RW #2	10-Nov-04	2.1	0.48 J	<1.0	—	—	—	<2.0	—	—	5,870	6.4	7,000	2,850	—	21.3	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-18	RW #2	14-Dec-05	1.9 J	<2.0	<2.0	—	—	—	<6.0	—	—	8,450	6.4	5,060	2,280	—	16.2	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #1	ENSR #1	07-May-97	7.3	3.7	2.4	—	—	—	2	—	—	8,620	—	5,200	3,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #1	ENSR #1	21-Oct-97	13	6.3	4.2	—	—	—	5.6	—	—	13,800	—	7,600	4,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0172	ENSR #1	12-May-98	13	4.6	4.0	—	—	—	4.4	—	—	12,000	—	6,700	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0457	ENSR #1	20-Oct-98	—	—	—	—	—	—	—	—	—	12,400	—	7,590	4,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0004	ENSR #1	11-May-99	—	—	—	—	—	—	—	—	—	14,700	—	8,450	5,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0188	ENSR #1	20-Oct-99	—	—	—	—	—	—	—	—	—	12,400	—	6,290	4,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0082	ENSR #1	09-May-00	—	—	—	—	—	—	—	—	—	12,800	—	7,420	6,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0220	ENSR #1	27-Oct-00	—	—	—	—	—	—	—	—	—	10,200	—	6,690	3,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0221	ENSR #1D	27-Oct-00	—	—	—	—	—	—	—	—	—	10,600	—	7,140	4,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0141	ENSR #1	02-May-01	—	—	—	—	—	—	—	—	—	19,200	—	10,200	7,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0470	ENSR #1	23-Oct-01	—	—	—	—	—	—	—	—	—	15,300	—	8,050	5,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0471	ENSR #1D	23-Oct-01	—	—	—	—	—	—	—	—	—	11,400	—	6,070	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-04	ENSR #1	29-Apr-02	—	—	—	—	—	—	—	—	—	9,480	—	4,770	3,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-7	ENSR #1	04-Nov-02	18	<10	<10	<20		<10	<30	—	—	12,000	7.28 H	7,600	4,500	34	20.8	1.0	3.0	0.25 H	—	—	0.046	—	0.76	—	140	—	—	—
2003101363-13	ENSR #1	04-Nov-03	13.1	1.2 J	3.1	—	—	—	3.1 J	—	—	6,510	7.1	2,260	2,600	—	21.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-11	ENSR #1	10-Nov-04	10.8	1.1	2.8	—	—	—	2.0	—	—	5,800	7.1	3,900	1,920	—	20.1	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-12	ENSR #1D	10-Nov-04	11.4 R	1.3	2.4	—	—	—	1.7 J	—	—	—	—	3,150	1,420	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-9	ENSR #1	13-Dec-05	9.9	<2.0	2.2	—	—	—	<6.0	—	—	5,530	7.2	2,740	1,120	—	19.1	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #2	ENSR #2	06-May-97	250	230	110	—	—	—	190	—	—	50,000	—	27,000	17,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #2	ENSR #2	20-Oct-97	130	160	77	—	—	—	120	—	—	57,900	—	30,000	17,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0169	ENSR #2	12-May-98	—	—	—	—	—	—	—	—	—	38,000	—	21,000	13,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0453	ENSR #2	19-Oct-98	—	—	—	—	—	—	—	—	—	44,800	—	30,000	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0009	ENSR #2	11-May-99	—	—	—	—	—	—	—	—	—	49,100	—	31,200	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0183	ENSR #2	19-Oct-99	—	—	—	—	—	—	—	—	—	28,900	—	16,600	9,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0080	ENSR #2	09-May-00	—	—	—	—	—	—	—	—	—	42,900	—	26,700	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0495	ENSR #2	29-Oct-01	—	—	—	—	—	—	—	—	—	42,000	—	25,100	13,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-6	ENSR #2	09-Nov-04	72.1 R	28.4	18.1	—	—	—	93.8	—	—	35,500	9.1	22,500	12,900	—	21.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-23	ENSR #2	14-Dec-05	49.4	53.4	21.5	—	—	—	32.9	—	—	34,400	9.3	20,600	10,400	—	18.1	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3	ENSR #3	07-May-97	7.6	3.3	2.9	—	—	—	3	—	—	2,050	—	1,500	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3D	ENSR #3D	07-May-97	6.8	3.1	2.8	—	—	—	2.9	—	—	1,990	—	1,400	480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3	ENSR #3	21-Oct-97	5	2.5	3	—	—	—	4.1	—	—	2,230	—	1,300	580	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0175	ENSR #3	12-May-98	9.5	3.4	1.9	—	—	—	2.7	—	—	2,400	—	1,400	610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0176	ENSR #3D	12-May-98	14	4.4	2.3	—	—	—	4.4	—	—	2,200	—	1,300	550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0461	ENSR #3	20-Oct-98	—	—	—	—	—	—	—	—	—	2,260	—	1,580	590	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0462	ENSR #3D	20-Oct-98	—	—	—	—	—	—	—	—	—	2,240	—	1,290	540	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0006	ENSR #3	11-May-99	—	—	—	—	—	—	—	—	—	2,490	—	1,370	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0007	ENSR #3D	11-May-99	—	—	—	—	—	—	—	—	—	2,480	—	1,380	610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0189	ENSR #3	20-Oct-99	—	—	—	—	—	—	—	—	—	2,390	—	1,630	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0190	ENSR #3D	20-Oct-99	—	—	—	—	—	—	—	—	—	2,390	—	1,560	590	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0083	ENSR #3	09-May-00	—	—	—	—	—	—	—	—	—	2,360	—	1,580	710	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0084	ENSR #3D	09-May-00	—	—	—	—	—	—	—	—	—	2,410	—	1,580	710	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0222	ENSR #3	27-Oct-00	—	—	—	—	—	—	—	—	—	2,410	—	1,870	640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
2003030318/T4112-2	ACW #15	28-Mar-03	—	—	—	—	—	—	—	—	—	—	—	55.200	—	—	—	—	—	—	—
2003050551-5	ACW #15	19-May-03	—	—	16.300	—	—	—	—	—	—	—	—	66.000	—	—	182	—	—	—	180
2003080979-4	ACW #15	19-Aug-03	—	—	16.500	—	—	—	—	—	—	—	—	77.000	—	—	196	—	—	—	179
2003101363-26	ACW #15	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	71.000	—	—	—	—	—	—	—
2004020197-5	ACW #15	26-Feb-04	—	—	—	—	—	—	—	—	—	—	—	74.500	—	—	—	—	—	—	—
2004050647-3	ACW #15	12-May-04	—	—	—	—	—	—	—	—	—	—	—	70.700	—	—	—	—	—	—	—
2004081157-3	ACW #15	24-Aug-04	—	—	—	—	—	—	—	—	—	—	—	73.700	—	—	—	—	—	—	—
2004111601-24	ACW #15	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	73.5	—	—	—	—	—	—	—
2005020148-3	ACW #15	14-Feb-05	—	—	—	—	—	—	—	—	—	—	—	71.2	—	—	—	—	—	—	—
2005050586-10	ACW #15	24-May-05	—	—	—	—	—	—	—	—	—	—	—	78.800	—	—	—	—	—	—	—
2005050586-11	ACW #15D	24-May-05	—	—	—	—	—	—	—	—	—	—	—	72.100	—	—	—	—	—	—	—
2005081051-3	ACW #15	22-Aug-05	—	—	—	—	—	—	—	—	—	—	—	75.300	—	—	—	—	—	—	—
2005121523-22	ACW #15	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	74.100	—	—	—	—	—	—	—
M00-0241	RW #1	03-Nov-00	<0.5	<0.25	330	2.5	0.0029	—	—	100	<0.5	19	<0.1	22,000	—	<0.5	1,500	1,500	25	<25	3,200
2004111601-5	RW #1	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	12,400	—	—	—	—	—	—	—
2005121523-33	RW #1	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	11,500	—	—	—	—	—	—	—
M00-0239	RW #2	03-Nov-00	0.12	<0.05	190	0.83	<0.0002	—	—	15	<0.1	39	<0.02	680	—	<0.1	470	470	<25	<25	2,300
M01-0485	RW #2	25-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-22	RW #2	06-Nov-02	0.45	—	210	0.82	—	—	—	27	—	58	—	1,400	—	—	490	490	<2.0	<2.0	2,600
2004111601-16	RW #2	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	1,220	—	—	—	—	—	—	—
2005121523-18	RW #2	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	1,100	—	—	—	—	—	—	—
ENSR #1	ENSR #1	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #1	ENSR #1	21-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0172	ENSR #1	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0457	ENSR #1	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0004	ENSR #1	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0188	ENSR #1	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0082	ENSR #1	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0220	ENSR #1	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0221	ENSR #1D	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0141	ENSR #1	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0470	ENSR #1	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0471	ENSR #1D	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-04	ENSR #1	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-7	ENSR #1	04-Nov-02	4.8	—	58	0.54	—	—	—	28	—	58	—	1,900	—	—	610	610	<2.0	<2.0	600
2003101363-13	ENSR #1	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	2,710	—	—	—	—	—	—	—
2004111601-11	ENSR #1	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	881	—	—	—	—	—	—	—
2004111601-12	ENSR #1D	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	823	—	—	—	—	—	—	—
2005121523-9	ENSR #1	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	969	—	—	—	—	—	—	—
ENSR #2	ENSR #2	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #2	ENSR #2	20-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0169	ENSR #2	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0453	ENSR #2	19-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0009	ENSR #2	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0183	ENSR #2	19-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0080	ENSR #2	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0495	ENSR #2	29-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-6	ENSR #2	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	7,840	—	—	—	—	—	—	—
2005121523-23	ENSR #2	14-Dec-05	—	—	—	—	—	—	—	—	—	—	—	7,810	—	—	—	—	—	—	—
ENSR #3	ENSR #3	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3D	ENSR #3D	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3	ENSR #3	21-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0175	ENSR #3	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0176	ENSR #3D	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0461	ENSR #3	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0462	ENSR #3D	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0006	ENSR #3	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0007	ENSR #3D	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0189	ENSR #3	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0190	ENSR #3D	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0083	ENSR #3	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0084	ENSR #3D	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0222	ENSR #3	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M01-0138	ENSR #3	02-May-01	—	—	—	—	—	—	—	—	—	2,480	—	1,240	610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0139	ENSR #3D	02-May-01	—	—	—	—	—	—	—	—	—	2,490	—	1,270	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0472	ENSR #3	23-Oct-01	—	—	—	—	—	—	—	—	—	2,480	—	1,300	620	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-05	ENSR #3	29-Apr-02	—	—	—	—	—	—	—	—	—	2,500	—	1,350	580	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-06	ENSR #3D	29-Apr-02	—	—	—	—	—	—	—	—	—	2,370	—	1,390	490	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-8	ENSR #3	04-Nov-02	7.1	<5.0	22	25		<5.0	25	—	—	2,100	7.09 H	1,400	520	45	—	2.3	1.2	H	—	—	0.016	—	0.55	—	200	—	—	—
2003101363-6	ENSR #3	03-Nov-03	9.3	<2.0	11.2	—	—	—	11.4	—	—	2,020	6.7	1,460	471	—	22.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-13	ENSR #3	10-Nov-04	12.0	0.42 J	3.8	—	—	—	3.4	—	—	2,310	6.6	1,810	561	—	20	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-2	ENSR #3	23-May-05	13.0	<2.0	2.4	—	—	—	<6.0	—	—	2,330	6.6	1,510	523	—	23.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-7	ENSR #3	12-Dec-05	11.6	<2.0	3.2	—	—	—	2.7 J	—	—	2,450	6.4	1,240	564	—	20.1	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-8	ENSR #3D	12-Dec-05	11.9	<2.0	3.3	—	—	—	2.7 J	—	—	—	—	1,240	558	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0063	Oxy Production Well	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	802	8.1	480	120	68	—	0.7	1.3	0.9	—	—	—	—	—	—	60	—	—	—
S98-0186	Oxy Production Well	13-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	800	7.8	480	120	61	—	<2	1.1	0.93	—	—	—	—	—	—	66	—	—	—
S98-0299	Oxy Production Well	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	762	7.78	604	120	58	20.2	<1	<0.4	0.85/<0.05	3.7	—	—	—	—	—	72	—	—	—
S98-0465	Oxy Production Well	20-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	734	7.79	488	100	55	17.3	<2	1.1	0.76	—	—	—	—	—	—	—	—	—	—
S99-0082	Oxy Production Well	23-Feb-99	<2	<2	<2	—	—	—	<2	—	—	810	7.99	407	120	45	14.5	0.5	1.0	0.71	—	—	—	—	—	—	80	—	—	—
M99-0025	Oxy Production Well	13-May-99	<2	<2	<2	—	—	—	<2	—	—	808	7.91	468	120	59	23.6	0.6	0.96	0.27	—	—	—	—	0.20	—	74	—	—	<0.0025
M99-0093	Oxy Production Well	11-Aug-99	<2	<2	<2	—	—	—	<2	—	—	831	7.67	466	140	59	20.5	0.5	1.0	0.78	—	—	—	—	—	—	75	—	—	—
M99-0203	Oxy Production Well	22-Oct-99	<2	<2	<2	—	—	—	<4	—	—	788	7.86	490	130	56	19.2	0.53	1.0	0.41	—	<0.025	0.011	0.10	0.18	—	72	<0.005	<0.005	0.022
M00-0025	Oxy Production Well	23-Feb-00	<2	<2	<2	<2.0	<2.0	<2.0	<6.0	—	—	630	7.85	392	38	77	17.6	<1.0	1.1	1.2	—	—	—	—	—	—	48	—	—	—
M00-0097	Oxy Production Well	11-May-00	<5	<5	<5	—	—	—	<10	—	—	835	7.96	504	120	63	19.6	0.50	0.99	0.84	—	—	—	—	—	—	71	—	—	—
M00-0196	Oxy Production Well	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	802	7.96	433	120	59	25.9	0.44	0.99	0.71	—	—	—	—	—	—	74	—	—	—
M00-0235	Oxy Production Well	02-Nov-00	<2	<2	<2	—	—	—	<4	—	—	662	7.8	475	120	60	18.6	<2	1.1	0.70	—	—	<0.1	0.095	0.21	<0.01	76	<0.01	—	<0.005
M01-0016	Oxy Production Well	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	805	7.83 H	442	130	52	22.6	0.57	0.99	0.70	—	—	—	—	—	—	67	—	—	—
M01-0165	Oxy Production Well	07-May-01	<2	<2	<2	—	—	—	<2	<5	—	781	7.7 H	481	140	58	24.9	0.61	1.0	0.82	—	—	—	—	—	—	69	—	—	—
M01-0408	Oxy Production Well	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	<5	—	807	7.7	532	120	57	22.5	<2	1.0	1.0	—	—	—	—	—	—	68	—	—	—
M01-0488	Oxy Production Well	25-Oct-01	<2	<2	<2	—	—	—	<2	—	—	822	7.69	500	120	62	20.3	1.1	1.1	0.9	—	<0.05	<0.1	0.095	0.18	<0.005	67	<0.01	<0.01	<0.005
5	Oxy Production Well	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	827	7.41 H	552	34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-18	Oxy Production Well	06-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	820	7.58 H	580	140	65	—	0.57	1.0	0.73	—	—	0.0085	—	0.18	—	69	—	—	—
2003030318/T4096-4	Oxy Supply	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	870	7.6 H	556	162	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-4	Oxy Supply	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	863	7.5 H	544	190	—	—	—	—	—	—	—	—	—	—	—	64.600	—	—	—
2003080979-5	Oxy Supply	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	786	6.86	500	126	—	—	—	—	—	—	—	—	—	—	—	71.200	—	—	—
2003101363-7	Oxy Supply	03-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	822	7.2	572	154	—	22.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2004020197-1	Oxy Supply	25-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	830	6.5	548	136	—	18.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-6	Oxy Supply	13-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	851	7.0	922	157	—	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-7	Oxy Supply-D	13-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	568	162	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-6	Oxy Supply	25-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	849	7.1	654	193	—	23.9	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-7	Oxy Supply-D	25-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	650	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-23	Oxy Supply	11-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	984	7.3	588	135	—	19.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-7	Oxy Supply	15-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	1,226	6.9	397	29.0	—	19.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-12	Oxy Supply	25-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	935	7.0	611	147	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-8	Oxy Supply	23-Aug-05	<2.0 H	<2.0 H	<2.0 H	—	—	—	<6.0 H	—	—	1,190	6.9	650	217	—	24.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-31	Oxy Supply	15-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	1,238	7.0	696	228	—	15.2	—	—	—	—	—	—	—	—	—	—	—	—	—
Production Well #1	Production Well #1	08-May-97	0.56	0.55	<0.5	—	—	—	<1.0	—	—	718	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Production Well #1	Production Well #1	23-Oct-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	890	—	470	91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0193	Production Well #1	14-May-98	—	—	—	—	—	—	—	—	—	850	—	500	67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0194	Production Well #1D	14-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	860	—	520	67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0479	Production Well #1	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	994	—	659	56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0030	Production Well #1	14-May-99	—	—	—	—	—	—	—	—	—	846	—	469	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0210	Production Well #1	23-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	891	—	540	2.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0224	Production Well #1	27-Oct-00	—	—	—	—	—	—	—	—	—	850	—	603	94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0496	Production Well #1	29-Oct-01	—	—	—	—	—	—	—	—	—	890	—	523	65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-30	EPNG #1	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	940	7.20 H	600	60	130	—	<0.50	1.3	1.5	—	—	0.010	—	0.24	—	98	—	—	—
2003101363-27	EPNG #1	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	733	6.8	600	62.0	—	16.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-30	EPNG #1	12-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	963	7.1	516	68.0	—	17.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-28	EPNG #1	15-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	1,103	6.8	674	52.0	—	18	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M01-0138	ENSR #3	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0139	ENSR #3D	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0472	ENSR #3	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-05	ENSR #3	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-06	ENSR #3D	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-8	ENSR #3	04-Nov-02	4.0	—	65	0.84	—	—	—	9.0	—	56	—	190	—	—	360	360	<2.0	<2.0	760
2003101363-6	ENSR #3	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	174	—	—	—	—	—	—	—
2004111601-13	ENSR #3	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	168	—	—	—	—	—	—	—
2005050586-2	ENSR #3	23-May-05	—	—	—	—	—	—	—	—	—	—	—	180.1	—	—	—	—	—	—	—
2005121523-7	ENSR #3	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	191	—	—	—	—	—	—	—
2005121523-8	ENSR #3D	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	176	—	—	—	—	—	—	—
S98-0063	Oxy Production Well	24-Feb-98	—	—	18	—	—	—	—	4	—	24	—	60	—	—	160	—	—	—	—
S98-0186	Oxy Production Well	13-May-98	—	—	20	—	—	—	—	5	—	27	—	65	—	—	150	150	—	—	—
S98-0299	Oxy Production Well	11-Aug-98	—	—	20	—	—	—	—	5.0	—	28	—	67	—	—	150	150	<25	<25	260
S98-0465	Oxy Production Well	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	160	160	<25	<25	240
S99-0082	Oxy Production Well	23-Feb-99	—	—	24	—	—	—	—	6.2	—	24	—	82	—	—	160	160	<25	<25	300
M99-0025	Oxy Production Well	13-May-99	0.74	—	22	0.015	—	—	—	5.1	—	32	—	71	—	0.28	150	150	<25	<25	280
M99-0093	Oxy Production Well	11-Aug-99	—	—	22.0	—	—	—	—	4.7	—	27	—	72	—	—	140	140	<25	<25	280
M99-0203	Oxy Production Well	22-Oct-99	2.8	0.0057	21	0.078	<0.0002	0.0049	<0.02	4.8	—	21	<0.005	73	<0.005	0.50	140	140	<25	<25	270
M00-0025	Oxy Production Well	23-Feb-00	—	—	16	—	—	—	—	4.1	—	23	—	71	—	—	190	190	<25	<25	180
M00-0097	Oxy Production Well	11-May-00	—	—	21	—	—	—	—	5.0	—	35	—	72	—	—	150	150	<25	<25	260
M00-0196	Oxy Production Well	07-Aug-00	—	—	21	—	—	—	—	5.2	—	48	—	68	—	—	150	150	<25	<25	260
M00-0235	Oxy Production Well	02-Nov-00	0.93	<0.05	22	0.019	<0.0002	—	—	5.8	<0.1	31	<0.02	71	—	0.32	150	150	<25	<25	280
M01-0016	Oxy Production Well	20-Feb-01	—	—	20	—	—	—	—	5.8	—	33	—	68	—	—	140	140	<25	<25	250
M01-0165	Oxy Production Well	07-May-01	—	—	20	—	—	—	—	4.8	—	34	—	65	—	—	160	160	<25	<25	250
M01-0408	Oxy Production Well	01-Aug-01	—	—	21	—	—	—	—	4.3	—	32	—	66	—	—	150	150	<25	<25	260
M01-0488	Oxy Production Well	25-Oct-01	0.31	<0.05	20	0.0088	<0.0002	<0.01	<0.04	5.1	<0.1	47	<0.02	64	<0.005	0.21	140	140	<25	<25	250
5	Oxy Production Well	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	60	—	—	—	—	—	—	—
2002110896-18	Oxy Production Well	06-Nov-02	2.2	—	21	0.086	—	—	—	5.7	—	40	—	73	—	—	150	150	<2.0	<2.0	260
2003030318/T4096-4	Oxy Supply	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	52.700	—	—	—	—	—	—	—
2003050551-4	Oxy Supply	19-May-03	—	—	18.600	—	—	—	—	—	—	—	—	61.400	—	—	148	—	—	—	238
2003080979-5	Oxy Supply	19-Aug-03	—	—	21.100	—	—	—	—	—	—	—	—	64.200	—	—	173	—	—	—	265
2003101363-7	Oxy Supply	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	61.800	—	—	—	—	—	—	—
2004020197-1	Oxy Supply	25-Feb-04	—	—	—	—	—	—	—	—	—	—	—	69.800	—	—	—	—	—	—	—
2004050647-6	Oxy Supply	13-May-04	—	—	—	—	—	—	—	—	—	—	—	70.000	—	—	—	—	—	—	—
2004050647-7	Oxy Supply-D	13-May-04	—	—	—	—	—	—	—	—	—	—	—	66.600	—	—	—	—	—	—	—
2004081157-6	Oxy Supply	25-Aug-04	—	—	—	—	—	—	—	—	—	—	—	71.800	—	—	—	—	—	—	—
2004081157-7	Oxy Supply-D	25-Aug-04	—	—	—	—	—	—	—	—	—	—	—	73.300	—	—	—	—	—	—	—
2004111601-23	Oxy Supply	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	65.6	—	—	—	—	—	—	—
2005020148-7	Oxy Supply	15-Feb-05	—	—	—	—	—	—	—	—	—	—	—	64.2	—	—	—	—	—	—	—
2005050586-12	Oxy Supply	25-May-05	—	—	—	—	—	—	—	—	—	—	—	63.1	—	—	—	—	—	—	—
2005081051-8	Oxy Supply	23-Aug-05	—	—	—	—	—	—	—	—	—	—	—	83.600	—	—	—	—	—	—	—
2005121523-31	Oxy Supply	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	85.300	—	—	—	—	—	—	—
Production Well #1	Production Well #1	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Production Well #1	Production Well #1	23-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0193	Production Well #1	14-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0194	Production Well #1D	14-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0479	Production Well #1	22-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0030	Production Well #1	14-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0210	Production Well #1	23-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0224	Production Well #1	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0496	Production Well #1	29-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-30	EPNG #1	08-Nov-02	2.8	—	30	0.12	—	—	—	8.4	—	57	—	91	—	—	330	330	<2.0	<2.0	370
2003101363-27	EPNG #1	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	80.900	—	—	—	—	—	—	—
2004111601-30	EPNG #1	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	87.7	—	—	—	—	—	—	—
2005121523-28	EPNG #1	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	62.400	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
S98-0057	Production Well Dooms	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	634	8.1	410	38	85	—	0.3	1.1	1.2	—	—	—	—	—	—	46	—	—	—
S98-0180	Production Well Dooms	13-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	640	7.8	410	30	81	—	<2	1.2	1.2	—	—	—	—	—	—	—	—	—	—
S98-0292	Production Well Dooms	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	629	7.76	450	34	83	20.2	<1	<0.4	1.2/<0.05	5.3	—	—	—	—	—	53	—	—	—
S98-0464	Production Well Dooms	20-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	636	7.71	464	35	80	18.0	<2	1.0	1.2	—	—	—	—	0.22	—	52	—	—	<0.0025
S99-0081	Production Well Dooms	23-Feb-99	<2	<2	<2	—	—	—	<2	—	—	627	7.86	364	31	73	14.9	0.3	0.89	0.89	—	—	—	—		—	48	—	—	—
M99-0018	Production Well Dooms	13-May-99	<2	<2	<2	—	—	—	<2	—	—	630	7.76	381	34	80	23.6	0.4	0.84	0.62	—	—	—	—	0.24	—	51	—	—	<0.0025
M99-0092	Production Well Dooms	11-Aug-99	<2	<2	<2	—	—	—	<2	—	—	629	7.69	372	30	79	19.8	0.2	0.83	1.1	—	—	—	—	—	—	51	—	—	—
M99-0193	Production Well Dooms	21-Oct-99	<2	<2	<2	—	—	—	<4	—	—	617	7.74	400	32	74	19.2	0.29	0.86	1.1	—	0.042	0.0096	0.047	0.23	<0.002	51	<0.005	<0.005	0.0021
M00-0022	Production Well Dooms	23-Feb-00	<2	<2	<2	<2.0	<2.0	<2.0	<6.0	—	—	814	7.92	506	130	54	17.4	0.58	1.1	0.72	—	—	—	—	—	—	68	—	—	—
M00-0094	Production Well Dooms	10-May-00	<5	<5	<5	—	—	—	<10	—	—	619	7.69	417	31	77	21.3	0.27	0.82	1.2	—	—	—	—	—	—	44	—	—	—
M00-0204	Production Well Dooms	14-Aug-00	<5	<5	<5	—	—	—	<10	—	—	597	7.72	400	28	75	27.2	<0.2	0.93	1.2	—	—	—	—	—	—	50	—	—	—
M00-0233	Production Well Dooms	02-Nov-00	<2	<2	<2	—	—	—	<4	—	—	530	7.8	375	32	79	18.4	<2	1.0	0.95	—	—	<0.1	0.045	0.25	<0.01	53	<0.01	—	0.037
M01-0010	Production Well Dooms	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	619	7.75 H	372	33	66	23.0	0.35	0.85	1.1	—	—	—	—	—	—	46	—	—	—
M01-0143	Production Well Dooms	03-May-01	<2	<2	<2	—	—	—	<2	<5	—	615	7.75	419	30	74	22.7	0.51	0.91	1	—	—	—	—	—	—	49	—	—	—
M01-0409	Production Well Dooms	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	<5	—	618	7.72	374	28	75	22.7	<2	0.92	1.2	—	—	—	—	—	—	44	—	—	—
M01-0497	Production Well Dooms	29-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	622	7.80	396	28	74	22.7	<2	0.96	1.2	—	<0.05	<0.1	0.037	0.21	<0.005	44	<0.01	<0.01	<0.005
M02-0050	Production Well Dooms	20-Feb-02	<2.0	19	3.9	—	—	—	24	—	—	620	7.68 H	373	31	64	—	0.33	0.92	0.97	—	—	—	—	—	—	45	—	—	—
M02-0050	Production Well Dooms R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-01	Production Well Dooms	27-Mar-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-29	Production Well Dooms	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	624	7.70 H	351	30	74	—	<1.0	0.92	<1.0	—	—	—	—	—	—	45	—	—	—
6	Production Well Dooms	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	626	7.73 H	411	68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-17	Production Well Dooms	05-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	620	7.85 H	470	29	86	—	<0.50	1.1	1.0	—	—	0.010	—	0.21	—	43	—	—	—
2003030318/T4096-5	Doom Supply	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	585	7.7 H	386	30.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-8	Doom Supply	20-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	602	7.9 H	410	36.0	—	—	—	—	—	—	—	—	—	—	—	48.000	—	—	—
2003080979-8	Doom Supply	20-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	561	7.14	366	30.8	—	—	—	—	—	—	—	—	—	—	—	43.900	—	—	—
2003101363-24	Doom Supply	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	5.88	6.7	406	28.3	—	16.0	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-25	Doom Supply-D	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	398	28.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004020197-2	Doom Supply	25-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	583	7.6	388	28.0	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-8	Doom Supply	13-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	609	7.9	396	2.6	—	23.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-8	Doom Supply	25-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	567	7.2	390	43.0	—	23.4	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-33	Doom Supply	15-Nov-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	602	6.9	1.00 (404)	28.0	—	17.8	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-8	Doom Supply	15-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	784	7.3	659	84.0	—	19.9	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-13	Doom Supply	25-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	619	7.1	403	29.0	—	23.7	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-6	Doom Supply	23-Aug-05	<2.0 H	<2.0 H	<2.0 H	—	—	—	<6.0 H	—	—	652	6.9	384	29.0	—	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-7	Doom Supply-D	23-Aug-05	<2.0 H	<2.0 H	<2.0 H	—	—	—	<6.0 H	—	—	—	—	384	29.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-32	Doom Supply	15-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	641	6.9	408	29.0	—	16.4	—	—	—	—	—	—	—	—	—	—	—	—	—
PTP #1	PTP #1	07-May-97	38	0.51	22	—	—	—	8.4	—	—	2,420	—	1,500	490	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PTP #1	PTP #1	21-Oct-97	7.9	<0.5	18	—	—	—	3.1	—	—	2,250	—	1,400	470	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0177	PTP #1	12-May-98	62	1.6	21	—	—	—	13	—	—	2,300	—	1,400	480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0463	PTP #1	20-Oct-98	—	—	—	—	—	—	—	—	—	2,090	—	1,410	380	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0008	PTP #1	11-May-99	—	—	—	—	—	—	—	—	—	2,250	—	1,240	330	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0191	PTP #1	20-Oct-99	—	—	—	—	—	—	—	—	—	2,300	—	1,630	460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0085	PTP #1	09-May-00	—	—	—	—	—	—	—	—	—	2,210	—	1,400	510	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0223	PTP #1	27-Oct-00	—	—	—	—	—	—	—	—	—	2,050	—	1,570	530	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0140	PTP #1	02-May-01	—	—	—	—	—	—	—	—	—	2,370	—	1,240	520	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0473	PTP #1	23-Oct-01	—	—	—	—	—	—	—	—	—	2,370	—	1,280	550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-07	PTP #1	29-Apr-02	—	—	—	—	—	—	—	—	—	2,390	—	1,400	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-9	PTP #1	04-Nov-02	50	<10	15	24		<10	24	—	—	2,000	7.20 H	690	480	3.9	—	2.7	0.97	<0.20 H	—	—	0.020	—	0.62	—	220	—	—	—
2003101363-5	PTP #1	03-Nov-03	21.8	<2.0	13.5	—	—	—	8.8	—	—	2,130	6.8	1,380	469	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-15	PTP #1	10-Nov-04	13.6	<1.0	18.7	—	—	—	9.6	—	—	2,300	7.0	1,560	496	—	22.1	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-6	PTP #1	12-Dec-05	13.7	1.6 J	22.5	—	—	—	26.4	—	—	2,360	6.6	1,140	442	—	20.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-10	Injection Well	09-Nov-04	80.7	14.0	25.6	—	—	—	25.1	—	—	—	—	20,300	11,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-34	Injection Well	15-Dec-05	84.4	20.4	40.5	—	—	—	40.4	—	—	36,800	8.2	23,800	7,850	—	15.2	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
S98-0057	Production Well Dooms	24-Feb-98	—	—	16	—	—	—	—	4	—	25	—	64	—	—	200	—	—	—	—
S98-0180	Production Well Dooms	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	190	190	—	—	—
S98-0292	Production Well Dooms	10-Aug-98	—	—	17	—	—	—	—	4.3	—	27	—	71	—	—	200	200	<25	<25	200
S98-0464	Production Well Dooms	20-Oct-98	0.060	—	17	<0.0025	—	—	—	4.1	—	29	—	69	—	<0.05	190	190	<25	<25	200
S99-0081	Production Well Dooms	23-Feb-99	—	—	16	—	—	—	—	4.1	—	26	—	72	—	—	190	190	<25	<25	190
M99-0018	Production Well Dooms	13-May-99	0.14	—	17	0.039	—	—	—	4.0	—	33	—	72	—	0.089	180	180	<25	<25	200
M99-0092	Production Well Dooms	11-Aug-99	—	—	17	—	—	—	—	3.8	—	27	—	73	—	—	190	190	<25	<25	200
M99-0193	Production Well Dooms	21-Oct-99	0.16	<0.001	18	0.0093	<0.0002	0.0048	<0.02	4.7	—	24	<0.005	77	0.0055	0.11	180	180	<25	<25	200
M00-0022	Production Well Dooms	23-Feb-00	—	—	20	—	—	—	—	4.9	—	12	—	69	—	—	140	140	<25	<25	250
M00-0094	Production Well Dooms	10-May-00	—	—	15	—	—	—	—	4.2	—	29	—	72	—	—	190	190	<25	<25	170
M00-0204	Production Well Dooms	14-Aug-00	—	—	16	—	—	—	—	70	—	30	—	4.2	—	—	180	180	<25	<25	190
M00-0233	Production Well Dooms	02-Nov-00	0.28	<0.05	18	0.013	<0.0002	—	—	5.0	<0.1	32	<0.02	79	—	0.19	190	190	<25	<25	210
M01-0010	Production Well Dooms	20-Feb-01	—	—	15	—	—	—	—	4.8	—	35	—	67	—	—	190	190	<25	<25	180
M01-0143	Production Well Dooms	03-May-01	—	—	16	—	—	—	—	3.8	—	34	—	73	—	—	180	180	<25	<25	190
M01-0409	Production Well Dooms	01-Aug-01	—	—	15	—	—	—	—	5.0	—	26	—	66	—	—	190	190	<25	<25	170
M01-0497	Production Well Dooms	29-Oct-01	0.10	<0.05	15	0.018	<0.0002	<0.01	<0.04	3.7	<0.1	38	<0.02	64	0.0084	<0.1	180	180	<25	<25	170
M02-0050	Production Well Dooms	20-Feb-02	—	—	15	—	—	—	—	3.7	—	40	—	65	—	—	190	190	<25	<25	170
M02-0050	Production Well Dooms R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-01	Production Well Dooms	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-29	Production Well Dooms	02-May-02	—	—	15	—	—	—	—	4.1	—	34	—	65	—	—	180	180	<25	<25	170
6	Production Well Dooms	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	63	—	—	—	—	—	—	—
2002110896-17	Production Well Dooms	05-Nov-02	0.27	—	15	<0.010	—	—	—	4.4	—	53	—	70	—	—	190	190	<2.0	<2.0	170
2003030318/T4096-5	Doom Supply	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	50.700	—	—	—	—	—	—	—
2003050551-8	Doom Supply	20-May-03	—	—	15.800	—	—	—	—	—	—	—	—	62.600	—	—	191	—	—	—	185
2003080979-8	Doom Supply	20-Aug-03	—	—	14.800	—	—	—	—	—	—	—	—	65.500	—	—	213	—	—	—	171
2003101363-24	Doom Supply	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	64.800	—	—	—	—	—	—	—
2003101363-25	Doom Supply-D	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	62.700	—	—	—	—	—	—	—
2004020197-2	Doom Supply	25-Feb-04	—	—	—	—	—	—	—	—	—	—	—	67.100	—	—	—	—	—	—	—
2004050647-8	Doom Supply	13-May-04	—	—	—	—	—	—	—	—	—	—	—	62.700	—	—	—	—	—	—	—
2004081157-8	Doom Supply	25-Aug-04	—	—	—	—	—	—	—	—	—	—	—	63.800	—	—	—	—	—	—	—
2004111601-33	Doom Supply	15-Nov-04	—	—	—	—	—	—	—	—	—	—	—	61.8	—	—	—	—	—	—	—
2005020148-8	Doom Supply	15-Feb-05	—	—	—	—	—	—	—	—	—	—	—	73.5	—	—	—	—	—	—	—
2005050586-13	Doom Supply	25-May-05	—	—	—	—	—	—	—	—	—	—	—	58.3	—	—	—	—	—	—	—
2005081051-6	Doom Supply	23-Aug-05	—	—	—	—	—	—	—	—	—	—	—	65.500	—	—	—	—	—	—	—
2005081051-7	Doom Supply-D	23-Aug-05	—	—	—	—	—	—	—	—	—	—	—	66.000	—	—	—	—	—	—	—
2005121523-32	Doom Supply	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	68.700	—	—	—	—	—	—	—
PTP #1	PTP #1	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PTP #1	PTP #1	21-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0177	PTP #1	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0463	PTP #1	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0008	PTP #1	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0191	PTP #1	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0085	PTP #1	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0223	PTP #1	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0140	PTP #1	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0473	PTP #1	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-07	PTP #1	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-9	PTP #1	04-Nov-02	10	—	61	0.37	—	—	—	6.9	—	26	—	170	—	—	520	520	<2.0	<2.0	810
2003101363-5	PTP #1	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	190	—	—	—	—	—	—	—
2004111601-15	PTP #1	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	167	—	—	—	—	—	—	—
2005121523-6	PTP #1	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	192	—	—	—	—	—	—	—
2004111601-10	Injection Well	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	6,010	—	—	—	—	—	—	—
2005121523-34	Injection Well	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	8,620	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
S98-0451	Bailer Blank	19-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	1.13	5.95	<25	<0.1	<0.1	17.8	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	0.49	—	—	<0.0025
S98-0066	Bailer Blank Pre Sample	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	3	5.7	<20	<0.2	<1	—	<0.2	<0.1	<0.2	—	—	—	—	—	—	<1	—	—	—
S98-0158	Bailer Blank Pre Sample	11-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	9.6	5.8	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	—	—	—	—
S98-0290	Bailer Blank Pre Sample	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	4.45	5.08	30	<0.1	<2.0	18.8	<0.1	<0.10	<1.25	—	—	—	—	—	—	<0.25	—	—	—
S98-0178	Bailer Blank-Middle Sample	12-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	24	5.6	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	—	—	—	—
S98-0466	Bailer Blank-Middle Sample	21-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	16.9	7.34	<25	<0.1	<0.1	21.0	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	3.2	—	—	<0.0025
S98-0061	Bailer Blank Post Sample	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	1	6.0	<20	<0.2	<1	—	<0.2	<0.1	<0.2	—	—	—	—	—	—	<1	—	—	—
S98-0191	Bailer Blank Post Sample	14-May-98	0.66	<0.50	<0.50	—	—	—	<1.0	—	—	15	5.6	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	<1	—	—	—
S98-0225	Bailer Blank Post Sample	01-Jun-98	12	<0.50	<0.50	—	—	—	<1.0	—	—	12	5.5	<20	<0.2	<1	—	<0.2	<0.1	0.09	—	—	—	—	—	—	<1	—	—	—
S98-0297	Bailer Blank Post Sample	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	3.83	5.16	31	<0.1	<2.0	19.9	<0.1	<0.10	<2.5	—	—	—	—	—	—	<0.25	—	—	—
S98-0478	Bailer Blank Post Sample	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	1.22	5.77	<25	<0.1	<0.1	21.2	<0.2	<0.4	<0.05	—	—	—	—	0.01	—	<0.25	—	—	<0.0025
S99-0078	Bailer Blank Before	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	2.17	5.83	<25	<0.1	<0.1	14.3	<0.2	<0.4	0.09	—	—	—	—	—	—	<0.25	—	—	—
S99-0087	Bailer Blank After Sampling	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	1.35	5.78	<25	<0.1	<0.1	16.9	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.25	—	—	—
M99-0002	Bailer Blank Before Sampling	10-May-99	<2	<2	<2	<2	<2	<2	<6	—	—	1.63	5.86	32	0.1	0.1	22.7	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025
M99-0016	Bailer Blank Middle	12-May-99	—	—	—	—	—	—	—	—	—	1.21	—	<25	<0.1	—	—	—	—	—	—	—	—	—		—	—	—	—	—
M99-0029	Bailer Blank After Sampling	14-May-99	<2	<2	<2	<2	<2	<2	<6	—	<0.25	1.52	5.86	<25	<0.1	<0.1	24.6	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025
M99-0085	Bailer Blank Before Sampling	09-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	898	7.57	565	88	190	19.1	0.5	1.6	<0.05		—	—	—	—	—	97	—	—	—
M99-0090	Bailer Blank After Sampling	11-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	580	8.41	266	48	1.0	21.0	<1	<0.4	0.74	—	—	—	—	—	—	0.68	—	—	—
M99-0182	Bailer Blank Before Sampling	18-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	4.00	6.04	<15	0.34	<0.5	20.2	<0.2	<0.4	0.064	—	<0.025	<0.005	<0.0025	<0.01	<0.002	0.39	<0.005	<0.005	<0.0025
M99-0198	Bailer Blank Middle	22-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	4.00	6.04	<15	0.31	<0.5	20.2	<0.2	<0.4	0.072	—	<0.025	<0.005	<0.0025	<0.01	<0.002	0.32	<0.005	<0.005	<0.0025
M99-0208	Bailer Blank After Sampling	23-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	3.75	6.03	<15	0.32	<0.5	22.4	<0.2	<0.4	0.088	—	<0.025	<0.005	<0.0025	<0.01	<0.002	0.32	<0.005	<0.005	<0.0025
M00-0021	Bailer Blank Before Sampling	22-Feb-00	<2	<2	<2	—	—	—	<2	—	—	3	5.88	<15	<0.1	<0.1	15.9	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0030	Bailer Blank After Sampling	23-Feb-00	<2	<2	<2	—	—	—	<2	—	—	3	5.88	<15	<0.1	<0.1	17.3	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0076	Bailer Blank Before Sampling	08-May-00	<5	<5	<5	—	—	—	<10	—	—	4	5.52	21	<0.1	<0.1	21.3	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0091	Bailer Blank Middle of Sampling	10-May-00	—	—	—	—	—	—	—	—	—	2	—	19	<0.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0102	Bailer Blank After Sampling	12-May-00	<5	<5	<5	—	—	—	<10	—	—	41	7.13	42	6.1	1.4	18.5	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0194	Bailer Blank Before Sampling	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	8.0	6.15	<15	<0.1	<0.1	25.6	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.5	—	—	—
M00-0201	Bailer Blank After Sampling	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	4.0	5.63	<15	<0.1	<0.1	25.8	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.5	—	—	—
M00-0214	Bailer Blank Before Sampling	26-Oct-00	<2	<2	<2	<2	<2	<2	<6	—	—	13	5.22	<15	3.3	<0.1	16.2	<0.2	<0.4	<0.1	—	—	<0.1	<0.005	0.12	<0.01	<0.5	<0.01	—	0.088
M00-0229	Bailer Blank Middle of Sampling	01-Nov-00	<2	<2	<2	—	—	—	<4	—	—	11.4	5.09	<15	3.3	<0.1	15.1	<0.2	<0.4	<0.1	—	—	<0.1	<0.005	0.14	<0.01	0.22	<0.01	—	0.093
M00-0245	Bailer Blank After Sampling	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	13.40	5.3	55	3.3	<0.1	16.9	<0.2	<0.4	<0.1	—	—	<0.1	<0.005	0.13	<0.01	<0.5	<0.01	—	0.092
M01-0012	Bailer Blank Before Sampling	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	1	6.28 H	<15	<0.1	<0.1	21.6	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M01-0018	Bailer Blank After Sampling	21-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	2	6.18 H	<15	<0.1	<0.1	21.8	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M01-0131	Bailer Blank Before Sampling	02-May-01	<2	<2	<2	—	—	—	<2	<5	—	1	7.69	<15	<0.1	36	18.6	<0.2	<0.4	<0.1	—	—	—	—	—	—	0.91	—	—	—
M01-0155	Bailer Blank Middle of Sampling Wells	06-May-01	—	—	—	—	—	—	—	—	—	198	—	115	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0163	Bailer After Sampling Wells	07-May-01	<2	<2	<2	—	—	—	<2	<5	—	578	8.24 H	327	65	<2	25.4	0.17	<0.4	0.62	—	—	—	—	—	—	<0.5	—	—	—
M01-0404	Bailer Blank Before Sampling	01-Aug-01	<2	<2	<2Jc	—	—	—	<2	—	—	1.82	6.21	<15	1.6	<1	22.5	<2	<0.4	<1	—	—	—	—	—	—	<0.5	—	—	—
M01-0412	Bailer After Sampling Wells	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	1.66	6.54	<15	<0.1	<0.1	23.1	<0.2	<0.4	<0.05	—	—	—	—	—	—	0.56	—	—	—
M01-0466	Bailer Blank Before Sampling	22-Oct-01	<2	<2	<2	—	—	—	<2	—	—	1.67	5.84	<15	0.16	<0.1	20.5	<0.2	<0.4	<0.1	—	<0.05	<0.1	<0.005	<0.1	<0.005	<0.5	<0.01	<0.01	<0.005
M01-0479	Bailer Blank Middle of Sampling Wells	24-Oct-01	<2	<2	<2	—	—	—	4	—	—	1.52	6.47 H	<15	0.23	<0.1	20.1	<0.2	<0.4	<0.05	—	<0.05	<0.1	<0.005	<0.1	<0.005	<0.5	<0.01	<0.01	<0.005
M01-0493	Bailer After Sampling Wells	29-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	1.32	6.39 H	<15	<0.1	<0.1	23.3	<0.2	<0.4	<0.05	—	<0.05	<0.1	<0.005	<0.1	<0.005	<0.5	<0.01	<0.01	<0.005
M02-0041	Bailer Blank Before Sampling Wells	19-Feb-02	<2.0	8.8	4.7	—	—	—	23	—	—	3.30	6.44 H	<15.0	<0.10	<0.10	—	<0.10	<0.40	<0.10	—	—	—	—	—	—	0.68	—	—	—
M02-0041	Bailer Blank Before Sampling Wells R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0049	Bailer Blank After Sampling Wells	20-Feb-02	2.8	48	18	—	—	—	120	—	—	2.6	6.57 H	<15.0	<0.10	<0.10	—	<0.10	<0.40	0.080	—	—	—	—	—	—	0.52	—	—	—
M02-0049	Bailer Blank After Sampling Wells R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-05	Bailer Blank After Sampling Wells	27-Mar-02	<2.0	<2.0	<2.0	—	—	—	<2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-2	Bailer Blank Before Sampling Wells	29-Apr-02	<2.0	<2.0	<2.0	—	—	—	<4.0	—	—	22.3	5.58 H	<15.0	3.8	0.31	—	<0.10	<0.40	0.13	—	—	—	—	—	—	<0.50	—	—	—
2002040220-16	Bailer Blank During Sampling Wells	30-Apr-02	—	—	—	—	—	—	—	—	—	20.3	—	<15.0	3.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-26	Bailer Blank After Sampling Wells	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	7.00	6.20 H	<15.0	0.67	<0.10	—	<0.10	<0.40	<0.10	—	—	—	—	—	—	<0.50	—	—	—
8	Bailer Blank After Sampling Wells	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	1.28	6.28 H	<15.0	1.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-1	Bailer Blank Before Sampling Wells	03-Nov-02	<1.0	1.5	<1.0	<2.0		<1.0	<3.0	—	—	1.0	6.05 H	<10	<2.0	<2.0	—	<0.50	<0.40	0.20 H	—	—	<0.0050	—	<0.050	—	<2.0	—	—	—
2002110896-13	Bailer Blank During Sampling Wells	05-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1.0	6.48 H	<10	<2.0	<2.0	—	<0.50	<0.40	<0.20	—	—	<0.0050	—	<0.050	—	<2.0	—	—	—
2002110896-28	Bailer Blank After Sampling Wells	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1.0	6.17 H	<10	<2.0	<2.0	—	<0.50	<0.40	<0.20	—	—	<0.0050	—	<0.050	—	<2.0	—	—	—
2003030318/T4096-2	Bailer Blank	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	1.4	6.8 H	<10	<0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-1	Bailer Blank	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	2.0	5.0 H	12.0	<0.20	—	—	—	—	—	—	—	—	—	—	—	0.161	—	—	—
2003080979-2	Bailer Blank	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	0.50	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—
2003101363-2	Bailer Blank	03-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	718	56.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-16	Bailer Blank	05-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	<0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-28	Bailer Blank	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
S98-0451	Bailer Blank	19-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	1.1	—	<0.05	<25	<25	<25	<25	1.2
S98-0066	Bailer Blank Pre Sample	24-Feb-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	—	—	—	—
S98-0158	Bailer Blank Pre Sample	11-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<5	<5	—	—	—
S98-0290	Bailer Blank Pre Sample	10-Aug-98	—	—	<0.25	—	—	—	—	<0.25	—	<10	—	0.68	—	—	<25	<25	<25	<25	<1
S98-0178	Bailer Blank-Middle Sample	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<5	<5	—	—	—
S98-0466	Bailer Blank-Middle Sample	21-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	0.30	—	<0.05	<25	<25	<25	<25	7.9
S98-0061	Bailer Blank Post Sample	24-Feb-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	—	—	—	—
S98-0191	Bailer Blank Post Sample	14-May-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	<5	—	—	—
S98-0225	Bailer Blank Post Sample	01-Jun-98	—	—	<1	—	—	—	—	<1	—	0.16	—	—	—	—	<5	<5	—	—	—
S98-0297	Bailer Blank Post Sample	11-Aug-98	—	—	<0.25	—	—	—	—	<0.25	—	<10	—	<0.25	—	—	<25	<25	<25	<25	<1
S98-0478	Bailer Blank Post Sample	22-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	<0.25	—	<0.05	<25	<25	<25	<25	<0.5
S99-0078	Bailer Blank Before	23-Feb-99	—	—	<0.25	—	—	—	—	<1	—	<1	—	0.27	—	—	<25	<25	<25	<25	<1
S99-0087	Bailer Blank After Sampling	23-Feb-99	—	—	<0.25	—	—	—	—	<1	—	<1	—	<0.25	—	—	<25	<25	<25	<25	<1
M99-0002	Bailer Blank Before Sampling	10-May-99	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.2	—	<0.25	—	<0.05	<25	<25	<25	<25	<1
M99-0016	Bailer Blank Middle	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0029	Bailer Blank After Sampling	14-May-99	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.2	—	0.41	—	<0.05	<25	<25	<25	<25	<1
M99-0085	Bailer Blank Before Sampling	09-Aug-99	—	—	22	—	—	—	—	5.2	—	21	—	80	—	—	110	110	<25	<25	330
M99-0090	Bailer Blank After Sampling	11-Aug-99	—	—	<0.25	—	—	—	—	1.4	—	10	—	140	—	—	220	220	2	<25	2.6
M99-0182	Bailer Blank Before Sampling	18-Oct-99	0.060	<0.005	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M99-0198	Bailer Blank Middle	22-Oct-99	<0.05	<0.005	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M99-0208	Bailer Blank After Sampling	23-Oct-99	<0.05	<0.005	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M00-0021	Bailer Blank Before Sampling	22-Feb-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0030	Bailer Blank After Sampling	23-Feb-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0076	Bailer Blank Before Sampling	08-May-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0091	Bailer Blank Middle of Sampling	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0102	Bailer Blank After Sampling	12-May-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0194	Bailer Blank Before Sampling	07-Aug-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0201	Bailer Blank After Sampling	08-Aug-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0214	Bailer Blank Before Sampling	26-Oct-00	<0.1	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.3	<0.02	1.9	—	<0.1	<25	<25	<25	<25	<2
M00-0229	Bailer Blank Middle of Sampling	01-Nov-00	0.19	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.1	<0.02	2.3	—	<0.1	<25	<25	<25	<25	<2
M00-0245	Bailer Blank After Sampling	06-Nov-00	<0.1	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.3	<0.02	2.4	—	<0.1	<25	<25	<25	<25	<2
M01-0012	Bailer Blank Before Sampling	20-Feb-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0018	Bailer Blank After Sampling	21-Feb-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0131	Bailer Blank Before Sampling	02-May-01	—	—	0.49	—	—	—	—	0.52	—	<1	—	2.4	—	—	<25	<25	<25	<25	4.3
M01-0155	Bailer Blank Middle of Sampling Wells	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0163	Bailer After Sampling Wells	07-May-01	—	—	<0.5	—	—	—	—	<2	—	11	—	140.0	—	—	240	240	<25	<25	<2
M01-0404	Bailer Blank Before Sampling	01-Aug-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0412	Bailer After Sampling Wells	02-Aug-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	6.7	—	—	<25	<25	<25	<25	<2
M01-0466	Bailer Blank Before Sampling	22-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	<0.5	<0.005	<0.1	<25	<25	<25	<25	<2
M01-0479	Bailer Blank Middle of Sampling Wells	24-Oct-01	<0.1	<0.05	<0.5	0.0067	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	1.5	<0.005	<0.1	<25	<25	<25	<25	<5
M01-0493	Bailer After Sampling Wells	29-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	1.6	<0.005	<0.1	<25	<25	<25	<25	<5
M02-0041	Bailer Blank Before Sampling Wells	19-Feb-02	—	—	<0.50	—	—	—	—	<2.0	—	<0.25	—	1.4	—	—	<25	<25	<25	<25	<2.0
M02-0041	Bailer Blank Before Sampling Wells R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0049	Bailer Blank After Sampling Wells	20-Feb-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	1.3	—	—	<25	<25	<25	<25	<2.0
M02-0049	Bailer Blank After Sampling Wells R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-05	Bailer Blank After Sampling Wells	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-2	Bailer Blank Before Sampling Wells	29-Apr-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	3.8	—	—	<25	<25	<25	<25	<2.0
2002040220-16	Bailer Blank During Sampling Wells	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-26	Bailer Blank After Sampling Wells	02-May-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	<0.50	—	—	<25	<25	<25	<25	<2.0
8	Bailer Blank After Sampling Wells	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	<2.0	—	—	—	—	—	—	—
2002110896-1	Bailer Blank Before Sampling Wells	03-Nov-02	<0.050	—	<2.0	<0.010	—	—	—	<2.0	—	<0.21	—	<2.0	—	—	<6.0	<2.0	<2.0	<2.0	<13
2002110896-13	Bailer Blank During Sampling Wells	05-Nov-02	<0.050	—	<2.0	<0.010	—	—	—	<2.0	—	<0.21	—	<2.0	—	—	<6.0	2.0	<2.0	<2.0	<13
2002110896-28	Bailer Blank After Sampling Wells	08-Nov-02	<0.050	—	<2.0	<0.010	—	—	—	<2.0	—	<0.21	—	<2.0	—	—	<6.0	<2.0	<2.0	<2.0	<13
2003030318/T4096-2	Bailer Blank	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	1.460	—	—	—	—	—	—	—
2003050551-1	Bailer Blank	19-May-03	—	—	<0.130	—	—	—	—	—	—	—	—	1.340	—	—	<1.0	—	—	—	<1.0
2003080979-2	Bailer Blank	19-Aug-03	—	—	<5.000	—	—	—	—	—	—	—	—	<5.000	—	—	<1.0	—	—	—	<6.6
2003101363-2	Bailer Blank	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	67.500	—	—	—	—	—	—	—
2003101363-16	Bailer Blank	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2003101363-28	Bailer Blank	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
2004020197-4	Bailer Blank	26-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	<0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-2	Bailer Blank	12-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-2	Bailer Blank	24-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	14.0	4.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-2	Bailer Blank	9-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	—	—	<10	1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-19	Bailer Blank	11-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	—	—	40.0	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-31	Bailer Blank	12-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	—	—	<10	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-2	Bailer Blank	14-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-4	Bailer Blank	23-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-2	Bailer Blank	22-Aug-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-2	Bailer Blank	12-Dec-05	1.4 J	4.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-16	Bailer Blank	13-Dec-05	1.3 J	3.7	<2.0	—	—	—	<6.0	—	—	—	—	10.0	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-29	Bailer Blank	15-Dec-05	1.0	2.8	<2.0	—	—	—	<6.0	—	—	—	—	11.0	<1.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0477	EMP #3 Post Purge	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	662	8.26	424	100	50	20.1	<5	1.6	<0.05	—	—	—	—	0.19	—	45	—	—	<0.0025
S98-0452	EMP #3 Pre Purge Blank	19-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	631	8.26	369	100	50	17.1	<2	1.6	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025
S98-0179	EMP #3 Pump Blank Middle Sample	12-May-98	30	20	6.5	—	—	—	1.1	—	—	720	7.9	390	87	57	—	<2	1.7	<0.05	—	—	—	—	—	—	50	—	—	—
S98-0468	EMP #3 Pump Blank Middle Sample	21-Oct-98	2	3	2	<2	<2	<2	<6	—	—	649	8.23	373	110	48	19.8	2.0	1.5	<0.05	—	—	—	—	0.19	—	40	—	—	<0.0025
S98-0062	EMP #3 Pump Blank Post Sample	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	738	8.2	420	98	60	—	0.7	2	<0.2	—	—	—	—	—	—	51	—	—	—
S98-0192	EMP #3 Pump Blank Post Sample	14-May-98	3.0	3.4	1.4	—	—	—	2.8	—	—	670	8.1	400	88	57	—	0.63	1.8	0.05	—	—	—	—	—	—	48	—	—	—
S98-0224	EMP #3 Pump Blank Post Sample	01-Jun-98	<0.50	0.83	<0.50	—	—	—	<1.0	—	—	690	8.0	420	91	53	—	0.64	1.7	<0.05	—	—	—	—	—	—	50	—	—	—
S98-0298	EMP #3 Pump Blank Post Sample	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	641	8.13	392	95	54	19.8	<5	1.8	<2.5	—	—	—	—	—	—	47	—	—	—
S98-0065	EMP #3 Pump Blank Pre Sample	24-Feb-98	<0.50	1.1	0.74	—	—	—	1.1	—	—	746	8.2	432	99	62.2	—	0.7	1.9	<0.2	—	—	—	—	—	—	52	—	—	—
S98-0156	EMP #3 Pump Blank Pre Sample	11-May-98	6.7	1.7	<0.50	—	—	—	6.0	—	—	970	7.7	630	98	200	—	<2	1.8	<0.05	—	—	—	—	—	—	91	—	—	—
S98-0289	EMP #3 Pump Blank Pre Sample	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	676	7.84	458	96	57	19.9	<2.5	1.9	<1.25	—	—	—	—	—	—	47Jm	—	—	—
S99-0079	EMP #3 Pump Blank Before	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	1,170	8.44	681	210	42	14.1	<2	1.7	<0.05	—	—	—	—	—	—	52	—	—	—
S99-0086	EMP #3 Pump Blank After	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	1,610	8.66	981	350	45	13.5	<2	1.8	<0.05	—	—	—	—	—	—	51	—	—	—
M99-0003	EMP #3 Before Purging Wells	10-May-99	<2	<2	<2	<2	<2	<2	<6	—	—	1,120	7.86	646	210	51	22.3	0.6	1.5	<0.05	—	—	—	—	0.22	—	50	—	—	<0.0025
M99-0015	EMP #3 Middle	12-May-99	—	—	—	—	—	—	—	—	—	609	—	379	73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0028	EMP #3 After Purging	14-May-99	<2	3	<2	<2	<2	<2	<6	—	<0.25	599	8.27	356	66	53	24.0	0.5	1.8	<0.05	—	—	—	—	0.21	—	44	—	—	0.0060
M99-0084	EMP #3 Pump Blank Before	09-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	578	8.30	305	49	1.1	20.1	<0.2	<0.4	0.70	—	—	—	—	—	—	0.79	—	—	—
M99-0091	EMP #3 Pump Blank After	11-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	588	8.32	305	70	53	22.1	2.1	1.7	<0.05	—	—	—	—	—	—	45	—	—	—
M99-0180	EMP #3 Before Purging Wells	18-Oct-99	14	31	2.0	—	—	—	4.0	—	—	1,070	7.37	673	140	200	20.7	0.65	1.7	0.29	—	0.043	0.0076	0.053	0.22	<0.002	88	<0.005	<0.005	0.0035
M99-0200	EMP #3 Middle	22-Oct-99	2.6	7.7	2.6	—	—	—	4.1	—	—	624	8.22	397	110	50	19.4	0.60	1.6	<0.05	—	0.033	0.0066	0.075	0.20	<0.002	44	<0.005	<0.005	<0.0025
M99-0207	EMP #3 After Purging	23-Oct-99	<2	7.4	2.6	—	—	—	4.4	—	—	640	8.29	367	96	50	21.4	0.58	1.6	<0.05	—	0.059	0.0062	0.092	0.20	<0.002	50	<0.005	<0.005	<0.0025
M00-0020	EMP #3 Pump Blank Before Purging	22-Feb-00	<2	<2	<2	—	—	—	7.5	—	—	683	6.60	490	86	54	16.6	<1	1.8	<0.5	—	—	—	—	—	—	47	—	—	—
M00-0029	EMP #3 After Purging Wells	23-Feb-00	<2	<2	<2	—	—	—	2.5	—	—	681	6.99	460	82	52	17.0	0.63	1.8	<0.5	—	—	—	—	—	—	46	—	—	—
M00-0075	EMP #3 Before Purging Wells	08-May-00	<5	<5	<5	—	—	—	<10	—	—	653	7.16	482	83	51	21.8	0.46	1.7	<1	—	—	—	—	—	—	46	—	—	—
M00-0090	EMP #3 Middle of Sampling	10-May-00	—	—	—	—	—	—	—	—	—	648	—	373	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0103	EMP #3 Pump Blank After Sampling	12-May-00	<5	<5	<5	—	—	—	<10	—	—	670	8.22	405	91	52	18.5	0.54	1.6	<0.1	—	—	—	—	—	—	49	—	—	—
M00-0193	EMP #3 Before Purging Wells	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	552	7.49	369	81	38	25.8	0.29	1.1	<0.05	—	—	—	—	—	—	30	—	—	—
M00-0202	EMP #3 Pump Blank After Purging	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	600	8.18	317	58	45	25.9	0.50	1.7	0.21	—	—	—	—	—	—	44	—	—	—
M00-0213	EMP #3 Before Purging Wells	26-Oct-00	<2	<2	<2	—	—	—	6.3	—	—	3,030	7.11	1,920	1,300	80	14.5	<2	1.7	<1	—	—	<0.1	0.13	0.23	<0.01	62	<0.01	—	0.0055
M00-0228	EMP #3 Middle of Sampling	01-Nov-00	<2	<2	<2	—	—	—	<4	—	—	9,200	8.03	6,080	3,300	240	14.4	<2	1.9	<1	—	—	<0.1	0.25	0.31	<0.01	120	<0.01	—	0.0061
M00-0244	EMP #3 After Purging Wells	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	4,400	8.1	3,500	2,100	150	16.7	<4	1.9	<2	—	—	<0.1	0.14	0.28	<0.01	72	<0.01	—	<0.005
M01-0009	EMP # 3 Pump Blank Before Sampling	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	1,380	8.17 H	736	340	52	21.5	0.56	1.7	<0.1	—	—	—	—	—	—	36	—	—	—
M01-0019	EMP #3 After Purging Wells	21-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	1,120	8.24 H	592	240	52	21.9	0.53	1.8	0.19	—	—	—	—	—	—	36	—	—	—
M01-0130	EMP #3 Pump Blank Before Purging Wells	02-May-01	<2	<2	<2	—	—	—	3.8	<5	—	565	7.67	321	67	<2	18.9	<1	0.99	<0.5	—	—	—	—	—	—	34	—	—	—
M01-0154	EMP #3 Pump Blank Middle of Purging Wells	06-May-01	—	—	—	—	—	—	—	—	—	733	—	426	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0162	EMP #3 After Purging Wells	07-May-01	<2	<2	<2	—	—	—	5.2	<5	—	724	8.19 H	426	130	62	25.6	0.60	1.8	<1	—	—	—	—	—	—	34	—	—	—
M01-0403	EMP #3 Before Purging Wells	01-Aug-01	<2	<2	<2Jc	—	—	—	4.6	—	—	622	7.4	418	71	35	23.3	<2	1.7	<1	—	—	—	—	—	—	35	—	—	—
M01-0413	EMP #3 After Purging Wells	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	516	8.2	303	74	52	22.9	0.48	1.7	<0.05	—	—	—	—	—	—	34	—	—	—
M01-0465	EMP #3 Pump Blank Before Purging Wells	22-Oct-01	<2	<2	<2	—	—	—	3	—	—	501	7.27	375	66	24	21.5	<2	1.8	<1	—	<0.05	<0.1	0.045	0.20	<0.005	32	<0.01	<0.01	<0.005
M01-0478	EMP #3 Middle of Purging Wells	24-Oct-01	<2	<2	<2	—	—	—	3.2	—	—	565	8.22 H	310	76	44	20.3	<2	1.7	<0.5	—	0.067	<0.1	0.059	0.19	<0.005	40	<0.01	<0.01	<0.005
M01-0492	EMP #3 After Purging Wells	29-Oct-01	2.2	<2	<2	—	—	—	6.2	—	—	572	8.01 H	343	59	47	23.3	<2	1.8	<0.5	—	0.400	<0.1	0.051	0.23	<0.005	38	<0.01	<0.01	<0.005
M02-0040	EMP #3 Before Purging Wells	19-Feb-02	<2.0	5.8	2.1	—	—	—	12	—	—	533	8.14 H	290	42	44	—	0.38	1.9	<0.10	—	—	—	—	—	—	43	—	—	—
M02-0040	EMP #3 Before Purging Wells R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0048	EMP #3 After Purging Wells	20-Feb-02	<2.0	<2.0	<2.0	—	—	—	<2.0	—	—	550	8.14 H	270	42	43	—	<2.5	1.9	0.080	—	—	—	—	—	—	43	—	—	—
M02-0048	EMP #3 After Purging Wells R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-01	EMP #3 Pump BlankBefore Purging Wells	29-Apr-02	<2.0	<2.0	<2.0	—	—	—	<4.0	—	—	842	7.33 H	550	51	160	—	<1	2.1	<1.0	—	—	—	—	—	—	74	—	—	—
2002040220-15	EMP #3 Pump Blank During Purging Wells	30-Apr-02	—	—	—	—	—	—	—	—	—	1,050	—	684	69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-25	EMP #3 Pump Blank After Purging Wells	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	1,040	8.26 H	685	41	150	—	<1.0	2.2	1.1	—	—	—	—	—	—	98	—	—	—
7	EMP #3 Pump Blank After Purging Wells	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	1,060	7.92 H	805	61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-2	EMP #3 Pump Blank Before Purging Wells	03-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1,000	7.71 H	730	61	270	—	<0.50	2.3	0.88 H	—	—	0.011	—	0.26	—	93	—	—	—
2002110896-14	EMP #3 Pump Blank During Purging Wells	05-Nov-02	4.4	3.4	3.4	4.2		1.1	5.3	—	—	970	7.99 H	760	64	280	—	<0.50	2.6	1.4	—	—	0.011	—	0.24	—	93	—	—	—
2002110896-29	EMP #3 Pump Blank After Purging Wells	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	950	7.92 H	710	62	270	—	<0.50	2.4	1.7	—	—	0.0086	—	0.24	—	100	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
2004020197-4	Bailer Blank	26-Feb-04	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2004050647-2	Bailer Blank	12-May-04	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2004081157-2	Bailer Blank	24-Aug-04	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2004111601-2	Bailer Blank	9-Nov-04	—	—	—	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—
2004111601-19	Bailer Blank	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—
2004111601-31	Bailer Blank	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	<5.0	—	—	—	—	—	—	—
2005020148-2	Bailer Blank	14-Feb-05	—	—	—	—	—	—	—	—	—	—	—	<10.000	—	—	—	—	—	—	—
2005050586-4	Bailer Blank	23-May-05	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2005081051-2	Bailer Blank	22-Aug-05	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2005121523-2	Bailer Blank	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2005121523-16	Bailer Blank	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2005121523-29	Bailer Blank	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
S98-0477	EMP #3 Post Purge	22-Oct-98	0.77	—	13	0.050	—	—	—	4.0	—	15	—	75	—	<0.05	130	130	<25	<25	160
S98-0452	EMP #3 Pre Purge Blank	19-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	13	—	<0.25	—	<0.05	110	110	<25	<25	<1
S98-0179	EMP #3 Pump Blank Middle Sample	12-May-98	—	—	13	—	—	—	—	4	—	18	—	75	—	—	150	150	—	—	—
S98-0468	EMP #3 Pump Blank Middle Sample	21-Oct-98	0.77	—	12	0.047	—	—	—	4.0	—	14	—	95	—	<0.05	130	130	<25	<25	150
S98-0062	EMP #3 Pump Blank Post Sample	24-Feb-98	—	—	14	—	—	—	—	4	—	14	—	72	—	—	160	—	—	—	—
S98-0192	EMP #3 Pump Blank Post Sample	14-May-98	—	—	12	—	—	—	—	4	—	17	—	72	—	—	140	140	—	—	—
S98-0224	EMP #3 Pump Blank Post Sample	01-Jun-98	—	—	13	—	—	—	—	4	—	16	—	76	—	—	150	150	—	—	—
S98-0298	EMP #3 Pump Blank Post Sample	11-Aug-98	—	—	12	—	—	—	—	4.1	—	17	—	78	—	—	130	130	<25	<25	170
S98-0065	EMP #3 Pump Blank Pre Sample	24-Feb-98	—	—	14	—	—	—	—	4	—	13	—	75	—	—	161.8	—	—	—	—
S98-0156	EMP #3 Pump Blank Pre Sample	11-May-98	—	—	23	—	—	—	—	5	—	13	—	74	—	—	110	110	—	—	—
S98-0289	EMP #3 Pump Blank Pre Sample	10-Aug-98	—	—	12	—	—	—	—	4.2	—	19	—	79	—	—	140	140	<25	<25	170
S99-0079	EMP #3 Pump Blank Before	23-Feb-99	—	—	14	—	—	—	—	4.2	—	18	—	190	—	—	180	170	6	<25	180
S99-0086	EMP #3 Pump Blank After	23-Feb-99	—	—	14	—	—	—	—	4.7	—	18	—	270	—	—	180	160	16	<25	190
M99-0003	EMP #3 Before Purging Wells	10-May-99	0.45	—	14	0.040	—	—	—	4.3	—	22	—	170	—	0.15	160	160	<25	<25	180
M99-0015	EMP #3 Middle	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0028	EMP #3 After Purging	14-May-99	0.76	—	11	0.054	—	—	—	4.2	—	19	—	65	—	<0.05	150	150	<25	<25	150
M99-0084	EMP #3 Pump Blank Before	09-Aug-99	—	—	<0.25	—	—	—	—	<1	—	11	—	140	—	—	220	220	2	<25	2.8
M99-0091	EMP #3 Pump Blank After	11-Aug-99	—	—	11	—	—	—	—	3.9	—	18	—	77	—	—	130	130	<25	<25	160
M99-0180	EMP #3 Before Purging Wells	18-Oct-99	0.69	<0.005	21	0.051	<0.0002	0.0062	<0.02	5.6	—	25	<0.005	92	<0.005	0.11	96	96	<25	<25	310
M99-0200	EMP #3 Middle	22-Oct-99	0.72	<0.005	12	0.051	<0.0002	0.0069	<0.02	4.3	—	17	<0.005	80	<0.005	<0.05	120	120	<25	<25	160
M99-0207	EMP #3 After Purging	23-Oct-99	0.89	<0.005	13	0.058	<0.0002	0.0083	<0.02	4.4	—	20	<0.005	80	<0.005	<0.05	130	130	<25	<25	180
M00-0020	EMP #3 Pump Blank Before Purging	22-Feb-00	—	—	12	—	—	—	—	5.0	—	19	—	74	—	—	87	87	<25	<25	170
M00-0029	EMP #3 After Purging Wells	23-Feb-00	—	—	12	—	—	—	—	5.2	—	13	—	76	—	—	95	95	<25	<25	160
M00-0075	EMP #3 Before Purging Wells	08-May-00	—	—	12	—	—	—	—	4.7	—	25	—	73	—	—	130	130	<25	<25	160
M00-0090	EMP #3 Middle of Sampling	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0103	EMP #3 Pump Blank After Sampling	12-May-00	—	—	13	—	—	—	—	4.4	—	22	—	72	—	—	150	150	<25	<25	170
M00-0193	EMP #3 Before Purging Wells	07-Aug-00	—	—	9.5	—	—	—	—	3.1	—	21	—	78	—	—	140	140	<25	<25	110
M00-0202	EMP #3 Pump Blank After Purging	08-Aug-00	—	—	12	—	—	—	—	4.1	—	21	—	72	—	—	130	130	<25	<25	150
M00-0213	EMP #3 Before Purging Wells	26-Oct-00	2.9	<0.05	20	0.13	<0.0002	—	—	19	<0.1	26	<0.02	540	—	<0.1	140	140	<25	<25	240
M00-0228	EMP #3 Middle of Sampling	01-Nov-00	3.0	<0.05	45	0.29	<0.0002	—	—	65	<0.1	19	<0.02	800	—	<0.1	140	140	<25	<25	480
M00-0244	EMP #3 After Purging Wells	06-Nov-00	1.2	<0.05	27	0.15	<0.0002	—	—	40	<0.1	23	<0.02	600	—	<0.1	150	150	<25	<25	290
M01-0009	EMP # 3 Pump Blank Before Sampling	20-Feb-01	—	—	12	—	—	—	—	11	—	23	—	220	—	—	140	140	<25	<25	140
M01-0019	EMP #3 After Purging Wells	21-Feb-01	—	—	12	—	—	—	—	9.1	—	22	—	180	—	—	150	150	<25	<25	140
M01-0130	EMP #3 Pump Blank Before Purging Wells	02-May-01	—	—	13	—	—	—	—	3.2	—	22	—	76	—	—	160	160	<25	<25	140
M01-0154	EMP #3 Pump Blank Middle of Purging Wells	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0162	EMP #3 After Purging Wells	07-May-01	—	—	11	—	—	—	—	5.5	—	21	—	93	—	—	150	150	<25	<25	130
M01-0403	EMP #3 Before Purging Wells	01-Aug-01	—	—	9.7	—	—	—	—	5.3	—	26	—	75	—	—	150	150	<25	<25	130
M01-0413	EMP #3 After Purging Wells	02-Aug-01	—	—	8.3	—	—	—	—	4.7	—	25	—	59	—	—	130	130	<25	<25	120
M01-0465	EMP #3 Pump Blank Before Purging Wells	22-Oct-01	1.4	<0.05	7.9	0.056	<0.0002	<0.01	<0.04	4.1	<0.1	25	<0.02	58	<0.005	<0.1	130	130	<25	<25	110
M01-0478	EMP #3 Middle of Purging Wells	24-Oct-01	0.64	<0.05	9.8	0.043	<0.0002	<0.01	<0.04	4.0	<0.1	25	<0.02	61	<0.005	<0.1	140	140	<25	<25	140
M01-0492	EMP #3 After Purging Wells	29-Oct-01	0.41	<0.05	9.8	0.032	<0.0002	0.01	<0.04	3.7	<0.1	25	<0.02	59	<0.005	<0.1	140	140	<25	<25	140
M02-0040	EMP #3 Before Purging Wells	19-Feb-02	—	—	11	—	—	—	—	3.4	—	12	—	55	—	—	140	140	<25	<25	150
M02-0040	EMP #3 Before Purging Wells R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0048	EMP #3 After Purging Wells	20-Feb-02	—	—	10	—	—	—	—	3.3	—	28	—	52	—	—	150	150	<25	<25	150
M02-0048	EMP #3 After Purging Wells R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-01	EMP #3 Pump BlankBefore Purging Wells	29-Apr-02	—	—	23	—	—	—	—	4.2	—	31	—	64	—	—	160	160	<25	<25	280
2002040220-15	EMP #3 Pump Blank During Purging Wells	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-25	EMP #3 Pump Blank After Purging Wells	02-May-02	—	—	37	—	—	—	—	5.2	—	32	—	82	—	—	190	190	<25	<25	400
7	EMP #3 Pump Blank After Purging Wells	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	77	—	—	—	—	—	—	—
2002110896-2	EMP #3 Pump Blank Before Purging Wells	03-Nov-02	1.8	—	33	0.15	—	—	—	8.3	—	46	—	86	—	—	180	180	<2.0	<2.0	370
2002110896-14	EMP #3 Pump Blank During Purging Wells	05-Nov-02	1.2	—	33	0.085	—	—	—	5.8	—	48	—	80	—	—	180	180	<2.0	<2.0	370
2002110896-29	EMP #3 Pump Blank After Purging Wells	08-Nov-02	0.88	—	35	0.071	—	—	—	6.3	—	49	—	89	—	—	180	180	<2.0	<2.0	390

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
2003030318/T4096-1	Pump Blank	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	910	7.5 H	634	55.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-2	Pump Blank	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	957	7.4 H	686	58.0	—	—	—	—	—	—	—	—	—	—	—	79.200	—	—	—
2003080979-1	Pump Blank	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	640	57.2	—	—	—	—	—	—	—	—	—	—	—	85.900	—	—	—
2003101363-1	Pump Blank	03-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-15	Pump Blank	05-Nov-03	2.0	1.7 J	2.2	—	—	—	3.1 J	—	—	—	—	688	26.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-29	Pump Blank	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	666	50.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004020197-3	Pump Blank	26-Feb-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	654	53.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004050647-1	Pump Blank	12-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	660	53.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004081157-1	Pump Blank	24-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	732	53.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-1	Pump Blank	09-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	—	—	653	59.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-18	Pump Blank	11-Nov-04	6.2	1.6	2.9	—	—	—	3.60	—	—	—	—	732	52.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2004111601-32	Pump Blank	12-Nov-04	<10 R	<10 R	<10 R	—	—	—	<20 R	—	—	—	—	744	58.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005020148-1	Pump Blank	14-Feb-05	1.1 J	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	703	57.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005050586-3	Pump Blank	23-May-05	1.8 J	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	671	54.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005081051-1	Pump Blank	22-Aug-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	675	56.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-1	Pump Blank	12-Dec-05	<100	<100	<100	—	—	—	<300	—	—	—	—	712	62.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-15	Pump Blank	13-Dec-05	<100	<100	<100	—	—	—	<300	—	—	—	—	749	55.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2005121523-30	Pump Blank	15-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	693	44.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0064	Field Blank	24-Feb-98	<0.50	0.93	<0.50	—	—	—	2.3	—	—	2	5.8	<20	<0.2	<1	—	<0.2	<0.1	<0.2	—	—	—	—	—	—	<1	—	—	—
S98-0171	Field Blank	12-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	54	5.7	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	<1	—	—	—
S98-0223	Field Blank	01-Jun-98	17	100	<0.50	—	—	—	120	—	—	3.2	6.0	<20	0.33	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	<1	—	—	—
S98-0291	Field Blank	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	20.7	9.56	31	<0.1	<2.0	19.3	<0.1	<0.10	<1.25	—	—	—	—	—	—	3.6	—	—	—
S98-0480	Field Blank	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	1.23	5.67	59	<0.1	<0.1	21.8	<0.2	<0.4	<0.05	—	—	—	—	0.016	—	<0.25	—	—	<0.0025
S99-0077	Field Blank	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	2.46	5.35	<25	<0.1	<0.1	14.8	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.25	—	—	—
M99-0001	Field Blank	10-May-99	<2	<2	<2	<2	<2	<2	<6	—	—	1.32	6.18	41	<0.1	<0.1	21.5	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025
M99-0209	Field Blank	23-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	3.70	5.94	<15	0.32	<0.5	21.7	<0.2	<0.4	0.080	—	<0.025	<0.005	<0.0025	<0.01	<0.002	0.33	<0.005	<0.005	<0.0025
M00-0031	Field Blank	23-Feb-00	<2	<2	<2	<2.0	<2.0	<2.0	<6.0	—	—	1	6.04	<15	<0.1	<0.1	17.4	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0104	Field Blank	12-May-00	<5	<5	<5	—	—	—	<10	—	—	6	5.47	17	<0.1	<0.1	18.6	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0203	Field Blank	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	2.0	6.20	<15	<0.1	<0.1	25.8	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.5	—	—	—
M00-0246	Field Blank	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	11.0	5.4	<15	3.3	<0.1	17.2	<0.2	<0.4	<0.1	—	—	<0.1	<0.005	0.12	<0.01	<0.5	<0.01	—	0.10
M01-0020	Field Blank	21-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	1.0	6.14 H	<15	<0.1	<0.1	22.0	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M01-0164	Field Blank	07-May-01	<2	<2	<2	—	—	—	<2	<5	—	577.0	8.19 H	342	84	<2	25.2	0.17	<0.4	0.630	—	—	—	—	—	—	<0.5	—	—	—
M01-0414	Field Blank	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	33.2	6.04	28	6.5	1	22.8	0.13	<0.4	0.62	—	—	—	—	—	—	0.51	—	—	—
M01-0491	Field Blank	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	1.3	6.38	<15	<0.1	<0.1	19.6	<0.2	<0.4	<0.05	—	<0.05	<0.1	<0.005	<0.1	<0.005	<0.5	<0.01	<0.01	<0.005
M01-0494	Field Blank	29-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	1.73	6.25 H	<15	<0.1	<0.1	22.8	<0.2	<0.4	<0.05	—	<0.05	<0.1	<0.005	<0.1	<0.005	<0.5	<0.01	<0.01	<0.005
M02-0045	Field Blank	20-Feb-02	<2.0	3.1	2.1	—	—	—	9.0	—	—	3.8	6.06 H	<30.0	0.11	<0.10	—	<0.10	<0.40	<0.010	—	—	—	—	—	—	<0.50	—	—	—
M02-0045	Field Blank R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-03	Field Blank	27-Mar-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-04	Field Blank w/o HCl	27-Mar-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-28	Field Blank	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	26.0	6.33 H	<15.0	3.6	0.28	—	<0.10	<0.40	0.12	—	—	—	—	—	—	<0.50	—	—	—
2002110896-31	Field Blank	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1.0	5.88 H	<10	<2.0	<2.0	—	<0.50	<0.40	<0.20	—	—	<0.0050	—	<0.050	—	<2.0	—	—	—
	Trip Blank	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	12-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	13-May-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	24-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	25-Aug-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	10-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	11-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	12-Nov-04	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	15-Nov-04	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
2003030318/T4096-1	Pump Blank	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	51.800	—	—	—	—	—	—	—
2003050551-2	Pump Blank	19-May-03	—	—	28.600	—	—	—	—	—	—	—	—	65.100	—	—	191	—	—	—	315
2003080979-1	Pump Blank	19-Aug-03	—	—	32.200	—	—	—	—	—	—	—	—	74.800	—	—	202	—	—	—	347
2003101363-1	Pump Blank	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2003101363-15	Pump Blank	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	72.200	—	—	—	—	—	—	—
2003101363-29	Pump Blank	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	67.500	—	—	—	—	—	—	—
2004020197-3	Pump Blank	26-Feb-04	—	—	—	—	—	—	—	—	—	—	—	73.600	—	—	—	—	—	—	—
2004050647-1	Pump Blank	12-May-04	—	—	—	—	—	—	—	—	—	—	—	69.800	—	—	—	—	—	—	—
2004081157-1	Pump Blank	24-Aug-04	—	—	—	—	—	—	—	—	—	—	—	68.800	—	—	—	—	—	—	—
2004111601-1	Pump Blank	09-Nov-04	—	—	—	—	—	—	—	—	—	—	—	69.8	—	—	—	—	—	—	—
2004111601-18	Pump Blank	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	81.7	—	—	—	—	—	—	—
2004111601-32	Pump Blank	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	75.3	—	—	—	—	—	—	—
2005020148-1	Pump Blank	14-Feb-05	—	—	—	—	—	—	—	—	—	—	—	77.300	—	—	—	—	—	—	—
2005050586-3	Pump Blank	23-May-05	—	—	—	—	—	—	—	—	—	—	—	73.700	—	—	—	—	—	—	—
2005081051-1	Pump Blank	22-Aug-05	—	—	—	—	—	—	—	—	—	—	—	81.000	—	—	—	—	—	—	—
2005121523-1	Pump Blank	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	86.500	—	—	—	—	—	—	—
2005121523-15	Pump Blank	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	93.700	—	—	—	—	—	—	—
2005121523-30	Pump Blank	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	79.700	—	—	—	—	—	—	—
S98-0064	Field Blank	24-Feb-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	—	—	—	—
S98-0171	Field Blank	12-May-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	<5	—	—	—
S98-0223	Field Blank	01-Jun-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	<5	—	—	—
S98-0291	Field Blank	10-Aug-98	—	—	<0.25	—	—	—	—	<0.25	—	<10	—	<0.25	—	—	<25	<25	<25	<25	9.0
S98-0480	Field Blank	22-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	<0.25	—	<0.05	<25	<25	<25	<25	<0.5
S99-0077	Field Blank	23-Feb-99	—	—	<0.25	—	—	—	—	<1	—	<1	—	<0.25	—	—	<25	<25	<25	<25	<1
M99-0001	Field Blank	10-May-99	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.2	—	<0.25	—	<0.05	<25	<25	<25	<25	<1
M99-0209	Field Blank	23-Oct-99	<0.05	0.0062	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M00-0031	Field Blank	23-Feb-00	—	—	<0.5	—	—	—	—	<2.	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0104	Field Blank	12-May-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0203	Field Blank	08-Aug-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0246	Field Blank	06-Nov-00	<0.1	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.2	<0.02	1.5	—	<0.1	<25	<25	<25	<25	<2
M01-0020	Field Blank	21-Feb-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0164	Field Blank	07-May-01	—	—	<0.5	—	—	—	—	<2	—	11	—	140.0	—	—	240	240	<25	<25	<2
M01-0414	Field Blank	02-Aug-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	6.0	—	—	<25	<25	<25	<25	<2
M01-0491	Field Blank	25-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	<0.5	<0.005	<0.1	<25	<25	<25	<25	<2
M01-0494	Field Blank	29-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	—	<2	<0.1	<1	<0.02	1.4	<0.005	<0.1	<25	<25	<25	<25	<5
M02-0045	Field Blank	20-Feb-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	<0.50	—	—	<25	<25	<25	<25	<2.0
M02-0045	Field Blank R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-03	Field Blank	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-04	Field Blank w/o HCl	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-28	Field Blank	02-May-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	<0.50	—	—	<25	<25	<25	<25	<2.0
2002110896-31	Field Blank	08-Nov-02	<0.050	—	<2.0	<0.0010	—	—	—	<2.0	—	0.24	—	<2.0	—	—	<6.0	2	<2.0	<2.0	<13
	Trip Blank	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	12-May-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	13-May-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	24-Aug-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	25-Aug-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	10-Nov-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	11-Nov-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	12-Nov-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	15-Nov-04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
	Trip Blank	14-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	15-Feb-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank (SPL)	23-May-05	<5	<5	<5	<5	<5	<5	<5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank (Accutest)	23-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	24-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	25-May-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	22-Aug-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	23-Aug-05	<2.0 H	<2.0 H	<2.0 H	—	—	—	<6.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	12-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	13-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	15-Dec-05	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
	Trip Blank	14-Feb-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	15-Feb-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank (SPL)	23-May-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank (Accutest)	23-May-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	24-May-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	25-May-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	22-Aug-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	23-Aug-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	12-Dec-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	13-Dec-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Trip Blank	15-Dec-05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Notes:

1. < : Denotes a sample value of less than the laboratory reporting limit.
2. — : No analysis performed.
3. Jm : Estimated value--possible matrix effect.
4. Jc: This concentration may be biased because the continuing calibration verification (CCV) standard did not meet QC requirements for this analyte. However, overall CCV standard recoveries meet method requirements and analytical results are in control.
5. * : Method blank had detectable levels of this compound.
6. 1.2/<0.05 : NEL Lab result/Montgomery Watson Lab result.
7. P : Denotes sample was received with a pH greater than 2.
8. H: Sample was analyzed outside the EPA technical holding time.
9. R : Denotes a reanalyzed sample.
10. J : Indicates an estimated value.
11. 1.00 (404) : Result in parenthesis is from a re-analysis conducted outside the EPA technical holding time.

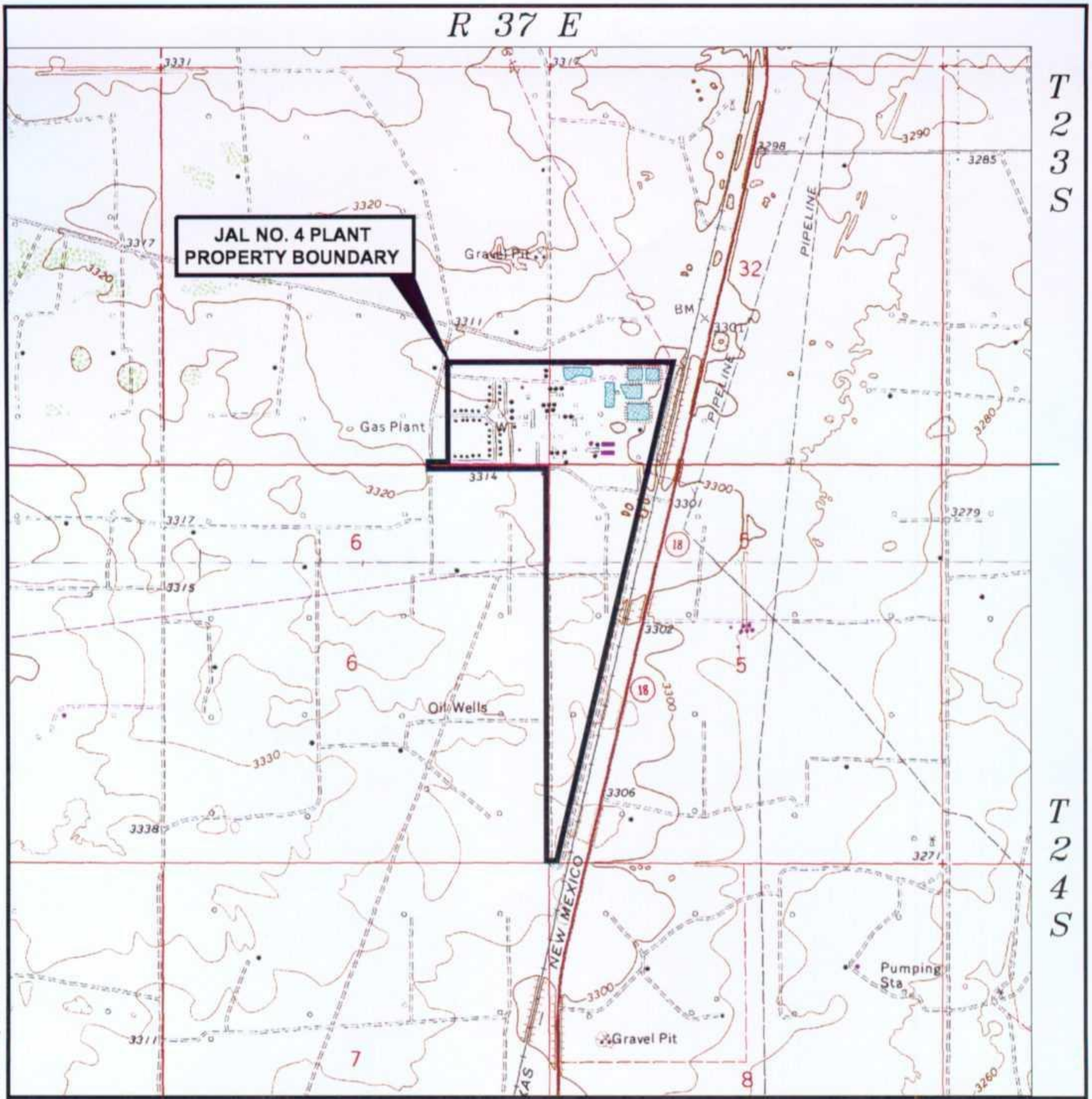
Table 3 : Summary of 2005 Groundwater Recovery/Disposal Volumes
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Month	CP-37 thru CP-42 Comb-S (RW1)			CP-37 thru CP-42 Comb-S (RW2)			ENSR #2			ACW-3			ACW-8		
	Meter Readings		Difference	Meter Readings		Difference	Meter Readings		Difference	Meter Readings		Difference	Meter Readings		Difference
	Present	Previous	(gallons)	Present	Previous	(gallons)	Present	Previous	(gallons)	Present	Previous	(gallons)	Present	Previous	(gallons)
	2004 Annual Subtotal		**1,241,510**	**2004 Annual Subtotal**		**2,029,620**	**2004 Annual Subtotal**		**1,130,850**	**2004 Annual Subtotal**		**0**	**2004 Annual Subtotal**		**0**
Jan-05	75,600	3,869,360	219,600	11,664,590	11,435,560	229,030	5,802,710	5,602,280	200,430			0	0	0	0
Feb-05	247,340	75,600	171,740	11,972,310	11,664,590	307,720	5,966,260	5,802,710	163,550			0	0	0	0
Mar-05	415,410	247,340	168,070	12,359,120	11,972,310	386,810	6,126,530	5,966,260	160,270			0	0	0	0
Apr-05	586,100	415,410	170,690	12,715,300	12,359,120	356,180	6,254,760	6,126,530	128,230			0	67,200	0	67,200
May-05	728,350	586,100	142,250	13,065,560	12,715,300	350,260	6,336,780	6,254,760	82,020			0	333,060	67,200	265,860
Jun-05	888,330	728,350	174,860	13,298,030	13,065,560	232,470	6,506,530	6,336,780	255,434	480,040	333,060	146,980			0
Jul-05	989,500	888,330	101,170	13,598,890	13,298,030	300,860	6,516,100	6,506,530	229,268	575,670	480,040	95,630			0
Aug-05	1,198,120	989,500	208,620	13,775,430	13,598,890	176,540	6,695,480	6,516,100	179,380	620,990	575,670	45,320			141,182
Sep-05	1,234,590	1,198,120	36,470	14,025,510	13,775,430	250,080	6,921,180	6,695,480	225,700	620,990	620,990	0			0
Oct-05	1,533,360	1,234,590	298,770	14,393,140	14,025,510	367,630	7,145,030	6,921,180	223,850	761,210	620,990	140,220	168,190	0	199,273
Nov-05	1,921,980	1,533,360	388,620	14,745,580	14,393,140	352,440	7,339,090	7,145,030	194,060	891,910	761,210	130,700	350,400	168,190	218,608
Dec-05	2,174,260	1,921,980	252,280	14,928,870	14,745,580	183,290	7,538,710	7,339,090	199,620	1,037,380	891,910	145,470	587,710	350,400	249,870
	2005 Annual Subtotal		**2,333,140**	**2005 Annual Subtotal**		**3,493,310**	**2005 Annual Subtotal**		**2,241,812**	**2005 Annual Subtotal**		**704,320**	**2005 Annual Subtotal**		**1,141,993**
													2005 Annual Totals		**9,914,575**
													acre-ft		30.426713
													barrels		236,061

Notes:

1. Well designations CP-37 through CP-42 combined - S(RW-1) and (RW-2) denote permit file.
   numbers issued by the New Mexico State Engineer's Office on June 24, 1997.
2. A new meter was installed at recovery well RW-1 on January 20, 2005.
3. Groundwater recovery was initiated in monitor well ACW-8 on April 21, 2005.
4. Due to malfunctions with the meters at recovery wells RW-1 and ENSR-2 during the June 2005 monitoring period, the monthly water totals for these wells were entered from the totalizer at the meter house.
5. During the July 2005 monitoring period the monthly water total from ENSR #2 was derived from the totalizer meter.
6. During the August 2005 monitoring period the monthly water total from ACW-8 was derived from the totalizer meter.
7. During the October 2005 monitoring period the monthly water total from ACW-8 was derived from the totalizer meter.
8. During the November 2005 monitoring period the monthly water total from ACW-8 was derived from the totalizer meter.
9. During the December 2005 monitoring period the monthly water total from ACW-8 was derived from the totalizer meter.

FIGURES



SOURCE: U.S.G.S. 7.5 MIN. TOPOGRAPHIC QUADRANGLES - RATTLESNAKE CANYON, N.M. 1979 AND JAL NW, N.M., 1979

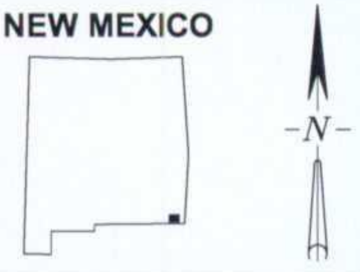


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FIGURE TITLE
PLANT LOCATION AND TOPOGRAPHIC FEATURES

DOCUMENT TITLE
2005 ANNUAL GROUNDWATER REMEDIATION REPORT

CLIENT
EL PASO NATURAL GAS COMPANY

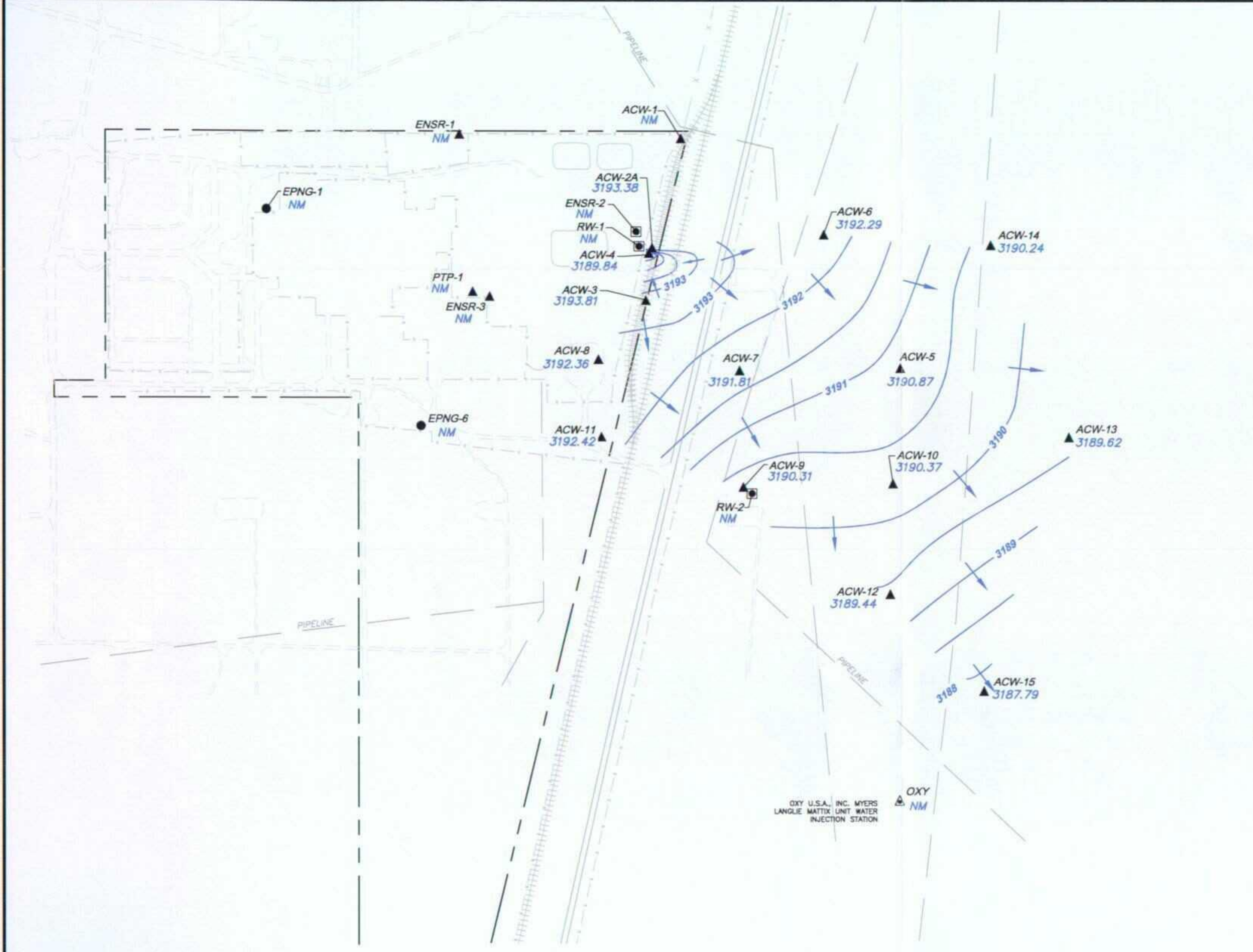
LOCATION
JAL #4 PLANT
LEA COUNTY, NEW MEXICO

DATE	2/3/06
SCALE	AS SHOWN
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
4100417107 P5

FIGURE NUMBER
1

P:\TUL\ENV\2004\4100417107\20_Cad\P5\FIG 1-TOPO.DWG on Jan 27, 2006-9:38am



LEGEND

▲ ACW-5 3190.87	GROUNDWATER MONITOR WELL AND GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, ON FEBRUARY 14–15, 2005, FEET AMSL
● EPNG-1	WATER SUPPLY WELL
◙ RW-2	GROUNDWATER RECOVERY WELL
▲ OXY	WATER SUPPLY WELL
←	DIRECTION OF GROUNDWATER FLOW
3192	CONTOUR OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM ON FEBRUARY 14–15, 2005, FEET AMSL
— – – —	PROPERTY BOUNDARY
— · — · —	FENCE
	SECONDARY ROAD
	RAILROAD TRACK
— —	PIPELINE
	IMPOUNDMENT
NM	NOT MEASURED FOR GROUNDWATER ELEVATION

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

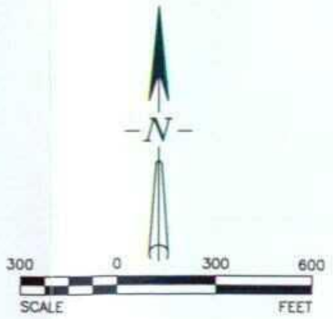


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FIGURE TITLE
GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - FEBRUARY 14-15, 2005

DOCUMENT TITLE
2005 ANNUAL GROUNDWATER REMEDIATION REPORT

CLIENT
EL PASO NATURAL GAS COMPANY

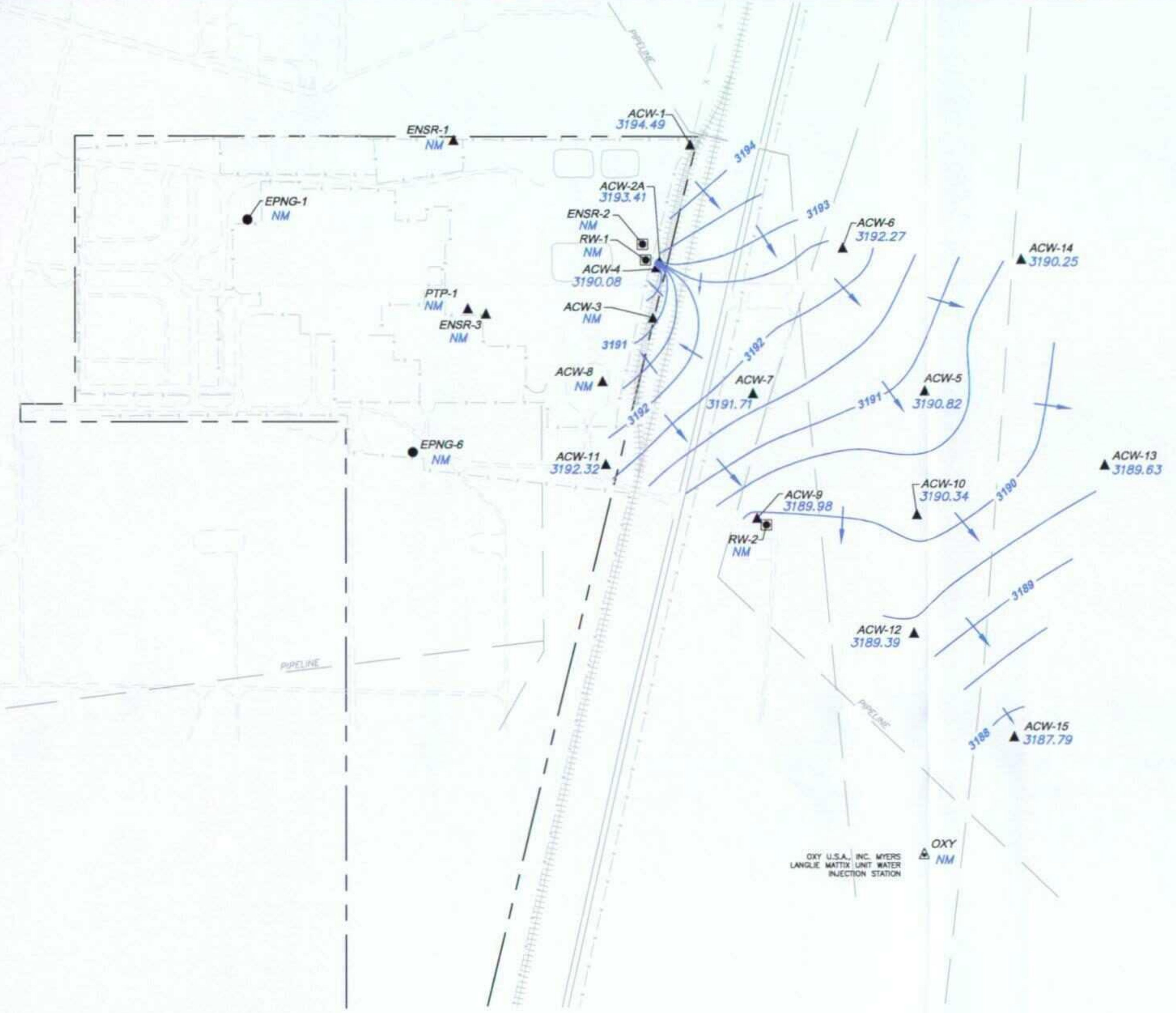
LOCATION
JAL #4 GAS PLANT
LEA COUNTY, NEW MEXICO

DATE	2/3/06
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
4100417107 P5

FIGURE NUMBER
2

P:\TUL\ENV\2004\4100417107\20_Cad\P5\FIG2-5-GW 2005.dwg on Jan 27, 2006-9:38am



LEGEND

▲ ACW-5 3190.82	GROUNDWATER MONITOR WELL AND GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, ON MAY 23–25, 2005, FEET AMSL
● EPNG-1	WATER SUPPLY WELL
▣ RW-2	GROUNDWATER RECOVERY WELL
▲ OXY	WATER SUPPLY WELL
←	DIRECTION OF GROUNDWATER FLOW
3192	CONTOUR OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM ON MAY 23–25, 2005, FEET AMSL
— - —	PROPERTY BOUNDARY
- · -	FENCE
= =	SECONDARY ROAD
++++	RAILROAD TRACK
— —	PIPELINE
▭	IMPOUNDMENT
NM	NOT MEASURED FOR GROUNDWATER ELEVATION

NOTES: 1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.

2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

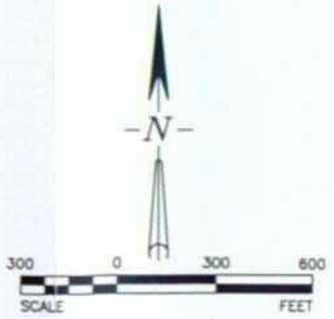


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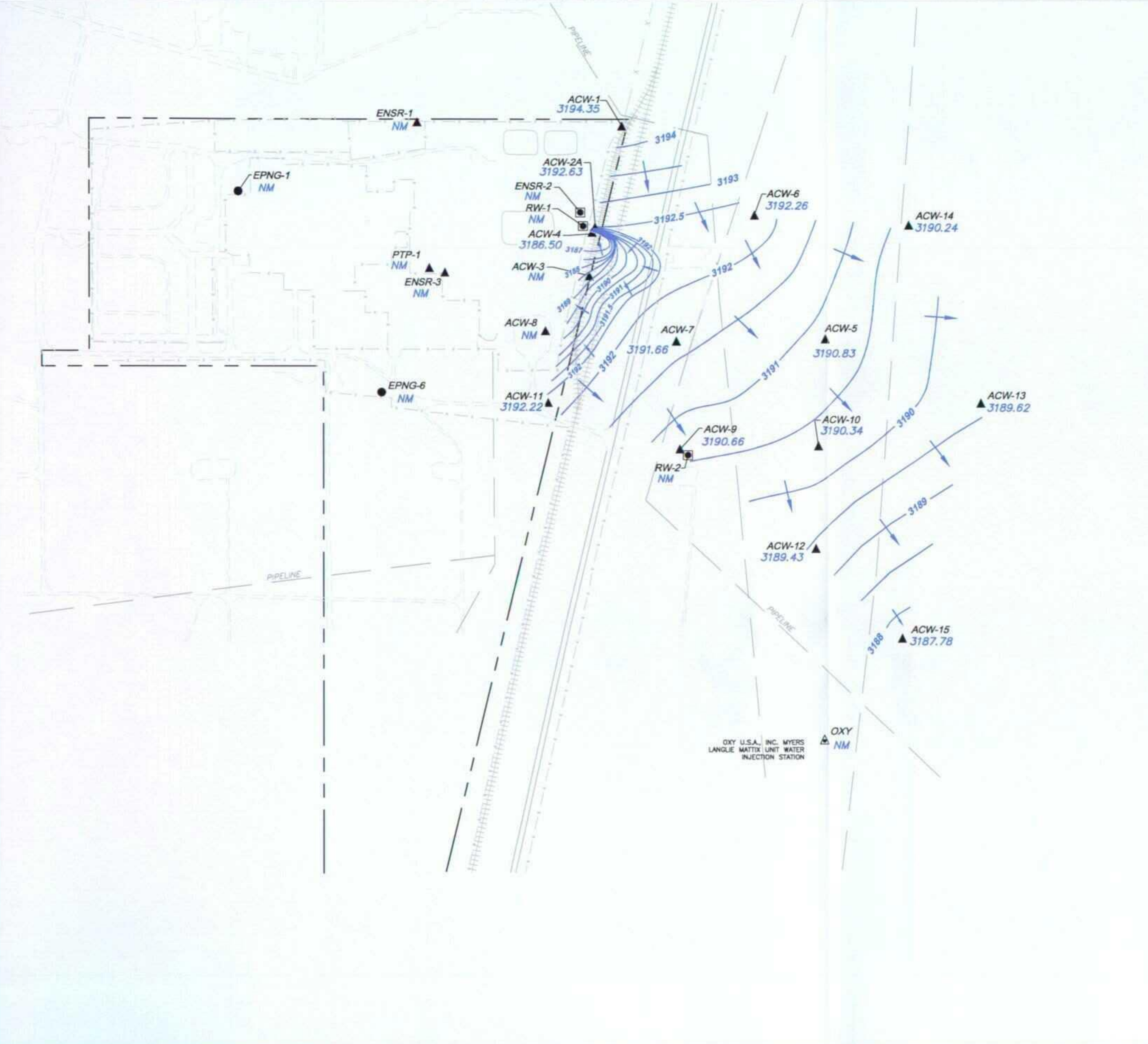
FIGURE TITLE	GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - MAY 23-25, 2005
DOCUMENT TITLE	2005 ANNUAL GROUNDWATER REMEDIATION REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 GAS PLANT LEA COUNTY, NEW MEXICO

DATE	2/3/06
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
4100417107 P5

FIGURE NUMBER
3

P:\TUL\ENV\2004\4100417107\20_Cad\P5\FIG2-5-GW 2005.dwg on Jan 27, 2006-9:38am



LEGEND

▲ ACW-5 3190.83	GROUNDWATER MONITOR WELL AND GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, ON AUGUST 22–23, 2005, FEET AMSL
● EPNG-1	WATER SUPPLY WELL
▣ RW-2	GROUNDWATER RECOVERY WELL
▲ OXY	WATER SUPPLY WELL
←	DIRECTION OF GROUNDWATER FLOW
3192	CONTOUR OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM ON AUGUST 22–23, 2005, FEET AMSL
— - — -	PROPERTY BOUNDARY
	FENCE
	SECONDARY ROAD
	RAILROAD TRACK
— —	PIPELINE
	IMPOUNDMENT
NM	NOT MEASURED FOR GROUNDWATER ELEVATION

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

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FIGURE TITLE
GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - AUGUST 22-23, 2005

DOCUMENT TITLE
2005 ANNUAL GROUNDWATER REMEDIATION REPORT

CLIENT
EL PASO NATURAL GAS COMPANY

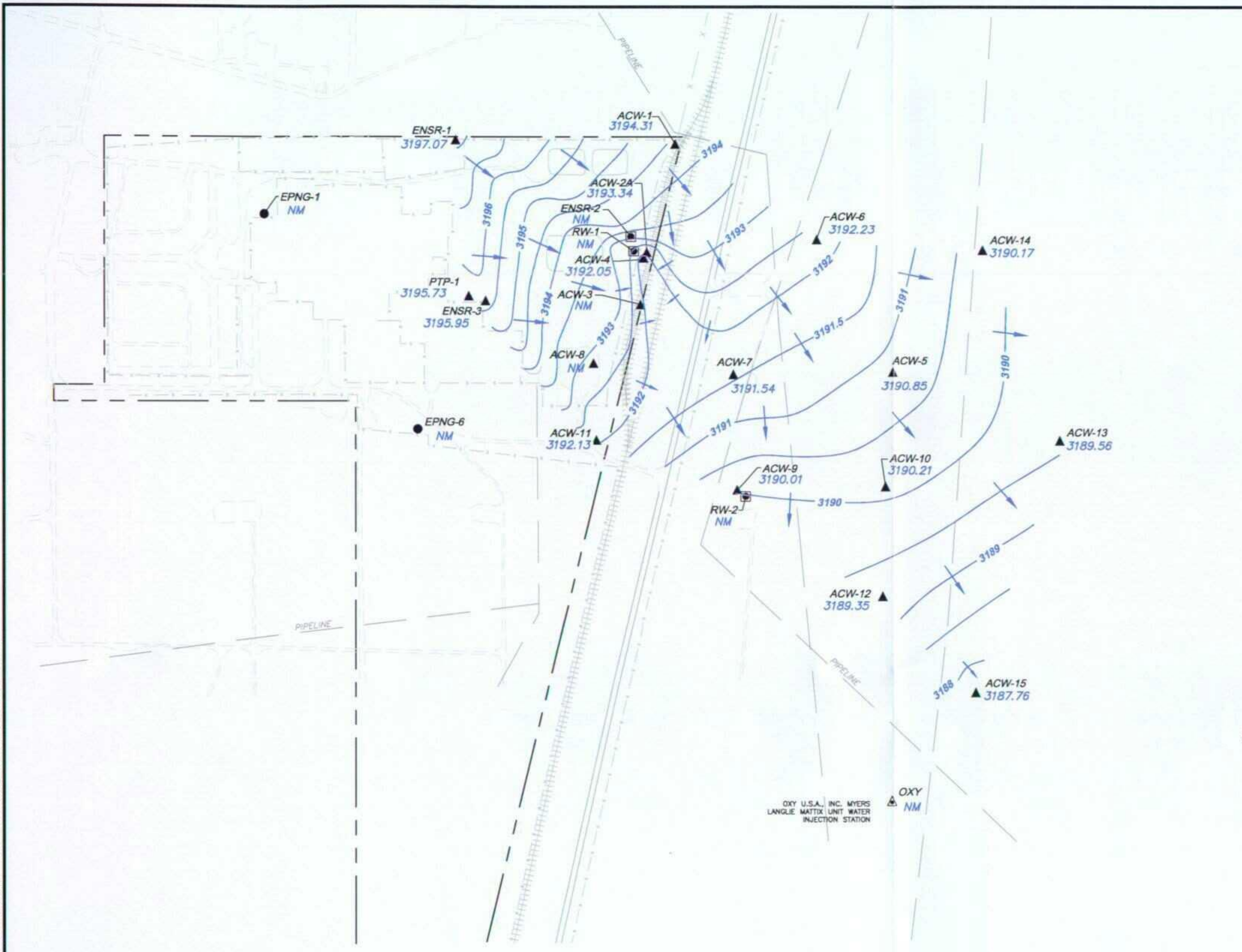
LOCATION
JAL #4 GAS PLANT
LEA COUNTY, NEW MEXICO

DATE	2/3/06
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
4100417107 P5

FIGURE NUMBER
4

P:\TUL\ENV\2004\4100417107\20_Cad\P5\FIG2-5-GW 2005.dwg on Jan 27, 2006-9:39am



LEGEND

▲ ACW-5 3190.85	GROUNDWATER MONITOR WELL AND GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, ON DECEMBER 12–15, 2005, FEET AMSL
● EPNG-1	WATER SUPPLY WELL
▣ RW-2	GROUNDWATER RECOVERY WELL
⚠ OXY	WATER SUPPLY WELL
←	DIRECTION OF GROUNDWATER FLOW
3192	CONTOUR OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM ON DECEMBER 12–15, 2005, FEET AMSL
— - —	PROPERTY BOUNDARY
- · -	FENCE
- - -	SECONDARY ROAD
┼┼┼	RAILROAD TRACK
— —	PIPELINE
▭	IMPOUNDMENT
NM	NOT MEASURED FOR GROUNDWATER ELEVATION

NOTES:

1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.

2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

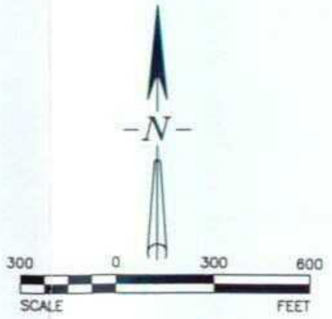


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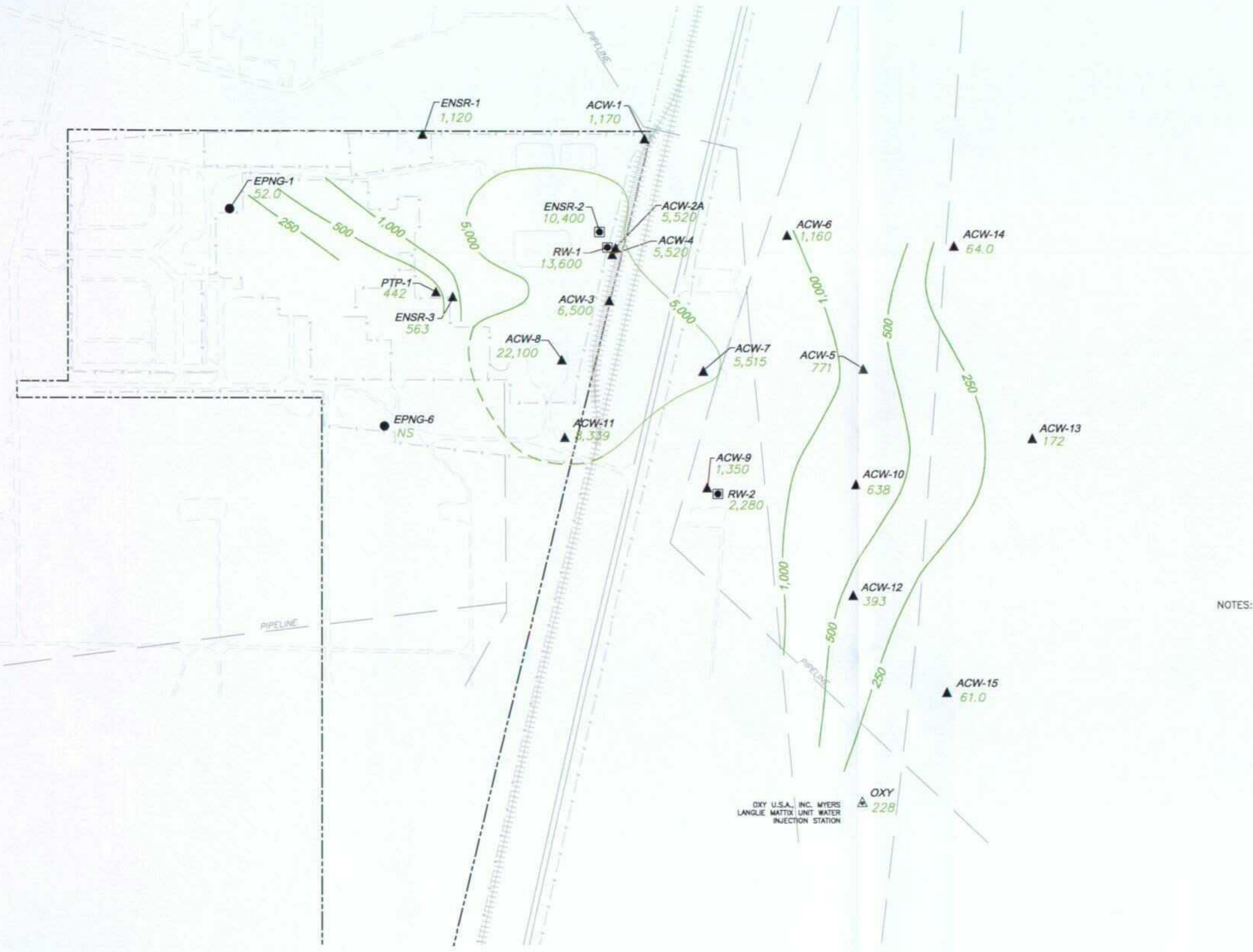
FIGURE TITLE	GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - DECEMBER 12-15, 2005
DOCUMENT TITLE	2005 ANNUAL GROUNDWATER REMEDIATION REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 GAS PLANT LEA COUNTY, NEW MEXICO

DATE	2/3/06
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
4100417107 P5

FIGURE NUMBER
5

P:\TUL\ENV\2004\4100417107\20_Cad\P5\FIG2-5-GW 2005.dwg on Jan 27, 2006-9:39am



LEGEND

▲ ACW-5 771	GROUNDWATER MONITOR WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
● EPNG-1 52.0	WATER SUPPLY WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
▣ RW-2 2,280	GROUNDWATER RECOVERY WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
△ OXY 228	WATER SUPPLY WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
NS	NOT SAMPLED
250	CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF CHLORIDE IN GROUNDWATER, mg/L (DASHED WHERE INFERRED)
— — —	PROPERTY BOUNDARY
— · — ·	FENCE
═══	PRIMARY ROAD OR HIGHWAY
= = =	SECONDARY ROAD
┼┼┼┼	RAILROAD TRACK
— —	PIPELINE
	IMPOUNDMENT

NOTES:
1) CHLORIDE CONCENTRATIONS SHOWN ARE THE HIGHEST LEVELS DETECTED IN GROUNDWATER IN EACH WELL DURING THE 2005 MONITORING PROGRAM.
2) EPA's SECONDARY DRINKING WATER STANDARD (SMCL) FOR PUBLIC WATER SUPPLY SYSTEMS IS 250 mg/L.
3) NEW MEXICO ENVIRONMENTAL DIVISION HAS ESTABLISHED AN OTHER STANDARDS FOR DOMESTIC WATER SUPPLY OF 250 mg/L FOR CHLORIDE IN GROUNDWATER CONTAINING TDS LEVELS OF 10,000 mg/L OR LESS.
4) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
5) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

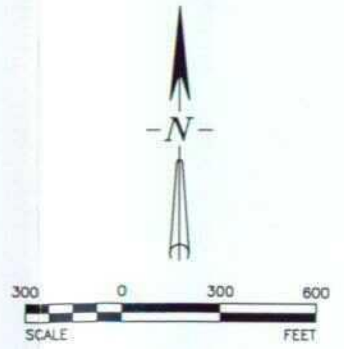


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FIGURE TITLE
ISOPLETH OF CHLORIDE CONCENTRATIONS IN GROUNDWATER IN 2005

DOCUMENT TITLE
2005 ANNUAL GROUNDWATER REMEDIATION REPORT

CLIENT
EL PASO NATURAL GAS COMPANY

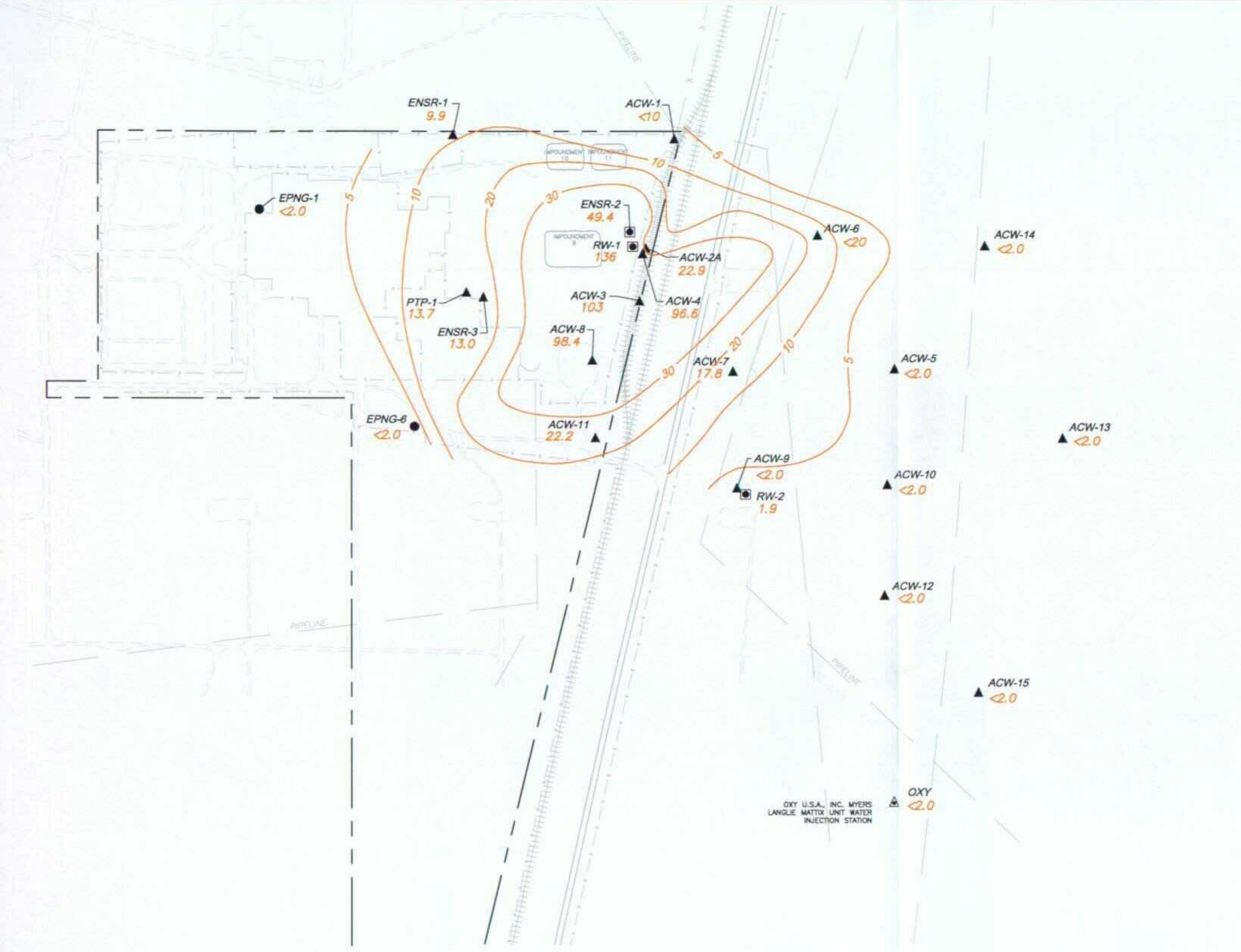
LOCATION
JAL #4 GAS PLANT
LEA COUNTY, NEW MEXICO

DATE	2/3/06
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
4100417107 P5

FIGURE NUMBER
6

P:\TUL\ENV\2004\4100417107\20_Cad\P5\FIG6 - CHLORIDE2005.dwg on Jan 27, 2006-9:39am



LEGEND

▲ ACW-5 <2.0	GROUNDWATER MONITOR WELL AND CONCENTRATION OF BENZENE IN GROUNDWATER, μg/L
● EPNG-1 <2.0	WATER SUPPLY WELL AND CONCENTRATION OF BENZENE IN GROUNDWATER, μg/L
⊡ RW-2 1.9	GROUNDWATER RECOVERY WELL AND CONCENTRATIONS OF BENZENE IN GROUNDWATER, mg/L
△ OXY <2.0	WATER SUPPLY WELL AND CONCENTRATION OF BENZENE IN GROUNDWATER, μg/L
NS	NOT SAMPLED
10	CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF BENZENE IN GROUNDWATER, μg/L. (DASHED WHERE INFERRED)
— - — -	PROPERTY BOUNDARY
— · — ·	FENCE
═══	PRIMARY ROAD OR HIGHWAY
- - -	SECONDARY ROAD
┼┼┼┼	RAILROAD TRACK
———	PIPELINE
▭	IMPOUNDMENT

NOTES:
1) BENZENE CONCENTRATIONS SHOWN ARE THE HIGHEST LEVELS DETECTED IN GROUNDWATER IN EACH WELL DURING THE 2005 MONITORING PROGRAM.
2) NEW MEXICO ENVIRONMENTAL DIVISION HAS ESTABLISHED A HUMAN HEALTH STANDARD OF 0.01 mg/L (10 μg/L) FOR BENZENE IN GROUNDWATER CONTAINING TDS LEVELS OF 10,000 mg/L OR LESS.
3) EPA'S PRIMARY DRINKING WATER STANDARD (MCL) FOR PUBLIC WATER SUPPLY SYSTEMS IS 0.005 mg/L (5.0 μg/L).
4) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
5) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

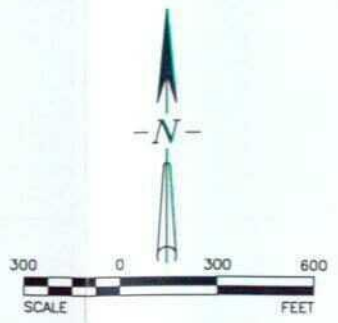


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FIGURE TITLE	***ISOPLETH OF BENZENE CONCENTRATIONS IN GROUNDWATER IN 2005***
DOCUMENT TITLE	2005 ANNUAL GROUNDWATER REMEDIATION REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 GAS PLANT LEA COUNTY, NEW MEXICO

DATE	2/3/06
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

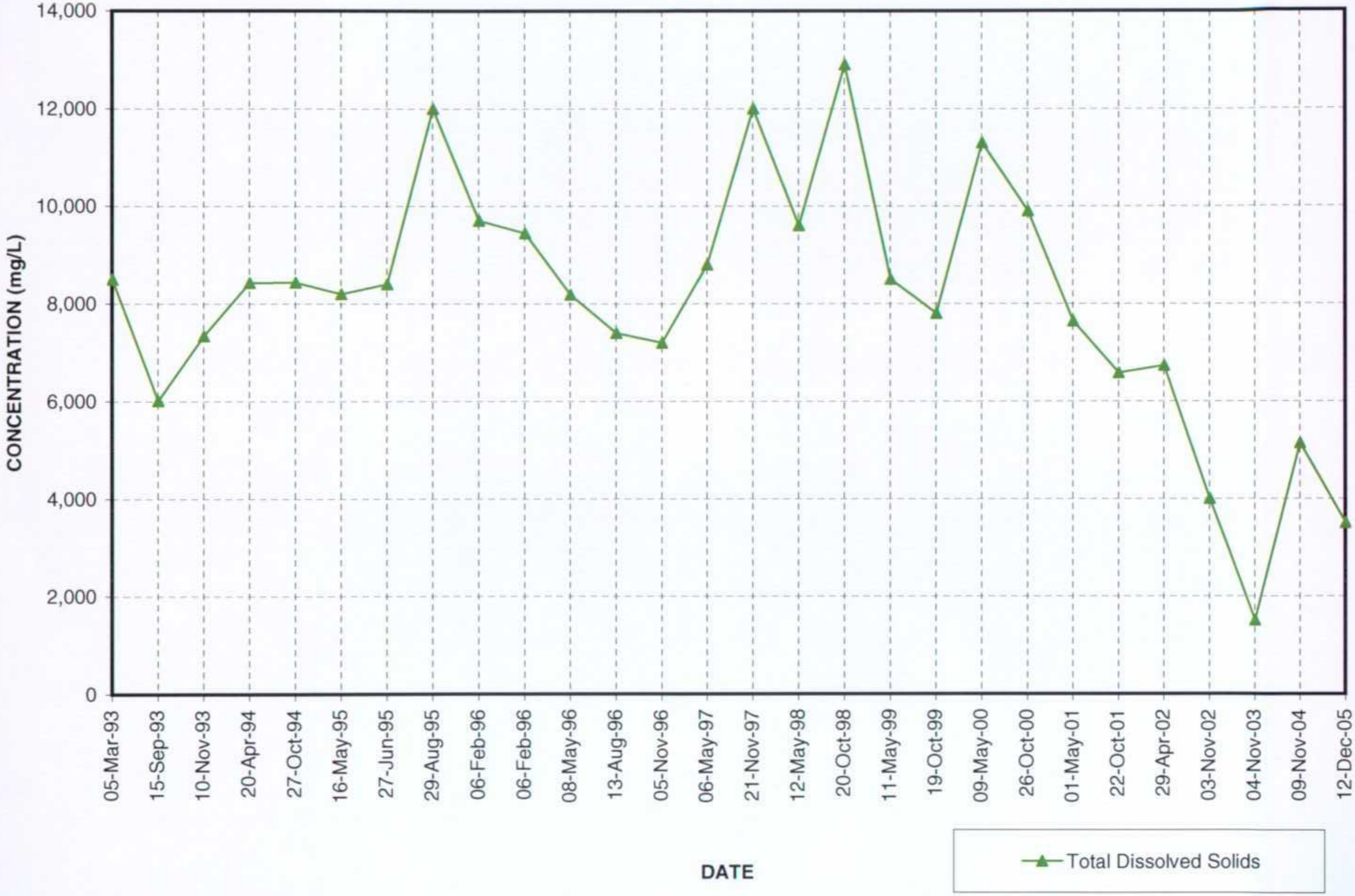
PROJECT NUMBER
4100417106

FIGURE NUMBER
7

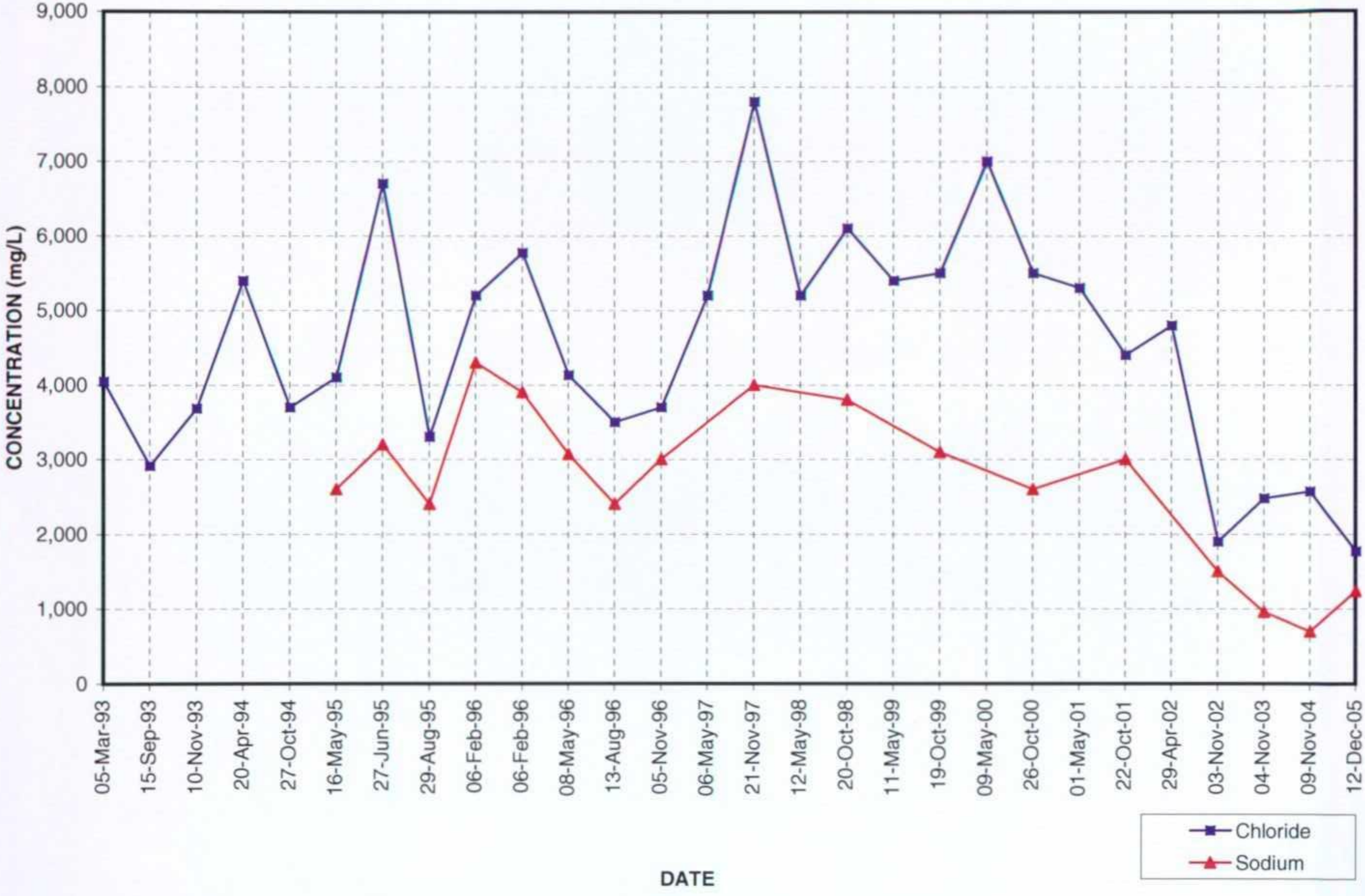
P:\TUL\ENV\2004\4100417107\20_Cad\P5\FIG7- BENZENE2005.dwg on Jan 27, 2006-9:39am

GRAPHS

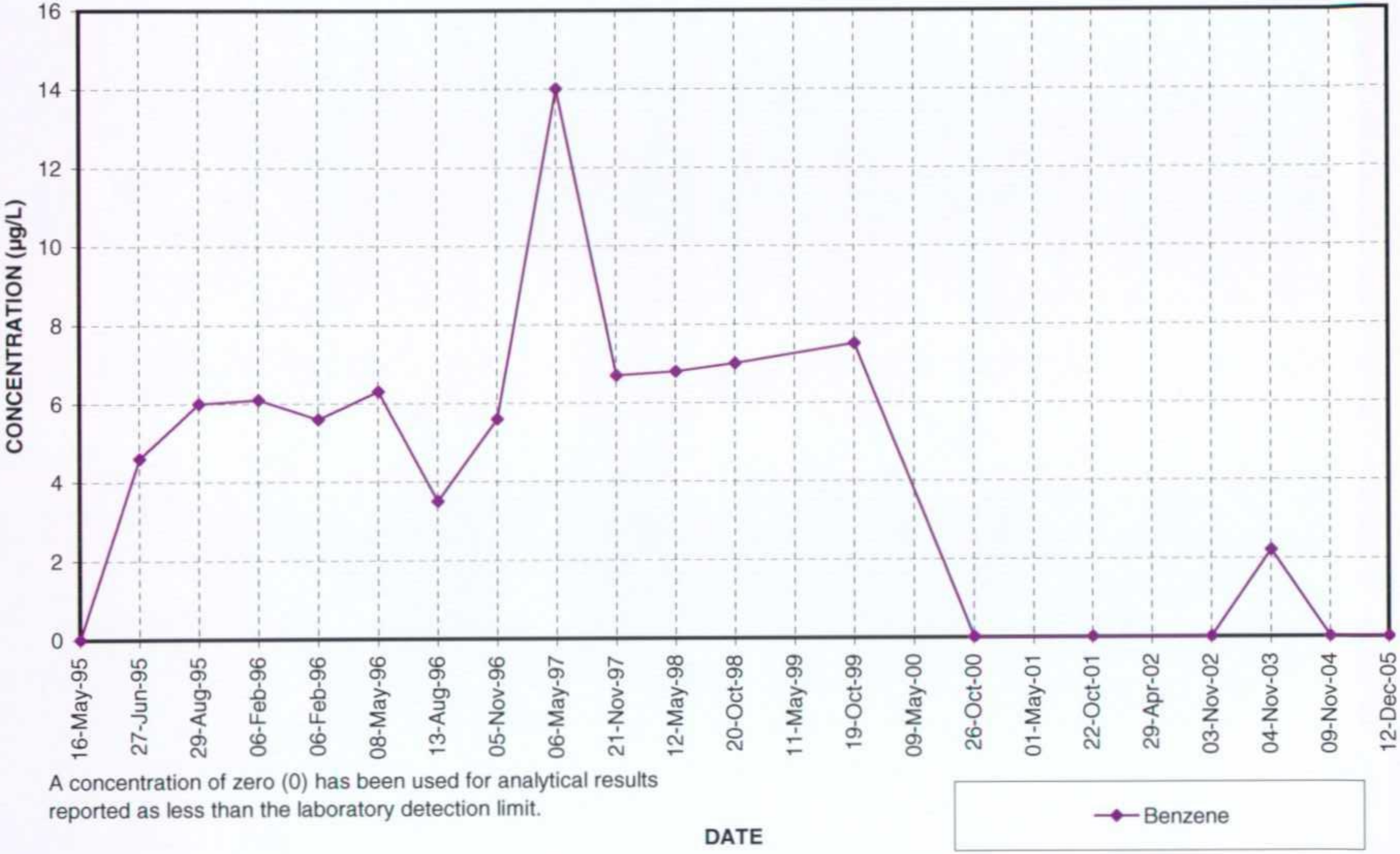
MONITOR WELL ACW-01



MONITOR WELL ACW-01

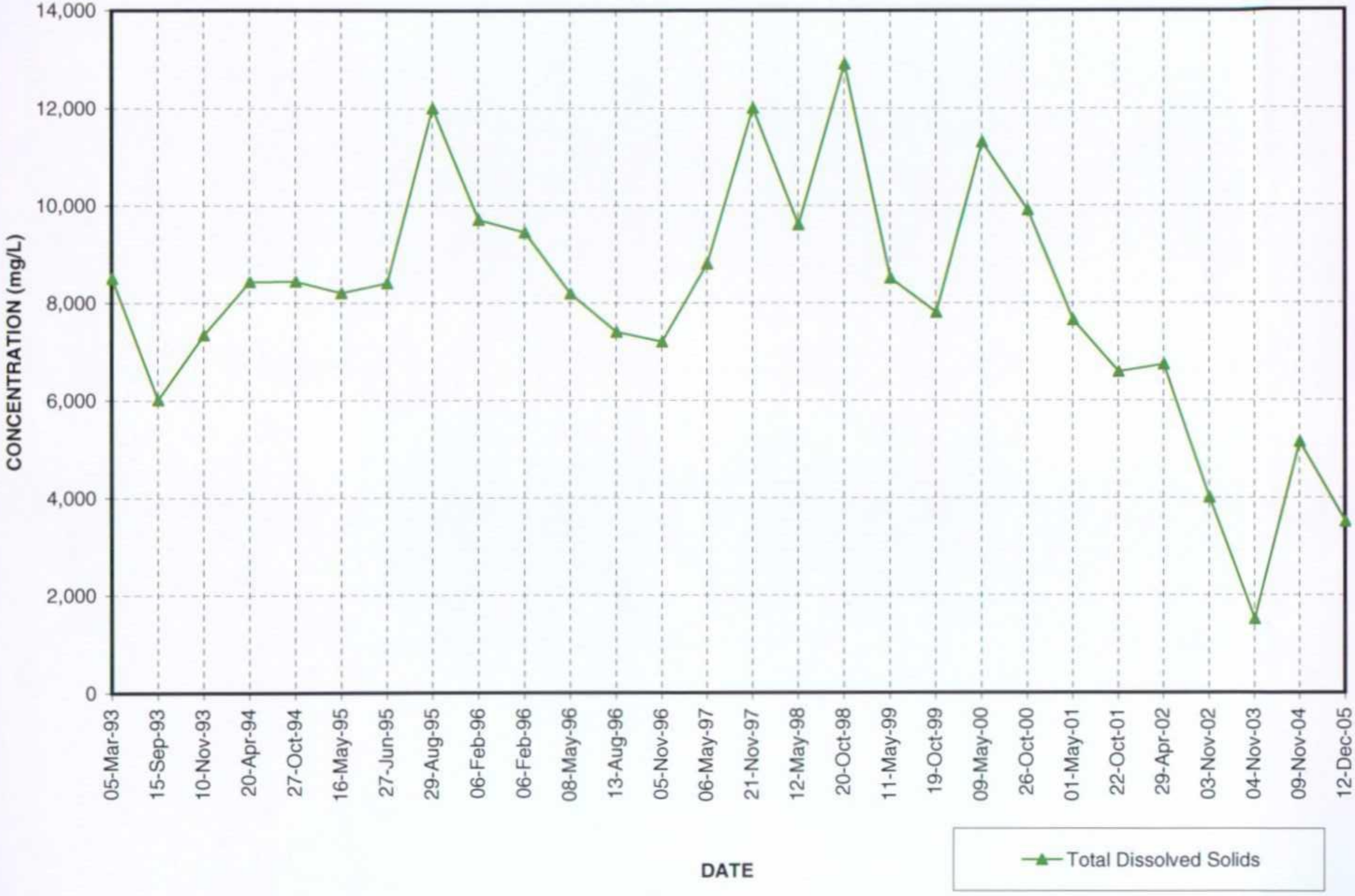


MONITOR WELL ACW-01

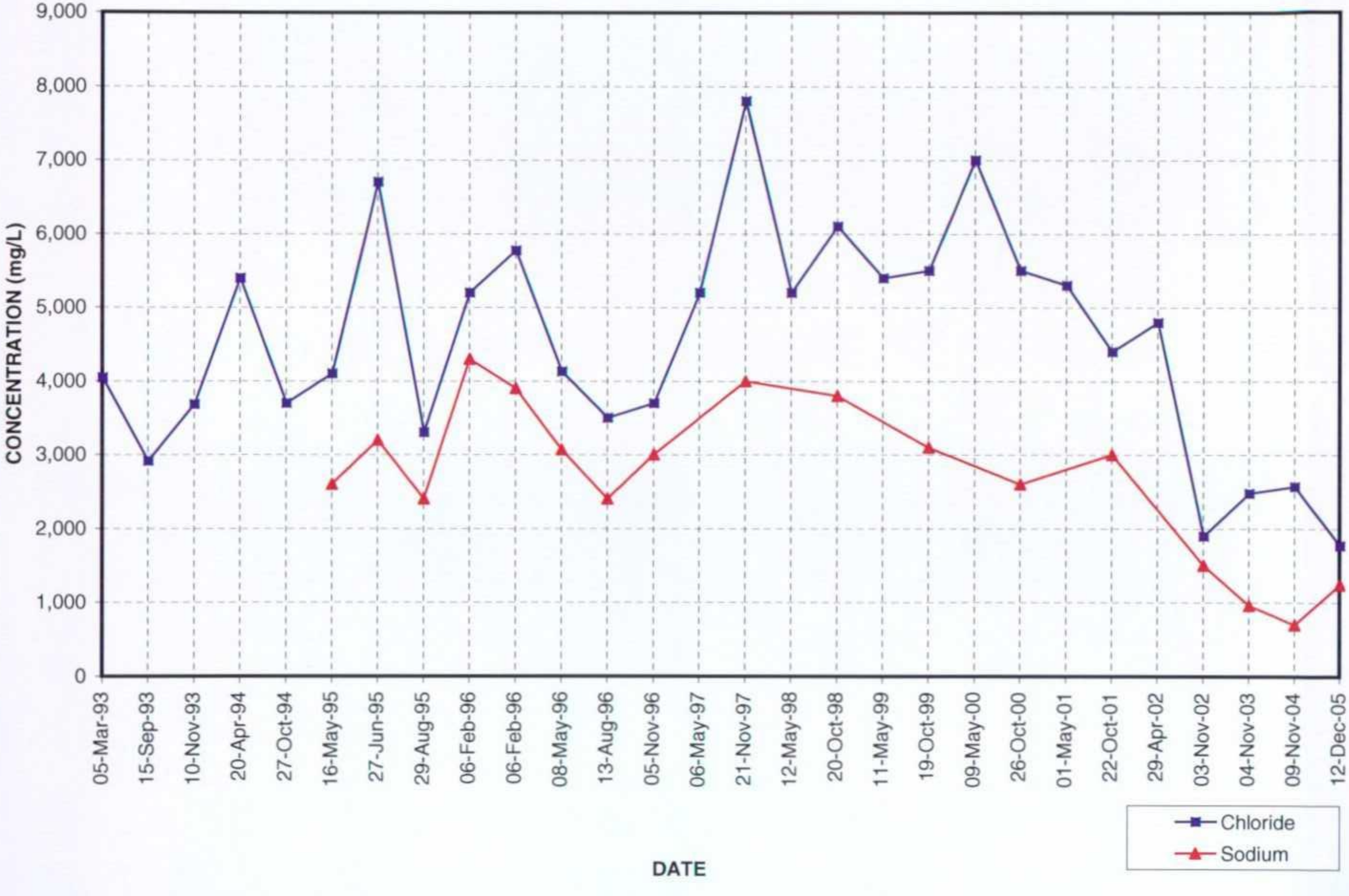


A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

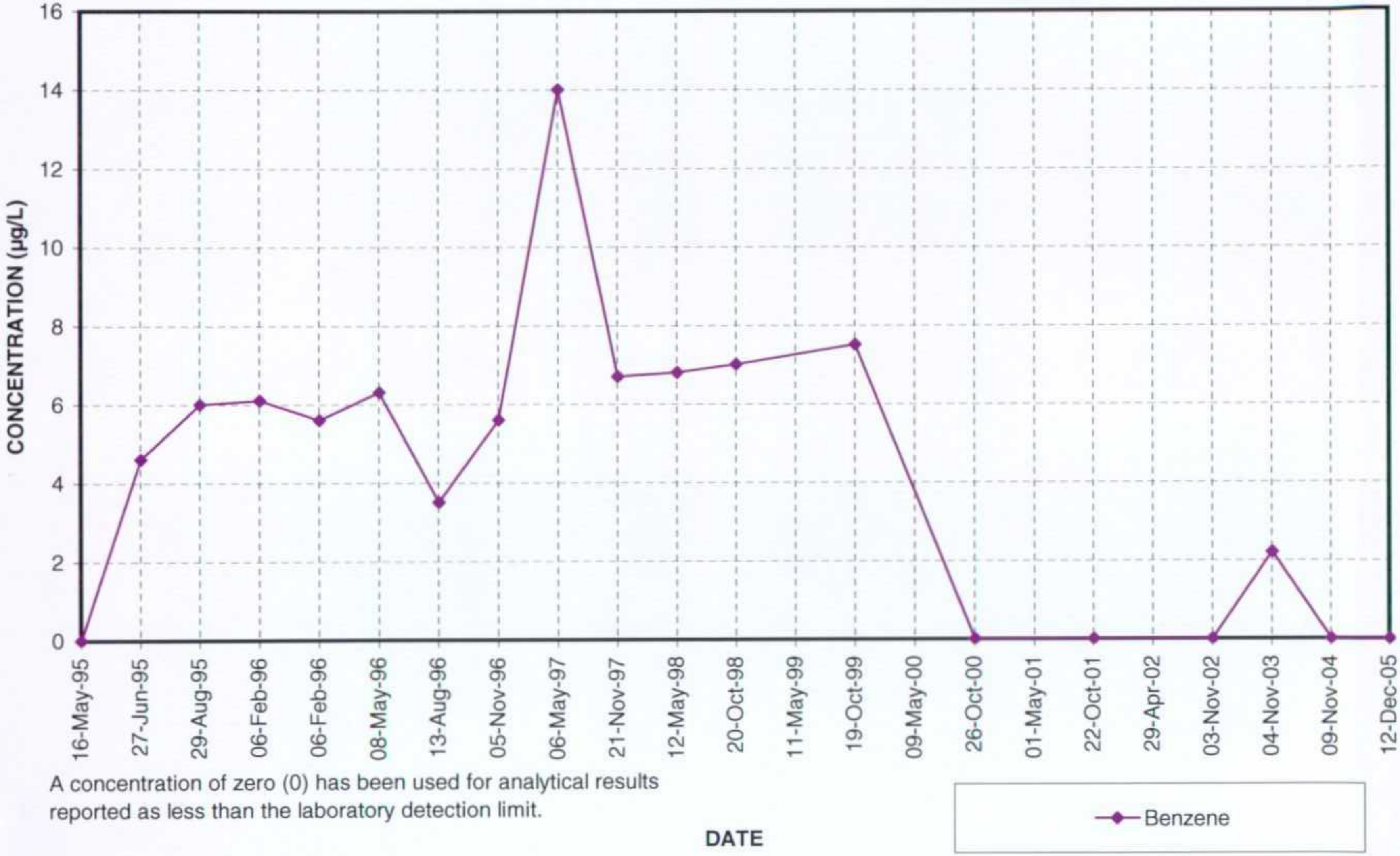
MONITOR WELL ACW-01



MONITOR WELL ACW-01

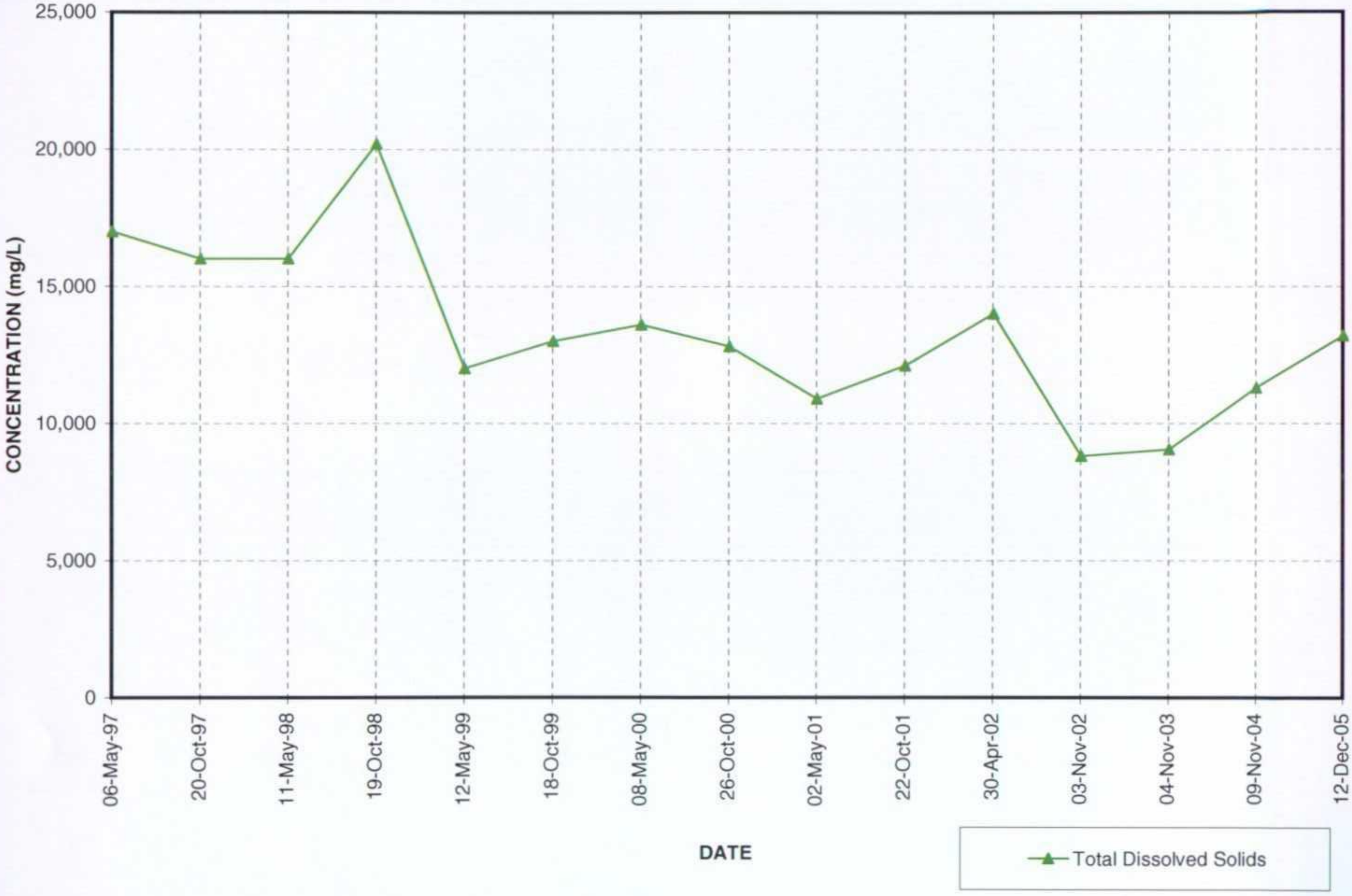


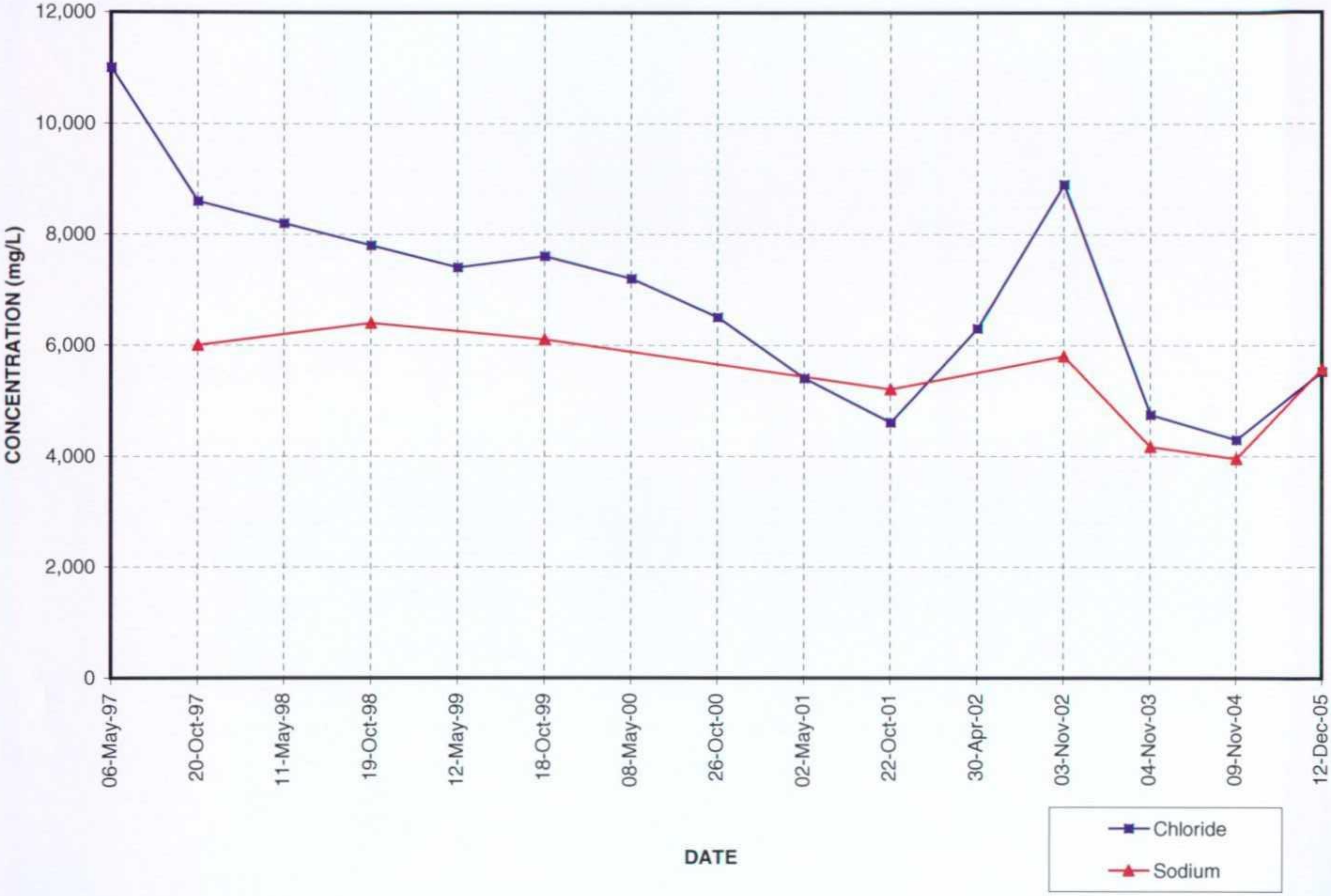
MONITOR WELL ACW-01



A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

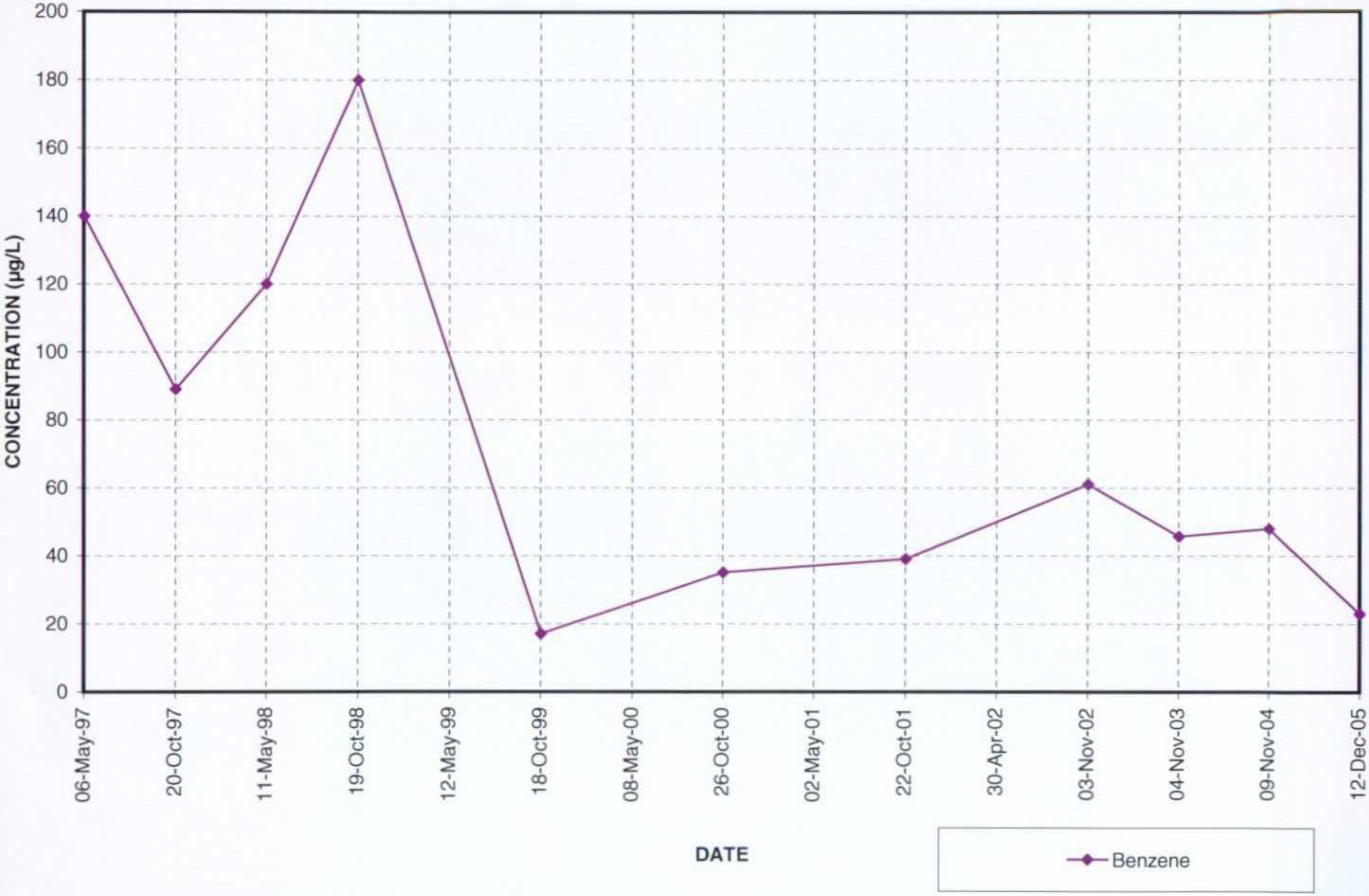
MONITOR WELL ACW-02A



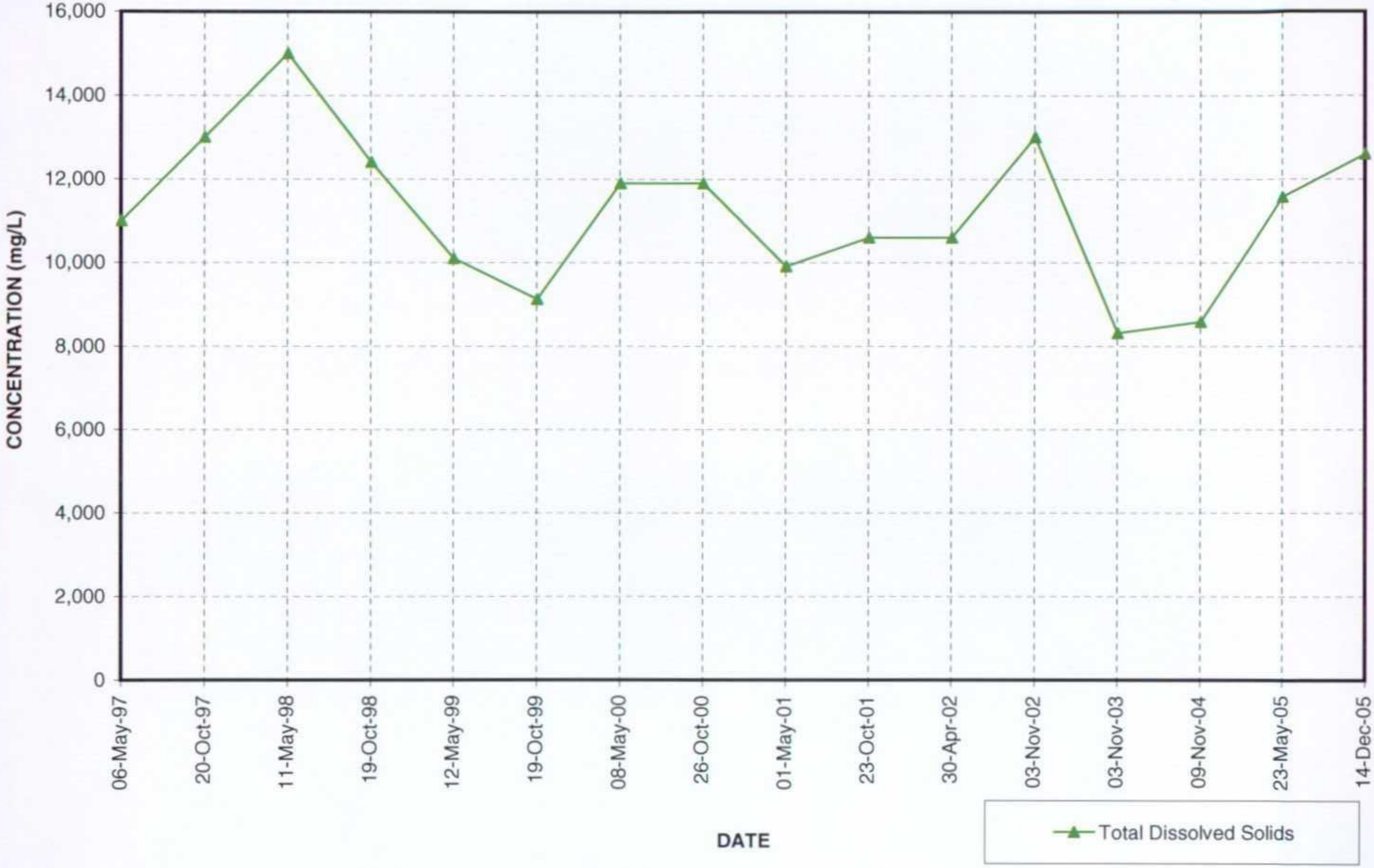


MONITOR WELL ACW-02A

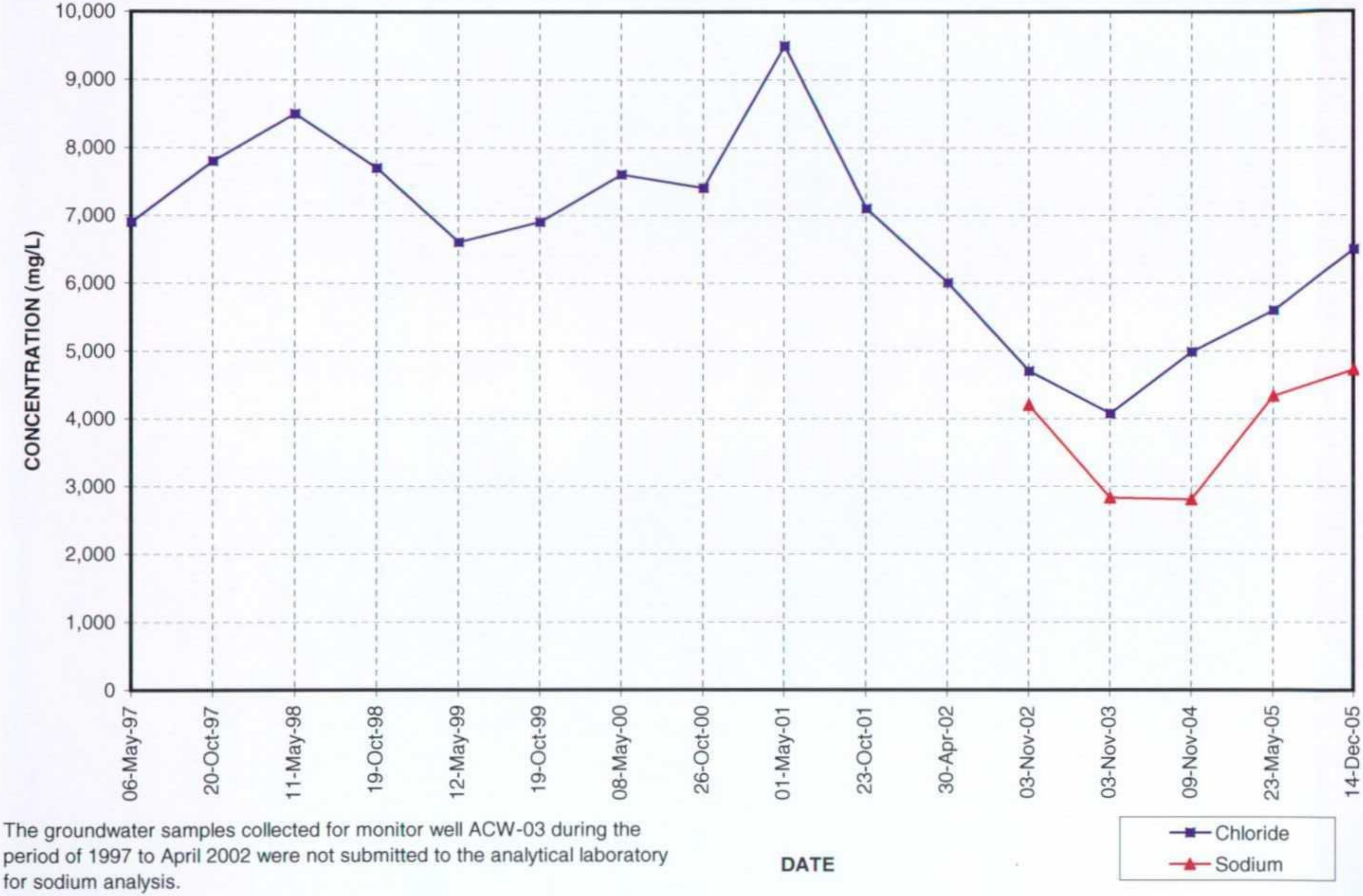
MONITOR WELL ACW-02A



MONITOR WELL ACW-03

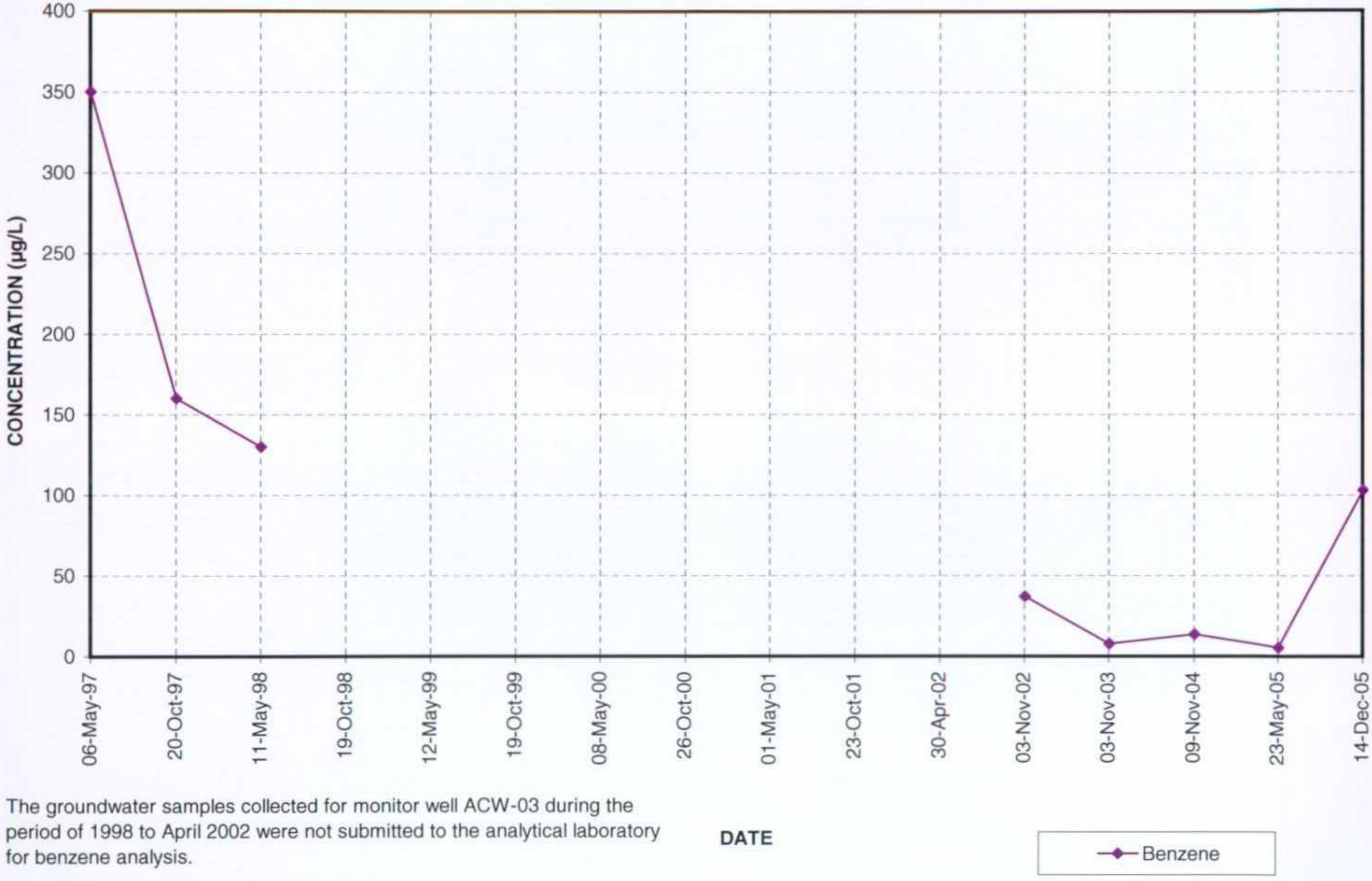


MONITOR WELL ACW-03



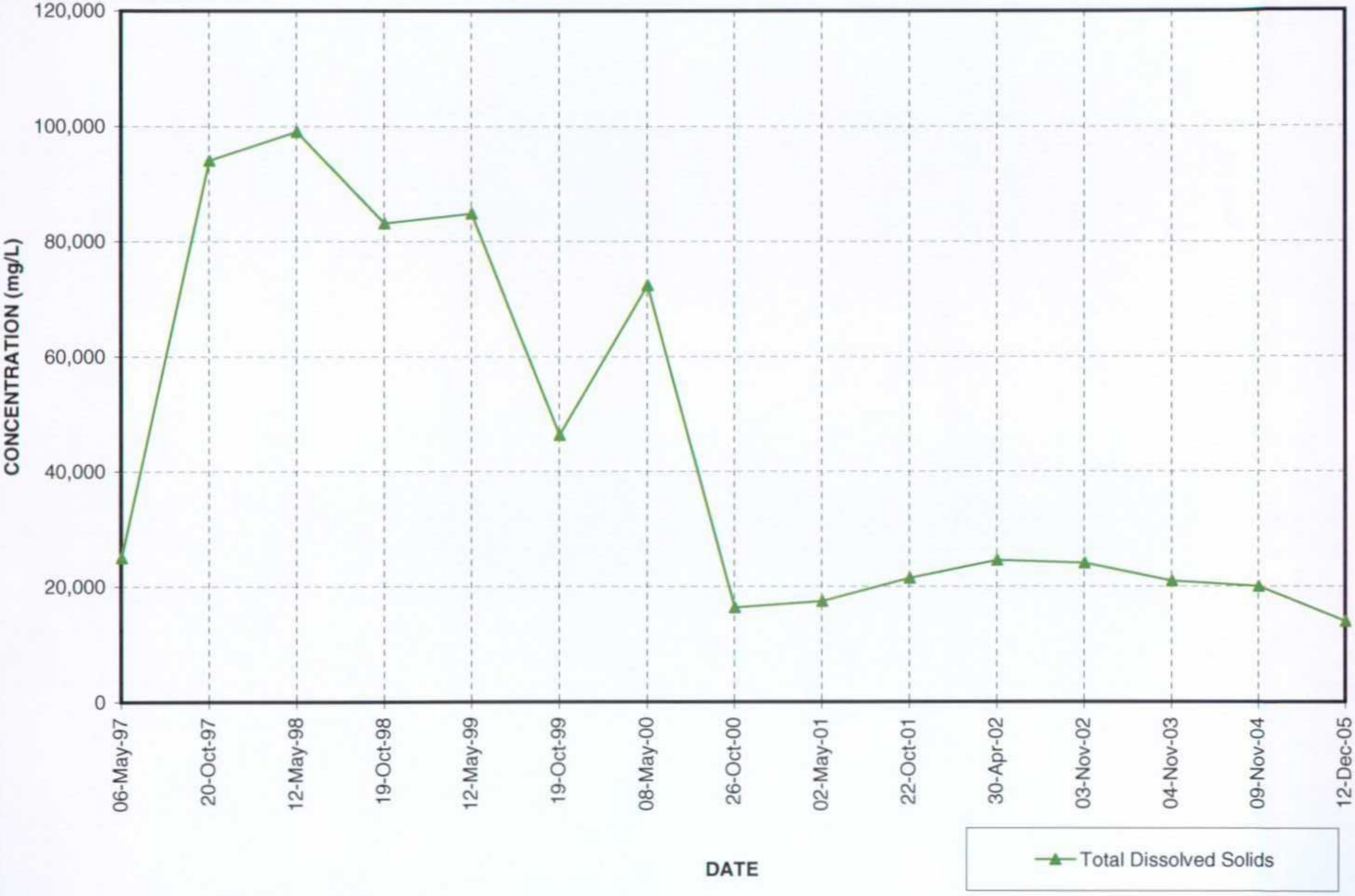
The groundwater samples collected for monitor well ACW-03 during the period of 1997 to April 2002 were not submitted to the analytical laboratory for sodium analysis.

MONITOR WELL ACW-03

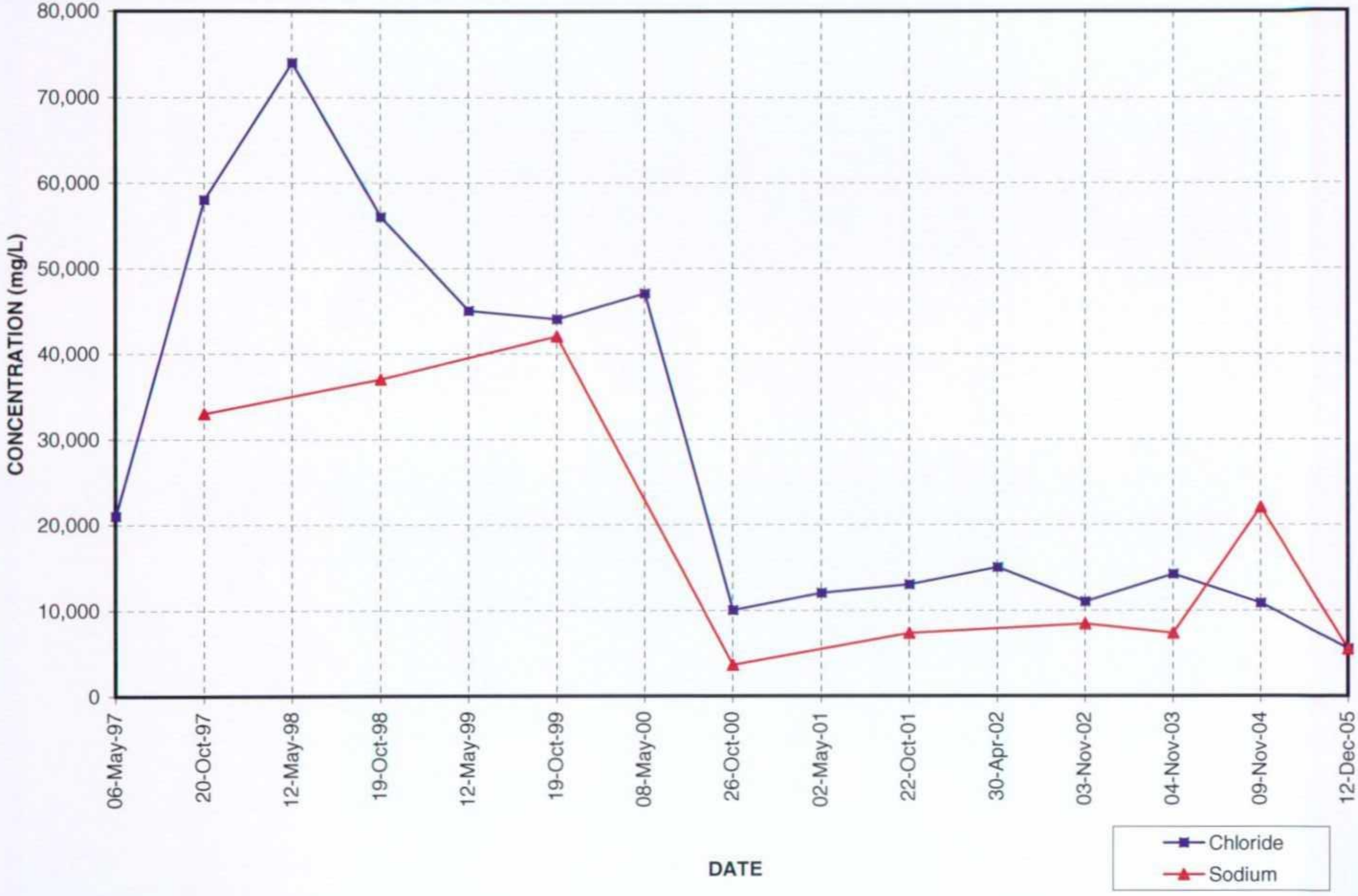


The groundwater samples collected for monitor well ACW-03 during the period of 1998 to April 2002 were not submitted to the analytical laboratory for benzene analysis.

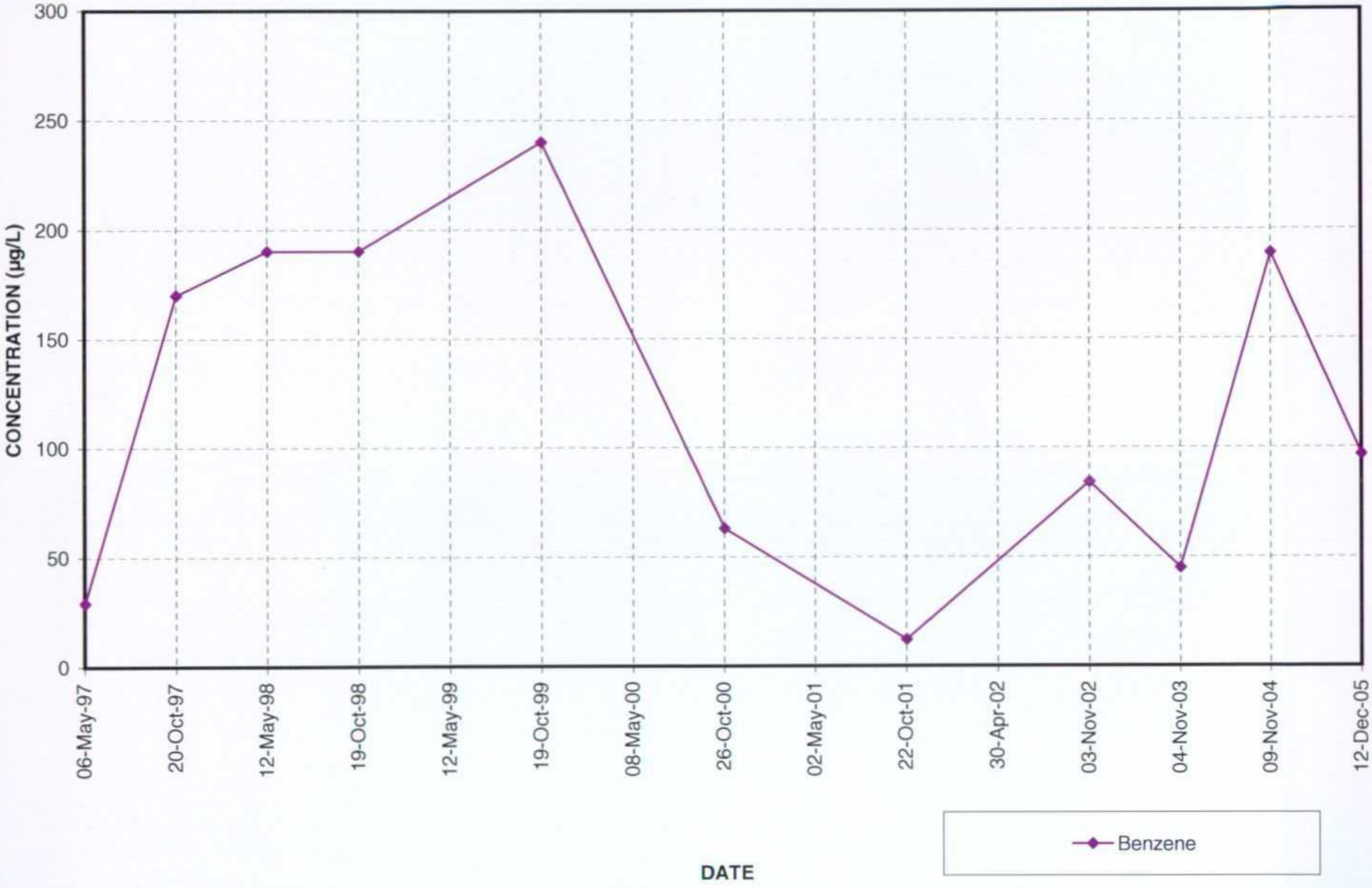
MONITOR WELL ACW-04



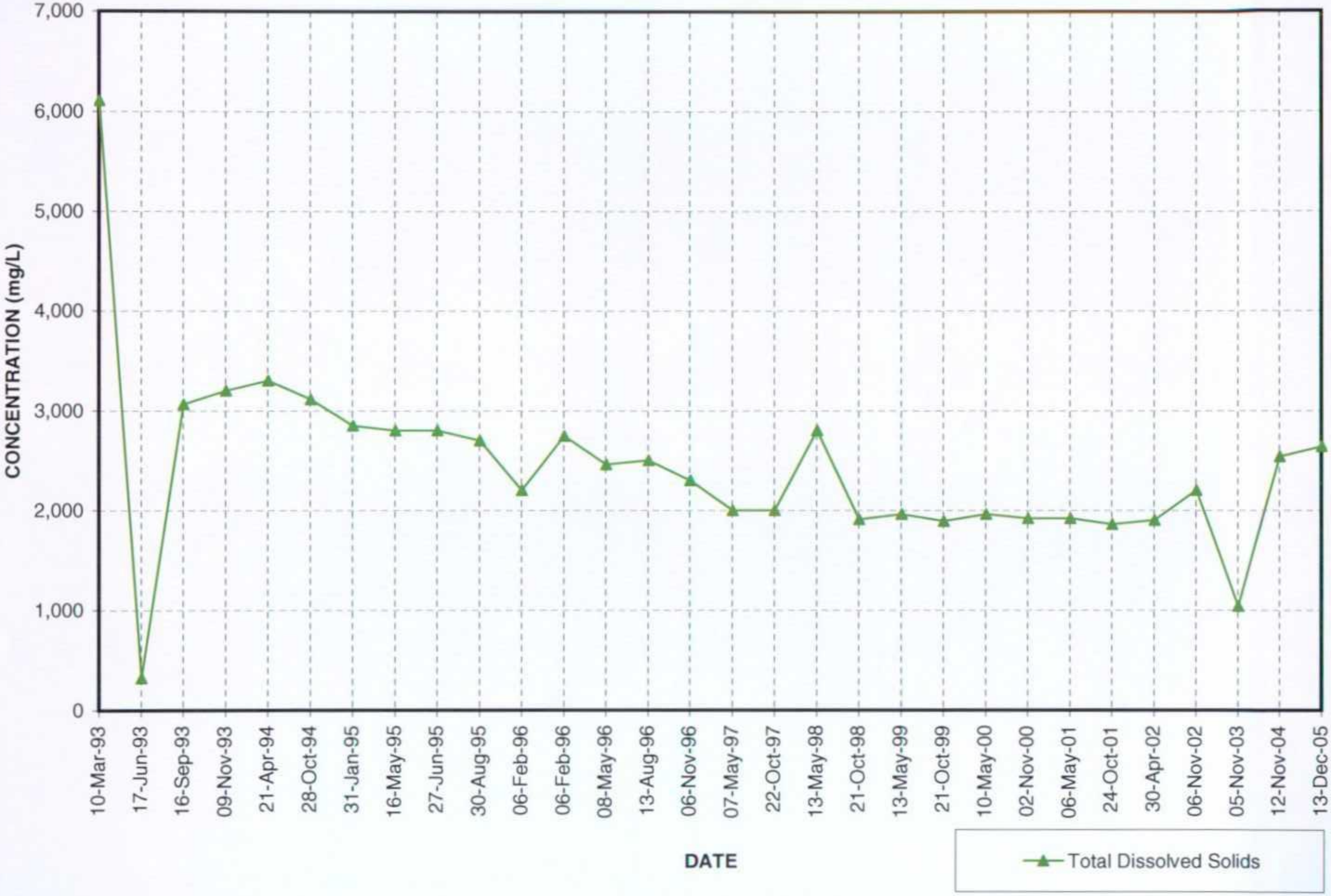
MONITOR WELL ACW-04



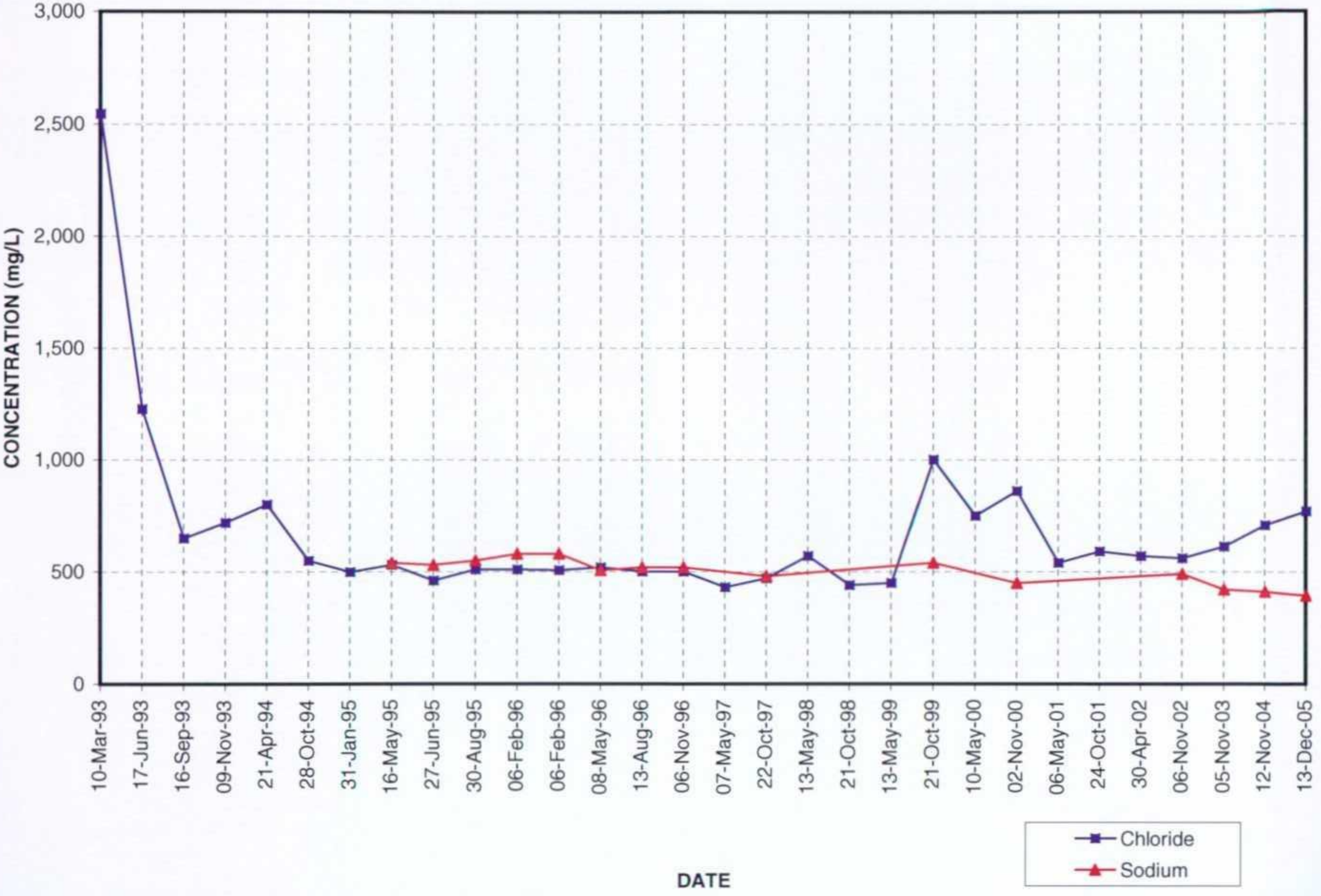
MONITOR WELL ACW-04

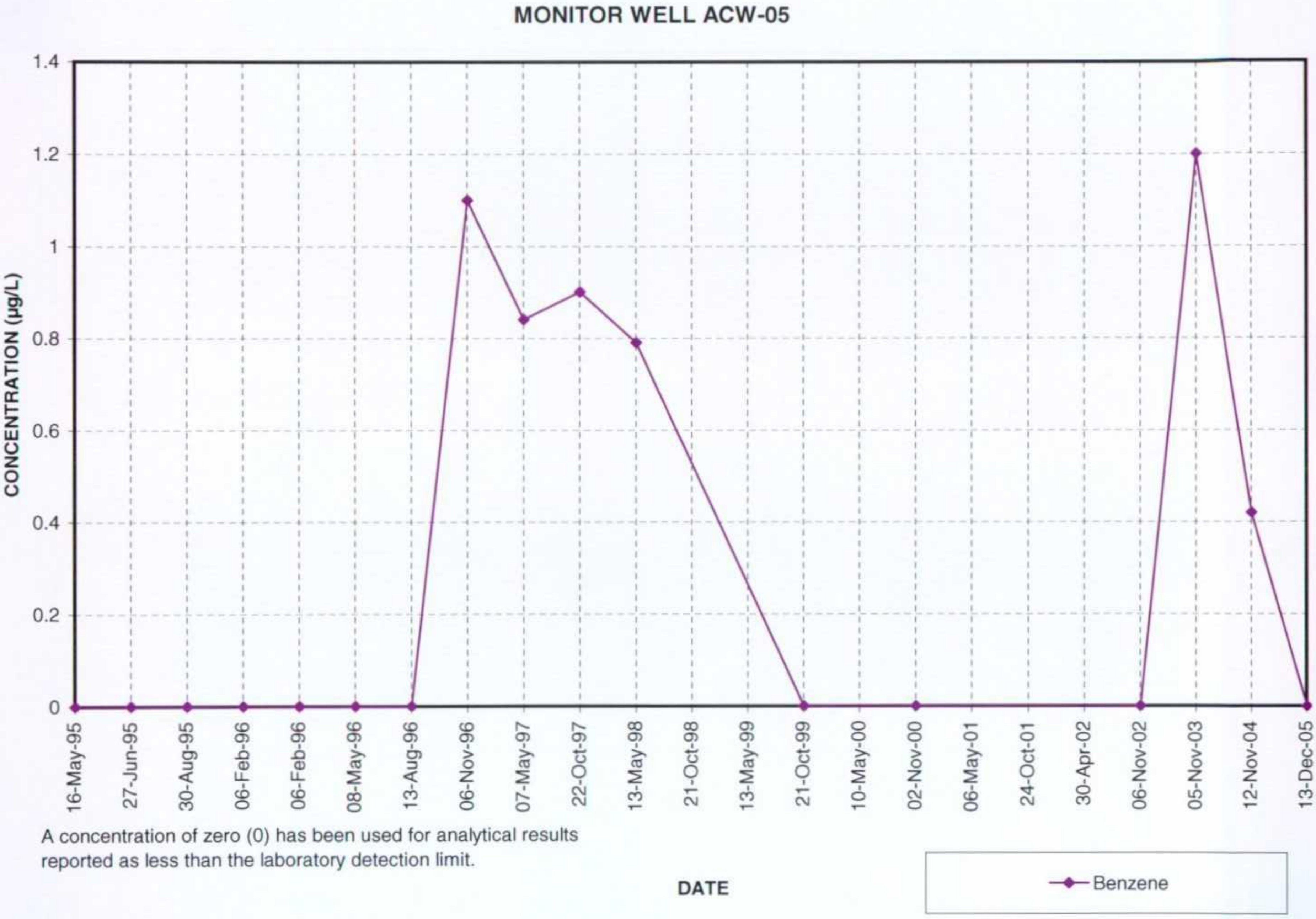


MONITOR WELL ACW-05

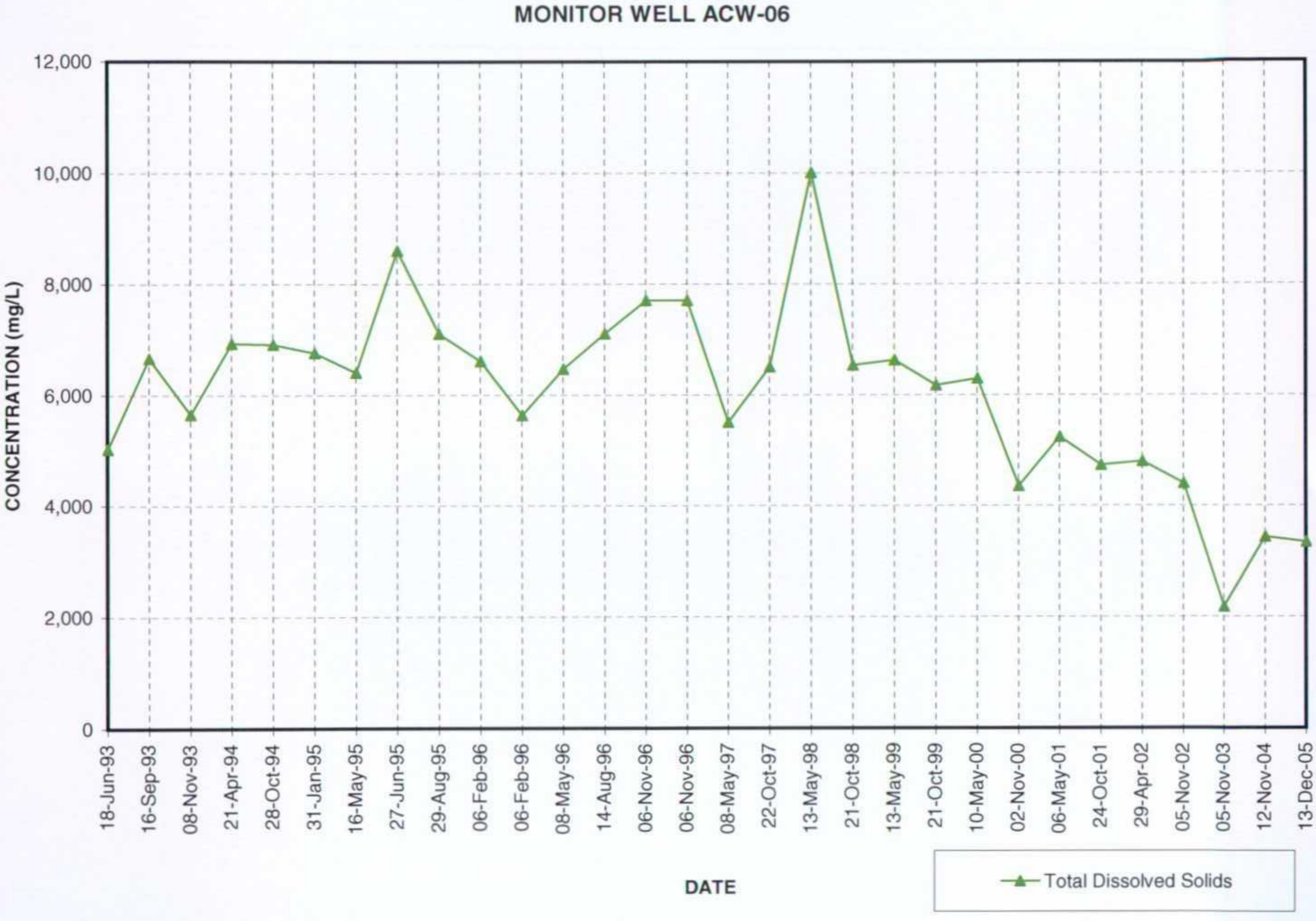


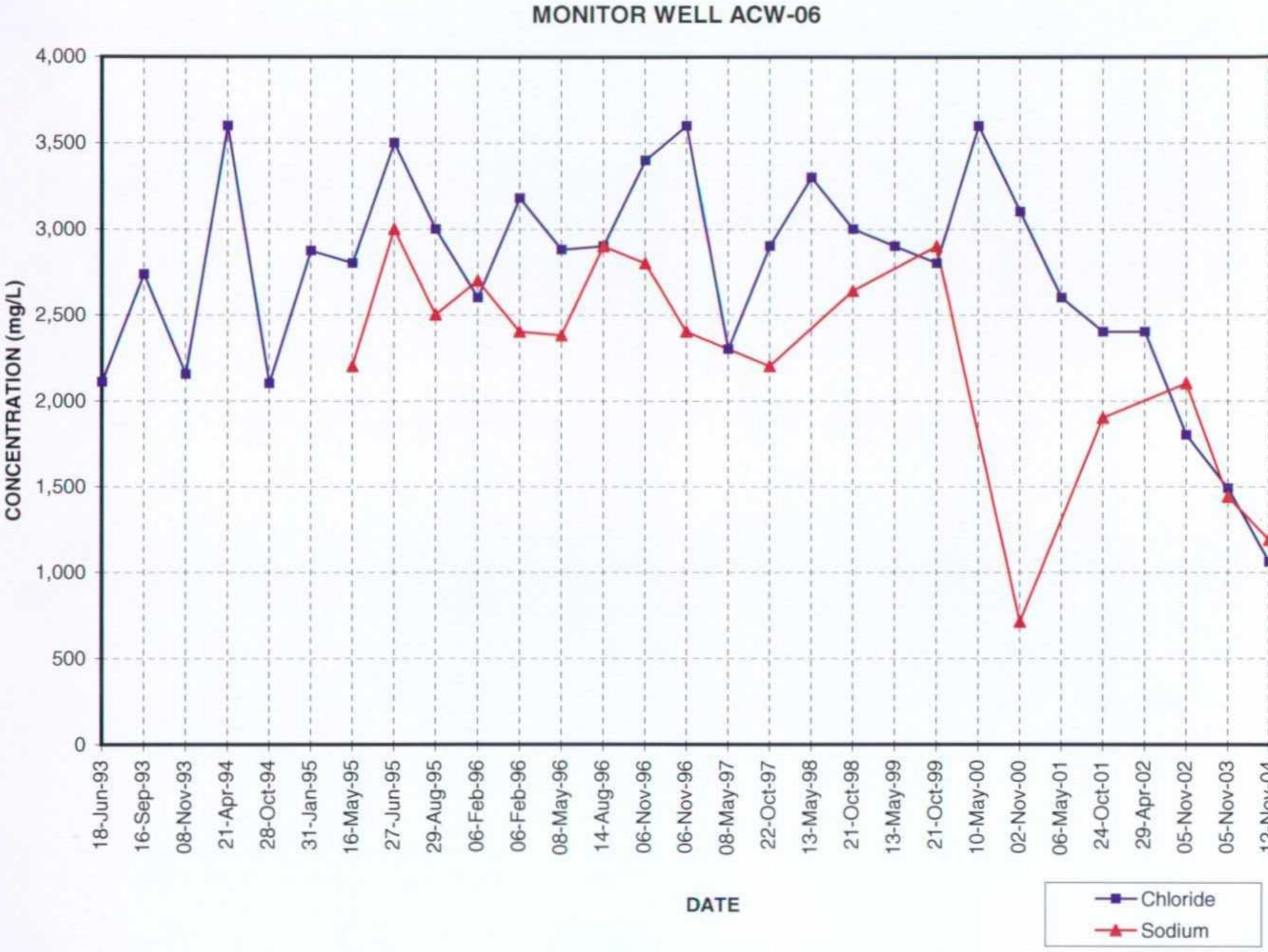
MONITOR WELL ACW-05



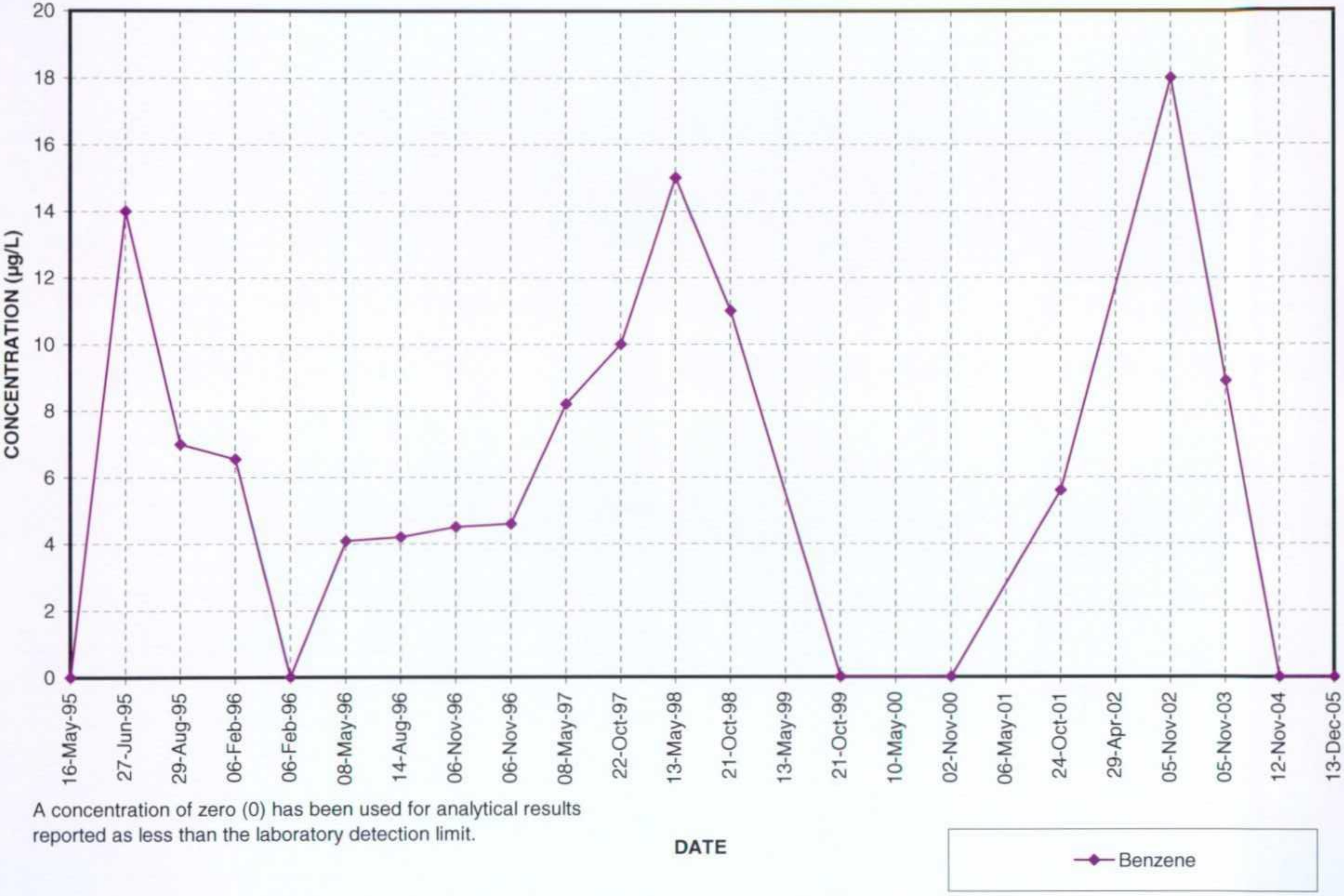


A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.


MONITOR WELL ACW-06
CONCENTRATION (mg/L)
12,000
10,000
8,000
6,000
4,000
2,000
0
18-Jun-93
16-Sep-93
08-Nov-93
21-Apr-94
28-Oct-94
31-Jan-95
16-May-95
27-Jun-95
29-Aug-95
06-Feb-96
06-Feb-96
08-May-96
14-Aug-96
06-Nov-96
06-Nov-96
08-May-97
22-Oct-97
13-May-98
21-Oct-98
13-May-99
21-Oct-99
10-May-00
02-Nov-00
06-May-01
24-Oct-01
29-Apr-02
05-Nov-02
05-Nov-03
12-Nov-04
13-Dec-05
DATE
Total Dissolved Solids


MONITOR WELL ACW-06
CONCENTRATION (mg/L)
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
18-Jun-93
16-Sep-93
08-Nov-93
21-Apr-94
28-Oct-94
31-Jan-95
16-May-95
27-Jun-95
29-Aug-95
06-Feb-96
06-Feb-96
08-May-96
14-Aug-96
06-Nov-96
06-Nov-96
08-May-97
22-Oct-97
13-May-98
21-Oct-98
13-May-99
21-Oct-99
10-May-00
02-Nov-00
06-May-01
24-Oct-01
29-Apr-02
05-Nov-02
05-Nov-03
12-Nov-04
13-Dec-05
DATE
Chloride
Sodium

MONITOR WELL ACW-06



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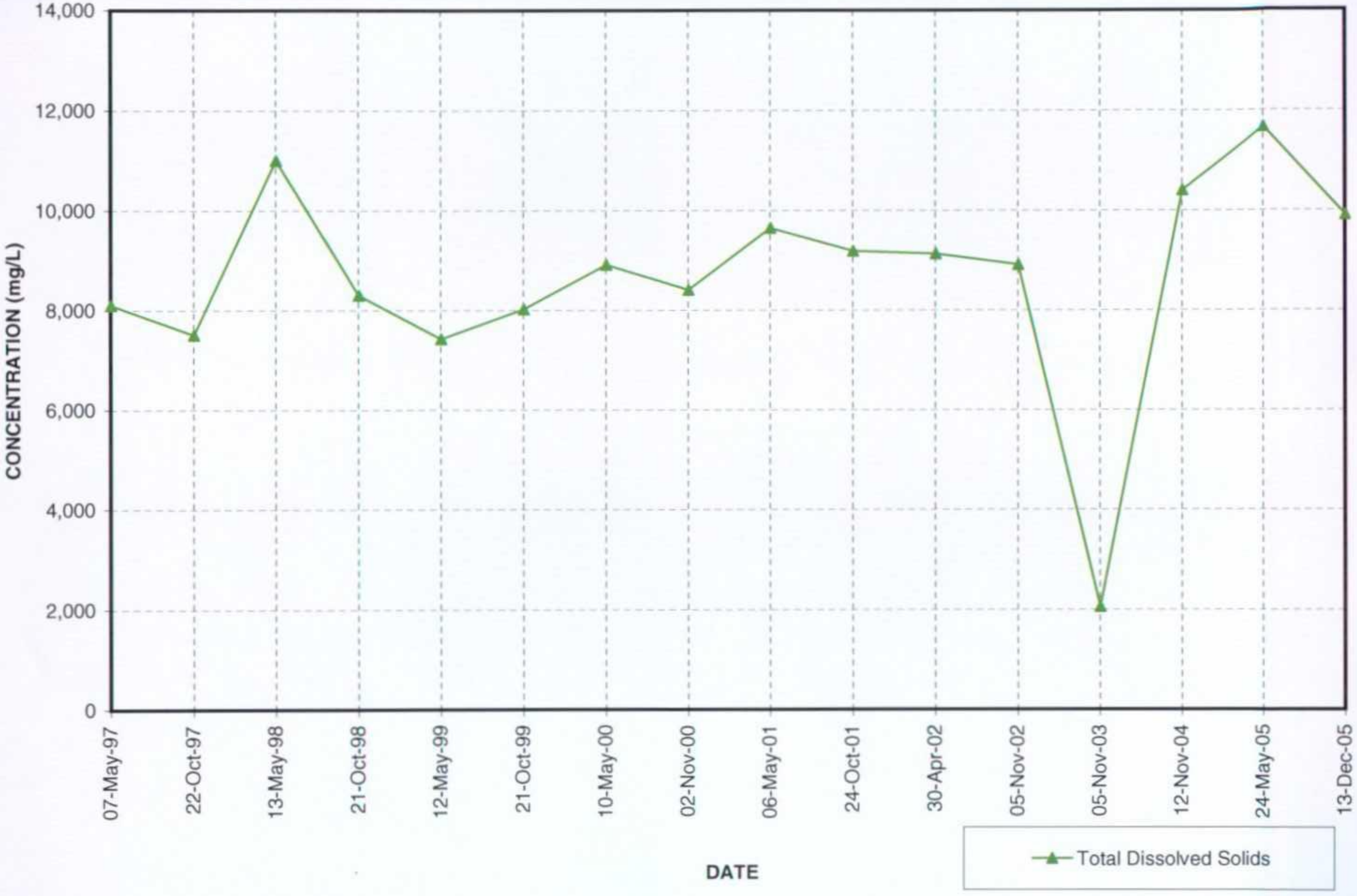

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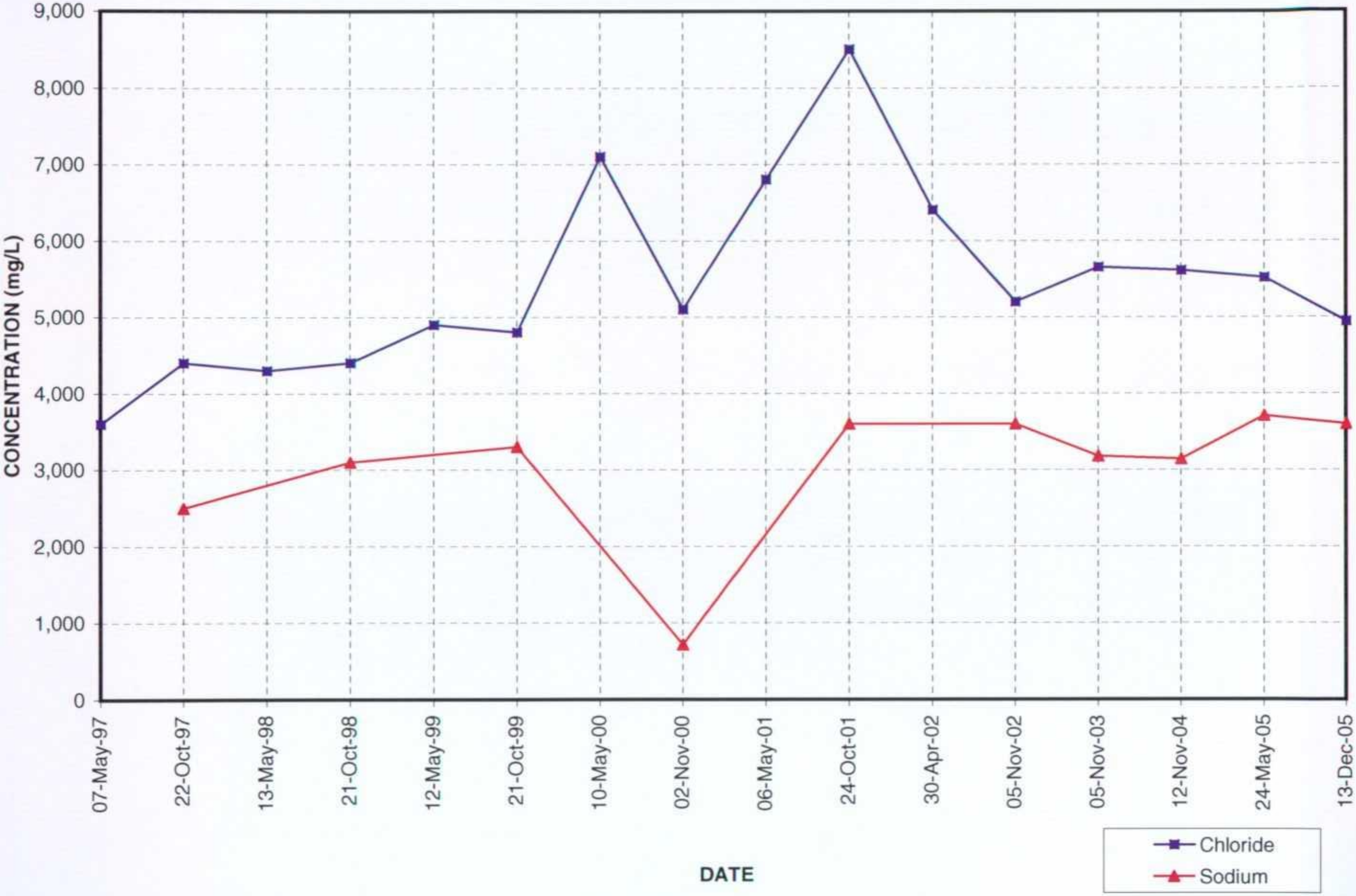

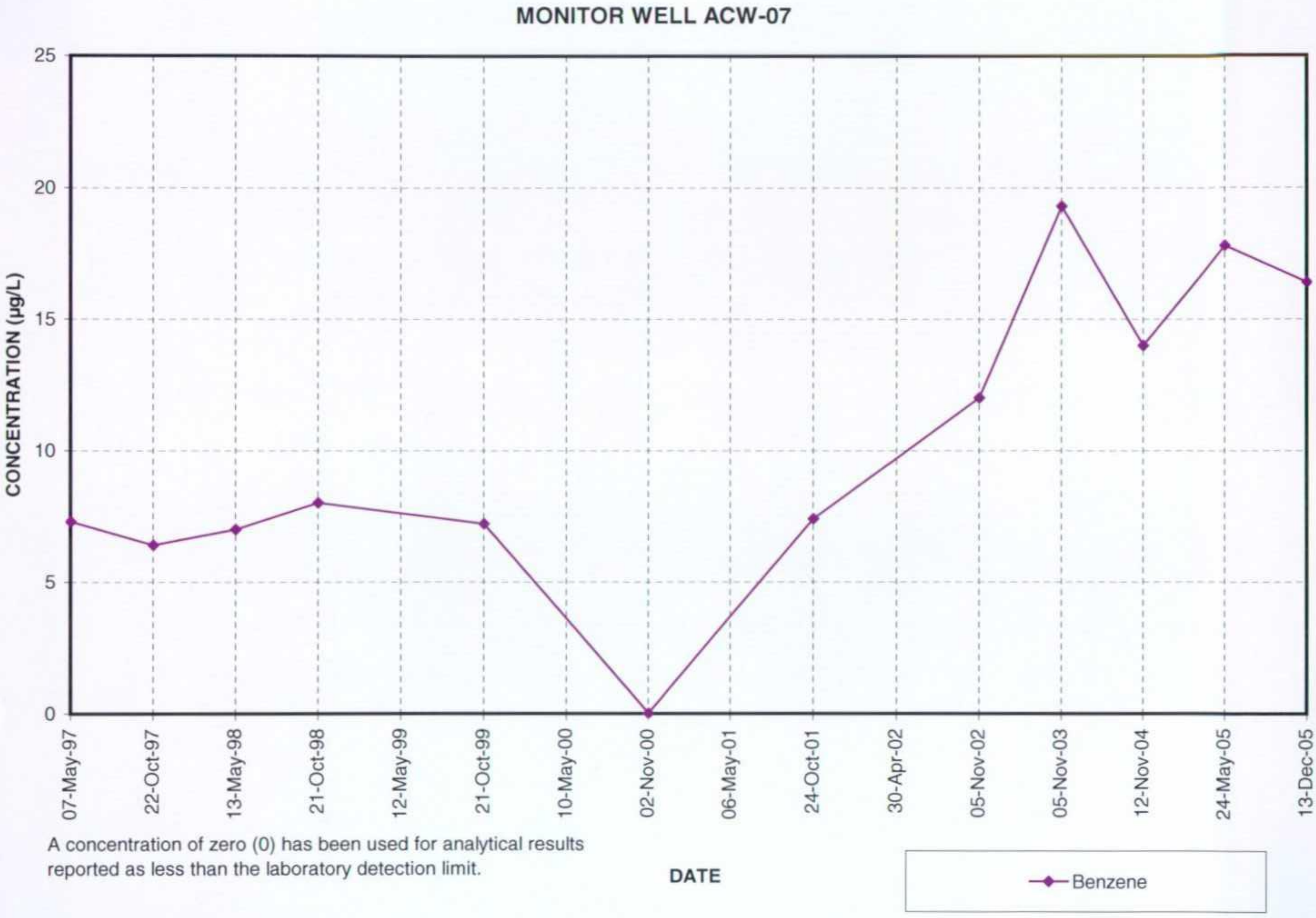

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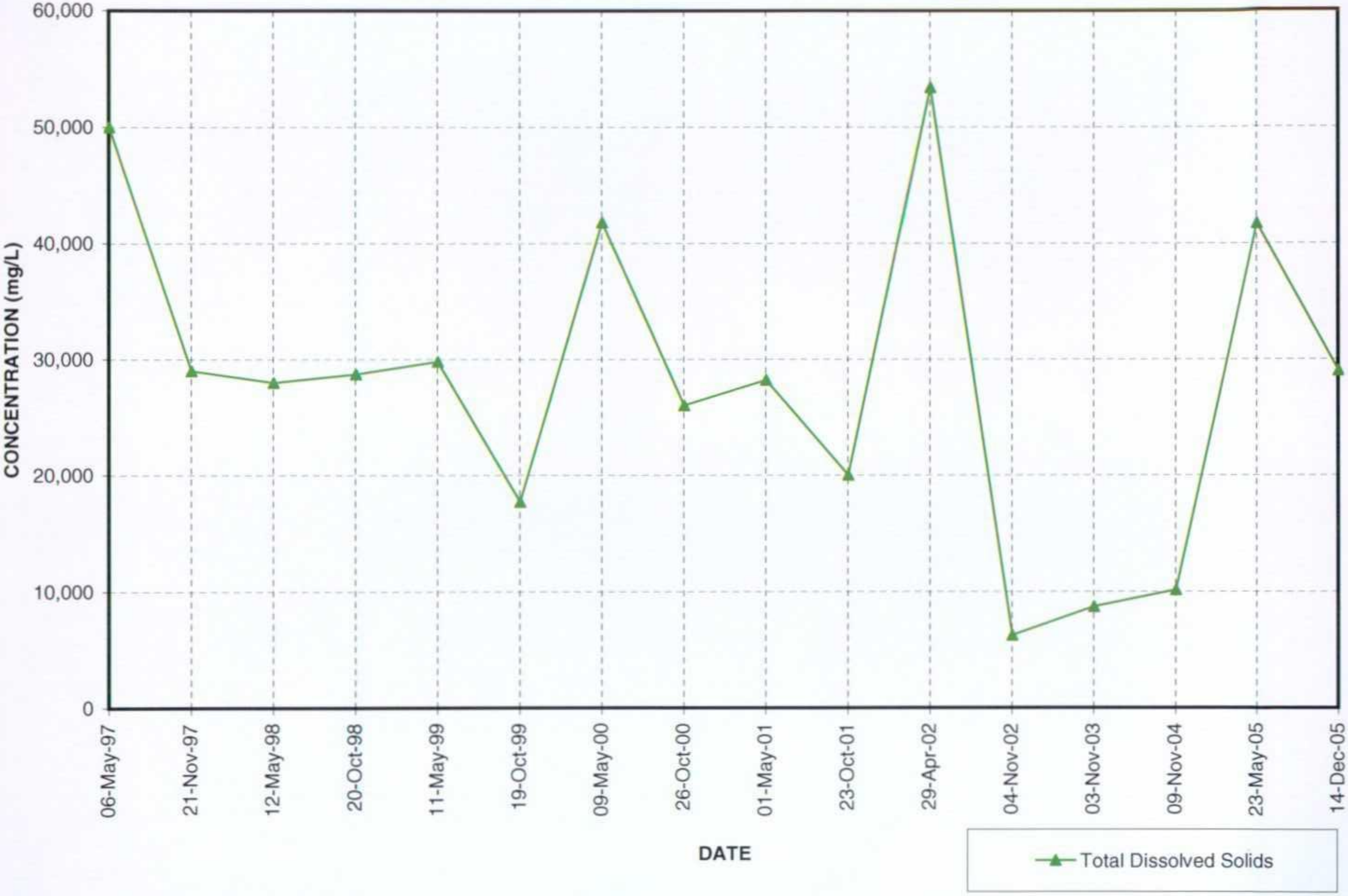

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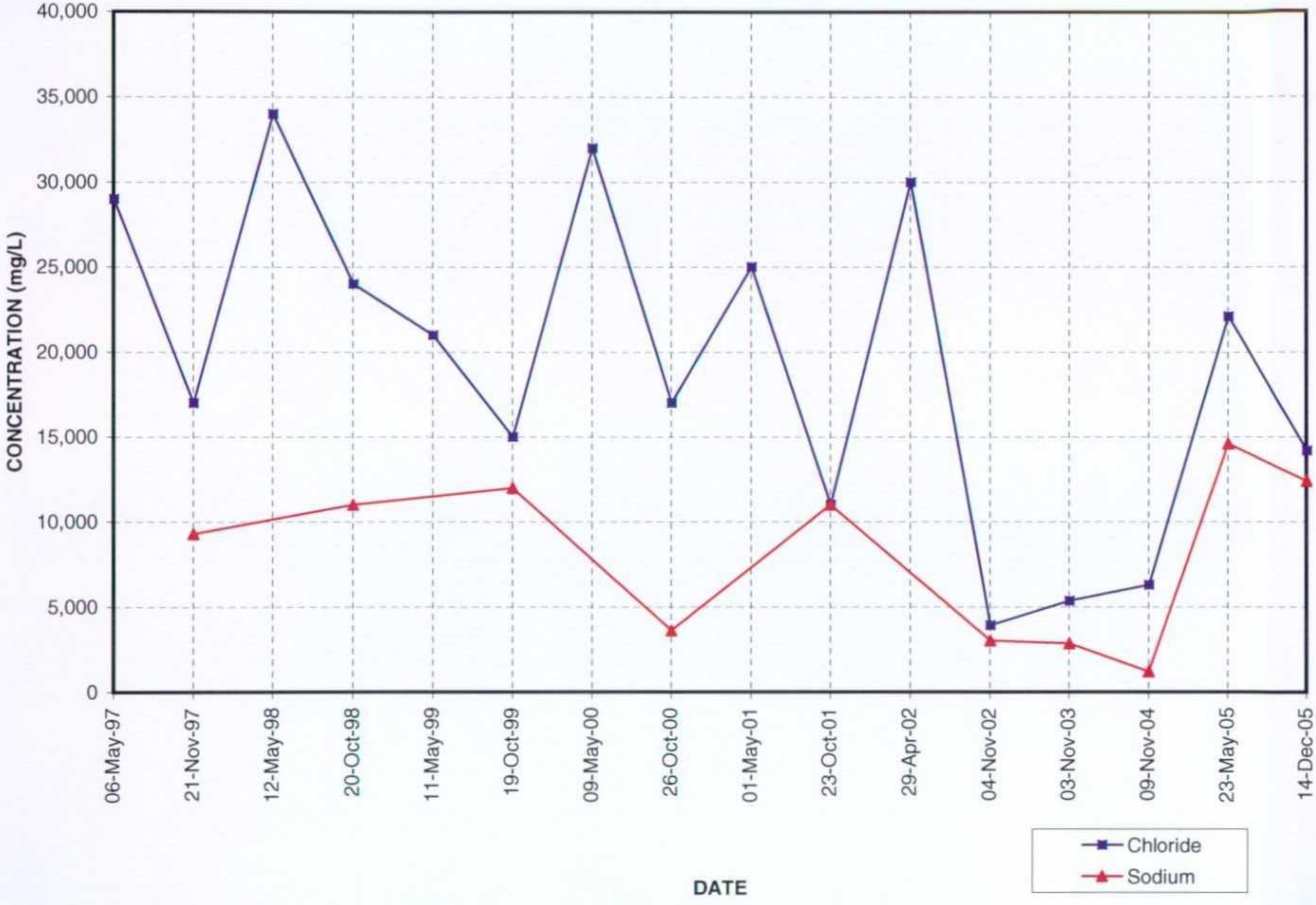

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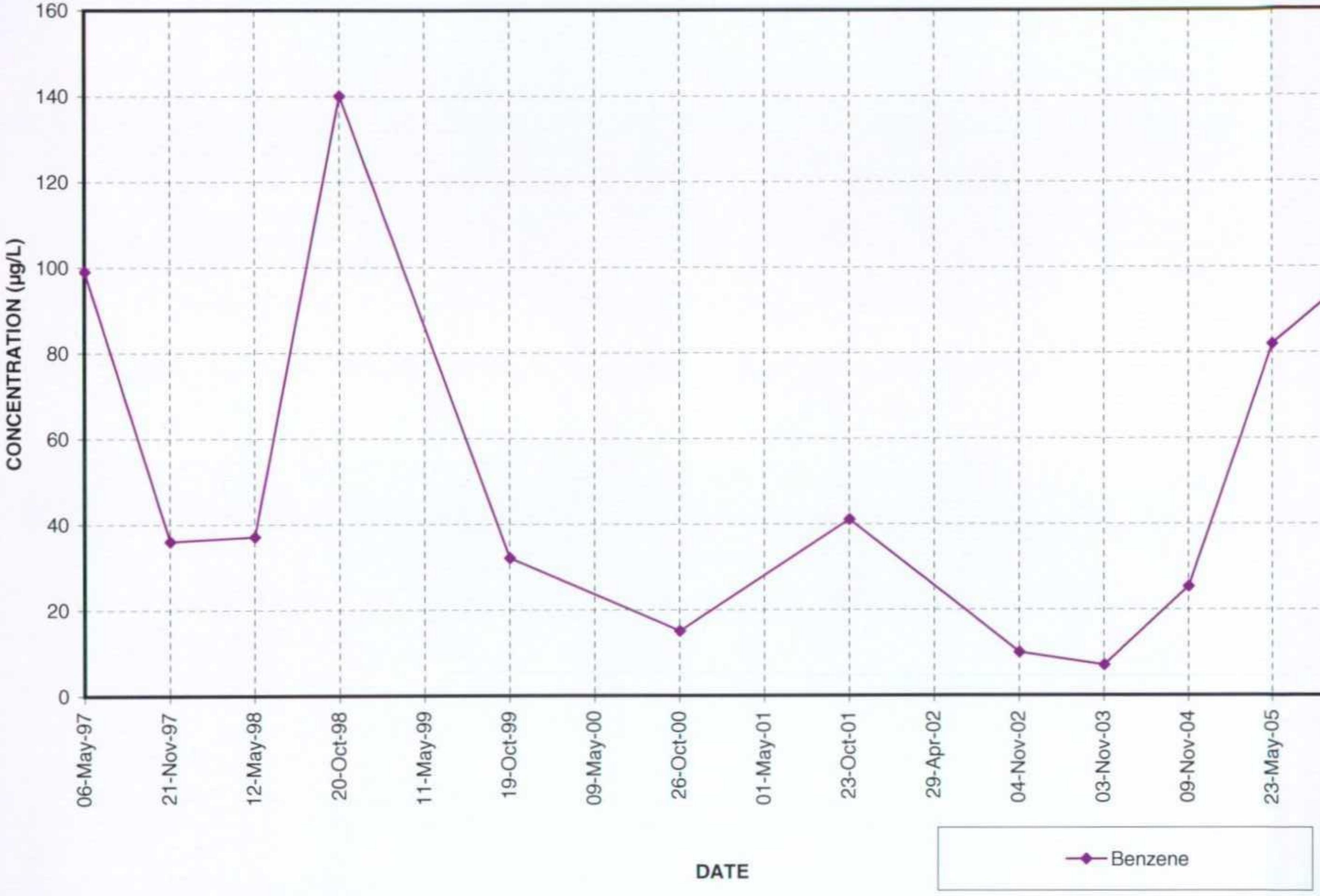

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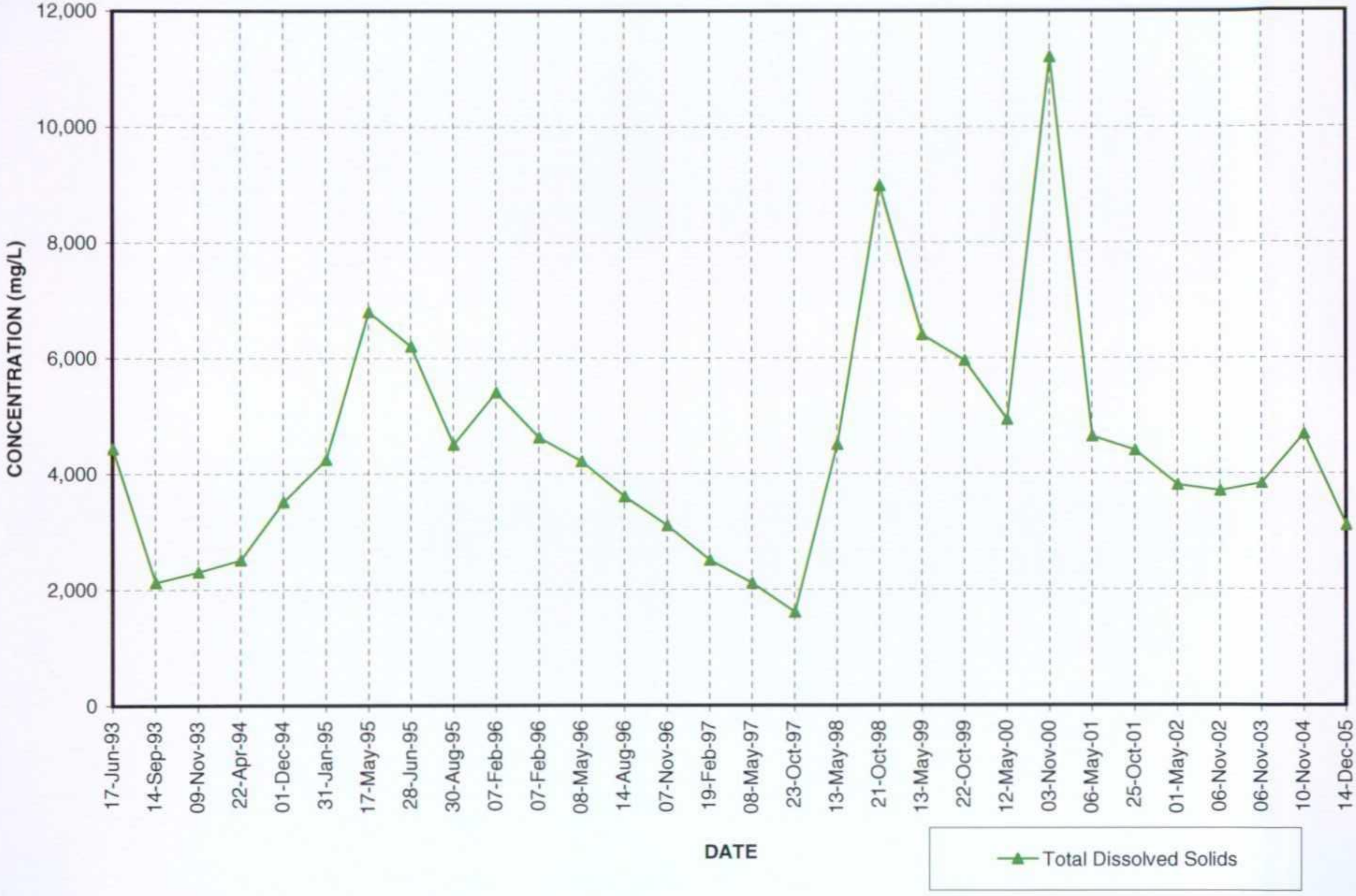

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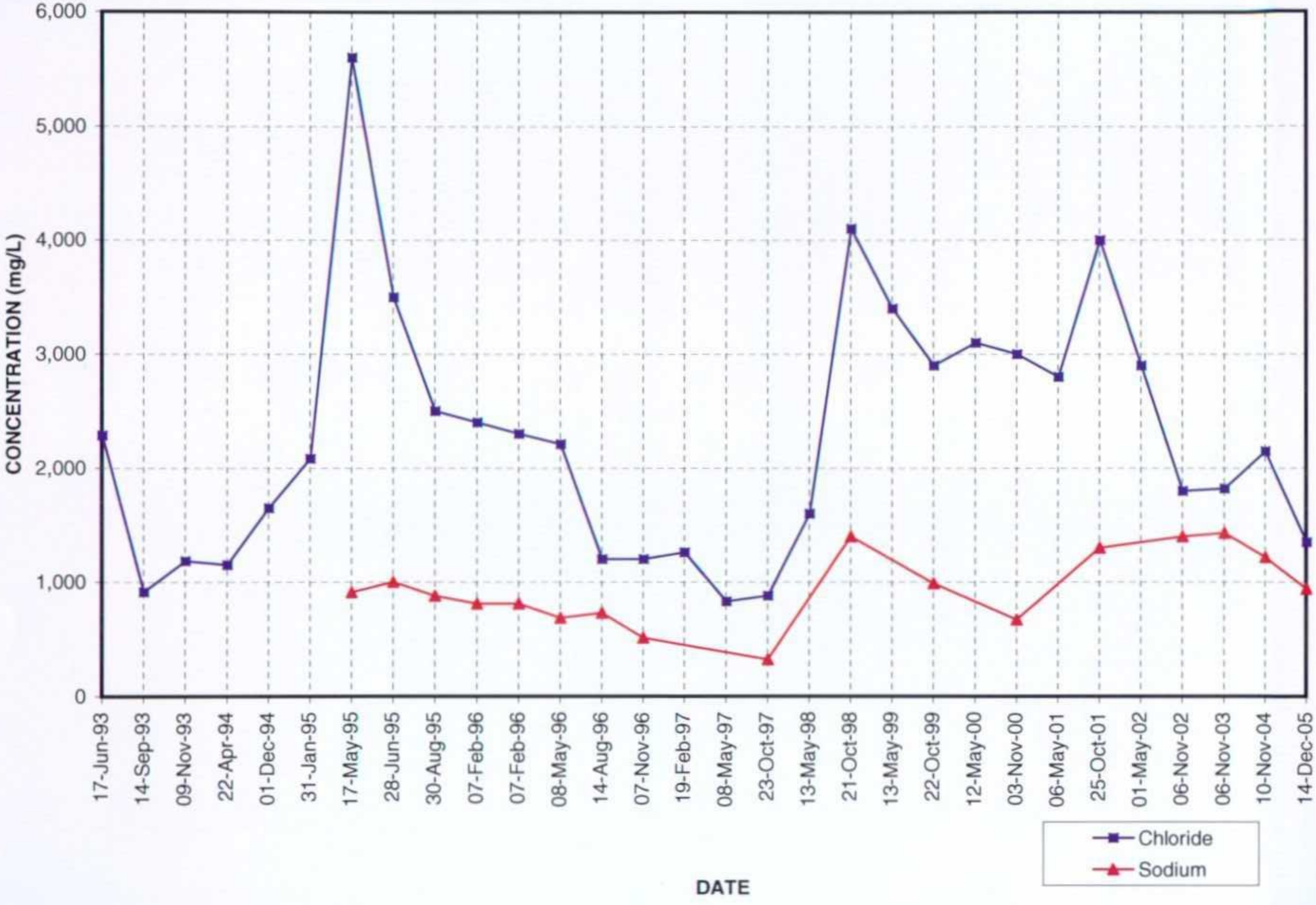

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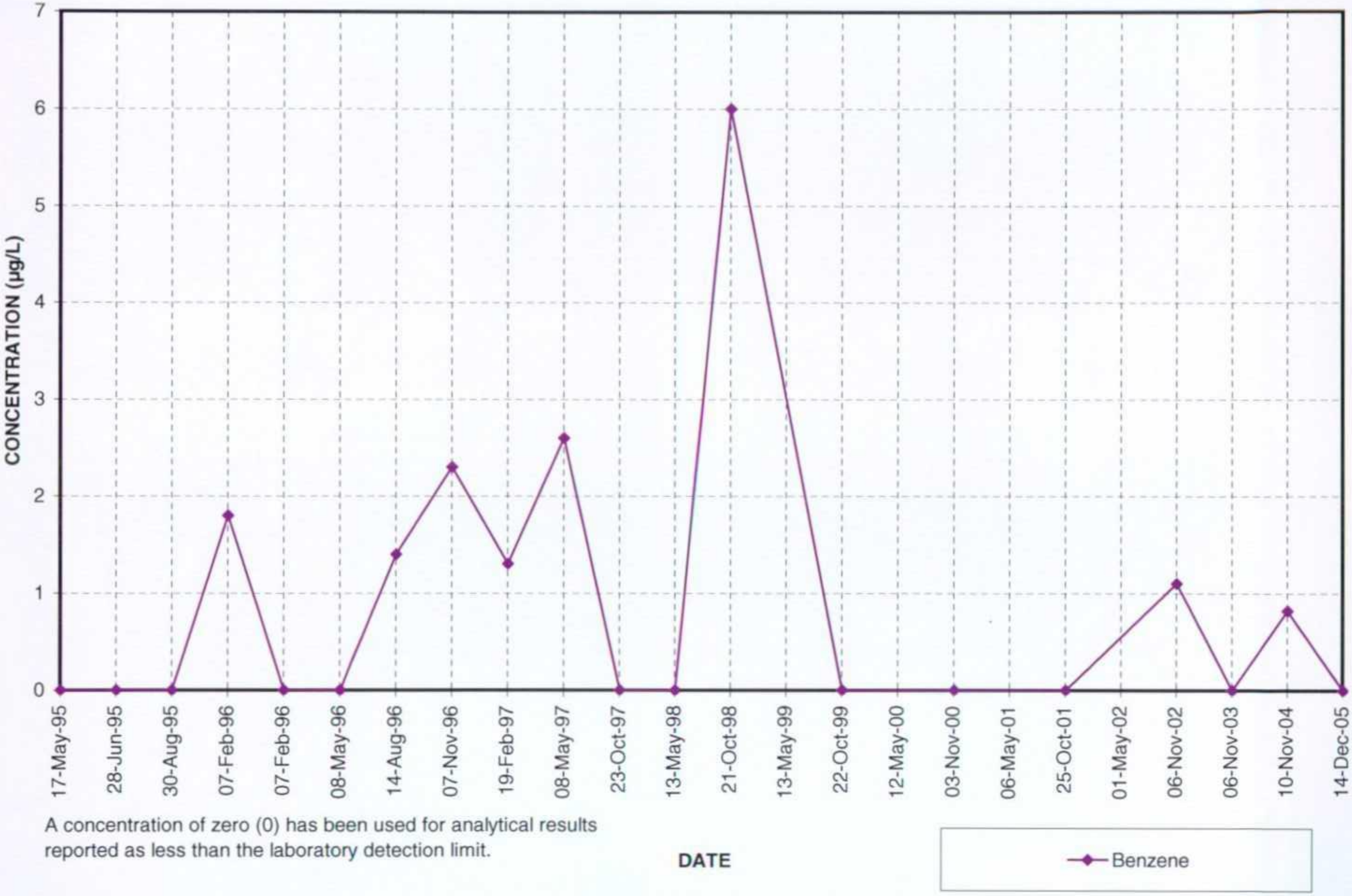

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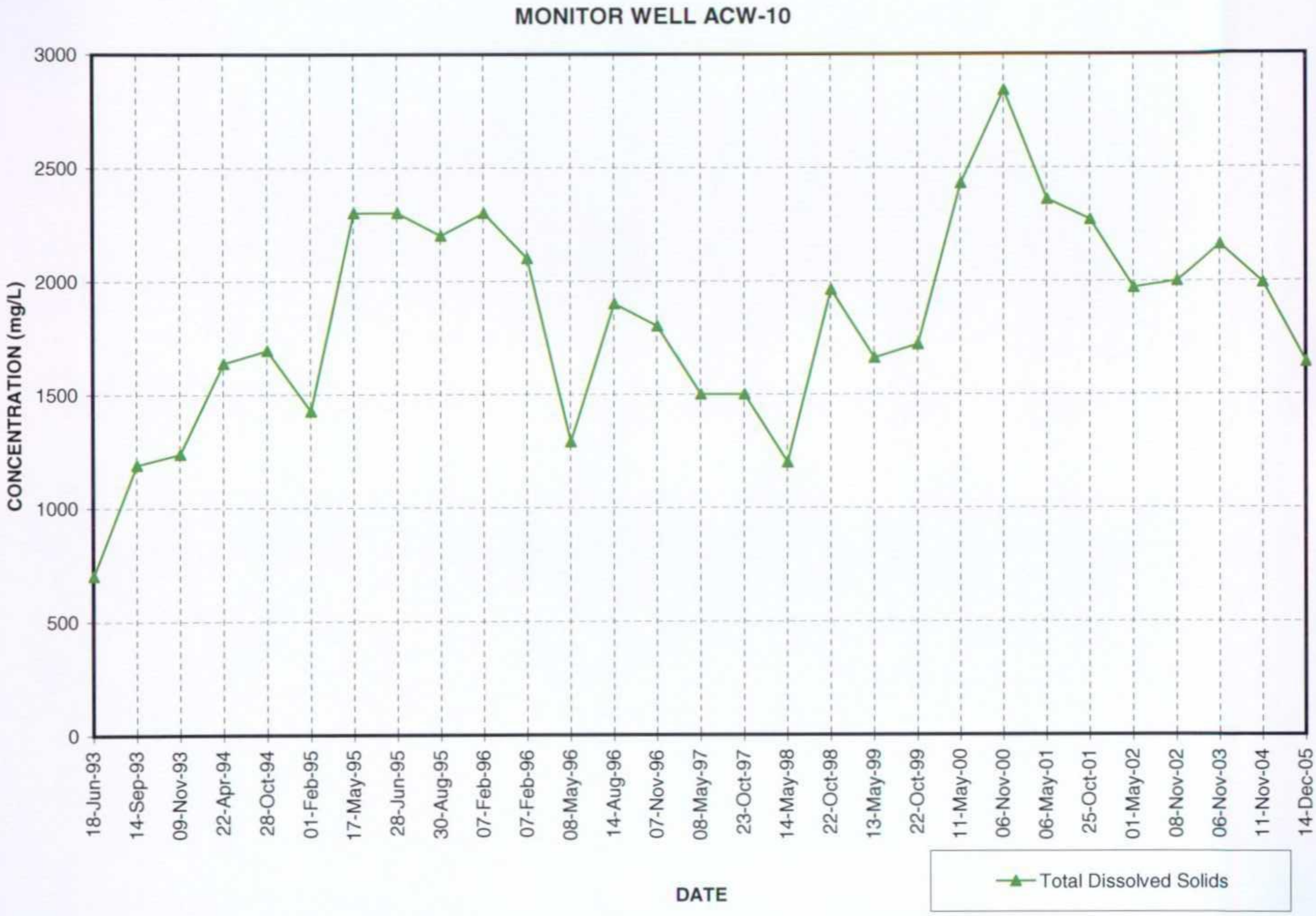
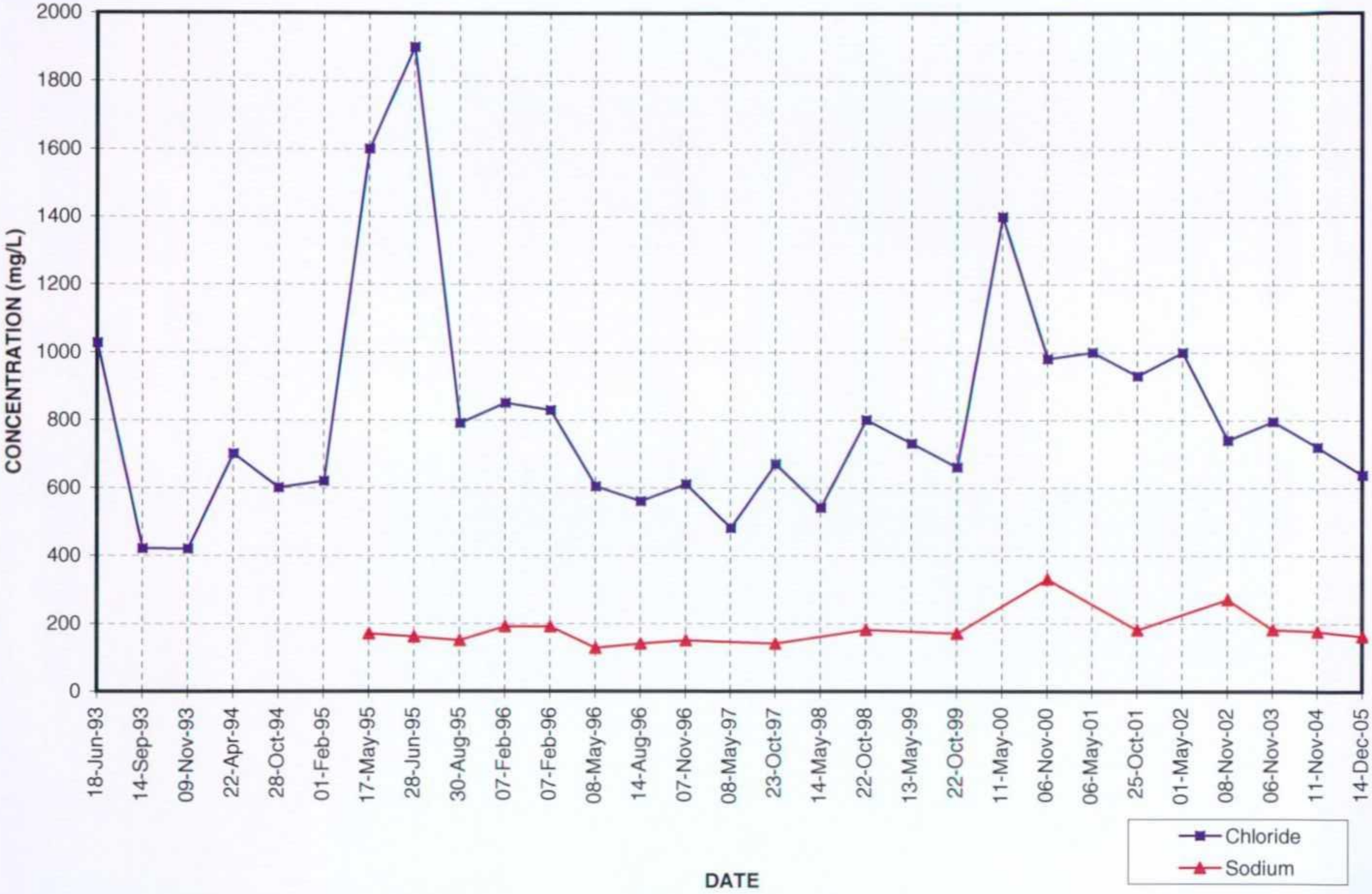
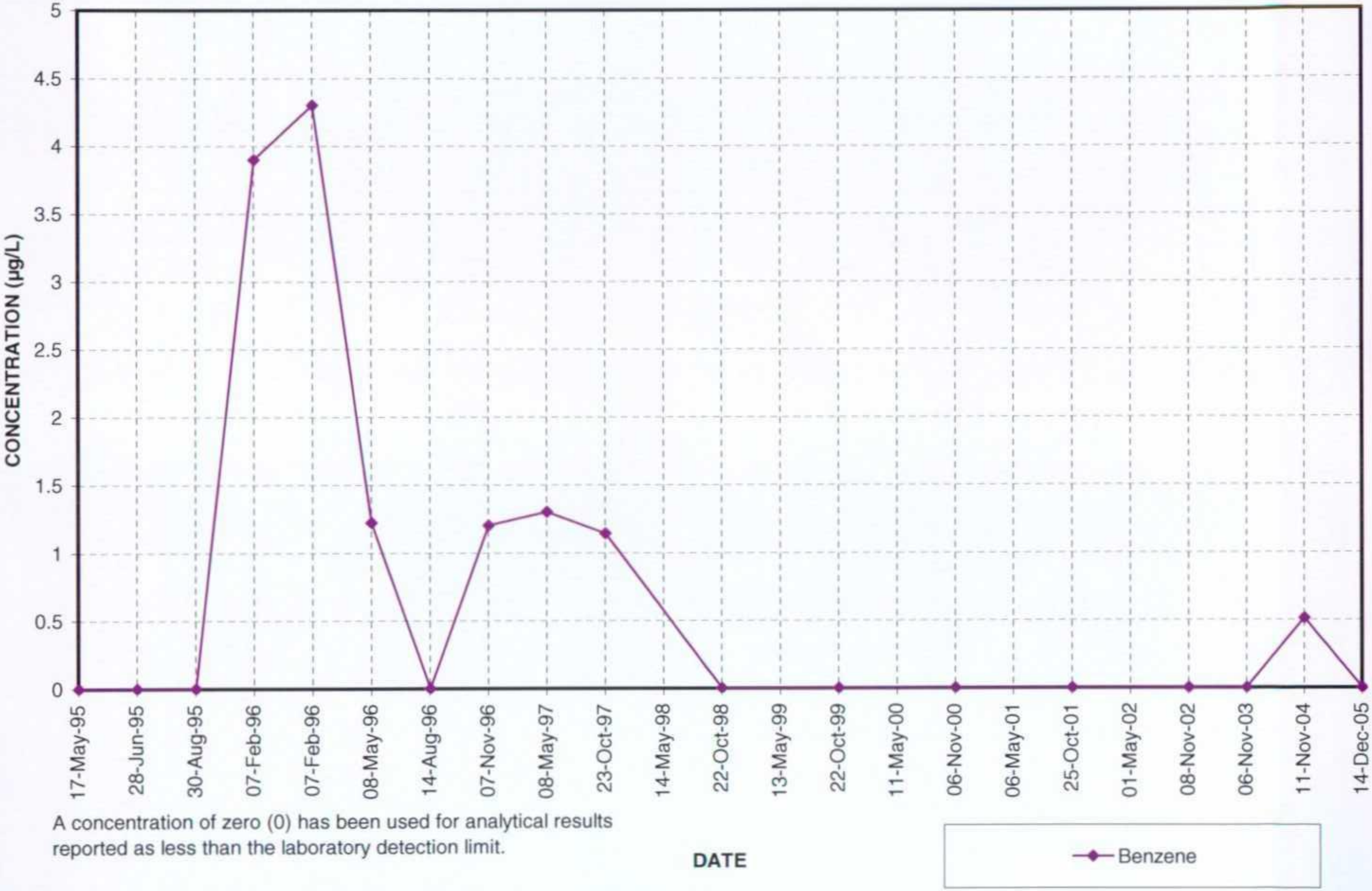

MONITOR WELL ACW-10
CONCENTRATION (mg/L)
0
500
1000
1500
2000
2500
3000
18-Jun-93
14-Sep-93
09-Nov-93
22-Apr-94
28-Oct-94
01-Feb-95
17-May-95
28-Jun-95
30-Aug-95
07-Feb-96
07-Feb-96
08-May-96
14-Aug-96
07-Nov-96
08-May-97
23-Oct-97
14-May-98
22-Oct-98
13-May-99
22-Oct-99
11-May-00
06-Nov-00
06-May-01
25-Oct-01
01-May-02
08-Nov-02
06-Nov-03
11-Nov-04
14-Dec-05
DATE
Total Dissolved Solids

MONITOR WELL ACW-10

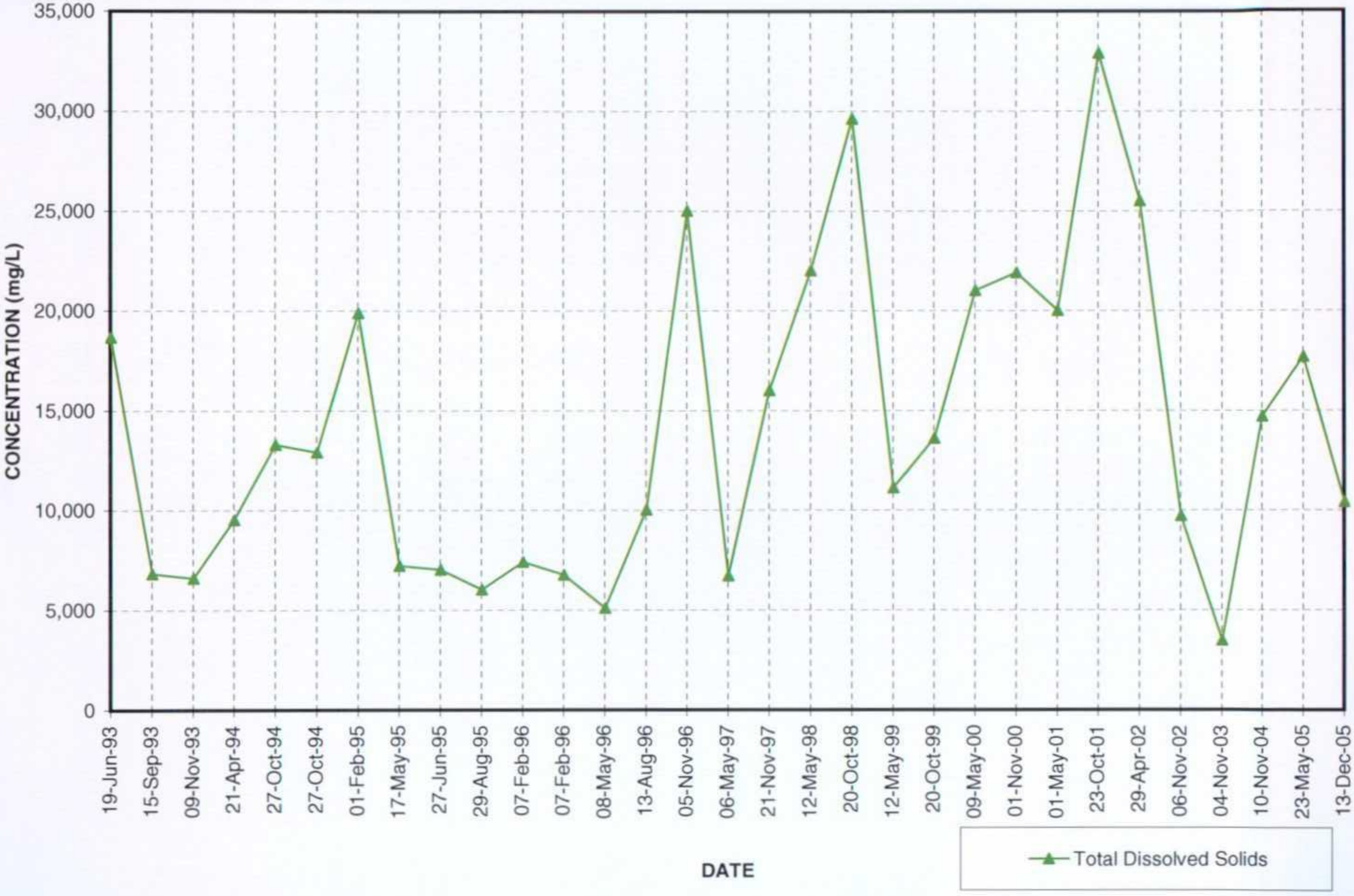


MONITOR WELL ACW-10



A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

MONITOR WELL ACW-11



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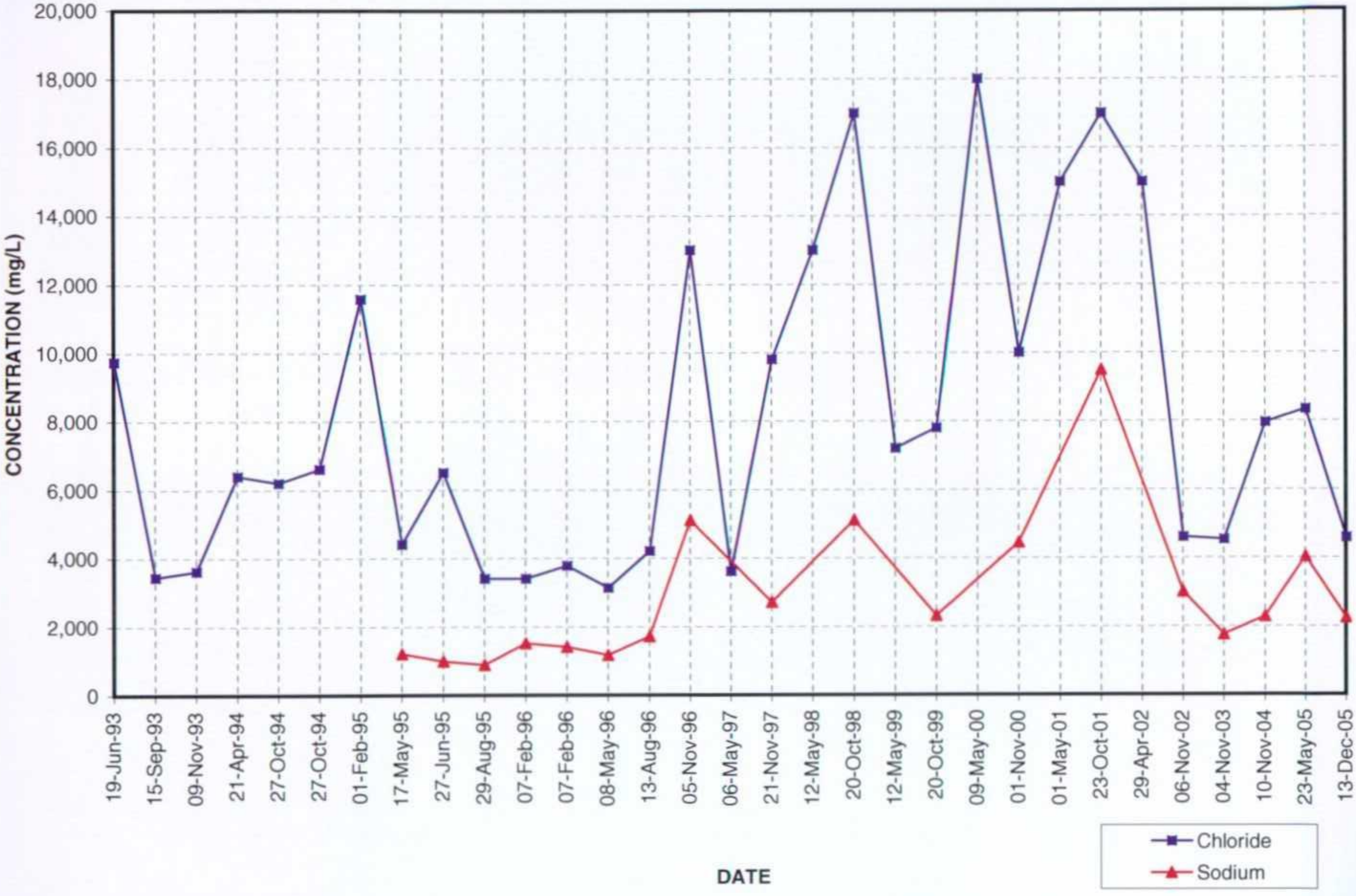

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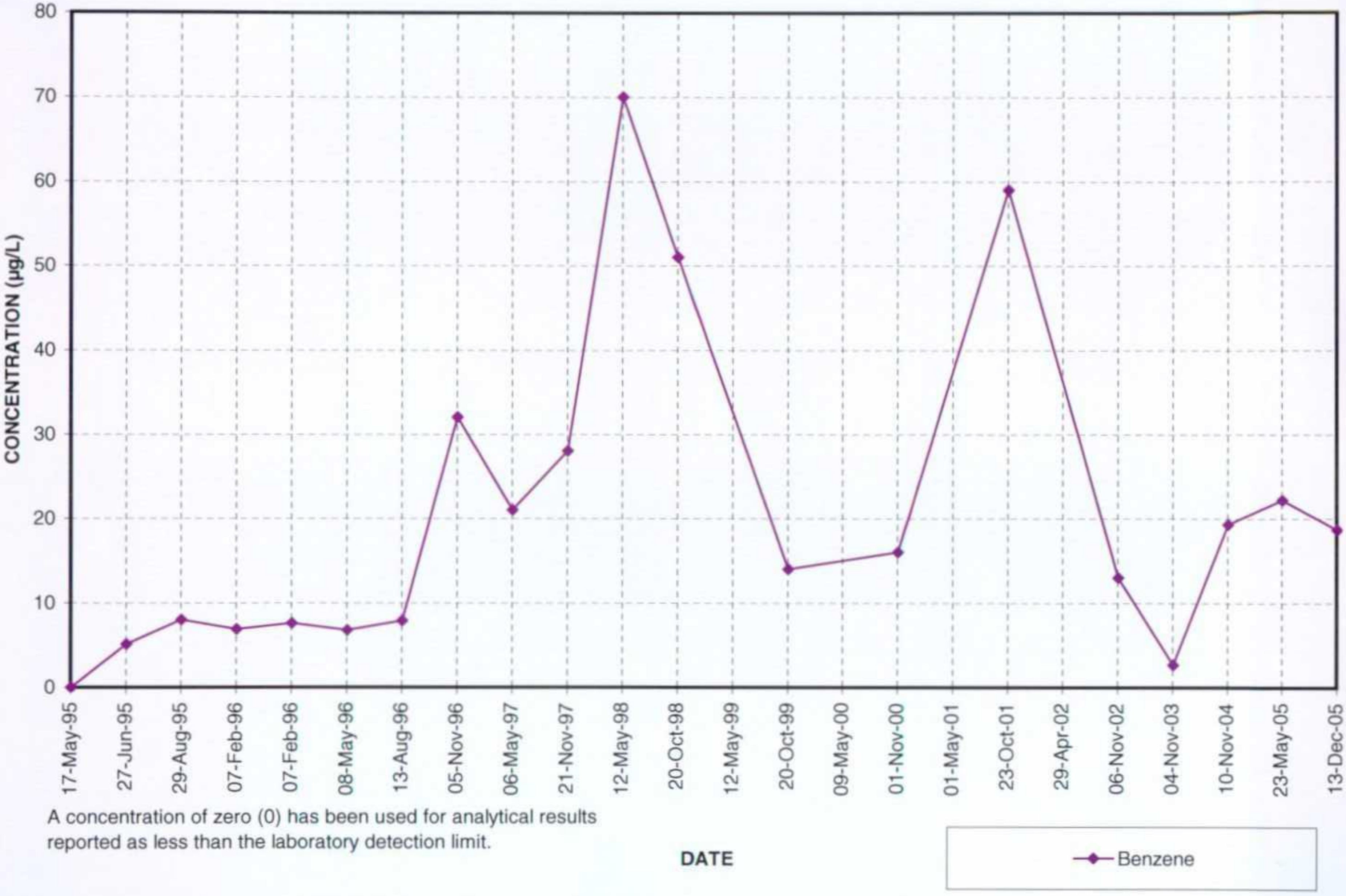

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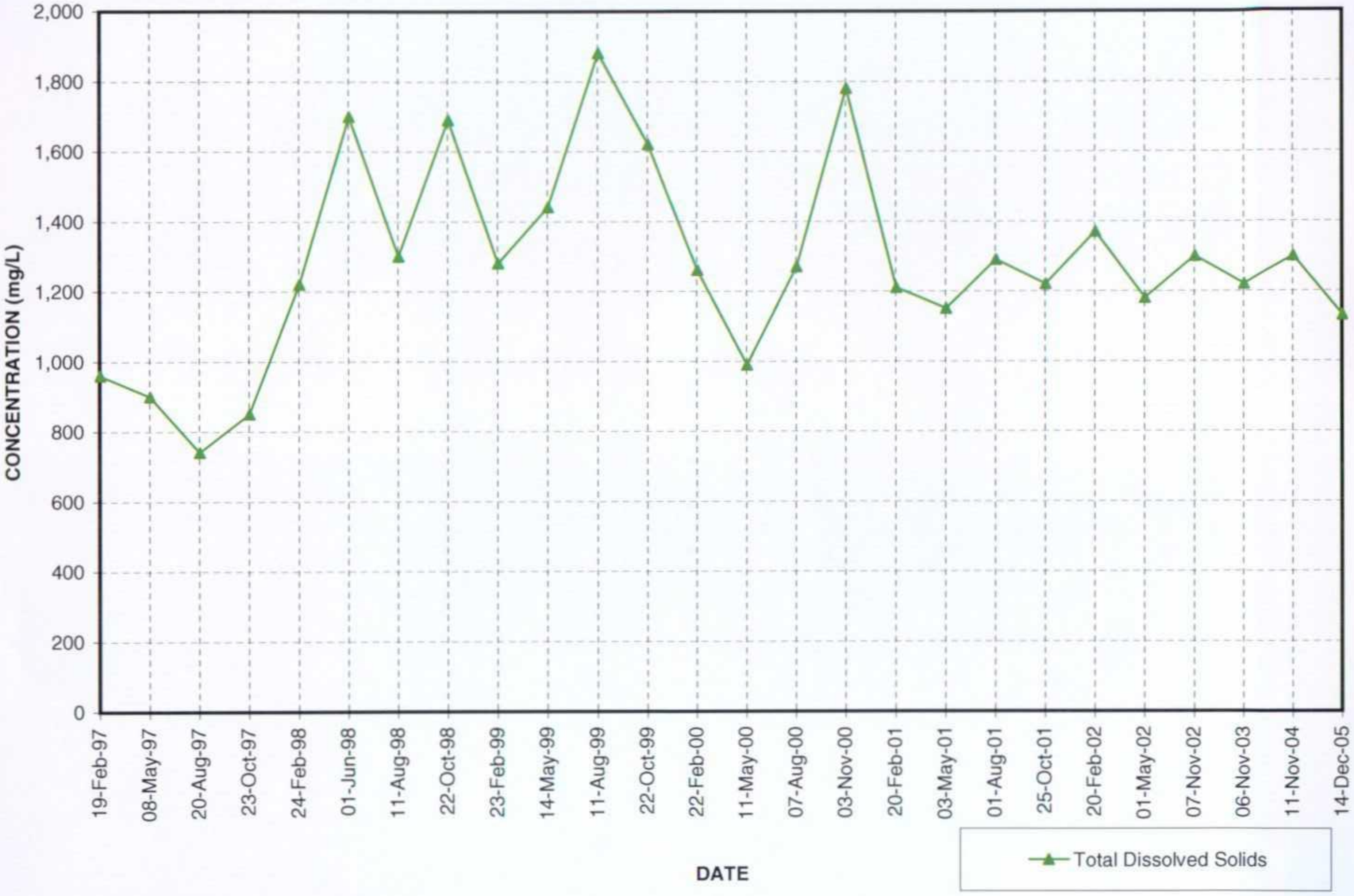
MONITOR WELL ACW-12



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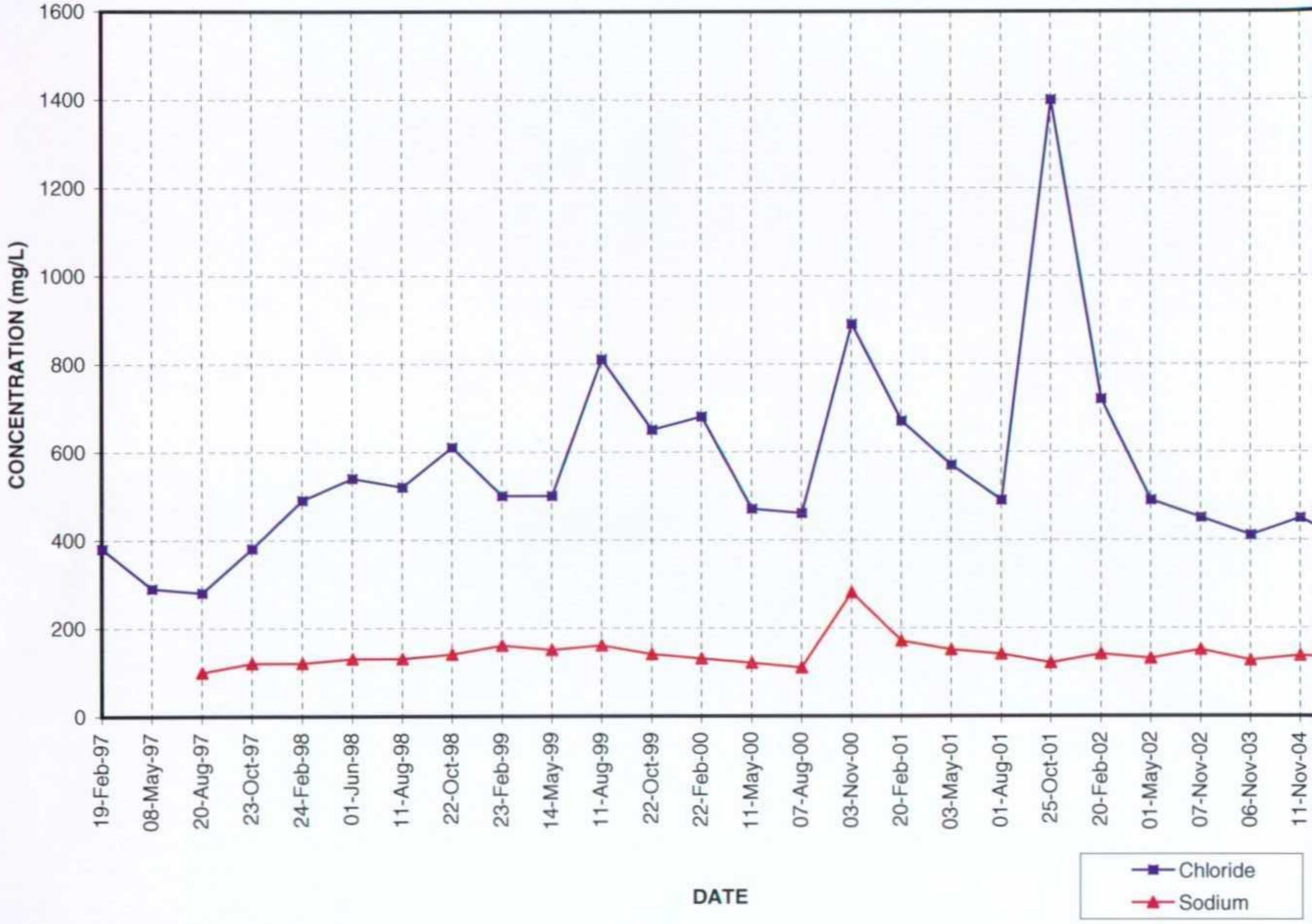

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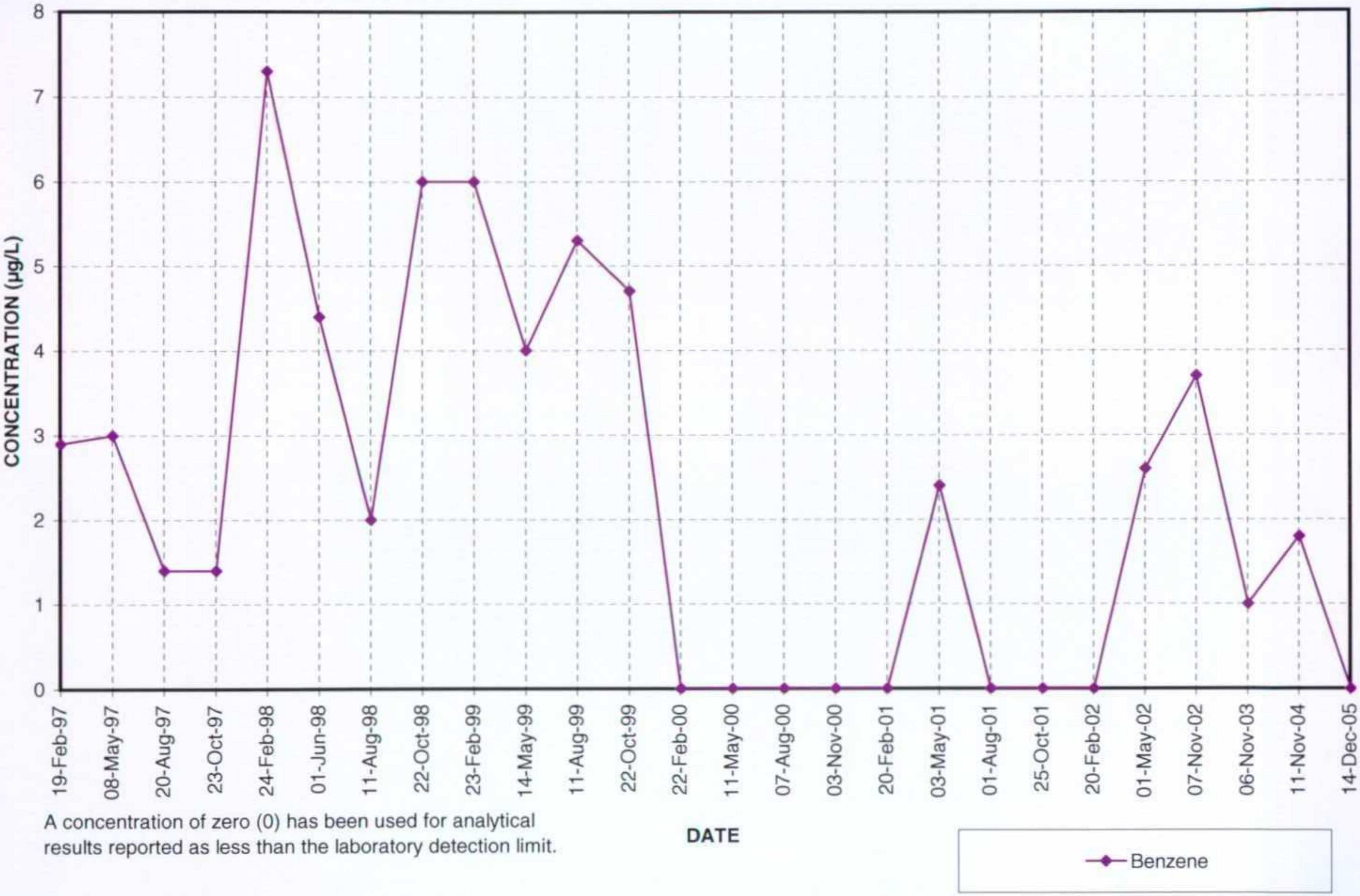

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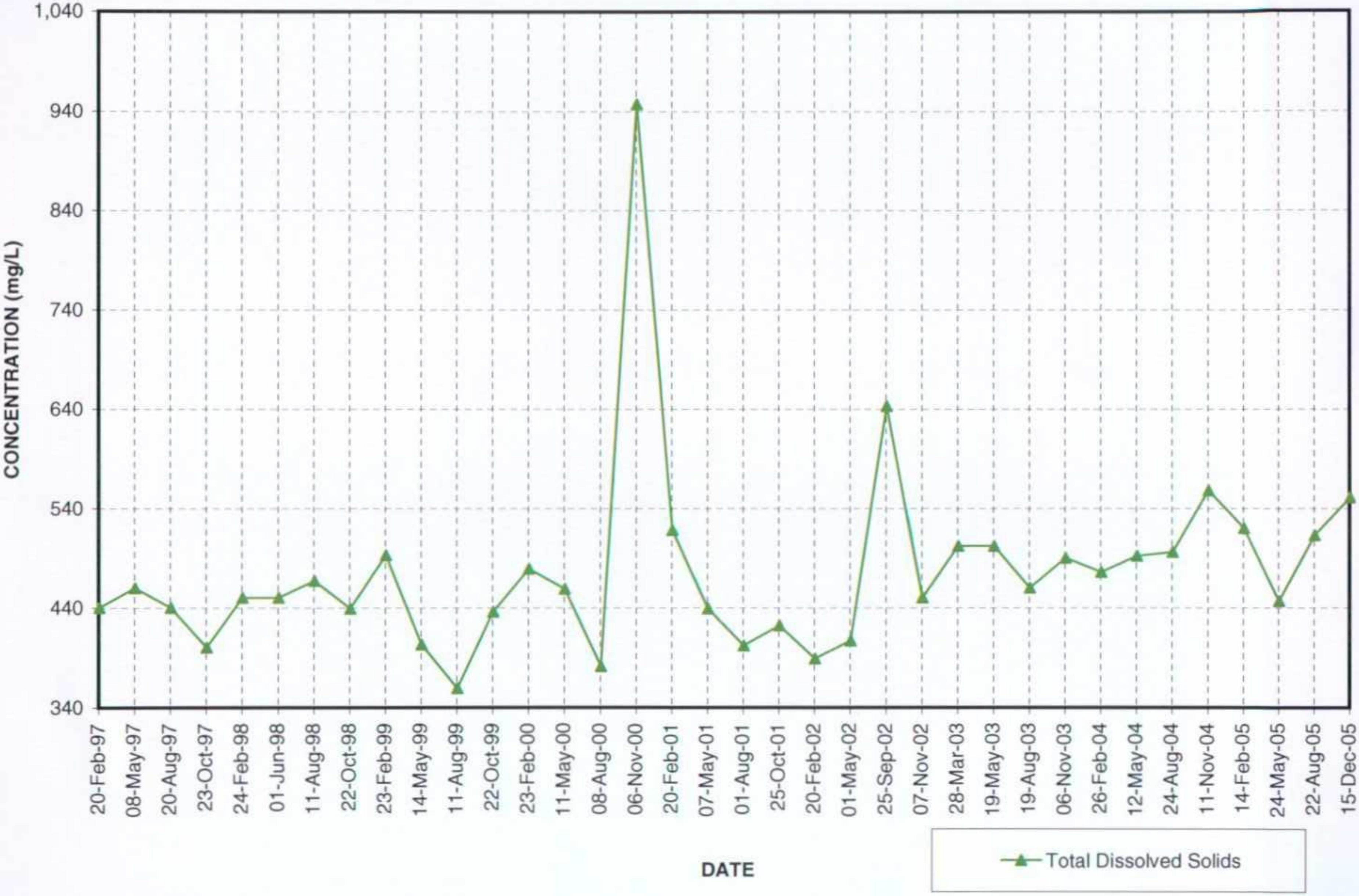

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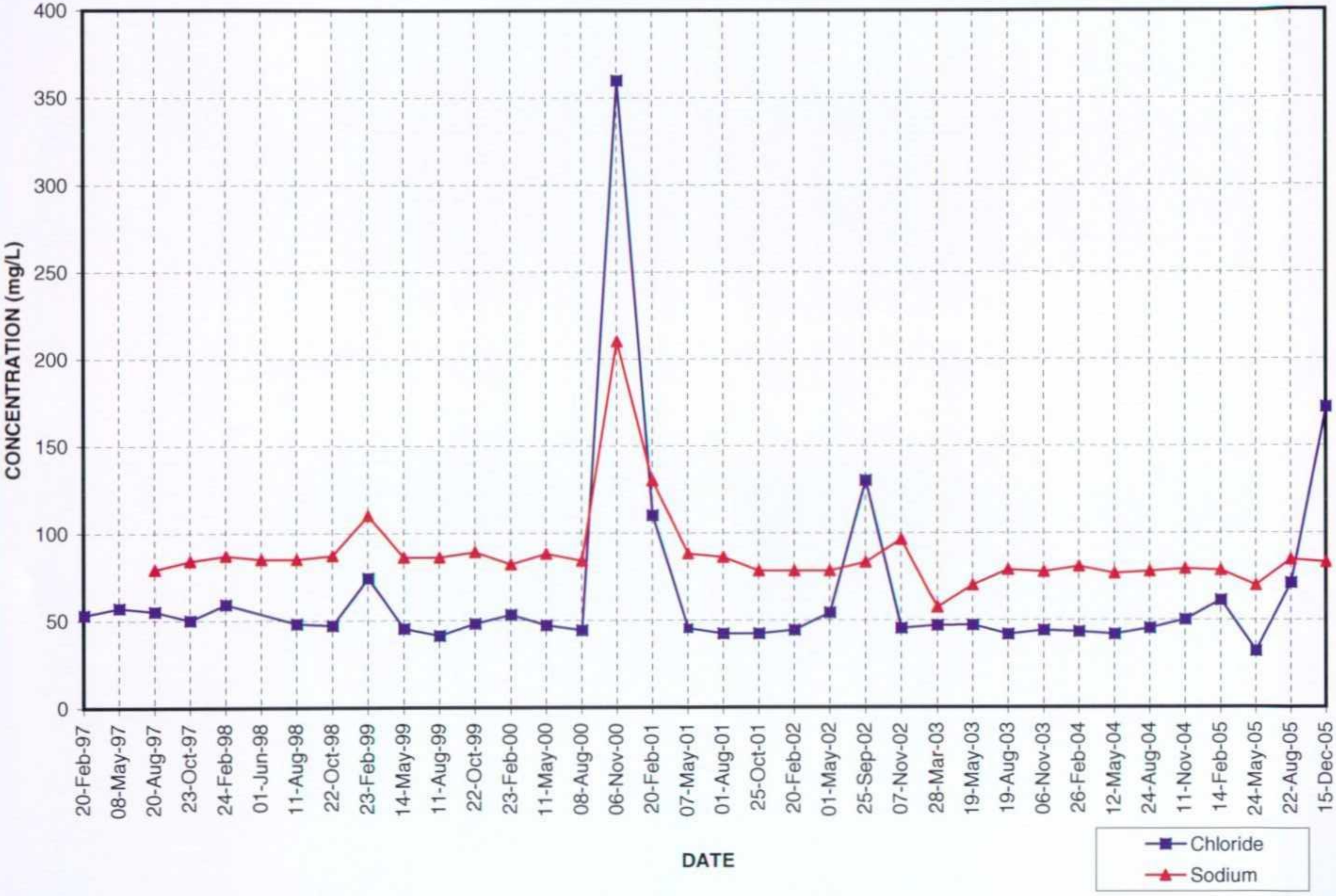
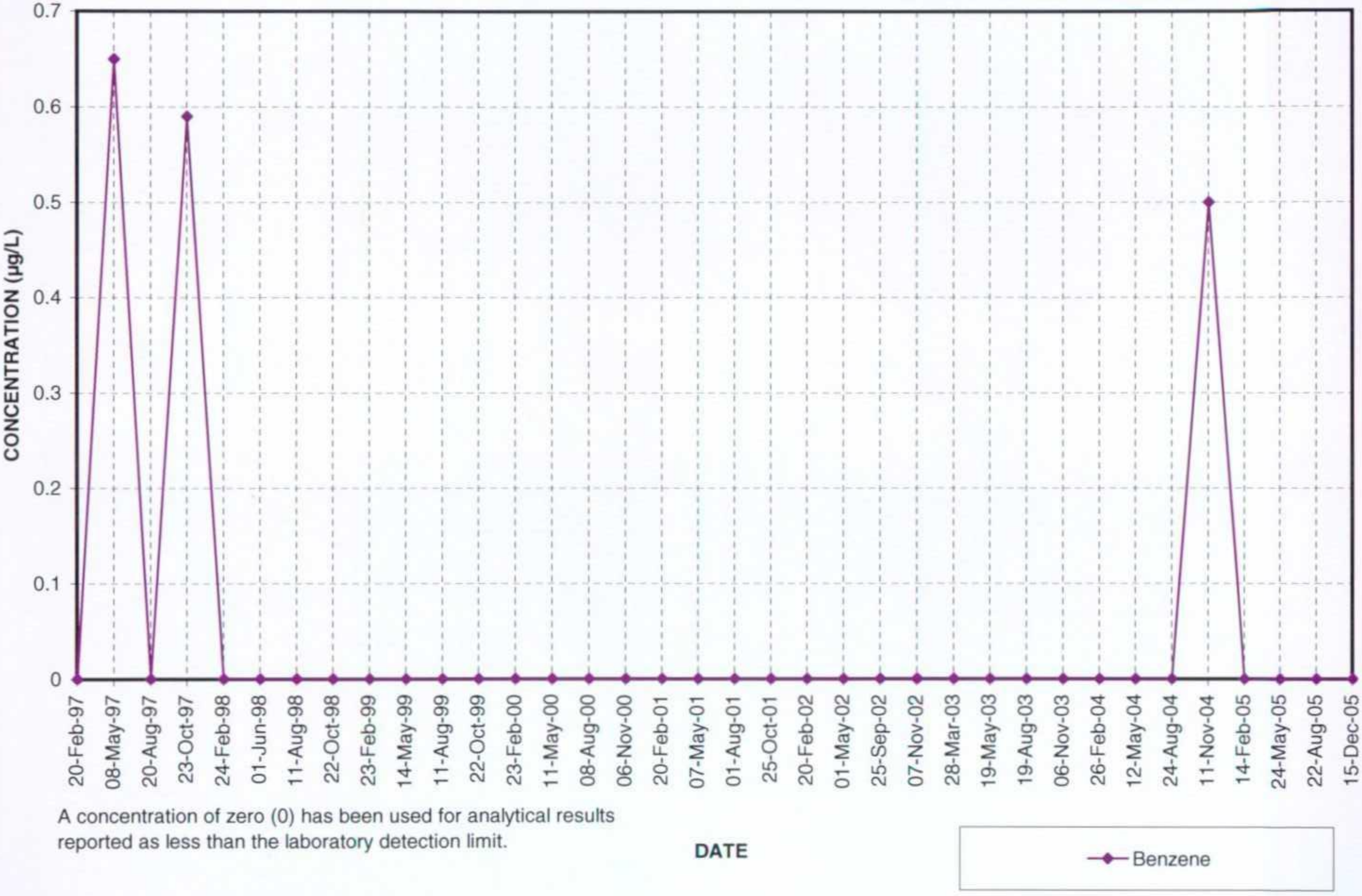


MONITOR WELL ACW-13



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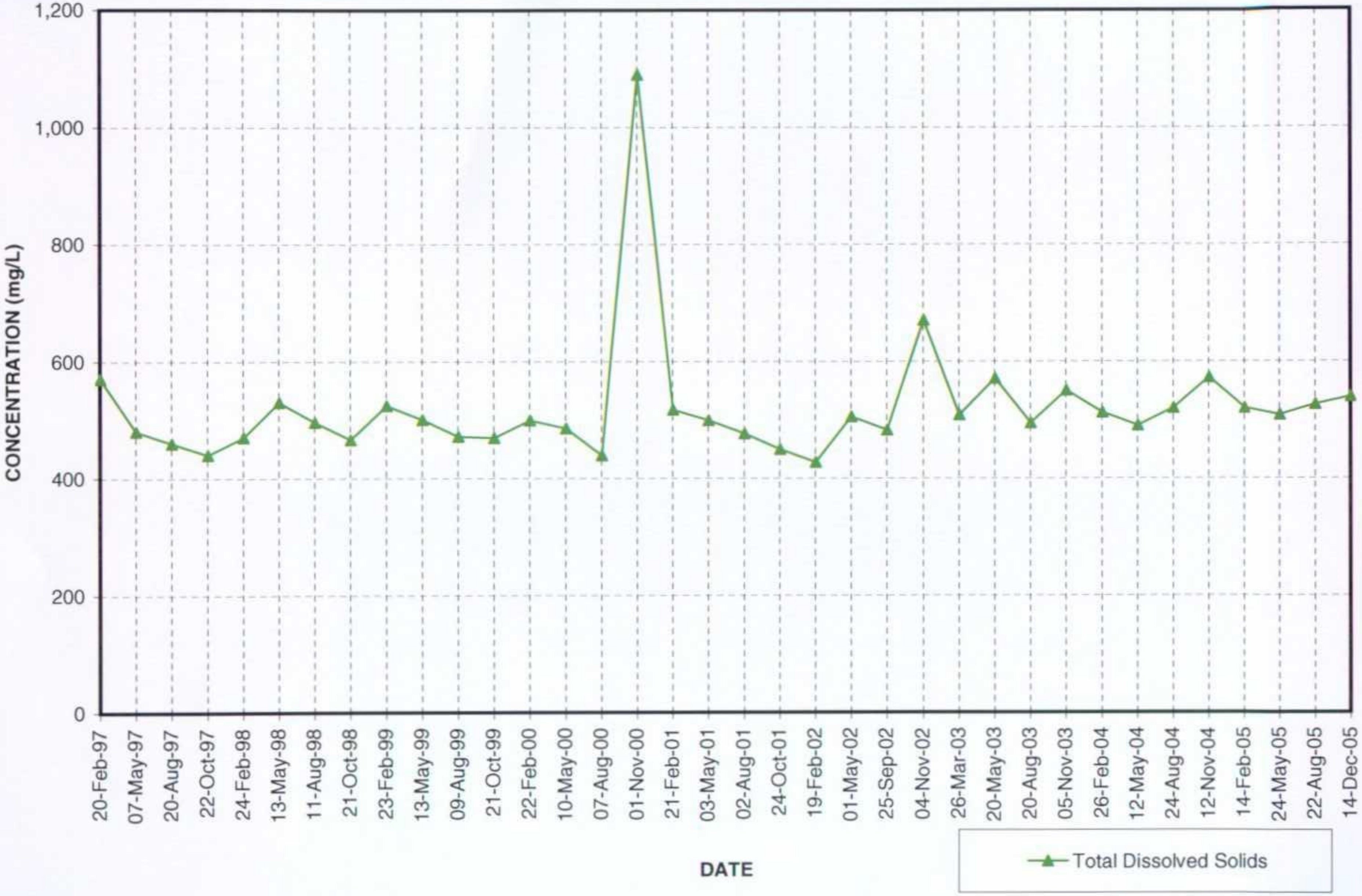
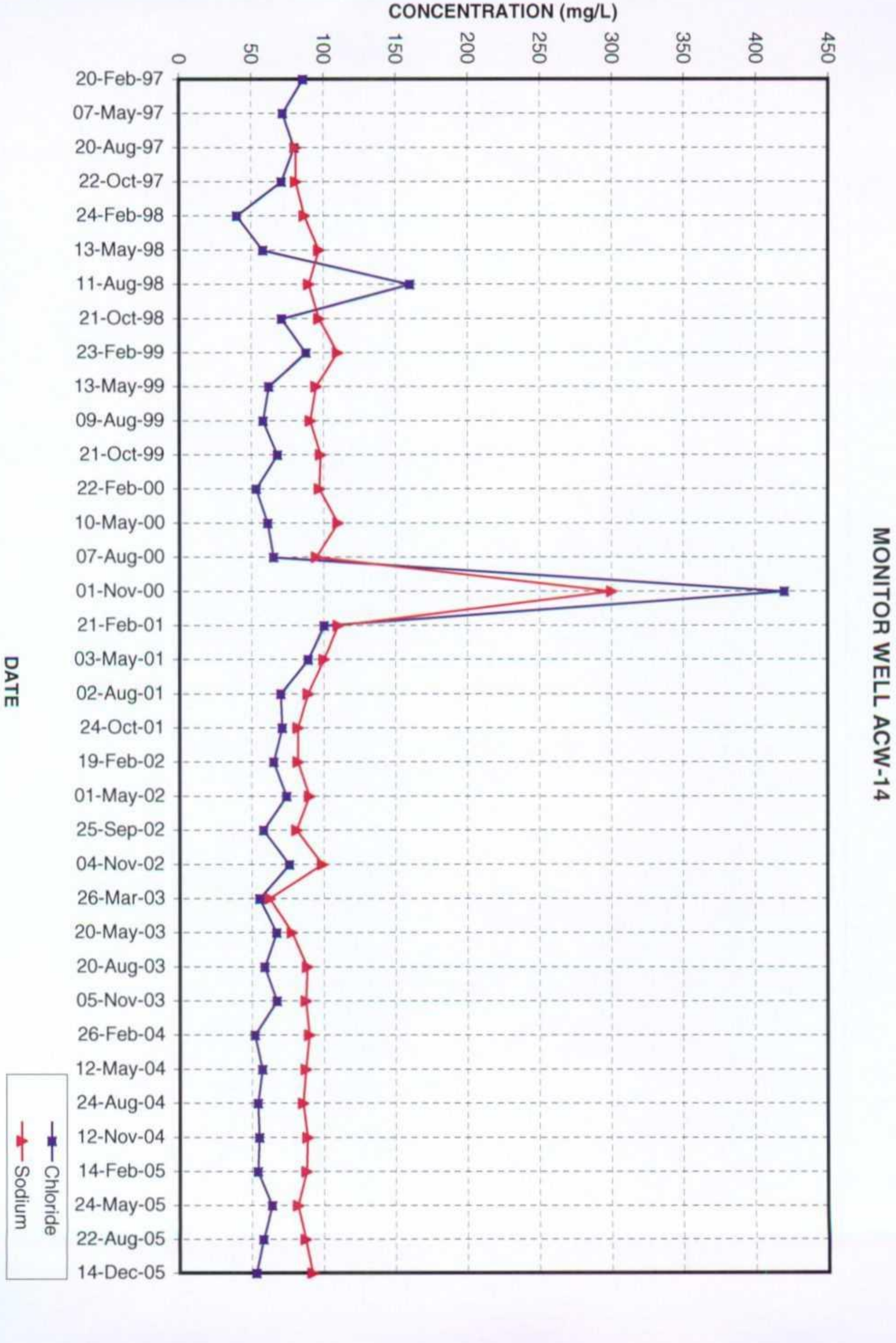
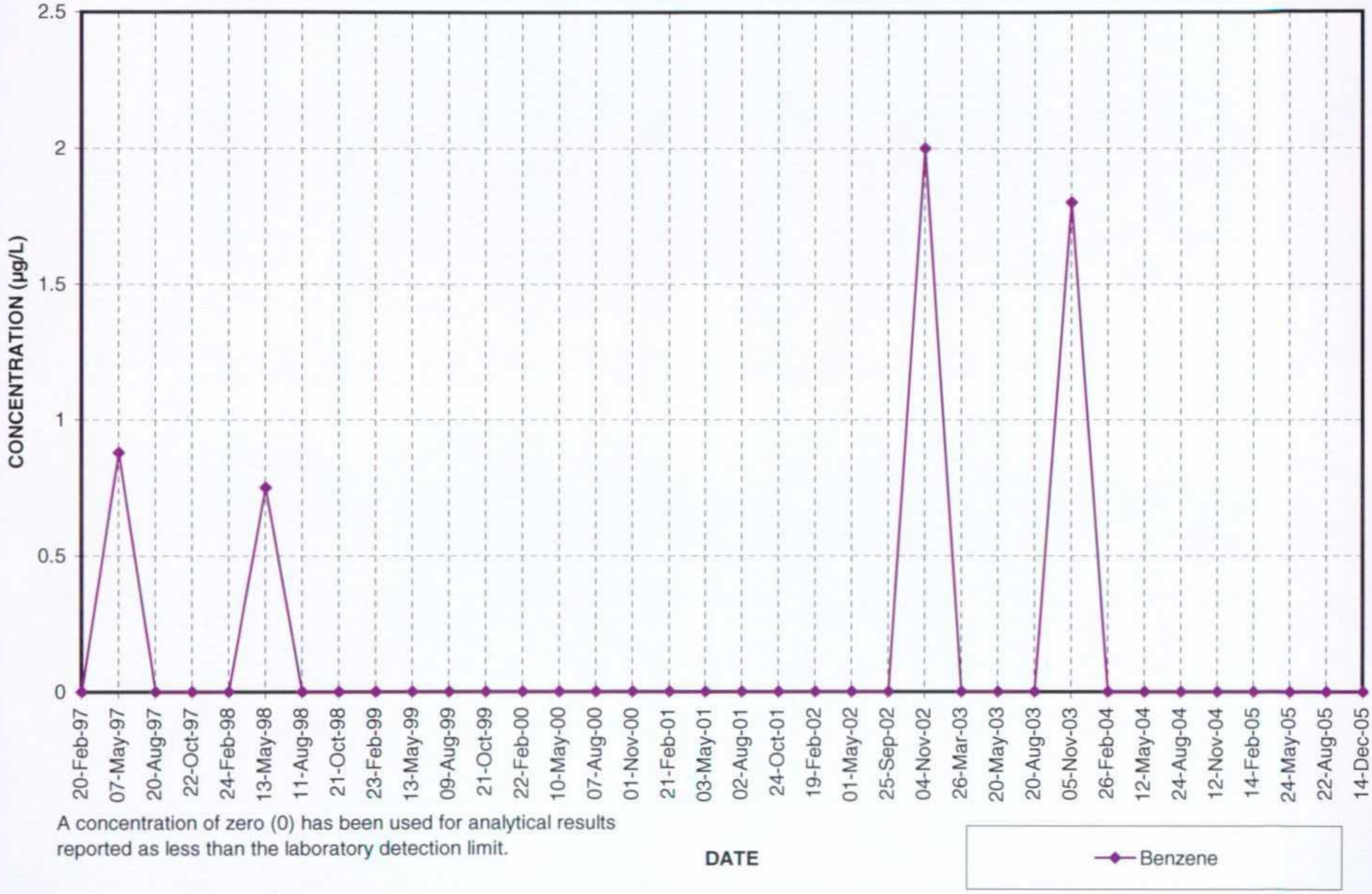
MONITOR WELL ACW-14




MONITOR WELL ACW-14
CONCENTRATION (mg/L)
0
50
100
150
200
250
300
350
400
450
DATE
20-Feb-97
07-May-97
20-Aug-97
22-Oct-97
24-Feb-98
13-May-98
11-Aug-98
21-Oct-98
23-Feb-99
13-May-99
09-Aug-99
21-Oct-99
22-Feb-00
10-May-00
07-Aug-00
01-Nov-00
21-Feb-01
03-May-01
02-Aug-01
24-Oct-01
19-Feb-02
01-May-02
25-Sep-02
04-Nov-02
26-Mar-03
20-May-03
20-Aug-03
05-Nov-03
26-Feb-04
12-May-04
24-Aug-04
12-Nov-04
14-Feb-05
24-May-05
22-Aug-05
14-Dec-05
■ Chloride
▲ Sodium

MONITOR WELL ACW-14



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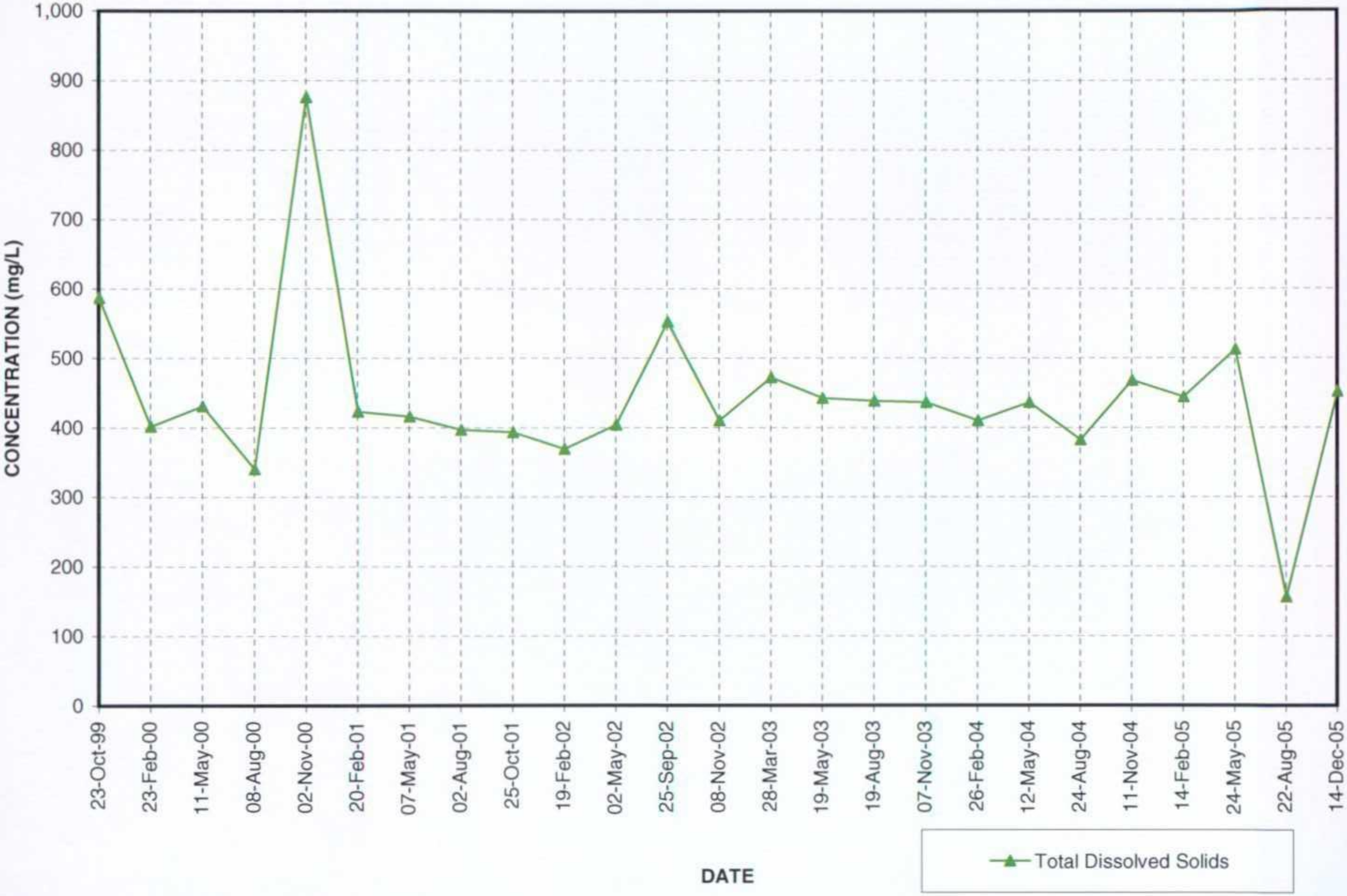
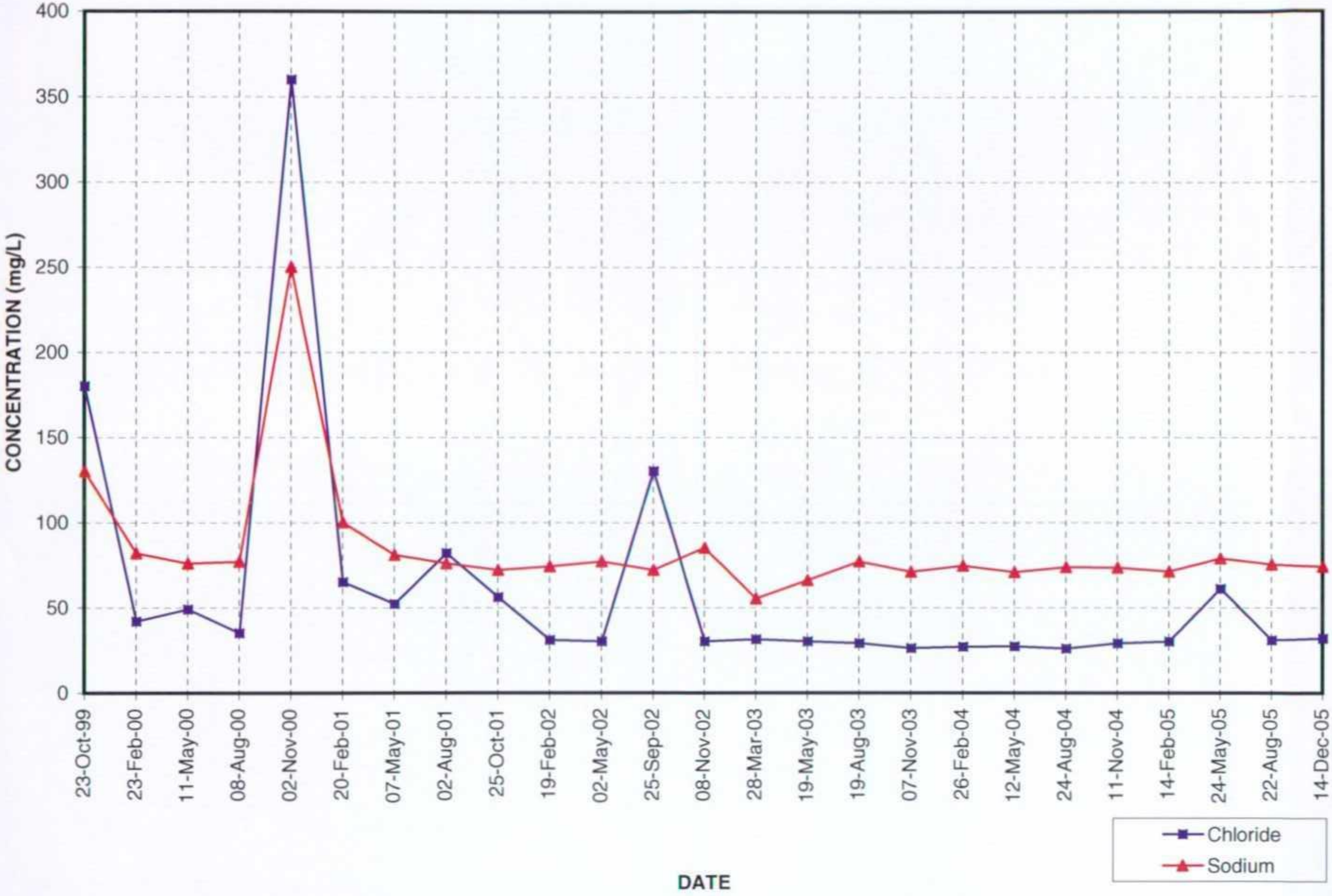
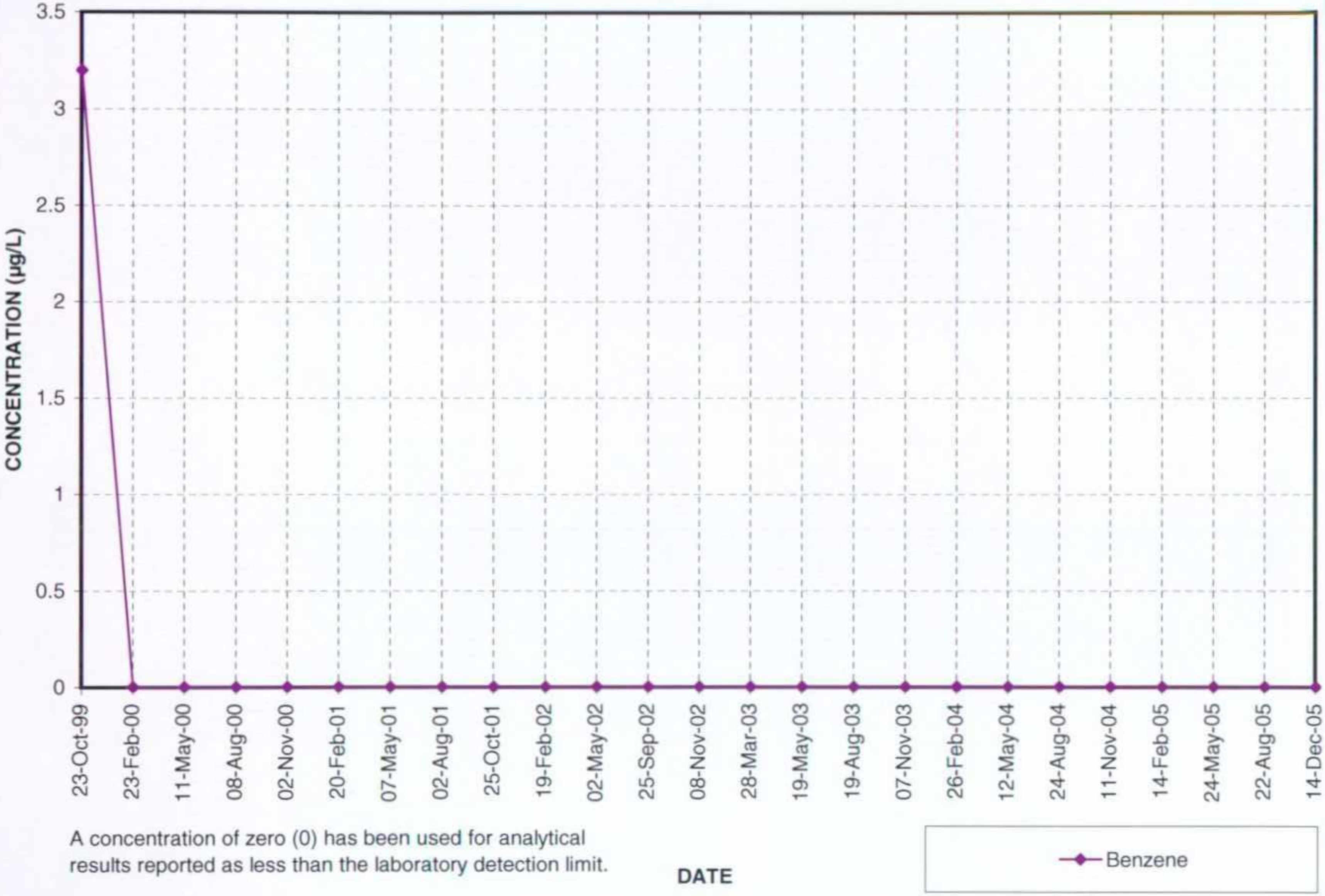
MONITOR WELL ACW-15



MONITOR WELL ACW-15



MONITOR WELL ACW-15



A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

APPENDICES

APPENDIX A
LABORATORY ANALYTICAL REPORTS

APPENDIX A

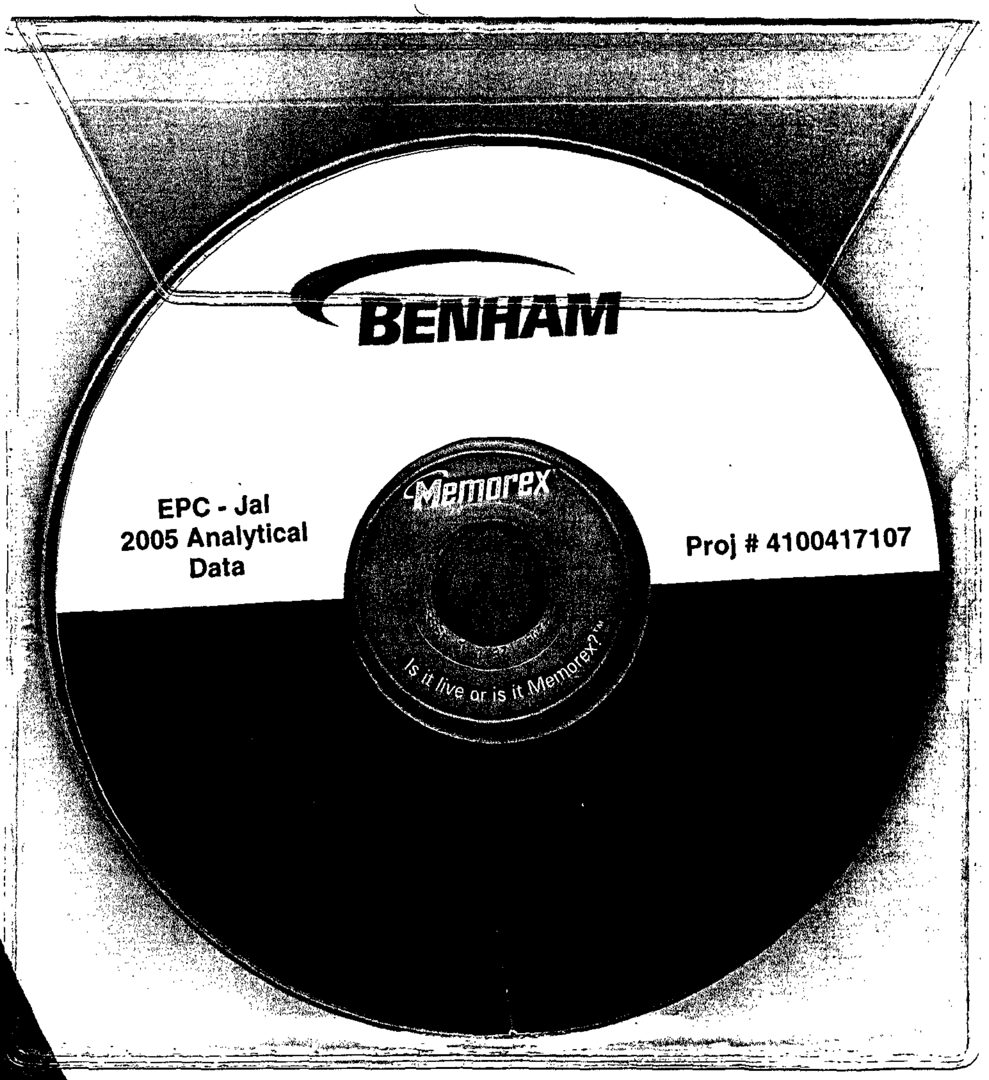
Laboratory Analytical Reports and Chain-of-Custody Documentation

for

2005 ANNUAL GROUNDWATER REMEDIATION REPORT

JAL No. 4 Plant
El Paso Natural Gas Company
Lea County, New Mexico

February 8, 2006



Prepared by:
The Benham Companies, LLC
infrastructure & environment

Prepared for:
El Paso Natural Gas Company
JAL No. 4 Plant
Lea County, New Mexico

elpaso

2003 ANNUAL GROUNDWATER REMEDIATION REPORT
Jal No. 4 Plant
Lea County, New Mexico

RECEIVED

FEB 13 2004

Oil Conservation Division
Environmental Bureau

February 13, 2004

Prepared for:

El Paso Natural Gas Company
614 Reilly Avenue
Farmington, New Mexico 87401
505/ 599-2124

Prepared by:

The Benham Companies, Inc.
infrastructure & environment
One West Third Street, Suite 100
Tulsa, Oklahoma 74103
918/492-1600

BENHAM
infrastructure & environment

2003 ANNUAL
GROUNDWATER REMEDIATION REPORT
JAL NO. 4 PLANT
LEA COUNTY, NEW MEXICO

Prepared for:

El Paso Natural Gas Company
614 Reilly Avenue
Farmington, New Mexico 87401
(505) 599-2124

Prepared by:

The Benham Companies, Inc.
Infrastructure & Environmental
One West Third Street, Suite 100
Tulsa, Oklahoma 74137
(918) 492-1600

February 13, 2004

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GRAPH

LIST OF GRAPHS - continued

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LIST OF GRAPHS - continued

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2003 ANNUAL
GROUNDWATER REMEDIATION REPORT
JAL NO. 4 PLANT
LEA COUNTY, NEW MEXICO

1.0 INTRODUCTION

The Benham Companies Inc. (Benham), formerly Atkins Americas, Inc., has been retained by El Paso Natural Gas Company (EPNG) to compile the 2003 Annual Groundwater Remediation Report for the Jal No. 4 Plant (Plant) located in Lea County, New Mexico. The remedial activities conducted at the Plant have been performed under EPNG's Project Work Plan, dated February 1995 (Plan). This Plan was approved by the New Mexico Oil Conservation Division (NMOCD) on April 27, 1995, with subsequent revisions approved on August 10, 1995, July 8, 1997 and July 30, 2002.

The Plant property is comprised of approximately 181 acres of land located west of State Highway 18, approximately 9 miles north of the town of Jal, New Mexico. The location of the Plant property and topographic features are shown on Figure 1. The Plant property occupies portions of Sections 31 and 32 of Township 23 South, Range 37 East, and Sections 5 and 6 of Township 24 South, Range 37 East, all in Lea County, New Mexico.

The Plant was constructed by EPNG in 1952 to treat, compress and transport natural gas to EPNG's main transmission lines. EPNG discontinued their use of the Plant in 1987, leasing portions of the Plant property to Christie Gas Corporation (Christie) that same year. EPNG eventually sold the Plant to Christie in 1991. In December 2002, Christie sold the Plant to Texas LPG Storage Company (Texas LPG).

1.1 Program Wells and Sampling Schedule

To assess brine and hydrocarbon impacts to the shallow groundwater system in the Plant area, EPNG has installed 18 monitor wells, 1 piezometer, and 2 recovery wells on Plant property and adjoining properties to the east (located hydraulically downgradient). EPNG designated fifteen (15) monitor wells as ***"program monitor wells"*** from which groundwater samples are frequently collected and submitted to an analytical laboratory. The locations of these wells are shown on Figures 2 through 7.

On April 14, 2003 the NMOCD approved a modification to the groundwater sampling program for the Site. The modifications to this program included the following:

- 1st Quarter - sample monitor wells ACW-13, ACW-14 and ACW-15 for the following: benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX), total dissolved solids (TDS), specific conductance, chloride and sodium.

- 2nd Quarter - sample monitor wells ACW-13, ACW-14 and ACW-15 for the following: BTEX, TDS, specific conductance, chloride and sodium.

- 3rd Quarter - sample monitor wells ACW-13, ACW-14 and ACW-15 for the following: BTEX, TDS, specific conductance, chloride and sodium.

- 4th Quarter - sample all program and non-program wells for the following: BTEX, TDS, specific conductance, chloride and sodium.

A list of EPNG's program monitor wells and the calendar year 2003 sample collection schedule for each well is as follows:

Monitor Well	Sampled March, May, August, November	Sampled November
ACW-1		X
ACW-2A		X
ACW-3		X
ACW-4		X
ACW-5		X
ACW-6		X
ACW-7		X
ACW-8		X
ACW-9		X

Monitor Well	Sampled March, May, August, November	Sampled November
ACW-10		X
ACW-11		X
ACW-12		X
ACW-13	X	
ACW-14	X	
ACW-15	X	

1.2 Non-Program Wells and Sampling Schedule

In addition to these program monitor wells, EPNG also collects groundwater samples from 2 non-program monitor wells (ENSR-1 and ENSR-3), 1 piezometer (PTP-1), 1 upgradient water supply well (EPNG-1), and 2 downgradient active water supply wells (Oxy Production Well and Doom Production Well). Monitor well ENSR-2 was converted into a groundwater recovery well and connected to the remediation system active at the Site in 2002 and was not sampled during sample year 2003. The ENSR wells are located within the Plant process areas as shown on Figures 2 through 7. Water supply well EPNG-1 is located at the northwest corner of the Plant property. The Oxy Production Well is located approximately in the center of Section 5-T24S-R37E and provides potable water to Oxy's Myers Langlie Mattix Unit Water Injection Station. The locations of the Oxy injection station and supply well are shown on Figures 2 through 7. The Doom Production Well is a private water supply well that provides water to the residence of Jimmie J. and Rebecca J. Doom and is located in the approximate center of the northwest quarter of Section 8-T24S-R37E. The location of the Doom Production Well is not shown on the figures provided, however, the well is approximately 5,800 feet south of the Oxy water injection station.

A list of the non-program wells and their calendar year 2003 sample collection schedule is as follows:

Well	Sampled March, May, August, November	Sampled November
ENSR-1		X
ENSR-3		X
EPNG-1		X
PTP-1		X
Oxy Production Well	X	
Doom Production Well	X	

1.3 Depth to Groundwater Measurements

During each quarterly sampling event and prior to disturbing the water columns within each well, EPNG personnel measured the static depths to groundwater within the well casings using an electronic water level indicator. All depths to groundwater were measured relative to the surveyed top of casing (TOC) datum so that groundwater elevations could be determined. Table 1 provides a summary of the depths to groundwater, TOC elevations, and groundwater elevations that have been compiled throughout EPNG's monitoring program.

1.4 Sampling Procedures

The groundwater samples were collected by EPNG personnel in accordance with EPA methods and quality assurance/quality control guidance. All monitor wells were purged thoroughly prior to sample collection using electric submersible pumps. Groundwater produced during purging operations was contained and disposed of within the Plant's lined Surface Impoundment #9.

Upon collection, the groundwater samples were placed directly into laboratory-prepared containers, labeled as to source, packed on ice, and placed under chain-of-custody control for transfer to the laboratory. The results of the 2003 groundwater analyses and all previous analyses are summarized on Table 2. The complete 2003 laboratory analytical reports and chain-of-custody documents are provided in Appendix A.

2.0 RESULTS OF MONITORING ACTIVITIES

The following Sections summarize the field measurements and laboratory analytical results obtained throughout the 2003 quarterly sampling program. These data have been compared with historic data to assess any trends that may be apparent. To facilitate these comparisons, 45 trend graphs have been prepared that show the TDS, chloride, sodium and benzene concentrations that have been detected within the groundwater samples taken from the 15 program monitor wells. These graphs are presented in the section of this report tabbed “Graphs”.

2.1 Field Measurements

The depth to groundwater measurements taken during each of the sampling events are summarized on Table 1. These data indicate that the depths to groundwater across the Plant are approximately 100 feet below ground surface and that the static groundwater elevations exhibit little seasonal variability. In 2003, the depth to groundwater elevations observed in monitor wells ACW-4 and ACW-9 appear to be influenced by groundwater withdrawals from recovery wells ENSR–2 and RW-2.

Groundwater potentiometric surface maps have been prepared for each sampling quarter. These maps are presented on Figures 2 through 5. As is shown on these figures, the groundwater flow direction across the Plant is, in general, from the northwest to the southeast (S46E). The hydraulic gradient across the Plant is approximately 0.002 feet per foot. Generally, the groundwater flow direction and hydraulic gradient at the Site appear to have changed little since 1997. A notable exception is those localized areas near the active recovery wells where the groundwater flow direction and hydraulic gradient have been altered by the extraction of groundwater from these wells.

2.2 Inorganic Constituents

The primary inorganic parameters being utilized to assess plume migration at the Plant include: TDS, chloride and sodium. Benham has reviewed the concentration trend graphs for these parameters in each of the program monitor wells. Based upon this review, it is Benham's opinion that certain trends are apparent in the levels of these parameters. The following table summarizes Benham's opinions of the trends that are observable from the inorganic database provided herein. The trends observed in calendar year 2002 are shown in parentheses.

MONITOR WELL	CONCENTRATION TRENDS		
	TDS	CHLORIDE	SODIUM
ACW-1	↓ (↓)	↓ (↓)	↓ (↓)
ACW-2A	↓ (↓)	↓ (↔)	↓ (↔)
ACW-3	↔ (↔)	↓ (↓)	↓
ACW-4	↓ (↓)	↓ (↓)	↓ (↓)
ACW-5	↓ (↓)	↔ (↔)	↔ (↔)
ACW-6	↓ (↓)	↓ (↓)	↓ (↓)
ACW-7	↑ (↑)	↑ (↑)	↑ (↑)
ACW-8	↓ (↓)	↓ (↓)	↓ (↓)
ACW-9	↑ (↑)	↔ (↔)	↑ (↑)
ACW-10	↑ (↑)	↑ (↑)	↔ (↑)
ACW-11	↑ (↑)	↑ (↑)	↑ (↑)
ACW-12	↔ (↔)	↑ (↑)	↔ (↑)
ACW-13	↔ (↔)	↔ (↔)	↔ (↔)
ACW-14	↔ (↔)	↔ (↔)	↔ (↔)
ACW-15	↔ (↔)	↓ (↔)	↔ (↔)

Key: ↔ denotes no observable trend, ↓ denotes a decreasing trend, ↑ denotes an increasing trend.

In general, these trends indicate that the overall levels of inorganic constituents are decreasing in six (6) wells, increasing in four (4) wells, and no observable trend in five (5) wells. The wells and their overall trends for inorganic constituents can be grouped as follows:

Monitor Wells with Decreasing Overall Inorganic Levels

ACW-1
ACW-2A
ACW-3
ACW-4
ACW-6
ACW-8

Monitor Wells with Increasing Overall Inorganic Levels

ACW-7
ACW-9
ACW-10
ACW-11

Monitor Wells with No Observable Overall Inorganic Levels

ACW-5
ACW-12
ACW-13
ACW-14
ACW-15

Figure 6 presents an isopleth of the chloride concentrations detected in groundwater during the 2003 sampling program. New Mexico Administrative Code (NMAC) 20.6.2.3103 (B) has established a standard for Other Standards for Domestic Water Supply of 250 mg/L for chloride in groundwater containing TDS levels of 10,000 mg/L or less. On this isopleth, the value posted at each well location represents the highest chloride concentration detected in any groundwater sample taken from that well during the 2003 monitoring program.

Decreasing or stable chloride trends are evident in the monitor wells immediately adjacent to RW-1 and ENSR-2 (i.e., monitor wells ACW-2A, ACW-3, ACW-4 and ACW-8). These trends indicate the remediation system is effective in removing the highest levels of brine impact and that fresher groundwater is converging on these wells.

2.3 Organic Constituents

The primary organic constituent being utilized to assess plume migration at the Plant is benzene. NMAC regulation 20.6.2.3103 (A) has established a Human Health Standard of 0.01 mg/L for benzene in groundwater containing TDS levels of 10,000 mg/L or less. Benham has reviewed the concentration trend graphs for benzene in each of the program monitor wells. Based upon this review it is Benham's opinion that certain trends are apparent in the levels of this compound. The following table summarizes

Benham's opinions of the trends that are observable from the benzene database provided herein. The trends observed in calendar year 2002 are shown in parentheses.

MONITOR WELL	BENZENE CONCENTRATION TREND
ACW-1	↔ (↔)
ACW-2A	↓ (↓)
ACW-3	↓ (↓)
ACW-4	↓ (↓)
ACW-5	↔ (↔)
ACW-6	↑ (↑)
ACW-7	↑ (↑)
ACW-8	↓ (↓)
ACW-9	↔ (↔)
ACW-10	↔ (↔)
ACW-11	↔ (↑)
ACW-12	↔ (↔)
ACW-13	↔ (↔)
ACW-14	↔ (↔)
ACW-15	↔ (↔)

Key: ↔ denotes no observable trend, ↓ denotes a decreasing trend, ↑ denotes an increasing trend.

In general, these trends indicate that benzene levels are remaining relatively constant or are decreasing slightly across the Plant (9 stable and 4 decreasing trends). However, increasing benzene trends are indicated in monitor wells ACW-6 and ACW-7. These monitor wells are located immediately off-site along the eastern Plant property boundary.

Figure 7 presents an isopleth of the benzene concentrations detected in groundwater during the 2003 sampling program. On this isopleth, the value posted at each well location represents the highest benzene concentration detected in any groundwater sample taken from that well during the 2003 monitoring program. As can be seen on

Figure 7, the highest benzene concentration observed in 2003 was detected in the groundwater sample taken from on-plant monitor well ACW-2A (45.6 µg/L). In addition, benzene was detected in five (5) off-plant monitor wells during the sample year 2003. These wells were ACW-5 (1.2 µg/L), ACW-6 (8.9 µg/L), ACW-7 (19.3 µg/L), ACW-12 (1.0 µg/L), and ACW-14 (1.8 µg/L). However, only the levels of benzene observed in the groundwater samples taken from monitor well ACW-7 (19.3 µg/L) exceed the New Mexico Water Quality Control Commission (NMWQCC) groundwater standard for benzene of 10 µg/L.

3.0 GROUNDWATER REMEDIATION SYSTEM

To date, EPNG has installed two (2) groundwater recovery wells to mitigate impacts to the shallow groundwater system. These wells are identified as RW-1 and RW-2 and the locations of these wells are shown on Figures 2 through 7. Due to chronic scaling problems that occurred within the electrical submersible pump in RW-1, monitor well ENSR-2 was tested as a recovery well in 2000 and operated intermittently as a replacement well for RW-1 in 2001 and 2002. ENSR-2 was permitted as a stand-alone recovery well on January 27, 2003. As shown on Figures 2 through 7, ENSR-2 is located on Plant property in very close proximity to RW-1 and to areas that have likely been sources for brine and hydrocarbon impacts to groundwater. RW-2 is located hydraulically downgradient relative to recovery well ENSR-2 and is approximately 780 feet east of the Plant property boundary. EPNG has installed a below-grade pipeline that connects recovery wells RW-1 and RW-2 to a Class II water disposal well located immediately north of the Plant in the northwest quarter, of the southwest quarter, of Section 32-T23S-R37E. This well, referred to as the Shell State #13 SWD, was approved for disposal by NMOCD on October 23, 1979 and has a perforated injection interval of 3,866 to 3,982 feet below ground level. In 2001, ENSR-2 was connected to this disposal system. Shell State #13 SWD is currently owned and operated by Texas LPG. Texas LPG provides EPNG with access to the disposal well for the purpose of disposing of all groundwater recovered from the remediation system.

Groundwater recovery began from recovery well RW-1 in October 1999, RW-2 in January 2000, and ENSR-2 in August 2000. Table 3 provides a summary of the volumes of groundwater pumped from each of these wells in 2003.

Due to Texas LPG's operations at the Plant, EPNG's access to the disposal well in calendar year 2003 was periodically limited, and therefore, groundwater recovery operations at the Plant were periodically limited. Despite these limitations the obvious effects of pumping upon the shallow groundwater system are illustrated on Figures 2 through 5. Groundwater recoveries from recovery wells RW-1, RW-2 and ENSR-2 in calendar year 2003 totaled 501,640 gallons, 1,598,630 gallons and 1,629,400 gallons, respectively, for an accumulated total of 3,729,670 gallons. This total volume is equivalent to 11.45 acre-feet of water. Groundwater permits for recovery wells RW-1 and RW-2, obtained in June 1997 from the New Mexico State Engineer's Office, established production limits of 35 acre-feet of water per year from all combined sources at the Plant.

A summary of the amount of groundwater recovered from each of the recovery wells is presented on the following table. This table presents total number of gallons recovered per well, per year. In addition, the total amount of water recovered per year is presented in gallons and in acre-feet.

Groundwater Recovery Volumes

Year	RW-1 (gallons)	RW-2 (gallons)	ENSR-2 (gallons)	Total (gallons)	Total (acre-feet)
1999	319,280	0	0	319,280	1.0
2000	1,575,510	3,967,385	780,240	6,323,135	19.4
2001	0	1,672,990	566,126	2,239,116	6.9
2002	267,869	2,919,520	1,675,670	4,863,059	14.92
2003	501,640	1,598,630	1,629,400	3,729,670	11.45
Cumulative Total	**2,664,299**	**10,158,525**	**4,651,436**	**17,474,260**	**53.67**

4.0 CONCLUSIONS

Based upon Benham's review of the data presented herein, the following conclusions are presented:

- The uppermost occurrence of groundwater in the Plant area occurs within a shallow groundwater system with saturation occurring at approximately 100 feet below ground surface.

- The groundwater elevations of the shallow groundwater system locally are quite stable.

- Groundwater flow directions at the Plant within the shallow groundwater system appear quite stable, with flows occurring from the northwest to the southeast (S46E) and a hydraulic gradient of approximately 0.002 feet per foot. A notable exception is those localized areas near the active recovery wells where the groundwater flow direction and hydraulic gradient have been altered by the extraction of groundwater from these wells.

- The shallow groundwater system in the Plant area has been impacted by chloride. The groundwater analytical data indicate that a plume containing elevated levels of chloride has migrated hydraulically downgradient from the Plant area.

- In general, chloride concentrations in groundwater appear to be decreasing along the eastern property boundary of the Plant but increasing in areas that are offsite and hydraulically downgradient of the Plant along a line between RW-1 and monitor well ACW-15.

- The shallow groundwater system in the Plant area has been impacted by hydrocarbons. The groundwater analytical data indicate that detectable levels of benzene are present hydraulically downgradient of the Plant area. However, only the levels of benzene observed in the groundwater samples taken from monitor well ACW-7 exceed the NMWQCC groundwater standard.

- In general, benzene concentrations in groundwater appear to be decreasing along the eastern property boundary of the Plant. Only the benzene levels in monitor wells ACW-6 and ACW-7 appear to have a slightly increasing trend.

5.0 RECOMMENDATIONS

Based upon a thorough review of the data contained within this report, Benham has formulated the following recommendations:

- Continue operation of the current groundwater remediation system at maximum design capacity. Each recovery well should be routinely monitored to identify groundwater recovery volumes, pumping rates, pumping times, and the quality of groundwater being discharged (via field measurements of specific conductance and chloride concentration).

- Efforts should be made to improve access to and capacity in disposal well Shell State #13 SWD to maximize groundwater recovery volumes. Ideally, EPNG's disposal capacity and recovery well configuration should be sufficient to allow hydraulic capture of the highly impacted groundwater (i.e., chloride levels greater than 5,000 mg/L). If adequate disposal capacity cannot be developed and maintained in the Shell State #13 SWD well, EPNG should pursue another disposal well(s) that can provide the required disposal capacity.

- Remediation efforts should focus on capturing the most highly impacted groundwater. Particular emphasis should be placed upon evaluating vertical variations in brine concentrations that may be present within the groundwater system. Construction of future recovery wells should target those groundwater intervals containing the most highly affected groundwater.

- Once recovered groundwater disposal issues are resolved, drill and install an additional recovery well to enhance the effectiveness of the groundwater remediation system and prevent further downgradient movement of impacted groundwater.

TABLES

Table 1: Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-01	110 to 130	3,300.87	02/19/97	106.65	3,194.22
			05/07/97	105.59	3,195.28
			08/19/97	105.61	3,195.26
			10/21/97	105.71	3,195.16
			02/24/98	105.62	3,195.25
			05/12/98	105.59	3,195.28
			08/11/98	105.61	3,195.26
			10/20/98	105.67	3,195.20
			02/23/99	105.72	3,195.15
			05/11/99	105.66	3,195.21
			08/11/99	105.68	3,195.19
			10/18/99	105.73	3,195.14
			02/22/00	105.81	3,195.06
			05/09/00	105.90	3,194.97
			08/07/00	105.99	3,194.88
			10/26/00	106.10	3,194.77
			02/20/01	106.19	3,194.68
			05/01/01	105.90	3,194.97
			08/01/01	105.89	3,194.98
			10/22/01	106.05	3,194.82
			02/20/02	106.30	3,194.57
			04/29/02	106.30	3,194.57
			09/24/02	106.04	3,194.83
			11/03/02	106.30	3,194.57
			03/31/03	106.22	3,194.65
			05/20/03	106.41	3,194.46
			08/18/03	106.39	3,194.48
			11/04/03	106.19	3,194.68
ACW-2a	98 to 118	3,300.88	05/12/99	106.00	3,194.88
			10/18/99	106.09	3,194.79
			05/08/00	107.27	3,193.61
			10/26/00	107.51	3,193.37
			05/02/01	106.31	3,194.57
			10/22/01	106.85	3,194.03
			04/30/02	106.82	3,194.06
			09/24/02	106.55	3,194.33
			11/03/02	107.00	3,193.88
			03/31/03	107.04	3,193.84
			05/20/03	106.87	3,194.01
			08/18/03	107.74	3,193.14
			11/04/03	106.57	3,194.31
ACW-03	112 to 132	3,300.34	05/08/00	105.98	3,194.36
			10/26/00	106.21	3,194.13
			05/01/01	105.94	3,194.40
			10/23/01	106.15	3,194.19
			04/30/02	106.30	3,194.04
			09/24/02	106.13	3,194.21
			11/03/02	106.44	3,193.90
			03/31/03	106.31	3,194.03
			05/20/03	106.42	3,193.92
			08/18/03	106.53	3,193.81
			11/03/03	106.19	3,194.15
ACW-04	154 to 169	3,299.48	05/08/00	113.57	3,185.91
			10/26/00	113.25	3,186.23
			05/02/01	106.00	3,193.48
			10/22/01	107.99	3,191.49
			04/30/02	107.88	3,191.60
			09/24/02	107.71	3,191.77
			11/02/02	107.90	3,191.58
			03/31/03	107.90	3,191.58
			05/20/03	107.76	3,191.72
			08/18/03	113.13	3,186.35
			11/04/03	107.34	3,192.14

Table 1: Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-05	105 to 115	3,294.75	02/19/97	103.08	3,191.67
			05/07/97	103.06	3,191.69
			08/19/97	103.07	3,191.68
			10/22/97	103.06	3,191.69
			02/24/98	103.10	3,191.65
			05/13/98	103.10	3,191.65
			08/11/98	103.15	3,191.60
			10/21/98	103.22	3,191.53
			02/23/99	103.26	3,191.49
			05/13/99	103.17	3,191.58
			08/11/99	103.17	3,191.58
			10/21/99	103.25	3,191.50
			02/22/00	103.30	3,191.45
			05/10/00	103.32	3,191.43
			08/07/00	103.40	3,191.35
			10/26/00	103.50	3,191.25
			02/20/01	103.62	3,191.13
			05/06/01	103.57	3,191.18
			08/01/01	103.46	3,191.29
			10/24/01	103.70	3,191.05
			02/20/02	103.70	3,191.05
			04/30/02	103.70	3,191.05
			09/24/02	103.57	3,191.18
			11/06/02	103.81	3,190.94
			03/31/03	103.72	3,191.03
			05/20/03	103.85	3,190.90
			08/18/03	103.79	3,190.96
			11/05/03	103.70	3,191.05
ACW-06	110 to 120	3,300.53	02/19/97	107.53	3,193.00
			05/08/97	107.50	3,193.03
			08/18/97	107.51	3,193.02
			10/22/97	107.57	3,192.96
			02/24/98	107.54	3,192.99
			05/13/98	107.55	3,192.98
			08/11/98	107.57	3,192.96
			10/21/98	107.70	3,192.83
			02/23/99	107.68	3,192.85
			05/13/99	107.62	3,192.91
			08/11/99	107.60	3,192.93
			10/21/99	107.68	3,192.85
			02/22/00	107.72	3,192.81
			05/10/00	107.75	3,192.78
			08/07/00	107.84	3,192.69
			10/26/00	107.90	3,192.63
			02/20/01	108.00	3,192.53
			05/06/01	107.95	3,192.58
			08/01/01	107.87	3,192.66
			10/24/01	108.09	3,192.44
			02/20/02	108.07	3,192.46
			04/29/02	108.08	3,192.45
			09/24/02	107.94	3,192.59
			11/04/02	108.16	3,192.37
			03/31/03	108.08	3,192.45
			05/20/03	108.20	3,192.33
			08/18/03	108.08	3,192.45
			11/05/03	108.15	3,192.38
ACW-07	105 to 115	3,295.36	05/12/99	102.62	3,192.74
			10/21/99	102.75	3,192.61
			05/10/00	102.92	3,192.44
			10/26/00	103.20	3,192.16
			05/06/01	103.08	3,192.28
			10/24/01	103.35	3,192.01
			04/30/02	103.35	3,192.01
			09/24/02	103.21	3,192.15
			11/05/02	103.45	3,191.91
			03/31/03	103.36	3,192.00
			05/20/03	103.47	3,191.89
			08/18/03	103.42	3,191.94
			11/05/03	103.25	3,192.11

Table 1: Summary of Depth to Groundwater Measurements,
Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-08	140 to 173	3,297.27	05/11/99	104.17	3,193.10
			10/18/99	104.29	3,192.98
			05/09/00	104.40	3,192.87
			10/26/00	104.64	3,192.63
			05/01/01	104.48	3,192.79
			10/24/01	104.60	3,192.67
			04/29/02	104.81	3,192.46
			09/24/02	104.51	3,192.76
			11/04/02	104.72	3,192.55
			03/31/03	104.71	3,192.56
			05/20/03	104.85	3,192.42
			08/18/03	104.82	3,192.45
			11/03/03	104.62	3,192.65
ACW-09	140 to 160	3,302.47	02/19/97	110.24	3,192.23
			05/08/97	110.25	3,192.22
			08/19/97	110.26	3,192.21
			10/23/97	110.28	3,192.19
			02/24/98	110.29	3,192.18
			05/13/98	110.30	3,192.17
			08/11/98	110.32	3,192.15
			10/21/98	110.40	3,192.07
			02/23/99	110.54	3,191.93
			05/13/99	110.45	3,192.02
			08/11/99	110.45	3,192.02
			10/22/99	110.50	3,191.97
			02/22/00	111.18	3,191.29
			05/12/00	111.89	3,190.58
			08/07/00	111.22	3,191.25
			10/26/00	112.20	3,190.27
			02/20/01	112.41	3,190.06
			05/04/01	110.85	3,191.62
			08/01/01	110.70	3,191.77
			10/25/01	112.17	3,190.30
			02/20/02	111.98	3,190.49
			05/01/02	111.29	3,191.18
			09/24/02	111.08	3,191.39
			11/06/02	112.11	3,190.36
			03/31/03	111.56	3,190.91
			05/20/03	111.90	3,190.57
			08/18/03	111.17	3,191.30
			11/06/03	110.99	3,191.48
ACW-10	140 to 160	3,297.57	02/19/97	106.31	3,191.26
			05/08/97	106.32	3,191.25
			08/19/97	106.33	3,191.24
			10/23/97	106.35	3,191.22
			02/24/98	106.38	3,191.19
			05/14/98	106.38	3,191.19
			08/11/98	106.41	3,191.16
			10/22/98	106.54	3,191.03
			02/23/99	106.52	3,191.05
			05/14/99	106.45	3,191.12
			08/11/99	106.47	3,191.10
			10/22/99	106.52	3,191.05
			02/22/00	106.39	3,191.18
			05/12/00	106.63	3,190.94
			08/07/00	106.77	3,190.80
			10/26/00	106.89	3,190.68
			02/20/01	106.99	3,190.58
			05/06/01	106.82	3,190.75
			08/01/01	106.76	3,190.81
			10/25/01	107.01	3,190.56
			02/20/02	107.08	3,190.49
			05/01/02	107.05	3,190.52
			09/24/02	106.91	3,190.66
			11/08/02	107.09	3,190.48
			03/31/03	107.07	3,190.50
			05/20/03	107.17	3,190.40
			08/18/03	107.09	3,190.48
			11/06/03	107.08	3,190.49

Table 1: Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-11	140 to 160	3,299.33	02/19/97	106.01	3,193.32
			05/06/97	105.95	3,193.38
			08/19/97	106.00	3,193.33
			10/21/97	106.02	3,193.31
			02/24/98	106.02	3,193.31
			05/12/98	106.00	3,193.33
			08/11/98	106.07	3,193.26
			10/20/98	106.17	3,193.16
			02/23/99	106.20	3,193.13
			05/12/99	106.07	3,193.26
			08/11/99	106.15	3,193.18
			10/20/99	106.16	3,193.17
			02/22/00	106.27	3,193.06
			05/09/00	106.31	3,193.02
			08/07/00	106.54	3,192.79
			10/26/00	106.65	3,192.68
			02/20/01	106.70	3,192.63
			05/01/01	106.45	3,192.88
			08/01/01	106.40	3,192.93
			10/23/01	106.57	3,192.76
			02/20/02	106.79	3,192.54
			04/29/02	106.78	3,192.55
			09/24/02	106.60	3,192.73
			11/06/02	106.80	3,192.53
			03/31/03	106.75	3,192.58
			05/20/03	106.92	3,192.41
			08/18/03	106.85	3,192.48
			11/04/03	106.72	3,192.61
ACW-12	150 to 170	3,299.56	02/19/97	109.32	3,190.24
			05/08/97	109.32	3,190.24
			08/20/97	99.29	3,200.27
			10/23/97	109.39	3,190.17
			02/24/98	109.38	3,190.18
			05/14/98	109.35	3,190.21
			08/11/98	109.40	3,190.16
			10/22/98	109.51	3,190.05
			02/23/99	109.54	3,190.02
			05/14/99	109.44	3,190.12
			08/11/99	109.54	3,190.02
			10/22/99	109.52	3,190.04
			02/22/00	109.50	3,190.06
			05/11/00	109.57	3,189.99
			08/07/00	109.65	3,189.91
			10/26/00	109.78	3,189.78
			02/20/01	109.90	3,189.66
			05/03/01	109.75	3,189.81
			08/01/01	109.76	3,189.80
			10/25/01	109.99	3,189.57
			02/20/02	109.97	3,189.59
			05/01/02	109.98	3,189.58
			09/24/02	109.77	3,189.79
			11/07/02	109.91	3,189.65
			03/31/03	109.99	3,189.57
			05/20/03	110.13	3,189.43
			08/18/03	110.03	3,189.53
			11/06/03	110.02	3,189.54
ACW-13	153 to 173	3,289.46	02/20/97	99.28	3,190.18
			05/08/97	99.29	3,190.17
			08/20/97	99.29	3,190.17
			10/23/97	99.27	3,190.19
			02/24/98	99.31	3,190.15
			05/14/98	99.31	3,190.15
			08/11/98	99.36	3,190.10
			10/22/98	99.40	3,190.06
			02/23/99	99.45	3,190.01
			05/14/99	99.38	3,190.08
			08/11/99	99.44	3,190.02
			10/22/99	99.44	3,190.02
			02/23/00	99.48	3,189.98
			05/11/00	99.47	3,189.99
			08/07/00	99.53	3,189.93

Table 1: Summary of Depth to Groundwater Measurements, Jal No. 4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Monitor Well	Screened Interval (Feet-BGL)	Top of Casing Elevation (Feet-AMSL)	Depth to Groundwater Measurement Date	Depth to Groundwater (Feet-TOC)	Groundwater Elevation (Feet-AMSL)
ACW-13 (con't)	153 to 173	3,289.46	10/26/00	99.50	3,189.96
			02/20/01	99.65	3,189.81
			05/06/01	99.62	3,189.84
			08/01/01	99.61	3,189.85
			10/25/01	99.61	3,189.85
			02/20/02	99.72	3,189.74
			05/01/02	99.73	3,189.73
			09/24/02	99.61	3,189.85
			11/07/02	99.80	3,189.66
			03/28/03	99.79	3,189.67
			05/19/03	99.83	3,189.63
			08/19/03	99.83	3,189.63
			11/06/03	99.86	3,189.60
ACW-14	157 to 177	3,291.18	02/19/97	NM	NM
			05/06/97	NM	NM
			08/20/97	100.41	3,190.77
			10/22/97	100.38	3,190.80
			02/24/98	100.47	3,190.71
			05/13/98	100.42	3,190.76
			08/11/98	100.47	3,190.71
			10/21/98	100.54	3,190.64
			02/23/99	100.57	3,190.61
			05/13/99	100.49	3,190.69
			08/09/99	100.49	3,190.69
			10/21/99	100.55	3,190.63
			02/22/00	100.56	3,190.62
			05/10/00	100.52	3,190.66
			08/07/00	100.61	3,190.57
			10/26/00	100.62	3,190.56
			02/20/01	100.75	3,190.43
			05/03/01	100.72	3,190.46
			08/01/01	100.75	3,190.43
			10/24/01	100.75	3,190.43
			02/19/02	100.80	3,190.38
			04/30/02	100.80	3,190.38
			09/24/02	100.71	3,190.47
			11/04/02	100.80	3,190.38
			03/26/03	100.89	3,190.29
			05/20/03	100.97	3,190.21
			08/20/03	100.95	3,190.23
			11/05/03	100.96	3,190.22
ACW-15	150 to 170	3,290.54	10/23/99	102.39	3,188.15
			02/23/00	102.41	3,188.13
			05/11/00	102.42	3,188.12
			08/07/00	102.45	3,188.09
			10/26/00	102.42	3,188.12
			02/20/01	102.55	3,187.99
			05/06/01	102.51	3,188.03
			08/01/01	102.58	3,187.96
			10/25/01	102.56	3,187.98
			02/19/02	102.57	3,187.97
			05/02/02	102.65	3,187.89
			09/24/02	102.55	3,187.99
			11/07/02	102.68	3,187.86
			03/28/03	102.74	3,187.80
			05/19/03	102.72	3,187.82
			08/19/03	102.75	3,187.79
			11/07/03	102.78	3,187.76

NOTES:

1. TOC : Top of Casing
2. AMSL : Above Mean Sea Level
3. NM : No Measurement Taken
4. BGL: Below Ground Level

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #01	ACW #01	05-Mar-93	—	—	—	—	—	—	—	—	—	14,350	—	8,505	4,045	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	15-Sep-93	—	—	—	—	—	—	—	—	—	10,360	—	6,016	2,915	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	10-Nov-93	—	—	—	—	—	—	—	—	—	11,780	—	7,340	3,683	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	20-Apr-94	—	—	—	—	—	—	—	—	—	16,520	—	8,430	5,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	27-Oct-94	—	—	—	—	—	—	—	—	—	14,630	—	8,440	3,700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	16-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	14,000	8.3	8,200	4,100	240	—	1.8	25	<2.0	—	—	—	—	0.9	—	66	—	—	<0.025
ACW #01	ACW #01	27-Jun-95	4.6	4.6	<2.5	—	—	—	140	—	—	1,400	8.4	8,400	6,700	260	—	1.9	22	<2.0	—	—	—	—	1.0	—	74	—	—	<0.025
ACW #01	ACW #01	29-Aug-95	6	<10	<5	—	—	—	<15	—	—	21,000	8.2	12,000	3,300	210	—	2.2	18	<20	—	—	—	—	0.8	—	67	—	—	<0.025
ACW #01	ACW #01	06-Feb-96	6.1	3	1.9	—	—	—	2.8	—	—	16,000	8.3	9,700	5,200	280	—	2.1	0.88	0.02	—	—	—	—	1.0	—	78	—	—	<0.006
ACW #01	ACW #01	06-Feb-96	5.6	2.7	3	—	—	—	<7.5	—	—	16,170	8.2	9,440	5,770	293	—	2.06	2.1	<1.25	—	—	—	—	1.1	—	84	—	—	<0.1
ACW #01	ACW #01	08-May-96	6.3	2.03	<1.0	—	—	—	<3.0	—	—	14,620	8.2	8,190	4,130	268	—	<1.25	2.2	<1.25	—	—	—	—	1.0	—	93	—	—	0.01
ACW #01	ACW #01	13-Aug-96	3.5	1.2	<1.0	—	—	—	<2.0	—	—	12,000	8.1	7,400	3,500	270	—	1.9	4.9	<0.05	—	—	—	—	1.1	—	110	—	—	0.019
ACW #01	ACW #01	05-Nov-96	5.6	2.5	<1.0	—	—	—	1.3	—	—	11,000	8.1	7,200	3,700	250	—	2	4.4	<0.05	—	—	—	—	1.0	—	81	—	—	<0.007
ACW #01	ACW #01	06-May-97	14	15	<5.0	—	—	—	5.7	—	—	14,800	—	8,800	5,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	21-Nov-97	6.1	4.8	<0.5	—	—	—	2.4	—	—	20,800	8.4	12,000	7,800	320	—	<2	2.1	<0.5	—	—	—	—	1.0	—	83	—	—	<0.01
ACW #01D	ACW #01D	21-Nov-97	6.7	5.7	<0.5	—	—	—	2.1	—	—	20,700	8.2	12,000	7,500	320	—	2	2.2	<0.5	—	—	—	—	0.9	—	76	—	—	<0.01
S98-0170	ACW #01	12-May-98	6.8	11	4.4	—	—	—	3.4	—	—	16,000	—	9,600	5,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0458	ACW #01	20-Oct-98	7	4	<2 Jm	—	—	—	<2 Jm	—	—	20,300	8.18	12,900	6,100	260	17.7	<5	2.3	<0.05	—	—	—	—	1.1	—	100	—	—	<0.0025
M99-0005	ACW #01	11-May-99	—	—	—	—	—	—	—	—	—	16,900	—	8,500	5,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0187	ACW #01	19-Oct-99	7.5	3.6	<2	—	—	—	<4	—	—	14,800	8.02	7,800	5,500	210	20.6	<4	2.2	<0.05	—	0.047	0.62	0.33	1.2	<0.002	160	<0.005	<0.005	<0.0025
M00-0081	ACW #01	09-May-00	—	—	—	—	—	—	—	—	—	19,300	—	11,300	7,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0219	ACW #01	26-Oct-00	<2	<2	<2	—	—	—	8.3	—	—	15,500	8.13	9,900	5,500	300	15.2	<2	2.3	<1	—	—	0.30	0.29	1.0	<0.01	120	<0.01	—	<0.005
M01-0133	ACW #01	01-May-01	—	—	—	—	—	—	—	—	—	14,200	—	7,640	5,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0469	ACW #01	22-Oct-01	<2	<2	<2	—	—	—	11.0	—	—	12,400	7.92	6,580	4,400	380	20.3	<5	2.5	<2.5	—	<0.05	0.21	0.24	0.92	<0.005	82	<0.01	<0.01	<0.005
2002040220-03	ACW #01	29-Apr-02	—	—	—	—	—	—	—	—	—	12,400	—	6,730	4,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-6	ACW #01	03-Nov-02	<5.0	<5.0	<5.0	<10		<5.0	<15	—	—	6,400	7.65 H	4,000	1,900	420	—	1.4	<0.40	<0.20	—	—	0.13	—	1.1	—	180	—	—	—
2003101363-9	ACW #01	04-Nov-03	2.2	<2.0	<2.0	—	—	—	<6.0	—	—	5,530	7.2	1,510	2,480	—	20.3	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #02A	ACW #02A	06-May-97	140	100	<50	—	—	—	<100	—	—	26,800	—	17,000	11,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #02A	ACW #02A	20-Oct-97	89	100	13	—	—	—	26	—	—	24,400	9.2	16,000	8,600	<10	—	5	7.6	<0.5	—	—	—	—	1.1	—	3	—	—	<0.01
S98-0167	ACW #02A	11-May-98	120	210	20	—	—	—	33	—	—	26,000	—	16,000	8,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0455	ACW #02A	19-Oct-98	180	340	38	—	—	—	72	—	—	25,200	9.40	20,200	7,800	17	18.3	<5	12	<0.05	—	—	—	—	1.4	—	3.0	—	—	<0.0025
M99-0013	ACW #02A	12-May-99	—	—	—	—	—	—	—	—	—	24,400	—	12,000	7,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0181	ACW #02A	18-Oct-99	17 P	42 P	8.1 P	—	—	—	14 P	—	—	24,000	9.42	13,000	7,600	25	19.8	<4	16	<0.05	—	0.35	3.6	0.48	2.3	0.016	4.2	<0.005	0.0041	0.0086
M00-0078	ACW #02A	08-May-00	—	—	—	—	—	—	—	—	—	21,500	—	13,600	7,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0215	ACW #02A	26-Oct-00	35	78	16	—	—	—	32	—	—	19,100	9.75	12,800	6,500	28	14.1	<2	11	<1	—	—	1.4	0.31	1.2	0.018	6.4	0.018	—	0.034
M01-0136	ACW #02A	02-May-01	—	—	—	—	—	—	—	—	—	18,500	—	10,900	5,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0468	ACW #02A	22-Oct-01	39	34	30	—	—	—	57	—	—	19,900	9.88	12,100	4,600	6.5	19.8	<10	11	<5	—	0.16	1.4	0.26	1.4	0.016	3.3	<0.01	<0.01	<0.005
2002040220-11	ACW #02A	30-Apr-02	—	—	—	—	—	—	—	—	—	22,300	—	14,000	6,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-4	ACW #02A	03-Nov-02	61	32	35	47		<20	47	—	—	19,000	9.85 H	8,800	8,900	3.2	—	<0.50	14	<0.20	—	—	1.6	—	0.98	—	4.5	—	—	—
2003101363-11	ACW #02A	04-Nov-03	45.6 P	17.9 P	24.8 P	—	—	—	41.3 P	—	—	18,530	9.8	9,050	4,740	—	23.5	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-12	ACW #02A-D	04-Nov-03	44.6 P	18.5 P	23.4 P	—	—	—	37.7 P	—	—	—	—	9,280	4,560	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #01	ACW #01	05-Mar-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	15-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	10-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	20-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	27-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	16-May-95	0.38	—	72	0.062	—	—	—	12	—	33	—	2,600	—	<0.020	700	—	—	—	470
ACW #01	ACW #01	27-Jun-95	0.59	—	92	0.077	—	—	—	15	—	35	—	3,200	—	<0.02	710	—	—	—	510
ACW #01	ACW #01	29-Aug-95	0.18	—	78	0.069	—	—	—	11	—	28	—	2,400	—	<0.02	820	—	—	—	590
ACW #01	ACW #01	06-Feb-96	0.56	—	100	0.069	—	—	—	16	—	36	—	4,300	—	<0.010	830	—	—	—	620
ACW #01	ACW #01	06-Feb-96	0.7	—	102	0.1	—	—	—	17	—	41	—	3,900	—	<0.1	759	—	—	—	630
ACW #01	ACW #01	08-May-96	0.6	—	118	0.09	—	—	—	18	—	54	—	3,070	—	<0.05	310	—	—	—	718
ACW #01	ACW #01	13-Aug-96	0.68	—	100	0.078	—	—	—	8.6	—	41	—	2,400	—	0.008	730	—	—	—	690
ACW #01	ACW #01	05-Nov-96	0.59	—	98	0.062	—	—	—	11	—	16	—	3,000	—	0.011	810	—	—	—	610
ACW #01	ACW #01	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #01	ACW #01	21-Nov-97	0.6	—	110	0.06	—	—	—	20	—	14	—	3,900	—	0.04	680	—	—	—	—
ACW #01D	ACW #01D	21-Nov-97	0.5	—	100	0.07	—	—	—	20	—	13	—	4,000	—	0.03	670	—	—	—	—
S98-0170	ACW #01	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0458	ACW #01	20-Oct-98	0.74	—	110	0,062	—	—	—	16	—	15	—	3,800	—	<0.05	840	840	<25	<25	700
M99-0005	ACW #01	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0187	ACW #01	19-Oct-99	1.6	<0.005	110	0.13	<0.0002	0.013	<0.02	13	—	24	<0.005	3,100	<0.005	<0.05	780	780	<25	<25	870
M00-0081	ACW #01	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0219	ACW #01	26-Oct-00	3.6	<0.05	82	0.21	<0.0002	—	—	9.5	<0.1	25	<0.02	2,600	—	<0.1	720	720	<25	<25	640
M01-0133	ACW #01	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0469	ACW #01	22-Oct-01	2.3	<0.05	60	0.18	<0.0002	<0.01	<0.04	11	<0.1	26	<0.02	3,000	<0.005	<0.1	600	600	<25	<25	450
2002040220-03	ACW #01	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-6	ACW #01	03-Nov-02	6.9	—	120	0.33	—	—	—	18	—	45	—	1,500	—	—	500	500	<2.0	<2.0	930
2003101363-9	ACW #01	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	958	—	—	—	—	—	—	—
ACW #02A	ACW #02A	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #02A	ACW #02A	20-Oct-97	0.2	—	<1	<0.01	—	—	—	12	—	10	—	6,000	—	<0.02	2,200	—	—	—	—
S98-0167	ACW #02A	11-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0455	ACW #02A	19-Oct-98	0.37	—	0.96	<0.0025	—	—	—	12	—	12	—	6,400	—	<0.05	2,400	1500	860	<25	11
M99-0013	ACW #02A	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0181	ACW #02A	18-Oct-99	0.30	<0.005	1.1	0.0041	0.00051	0.085	0.041	14	—	26	<0.005	6,100	0.037	<0.05	2,700	1700	990	<50	15
M00-0078	ACW #02A	08-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0215	ACW #02A	26-Oct-00	1.0	<0.05	1.0	0.011	0.0002	—	—	8.5	<0.1	28	<0.02	3,600	—	<0.1	870	870	<25	<25	18
M01-0136	ACW #02A	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0468	ACW #02A	22-Oct-01	0.4	<0.05	0.23	0.0062	0.00066	0.053	<0.04	8.9	<0.1	36	<0.02	5,200	0.027	<0.1	3,700	1,300	2,400	<125	9.2
2002040220-11	ACW #02A	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-4	ACW #02A	03-Nov-02	0.81	—	<2.0	<0.010	—	—	—	25	—	36	—	5,800	—	—	3,500	1,300	2,200	<2.0	<13
2003101363-11	ACW #02A	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	4,160	—	—	—	—	—	—	—
2003101363-12	ACW #02A-D	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	4,280	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #03	ACW #03	06-May-97	350	22	110	—	—	—	43	—	—	18,500	—	11,000	6,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #03	ACW #03	20-Oct-97	160	8.2	69	—	—	—	32	—	—	23,000	—	13,000	7,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0157	ACW #03	11-May-98	130	21	41	—	—	—	19	—	—	24,000	—	15,000	8,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0456	ACW #03	19-Oct-98	—	—	—	—	—	—	—	—	—	20,800	—	12,400	7,700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0011	ACW #03	12-May-99	—	—	—	—	—	—	—	—	—	19,600	—	10,100	6,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0185	ACW #03	19-Oct-99	—	—	—	—	—	—	—	—	—	18,900	—	9,120	6,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0077	ACW #03	08-May-00	—	—	—	—	—	—	—	—	—	19,400	—	11,900	7,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0217	ACW #03	26-Oct-00	—	—	—	—	—	—	—	—	—	17,500	—	11,900	7,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0132	ACW #03	01-May-01	—	—	—	—	—	—	—	—	—	19,200	—	9,900	9,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0474	ACW #03	23-Oct-01	—	—	—	—	—	—	—	—	—	18,800	—	10,600	7,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-13	ACW #03	30-Apr-02	—	—	—	—	—	—	—	—	—	18,500	—	10,600	6,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-3	ACW #03	03-Nov-02	37	<10	28	<20		<10	<30	—	—	13,000	7.56 H	13,000	4,700	13	—	2.2	<0.40	<0.20 H	—	—	0.043	—	1.0	—	220	—	—	—
2003101363-3	ACW #03	03-Nov-03	7.7	4.0	8.3	—	—	—	2.9 J	—	—	11,080	6.8	8,310	4,070	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #04	ACW #04	06-May-97	29	12	<5.0	—	—	—	<10	—	—	48,500	—	25,000	21,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #04	ACW #04	20-Oct-97	170	150	<5.0	—	—	—	110	—	—	172,000	7.3	94,000	58,000	2,100	—	33	<0.5	<0.5	—	—	—	—	0.7	—	580	—	—	<0.01
S98-0168	ACW #04	12-May-98	190	170	60	—	—	—	100	—	—	160,000	—	99,000	74,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0454	ACW #04	19-Oct-98	190	140	49	—	—	—	90	—	—	121,000	6.74	83,100	56,000	1,800	17.6	<20	0.51	<0.5	—	—	—	—	1.1	—	610	—	—	<0.0025
M99-0012	ACW #04	12-May-99	—	—	—	—	—	—	—	—	—	131,000	—	84,800	45,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0184	ACW #04	19-Oct-99	240	160	44	—	—	—	81	—	—	95,000	6.95	46,300	44,000	1,300	20.7	<20	0.64	<0.05	—	<0.025	0.092	0.15	1.4	<0.002	650	<0.005	0.018	0.0080
M00-0079	ACW #04	08-May-00	—	—	—	—	—	—	—	—	—	106,000		72,300	47,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0216	ACW #04	26-Oct-00	63	17	41	—	—	—	190	—	—	25,600	7.73	16,300	10,000	88	15.1	<2	12	<1	—	—	0.47	0.87	2.0	<0.01	57	<0.01	—	<0.005
M01-0137	ACW #04	02-May-01	—	—	—	—	—	—	—	—	—	29,600	—	17,400	12,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0467	ACW #04	22-Oct-01	12	3	32	—	—	—	100	—	—	35,300	7.15	21,400	13,000	200	20.2	<20	8.2	<10	—	<0.05	0.31	0.81	1.5	<0.005	290	<0.01	<0.01	<0.005
2002040220-12	ACW #04	30-Apr-02	—	—	—	—	—	—	—	—	—	35,600	—	24,500	15,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-5	ACW #04	03-Nov-02	84	17	27	34		11	45	—	—	33,000	7.71 H	24,000	11,000	450	—	1.9	1.3	0.69	—	—	0.21	—	1.1	—	440	—	—	—
2003101363-10	ACW #04	04-Nov-03	44.8	5.5	15.0	—	—	—	26.5	—	—	22,400	6.9	20,900	14,200	—	21.7	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	10-Mar-93	—	—	—	—	—	—	—	—	—	10,400	—	6,110	2,544	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	17-Jun-93	—	—	—	—	—	—	—	—	—	4,480	—	323	1,228	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-Sep-93	—	—	—	—	—	—	—	—	—	4,140	—	3,064	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	09-Nov-93	—	—	—	—	—	—	—	—	—	4,390	—	3,202	720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	21-Apr-94	—	—	—	—	—	—	—	—	—	4,131	—	3,300	800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	28-Oct-94	—	—	—	—	—	—	—	—	—	4,500	—	3,112	550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	31-Jan-95	—	—	—	—	—	—	—	—	—	4,050	—	2,848	499	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	3,900	7.0	2,800	530	1,100	—	1.3	<1.0	3.5	—	—	—	—	0.9	—	270	—	—	<0.025
ACW #05	ACW #05	27-Jun-95	<2.5	<2.5	<2.5	—	—	—	<5.0	—	—	3,800	7.3	2,800	460	800	—	1.1	<1.0	3.4	—	—	—	—	1.0	—	270	—	—	<0.025
ACW #05	ACW #05	30-Aug-95	<5	<10	<5	—	—	—	<15	—	—	3,900	7.0	2,700	510	890	—	1	<10	<20	—	—	—	—	1.1	—	240	—	—	<0.025
ACW #05	ACW #05	06-Feb-96	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	3,800	7.5	2,200	510	920	—	0.92	0.12	4.7	—	—	—	—	1.4	—	240	—	—	<0.006
ACW #05	ACW #05	06-Feb-96	<2.5	<2.5	<2.5	—	—	—	<7.5	—	—	3,090	7.3	2,745	506	835	—	<1.25	0.29	4.9	—	—	—	—	1.4	—	240	—	—	<0.1
ACW #05	ACW #05	08-May-96	<1.0	<1.0	<1.0	—	—	—	<3.0	—	—	3,650	7.2	2,460	519	653	—	4.5	0.42	5	—	—	—	—	0.8	—	167	—	—	0.01
ACW #05	ACW #05	13-Aug-96	<1.0	1.2	<1.0	—	—	—	<2.0	—	—	3,400	7.3	2,500	500	710	—	1	0.7	5.4	—	—	—	—	2.0	—	200	—	—	<0.006
ACW #05	ACW #05	06-Nov-96	1.1	1.4	1.2	—	—	—	<2.0	—	—	3,300	7.5	2,300	500	710	—	1.2	0.57	<0.05	—	—	—	—	1.9	—	180	—	—	<0.007
ACW #05	ACW #05	07-May-97	0.84	1.2	0.93	—	—	—	<1.0	—	—	3,020	—	2,000	430	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	22-Oct-97	0.9	1.6	0.8	—	—	—	1.9	—	—	3,160	7.7	2,000	470	320	—	1.7	0.6	6	—	—	—	—	1.3	—	170	—	—	<0.01
S98-0183	ACW #05	13-May-98	0.79	1.5	0.77*	—	—	—	12*	—	—	3,100	—	2,800	570	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0470	ACW #05	21-Oct-98	—	—	—	—	—	—	—	—	—	2,930	—	1,910	440	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0020	ACW #05	13-May-99	—	—	—	—	—	—	—	—	—	3,190	—	1,960	450	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0196	ACW #05	21-Oct-99	<2	2.7	<2	—	—	—	<4	—	—	3,250	7.23	1,890	1,000	440	18.5	<2	0.77	6.5	—	0.094	0.0061	0.034	1.1	<0.002	190	0.019	<0.005	<0.0025
M00-0092	ACW #05	10-May-00	—	—	—	—	—	—	—	—	—	3,180	—	1,960	750	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0234	ACW #05	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	2,650	7.3	1,920	860	750	18.5	<40	0.85	5.3	—	—	<0.1	0.051	1.1	<0.01	200	0.028	—	0.0095

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #03	ACW #03	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #03	ACW #03	20-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0157	ACW #03	11-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0456	ACW #03	19-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0011	ACW #03	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0185	ACW #03	19-Oct-99	—	—	—	—	—	—	—	—		—	—	—	—	—	—	—	—	—	—
M00-0077	ACW #03	08-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0217	ACW #03	26-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0132	ACW #03	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0474	ACW #03	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-13	ACW #03	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-3	ACW #03	03-Nov-02	10	—	98	0.48	—	—	—	28	—	55	—	4200	—	—	960	960	<2.0	<2.0	960
2003101363-3	ACW #03	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	2,830	—	—	—	—	—	—	—
ACW #04	ACW #04	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #04	ACW #04	20-Oct-97	0.2	—	360	6.1	—	—	—	250	—	13	—	33,000	—	<0.02	500	—	—	—	—
S98-0168	ACW #04	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0454	ACW #04	19-Oct-98	0.14	—	370	7.0	—	—	—	170	—	10	—	37,000	—	<0.05	480	480	<25	<25	3100
M99-0012	ACW #04	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0184	ACW #04	19-Oct-99	0.23	<0.005	370	12	<0.0002	0.0076	<0.02	170	—	14	<0.005	42,000	0.14	<0.05	500	500	<25	<25	3200
M00-0079	ACW #04	08-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0216	ACW #04	26-Oct-00	1.7	<0.05	28	0.50	<0.0002	—	—	23	<0.1	25	<0.02	3,600	—	<0.1	1600	1600	<25	<25	260
M01-0137	ACW #04	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0467	ACW #04	22-Oct-01	1.5	<0.05	110	0.58	0.00086	0.032	<0.04	32	<0.1	30	<0.02	7,300	0.0066	<0.1	970	970	<25	<25	1200
2002040220-12	ACW #04	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-5	ACW #04	03-Nov-02	1.6	—	150	1.2	—	—	—	96	—	37	—	8,400	—	—	560	560	<2.0	<2.0	1700
2003101363-10	ACW #04	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	7,300	—	—	—	—	—	—	—
ACW #05	ACW #05	10-Mar-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	17-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	21-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	28-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	31-Jan-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	16-May-95	0.46	—	39	0.026	—	—	—	6.6	—	57	—	540	—	<0.020	320	—	—	—	980
ACW #05	ACW #05	27-Jun-95	0.34	—	40	0.02	—	—	—	6.9	—	56	—	530	—	<0.020	320	—	—	—	240
ACW #05	ACW #05	30-Aug-95	<0.10	—	36	<0.015	—	—	—	8.7	—	44	—	550	—	<0.020	310	—	—	—	810
ACW #05	ACW #05	06-Feb-96	1.5	—	32	0.026	—	—	—	6.5	—	64	—	580	—	0.015	260	—	—	—	740
ACW #05	ACW #05	06-Feb-96	2	—	32	0.1	—	—	—	8.1	—	66	—	580	—	<0.1	284	—	—	—	730
ACW #05	ACW #05	08-May-96	0.2	—	24	<0.05	—	—	—	8	—	35	—	506	—	<0.05	190	—	—	—	515
ACW #05	ACW #05	13-Aug-96	0.024	—	28	<0.007	—	—	—	6.3	—	58	—	520	—	0.033	320	—	—	—	620
ACW #05	ACW #05	06-Nov-96	0.3	—	25	0.008	—	—	—	6	—	27	—	520	—	0.022	350	—	—	—	560
ACW #05	ACW #05	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #05	ACW #05	22-Oct-97	0.5	—	24	<0.01	—	—	—	5	—	26	—	480	—	<0.02	320	—	—	—	—
S98-0183	ACW #05	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0470	ACW #05	21-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0020	ACW #05	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0196	ACW #05	21-Oct-99	0.15	<0.005	24	0.011	<0.0002	<0.005	<0.02	6.3	—	26.0	<0.005	540	0.0055	0.81	270	270	<25	<25	560
M00-0092	ACW #05	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0234	ACW #05	02-Nov-00	1.6	<0.05	23	0.032	<0.0002	—	—	6.1	<0.1	34	<0.02	450	—	<0.1	280	280	<25	<25	590

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M01-0157	ACW #05	06-May-01	—	—	—	—	—	—	—	—	—	3,030	—	1,920	540	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0481	ACW #05	24-Oct-01	—	—	—	—	—	—	—	—	—	3,120	—	1,860	590	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-17	ACW #05	30-Apr-02	—	—	—	—	—	—	—	—	—	3,110	—	1,900	570	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-20	ACW #05	06-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	3,000	7.26 H	2,200	560	520	—	0.99	0.88	4.7	—	—	<0.0050	—	0.92	—	160	—	—	—
2003101363-19	ACW #05	05-Nov-03	1.2 J	1.1 J	1.3 J	—	—	—	<6.0	—	—	3,000	7.1	1,040	613	—	22.6	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	18-Jun-93	—	—	—	—	—	—	—	—	—	8,220	—	5,027	2,108	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-Sep-93	—	—	—	—	—	—	—	—	—	11,130	—	6,656	2,737	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	08-Nov-93	—	—	—	—	—	—	—	—	—	8,540	—	5,646	2,154	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	21-Apr-94	—	—	—	—	—	—	—	—	—	11,080	—	6,930	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	28-Oct-94	—	—	—	—	—	—	—	—	—	11,988	—	6,910	2,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	31-Jan-95	—	—	—	—	—	—	—	—	—	11,530	—	6,755	2,873	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	10,000	8.1	6,400	2,800	110	—	1.4	31	<2.0	—	—	—	—	0.9	—	70	—	—	<0.025
ACW #06	ACW #06	27-Jun-95	14	<2.5	<2.5	—	—	—	<5.0	—	—	10,000	9.0	8,600	3,500	110	—	1.8	44	<2.0	—	—	—	—	1.1	—	64	—	—	<0.025
ACW #06	ACW #06	29-Aug-95	7	<10	<5	—	—	—	<15	—	—	12,000	8.4	7,100	3,000	110	—	1.8	26	<20	—	—	—	—	0.9	—	42	—	—	<0.025
ACW #06	ACW #06	06-Feb-96	6.6	3.2	<1.0	—	—	—	<2.0	—	—	11,000	8.0	6,600	2,600	72	—	1.3	3.8	<0.0071	—	—	—	—	1.1	—	91	—	—	<0.006
ACW #06	ACW #06	06-Feb-96	<2.5	<2.5	<2.5	—	—	—	<7.5	—	—	10,320	7.8	5,630	3,180	79	—	1.52	10	<1.25	—	—	—	—	1.3	—	76	—	—	<0.1
ACW #06	ACW #06	08-May-96	4.08	1.58	<1.0	—	—	—	<3.0	—	—	10,620	7.7	6,460	2,880	48	—	<1.25	6.4	<1.25	—	—	—	—	1.3	—	35	—	—	0.02
ACW #06	ACW #06	14-Aug-96	4.2	2.6	<2.0	—	—	—	<2.0	—	—	11,000	7.9	7,100	2,900	88	—	1.8	21	<0.05	—	—	—	—	1.2	—	85	—	—	<0.006
ACW #06	ACW #06	06-Nov-96	4.5	1.5	<1.0	—	—	—	<2.0	—	—	12,000	8.6	7,700	3,400	74	—	1.3	18	<0.05	—	—	—	—	1.2	—	98	—	—	<0.007
ACW #06	ACW #06	06-Nov-96	4.6	1.5	<1.0	—	—	—	<2.0	—	—	12,000	8.6	7,700	3,600	62	—	1.3	18	<0.05	—	—	—	—	1.1	—	88	—	—	<0.007
ACW #06	ACW #06	08-May-97	8.2	2.8	2.6	—	—	—	2.7	—	—	8,450	—	5,500	2,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	22-Oct-97	10	3.8	1.4	—	—	—	1.2	—	—	10,200	8.2	6,500	2,900	100	—	3	16.5	<0.05	—	—	—	—	0.9	—	68	—	—	<0.01
ACW #06D	ACW #06D	22-Oct-97	9.5	3.1	1.2	—	—	—	1.2	—	—	10,700	8.3	6,200	2,900	98	—	3	17.2	<0.05	—	—	—	—	0.9	—	68	—	—	<0.01
S98-0181	ACW #06	13-May-98	15	12	<0.50	—	—	—	3.8	—	—	12,000	—	10,000	3,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0469	ACW #06	21-Oct-98	11	6	3	—	—	—	3	—	—	11,600	8.00	6,530	3,000	74	20.1	<5	25	<0.05	—	—	—	—	1.2	—	64	—	—	<0.0025
M99-0019	ACW #06	13-May-99	—	—	—	—	—	—	—	—	—	11,200	—	6,620	2,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0195	ACW #06	21-Oct-99	<20	<20	<20	—	—	—	<40	—	—	11,500	8.54	6,170	2,800	230	19.1	<4	28	<0.05	—	0.083	1.7	0.35	1.3	0.0061	69	0.0045	0.0084	<0.0025
M00-0089	ACW #06	10-May-00	—	—	—	—	—	—	—	—	—	10,300	—	6,290	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0232	ACW #06	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	8,520	8.2	4,350	3,100	340	18.4	—	22.9	<0.05	—	—	0.82	0.28	1.5	<0.01	83	<0.01	—	0.016
M01-0156	ACW #06	06-May-01	—	—	—	—	—	—	—	—	—	9,020	—	5,240	2,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0480	ACW #06	24-Oct-01	5.6	<2	<2	—	—	—	18	—	—	8,350	8.2	4,730	2,400	220	19.5	<10	22	<2.5	—	0.180	0.58	0.21	1.3	<0.005	57	<0.01	<0.01	<0.005
2002040220-10	ACW #06	29-Apr-02	—	—	—	—	—	—	—	—	—	8,910	—	4,800	2,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-15	ACW #06	05-Nov-02	18	<10	<10	<20		<10	<30	—	—	7,300	8.49 H	4,400	1,800	150	—	1.5	19	<0.20	—	—	2.4	—	1.5	—	100	—	—	—
2003101363-17	ACW #06	05-Nov-03	8.9	2.9	2.2	—	—	—	3.0 J	—	—	6,960	8.0	2,180	1,490	—	22.4	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #07	ACW #07	07-May-97	7.3	2.5	3.1	—	—	—	1.7	—	—	13,200	—	8,100	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #07	ACW #07	22-Oct-97	6.4	3.4	3	—	—	—	3	—	—	13,800	7.3	7,500	4,400	50	—	4	4	<0.05	—	—	—	—	0.6	—	200	—	—	<0.01
S98-0182	ACW #07	13-May-98	7.0	3.2	2.1*	—	—	—	1.7*	—	—	14,000	—	11,000	4,300	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0467	ACW #07	21-Oct-98	8	3	2	—	—	—	<2	—	—	14,000	7.05	8,290	4,400	130	20.3	<5	3.8	<0.05	—	—	—	—	0.77	—	220	—	—	<0.0025
M99-0017	ACW #07	12-May-99	—	—	—	—	—	—	—	—	—	14,300	—	7,420	4,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0194	ACW #07	21-Oct-99	7.2	5.3	2.4	—	—	—	<4	—	—	14,700	7.05	8,010	4,800	160	18.7	<4	3.4	<0.05	—	0.11	0.091	1.2	0.79	<0.002	270	<0.005	<0.005	<0.0025
M00-0088	ACW #07	10-May-00	—	—	—	—	—	—	—	—	—	14,900		8,900	7,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0231	ACW #07	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	12,500	7.1	8,400	5,100	200	19.0	<20	3.0	<0.05	—	—	<0.1	0.94	0.75	<0.01	240	0.012	—	0.0052
M01-0152	ACW #07	06-May-01	—	—	—	—	—	—	—	—	—	16,400	—	8,980	6,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0153	ACW #07D	06-May-01	—	—	—	—	—	—	—	—	—	16,300	—	9,640	6,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0477	ACW #07	24-Oct-01	7.4	<2	<2	—	—	—	2.4	—	—	17,400	7.11 H	9,180	8,500	110	21.0	<20	2.9	<5	—	0.29	<0.1	1.30	0.74	<0.005	230	0.012	<0.01	<0.005
2002040220-14	ACW #07	30-Apr-02	—	—	—	—	—	—	—	—	—	17,400	—	9,120	6,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-16	ACW #07	05-Nov-02	12	1.1	2.4	<2.0		<1.0	<3.0	—	—	14,000	7.18 H	8,900	5,200	120	—	1.5	<0.40	<0.20	—	—	0.070	—	0.74	—	260	—	—	—
2003101363-18	ACW #07	05-Nov-03	19.3	1.3 J	4.7	—	—	—	2.4 J	—	—	13,750	6.9	2,050	5,650	—	23.6	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M01-0157	ACW #05	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0481	ACW #05	24-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-17	ACW #05	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-20	ACW #05	06-Nov-02	0.89	—	23	0,014	—	—	—	13	—	51	—	490	—	—	320	320	<2.0	<2.0	490
2003101363-19	ACW #05	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	421	—	—	—	—	—	—	—
ACW #06	ACW #06	18-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	08-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	21-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	28-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	31-Jan-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	16-May-95	3.9	—	19	0.079	—	—	—	<5.0	—	48	—	2,200	—	<0.020	1,300	—	—	—	200
ACW #06	ACW #06	27-Jun-95	5.8	—	16	0.082	—	—	—	<5.0	—	44	—	3,000	—	<0.080	1,500	—	—	—	130
ACW #06	ACW #06	29-Aug-95	0.54	—	16	0.04	—	—	—	<5.0	—	42	—	2,500	—	<0.020	1,500	—	—	—	200
ACW #06	ACW #06	06-Feb-96	4.6	—	23	0.12	—	—	—	3.6	—	62	—	2,700	—	0.029	1,400	—	—	—	320
ACW #06	ACW #06	06-Feb-96	5	—	21	0.1	—	—	—	3.6	—	50	—	2,400	—	<0.1	1,315	—	—	—	275
ACW #06	ACW #06	08-May-96	4.1	—	21	0.14	—	—	—	4	—	40	—	2,380	—	<0.05	1,396	—	—	—	175
ACW #06	ACW #06	14-Aug-96	4.5	—	23	0.13	—	—	—	3.4	—	60	—	2,900	—	0.024	1,400	—	—	—	310
ACW #06	ACW #06	06-Nov-96	5.3	—	27	0.16	—	—	—	3.8	—	32	—	2,800	—	0.032	1,600	—	—	—	360
ACW #06	ACW #06	06-Nov-96	4	—	22	0.13	—	—	—	3.6	—	27	—	2,400	—	0.019	1,600	—	—	—	310
ACW #06	ACW #06	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #06	ACW #06	22-Oct-97	2.6	—	19	0.11	—	—	—	3	—	21	—	2,200	—	<0.02	1,400	—	—	—	—
ACW #06D	ACW #06D	22-Oct-97	2.3	—	19	0.11	—	—	—	3	—	21	—	2,200	—	<0.02	1,400	—	—	—	—
S98-0181	ACW #06	13-May-98	—	—	—	—	—	—	—	—	—	0.56	—	—	—	—	—	—	—	—	—
S98-0469	ACW #06	21-Oct-98	2.4	—	23	0.099	—	—	—	2.7	—	22	—	2,640	—	<0.05	1,600	1,600	<25	<25	250
M99-0019	ACW #06	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0195	ACW #06	21-Oct-99	2.2	<0.005	19	0.087	<0.0002	0.080	0.030	2.3	—	29	<0.005	2,900	<0.005	<0.05	1,500	1,400	130	<25	250
M00-0089	ACW #06	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0232	ACW #06	02-Nov-00	9.7	<0.05	22	0.13	<0.0002	—	—	6.9	<0.1	30	<0.02	710	—	<0.1	1,200	1,200	14	<25	300
M01-0156	ACW #06	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0480	ACW #06	24-Oct-01	1.8	<0.05	16	0.081	<0.0002	0.052	<0.04	2.9	<0.1	35	<0.02	1,900	<0.005	<0.1	1,100	1,100	<25	<25	210
2002040220-10	ACW #06	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-15	ACW #06	05-Nov-02	9.0	—	13	0.12	—	—	—	11	—	110	—	2,100	—	—	1400	1400	<2.0	<2.0	320
2003101363-17	ACW #06	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	1,440	—	—	—	—	—	—	—
ACW #07	ACW #07	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
ACW #07	ACW #07	22-Oct-97	14.4	—	80	0.2	—	—	—	3	—	18	—	2,500	—	<0.2	730	—	—	—	—
S98-0182	ACW #07	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0467	ACW #07	21-Oct-98	15	—	91	0.15	—	—	—	4.3	—	23	—	3,100	—	<0.05	830	830	<25	<25	920
M99-0017	ACW #07	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0194	ACW #07	21-Oct-99	14	<0.005	93	0.13	<0.0002	0.025	<0.02	3.8	—	23	<0.005	3,300	<0.005	<0.05	870	870	<25	<25	1000
M00-0088	ACW #07	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0231	ACW #07	02-Nov-00	12	<0.05	87	0.11	<0.0002	—	—	4.2	<0.1	31	<0.02	710	—	<0.1	840	840	<25	<25	960
M01-0152	ACW #07	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0153	ACW #07D	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0477	ACW #07	24-Oct-01	15	0.075	100	0.11	<0.0002	0.025	<0.04	4.2	<0.1	43	<0.02	3,600	<0.005	<0.1	820	820	<25	<25	990
2002040220-14	ACW #07	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-16	ACW #07	05-Nov-02	13	—	100	0.12	—	—	—	15	—	51	—	3,600	—	—	870	870	<2.0	<2.0	1,100
2003101363-18	ACW #07	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	3,180	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #08	ACW #08	06-May-97	99	10	4.1	—	—	—	3.9	—	—	89,200	—	50,000	29,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #08	ACW #08	21-Nov-97	36	3.9	2	—	—	—	14	—	—	49,200	7.0	29,000	17,000	800	—	<5	0.6	<0.5	—	—	—	—	0.6	—	440	—	—	<0.01
S98-0173	ACW #08	12-May-98	37	4.5	2.9	—	—	—	1.6	—	—	48,000	—	28,000	34,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0459	ACW #08	20-Oct-98	140	13	6	—	—	—	6	—	—	44,200	6.79	28,700	24,000	740	17.9	<10	0.82	<0.05	—	—	—	—	0.62	—	370	—	—	<0.0025
M99-0010	ACW #08	11-May-99	—	—	—	—	—	—	—	—	—	52,500	—	29,800	21,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0186	ACW #08	19-Oct-99	32	6.2	3.7	—	—	—	<4	—	—	36,400	7.09	17,700	15,000	580	20.5	<10	0.86	<0.05	—	<0.025	<0.005	0.11	0.83	<0.002	500	<0.005	<0.005	<0.0025
M00-0086	ACW #08	09-May-00	—	—	—	—	—	—	—	—	—	62,900	—	41,800	32,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0218	ACW #08	26-Oct-00	15	<2	2.1	—	—	—	10	—	—	36,300	6.85	26,000	17,000	740	15.0	<2	0.92	<1	—	—	<0.1	0.15	0.79	<0.01	440	<0.01	—	<0.005
M01-0134	ACW #08	01-May-01	—	—	—	—	—	—	—	—	—	51,300	—	28,200	25,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0475	ACW #08	23-Oct-01	41	5	3.1	—	—	—	<2	—	—	33,400	7.02	20,000	11,000	590	21.6	<20	1.1	<10	—	<0.05	<0.1	0.12	0.62	<0.005	410	<0.01	<0.01	<0.005
2002040220-08	ACW #08	29-Apr-02	—	—	—	—	—	—	—	—	—	69,400	—	53,400	30,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-10	ACW #08	04-Nov-02	10	1.5	1.2	<2.0		<1.0	<3.0	—	—	11,000	7.60 H	6,200	3,900	260	—	<0.50	<0.40	0.93 H	—	—	0.0055	—	0.27	—	140	—	—	—
2003101363-4	ACW #08	03-Nov-03	7.0	<2.0	<2.0	—	—	—	<6.0	—	—	12,330	6.7	8,670	5,350	—	21.2	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	17-Jun-93	—	—	—	—	—	—	—	—	—	5,900	—	4,435	2,288	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	14-Sep-93	—	—	—	—	—	—	—	—	—	3,100	—	2,119	915	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	09-Nov-93	—	—	—	—	—	—	—	—	—	3,670	—	2,300	1,184	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	22-Apr-94	—	—	—	—	—	—	—	—	—	3,900	—	2,508	1,150	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	01-Dec-94	—	—	—	—	—	—	—	—	—	5,450	—	3,510	1,650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	31-Jan-95	—	—	—	—	—	—	—	—	—	7,110	—	4,240	2,083	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	17-May-95	<5	22	<5	<5	<5	<5	<15	—	—	11,000	6.6	6,800	5,600	440	—	2.1	<1.0	<2.0	—	—	—	—	0.4	—	820	—	—	<0.025
ACW #09	ACW #09	28-Jun-95	<2.5	<2.5	<2.5	—	—	—	<5.0	—	—	9,100	7.0	6,200	3,500	360	—	1.9	<1.0	<2.0	—	—	—	—	0.4	—	770	—	—	<0.025
ACW #09	ACW #09	30-Aug-95	<5	<10	<5	—	—	—	<15	—	—	7,150	6.5	4,500	2,500	370	—	1.5	<10	<20	—	—	—	—	0.4	—	640	—	—	<0.025
ACW #09	ACW #09	07-Feb-96	1.8	<1.0	<1.0	—	—	—	<2.0	—	—	7,500	7.7	5,400	2,400	320	—	1.5	0.16	0.039	—	—	—	—	0.4	—	570	—	—	<0.006
ACW #09	ACW #09	07-Feb-96	<2.5	<2.5	<2.5	—	—	—	<7.5	—	—	7,450	6.8	4,620	2,300	341	—	1.85	0.36	<1.25	—	—	—	—	0.4	—	600	—	—	<0.1
ACW #09	ACW #09	08-May-96	<1.0	<1.0	<1.0	—	—	—	<3.0	—	—	7,530	6.8	4,210	2,210	322	—	3	0.35	<1.25	—	—	—	—	<0.5	—	508	—	—	0.01
ACW #09	ACW #09	14-Aug-96	1.4	1.6	<1.0	—	—	—	<2.0	—	—	4,400	7.4	3,600	1,200	180	—	1.2	1.4	0.13	—	—	—	—	0.4	—	490	—	—	<0.006
ACW #09	ACW #09	07-Nov-96	2.3	2.2	<1.0	—	—	—	<2.0	—	—	4,200	7.3	3,100	1,200	—	—	—	1.1	0.055	—	—	—	—	0.3	—	360	—	—	<0.007
ACW #09	ACW #09	19-Feb-97	1.3	4.0	10	—	—	—	4.2	—	—	4,110	—	2,500	1,260	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	08-May-97	2.6	2.6	1.4	—	—	—	1.7	—	—	2,800	—	2,100	830	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	23-Oct-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	3,380	7.2	1,600	880	130	—	1.3	1.2	<0.05	—	—	—	—	0.2	—	270	—	—	<0.01
S98-0185	ACW #09	13-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	5,100	—	4,500	1,600	—	—	—	1.1	—	—	—	—	—	—	—	—	—	—	—
S98-0472	ACW #09	21-Oct-98	6	<2	<2	—	—	—	<2	—	—	13,200	6.49	8,980	4,100	440	20.8	<5	0.40	<0.05	—	—	—	—	0.49	—	1,200	—	—	<0.0025
M99-0022	ACW #09	13-May-99	—	—	—	—	—	—	—	—	—	11,100	—	6,400	3,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0199	ACW #09	22-Oct-99	<2	<2	<2	—	—	—	<2	—	—	8,580	6.78	5,950	2,900	280	19.6	<4	0.71	<0.05	—	0.030	0.0066	0.13	0.43	<0.002	820	<0.005	<0.005	<0.0025
M00-0100	ACW #09	12-May-00	—	—	—	—	—	—	—	—	—	7,830	—	4,810	2,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0101	ACW #09D	12-May-00	—	—	—	—	—	—	—	—	—	7,960	—	4,930	3,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0237	ACW #09	03-Nov-00	<2	<2	<2	—	—	—	<4	—	—	7,630	6.8	5,860	3,000	230	19.0	<20	0.68	<0.05	—	—	<0.1	0.14	0.57	<0.01	500	<0.01	—	0.0062
M00-0238	ACW #09D	03-Nov-00	<2	<2	<2	—	—	—	<4	—	—	7,620	6.8	11,200	2,900	260	19.1	<20	0.66	<0.05	—	—	<0.1	0.13	0.57	<0.01	490	<0.01	—	0.0073
M01-0147	ACW #09	06-May-01	—	—	—	—	—	—	—	—	—	8,300	—	4,640	2,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0483	ACW #09	25-Oct-01	<2	<2	<2	—	—	—	2	—	—	7,820	6.8 H	4,390	4,000	200	20.1	<5	0.88	<1.25	—	<0.05	<0.1	0.10	0.46	<0.005	280	<0.01	<0.01	<0.005
M01-0484	ACW #09D	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	7,700	6.84 H	4,400	3,700	190	19.9	<5	0.99	<1.25	—	0.075	<0.1	0.11	0.49	<0.005	290	<0.01	<0.01	<0.005
2002040220-19	ACW #09	01-May-02	—	—	—	—	—	—	—	—	—	8,160	—	3,800	2,900	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-20	ACW #09D	01-May-02	—	—	—	—	—	—	—	—	—	7,070	—	3,760	2,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-21	ACW #09	06-Nov-02	1.1	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	7,800	6.87 H	3,700	1,800	220	—	1.8	0.47	0.22	—	—	0.0082	—	0.60	—	260	—	—	—
2003101363-23	ACW #09	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	5,280	6.8	3,830	1,820	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #08	ACW #08	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #08	ACW #08	21-Nov-97	1.3	—	210	2.2	—	—	—	57	—	19	—	9,300	—	<0.02	520	—	—	—	—
S98-0173	ACW #08	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0459	ACW #08	20-Oct-98	1.5	—	200	1.7	—	—	—	46	—	19	—	11,000	—	<0.05	430	430	<25	<25	1,700
M99-0010	ACW #08	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0186	ACW #08	19-Oct-99	2.7	<0.005	230	2.4	<0.0002	0.031	<0.02	99	—	16	<0.005	12,000	0.048	<0.05	490	490	<25	<25	2,300
M00-0086	ACW #08	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0218	ACW #08	26-Oct-00	3.3	<0.05	220	2.1	<0.0002	—	—	69	<0.1	24	<0.02	3,600	—	<0.1	410	410	<25	<25	2,000
M01-0134	ACW #08	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0475	ACW #08	23-Oct-01	2.6	0.12	200	1.9	<0.0002	<0.01	<0.04	58	<0.1	26	<0.02	11,000	0.037	<0.1	350	350	<25	<25	1,800
2002040220-08	ACW #08	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-10	ACW #08	04-Nov-02	1.5	—	53	0.48	—	—	—	51	—	23	—	3,000	—	—	210	210	<2.0	<2.0	570
2003101363-4	ACW #08	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	2,850	—	—	—	—	—	—	—
ACW #09	ACW #09	17-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	14-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	22-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	01-Dec-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	31-Jan-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	17-May-95	0.17	—	280	1	—	—	—	16	—	49	—	910	—	0.025	320	—	—	—	4,500
ACW #09	ACW #09	28-Jun-95	0.28	—	250	0.98	—	—	—	15	—	51	—	1,000	—	<0.020	300	—	—	—	2,700
ACW #09	ACW #09	30-Aug-95	0.19	—	220	0.86	—	—	—	14	—	43	—	880	—	<0.040	240	—	—	—	2,000
ACW #09	ACW #09	07-Feb-96	0.48	—	180	0.71	—	—	—	14	—	47	—	810	—	<0.010	300	—	—	—	2,200
ACW #09	ACW #09	07-Feb-96	0.4	—	175	0.7	—	—	—	16	—	56	—	810	—	<0.1	291	—	—	—	2,220
ACW #09	ACW #09	08-May-96	0.4	—	183	0.49	—	—	—	17	—	60	—	687	—	<0.05	209	—	—	—	2,020
ACW #09	ACW #09	14-Aug-96	0.66	—	160	0.65	—	—	—	13	—	53	—	730	—	0.027	220	—	—	—	1,900
ACW #09	ACW #09	07-Nov-96	0.4	—	110	0.44	—	—	—	10	—	—	—	510	—	0.029	—	—	—	—	—
ACW #09	ACW #09	19-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #09	ACW #09	23-Oct-97	0.6	—	84	0.31	—	—	—	10	—	17	—	320	—	0.05	200	—	—	—	—
S98-0185	ACW #09	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0472	ACW #09	21-Oct-98	0.63	—	400	1.4	—	—	—	25	—	31	—	1,400	—	<0.05	340	340	<25	<25	4,600
M99-0022	ACW #09	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0199	ACW #09	22-Oct-99	0.96	<0.005	230	0.80	<0.0002	0.0062	<0.02	22	—	29	<0.005	990	0.032	<0.05	270	270	<25	<25	3,000
M00-0100	ACW #09	12-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0101	ACW #09D	12-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0237	ACW #09	03-Nov-00	1.4	<0.05	160	0.43	<0.0002	—	—	18	<0.1	32	<0.02	670	—	<0.1	500	500	<25	<25	1,900
M00-0238	ACW #09D	03-Nov-00	1.4	<0.05	150	0.42	<0.0002	—	—	18	<0.1	31	<0.02	630	—	<0.1	510	510	<25	<25	1,900
M01-0147	ACW #09	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0483	ACW #09	25-Oct-01	1.2	0.058	89	0.22	<0.0002	<0.01	<0.04	14	<0.1	36	<0.02	1,200	0.034	<0.1	460	460	<25	<25	1,100
M01-0484	ACW #09D	25-Oct-01	1.3	0.067	96	0.23	<0.0002	<0.01	<0.04	14	<0.1	36	<0.02	1,300	0.036	<0.1	440	440	<25	<25	1,100
2002040220-19	ACW #09	01-May-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-20	ACW #09D	01-May-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-21	ACW #09	06-Nov-02	1.9	—	97	0.19	—	—	—	33	—	48	—	1,400	—	—	600	600	<2.0	<2.0	1,000
2003101363-23	ACW #09	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	1,430	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #10	ACW #10	18-Jun-93	—	—	—	—	—	—	—	—	—	1,061	—	701	1,027	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	14-Sep-93	—	—	—	—	—	—	—	—	—	1,349	—	1,190	421	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	09-Nov-93	—	—	—	—	—	—	—	—	—	1,800	—	1,238	420	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	22-Apr-94	—	—	—	—	—	—	—	—	—	2,440	—	1,638	700	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	28-Oct-94	—	—	—	—	—	—	—	—	—	2,592	—	1,694	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	01-Feb-95	—	—	—	—	—	—	—	—	—	2,660	—	1,426	619	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	17-May-95	<5	<10	<5	<5	<5	<5	<15	—	—	3,900	6.9	2,300	1,600	300	—	1.1	<1.0	1.1	—	—	—	—	0.3	—	320	—	—	<0.025
ACW #10	ACW #10	28-Jun-95	<2.5	<2.5	<2.5	—	—	—	<5.0	—	—	3,100	7.3	2,300	1,900	230	—	0.98	<1.0	<2.0	—	—	—	—	0.3	—	280	—	—	<0.025
ACW #10	ACW #10	30-Aug-95	<5	<10	<5	—	—	—	<15	—	—	3,100	7.0	2,200	790	210	—	0.9	<10	<20	—	—	—	—	0.2	—	280	—	—	<0.025
ACW #10	ACW #10	07-Feb-96	3.9	<1.0	<1.0	—	—	—	<2.0	—	—	3,200	7.8	2,300	850	230	—	0.88	0.24	0.42	—	—	—	—	0.3	—	320	—	—	<0.006
ACW #10	ACW #10	07-Feb-96	4.3	<2.5	<2.5	—	—	—	<7.5	—	—	3,100	7.1	2,100	829	242	—	<1.25	0.44	<1.25	—	—	—	—	0.3	—	320	—	—	<0.1
ACW #10	ACW #10	08-May-96	1.22	<1.0	<1.0	—	—	—	<3.0	—	—	2,322	7.2	1,290	603	190	—	4.5	0.46	2.2	—	—	—	—	<0.5	—	206	—	—	<0.01
ACW #10	ACW #10	14-Aug-96	<1.0	<1.0	<1.0	—	—	—	<2.0	—	—	2,400	7.6	1,900	560	160	—	0.82	1.4	0.58	—	—	—	—	0.3	—	210	—	—	<0.006
ACW #10	ACW #10	07-Nov-96	1.2	1.5	<1.0	—	—	—	<2.0	—	—	250	7.5	1,800	610	170	—	0.83	1.1	0.49	—	—	—	—	0.2	—	200	—	—	<0.007
ACW #10	ACW #10	08-May-97	1.3	1	<0.5	—	—	—	<1.0	—	—	1,880	—	1,500	480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	23-Oct-97	1.14	1.17	<0.5	—	—	—	0.58	—	—	2,870	7.2	1,500	670	210	—	1.2	1	0.36	—	—	—	—	0.2	—	220	—	—	<0.01
S98-0187	ACW #10	14-May-98	—	—	—	—	—	—	—	—	—	2,400	—	1,200	540	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0473	ACW #10	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	2,900	7.06	1,960	800	210	20.8	<2	0.90	0.83	—	—	—	—	0.29	—	300	—	—	<0.0025
M99-0023	ACW #10	13-May-99	—	—	—	—	—	—	—	—	—	2,810	—	1,660	730	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0201	ACW #10	22-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	2,470	7.23	1,720	660	160	19.4	<2	1.2	0.62	—	0.037	0.010	0.091	0.26	<0.002	260	<0.005	<0.005	<0.0025
M00-0099	ACW #10	11-May-00	—	—	—	—	—	—	—	—	—	3,620	—	2,430	1,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0243	ACW #10	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	3,100	7.1	2,840	980	220	16.4	<2	1.0	<1	—	—	<0.1	0.15	0.37	<0.01	470	<0.01	—	0.0061
M01-0158	ACW #10	06-May-01	—	—	—	—	—	—	—	—	—	3,660	—	2,360	1,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0487	ACW #10	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	3,350	7.02	2,270	930	220	19.8	2.1	1.0	<0.5	—	0.057	<0.1	0.10	0.30	<0.005	300	<0.01	<0.01	<0.005
2002040220-21	ACW #10	01-May-02	—	—	—	—	—	—	—	—	—	3,440	—	1,970	1,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-25	ACW #10	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	2,600	7.15 H	2,000	740	250	—	0.64	1.4	0.86	—	—	0.0086	—	0.27	—	290	—	—	—
2003101363-21	ACW #10	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	2,580	6.6	2,160	795	—	18.7	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	19-Jun-93	—	—	—	—	—	—	—	—	—	25,000	—	18,670	9,737	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	15-Sep-93	—	—	—	—	—	—	—	—	—	10,570	—	6,820	3,437	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	09-Nov-93	—	—	—	—	—	—	—	—	—	10,160	—	6,592	3,620	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Apr-94	—	—	—	—	—	—	—	—	—	16,290	—	9,520	6,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	20,060	—	13,280	6,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	20,550	—	12,900	6,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
ACW #11	ACW #11	01-Feb-95	—	—	—	—	—	—	—	—	—	32,200	—	19,880	11,582	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	17-May-95	<5	<10	<5	—	—	—	<15	—	—	12,000	6.8	7,200	4,400	250	—	1.9	<1.0	<2.0	—	—	—	—	0.3	—	740	—	—	<0.025
ACW #11	ACW #11	27-Jun-95	5.1	<2.5	<2.5	—	—	—	<5.0	—	—	11,000	7.2	7,000	6,500	210	—	1.6	<1.0	<2.0	—	—	—	—	0.4	—	720	—	—	<0.025
ACW #11	ACW #11	29-Aug-95	8	<10	<5	<5	<5	<5	<15	—	—	10,000	6.8	6,000	3,400	220	—	2.2	6.2	<2.0	—	—	—	—	0.3	—	550	—	—	<0.025
ACW #11	ACW #11	07-Feb-96	6.9	<1.0	<1.0	—	—	—	<2.0	—	—	11,000	7.8	7,400	3,400	230	—	1.5	0.15	0.087	—	—	—	—	0.3	—	660	—	—	<0.006
ACW #11	ACW #11	07-Feb-96	7.6	<2.5	<2.5	—	—	—	<7.5	—	—	11,030	7.2	6,740	3,770	248	—	1.6	0.39	<1.25	—	—	—	—	0.4	—	668	—	—	<0.1
ACW #11	ACW #11	08-May-96	6.76	<1.0	<1.0	—	—	—	<3.0	—	—	9,840	7.3	5,080	3,120	206	—	<1.25	0.37	<1.25	—	—	—	—	<0.5	—	484	—	—	0.02
ACW #11	ACW #11	13-Aug-96	7.9	2.2	<1.0	—	—	—	<2.0	—	—	12,000	7.3	10,000	4,200	230	—	2	1.0	0.18	—	—	—	—	0.4	—	540	—	—	0.013
ACW #11	ACW #11	05-Nov-96	32	1.7	<1.0	—	—	—	1.2	—	—	29	7.3	25,000	13,000	560	—	2.9	0.4	0.31	—	—	—	—	0.3	—	1,200	—	—	<0.007
ACW #11	ACW #11	06-May-97	21	5.3	3.1	—	—	—	3.5	—	—	10,200	—	6,700	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Nov-97	28	3.1	<0.5	—	—	—	2.8	—	—	27,900	7.6	16,000	9,800	520	—	<4	<0.5	0.16	—	—	—	—	0.3	—	1,000	—	—	<0.01
S98-0174	ACW #11	12-May-98	70	8.2	1.3	—	—	—	4.3	—	—	36,000	—	22,000	13,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0460	ACW #11	20-Oct-98	51	<2	<2	—	—	—	<2	—	—	42,500	6.60	29,600	17,000	680	18.5	<10	0.43	0.11	—	—	—	—	0.32	—	1,500	—	—	<0.0025

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
ACW #10	ACW #10	18-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	14-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	22-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	28-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	01-Feb-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	17-May-95	0.12	—	110	0.037	—	—	—	8	—	43	—	170	—	<0.020	190	—	—	—	1,300
ACW #10	ACW #10	28-Jun-95	0.28	—	94	0.029	—	—	—	7.5	—	46	—	160	—	<0.020	190	—	—	—	1,200
ACW #10	ACW #10	30-Aug-95	<0.20	—	95	0.034	—	—	—	52	—	42	—	150	—	<0.040	180	—	—	—	1,100
ACW #10	ACW #10	07-Feb-96	0.24	—	110	0.032	—	—	—	8.4	—	36	—	190	—	0.011	200	—	—	—	1,200
ACW #10	ACW #10	07-Feb-96	0.4	—	107	<0.1	—	—	—	9.4	—	54	—	190	—	<0.1	194	—	—	—	1,240
ACW #10	ACW #10	08-May-96	0.1	—	92	<0.05	—	—	—	8	—	62	—	127	—	<.05	137	—	—	—	893
ACW #10	ACW #10	14-Aug-96	0.14	—	71	0.019	—	—	—	7	—	47	—	140	—	0.037	170	—	—	—	810
ACW #10	ACW #10	07-Nov-96	0.22	—	70	0.017	—	—	—	7.4	—	20	—	150	—	0.025	170	—	—	—	800
ACW #10	ACW #10	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #10	ACW #10	23-Oct-97	0.2	—	71	0.02	—	—	—	6	—	20	—	140	—	<0.02	200	—	—	—	—
S98-0187	ACW #10	14-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0473	ACW #10	22-Oct-98	0.099	—	110	0.0068	—	—	—	9.0	—	27	—	180	—	<0.05	180	180	<25	<25	1,200
M99-0023	ACW #10	13-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0201	ACW #10	22-Oct-99	0.26	<0.005	84	0.020	<0.0002	<0.005	<0.02	7.9	—	19	<0.005	170	0.013	<0.05	160	160	<25	<25	1,000
M00-0099	ACW #10	11-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0243	ACW #10	06-Nov-00	0.27	<0.05	140	0.026	<0.0002	—	—	16	<0.1	30	<0.02	330	—	<0.1	180	180	<25	<25	1,800
M01-0158	ACW #10	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0487	ACW #10	25-Oct-01	0.19	0.068	95	0.021	<0.0002	<0.01	<0.04	9.6	<0.1	35	<0.02	180	0.028	<0.1	160	160	<25	<25	1,100
2002040220-21	ACW #10	01-May-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-25	ACW #10	08-Nov-02	0.22	—	110	0.016	—	—	—	15	—	55	—	270	—	—	180	180	<2.0	<2.0	1,200
2003101363-21	ACW #10	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	182	—	—	—	—	—	—	—
ACW #11	ACW #11	19-Jun-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	15-Sep-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	09-Nov-93	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Apr-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	27-Oct-94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	01-Feb-95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	17-May-95	0.36	—	260	0.23	—	—	—	16	—	42	—	1,200	—	<0.020	230	—	—	—	3,300
ACW #11	ACW #11	27-Jun-95	0.29	—	270	0.2	—	—	—	16	—	45	—	980	—	<0.020	210	—	—	—	2,800
ACW #11	ACW #11	29-Aug-95	0.17	—	210	0.088	—	—	—	16	—	44	—	880	—	<0.020	220	—	—	—	2,700
ACW #11	ACW #11	07-Feb-96	0.38	—	230	0.13	—	—	—	26	—	47	—	1,500	—	<0.010	210	—	—	—	2,600
ACW #11	ACW #11	07-Feb-96	0.5	—	224	0.1	—	—	—	31	—	46	—	1,400	—	<0.1	200	—	—	—	2,590
ACW #11	ACW #11	08-May-96	0.3	—	220	0.09	—	—	—	29	—	50	—	1,160	—	<0.05	111	—	—	—	2,110
ACW #11	ACW #11	13-Aug-96	0.28	—	190	0.061	—	—	—	24	—	47	—	1,700	—	0.12	160	—	—	—	2,100
ACW #11	ACW #11	05-Nov-96	0.25	—	430	0.14	—	—	—	35	—	21	—	5,100	—	0.068	170	—	—	—	4,700
ACW #11	ACW #11	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #11	ACW #11	21-Nov-97	0.4	—	330	0.22	—	—	—	27	—	18	—	2,700	—	0.21	170	—	—	—	—
S98-0174	ACW #11	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0460	ACW #11	20-Oct-98	0.68	—	520	0.35	—	—	—	41.0	—	22	—	5,100	—	<0.05	180	180	<25	<25	5,900

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M99-0014	ACW #11	12-May-99	—	—	—	—	—	—	—	—	—	19,800	—	11,100	7,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0192	ACW #11	20-Oct-99	14	4.5	<2	—	—	—	<4	—	—	19,300	6.94	13,600	7,800	340	19.1	<4	0.60	0.055	—	0.096	0.0088	0.42	0.30	<0.002	1,100	<0.005	<0.005	0.0039
M00-0087	ACW #11	09-May-00	—	—	—	—	—	—	—	—	—	31,500	—	21,000	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0227	ACW #11	01-Nov-00	16	<2	<2	—	—	—	<4	—	—	25,700	6.82	21,900	10,000	490	13.1	<2	<0.4	<1	—	—	<0.1	0.37	0.46	<0.01	1,730	<0.01	—	<0.005
M01-0135	ACW #11	01-May-01	—	—	—	—	—	—	—	—	—	32,800	—	20,000	15,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0476	ACW #11	23-Oct-01	59	<2	<2	—	—	—	<2	—	—	47,800	6.55	32,900	17,000	800	21.5	<20	0.41	<10	—	<0.05	<0.1	0.26	0.36	<0.005	2,500	<0.01	<0.01	<0.005
2002040220-09	AC W #11	29-Apr-02	—	—	—	—	—	—	—	—	—	34,200	—	25,500	15,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-19	ACW #11	06-Nov-02	13	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	11,000	6.98 H	9,700	4,600	320	—	1.5	<0.40	1.4	—	—	0.0083	—	0.33	—	1,200	—	—	—
2003101363-8	ACW #11	04-Nov-03	2.7	<2.0	<2.0	—	—	—	<6.0	—	—	7,950	6.8	3,470	4,520	—	19.5	—	—	—	—	—	0.0266	—	—	<0.0040	—	<0.010	—	<0.025
ACW #12	ACW #12	19-Feb-97	<0.5	<0.5	1.5	—	—	—	<1.0	—	—	1,610	—	950	380	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12D	ACW #12D	19-Feb-97	2.9	<0.5	<0.5	—	—	—	<1.0	—	—	1,630	—	960	390	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	08-May-97	3	0.89	<0.5	—	—	—	<1.0	—	—	1,240	—	900	290	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	20-Aug-97	1.2	<0.5	<0.5	—	—	—	<1.0	—	—	1,120	8.1	740	260	85	—	0.6	1.3	0.2	—	—	—	—	0.2	—	84	—	—	<0.01
ACW #12D	ACW #12D	20-Aug-97	1.4	<0.5	<0.5	—	—	—	<1.0	—	—	1,150	8.1	740	280	90	—	0.7	1.3	0.3	—	—	—	—	0.2	—	91	—	—	<0.01
ACW #12	ACW #12	23-Oct-97	1.4	0.58	<0.5	—	—	—	<1.0	—	—	1,810	7.5	850	380	120	—	1	1	0.34	—	—	—	—	0.2	—	150	—	—	<0.01
S98-0058	ACW #12	24-Feb-98	7.3	<0.50	<0.50	—	—	—	<1.0	—	—	2,050	7.9	1,200	470	150	—	0.8	2.2	0.4	—	—	—	—	—	—	170	—	—	—
S98-0059	ACW #12D	24-Feb-98	6.7	<0.50	<0.50	—	—	—	<1.0	—	—	2,090	7.9	1,220	490	160	—	0.9	2.1	0.5	—	—	—	—	—	—	170	—	—	—
S98-0188	ACW #12	01-Jun-98	<0.50	1.2	<0.50	—	—	—	<1.0	—	—	2,000	7.5	1,500	—	—	—	—	—	0.41	—	—	—	—	—	—	210	—	—	—
S98-0189	ACW #12D	01-Jun-98	4.4	2.5	6.1	—	—	—	2.5	—	—	2,300	7.4	1,700	540	150	—	0.74	1.3	0.54	—	—	—	—	—	—	200	—	—	—
S98-0294	ACW #12	11-Aug-98	2	<2	<2	<2	<2	<2	<6	—	—	1,790	7.61	1,240	440	130	19.8	<2	1.3	1.4	—	—	—	—	—	—	180	—	—	—
S98-0295	ACW #12D	11-Aug-98	2	<2	<2	<2	<2	<2	<6	—	—	2,020	7.51	1,300	520	140	19.3	<1	1.1	<2.5	—	—	—	—	—	—	180	—	—	—
S98-0474	ACW #12	22-Oct-98	6	<2	<2	<2	<2	<2	<6	—	—	2,280	7.39	1,520	610	170	20.0	<2	0.99	0.44	—	—	—	—	0.27	—	210	—	—	<0.0025
S98-0475	ACW #12D	22-Oct-98	6	<2	<2	<2	<2	<2	<6	—	—	2,310	7.36	1,690	600	170	20.1	<2	0.90	0.51	—	—	—	—	0.26	—	200	—	—	<0.0025
S99-0083	ACW #12	23-Feb-99	6	<2	<2	<2	<2	<2	<6	—	—	2,020	7.68	1,240	500	120	12.3	<2	1.2	0.18	—	—	—	—	—	—	200	—	—	—
S99-0084	ACW #12D	23-Feb-99	5	<2	<2	<2	<2	<2	<6	—	—	2,050	7.67	1,280	480	140	12.8	<2	1.1	0.23	—	—	—	—	—	—	190	—	—	—
M99-0024	ACW #12	14-May-99	4	<2	<2	<2	<2	<2	<6	—	<0.25	2,390	7.47	1,440	500	120	23.8	<2	0.86	0.14	—	—	—	—	0.28	—	210	—	—	0.0063
M99-0026	ACW #12D	14-May-99	4	<2	<2	<2	<2	<2	<6	—	<0.25	2,350	7.42	1,410	590	150	23.9	<2	0.86	0.18	—	—	—	—	0.26	—	210	—	—	0.0044
M99-0087	ACW #12	11-Aug-99	5.3	<2	<2	<2	<2	<2	<6	—	—	2,650	7.35	1,750	750	160	21.7	<0.2	0.85	0.45	—	—	—	—	—	—	270	—	—	—
M99-0088	ACW #12D	11-Aug-99	2.4	<2	<2	<2	<2	<2	<6	—	—	2,630	7.33	1,880	810	160	21.1	<1	0.85	0.53	—	—	—	—	—	—	280	—	—	—
M99-0202	ACW #12	22-Oct-99	4.7	<2	<2	<2	<2	<2	<6	—	—	2,180	7.50	1,620	650	130	19.8	<2	0.98	0.41	—	0.034	0.0094	0.13	0.26	<0.002	220	<0.005	<0.005	<0.0025
M99-0204	ACW #12D	22-Oct-99	4.4	<2	<2	<2	<2	<2	<6	—	—	2,170	7.48	1,390	560	140	19.8	<2	0.95	0.32	—	0.031	0.0084	0.13	0.26	<0.002	230	<0.005	<0.005	<0.0025
M00-0024	ACW #12	22-Feb-00	<2	<2	<2	—	—	—	<2	—	—	1,950	7.38	1,260	680	130	16.4	<1.0	1.1	<0.5	—	—	—	—	—	—	210	—	—	—
M00-0098	ACW #12	11-May-00	<5	<5	<5	—	—	—	<10	—	—	1,590	7.88	989	470	100	18.5	0.47	1.2	0.15	—	—	—	—	—	—	150	—	—	—
M00-0197	ACW #12	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	1,800	7.63	1,270	460	110	25.4	0.47	1.1	0.087	—	—	—	—	—	—	140	—	—	—
M00-0240	ACW #12	03-Nov-00	<2	<2	<2	—	—	—	<4	—	—	2,520	7.5	1,780	890	130	19.2	<20	1.1	0.30	—	—	<0.1	0.14	0.29	<0.01	200	<0.01	—	0.0059
M01-0011	ACW #12	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	2,230	7.44 H	1,210	670	140	21.5	0.74	0.88	0.28	—	—	—	—	—	—	190	—	—	—
M01-0145	ACW #12	03-May-01	2.4	<2	<2	—	—	—	<2	<5	—	2,100	7.4	1,060	570	110	22.2	1.4	1.00	<1	—	—	—	—	—	—	160	—	—	—
M01-0146	ACW #12D	03-May-01	2.1	<2	<2	—	—	—	<2	<5	—	2,120	7.44	1,150	510	110	22.5	1.3	0.97	<1	—	—	—	—	—	—	160	—	—	—
M01-0405	ACW #12	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	—	—	2,080	7.34	1,290	490	120	24.6	<2	0.97	<1	—	—	—	—	—	—	180	—	—	—
M01-0486	ACW #12	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	1,890	7.43 H	1,220	1400	110	19.7	<2	1.10	<0.5	—	<0.05	<0.1	0.11	0.25	<0.005	160	<0.01	<0.01	<0.005
M02-0046	ACW #12	20-Feb-02	—	—	—	—	—	—	—	—	—	2,200	7.27	1,370	720	120	—	<10	0.85	0.24	—	—	—	—	—	—	180	—	—	—
M02-0046	ACW #12 R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-22	ACW #12	01-May-02	2.6	<2.0	<2.0	—	—	—	<2.0	<5.0	—	2,030	7.43	1,180	490	130	—	<2.0	1.0	<2.0	—	—	—	—	—	—	170	—	—	—
2002040220-23	ACW #12D	01-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	1,900	7.48	1,100	440	140	—	<2.0	1.1	<2.0	—	—	—	—	—	—	150	—	—	—
2002110896-24	ACW #12	07-Nov-02	3.7	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1,800	7.61 H	1,300	450	150	—	0.50	1.1	0.64	—	—	0.0066	—	0.24	—	150	—	—	—
2003101363-22	ACW #12	06-Nov-03	1.0 J	<2.0	<2.0	—	—	—	<6.0	—	—	1,605	6.9	1,220	410	—	16.8	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M99-0014	ACW #11	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0192	ACW #11	20-Oct-99	0.68	<0.005	280	0.17	<0.0002	0.0045	<0.02	27	—	19	<0.005	2,300	0.013	<0.05	140	140	<25	<25	3,900
M00-0087	ACW #11	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0227	ACW #11	01-Nov-00	1.1	<0.05	560	0.37	0.00028	—	—	33	<0.1	26	<0.02	4,440	—	<0.1	190	190	<25	<25	6,600
M01-0135	ACW #11	01-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0476	ACW #11	23-Oct-01	1.4	0.53	840	0.38	0.00049	<0.01	<0.04	57	<0.1	31	<0.01	9,500	0.068	<0.1	160	160	<25	<25	9,700
2002040220-09	AC W #11	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-19	ACW #11	06-Nov-02	1.3	—	410	0.26	—	—	—	50	—	48	—	3,000	—	—	220	220	<2.0	<2.0	4,800
2003101363-8	ACW #11	04-Nov-03	—	<0.010	—	—	—	—	<0.040	—	—	—	<0.010	1,740	—	<0.020	—	—	—	—	—
ACW #12	ACW #12	19-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12D	ACW #12D	19-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #12	ACW #12	20-Aug-97	0.5	—	31	0.05	—	—	—	23	—	18	—	100	—	<0.02	130	—	—	—	—
ACW #12D	ACW #12D	20-Aug-97	0.4	—	34	0.05	—	—	—	22	—	19	—	100	—	<0.02	120	—	—	—	—
ACW #12	ACW #12	23-Oct-97	0.2	—	54	0.03	—	—	—	13	—	20	—	120	—	<0.02	160	—	—	—	—
S98-0058	ACW #12	24-Feb-98	—	—	60	—	—	—	—	10	—	21	—	120	—	—	160	—	—	—	—
S98-0059	ACW #12D	24-Feb-98	—	—	60	—	—	—	—	10	—	21	—	120	—	—	150	—	—	—	—
S98-0188	ACW #12	01-Jun-98	—	—	73	—	—	—	—	9	—	23	—	130	—	—	150	150	—	—	—
S98-0189	ACW #12D	01-Jun-98	—	—	71	—	—	—	—	9	—	22	—	130	—	—	150	150	—	—	—
S98-0294	ACW #12	11-Aug-98	—	—	62	—	—	—	—	9.8	—	21	—	130	—	—	140	140	<25	<25	710
S98-0295	ACW #12D	11-Aug-98	—	—	61	—	—	—	—	9.7	—	24	—	130	—	—	160	160	<25	<25	700
S98-0474	ACW #12	22-Oct-98	0.17	—	80	0.032	—	—	—	10	—	23	—	140	—	<0.05	150	150	<25	<25	850
S98-0475	ACW #12D	22-Oct-98	0.17	—	72	0.029	—	—	—	10	—	24	—	130	—	<0.05	150	150	<25	<25	810
S99-0083	ACW #12	23-Feb-99	—	—	73	—	—	—	—	8.8	—	25	—	160	—	—	160	160	<25	<25	810
S99-0084	ACW #12D	23-Feb-99	—	—	68	—	—	—	—	8.5	—	26	—	160	—	—	160	160	<25	<25	750
M99-0024	ACW #12	14-May-99	0.16	—	74	0.026	—	—	—	9.5	—	23	—	150	—	<0.05	150	150	<25	<25	840
M99-0026	ACW #12D	14-May-99	0.16	—	73	0.025	—	—	—	9.0	—	26	—	140	—	<0.05	150	150	<25	<25	810
M99-0087	ACW #12	11-Aug-99	—	—	96	—	—	—	—	9.0	—	29	—	160	—	—	140	140	<25	<25	1100
M99-0088	ACW #12D	11-Aug-99	—	—	98	—	—	—	—	9.2	—	36	—	160	—	—	140	140	<25	<25	1100
M99-0202	ACW #12	22-Oct-99	0.14	<0.005	0.77	0.024	<0.0002	0.0043	<0.02	8.4	—	21	<0.005	140	0.0088	<0.05	140	140	<25	<25	860
M99-0204	ACW #12D	22-Oct-99	0.16	<0.005	79	0.024	<0.0002	<0.005	<0.02	8.7	—	20	<0.005	140	0.0086	<0.05	140	140	<25	<25	890
M00-0024	ACW #12	22-Feb-00	—	—	71	—	—	—	—	9.2	—	22	—	130	—	—	130	130	<25	<25	800
M00-0098	ACW #12	11-May-00	—	—	51	—	—	—	—	9.3	—	28	—	120	—	—	140	140	<25	<25	590
M00-0197	ACW #12	07-Aug-00	—	—	45	—	—	—	—	10	—	33	—	110	—	—	140	140	<25	<25	520
M00-0240	ACW #12	03-Nov-00	1.9	<0.05	71	0.053	<0.0002	—	—	16	<0.1	29	<0.02	280	—	<0.1	140	140	<25	<25	800
M01-0011	ACW #12	20-Feb-01	—	—	68	—	—	—	—	11	—	31	—	170	—	—	150	150	<25	<25	750
M01-0145	ACW #12	03-May-01	—	—	56	—	—	—	—	9.2	—	32	—	150	—	—	140	140	<25	<25	630
M01-0146	ACW #12D	03-May-01	—	—	57	—	—	—	—	8.9	—	31	—	150	—	—	150	150	<25	<25	630
M01-0405	ACW #12	01-Aug-01	—	—	64	—	—	—	—	9.6	—	28	—	140	—	—	140	140	<25	<25	710
M01-0486	ACW #12	25-Oct-01	0.29	<0.05	56	0.032	<0.0002	<0.01	<0.04	9.3	<0.1	34	<0.02	120	0.011	<0.1	140	140	<25	<25	630
M02-0046	ACW #12	20-Feb-02	—	—	64	—	—	—	—	8.6	—	36	—	140	—	—	140	140	<25	<25	750
M02-0046	ACW #12 R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-22	ACW #12	01-May-02	—	—	61	—	—	—	—	8.9	—	35	—	130	—	—	140	140	<25	<25	670
2002040220-23	ACW #12D	01-May-02	—	—	54	—	—	—	—	8.8	—	33	—	110	—	—	150	150	<25	<25	600
2002110896-24	ACW #12	07-Nov-02	0.24	—	63	0.020	—	—	—	11	—	44	—	150	—	—	150	150	<2.0	<2.0	640
2003101363-22	ACW #12	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	126	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
ACW #13	ACW #13	20-Feb-97	<0.5	<0.5	1.5	—	—	—	<1.0	—	—	681	—	440	53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	08-May-97	0.61	0.58	<0.5	—	—	—	<1.0	—	—	643	—	460	57	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13D	ACW #13D	08-May-97	0.65	0.62	<0.5	—	—	—	<1.0	—	—	630	—	460	52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	20-Aug-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	654	8.3	440	55	96	—	0.4	1.3	0.99	—	—	—	—	0.2	—	39	—	—	<0.01
ACW #13	ACW #13	23-Oct-97	0.59	0.76	<0.5	—	—	—	<1.0	—	—	728	8.3	400	50	95	—	0.4	1.3	1	—	—	—	—	0.2	—	34	—	—	<0.01
S98-0060	ACW #13	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	727	8.4	450	59	100	—	0.5	1.6	1.2	—	—	—	—	—	—	31	—	—	—
S98-0190	ACW #13	01-Jun-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	700	8.0	450	—	—	—	—	—	1.2	—	—	—	—	—	—	40	—	—	—
S98-0296	ACW #13	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	679	7.93	467	48	110	19.7	<5	1.6	3.3	—	—	—	—	—	—	43	—	—	—
S98-0476	ACW #13	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	686	7.94	439	47	92	19.9	<5	1.3	1.3	—	—	—	—	0.23	—	48	—	—	<0.0025
S99-0085	ACW #13	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	792	8.18	493	74	93	12.6	0.3	1.5	0.74	—	—	—	—	—	—	44	—	—	—
M99-0027	ACW #13	14-May-99	<2	<2	<2	<2	<2	<2	<6	—	<0.25	693	7.96	403	45	96	24.1	0.4	1.3	1.4	—	—	—	—	0.25	—	46	—	—	0.0062
M99-0089	ACW #13	11-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	676	7.95	359	41	97	21.9	1.2	1.4	1.4	—	—	—	—	—	—	49	—	—	—
M99-0205	ACW #13	22-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	674	7.98	436	48	93	20.0	0.36	1.4	1.3	—	0.11	0.013	0.057	0.23	<0.002	49	0.0055	<0.005	<0.0025
M00-0028	ACW #13	23-Feb-00	<2	<2	<2	—	—	—	<2	—	—	697	7.84	479	53	98	16.9	<1.0	1.5	1.4	—	—	—	—	—	—	44	—	—	—
M00-0096	ACW #13	11-May-00	<5	<5	<5	—	—	—	<10	—	—	697	8.00	459	47	120	18.2	0.33	1.3	1.5	—	—	—	—	—	—	48	—	—	—
M00-0198	ACW #13	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	676	7.90	363	41	100	25.6	0.31	1.3	1.2	—	—	—	—	—	—	49	—	—	—
M00-0199	ACW #13D	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	662	7.94	381	44	95	25.7	0.30	1.4	1.2	—	—	—	—	—	—	50	—	—	—
M00-0242	ACW #13	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	1,330	7.7	947	360	110	16.7	<2	1.4	1.0	—	—	<0.1	0.061	0.26	<0.01	55	<0.01	—	<0.005
M01-0013	ACW #13	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	893	7.81 H	518	110	90	21.6	0.39	1.3	1.4	—	—	—	—	—	—	48	—	—	—
M01-0159	ACW #13	07-May-01	<2	<2	<2	—	—	—	<2	<5	—	685	7.79 H	444	57	110	26.6	0.34	1.3	1.5	—	—	—	—	—	—	47	—	—	—
M01-0406	ACW #13	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	—	—	694	7.73	402	42	98	23.3	<2	1.4	1.6	—	—	—	—	—	—	46	—	—	—
M01-0407	ACW #13D	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	—	—	690	7.73	439	45	98	23.6	<2	1.3	1.6	—	—	—	—	—	—	42	—	—	—
M01-0490	ACW #13	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	690	7.75	422	42	96	20.0	<1	1.4	1.5	—	<0.05	<0.1	0.046	0.22	<0.005	45	<0.01	<0.01	<0.005
M02-0047	ACW #13	20-Feb-02	<2.0	2.1	<2.0	—	—	—	<2.0	—	—	680	7.67	389	44	88	—	2.7	1.4	1.4	—	—	—	—	—	—	44	—	—	—
M02-0047	ACW #13 R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-24	ACW #13	01-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	760	7.73 H	407	54	140	—	<1	1.5	1.4	—	—	—	—	—	—	52	—	—	—
2	ACW #13	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	807	7.76 H	643	50	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
3	ACW #13D	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	789	7.73 H	603	130	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-23	ACW #13	07-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	740	7.59 H	450	45	140	—	<0.50	1.4	1.6	—	—	0.010	—	0.23	—	53	—	—	—
2003030318/T4112-1	ACW #13	28-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	772	7.6 H	502	46.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-3	ACW #13	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	747	7.5 H	502	47.0	—	—	—	—	—	—	—	—	—	—	—	49.400	—	—	—
2003080979-3	ACW #13	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	661	6.89	460	41.7	—	—	—	—	—	—	—	—	—	—	—	52.400	—	—	—
2003101363-20	ACW #13	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	759	6.8	490	43.8	—	18.6	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	20-Feb-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	830	—	570	86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	07-May-97	0.88	1.1	0.52	—	—	—	<1.0	—	—	746	—	480	72	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	20-Aug-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	691	7.8	460	80	82	—	0.4	1.6	0.94	—	—	—	—	0.2	—	45	—	—	<0.01
ACW #14	ACW #14	22-Oct-97	<0.5	1.2	<0.5	—	—	—	1.5	—	—	747	8.1	440	71	95	—	0.5	1.5	0.9	—	—	—	—	0.2	—	46	—	—	<0.01
S98-0173	ACW #14	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	0.58 J	—	—	755	8.2	470	40	130	—	0.5	2	1.8	—	—	—	—	—	—	46	—	—	—
S98-0184	ACW #14	13-May-98	0.75	<0.50	<0.50	—	—	—	<1.0	—	—	880	7.9	530	58	110	—	<2	1.7	1.7	—	—	—	—	—	—	47	—	—	—
S98-0293	ACW #14	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	730	7.76	496	160	110	19.2	<5	1.9	2.5	—	—	—	—	—	—	48	—	—	—
S98-0471	ACW #14	21-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	771	7.70	466	71	100	20.2	<2	1.9	1.7	—	—	—	—	0.25	—	52	—	—	0.0026
S99-0080	ACW #14	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	859	7.92	524	88	92	12.2	0.3	1.8	1.9	—	—	—	—	—	—	47	—	—	—
M99-0021	ACW #14	13-May-99	<2	<2	<2	<2	<2	<2	<6	—	<0.25	764	7.89	500	62	100	23.5	0.4	1.6	2.0	—	—	—	—	0.27	—	49	—	—	0.016
M99-0086	ACW #14	09-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	791	7.80	471	58	120	21.3	0.3	1.6	1.8	—	—	—	—	—	—	52	—	—	—
M99-0197	ACW #14	21-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	753	7.79	469	68	100	20.4	0.37	1.8	2.0	—	0.078	0.013	0.046	0.24	<0.002	48	<0.005	<0.005	<0.0025
M00-0023	ACW #14	22-Feb-00	<2	<2	<2	—	—	—	<2	—	—	738	7.65	499	53	97	16.1	<1.0	1.6	2.0	—	—	—	—	—	—	62	—	—	—
M00-0093	ACW #14	10-May-00	<5	<5	<5	—	—	—	<10	—	—	761	7.66	485	61	110	21.2	0.38	1.5	1.8	—	—	—	—	—	—	51	—	—	—
M00-0195	ACW #14	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	750	7.69	439	65	110	25.4	0.27	1.5	1.8	—	—	—	—	—	—	50	—	—	—
M00-0230	ACW #14	01-Nov-00	<2	<2	<2	—	—	—	<4	—	—	1,630	7.78	1,090	420	120	17.1	<2	1.6	1.4	—	—	<0.1	0.068	0.30	<0.01	65	<0.01	—	<0.005

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as CaCO$_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as CaCO$_3$), mg/l
ACW #13	ACW #13	20-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13D	ACW #13D	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #13	ACW #13	20-Aug-97	0.3	—	14	0.02	—	—	—	10	—	20	—	79	—	<0.02	160	—	—	—	—
ACW #13	ACW #13	23-Oct-97	0.2	—	14	<0.01	—	—	—	15	—	21	—	84	—	<0.02	170	—	—	—	—
S98-0060	ACW #13	24-Feb-98	—	—	14	—	—	—	—	17	—	21	—	87	—	—	170	—	—	—	—
S98-0190	ACW #13	01-Jun-98	—	—	14	—	—	—	—	10	—	21	—	85	—	—	170	170	—	—	—
S98-0296	ACW #13	11-Aug-98	—	—	14	—	—	—	—	9.4	—	15	—	85	—	—	170	170	<25	<25	170
S98-0476	ACW #13	22-Oct-98	0.37	—	16	0.017	—	—	—	7.5	—	23	—	87	—	<0.05	170	170	<25	<25	190
S99-0085	ACW #13	23-Feb-99	—	—	15	—	—	—	—	7.0	—	23	—	110	—	—	180	180	<25	<25	170
M99-0027	ACW #13	14-May-99	0.17	—	15	0.0084	—	—	—	5.3	—	28	—	86	—	<0.05	170	170	<25	<25	180
M99-0089	ACW #13	11-Aug-99	—	—	16	—	—	—	—	5.0	—	26	—	86	—	—	170	170	<25	<25	190
M99-0205	ACW #13	22-Oct-99	0.23	<0.005	15	0.018	<0.0002	0.0044	<0.02	5.9	—	19	<0.005	89	<0.005	<0.05	160	160	<25	<25	190
M00-0028	ACW #13	23-Feb-00	—	—	14	—	—	—	—	6.3	—	14	—	82	—	—	160	160	<25	<25	170
M00-0096	ACW #13	11-May-00	—	—	16	—	—	—	—	6.6	—	30	—	88	—	—	170	170	<25	<25	190
M00-0198	ACW #13	08-Aug-00	—	—	15	—	—	—	—	5.8	—	<2.0	—	82	—	—	160	160	<25	<25	180
M00-0199	ACW #13D	08-Aug-00	—	—	16	—	—	—	—	6.0	—	37	—	84	—	—	160	160	<25	<25	180
M00-0242	ACW #13	06-Nov-00	0.34	<0.05	19	0.024	<0.0002	—	—	11	<0.1	29	<0.02	210	—	<0.1	170	170	<25	<25	220
M01-0013	ACW #13	20-Feb-01	—	—	16	—	—	—	—	7.5	—	34	—	130	—	—	160	160	<25	<25	190
M01-0159	ACW #13	07-May-01	—	—	6	—	—	—	—	4.6	—	33	—	88	—	—	180	180	<25	<25	180
M01-0406	ACW #13	01-Aug-01	—	—	16	—	—	—	—	6.1	—	29	—	86	—	—	170	170	<25	<25	180
M01-0407	ACW #13D	01-Aug-01	—	—	14	—	—	—	—	6	—	30	—	80	—	—	160	160	<25	<25	160
M01-0490	ACW #13	25-Oct-01	0.17	<0.05	15	0.02	<0.0002	<0.01	<0.04	6	<0.1	34	<0.02	78	<0.005	<0.1	170	170	<25	<25	170
M02-0047	ACW #13	20-Feb-02	—	—	14	—	—	—	—	5.0	—	36	—	78	—	—	160	160	<25	<25	180
M02-0047	ACW #13 R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-24	ACW #13	01-May-02	—	—	18	—	—	—	—	5.0	—	33	—	78	—	—	170	170	<25	<25	200
2	ACW #13	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	80	—	—	—	—	—	—	—
3	ACW #13D	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	83	—	—	—	—	—	—	—
2002110896-23	ACW #13	07-Nov-02	0.21	—	19	<0.010	—	—	—	6.6	—	10	—	96	—	—	180	180	<2.0	<2.0	210
2003030318/T4112-1	ACW #13	28-Mar-03	—	—	—	—	—	—	—	—	—	—	—	57.000	—	—	—	—	—	—	—
2003050551-3	ACW #13	19-May-03	—	—	16.200	—	—	—	—	—	—	—	—	69.800	—	—	182	—	—	—	190
2003080979-3	ACW #13	19-Aug-03	—	—	17.800	—	—	—	—	—	—	—	—	78.600	—	—	193	—	—	—	204
2003101363-20	ACW #13	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	77.400	—	—	—	—	—	—	—
ACW #14	ACW #14	20-Feb-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ACW #14	ACW #14	20-Aug-97	0.5	—	15	0.03	—	—	—	5	—	20	—	81	—	0.03	150	—	—	—	—
ACW #14	ACW #14	22-Oct-97	0.3	—	16	0.01	—	—	—	5	—	20	—	81	—	<0.02	180	—	—	—	—
S98-0173	ACW #14	24-Feb-98	—	—	16	—	—	—	—	5	—	22	—	87	—	—	180	—	—	—	—
S98-0184	ACW #14	13-May-98	—	—	18	—	—	—	—	6	—	24	—	97	—	—	170	170	—	—	—
S98-0293	ACW #14	11-Aug-98	—	—	16	—	—	—	—	5.5	—	25	—	90	—	—	170	170	<25	<25	190
S98-0471	ACW #14	21-Oct-98	0.20	—	19	0.014	—	—	—	6.2	—	25	—	97	—	<0.05	170	170	<25	<25	210
S99-0080	ACW #14	23-Feb-99	—	—	17	—	—	—	—	6.0	—	25	—	110	—	—	180	180	<25	<25	190
M99-0021	ACW #14	13-May-99	0.17	—	18	0.011	—	—	—	5.7	—	28	—	95	—	<0.05	170	170	<25	<25	200
M99-0086	ACW #14	09-Aug-99	—	—	19	—	—	—	—	5.3	—	24	—	91	—	—	170	170	<25	<25	210
M99-0197	ACW #14	21-Oct-99	0.21	<0.005	18	0.012	<0.0002	<0.005	<0.02	5.8	—	21	<0.005	98	0.0062	<0.05	170	170	<25	<25	200
M00-0023	ACW #14	22-Feb-00	—	—	22	—	—	—	—	5.4	—	46	—	97	—	—	160	160	<25	<25	250
M00-0093	ACW #14	10-May-00	—	—	19	—	—	—	—	6.6	—	34	—	110	—	—	170	170	<25	<25	200
M00-0195	ACW #14	07-Aug-00	—	—	18	—	—	—	—	6.0	—	39	—	95	—	—	170	170	<25	<25	200
M00-0230	ACW #14	01-Nov-00	0.27	<0.05	23	0.037	<0.0002	—	—	14	<0.1	25	<0.02	300	—	<0.1	170	170	<25	<25	260

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M01-0017	ACW #14	21-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	883	7.78 H	517	100	100	21.7	<2	1.6	2.1	—	—	—	—	—	—	47	—	—	—
M01-0144	ACW #14	03-May-01	<2	<2	<2	—	—	—	<2	<5	—	809	7.66	499	89	100	22.7	1	1.6	3.7	—	—	—	—	—	—	54	—	—	—
M01-0411	ACW #14	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	771	7.90	476	70	110	22.8	0.42	1.6	1.9	—	—	—	—	—	—	45	—	—	—
M01-0482	ACW #14	24-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	761	7.63	449	71	100	20.0	<2	1.8	1.8	—	<0.05	<0.1	0.041	0.22	<0.005	46	<0.01	<0.01	<0.005
M02-0042	ACW #14	19-Feb-02	<2.0	3.1	<2.0	—	—	—	7.1	—	—	759	7.57 H	427	65	87	—	0.38	1.7	1.8	—	—	—	—	—	—	46	—	—	—
M02-0042	ACW #14 R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-18	ACW #14	30-Apr-02	<2.0	<2.0	<2.0	—	—	—	<4.0	—	—	844	7.39 H	505	74	250	—	<1.0	2.9	1.7	—	—	—	—	—	—	57	—	—	—
1	ACW #14	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	749	7.71 H	482	58	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-11	ACW #14	04-Nov-02	2.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	840	7.78 H	670	76	150	—	<0.50	1.8	1.9	—	—	0.012	—	0.27	—	60	—	—	—
2002110896-12	ACW #14D	04-Nov-02	1.8	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	830	7.65 H	550	73	150	—	0.61	1.8	2.0	—	—	0.011	—	0.27	—	61	—	—	—
2003030318/T4096-3	ACW #14	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	768	7.7 H	508	55.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-6	ACW #14	20-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	822	7.6 H	570	67.0	—	—	—	—	—	—	—	—	—	—	—	55.600	—	—	—
2003050551-7	ACW #14D	20-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	822	8.0 H	534	71.0	—	—	—	—	—	—	—	—	—	—	—	53.500	—	—	—
2003080979-6	ACW #14	20-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	746	6.96	494	58.7	—	—	—	—	—	—	—	—	—	—	—	53.000	—	—	—
2003080979-7	ACW #14D	20-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	494	62.1	—	—	—	—	—	—	—	—	—	—	—	53.100	—	—	—
2003101363-14	ACW #14	05-Nov-03	1.8 J	<2.0	<2.0	—	—	—	<6.0	—	—	825	7.4	550	67.1	—	18.2	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0206	ACW #15	23-Oct-99	3.2	5.3	<2	—	—	—	<4	—	—	1,010	8.24	587	180	87	21.2	<2	1.6	0.81	—	0.79	0.0089	0.11	0.21	<0.002	66	0.022	<0.005	0.0039
M00-0026	ACW #15	23-Feb-00	<2	<2	<2	—	—	—	<2	—	—	665	7.71	402	42	84	16.6	<1.0	1.4	1.2	—	—	—	—	—	—	62	—	—	—
M00-0027	ACW #15D	23-Feb-00	<2	<2	<2	—	—	—	<2	—	—	660	7.71	394	42	92	16.6	<20	1.5	1.1	—	—	—	—	—	—	58	—	—	—
M00-0095	ACW #15	11-May-00	<5	<5	<5	—	—	—	<10	—	—	654	7.95	431	49	91	18.4	0.34	1.4	0.86	—	—	—	—	—	—	47	—	—	—
M00-0200	ACW #15	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	605	7.94	340	35	84	25.6	0.25	1.4	0.91	—	—	—	—	—	—	45	—	—	—
M00-0236	ACW #15	02-Nov-00	<5	<5	<5	—	—	—	<10	—	—	1,380	7.8	876	360	100	18.4	<20	1.4	0.93	—	—	<0.1	0.064	0.27	<0.01	53	<0.01	—	<0.005
M01-0014	ACW #15	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	725	7.89 H	423	64	78	21.5	0.33	1.3	1	—	—	—	—	—	—	40	—	—	—
M01-0015	ACW #15D	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	727	7.87 H	413	65	81	21.7	0.34	1.3	1	—	—	—	—	—	—	38	—	—	—
M01-0160	ACW #15	07-May-01	<2	<2	<2	<2	<2	<2	<6	<5	—	629	7.81 H	416	52	84	26.0	0.28	1.3	0.99	—	—	—	—	—	—	42	—	—	—
M01-0161	ACW #15D	07-May-01	<2	<2	<2	<2	<2	<2	<6	<5	—	628	7.84 H	396	46	80	25.8	0.31	1.3	1	—	—	—	—	—	—	42	—	—	—
M01-0410	ACW #15	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	627	8.03	397	82	75	22.9	0.39	1.3	0.98	—	—	—	—	—	—	38	—	—	—
M01-0489	ACW #15	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	627	7.86	393	56	85	19.9	<1	1.4	1	—	<0.05	<0.1	0.042	0.22	<0.005	37	<0.01	<0.01	<0.005
M02-0043	ACW #15	19-Feb-02	<2.0	3.4	2.0	—	—	—	11	—	—	629	7.83 H	369	27	79	—	0.31	1.4	0.97	—	—	—	—	—	—	35	—	—	—
M02-0043	ACW #15 R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0044	ACW #15D	19-Feb-02	<2.0	<2.0	<2.0	—	—	—	7.0	—	—	628	8.11 H	355	31	76	—	0.32	1.4	0.81	—	—	—	—	—	—	52	—	—	—
M02-0044	ACW #15D R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
200240220-27	ACW #15	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	670	7.79 H	404	30	110	—	<1	1.4	1.0	—	—	—	—	—	—	42	—	—	—
4	ACW #15	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	777	7.91 H	552	130	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-26	ACW #15	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	640	7.76 H	380	30	110	—	<0.50	1.5	1.3	—	—	0.010	—	0.25	—	47	—	—	—
2002110896-27	ACW #15D	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	620	7.78 H	410	29	110	—	<0.50	1.3	1.3	—	—	0.011	—	0.23	—	46	—	—	—
2003030318/T4112-2	ACW #15	28-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	700	8.0 H	472	31.4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-5	ACW #15	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	651	7.7 H	442	30.0	—	—	—	—	—	—	—	—	—	—	—	45.300	—	—	—
2003080979-4	ACW #15	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	650	6.99	438	29.1	—	—	—	—	—	—	—	—	—	—	—	44.600	—	—	—
2003101363-26	ACW #15	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	644	7.0	436	26.1	—	16.5	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0241	RW #1	03-Nov-00	130	40	73	—	—	—	120	—	—	62,000	8.3	43,900	32,000	790	19.3	<200	6.0	0.10	—	—	0.82	0.47	2.4	<0.05	760	<0.05	—	<0.025

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M01-0017	ACW #14	21-Feb-01	—	—	18	—	—	—	—	7.2	—	33	—	110	—	—	170	170	<25	<25	190
M01-0144	ACW #14	03-May-01	—	—	20	—	—	—	—	6.8	—	35	—	100	—	—	160	160	<25	<25	220
M01-0411	ACW #14	02-Aug-01	—	—	17	—	—	—	—	5.8	—	35	—	89	—	—	160	160	<25	<25	180
M01-0482	ACW #14	24-Oct-01	0.26	<0.05	16	0.012	<0.0002	<0.01	<0.04	6.0	<0.1	34	<0.02	82	0.0085	<0.1	160	160	<25	<25	190
M02-0042	ACW #14	19-Feb-02	—	—	16	—	—	—	—	5.9	—	9.8	—	82	—	—	170	170	<25	<25	180
M02-0042	ACW #14 R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-18	ACW #14	30-Apr-02	—	—	21	—	—	—	—	6.3	—	31	—	90	—	—	180	180	<25	<25	230
1	ACW #14	25-Sep-02	—	—	—	—	—	—	—	—	—		—	81	—	—	—	—	—	—	—
2002110896-11	ACW #14	04-Nov-02	0.38	—	22	0.018	—	—	—	7.6	—	50	—	97	—	—	180	180	<2.0	<2.0	240
2002110896-12	ACW #14D	04-Nov-02	0.40	—	23	0.018	—	—	—	7.7	—	51	—	99	—	—	180	180	<2.0	<2.0	240
2003030318/T4096-3	ACW #14	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	62.200	—	—	—	—	—	—	—
2003050551-6	ACW #14	20-May-03	—	—	20.800	—	—	—	—	—	—	—	—	77.800	—	—	186	—	—	—	224
2003050551-7	ACW #14D	20-May-03	—	—	20.100	—	—	—	—	—	—	—	—	75.600	—	—	195	—	—	—	216
2003080979-6	ACW #14	20-Aug-03	—	—	20.300	—	—	—	—	—	—	—	—	88.400	—	—	197	—	—	—	216
2003080979-7	ACW #14D	20-Aug-03	—	—	20.300	—	—	—	—	—	—	—	—	88.900	—	—	198	—	—	—	216
2003101363-14	ACW #14	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	87.500	—	—	—	—	—	—	—
M99-0206	ACW #15	23-Oct-99	0.75	<0.005	20	0.051	<0.0002	0.040	<0.02	28	—	30	<0.005	130	<0.0005	0.096	130	130	<25	<25	250
M00-0026	ACW #15	23-Feb-00	—	—	15	—	—	—	—	5.7	—	27	—	81	—	—	170	170	<25	<25	220
M00-0027	ACW #15D	23-Feb-00	—	—	15	—	—	—	—	5.8	—	24	—	82	—	—	180	180	<25	<25	210
M00-0095	ACW #15	11-May-00	—	—	14	—	—	—	—	4.9	—	29	—	76	—	—	170	170	<25	<25	170
M00-0200	ACW #15	08-Aug-00	—	—	14	—	—	—	—	9.1	—	34	—	77	—	—	170	170	<25	<25	160
M00-0236	ACW #15	02-Nov-00	0.22	<0.05	18	0.026	<0.0002	—	—	16	<0.1	27	<0.02	250	—	<0.1	180	180	<25	<25	210
M01-0014	ACW #15	20-Feb-01	—	—	14	—	—	—	—	8.6	—	31	—	100	—	—	160	160	<25	<25	160
M01-0015	ACW #15D	20-Feb-01	—	—	13	—	—	—	—	7.5	—	31	—	96	—	—	180	180	<25	<25	150
M01-0160	ACW #15	07-May-01	—	—	14	—	—	—	—	5.8	—	32	—	80	—	—	180	180	<25	<25	160
M01-0161	ACW #15D	07-May-01	—	—	14	—	—	—	—	6.2	—	32	—	81	—	—	180	180	<25	<25	160
M01-0410	ACW #15	02-Aug-01	—	—	13	—	—	—	—	9.2	—	35	—	76	—	—	170	170	<25	<25	150
M01-0489	ACW #15	25-Oct-01	0.17	<0.05	13	0.0073	0.0003	<0.01	<0.04	72	<0.1	34	<0.02	72	<0.005	<0.1	170	170	<25	<25	150
M02-0043	ACW #15	19-Feb-02	—	—	12	—	—	—	—	18	—	18	—	74	—	—	170	170	<25	<25	140
M02-0043	ACW #15 R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0044	ACW #15D	19-Feb-02	—	—	15	—	—	—	—	9.6	—	18	—	49	—	—	160	160	<25	<25	190
M02-0044	ACW #15D R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
200240220-27	ACW #15	02-May-02	—	—	15	—	—	—	—	5.8	—	33	—	77	—	—	180	180	<25	<25	170
4	ACW #15	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	72	—	—	—	—	—	—	—
2002110896-26	ACW #15	08-Nov-02	0.16	—	16	<0.010	—	—	—	6.1	—	50	—	85	—	—	190	190	<2.0	<2.0	180
2002110896-27	ACW #15D	08-Nov-02	0.15	—	15	<0.010	—	—	—	5.9	—	53	—	81	—	—	180	180	<2.0	<2.0	180
2003030318/T4112-2	ACW #15	28-Mar-03	—	—	—	—	—	—	—	—	—	—	—	55.200	—	—	—	—	—	—	—
2003050551-5	ACW #15	19-May-03	—	—	16.300	—	—	—	—	—	—	—	—	66.000	—	—	182	—	—	—	180
2003080979-4	ACW #15	19-Aug-03	—	—	16.500	—	—	—	—	—	—	—	—	77.000	—	—	196	—	—	—	179
2003101363-26	ACW #15	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	71.000	—	—	—	—	—	—	—
M00-0241	RW #1	03-Nov-00	<0.5	<0.25	330	2.5	0.0029	—	—	100	<0.5	19	<0.1	22,000	—	<0.5	1,500	1,500	25	<25	3,200

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M00-0239	RW #2	03-Nov-00	<5	<5	<5	—	—	—	<10	—	—	7,340	6.8	5,660	2,800	240	19.3	<20	0.44	0.11	—	—	<0.1	0.18	<0.1	<0.01	610	0.012	—	<0.005
M01-0485	RW #2	25-Oct-01	—	—	—	—	—	—	—	—	—	8,380	—	5,050	2,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-22	RW #2	06-Nov-02	1.5	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	8,700	6.78 H	5,800	3,500	260	—	2.0	<0.40	<0.20	—	—	0.014	—	0.65	—	730	—	—	—
ENSR #1	ENSR #1	07-May-97	7.3	3.7	2.4	—	—	—	2	—	—	8,620	—	5,200	3,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #1	ENSR #1	21-Oct-97	13	6.3	4.2	—	—	—	5.6	—	—	13,800	—	7,600	4,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0172	ENSR #1	12-May-98	13	4.6	4.0	—	—	—	4.4	—	—	12,000	—	6,700	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0457	ENSR #1	20-Oct-98	—	—	—	—	—	—	—	—	—	12,400	—	7,590	4,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0004	ENSR #1	11-May-99	—	—	—	—	—	—	—	—	—	14,700	—	8,450	5,500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0188	ENSR #1	20-Oct-99	—	—	—	—	—	—	—	—	—	12,400	—	6,290	4,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0082	ENSR #1	09-May-00	—	—	—	—	—	—	—	—	—	12,800	—	7,420	6,200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0220	ENSR #1	27-Oct-00	—	—	—	—	—	—	—	—	—	10,200	—	6,690	3,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0221	ENSR #1D	27-Oct-00	—	—	—	—	—	—	—	—	—	10,600	—	7,140	4,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0141	ENSR #1	02-May-01	—	—	—	—	—	—	—	—	—	19,200	—	10,200	7,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0470	ENSR #1	23-Oct-01	—	—	—	—	—	—	—	—	—	15,300	—	8,050	5,100	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0471	ENSR #1D	23-Oct-01	—	—	—	—	—	—	—	—	—	11,400	—	6,070	3,600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-04	ENSR #1	29-Apr-02	—	—	—	—	—	—	—	—	—	9,480	—	4,770	3,800	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-7	ENSR #1	04-Nov-02	18	<10	<10	<20		<10	<30	—	—	12,000	7.28 H	7,600	4,500	34	20.8	1.0	3.0	0.25 H	—	—	0.046	—	0.76	—	140	—	—	—
2003101363-13	ENSR #1	04-Nov-03	13.1	1.2 J	3.1	—	—	—	3.1 J	—	—	6,510	7.1	2,260	2,600	—	21.7	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #2	ENSR #2	06-May-97	250	230	110	—	—	—	190	—	—	50,000	—	27,000	17,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #2	ENSR #2	20-Oct-97	130	160	77	—	—	—	120	—	—	57,900	—	30,000	17,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0169	ENSR #2	12-May-98	—	—	—	—	—	—	—	—	—	38,000	—	21,000	13,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0453	ENSR #2	19-Oct-98	—	—	—	—	—	—	—	—	—	44,800	—	30,000	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0009	ENSR #2	11-May-99	—	—	—	—	—	—	—	—	—	49,100	—	31,200	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0183	ENSR #2	19-Oct-99	—	—	—	—	—	—	—	—	—	28,900	—	16,600	9,400	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0080	ENSR #2	09-May-00	—	—	—	—	—	—	—	—	—	42,900	—	26,700	18,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0495	ENSR #2	29-Oct-01	—	—	—	—	—	—	—	—	—	42,000	—	25,100	13,000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3	ENSR #3	07-May-97	7.6	3.3	2.9	—	—	—	3	—	—	2,050	—	1,500	650	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3D	ENSR #3D	07-May-97	6.8	3.1	2.8	—	—	—	2.9	—	—	1,990	—	1,400	480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3	ENSR #3	21-Oct-97	5	2.5	3	—	—	—	4.1	—	—	2,230	—	1,300	580	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0175	ENSR #3	12-May-98	9.5	3.4	1.9	—	—	—	2.7	—	—	2,400	—	1,400	610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0176	ENSR #3D	12-May-98	14	4.4	2.3	—	—	—	4.4	—	—	2,200	—	1,300	550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0461	ENSR #3	20-Oct-98	—	—	—	—	—	—	—	—	—	2,260	—	1,580	590	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0462	ENSR #3D	20-Oct-98	—	—	—	—	—	—	—	—	—	2,240	—	1,290	540	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0006	ENSR #3	11-May-99	—	—	—	—	—	—	—	—	—	2,490	—	1,370	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0007	ENSR #3D	11-May-99	—	—	—	—	—	—	—	—	—	2,480	—	1,380	610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0189	ENSR #3	20-Oct-99	—	—	—	—	—	—	—	—	—	2,390	—	1,630	600	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0190	ENSR #3D	20-Oct-99	—	—	—	—	—	—	—	—	—	2,390	—	1,560	590	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0083	ENSR #3	09-May-00	—	—	—	—	—	—	—	—	—	2,360	—	1,580	710	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0084	ENSR #3D	09-May-00	—	—	—	—	—	—	—	—	—	2,410	—	1,580	710	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0222	ENSR #3	27-Oct-00	—	—	—	—	—	—	—	—	—	2,410	—	1,870	640	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M00-0239	RW #2	03-Nov-00	0.12	<0.05	190	0.83	<0.0002	—	—	15	<0.1	39	<0.02	680	—	<0.1	470	470	<25	<25	2,300
M01-0485	RW #2	25-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-22	RW #2	06-Nov-02	0.45	—	210	0.82	—	—	—	27	—	58	—	1,400	—	—	490	490	<2.0	<2.0	2,600
ENSR #1	ENSR #1	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #1	ENSR #1	21-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0172	ENSR #1	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0457	ENSR #1	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0004	ENSR #1	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0188	ENSR #1	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0082	ENSR #1	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0220	ENSR #1	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0221	ENSR #1D	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0141	ENSR #1	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0470	ENSR #1	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0471	ENSR #1D	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-04	ENSR #1	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-7	ENSR #1	04-Nov-02	4.8	—	58	0.54	—	—	—	28	—	58	—	1,900	—	—	610	610	<2.0	<2.0	600
2003101363-13	ENSR #1	04-Nov-03	—	—	—	—	—	—	—	—	—	—	—	2,710	—	—	—	—	—	—	—
ENSR #2	ENSR #2	06-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #2	ENSR #2	20-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0169	ENSR #2	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0453	ENSR #2	19-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0009	ENSR #2	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0183	ENSR #2	19-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0080	ENSR #2	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0495	ENSR #2	29-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3	ENSR #3	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3D	ENSR #3D	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ENSR #3	ENSR #3	21-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0175	ENSR #3	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0176	ENSR #3D	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0461	ENSR #3	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0462	ENSR #3D	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0006	ENSR #3	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0007	ENSR #3D	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0189	ENSR #3	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0190	ENSR #3D	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0083	ENSR #3	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0084	ENSR #3D	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0222	ENSR #3	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M01-0138	ENSR #3	02-May-01	—	—	—	—	—	—	—	—	—	2,480	—	1,240	610	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0139	ENSR #3D	02-May-01	—	—	—	—	—	—	—	—	—	2,490	—	1,270	680	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0472	ENSR #3	23-Oct-01	—	—	—	—	—	—	—	—	—	2,480	—	1,300	620	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-05	ENSR #3	29-Apr-02	—	—	—	—	—	—	—	—	—	2,500	—	1,350	580	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-06	ENSR #3D	29-Apr-02	—	—	—	—	—	—	—	—	—	2,370	—	1,390	490	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-8	ENSR #3	04-Nov-02	7.1	<5.0	22	25		<5.0	25	—	—	2,100	7.09 H	1,400	520	45	—	2.3	1.2	H	—	—	0.016	—	0.55	—	200	—	—	—
2003101363-6	ENSR #3	03-Nov-03	9.3	<2.0	11.2	—	—	—	11.4	—	—	2,020	6.7	1,460	471	—	22.7	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0063	Oxy Production Well	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	802	8.1	480	120	68	—	0.7	1.3	0.9	—	—	—	—	—	—	60	—	—	—
S98-0186	Oxy Production Well	13-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	800	7.8	480	120	61	—	<2	1.1	0.93	—	—	—	—	—	—	66	—	—	—
S98-0299	Oxy Production Well	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	762	7.78	604	120	58	20.2	<1	<0.4	0.85/<0.05	3.7	—	—	—	—	—	72	—	—	—
S98-0465	Oxy Production Well	20-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	734	7.79	488	100	55	17.3	<2	1.1	0.76	—	—	—	—	—	—	—	—	—	—
S99-0082	Oxy Production Well	23-Feb-99	<2	<2	<2	—	—	—	<2	—	—	810	7.99	407	120	45	14.5	0.5	1.0	0.71	—	—	—	—	—	—	80	—	—	—
M99-0025	Oxy Production Well	13-May-99	<2	<2	<2	—	—	—	<2	—	—	808	7.91	468	120	59	23.6	0.6	0.96	0.27	—	—	—	—	0.20	—	74	—	—	<0.0025
M99-0093	Oxy Production Well	11-Aug-99	<2	<2	<2	—	—	—	<2	—	—	831	7.67	466	140	59	20.5	0.5	1.0	0.78	—	—	—	—	—	—	75	—	—	—
M99-0203	Oxy Production Well	22-Oct-99	<2	<2	<2	—	—	—	<4	—	—	788	7.86	490	130	56	19.2	0.53	1.0	0.41	—	<0.025	0.011	0.10	0.18	—	72	<0.005	<0.005	0.022
M00-0025	Oxy Production Well	23-Feb-00	<2	<2	<2	<2.0	<2.0	<2.0	<6.0	—	—	630	7.85	392	38	77	17.6	<1.0	1.1	1.2	—	—	—	—	—	—	48	—	—	—
M00-0097	Oxy Production Well	11-May-00	<5	<5	<5	—	—	—	<10	—	—	835	7.96	504	120	63	19.6	0.50	0.99	0.84	—	—	—	—	—	—	71	—	—	—
M00-0196	Oxy Production Well	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	802	7.96	433	120	59	25.9	0.44	0.99	0.71	—	—	—	—	—	—	74	—	—	—
M00-0235	Oxy Production Well	02-Nov-00	<2	<2	<2	—	—	—	<4	—	—	662	7.8	475	120	60	18.6	<2	1.1	0.70	—	—	<0.1	0.095	0.21	<0.01	76	<0.01	—	<0.005
M01-0016	Oxy Production Well	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	805	7.83 H	442	130	52	22.6	0.57	0.99	0.70	—	—	—	—	—	—	67	—	—	—
M01-0165	Oxy Production Well	07-May-01	<2	<2	<2	—	—	—	<2	<5	—	781	7.7 H	481	140	58	24.9	0.61	1.0	0.82	—	—	—	—	—	—	69	—	—	—
M01-0408	Oxy Production Well	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	<5	—	807	7.7	532	120	57	22.5	<2	1.0	1.0	—	—	—	—	—	—	68	—	—	—
M01-0488	Oxy Production Well	25-Oct-01	<2	<2	<2	—	—	—	<2	—	—	822	7.69	500	120	62	20.3	1.1	1.1	0.9	—	<0.05	<0.1	0.095	0.18	<0.005	67	<0.01	<0.01	<0.005
5	Oxy Production Well	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	827	7.41 H	552	34	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-18	Oxy Production Well	06-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	820	7.58 H	580	140	65	—	0.57	1.0	0.73	—	—	0.0085	—	0.18	—	69	—	—	—
2003030318/T4096-4	Oxy Supply	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	870	7.6 H	556	162	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-4	Oxy Supply	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	863	7.5 H	544	190	—	—	—	—	—	—	—	—	—	—	—	64.600	—	—	—
2003080979-5	Oxy Supply	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	786	6.86	500	126	—	—	—	—	—	—	—	—	—	—	—	71.200	—	—	—
2003101363-7	Oxy Supply	03-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	822	7.2	572	154	—	22.4	—	—	—	—	—	—	—	—	—	—	—	—	—
Production Well #1	Production Well #1	08-May-97	0.56	0.55	<0.5	—	—	—	<1.0	—	—	718	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Production Well #1	Production Well #1	23-Oct-97	<0.5	<0.5	<0.5	—	—	—	<1.0	—	—	890	—	470	91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0193	Production Well #1	14-May-98	—	—	—	—	—	—	—	—	—	850	—	500	67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0194	Production Well #1D	14-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	860	—	520	67	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0479	Production Well #1	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	994	—	659	56	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0030	Production Well #1	14-May-99	—	—	—	—	—	—	—	—	—	846	—	469	70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0210	Production Well #1	23-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	891	—	540	2.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0224	Production Well #1	27-Oct-00	—	—	—	—	—	—	—	—	—	850	—	603	94	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0496	Production Well #1	29-Oct-01	—	—	—	—	—	—	—	—	—	890	—	523	65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-30	EPNG #1	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	940	7.20 H	600	60	130	—	<0.50	1.3	1.5	—	—	0.010	—	0.24	—	98	—	—	—
2003101363-27	EPNG #1	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	733	6.8	600	62.0	—	16.4	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0057	Production Well Dooms	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	634	8.1	410	38	85	—	0.3	1.1	1.2	—	—	—	—	—	—	46	—	—	—
S98-0180	Production Well Dooms	13-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	640	7.8	410	30	81	—	<2	1.2	1.2	—	—	—	—	—	—	—	—	—	—
S98-0292	Production Well Dooms	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	629	7.76	450	34	83	20.2	<1	<0.4	1.2/<0.05	5.3	—	—	—	—	—	53	—	—	—
S98-0464	Production Well Dooms	20-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	636	7.71	464	35	80	18.0	<2	1.0	1.2	—	—	—	—	0.22	—	52	—	—	<0.0025
S99-0081	Production Well Dooms	23-Feb-99	<2	<2	<2	—	—	—	<2	—	—	627	7.86	364	31	73	14.9	0.3	0.89	0.89	—	—	—	—		—	48	—	—	—
M99-0018	Production Well Dooms	13-May-99	<2	<2	<2	—	—	—	<2	—	—	630	7.76	381	34	80	23.6	0.4	0.84	0.62	—	—	—	—	0.24	—	51	—	—	<0.0025
M99-0092	Production Well Dooms	11-Aug-99	<2	<2	<2	—	—	—	<2	—	—	629	7.69	372	30	79	19.8	0.2	0.83	1.1	—	—	—	—	—	—	51	—	—	—
M99-0193	Production Well Dooms	21-Oct-99	<2	<2	<2	—	—	—	<4	—	—	617	7.74	400	32	74	19.2	0.29	0.86	1.1	—	0.042	0.0096	0.047	0.23	<0.002	51	<0.005	<0.005	0.0021

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
M00-0022	Production Well Dooms	23-Feb-00	<2	<2	<2	<2.0	<2.0	<2.0	<6.0	—	—	814	7.92	506	130	54	17.4	0.58	1.1	0.72	—	—	—	—	—	—	68	—	—	—
M00-0094	Production Well Dooms	10-May-00	<5	<5	<5	—	—	—	<10	—	—	619	7.69	417	31	77	21.3	0.27	0.82	1.2	—	—	—	—	—	—	44	—	—	—
M00-0204	Production Well Dooms	14-Aug-00	<5	<5	<5	—	—	—	<10	—	—	597	7.72	400	28	75	27.2	<0.2	0.93	1.2	—	—	—	—	—	—	50	—	—	—
M00-0233	Production Well Dooms	02-Nov-00	<2	<2	<2	—	—	—	<4	—	—	530	7.8	375	32	79	18.4	<2	1.0	0.95	—	—	<0.1	0.045	0.25	<0.01	53	<0.01	—	0.037
M01-0010	Production Well Dooms	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	619	7.75 H	372	33	66	23.0	0.35	0.85	1.1	—	—	—	—	—	—	46	—	—	—
M01-0143	Production Well Dooms	03-May-01	<2	<2	<2	—	—	—	<2	<5	—	615	7.75	419	30	74	22.7	0.51	0.91	1	—	—	—	—	—	—	49	—	—	—
M01-0409	Production Well Dooms	01-Aug-01	<2	<2	<2 Jc	—	—	—	<2	<5	—	618	7.72	374	28	75	22.7	<2	0.92	1.2	—	—	—	—	—	—	44	—	—	—
M01-0497	Production Well Dooms	29-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	622	7.80	396	28	74	22.7	<2	0.96	1.2	—	<0.05	<0.1	0.037	0.21	<0.005	44	<0.01	<0.01	<0.005
M02-0050	Production Well Dooms	20-Feb-02	<2.0	19	3.9	—	—	—	24	—	—	620	7.68 H	373	31	64	—	0.33	0.92	0.97	—	—	—	—	—	—	45	—	—	—
M02-0050	Production Well Dooms R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-01	Production Well Dooms	27-Mar-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-29	Production Well Dooms	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	624	7.70 H	351	30	74	—	<1.0	0.92	<1.0	—	—	—	—	—	—	45	—	—	—
6	Production Well Dooms	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	626	7.73 H	411	68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-17	Production Well Dooms	05-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	620	7.85 H	470	29	86	—	<0.50	1.1	1.0	—	—	0.010	—	0.21	—	43	—	—	—
2003030318/T4096-5	Doom Supply	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	585	7.7 H	386	30.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-8	Doom Supply	20-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	602	7.9 H	410	36.0	—	—	—	—	—	—	—	—	—	—	—	48.000	—	—	—
2003080979-8	Doom Supply	20-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	561	7.14	366	30.8	—	—	—	—	—	—	—	—	—	—	—	43.900	—	—	—
2003101363-24	Doom Supply	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	5.88	6.7	406	28.3	—	16.0	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-25	Doom Supply-D	06-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	398	28.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PTP #1	PTP #1	07-May-97	38	0.51	22	—	—	—	8.4	—	—	2,420	—	1,500	490	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PTP #1	PTP #1	21-Oct-97	7.9	<0.5	18	—	—	—	3.1	—	—	2,250	—	1,400	470	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0177	PTP #1	12-May-98	62	1.6	21	—	—	—	13	—	—	2,300	—	1,400	480	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0463	PTP #1	20-Oct-98	—	—	—	—	—	—	—	—	—	2,090	—	1,410	380	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0008	PTP #1	11-May-99	—	—	—	—	—	—	—	—	—	2,250	—	1,240	330	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0191	PTP #1	20-Oct-99	—	—	—	—	—	—	—	—	—	2,300	—	1,630	460	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0085	PTP #1	09-May-00	—	—	—	—	—	—	—	—	—	2,210	—	1,400	510	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0223	PTP #1	27-Oct-00	—	—	—	—	—	—	—	—	—	2,050	—	1,570	530	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0140	PTP #1	02-May-01	—	—	—	—	—	—	—	—	—	2,370	—	1,240	520	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0473	PTP #1	23-Oct-01	—	—	—	—	—	—	—	—	—	2,370	—	1,280	550	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-07	PTP #1	29-Apr-02	—	—	—	—	—	—	—	—	—	2,390	—	1,400	500	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-9	PTP #1	04-Nov-02	50	<10	15	24		<10	24	—	—	2,000	7.20 H	690	480	3.9	—	2.7	0.97	<0.20 H	—	—	0.020	—	0.62	—	220	—	—	—
2003101363-5	PTP #1	03-Nov-03	21.8	<2.0	13.5	—	—	—	8.8	—	—	2,130	6.8	1,380	469	—	22.5	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0451	Bailer Blank	19-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	1.13	5.95	<25	<0.1	<0.1	17.8	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	0.49	—	—	<0.0025
S98-0066	Bailer Blank Pre Sample	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	3	5.7	<20	<0.2	<1	—	<0.2	<0.1	<0.2	—	—	—	—	—	—	<1	—	—	—
S98-0158	Bailer Blank Pre Sample	11-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	9.6	5.8	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	—	—	—	—
S98-0290	Bailer Blank Pre Sample	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	4.45	5.08	30	<0.1	<2.0	18.8	<0.1	<0.10	<1.25	—	—	—	—	—	—	<0.25	—	—	—
S98-0178	Bailer Blank-Middle Sample	12-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	24	5.6	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	—	—	—	—
S98-0466	Bailer Blank-Middle Sample	21-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	16.9	7.34	<25	<0.1	<0.1	21.0	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	3.2	—	—	<0.0025
S98-0061	Bailer Blank Post Sample	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	1	6.0	<20	<0.2	<1	—	<0.2	<0.1	<0.2	—	—	—	—	—	—	<1	—	—	—
S98-0191	Bailer Blank Post Sample	14-May-98	0.66	<0.50	<0.50	—	—	—	<1.0	—	—	15	5.6	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	<1	—	—	—
S98-0225	Bailer Blank Post Sample	01-Jun-98	12	<0.50	<0.50	—	—	—	<1.0	—	—	12	5.5	<20	<0.2	<1	—	<0.2	<0.1	0.09	—	—	—	—	—	—	<1	—	—	—
S98-0297	Bailer Blank Post Sample	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	3.83	5.16	31	<0.1	<2.0	19.9	<0.1	<0.10	<2.5	—	—	—	—	—	—	<0.25	—	—	—
S98-0478	Bailer Blank Post Sample	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	1.22	5.77	<25	<0.1	<0.1	21.2	<0.2	<0.4	<0.05	—	—	—	—	0.01	—	<0.25	—	—	<0.0025
S99-0078	Bailer Blank Before	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	2.17	5.83	<25	<0.1	<0.1	14.3	<0.2	<0.4	0.09	—	—	—	—	—	—	<0.25	—	—	—
S99-0087	Bailer Blank After Sampling	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	1.35	5.78	<25	<0.1	<0.1	16.9	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.25	—	—	—
M99-0002	Bailer Blank Before Sampling	10-May-99	<2	<2	<2	<2	<2	<2	<6	—	—	1.63	5.86	32	0.1	0.1	22.7	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025
M99-0016	Bailer Blank Middle	12-May-99	—	—	—	—	—	—	—	—	—	1.21	—	<25	<0.1	—	—	—	—	—	—	—	—	—		—	—	—	—	—
M99-0029	Bailer Blank After Sampling	14-May-99	<2	<2	<2	<2	<2	<2	<6	—	<0.25	1.52	5.86	<25	<0.1	<0.1	24.6	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M01-0138	ENSR #3	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0139	ENSR #3D	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0472	ENSR #3	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-05	ENSR #3	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-06	ENSR #3D	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-8	ENSR #3	04-Nov-02	4.0	—	65	0.84	—	—	—	9.0	—	56	—	190	—	—	360	360	<2.0	<2.0	760
2003101363-6	ENSR #3	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	174	—	—	—	—	—	—	—
S98-0063	Oxy Production Well	24-Feb-98	—	—	18	—	—	—	—	4	—	24	—	60	—	—	160	—	—	—	—
S98-0186	Oxy Production Well	13-May-98	—	—	20	—	—	—	—	5	—	27	—	65	—	—	150	150	—	—	—
S98-0299	Oxy Production Well	11-Aug-98	—	—	20	—	—	—	—	5.0	—	28	—	67	—	—	150	150	<25	<25	260
S98-0465	Oxy Production Well	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	160	160	<25	<25	240
S99-0082	Oxy Production Well	23-Feb-99	—	—	24	—	—	—	—	6.2	—	24	—	82	—	—	160	160	<25	<25	300
M99-0025	Oxy Production Well	13-May-99	0.74	—	22	0.015	—	—	—	5.1	—	32	—	71	—	0.28	150	150	<25	<25	280
M99-0093	Oxy Production Well	11-Aug-99	—	—	22.0	—	—	—	—	4.7	—	27	—	72	—	—	140	140	<25	<25	280
M99-0203	Oxy Production Well	22-Oct-99	2.8	0.0057	21	0.078	<0.0002	0.0049	<0.02	4.8	—	21	<0.005	73	<0.005	0.50	140	140	<25	<25	270
M00-0025	Oxy Production Well	23-Feb-00	—	—	16	—	—	—	—	4.1	—	23	—	71	—	—	190	190	<25	<25	180
M00-0097	Oxy Production Well	11-May-00	—	—	21	—	—	—	—	5.0	—	35	—	72	—	—	150	150	<25	<25	260
M00-0196	Oxy Production Well	07-Aug-00	—	—	21	—	—	—	—	5.2	—	48	—	68	—	—	150	150	<25	<25	260
M00-0235	Oxy Production Well	02-Nov-00	0.93	<0.05	22	0.019	<0.0002	—	—	5.8	<0.1	31	<0.02	71	—	0.32	150	150	<25	<25	280
M01-0016	Oxy Production Well	20-Feb-01	—	—	20	—	—	—	—	5.8	—	33	—	68	—	—	140	140	<25	<25	250
M01-0165	Oxy Production Well	07-May-01	—	—	20	—	—	—	—	4.8	—	34	—	65	—	—	160	160	<25	<25	250
M01-0408	Oxy Production Well	01-Aug-01	—	—	21	—	—	—	—	4.3	—	32	—	66	—	—	150	150	<25	<25	260
M01-0488	Oxy Production Well	25-Oct-01	0.31	<0.05	20	0.0088	<0.0002	<0.01	<0.04	5.1	<0.1	47	<0.02	64	<0.005	0.21	140	140	<25	<25	250
5	Oxy Production Well	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	60	—	—	—	—	—	—	—
2002110896-18	Oxy Production Well	06-Nov-02	2.2	—	21	0.086	—	—	—	5.7	—	40	—	73	—	—	150	150	<2.0	<2.0	260
2003030318/T4096-4	Oxy Supply	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	52.700	—	—	—	—	—	—	—
2003050551-4	Oxy Supply	19-May-03	—	—	18.600	—	—	—	—	—	—	—	—	61.400	—	—	148	—	—	—	238
2003080979-5	Oxy Supply	19-Aug-03	—	—	21.100	—	—	—	—	—	—	—	—	64.200	—	—	173	—	—	—	265
2003101363-7	Oxy Supply	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	61.800	—	—	—	—	—	—	—
Production Well #1	Production Well #1	08-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Production Well #1	Production Well #1	23-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0193	Production Well #1	14-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0194	Production Well #1D	14-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0479	Production Well #1	22-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0030	Production Well #1	14-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0210	Production Well #1	23-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0224	Production Well #1	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0496	Production Well #1	29-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-30	EPNG #1	08-Nov-02	2.8	—	30	0.12	—	—	—	8.4	—	57	—	91	—	—	330	330	<2.0	<2.0	370
2003101363-27	EPNG #1	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	80.900	—	—	—	—	—	—	—
S98-0057	Production Well Dooms	24-Feb-98	—	—	16	—	—	—	—	4	—	25	—	64	—	—	200	—	—	—	—
S98-0180	Production Well Dooms	13-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	190	190	—	—	—
S98-0292	Production Well Dooms	10-Aug-98	—	—	17	—	—	—	—	4.3	—	27	—	71	—	—	200	200	<25	<25	200
S98-0464	Production Well Dooms	20-Oct-98	0.060	—	17	<0.0025	—	—	—	4.1	—	29	—	69	—	<0.05	190	190	<25	<25	200
S99-0081	Production Well Dooms	23-Feb-99	—	—	16	—	—	—	—	4.1	—	26	—	72	—	—	190	190	<25	<25	190
M99-0018	Production Well Dooms	13-May-99	0.14	—	17	0.039	—	—	—	4.0	—	33	—	72	—	0.089	180	180	<25	<25	200
M99-0092	Production Well Dooms	11-Aug-99	—	—	17	—	—	—	—	3.8	—	27	—	73	—	—	190	190	<25	<25	200
M99-0193	Production Well Dooms	21-Oct-99	0.16	<0.001	18	0.0093	<0.0002	0.0048	<0.02	4.7	—	24	<0.005	77	0.0055	0.11	180	180	<25	<25	200

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M00-0022	Production Well Dooms	23-Feb-00	—	—	20	—	—	—	—	4.9	—	12	—	69	—	—	140	140	<25	<25	250
M00-0094	Production Well Dooms	10-May-00	—	—	15	—	—	—	—	4.2	—	29	—	72	—	—	190	190	<25	<25	170
M00-0204	Production Well Dooms	14-Aug-00	—	—	16	—	—	—	—	70	—	30	—	4.2	—	—	180	180	<25	<25	190
M00-0233	Production Well Dooms	02-Nov-00	0.28	<0.05	18	0.013	<0.0002	—	—	5.0	<0.1	32	<0.02	79	—	0.19	190	190	<25	<25	210
M01-0010	Production Well Dooms	20-Feb-01	—	—	15	—	—	—	—	4.8	—	35	—	67	—	—	190	190	<25	<25	180
M01-0143	Production Well Dooms	03-May-01	—	—	16	—	—	—	—	3.8	—	34	—	73	—	—	180	180	<25	<25	190
M01-0409	Production Well Dooms	01-Aug-01	—	—	15	—	—	—	—	5.0	—	26	—	66	—	—	190	190	<25	<25	170
M01-0497	Production Well Dooms	29-Oct-01	0.10	<0.05	15	0.018	<0.0002	<0.01	<0.04	3.7	<0.1	38	<0.02	64	0.0084	<0.1	180	180	<25	<25	170
M02-0050	Production Well Dooms	20-Feb-02	—	—	15	—	—	—	—	3.7	—	40	—	65	—	—	190	190	<25	<25	170
M02-0050	Production Well Dooms R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-01	Production Well Dooms	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-29	Production Well Dooms	02-May-02	—	—	15	—	—	—	—	4.1	—	34	—	65	—	—	180	180	<25	<25	170
6	Production Well Dooms	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	63	—	—	—	—	—	—	—
2002110896-17	Production Well Dooms	05-Nov-02	0.27	—	15	<0.010	—	—	—	4.4	—	53	—	70	—	—	190	190	<2.0	<2.0	170
2003030318/T4096-5	Doom Supply	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	50.700	—	—	—	—	—	—	—
2003050551-8	Doom Supply	20-May-03	—	—	15.800	—	—	—	—	—	—	—	—	62.600	—	—	191	—	—	—	185
2003080979-8	Doom Supply	20-Aug-03	—	—	14.800	—	—	—	—	—	—	—	—	65.500	—	—	213	—	—	—	171
2003101363-24	Doom Supply	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	64.800	—	—	—	—	—	—	—
2003101363-25	Doom Supply-D	06-Nov-03	—	—	—	—	—	—	—	—	—	—	—	62.700	—	—	—	—	—	—	—
PTP #1	PTP #1	07-May-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PTP #1	PTP #1	21-Oct-97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0177	PTP #1	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0463	PTP #1	20-Oct-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0008	PTP #1	11-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0191	PTP #1	20-Oct-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0085	PTP #1	09-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0223	PTP #1	27-Oct-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0140	PTP #1	02-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0473	PTP #1	23-Oct-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-07	PTP #1	29-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-9	PTP #1	04-Nov-02	10	—	61	0.37	—	—	—	6.9	—	26	—	170	—	—	520	520	<2.0	<2.0	810
2003101363-5	PTP #1	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	190	—	—	—	—	—	—	—
S98-0451	Bailer Blank	19-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	1.1	—	<0.05	<25	<25	<25	<25	1.2
S98-0066	Bailer Blank Pre Sample	24-Feb-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	—	—	—	—
S98-0158	Bailer Blank Pre Sample	11-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<5	<5	—	—	—
S98-0290	Bailer Blank Pre Sample	10-Aug-98	—	—	<0.25	—	—	—	—	<0.25	—	<10	—	0.68	—	—	<25	<25	<25	<25	<1
S98-0178	Bailer Blank-Middle Sample	12-May-98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	<5	<5	—	—	—
S98-0466	Bailer Blank-Middle Sample	21-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	0.30	—	<0.05	<25	<25	<25	<25	7.9
S98-0061	Bailer Blank Post Sample	24-Feb-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	—	—	—	—
S98-0191	Bailer Blank Post Sample	14-May-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	<5	—	—	—
S98-0225	Bailer Blank Post Sample	01-Jun-98	—	—	<1	—	—	—	—	<1	—	0.16	—	—	—	—	<5	<5	—	—	—
S98-0297	Bailer Blank Post Sample	11-Aug-98	—	—	<0.25	—	—	—	—	<0.25	—	<10	—	<0.25	—	—	<25	<25	<25	<25	<1
S98-0478	Bailer Blank Post Sample	22-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	<0.25	—	<0.05	<25	<25	<25	<25	<0.5
S99-0078	Bailer Blank Before	23-Feb-99	—	—	<0.25	—	—	—	—	<1	—	<1	—	0.27	—	—	<25	<25	<25	<25	<1
S99-0087	Bailer Blank After Sampling	23-Feb-99	—	—	<0.25	—	—	—	—	<1	—	<1	—	<0.25	—	—	<25	<25	<25	<25	<1
M99-0002	Bailer Blank Before Sampling	10-May-99	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.2	—	<0.25	—	<0.05	<25	<25	<25	<25	<1
M99-0016	Bailer Blank Middle	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0029	Bailer Blank After Sampling	14-May-99	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.2	—	0.41	—	<0.05	<25	<25	<25	<25	<1

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
M99-0085	Bailer Blank Before Sampling	09-Aug-99	—	—	22	—	—	—	—	5.2	—	21	—	80	—	—	110	110	<25	<25	330
M99-0090	Bailer Blank After Sampling	11-Aug-99	—	—	<0.25	—	—	—	—	1.4	—	10	—	140	—	—	220	220	2	<25	2.6
M99-0182	Bailer Blank Before Sampling	18-Oct-99	0.060	<0.005	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M99-0198	Bailer Blank Middle	22-Oct-99	<0.05	<0.005	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M99-0208	Bailer Blank After Sampling	23-Oct-99	<0.05	<0.005	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M00-0021	Bailer Blank Before Sampling	22-Feb-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0030	Bailer Blank After Sampling	23-Feb-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0076	Bailer Blank Before Sampling	08-May-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0091	Bailer Blank Middle of Sampling	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0102	Bailer Blank After Sampling	12-May-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0194	Bailer Blank Before Sampling	07-Aug-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0201	Bailer Blank After Sampling	08-Aug-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0214	Bailer Blank Before Sampling	26-Oct-00	<0.1	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.3	<0.02	1.9	—	<0.1	<25	<25	<25	<25	<2
M00-0229	Bailer Blank Middle of Sampling	01-Nov-00	0.19	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.1	<0.02	2.3	—	<0.1	<25	<25	<25	<25	<2
M00-0245	Bailer Blank After Sampling	06-Nov-00	<0.1	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.3	<0.02	2.4	—	<0.1	<25	<25	<25	<25	<2
M01-0012	Bailer Blank Before Sampling	20-Feb-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0018	Bailer Blank After Sampling	21-Feb-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0131	Bailer Blank Before Sampling	02-May-01	—	—	0.49	—	—	—	—	0.52	—	<1	—	2.4	—	—	<25	<25	<25	<25	4.3
M01-0155	Bailer Blank Middle of Sampling Wells	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0163	Bailer After Sampling Wells	07-May-01	—	—	<0.5	—	—	—	—	<2	—	11	—	140.0	—	—	240	240	<25	<25	<2
M01-0404	Bailer Blank Before Sampling	01-Aug-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0412	Bailer After Sampling Wells	02-Aug-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	6.7	—	—	<25	<25	<25	<25	<2
M01-0466	Bailer Blank Before Sampling	22-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	<0.5	<0.005	<0.1	<25	<25	<25	<25	<2
M01-0479	Bailer Blank Middle of Sampling Wells	24-Oct-01	<0.1	<0.05	<0.5	0.0067	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	1.5	<0.005	<0.1	<25	<25	<25	<25	<5
M01-0493	Bailer After Sampling Wells	29-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	1.6	<0.005	<0.1	<25	<25	<25	<25	<5
M02-0041	Bailer Blank Before Sampling Wells	19-Feb-02	—	—	<0.50	—	—	—	—	<2.0	—	<0.25	—	1.4	—	—	<25	<25	<25	<25	<2.0
M02-0041	Bailer Blank Before Sampling Wells R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0049	Bailer Blank After Sampling Wells	20-Feb-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	1.3	—	—	<25	<25	<25	<25	<2.0
M02-0049	Bailer Blank After Sampling Wells R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-05	Bailer Blank After Sampling Wells	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-2	Bailer Blank Before Sampling Wells	29-Apr-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	3.8	—	—	<25	<25	<25	<25	<2.0
2002040220-16	Bailer Blank During Sampling Wells	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-26	Bailer Blank After Sampling Wells	02-May-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	<0.50	—	—	<25	<25	<25	<25	<2.0
8	Bailer Blank After Sampling Wells	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	<2.0	—	—	—	—	—	—	—
2002110896-1	Bailer Blank Before Sampling Wells	03-Nov-02	<0.050	—	<2.0	<0.010	—	—	—	<2.0	—	<0.21	—	<2.0	—	—	<6.0	<2.0	<2.0	<2.0	<13
2002110896-13	Bailer Blank During Sampling Wells	05-Nov-02	<0.050	—	<2.0	<0.010	—	—	—	<2.0	—	<0.21	—	<2.0	—	—	<6.0	2.0	<2.0	<2.0	<13
2002110896-28	Bailer Blank After Sampling Wells	08-Nov-02	<0.050	—	<2.0	<0.010	—	—	—	<2.0	—	<0.21	—	<2.0	—	—	<6.0	<2.0	<2.0	<2.0	<13
2003030318/T4096-2	Bailer Blank	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	1.460	—	—	—	—	—	—	—
2003050551-1	Bailer Blank	19-May-03	—	—	<0.130	—	—	—	—	—	—	—	—	1.340	—	—	<1.0	—	—	—	<1.0
2003080979-2	Bailer Blank	19-Aug-03	—	—	<5.000	—	—	—	—	—	—	—	—	<5.000	—	—	<1.0	—	—	—	<6.6
2003101363-2	Bailer Blank	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	67.500	—	—	—	—	—	—	—
2003101363-16	Bailer Blank	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2003101363-28	Bailer Blank	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
S98-0477	EMP #3 Post Purge	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	662	8.26	424	100	50	20.1	<5	1.6	<0.05	—	—	—	—	0.19	—	45	—	—	<0.0025
S98-0452	EMP #3 Pre Purge Blank	19-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	631	8.26	369	100	50	17.1	<2	1.6	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025
S98-0179	EMP #3 Pump Blank Middle Sample	12-May-98	30	20	6.5	—	—	—	1.1	—	—	720	7.9	390	87	57	—	<2	1.7	<0.05	—	—	—	—	—	—	50	—	—	—
S98-0468	EMP #3 Pump Blank Middle Sample	21-Oct-98	2	3	2	<2	<2	<2	<6	—	—	649	8.23	373	110	48	19.8	2.0	1.5	<0.05	—	—	—	—	0.19	—	40	—	—	<0.0025
S98-0062	EMP #3 Pump Blank Post Sample	24-Feb-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	738	8.2	420	98	60	—	0.7	2	<0.2	—	—	—	—	—	—	51	—	—	—
S98-0192	EMP #3 Pump Blank Post Sample	14-May-98	3.0	3.4	1.4	—	—	—	2.8	—	—	670	8.1	400	88	57	—	0.63	1.8	0.05	—	—	—	—	—	—	48	—	—	—
S98-0224	EMP #3 Pump Blank Post Sample	01-Jun-98	<0.50	0.83	<0.50	—	—	—	<1.0	—	—	690	8.0	420	91	53	—	0.64	1.7	<0.05	—	—	—	—	—	—	50	—	—	—
S98-0298	EMP #3 Pump Blank Post Sample	11-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	641	8.13	392	95	54	19.8	<5	1.8	<2.5	—	—	—	—	—	—	47	—	—	—
S98-0065	EMP #3 Pump Blank Pre Sample	24-Feb-98	<0.50	1.1	0.74	—	—	—	1.1	—	—	746	8.2	432	99	62.2	—	0.7	1.9	<0.2	—	—	—	—	—	—	52	—	—	—
S98-0156	EMP #3 Pump Blank Pre Sample	11-May-98	6.7	1.7	<0.50	—	—	—	6.0	—	—	970	7.7	630	98	200	—	<2	1.8	<0.05	—	—	—	—	—	—	91	—	—	—
S98-0289	EMP #3 Pump Blank Pre Sample	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	676	7.84	458	96	57	19.9	<2.5	1.9	<1.25	—	—	—	—	—	—	47Jm	—	—	—
S99-0079	EMP #3 Pump Blank Before	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	1,170	8.44	681	210	42	14.1	<2	1.7	<0.05	—	—	—	—	—	—	52	—	—	—
S99-0086	EMP #3 Pump Blank After	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	1,610	8.66	981	350	45	13.5	<2	1.8	<0.05	—	—	—	—	—	—	51	—	—	—
M99-0003	EMP #3 Before Purging Wells	10-May-99	<2	<2	<2	<2	<2	<2	<6	—	—	1,120	7.86	646	210	51	22.3	0.6	1.5	<0.05	—	—	—	—	0.22	—	50	—	—	<0.0025
M99-0015	EMP #3 Middle	12-May-99	—	—	—	—	—	—	—	—	—	609	—	379	73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0028	EMP #3 After Purging	14-May-99	<2	3	<2	<2	<2	<2	<6	—	<0.25	599	8.27	356	66	53	24.0	0.5	1.8	<0.05	—	—	—	—	0.21	—	44	—	—	0.0060
M99-0084	EMP #3 Pump Blank Before	09-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	578	8.30	305	49	1.1	20.1	<0.2	<0.4	0.70	—	—	—	—	—	—	0.79	—	—	—
M99-0091	EMP #3 Pump Blank After	11-Aug-99	<2	<2	<2	<2	<2	<2	<6	—	—	588	8.32	305	70	53	22.1	2.1	1.7	<0.05	—	—	—	—	—	—	45	—	—	—
M99-0180	EMP #3 Before Purging Wells	18-Oct-99	14	31	2.0	—	—	—	4.0	—	—	1,070	7.37	673	140	200	20.7	0.65	1.7	0.29	—	0.043	0.0076	0.053	0.22	<0.002	88	<0.005	<0.005	0.0035
M99-0200	EMP #3 Middle	22-Oct-99	2.6	7.7	2.6	—	—	—	4.1	—	—	624	8.22	397	110	50	19.4	0.60	1.6	<0.05	—	0.033	0.0066	0.075	0.20	<0.002	44	<0.005	<0.005	<0.0025
M99-0207	EMP #3 After Purging	23-Oct-99	<2	7.4	2.6	—	—	—	4.4	—	—	640	8.29	367	96	50	21.4	0.58	1.6	<0.05	—	0.059	0.0062	0.092	0.20	<0.002	50	<0.005	<0.005	<0.0025
M00-0020	EMP #3 Pump Blank Before Purging	22-Feb-00	<2	<2	<2	—	—	—	7.5	—	—	683	6.60	490	86	54	16.6	<1	1.8	<0.5	—	—	—	—	—	—	47	—	—	—
M00-0029	EMP #3 After Purging Wells	23-Feb-00	<2	<2	<2	—	—	—	2.5	—	—	681	6.99	460	82	52	17.0	0.63	1.8	<0.5	—	—	—	—	—	—	46	—	—	—
M00-0075	EMP #3 Before Purging Wells	08-May-00	<5	<5	<5	—	—	—	<10	—	—	653	7.16	482	83	51	21.8	0.46	1.7	<1	—	—	—	—	—	—	46	—	—	—
M00-0090	EMP #3 Middle of Sampling	10-May-00	—	—	—	—	—	—	—	—	—	648	—	373	98	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0103	EMP #3 Pump Blank After Sampling	12-May-00	<5	<5	<5	—	—	—	<10	—	—	670	8.22	405	91	52	18.5	0.54	1.6	<0.1	—	—	—	—	—	—	49	—	—	—
M00-0193	EMP #3 Before Purging Wells	07-Aug-00	<2	<2	<2	—	—	—	<4	—	—	552	7.49	369	81	38	25.8	0.29	1.1	<0.05	—	—	—	—	—	—	30	—	—	—
M00-0202	EMP #3 Pump Blank After Purging	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	600	8.18	317	58	45	25.9	0.50	1.7	0.21	—	—	—	—	—	—	44	—	—	—
M00-0213	EMP #3 Before Purging Wells	26-Oct-00	<2	<2	<2	—	—	—	6.3	—	—	3,030	7.11	1,920	1,300	80	14.5	<2	1.7	<1	—	—	<0.1	0.13	0.23	<0.01	62	<0.01	—	0.0055
M00-0228	EMP #3 Middle of Sampling	01-Nov-00	<2	<2	<2	—	—	—	<4	—	—	9,200	8.03	6,080	3,300	240	14.4	<2	1.9	<1	—	—	<0.1	0.25	0.31	<0.01	120	<0.01	—	0.0061
M00-0244	EMP #3 After Purging Wells	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	4,400	8.1	3,500	2,100	150	16.7	<4	1.9	<2	—	—	<0.1	0.14	0.28	<0.01	72	<0.01	—	<0.005
M01-0009	EMP # 3 Pump Blank Before Sampling	20-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	1,380	8.17 H	736	340	52	21.5	0.56	1.7	<0.1	—	—	—	—	—	—	36	—	—	—
M01-0019	EMP #3 After Purging Wells	21-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	1,120	8.24 H	592	240	52	21.9	0.53	1.8	0.19	—	—	—	—	—	—	36	—	—	—
M01-0130	EMP #3 Pump Blank Before Purging Wells	02-May-01	<2	<2	<2	—	—	—	3.8	<5	—	565	7.67	321	67	<2	18.9	<1	0.99	<0.5	—	—	—	—	—	—	34	—	—	—
M01-0154	EMP #3 Pump Blank Middle of Purging Wells	06-May-01	—	—	—	—	—	—	—	—	—	733	—	426	110	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0162	EMP #3 After Purging Wells	07-May-01	<2	<2	<2	—	—	—	5.2	<5	—	724	8.19 H	426	130	62	25.6	0.60	1.8	<1	—	—	—	—	—	—	34	—	—	—
M01-0403	EMP #3 Before Purging Wells	01-Aug-01	<2	<2	<2Jc	—	—	—	4.6	—	—	622	7.4	418	71	35	23.3	<2	1.7	<1	—	—	—	—	—	—	35	—	—	—
M01-0413	EMP #3 After Purging Wells	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	516	8.2	303	74	52	22.9	0.48	1.7	<0.05	—	—	—	—	—	—	34	—	—	—
M01-0465	EMP #3 Pump Blank Before Purging Wells	22-Oct-01	<2	<2	<2	—	—	—	3	—	—	501	7.27	375	66	24	21.5	<2	1.8	<1	—	<0.05	<0.1	0.045	0.20	<0.005	32	<0.01	<0.01	<0.005
M01-0478	EMP #3 Middle of Purging Wells	24-Oct-01	<2	<2	<2	—	—	—	3.2	—	—	565	8.22 H	310	76	44	20.3	<2	1.7	<0.5	—	0.067	<0.1	0.059	0.19	<0.005	40	<0.01	<0.01	<0.005
M01-0492	EMP #3 After Purging Wells	29-Oct-01	2.2	<2	<2	—	—	—	6.2	—	—	572	8.01 H	343	59	47	23.3	<2	1.8	<0.5	—	0.400	<0.1	0.051	0.23	<0.005	38	<0.01	<0.01	<0.005
M02-0040	EMP #3 Before Purging Wells	19-Feb-02	<2.0	5.8	2.1	—	—	—	12	—	—	533	8.14 H	290	42	44	—	0.38	1.9	<0.10	—	—	—	—	—	—	43	—	—	—
M02-0040	EMP #3 Before Purging Wells R	19-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0048	EMP #3 After Purging Wells	20-Feb-02	<2.0	<2.0	<2.0	—	—	—	<2.0	—	—	550	8.14 H	270	42	43	—	<2.5	1.9	0.080	—	—	—	—	—	—	43	—	—	—
M02-0048	EMP #3 After Purging Wells R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-01	EMP #3 Pump BlankBefore Purging Wells	29-Apr-02	<2.0	<2.0	<2.0	—	—	—	<4.0	—	—	842	7.33 H	550	51	160	—	<1	2.1	<1.0	—	—	—	—	—	—	74	—	—	—
2002040220-15	EMP #3 Pump Blank During Purging Wells	30-Apr-02	—	—	—	—	—	—	—	—	—	1,050	—	684	69	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-25	EMP #3 Pump Blank After Purging Wells	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	1,040	8.26 H	685	41	150	—	<1.0	2.2	1.1	—	—	—	—	—	—	98	—	—	—
7	EMP #3 Pump Blank After Purging Wells	25-Sep-02	<2.0	<2.0	<2.0	—	—	—	<4.0	<5.0	—	1,060	7.92 H	805	61	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002110896-2	EMP #3 Pump Blank Before Purging Wells	03-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1,000	7.71 H	730	61	270	—	<0.50	2.3	0.88 H	—	—	0.011	—	0.26	—	93	—	—	—
2002110896-14	EMP #3 Pump Blank During Purging Wells	05-Nov-02	4.4	3.4	3.4	4.2		1.1	5.3	—	—	970	7.99 H	760	64	280	—	<0.50	2.6	1.4	—	—	0.011	—	0.24	—	93	—	—	—
2002110896-29	EMP #3 Pump Blank After Purging Wells	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	950	7.92 H	710	62	270	—	<0.50	2.4	1.7	—	—	0.0086	—	0.24	—	100	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
S98-0477	EMP #3 Post Purge	22-Oct-98	0.77	—	13	0.050	—	—	—	4.0	—	15	—	75	—	<0.05	130	130	<25	<25	160
S98-0452	EMP #3 Pre Purge Blank	19-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	13	—	<0.25	—	<0.05	110	110	<25	<25	<1
S98-0179	EMP #3 Pump Blank Middle Sample	12-May-98	—	—	13	—	—	—	—	4	—	18	—	75	—	—	150	150	—	—	—
S98-0468	EMP #3 Pump Blank Middle Sample	21-Oct-98	0.77	—	12	0.047	—	—	—	4.0	—	14	—	95	—	<0.05	130	130	<25	<25	150
S98-0062	EMP #3 Pump Blank Post Sample	24-Feb-98	—	—	14	—	—	—	—	4	—	14	—	72	—	—	160	—	—	—	—
S98-0192	EMP #3 Pump Blank Post Sample	14-May-98	—	—	12	—	—	—	—	4	—	17	—	72	—	—	140	140	—	—	—
S98-0224	EMP #3 Pump Blank Post Sample	01-Jun-98	—	—	13	—	—	—	—	4	—	16	—	76	—	—	150	150	—	—	—
S98-0298	EMP #3 Pump Blank Post Sample	11-Aug-98	—	—	12	—	—	—	—	4.1	—	17	—	78	—	—	130	130	<25	<25	170
S98-0065	EMP #3 Pump Blank Pre Sample	24-Feb-98	—	—	14	—	—	—	—	4	—	13	—	75	—	—	161.8	—	—	—	—
S98-0156	EMP #3 Pump Blank Pre Sample	11-May-98	—	—	23	—	—	—	—	5	—	13	—	74	—	—	110	110	—	—	—
S98-0289	EMP #3 Pump Blank Pre Sample	10-Aug-98	—	—	12	—	—	—	—	4.2	—	19	—	79	—	—	140	140	<25	<25	170
S99-0079	EMP #3 Pump Blank Before	23-Feb-99	—	—	14	—	—	—	—	4.2	—	18	—	190	—	—	180	170	6	<25	180
S99-0086	EMP #3 Pump Blank After	23-Feb-99	—	—	14	—	—	—	—	4.7	—	18	—	270	—	—	180	160	16	<25	190
M99-0003	EMP #3 Before Purging Wells	10-May-99	0.45	—	14	0.040	—	—	—	4.3	—	22	—	170	—	0.15	160	160	<25	<25	180
M99-0015	EMP #3 Middle	12-May-99	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M99-0028	EMP #3 After Purging	14-May-99	0.76	—	11	0.054	—	—	—	4.2	—	19	—	65	—	<0.05	150	150	<25	<25	150
M99-0084	EMP #3 Pump Blank Before	09-Aug-99	—	—	<0.25	—	—	—	—	<1	—	11	—	140	—	—	220	220	2	<25	2.8
M99-0091	EMP #3 Pump Blank After	11-Aug-99	—	—	11	—	—	—	—	3.9	—	18	—	77	—	—	130	130	<25	<25	160
M99-0180	EMP #3 Before Purging Wells	18-Oct-99	0.69	<0.005	21	0.051	<0.0002	0.0062	<0.02	5.6	—	25	<0.005	92	<0.005	0.11	96	96	<25	<25	310
M99-0200	EMP #3 Middle	22-Oct-99	0.72	<0.005	12	0.051	<0.0002	0.0069	<0.02	4.3	—	17	<0.005	80	<0.005	<0.05	120	120	<25	<25	160
M99-0207	EMP #3 After Purging	23-Oct-99	0.89	<0.005	13	0.058	<0.0002	0.0083	<0.02	4.4	—	20	<0.005	80	<0.005	<0.05	130	130	<25	<25	180
M00-0020	EMP #3 Pump Blank Before Purging	22-Feb-00	—	—	12	—	—	—	—	5.0	—	19	—	74	—	—	87	87	<25	<25	170
M00-0029	EMP #3 After Purging Wells	23-Feb-00	—	—	12	—	—	—	—	5.2	—	13	—	76	—	—	95	95	<25	<25	160
M00-0075	EMP #3 Before Purging Wells	08-May-00	—	—	12	—	—	—	—	4.7	—	25	—	73	—	—	130	130	<25	<25	160
M00-0090	EMP #3 Middle of Sampling	10-May-00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M00-0103	EMP #3 Pump Blank After Sampling	12-May-00	—	—	13	—	—	—	—	4.4	—	22	—	72	—	—	150	150	<25	<25	170
M00-0193	EMP #3 Before Purging Wells	07-Aug-00	—	—	9.5	—	—	—	—	3.1	—	21	—	78	—	—	140	140	<25	<25	110
M00-0202	EMP #3 Pump Blank After Purging	08-Aug-00	—	—	12	—	—	—	—	4.1	—	21	—	72	—	—	130	130	<25	<25	150
M00-0213	EMP #3 Before Purging Wells	26-Oct-00	2.9	<0.05	20	0.13	<0.0002	—	—	19	<0.1	26	<0.02	540	—	<0.1	140	140	<25	<25	240
M00-0228	EMP #3 Middle of Sampling	01-Nov-00	3.0	<0.05	45	0.29	<0.0002	—	—	65	<0.1	19	<0.02	800	—	<0.1	140	140	<25	<25	480
M00-0244	EMP #3 After Purging Wells	06-Nov-00	1.2	<0.05	27	0.15	<0.0002	—	—	40	<0.1	23	<0.02	600	—	<0.1	150	150	<25	<25	290
M01-0009	EMP # 3 Pump Blank Before Sampling	20-Feb-01	—	—	12	—	—	—	—	11	—	23	—	220	—	—	140	140	<25	<25	140
M01-0019	EMP #3 After Purging Wells	21-Feb-01	—	—	12	—	—	—	—	9.1	—	22	—	180	—	—	150	150	<25	<25	140
M01-0130	EMP #3 Pump Blank Before Purging Wells	02-May-01	—	—	13	—	—	—	—	3.2	—	22	—	76	—	—	160	160	<25	<25	140
M01-0154	EMP #3 Pump Blank Middle of Purging Wells	06-May-01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M01-0162	EMP #3 After Purging Wells	07-May-01	—	—	11	—	—	—	—	5.5	—	21	—	93	—	—	150	150	<25	<25	130
M01-0403	EMP #3 Before Purging Wells	01-Aug-01	—	—	9.7	—	—	—	—	5.3	—	26	—	75	—	—	150	150	<25	<25	130
M01-0413	EMP #3 After Purging Wells	02-Aug-01	—	—	8.3	—	—	—	—	4.7	—	25	—	59	—	—	130	130	<25	<25	120
M01-0465	EMP #3 Pump Blank Before Purging Wells	22-Oct-01	1.4	<0.05	7.9	0.056	<0.0002	<0.01	<0.04	4.1	<0.1	25	<0.02	58	<0.005	<0.1	130	130	<25	<25	110
M01-0478	EMP #3 Middle of Purging Wells	24-Oct-01	0.64	<0.05	9.8	0.043	<0.0002	<0.01	<0.04	4.0	<0.1	25	<0.02	61	<0.005	<0.1	140	140	<25	<25	140
M01-0492	EMP #3 After Purging Wells	29-Oct-01	0.41	<0.05	9.8	0.032	<0.0002	0.01	<0.04	3.7	<0.1	25	<0.02	59	<0.005	<0.1	140	140	<25	<25	140
M02-0040	EMP #3 Before Purging Wells	19-Feb-02	—	—	11	—	—	—	—	3.4	—	12	—	55	—	—	140	140	<25	<25	150
M02-0040	EMP #3 Before Purging Wells R	19-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0048	EMP #3 After Purging Wells	20-Feb-02	—	—	10	—	—	—	—	3.3	—	28	—	52	—	—	150	150	<25	<25	150
M02-0048	EMP #3 After Purging Wells R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2002040220-01	EMP #3 Pump BlankBefore Purging Wells	29-Apr-02	—	—	23	—	—	—	—	4.2	—	31	—	64	—	—	160	160	<25	<25	280
2002040220-15	EMP #3 Pump Blank During Purging Wells	30-Apr-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-25	EMP #3 Pump Blank After Purging Wells	02-May-02	—	—	37	—	—	—	—	5.2	—	32	—	82	—	—	190	190	<25	<25	400
7	EMP #3 Pump Blank After Purging Wells	25-Sep-02	—	—	—	—	—	—	—	—	—	—	—	77	—	—	—	—	—	—	—
2002110896-2	EMP #3 Pump Blank Before Purging Wells	03-Nov-02	1.8	—	33	0.15	—	—	—	8.3	—	46	—	86	—	—	180	180	<2.0	<2.0	370
2002110896-14	EMP #3 Pump Blank During Purging Wells	05-Nov-02	1.2	—	33	0.085	—	—	—	5.8	—	48	—	80	—	—	180	180	<2.0	<2.0	370
2002110896-29	EMP #3 Pump Blank After Purging Wells	08-Nov-02	0.88	—	35	0.071	—	—	—	6.3	—	49	—	89	—	—	180	180	<2.0	<2.0	390

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Benzene, µg/l	Toluene, µg/l	Ethylbenzene, µg/l	m-Xylene ug/l	p-Xylene ug/l	o-Xylene ug/l	Total Xylene, µg/l	MTBE, µg/l	Gasoline Range Organics, mg/l	Specific Conductance, umho/cm	pH, s.u.	Total Dissolved Solids, mg/L	Chloride, mg/l	Sulfate, mg/l	pH Temperature °C	Bromide, mg/l	Fluoride, mg/l	Nitrate-N, mg/l	Nitrate as NO3, mg/l	Aluminum, mg/l	Arsenic, mg/l	Barium, mg/l	Boron, mg/l	Cadmium, mg/l	Calcium, mg/l	Chromium, mg/l	Cobalt, mg/l	Copper, mg/l
2003030318/T4096-1	Pump Blank	26-Mar-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	910	7.5 H	634	55.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003050551-2	Pump Blank	19-May-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	957	7.4 H	686	58.0	—	—	—	—	—	—	—	—	—	—	—	79.200	—	—	—
2003080979-1	Pump Blank	19-Aug-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	640	57.2	—	—	—	—	—	—	—	—	—	—	—	85.900	—	—	—
2003101363-1	Pump Blank	03-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	<10	0.20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-15	Pump Blank	05-Nov-03	2.0	1.7 J	2.2	—	—	—	3.1 J	—	—	—	—	688	26.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2003101363-29	Pump Blank	07-Nov-03	<2.0	<2.0	<2.0	—	—	—	<6.0	—	—	—	—	666	50.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
S98-0064	Field Blank	24-Feb-98	<0.50	0.93	<0.50	—	—	—	2.3	—	—	2	5.8	<20	<0.2	<1	—	<0.2	<0.1	<0.2	—	—	—	—	—	—	<1	—	—	—
S98-0171	Field Blank	12-May-98	<0.50	<0.50	<0.50	—	—	—	<1.0	—	—	54	5.7	<20	<0.2	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	<1	—	—	—
S98-0223	Field Blank	01-Jun-98	17	100	<0.50	—	—	—	120	—	—	3.2	6.0	<20	0.33	<1	—	<0.2	<0.1	<0.05	—	—	—	—	—	—	<1	—	—	—
S98-0291	Field Blank	10-Aug-98	<2	<2	<2	<2	<2	<2	<6	—	—	20.7	9.56	31	<0.1	<2.0	19.3	<0.1	<0.10	<1.25	—	—	—	—	—	—	3.6	—	—	—
S98-0480	Field Blank	22-Oct-98	<2	<2	<2	<2	<2	<2	<6	—	—	1.23	5.67	59	<0.1	<0.1	21.8	<0.2	<0.4	<0.05	—	—	—	—	0.016	—	<0.25	—	—	<0.0025
S99-0077	Field Blank	23-Feb-99	<2	<2	<2	<2	<2	<2	<6	—	—	2.46	5.35	<25	<0.1	<0.1	14.8	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.25	—	—	—
M99-0001	Field Blank	10-May-99	<2	<2	<2	<2	<2	<2	<6	—	—	1.32	6.18	41	<0.1	<0.1	21.5	<0.2	<0.4	<0.05	—	—	—	—	<0.01	—	<0.25	—	—	<0.0025
M99-0209	Field Blank	23-Oct-99	<2	<2	<2	<2	<2	<2	<6	—	—	3.70	5.94	<15	0.32	<0.5	21.7	<0.2	<0.4	0.080	—	<0.025	<0.005	<0.0025	<0.01	<0.002	0.33	<0.005	<0.005	<0.0025
M00-0031	Field Blank	23-Feb-00	<2	<2	<2	<2.0	<2.0	<2.0	<6.0	—	—	1	6.04	<15	<0.1	<0.1	17.4	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0104	Field Blank	12-May-00	<5	<5	<5	—	—	—	<10	—	—	6	5.47	17	<0.1	<0.1	18.6	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M00-0203	Field Blank	08-Aug-00	<2	<2	<2	—	—	—	<4	—	—	2.0	6.20	<15	<0.1	<0.1	25.8	<0.2	<0.4	<0.05	—	—	—	—	—	—	<0.5	—	—	—
M00-0246	Field Blank	06-Nov-00	<2	<2	<2	—	—	—	<4	—	—	11.0	5.4	<15	3.3	<0.1	17.2	<0.2	<0.4	<0.1	—	—	<0.1	<0.005	0.12	<0.01	<0.5	<0.01	—	0.10
M01-0020	Field Blank	21-Feb-01	<2	<2	<2	—	—	—	<4	<5	—	1.0	6.14 H	<15	<0.1	<0.1	22.0	<0.2	<0.4	<0.1	—	—	—	—	—	—	<0.5	—	—	—
M01-0164	Field Blank	07-May-01	<2	<2	<2	—	—	—	<2	<5	—	577.0	8.19 H	342	84	<2	25.2	0.17	<0.4	0.630	—	—	—	—	—	—	<0.5	—	—	—
M01-0414	Field Blank	02-Aug-01	<2	<2	<2	—	—	—	<2	—	—	33.2	6.04	28	6.5	1	22.8	0.13	<0.4	0.62	—	—	—	—	—	—	0.51	—	—	—
M01-0491	Field Blank	25-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	1.3	6.38	<15	<0.1	<0.1	19.6	<0.2	<0.4	<0.05	—	<0.05	<0.1	<0.005	<0.1	<0.005	<0.5	<0.01	<0.01	<0.005
M01-0494	Field Blank	29-Oct-01	<2	<2	<2	<2	<2	<2	<6	—	—	1.73	6.25 H	<15	<0.1	<0.1	22.8	<0.2	<0.4	<0.05	—	<0.05	<0.1	<0.005	<0.1	<0.005	<0.5	<0.01	<0.01	<0.005
M02-0045	Field Blank	20-Feb-02	<2.0	3.1	2.1	—	—	—	9.0	—	—	3.8	6.06 H	<30.0	0.11	<0.10	—	<0.10	<0.40	<0.010	—	—	—	—	—	—	<0.50	—	—	—
M02-0045	Field Blank R	20-Feb-02	<2.0 H	<2.0 H	<2.0 H	—	—	—	<2.0 H	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-03	Field Blank	27-Mar-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-04	Field Blank w/o HCl	27-Mar-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-28	Field Blank	02-May-02	<2.0	<2.0	<2.0	—	—	—	<2.0	<5.0	—	26.0	6.33 H	<15.0	3.6	0.28	—	<0.10	<0.40	0.12	—	—	—	—	—	—	<0.50	—	—	—
2002110896-31	Field Blank	08-Nov-02	<1.0	<1.0	<1.0	<2.0		<1.0	<3.0	—	—	1.0	5.88 H	<10	<2.0	<2.0	—	<0.50	<0.40	<0.20	—	—	<0.0050	—	<0.050	—	<2.0	—	—	—

Table 2 : Summary of Laboratory Analyses of Groundwater Samples
Jal #4 Plant, El Paso Natural Gas Company, Lea County, New Mexico

Laboratory Sample Number	Sample Description	Sample Date	Iron, mg/l	Lead, mg/l	Magnesium, mg/l	Manganese, mg/l	Mercury, mg/l	Molybdenum, mg/l	Nickel, mg/l	Potassium, mg/l	Selenium	Silica, mg/l	Silver, mg/l	Sodium, mg/l	Uranium, mg/l	Zinc, mg/l	Alkalinity (as $CaCO_3$), mg/l	Alkalinity - Bicarbonate, mg/l	Alkalinity - Carbonate, mg/l	Alkalinity - Hydroxide, mg/l	Hardness (as $CaCO_3$), mg/l
2003030318/T4096-1	Pump Blank	26-Mar-03	—	—	—	—	—	—	—	—	—	—	—	51.800	—	—	—	—	—	—	—
2003050551-2	Pump Blank	19-May-03	—	—	28.600	—	—	—	—	—	—	—	—	65.100	—	—	191	—	—	—	315
2003080979-1	Pump Blank	19-Aug-03	—	—	32.200	—	—	—	—	—	—	—	—	74.800	—	—	202	—	—	—	347
2003101363-1	Pump Blank	03-Nov-03	—	—	—	—	—	—	—	—	—	—	—	<5.000	—	—	—	—	—	—	—
2003101363-15	Pump Blank	05-Nov-03	—	—	—	—	—	—	—	—	—	—	—	72.200	—	—	—	—	—	—	—
2003101363-29	Pump Blank	07-Nov-03	—	—	—	—	—	—	—	—	—	—	—	67.500	—	—	—	—	—	—	—
S98-0064	Field Blank	24-Feb-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	—	—	—	—
S98-0171	Field Blank	12-May-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	<5	—	—	—
S98-0223	Field Blank	01-Jun-98	—	—	<1	—	—	—	—	<1	—	<0.05	—	<1	—	—	<5	<5	—	—	—
S98-0291	Field Blank	10-Aug-98	—	—	<0.25	—	—	—	—	<0.25	—	<10	—	<0.25	—	—	<25	<25	<25	<25	9.0
S98-0480	Field Blank	22-Oct-98	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.25	—	<0.25	—	<0.05	<25	<25	<25	<25	<0.5
S99-0077	Field Blank	23-Feb-99	—	—	<0.25	—	—	—	—	<1	—	<1	—	<0.25	—	—	<25	<25	<25	<25	<1
M99-0001	Field Blank	10-May-99	<0.05	—	<0.25	<0.0025	—	—	—	<1	—	<0.2	—	<0.25	—	<0.05	<25	<25	<25	<25	<1
M99-0209	Field Blank	23-Oct-99	<0.05	0.0062	<0.25	<0.0025	<0.0002	<0.005	<0.02	<1	—	<1	<0.005	<0.25	<0.005	<0.05	<25	<25	<25	<25	<1
M00-0031	Field Blank	23-Feb-00	—	—	<0.5	—	—	—	—	<2.	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0104	Field Blank	12-May-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0203	Field Blank	08-Aug-00	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M00-0246	Field Blank	06-Nov-00	<0.1	<0.05	<0.5	<0.005	<0.0002	—	—	<2	<0.1	1.2	<0.02	1.5	—	<0.1	<25	<25	<25	<25	<2
M01-0020	Field Blank	21-Feb-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	<0.5	—	—	<25	<25	<25	<25	<2
M01-0164	Field Blank	07-May-01	—	—	<0.5	—	—	—	—	<2	—	11	—	140.0	—	—	240	240	<25	<25	<2
M01-0414	Field Blank	02-Aug-01	—	—	<0.5	—	—	—	—	<2	—	<1	—	6.0	—	—	<25	<25	<25	<25	<2
M01-0491	Field Blank	25-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	<0.04	<2	<0.1	<1	<0.02	<0.5	<0.005	<0.1	<25	<25	<25	<25	<2
M01-0494	Field Blank	29-Oct-01	<0.1	<0.05	<0.5	<0.005	<0.0002	<0.01	—	<2	<0.1	<1	<0.02	1.4	<0.005	<0.1	<25	<25	<25	<25	<5
M02-0045	Field Blank	20-Feb-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	<0.50	—	—	<25	<25	<25	<25	<2.0
M02-0045	Field Blank R	20-Feb-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-03	Field Blank	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
M02-0062-04	Field Blank w/o HCl	27-Mar-02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2202040220-28	Field Blank	02-May-02	—	—	<0.50	—	—	—	—	<2.0	—	<1.0	—	<0.50	—	—	<25	<25	<25	<25	<2.0
2002110896-31	Field Blank	08-Nov-02	<0.050	—	<2.0	<0.0010	—	—	—	<2.0	—	0.24	—	<2.0	—	—	<6.0	2	<2.0	<2.0	<13

Notes:

1. < : Denotes a sample value of less than the laboratory reporting limit.
2. — : No analysis performed.
3. Jm : Estimated value--possible matrix effect.
4. Jc: This concentration may be biased because the continuing calibration verification (CCV) standard did not meet QC requirements for this analyte.
   However, overall CCV standard recoveries meet method requirements and analytical results are in control.
5. * : Method blank had detectable levels of this compound.
6. 1.2/<0.05 : NEL Lab result/Montgomery Watson Lab result.
7. P : Denotes sample was received with a pH greater than 2.
8. H: Sample was analyzed outside the EPA technical holding time.
9. R : Denotes a reanalyzed sample.
10. J : Indicates an estimated value.

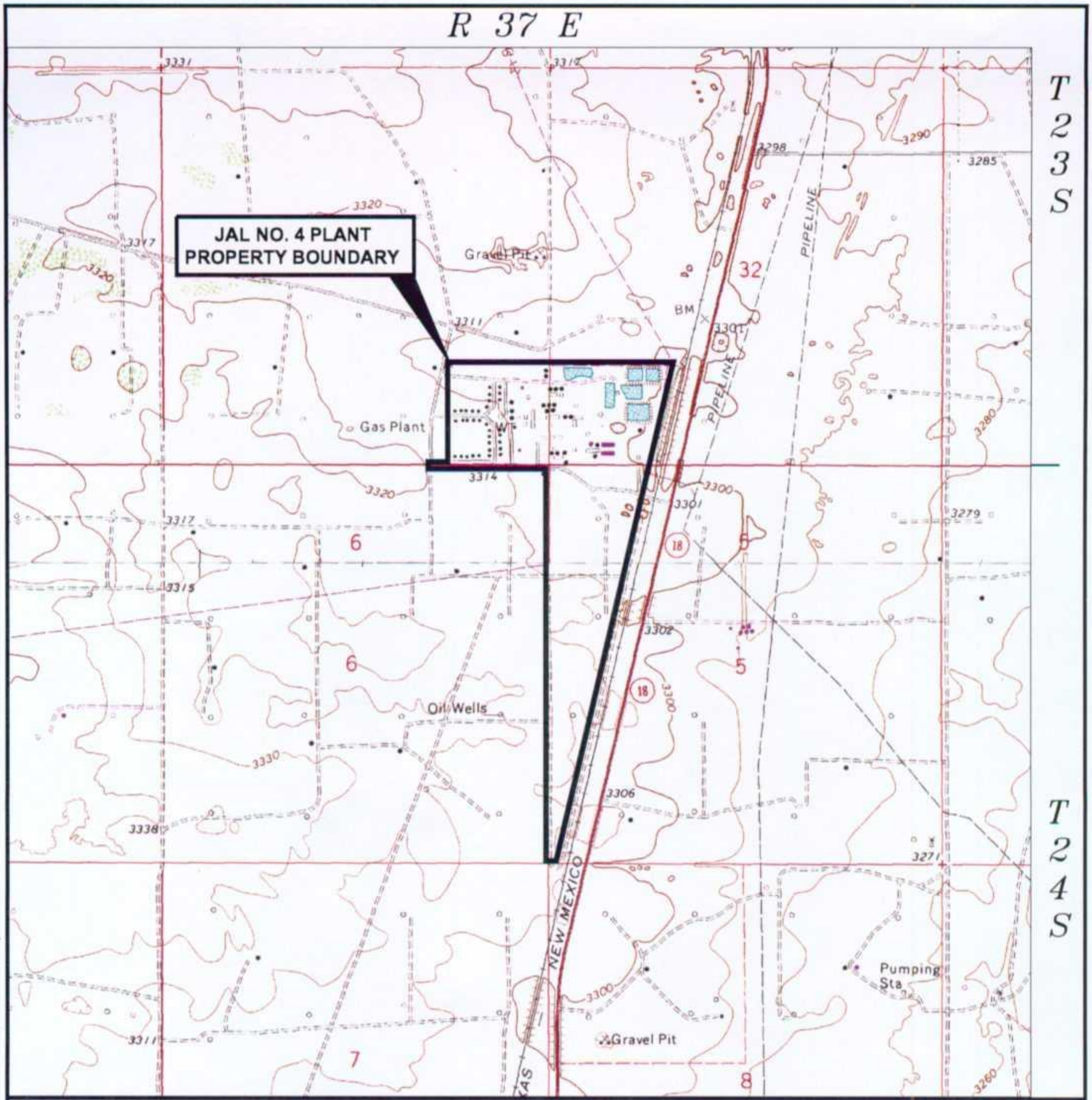
TABLE 3: SUMMARY OF 2003 GROUNDWATER RECOVERY/DISPOSAL VOLUMES, JAL NO. 4 PLANT, EL PASO NATURAL GAS COMPANY, LEA COUNTY, NEW MEXICO

Month	CP-37 thru CP-42 Comb-S (RW1)			CP-37 thru CP-42 Comb-S (RW2)			ENSR #2		
	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)
	Present	Previous		Present	Previous		Present	Previous	
	2002 Annual Subtotal		**267,869**	**2002 Annual Subtotal**		**2,919,520**	**2002 Annual Subtotal**		**1,675,670**
Jan-03	2,126,210	2,126,210	0	8,018,740	7,826,860	191,880	2,842,030	2,842,030	0
Feb-03	2,126,210	2,126,210	0	8,142,500	8,018,740	123,760	2,891,090	2,842,030	49,060
Mar-03	2,126,210	2,126,210	0	8,361,250	8,142,500	218,750	3,166,370	2,891,090	275,280
Apr-03	2,126,210	2,126,210	0	8,554,370	8,361,250	193,120	3,452,460	3,166,370	286,090
May-03	2,126,210	2,126,210	0	8,735,850	8,554,370	181,480	3,678,860	3,452,460	226,400
Jun-03	2,126,210	2,126,210	0	8,796,820	8,735,850	60,970	3,920,510	3,678,860	241,650
Jul-03	2,126,210	2,126,210	0	9,187,940	8,796,820	391,120	4,170,190	3,920,510	249,680
Aug-03	2,359,790	2,126,210	233,580	9,220,100	9,187,940	32,160	4,202,610	4,170,190	32,420
Sep-03	2,431,810	2,359,790	72,020	9,220,100	9,220,100	0	4,202,980	4,202,610	370
Oct-03	2,431,810	2,431,810	0	9,220,100	9,220,100	0	4,202,980	4,202,980	0
Nov-03	2,627,850	2,431,810	196,040	9,254,480	9,220,100	34,380	4,328,510	4,202,980	125,530
Dec-03	2,627,850	2,627,850	0	9,425,490	9,254,480	171,010	4,471,430	4,328,510	142,920
	2003 Annual Subtotal		**501,640**	**2003 Annual Subtotal**		**1,598,630**	**2003 Annual Subtotal**		**1,629,400**
							2003 Annual Totals		**3,729,670**
									11.445 acre-ft
									88,802 barrels

Notes:

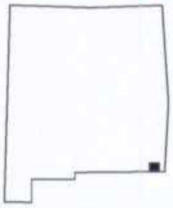
(1) Well designations CP-37 through CP-42 combined - S(RW-1) and (RW-2) denote permit file numbers issued by the New Mexico State Engineer's Office on June 24, 1997.

FIGURES



SOURCE: U.S.G.S. 7.5 MIN. TOPO. QUAD., RATTLESNAKE CANYON, N.M. 1979
AND JAL NW, N.M., 1979

NEW MEXICO



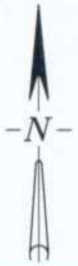


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FIGURE TITLE
PLANT LOCATION AND TOPOGRAPHIC FEATURES

DOCUMENT TITLE
2003 ANNUAL GROUNDWATER REMEDIATION REPORT

CLIENT
EL PASO NATURAL GAS COMPANY

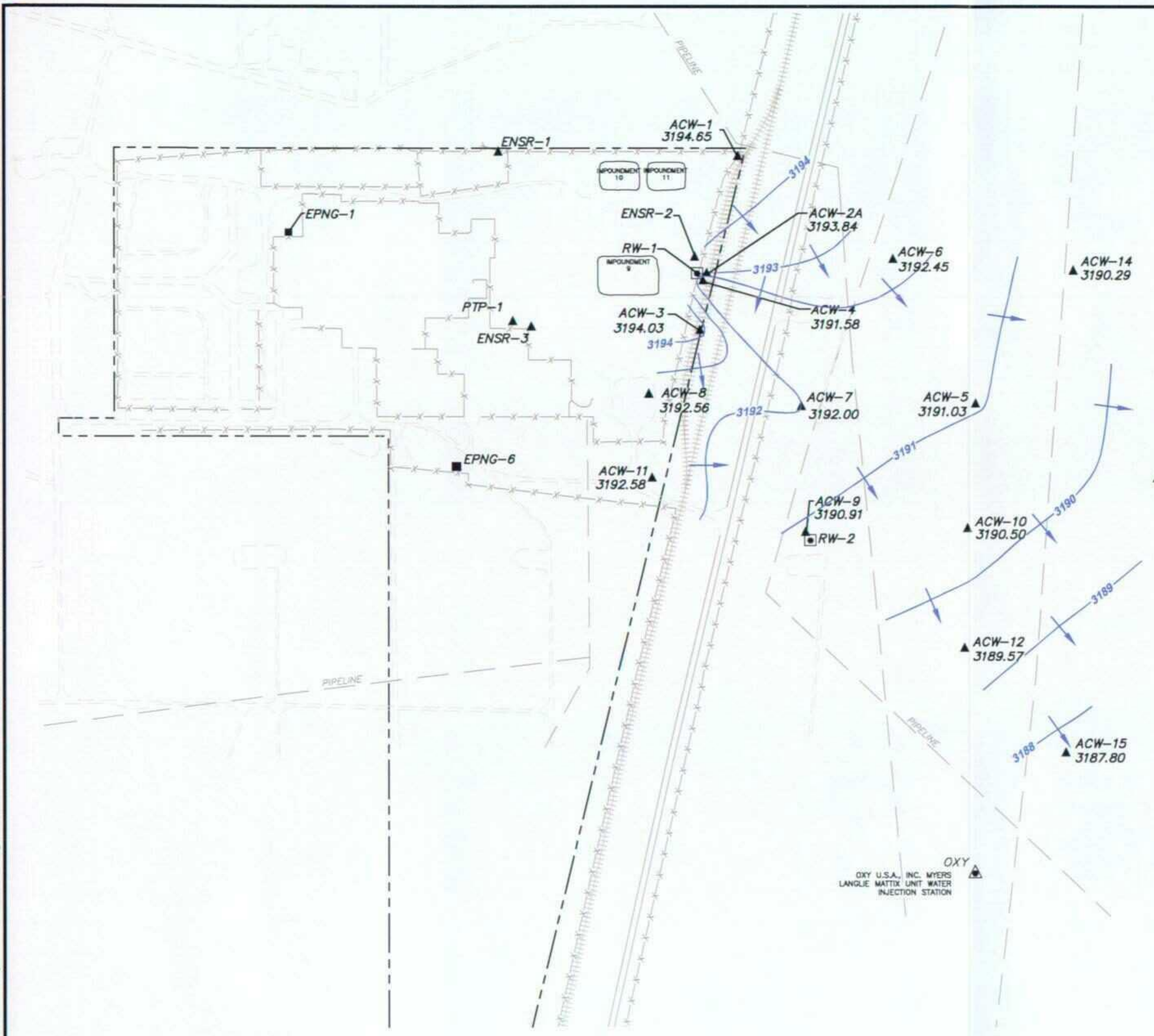
LOCATION
JAL #4 PLANT
LEA COUNTY, NEW MEXICO

DATE	2/13/04
SCALE	AS SHOWN
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717105

FIGURE NUMBER
1

P:\USTAH\Env\1997\97171\CAD\9717105T4\FIG 1-TOPO.DWG on Feb 11, 2004-4:30pm



LEGEND

▲ ACW-5 3191.03	GROUNDWATER MONITOR WELL AND GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, ON MARCH 26-31, 2003, FEET AMSL
■ EPNG-1	WATER SUPPLY WELL
⊡ RW-2	GROUNDWATER RECOVERY WELL
▲ OXY	WATER SUPPLY WELL
←	DIRECTION OF GROUNDWATER FLOW
3192	CONTOUR OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM ON MARCH 26-31, 2003, FEET AMSL
— — — —	PROPERTY BOUNDARY
-x-x-x-x-	FENCE
= = = =	SECONDARY ROAD
++++++++	RAILROAD TRACK
—— ——	PIPELINE
▭	IMPOUNDMENT

NOTES: 1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.

2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

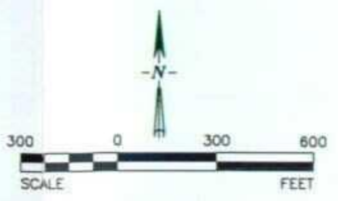


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FIGURE TITLE
GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - MARCH 26-31, 2003

DOCUMENT TITLE
2003 ANNUAL GROUNDWATER REMEDIATION REPORT

CLIENT
EL PASO NATURAL GAS COMPANY

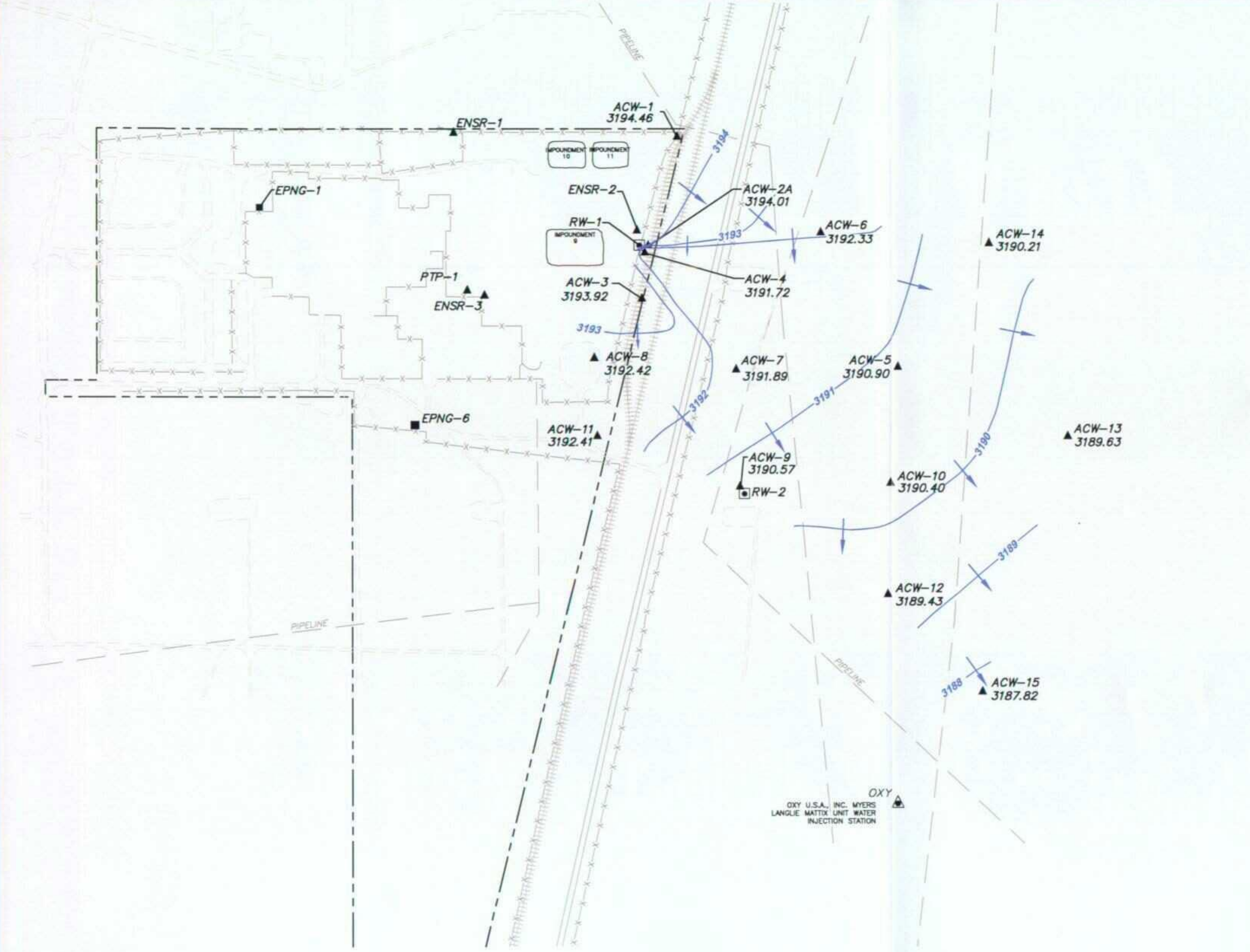
LOCATION
JAL #4 GAS PLANT
LEA COUNTY, NEW MEXICO

DATE	2/13/04
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717105

FIGURE NUMBER
2

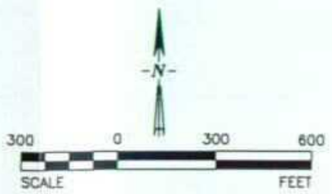
P:\USTAH\Env\1997\97171\CAD\9717105T4\FIG2-5-GW 2003.dwg on Feb 11, 2004-4:30pm



LEGEND

▲ ACW-5 3190.90	GROUNDWATER MONITOR WELL AND GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, ON MAY 19-20, 2003, FEET AMSL
■ EPNG-1	WATER SUPPLY WELL
⊡ RW-2	GROUNDWATER RECOVERY WELL
▲ OXY	WATER SUPPLY WELL
←	DIRECTION OF GROUNDWATER FLOW
3192	CONTOUR OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM ON MAY 19-20, 2003, FEET AMSL
— — —	PROPERTY BOUNDARY
-x-x-x-	FENCE
═	SECONDARY ROAD
┼┼┼┼	RAILROAD TRACK
—	PIPELINE
▢	IMPOUNDMENT

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.



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Tulsa, Oklahoma 74103
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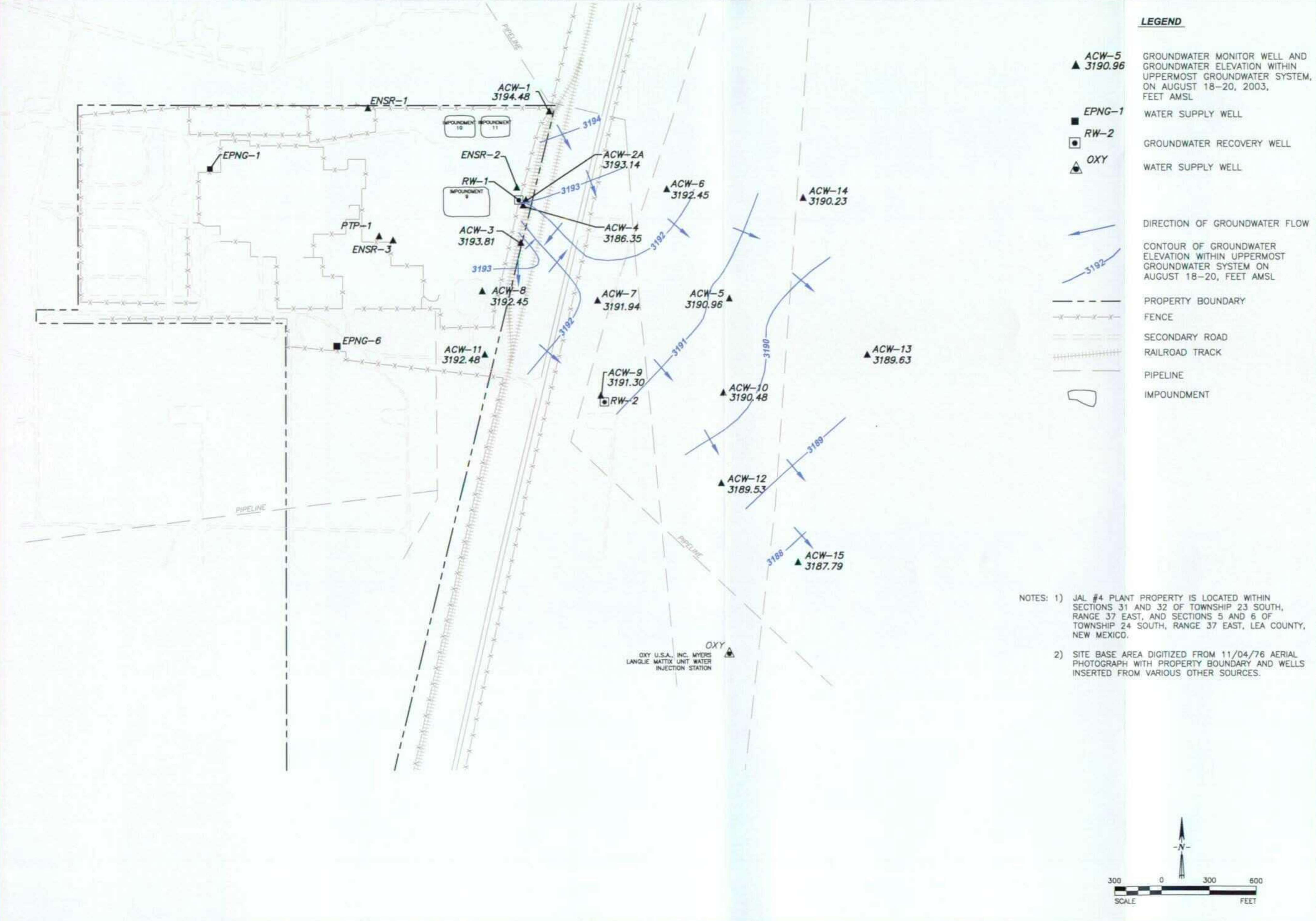
FIGURE TITLE	GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - MAY 19-20, 2003
DOCUMENT TITLE	2003 ANNUAL GROUNDWATER REMEDIATION REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 GAS PLANT LEA COUNTY, NEW MEXICO

DATE	2/13/04
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717105
FIGURE NUMBER
3

P:\USTAH\Env\1997\97171\CAD\9717105T4\FIG2-5-GW 2003.dwg on Feb 11, 2004-4:31pm



NOTES: 1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.

2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

P:\USTAH\Env\1997\97171\CAD\9717105T4\FIG2-5-GW 2003.dwg on Feb 11, 2004-4:31pm

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FIGURE TITLE
GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - AUGUST 18-20, 2003

DOCUMENT TITLE
2003 ANNUAL GROUNDWATER
REMEDIATION REPORT

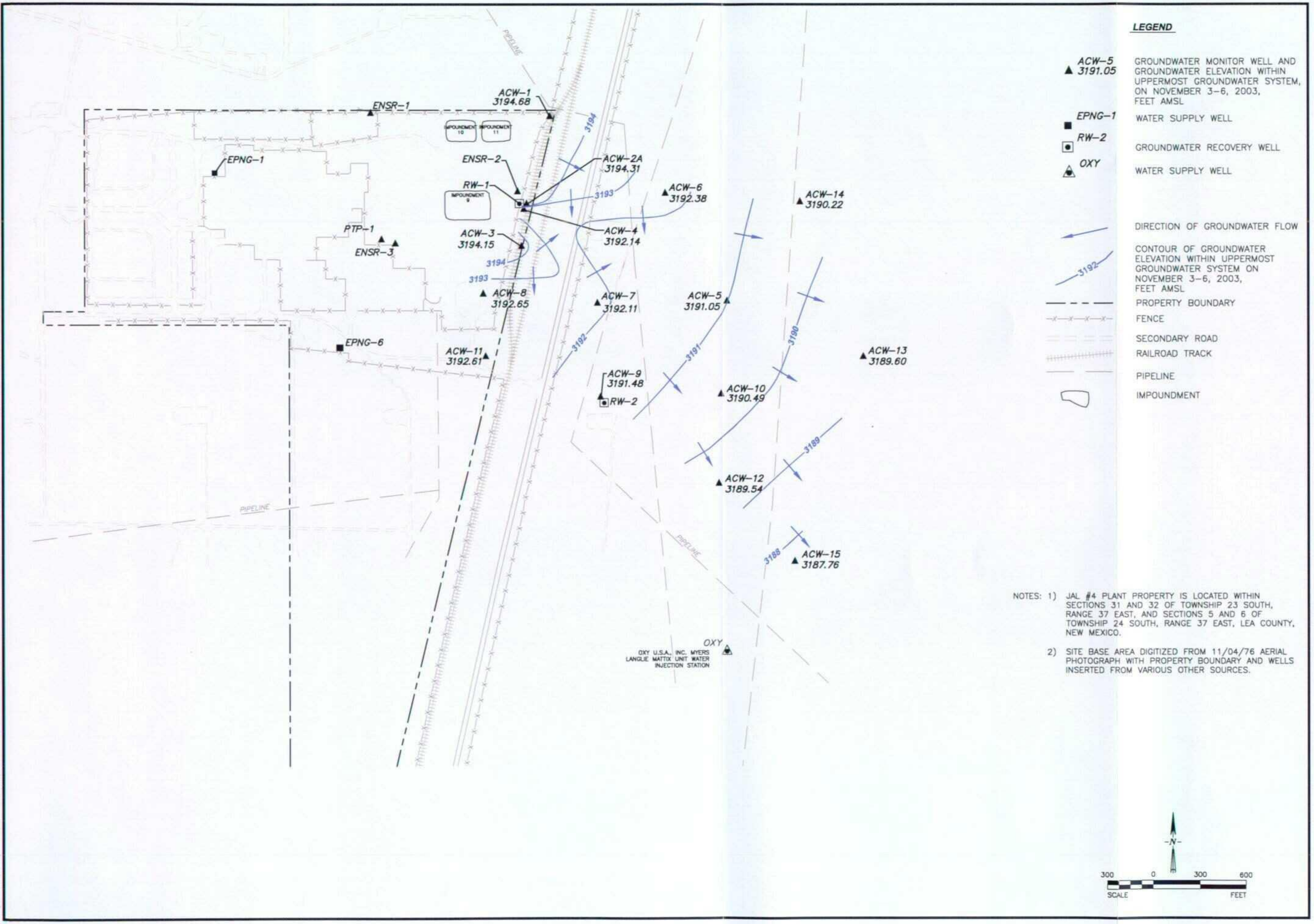
CLIENT
EL PASO NATURAL GAS COMPANY

LOCATION
JAL #4 GAS PLANT
LEA COUNTY, NEW MEXICO

DATE	2/13/04
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717105

FIGURE NUMBER
4



LEGEND

▲ ACW-5 3191.05	GROUNDWATER MONITOR WELL AND GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, ON NOVEMBER 3-6, 2003, FEET AMSL
■ EPNG-1	WATER SUPPLY WELL
⊡ RW-2	GROUNDWATER RECOVERY WELL
▲ OXY	WATER SUPPLY WELL
←	DIRECTION OF GROUNDWATER FLOW
3192	CONTOUR OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM ON NOVEMBER 3-6, 2003, FEET AMSL
— - —	PROPERTY BOUNDARY
-x-x-x-	FENCE
═	SECONDARY ROAD
┼┼┼	RAILROAD TRACK
— —	PIPELINE
▱	IMPOUNDMENT

NOTES: 1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.

2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

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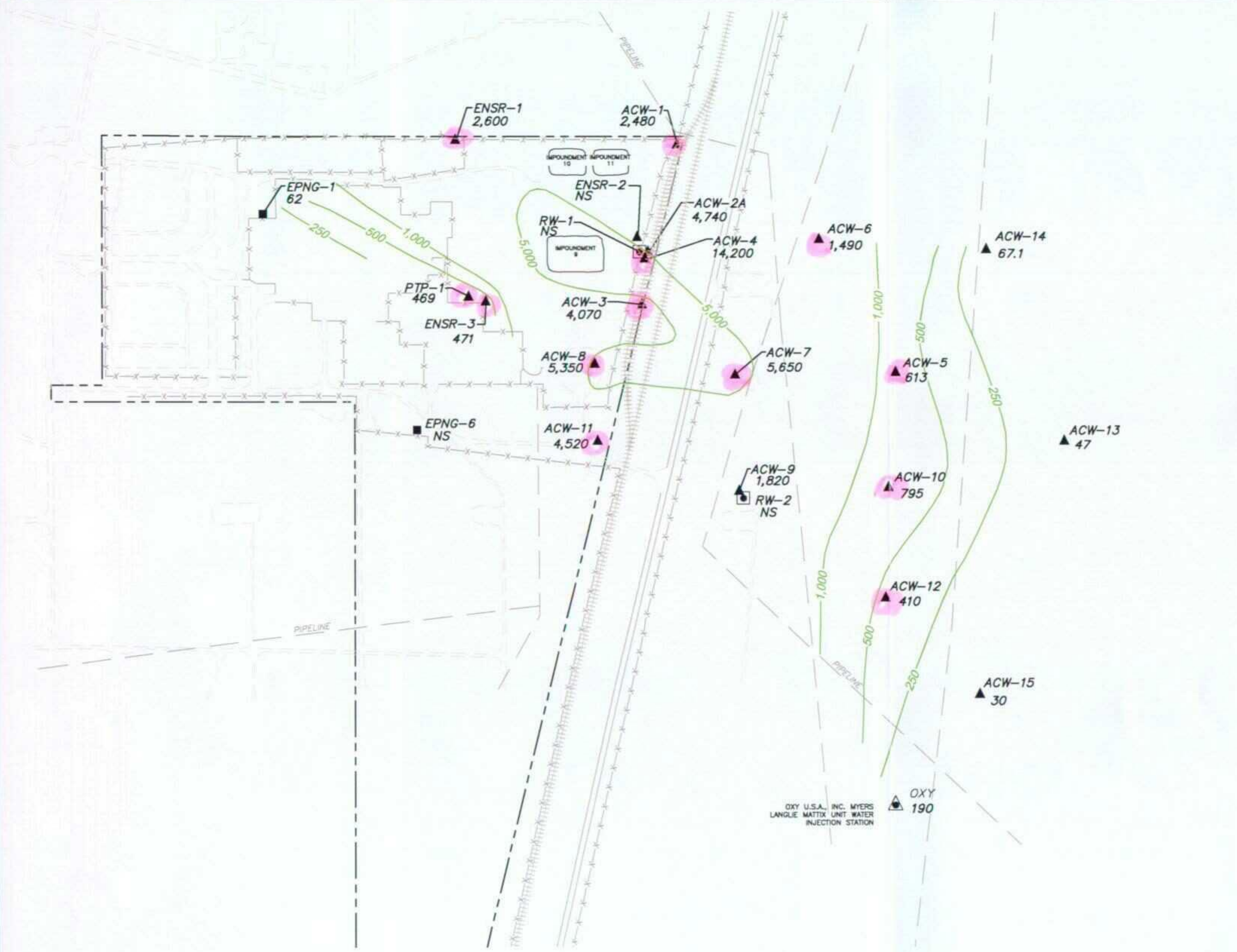
FIGURE TITLE	GROUNDWATER POTENTIOMETRIC SURFACE OF UPPERMOST GROUNDWATER SYSTEM - NOVEMBER 3-6, 2003
DOCUMENT TITLE	2003 ANNUAL GROUNDWATER REMEDIATION REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 GAS PLANT LEA COUNTY, NEW MEXICO

DATE	2/13/04
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717105
FIGURE NUMBER
5

P:\USTAH\Env\1997\97171\CAD\9717105T4\FIG2-5-GW 2003.dwg on Feb 11, 2004-4:31pm



LEGEND

▲ ACW-5 613	GROUNDWATER MONITOR WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
■ EPNG-1 62	WATER SUPPLY WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
⊡ RW-2 NS	GROUNDWATER RECOVERY WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
▲ OXY 190	WATER SUPPLY WELL AND CONCENTRATION OF CHLORIDE IN GROUNDWATER, mg/L
NS	NOT SAMPLED
250	CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF CHLORIDE IN GROUNDWATER, mg/L.
— — — —	PROPERTY BOUNDARY
-x-x-x-x-	FENCE
═	PRIMARY ROAD OR HIGHWAY
= = =	SECONDARY ROAD
┼┼┼┼	RAILROAD TRACK
— —	PIPELINE
▭	IMPOUNDMENT

NOTES:
1) CHLORIDE CONCENTRATIONS SHOWN ARE THE HIGHEST LEVELS DETECTED IN GROUNDWATER IN EACH WELL DURING THE 2003 MONITORING PROGRAM.
2) EPA's SECONDARY DRINKING WATER STANDARD (SMCL) FOR PUBLIC WATER SUPPLY SYSTEMS IS 250 mg/L.
3) NEW MEXICO ENVIRONMENTAL DIVISION HAS ESTABLISHED AN OTHER STANDARDS FOR DOMESTIC WATER SUPPLY OF 250 mg/L FOR CHLORIDE IN GROUNDWATER CONTAINING TDS LEVELS OF 10,000 mg/L OR LESS.
4) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
5) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

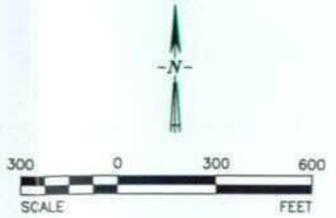


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FIGURE TITLE
ISOPLETH OF CHLORIDE CONCENTRATIONS IN GROUNDWATER IN 2003

DOCUMENT TITLE
2003 ANNUAL GROUNDWATER REMEDIATION REPORT

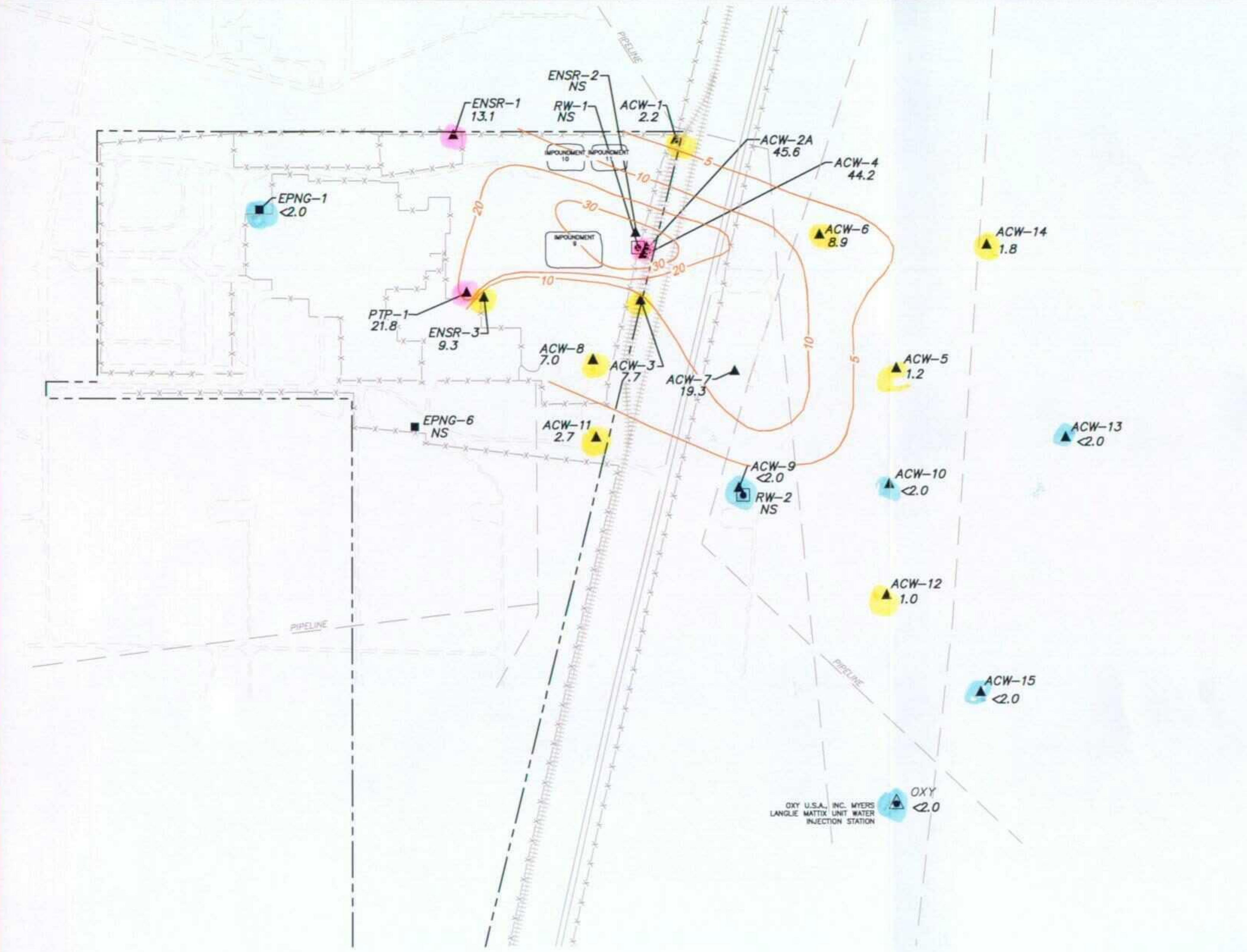
CLIENT
EL PASO NATURAL GAS COMPANY

LOCATION
JAL #4 GAS PLANT
LEA COUNTY, NEW MEXICO

DATE	2/13/04
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717105
FIGURE NUMBER
6

P:\USTAH\Env\1997\97171\CAD\9717105T4\FIG6 - CHLORIDE2003.dwg on Feb 11, 2004-4:32pm



LEGEND

▲ ACW-7 19.3	GROUNDWATER MONITOR WELL AND CONCENTRATION OF BENZENE IN GROUNDWATER, μg/L
■ EPNG-1 <2.0	WATER SUPPLY WELL AND CONCENTRATION OF BENZENE IN GROUNDWATER, μg/L
⊡ RW-2 NS	GROUNDWATER RECOVERY WELL AND CONCENTRATIONS OF BENZENE IN GROUNDWATER, mg/L
▲ OXY <2.0	WATER SUPPLY WELL AND CONCENTRATION OF BENZENE IN GROUNDWATER, μg/L
NS	NOT SAMPLED
10	CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF BENZENE IN GROUNDWATER, μg/L. (DASHED WHERE INFERRED)
— - —	PROPERTY BOUNDARY
—x—x—	FENCE
═	PRIMARY ROAD OR HIGHWAY
═	SECONDARY ROAD
┼┼┼┼	RAILROAD TRACK
—	PIPELINE
▭	IMPOUNDMENT

NOTES:
1) BENZENE CONCENTRATIONS SHOWN ARE THE HIGHEST LEVELS DETECTED IN GROUNDWATER IN EACH WELL DURING THE 2003 MONITORING PROGRAM.
2) NEW MEXICO ENVIRONMENTAL DIVISION HAS ESTABLISHED A HUMAN HEALTH STANDARD OF 0.01 mg/L (10 μg/L) FOR BENZENE IN GROUNDWATER CONTIANING TDS LEVELS OF 10,000 mg/L OR LESS.
3) EPA'S PRIMARY DRINKING WATER STANDARD (MCL) FOR PUBLIC WATER SUPPLY SYSTEMS IS 0.005 mg/L (5.0 μg/L).
4) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
5) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.

N

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SCALE FEET

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FIGURE TITLE	***ISOPLETH OF BENZENE CONCENTRATIONS IN GROUNDWATER IN 2003***
DOCUMENT TITLE	2003 ANNUAL GROUNDWATER REMEDIATION REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 GAS PLANT LEA COUNTY, NEW MEXICO

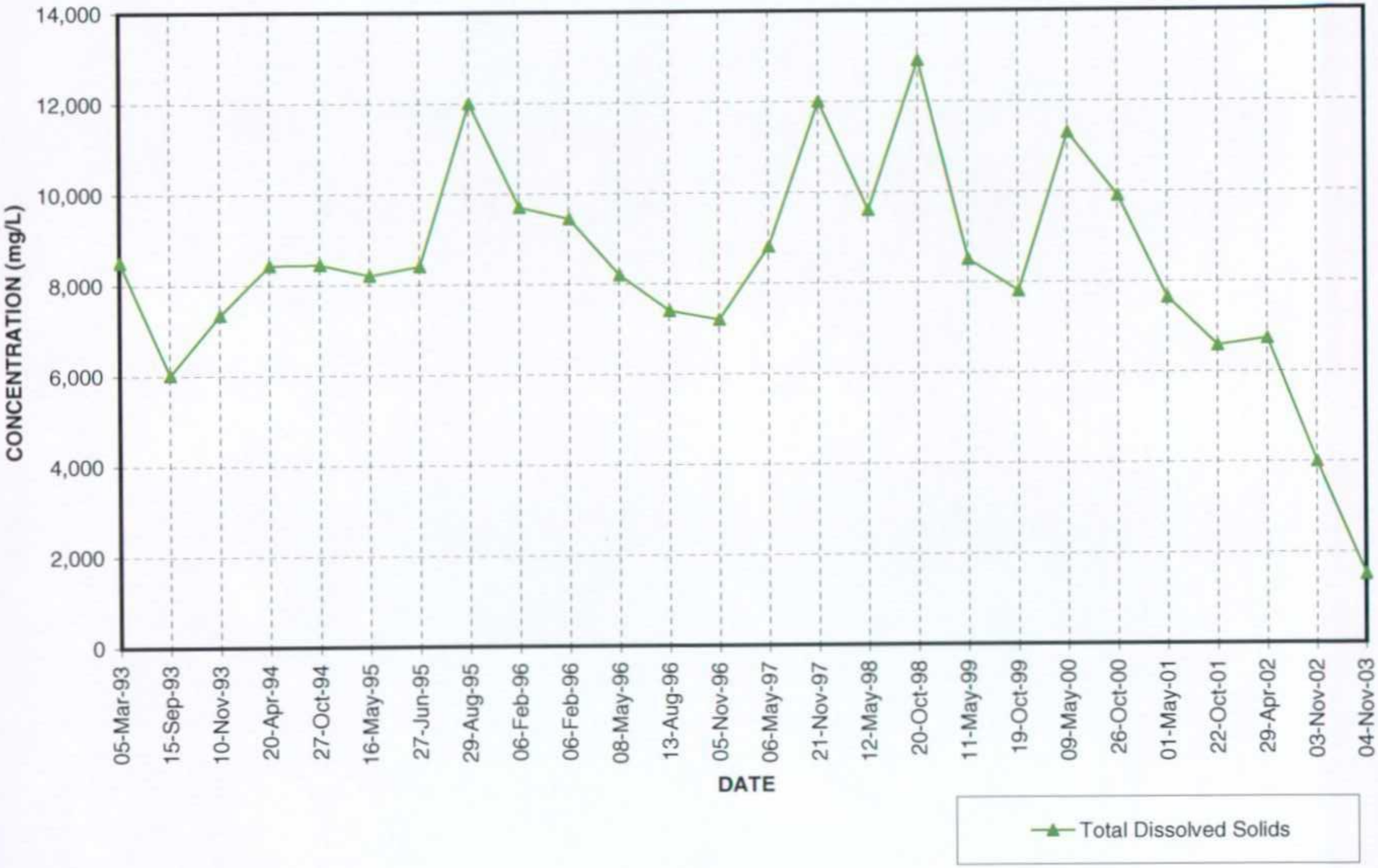
DATE	2/13/04
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717105
FIGURE NUMBER
7

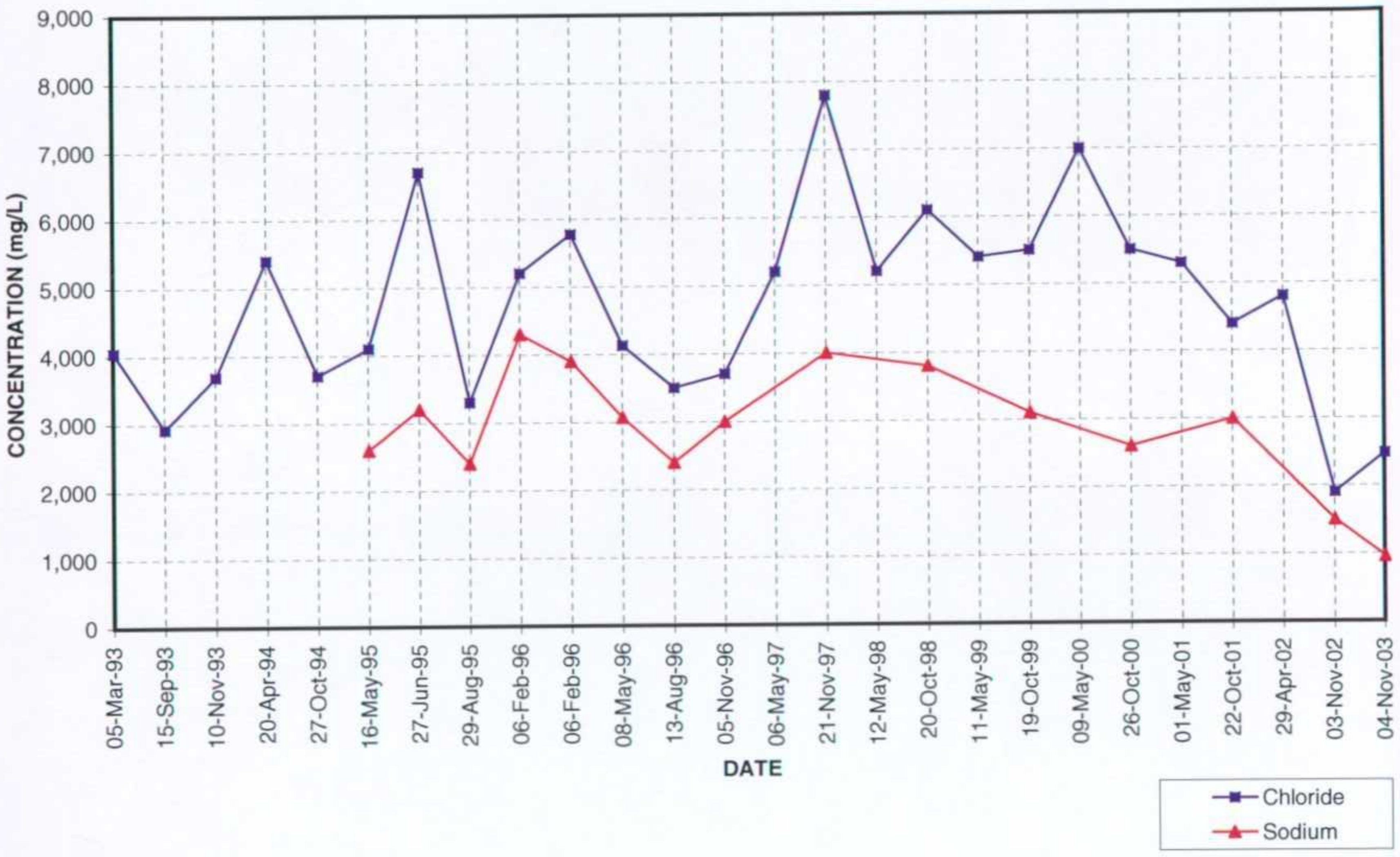
P:\USTAH\Env\1997\97171\CAD\9717105T4\FIG7- BENZENE2003.dwg on Feb 11, 2004-4:32pm

GRAPHS

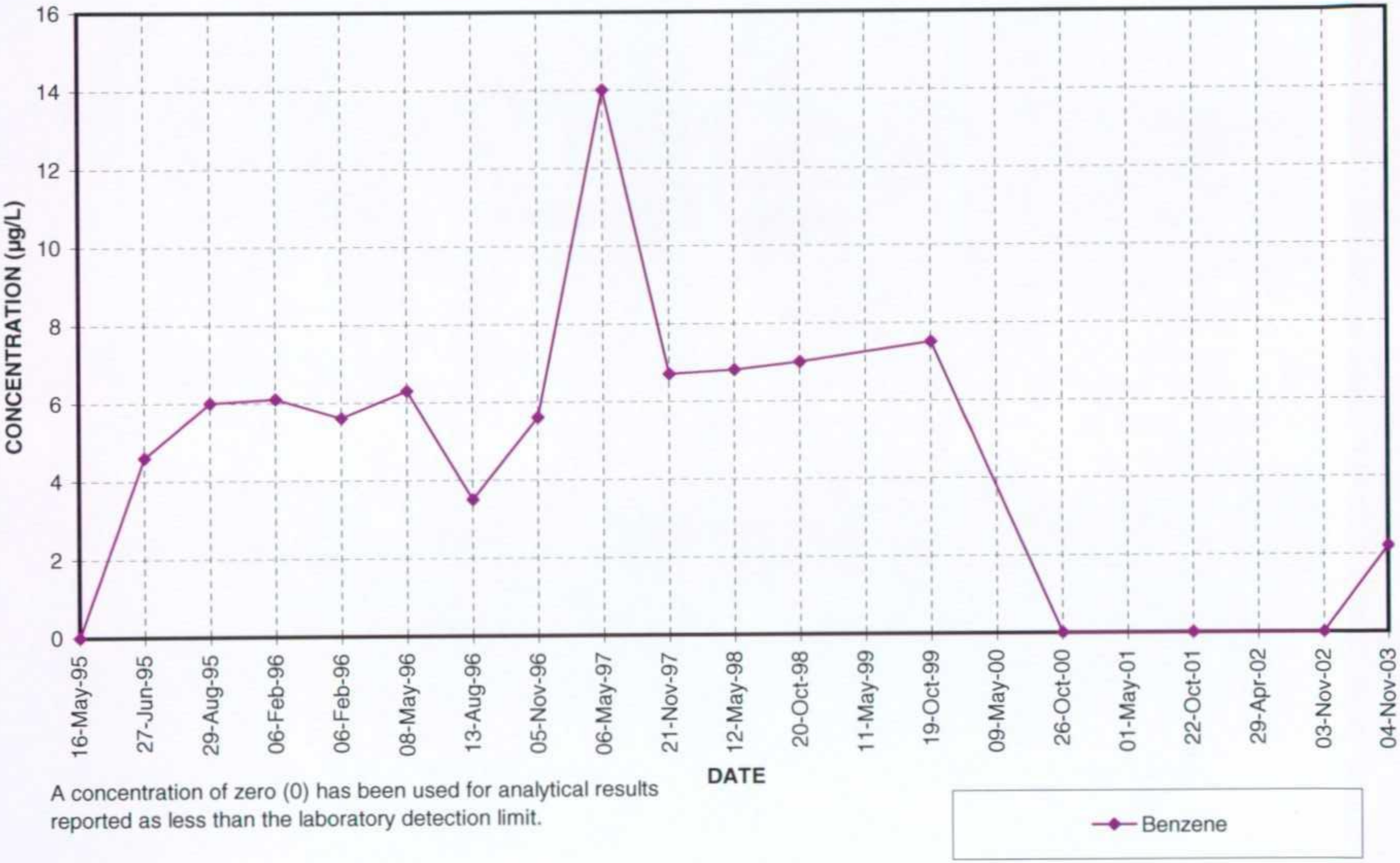
MONITOR WELL ACW-01



MONITOR WELL ACW-01



MONITOR WELL ACW-01

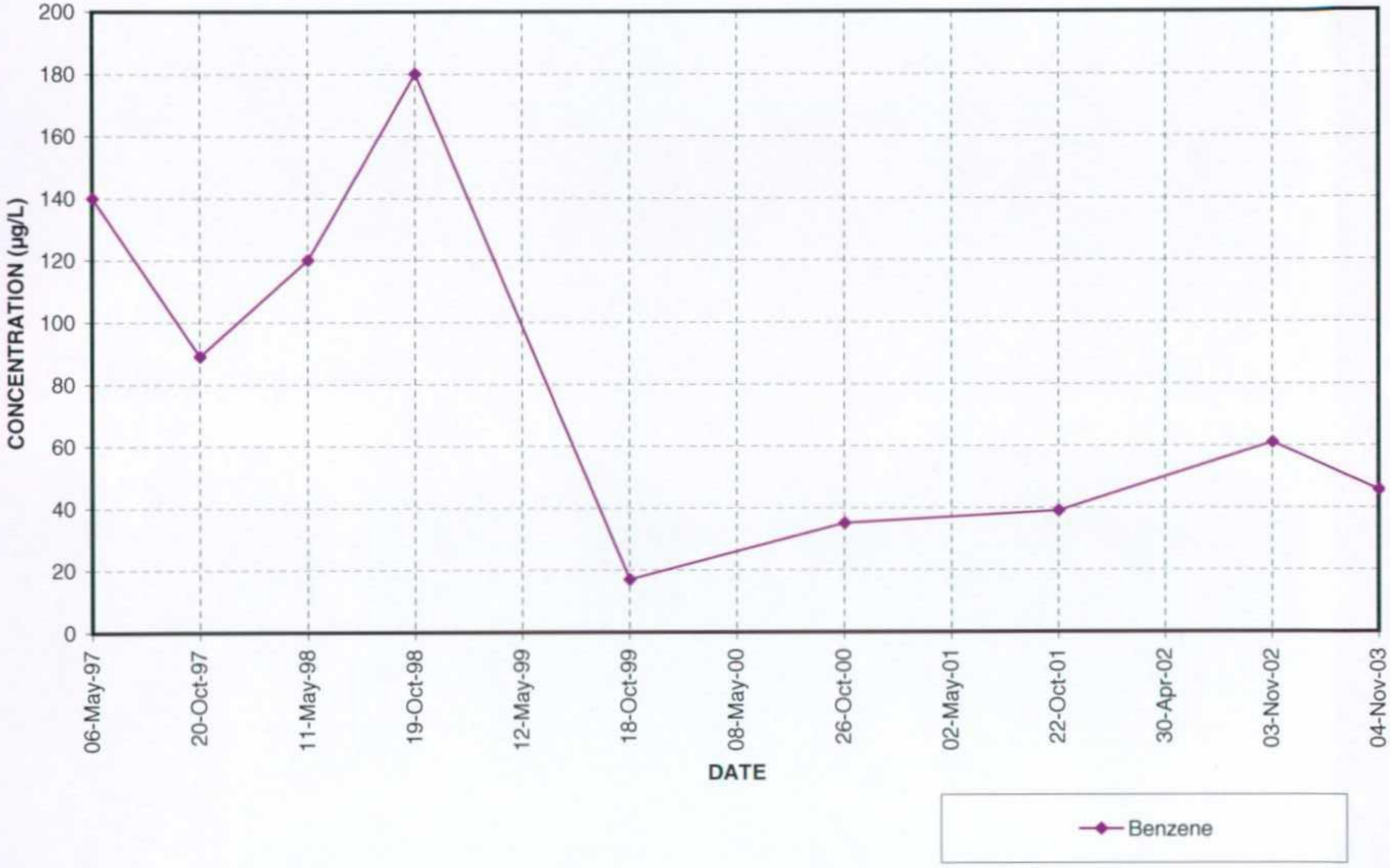


A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

MONITOR WELL ACW-02A

MONITOR WELL ACW-02A

MONITOR WELL ACW-02A



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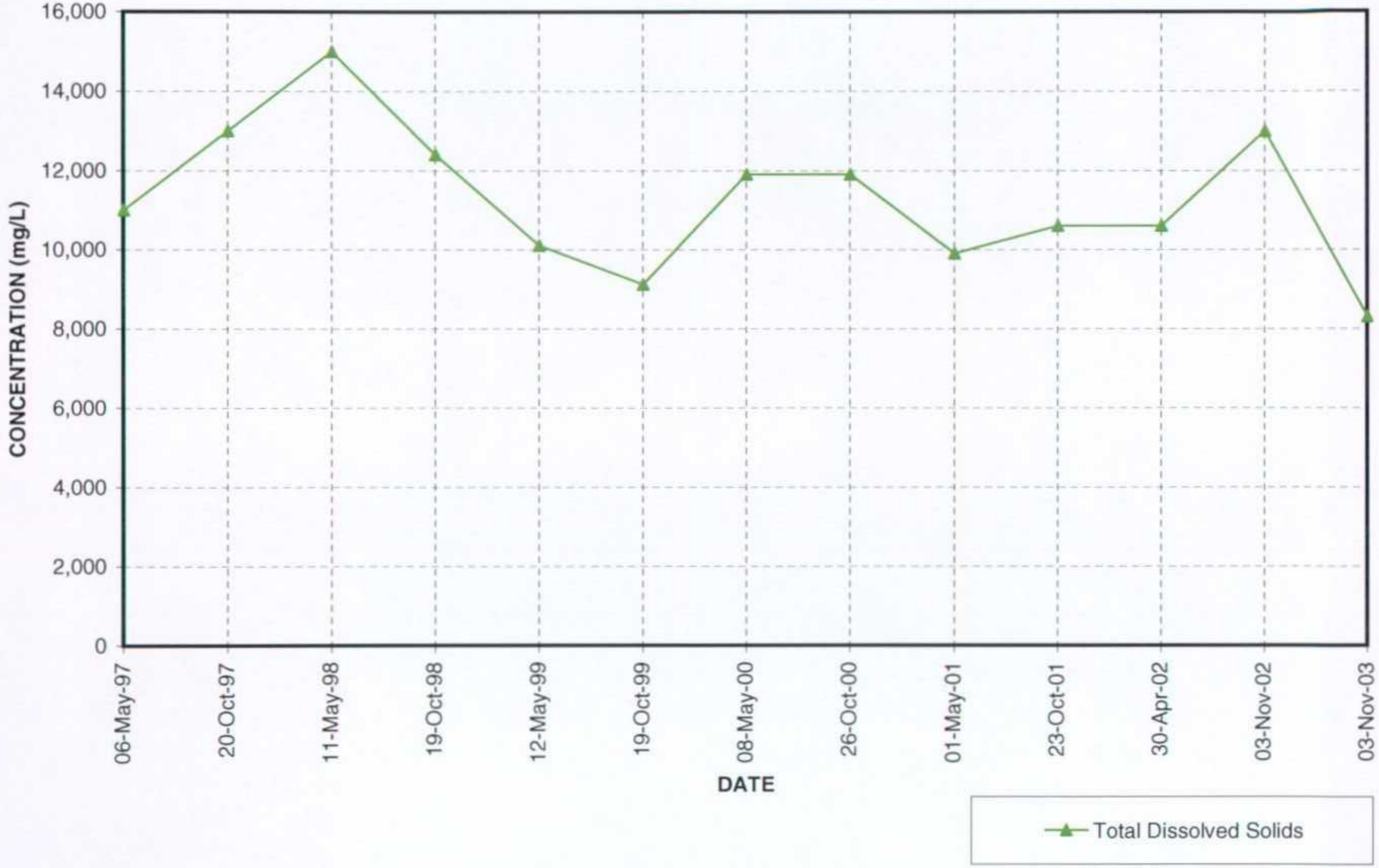
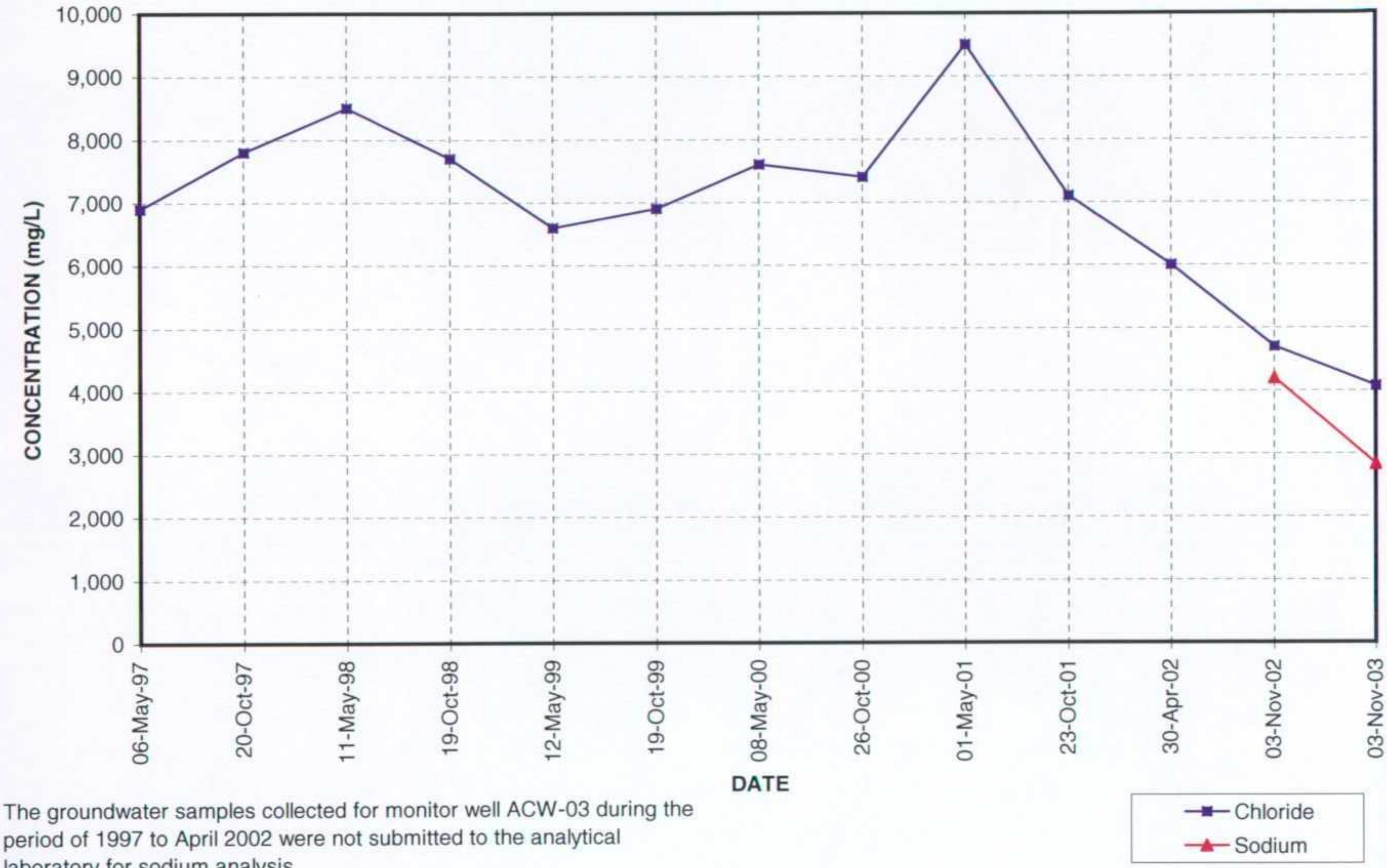
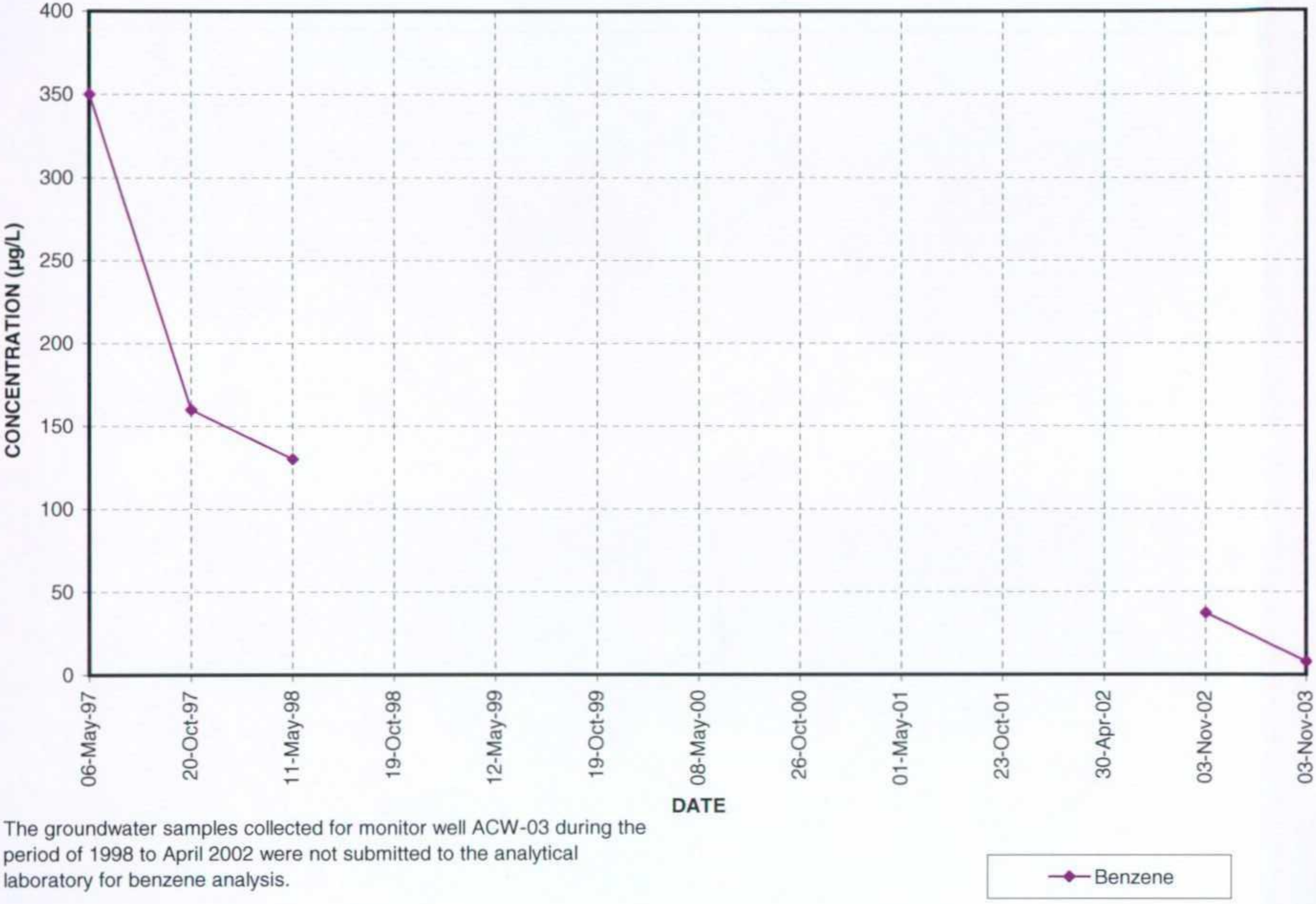


MONITOR WELL ACW-03



The groundwater samples collected for monitor well ACW-03 during the period of 1997 to April 2002 were not submitted to the analytical laboratory for sodium analysis.

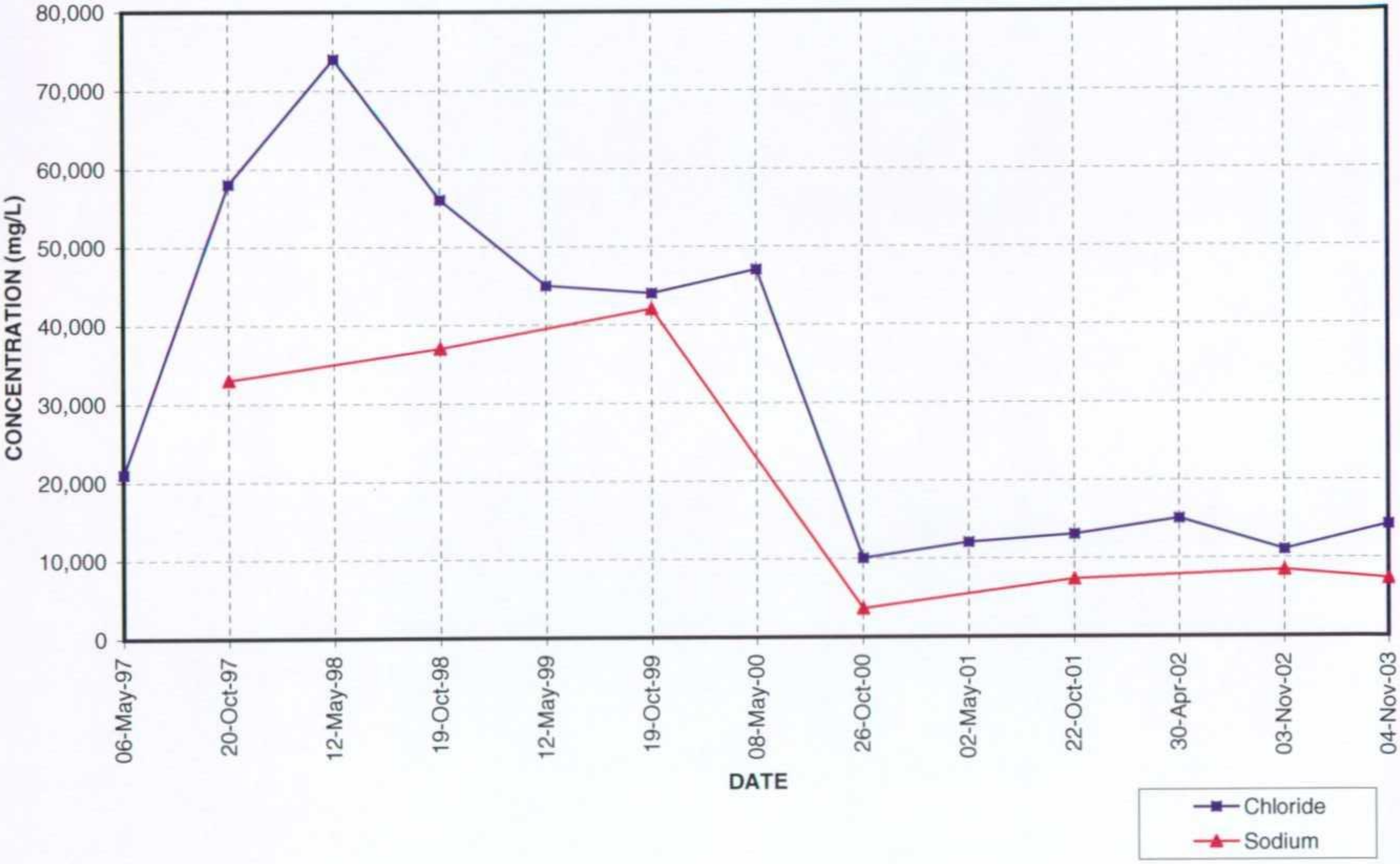
MONITOR WELL ACW-03



The groundwater samples collected for monitor well ACW-03 during the period of 1998 to April 2002 were not submitted to the analytical laboratory for benzene analysis.

MONITOR WELL ACW-04

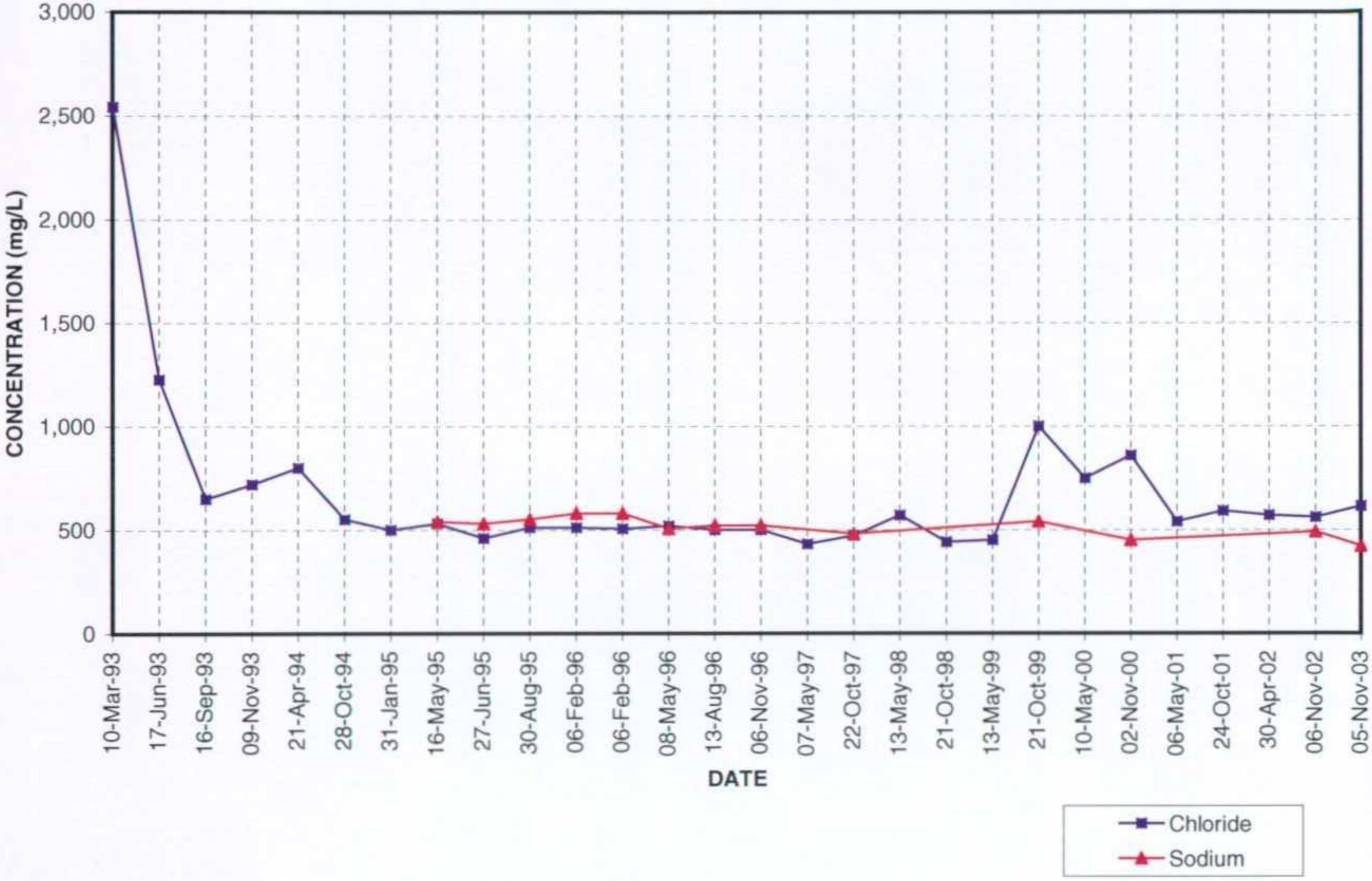
MONITOR WELL ACW-04



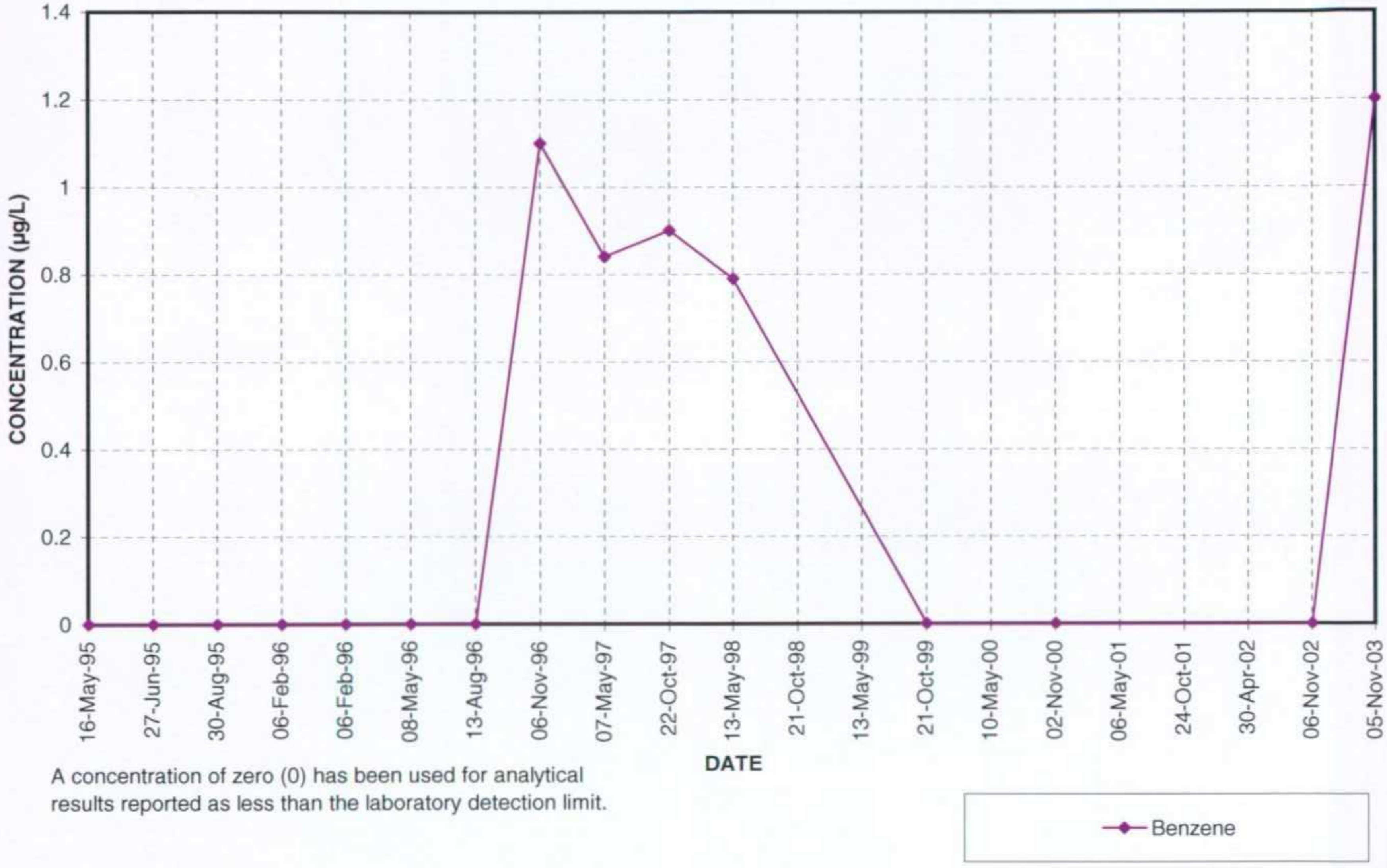
MONITOR WELL ACW-04

MONITOR WELL ACW-05

MONITOR WELL ACW-05

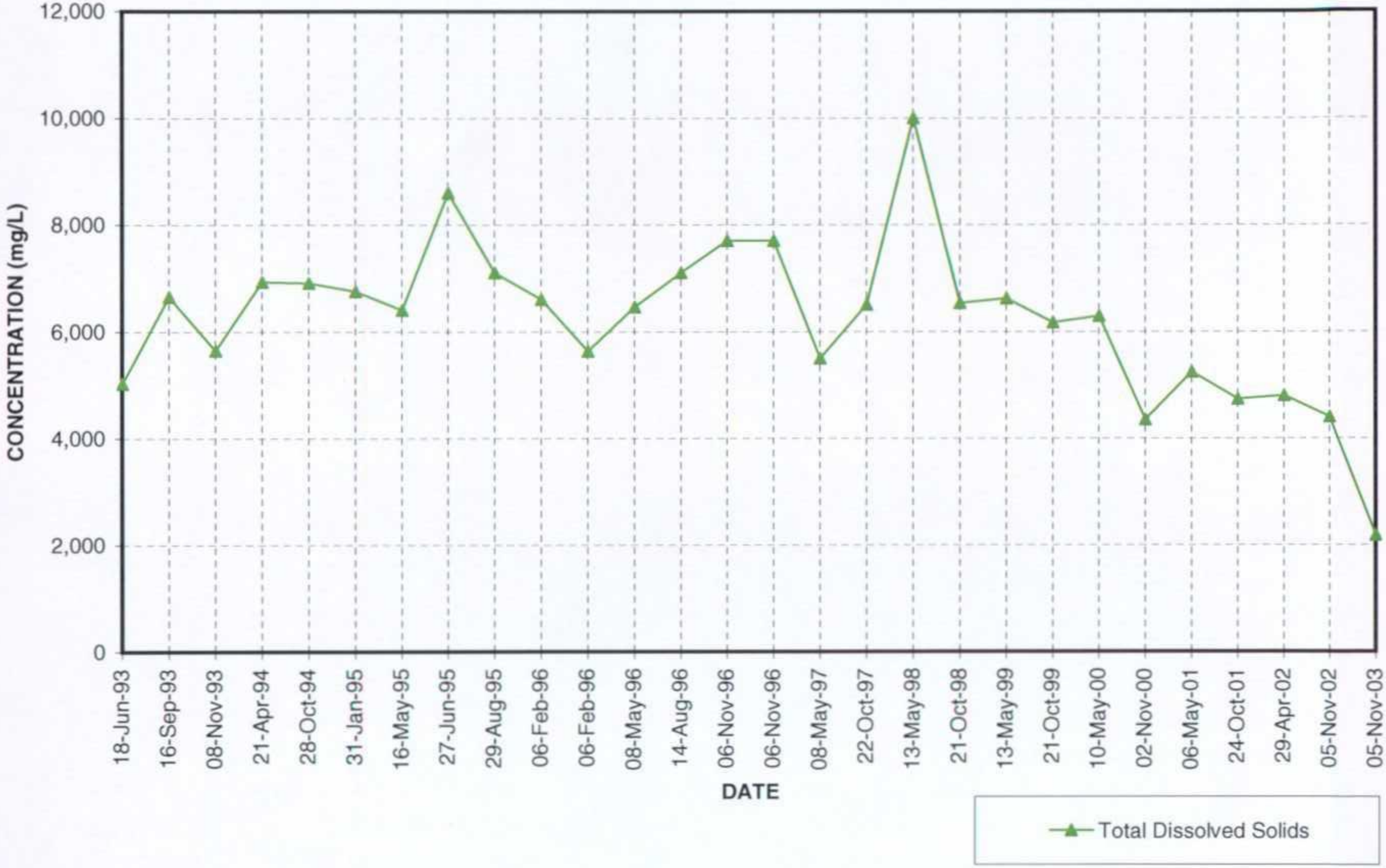


MONITOR WELL ACW-05



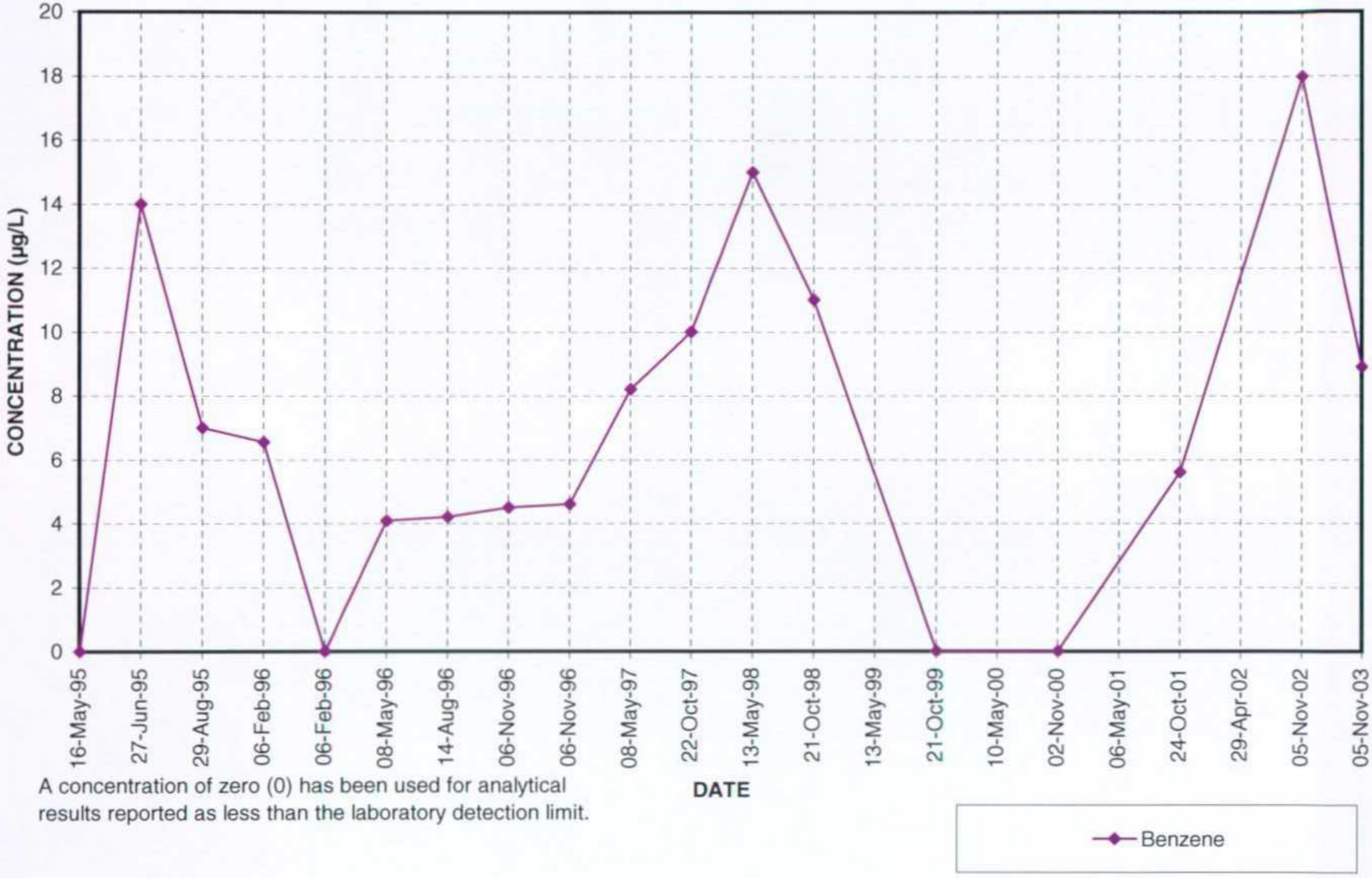
A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

MONITOR WELL ACW-06



MONITOR WELL ACW-06

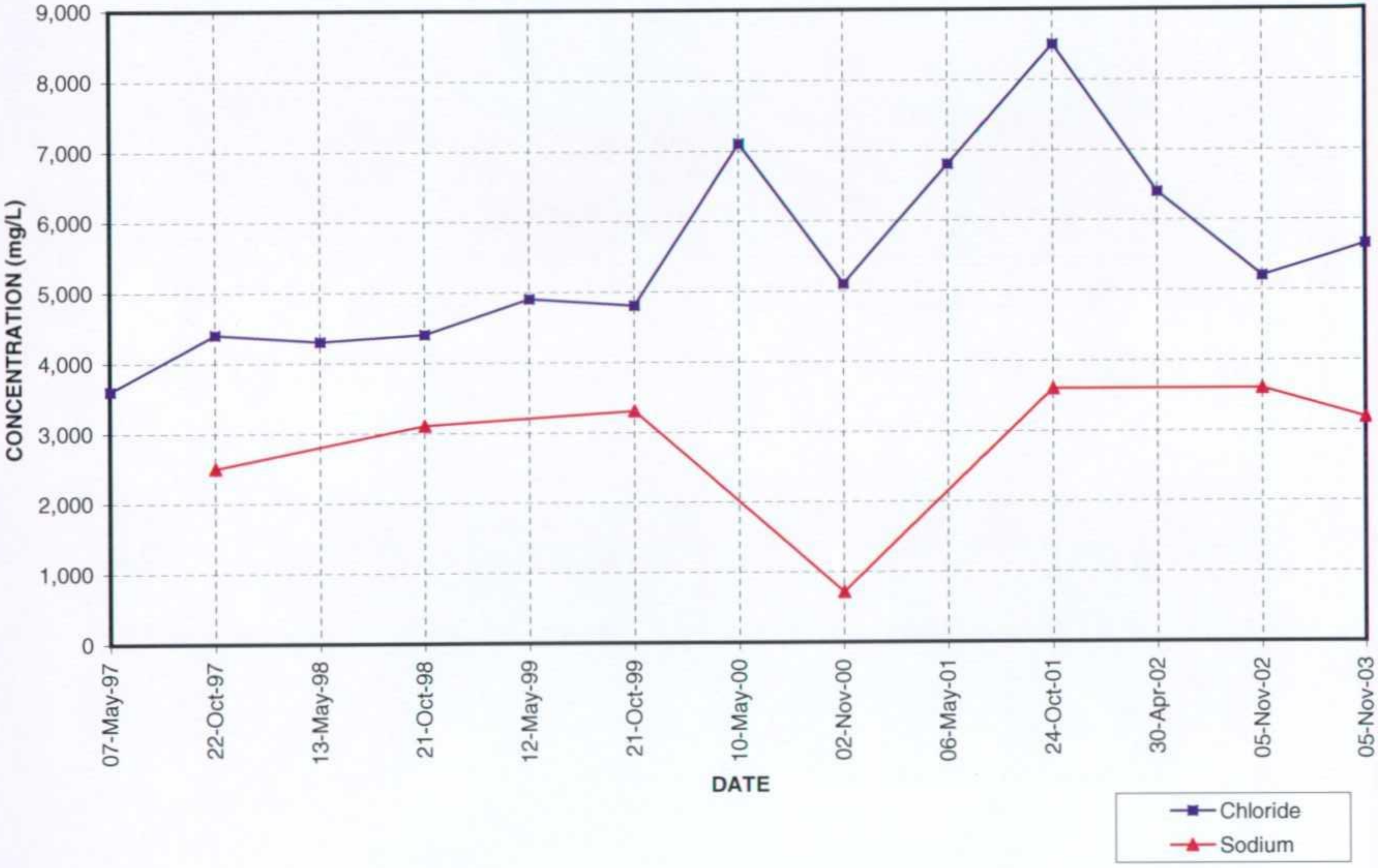
MONITOR WELL ACW-06



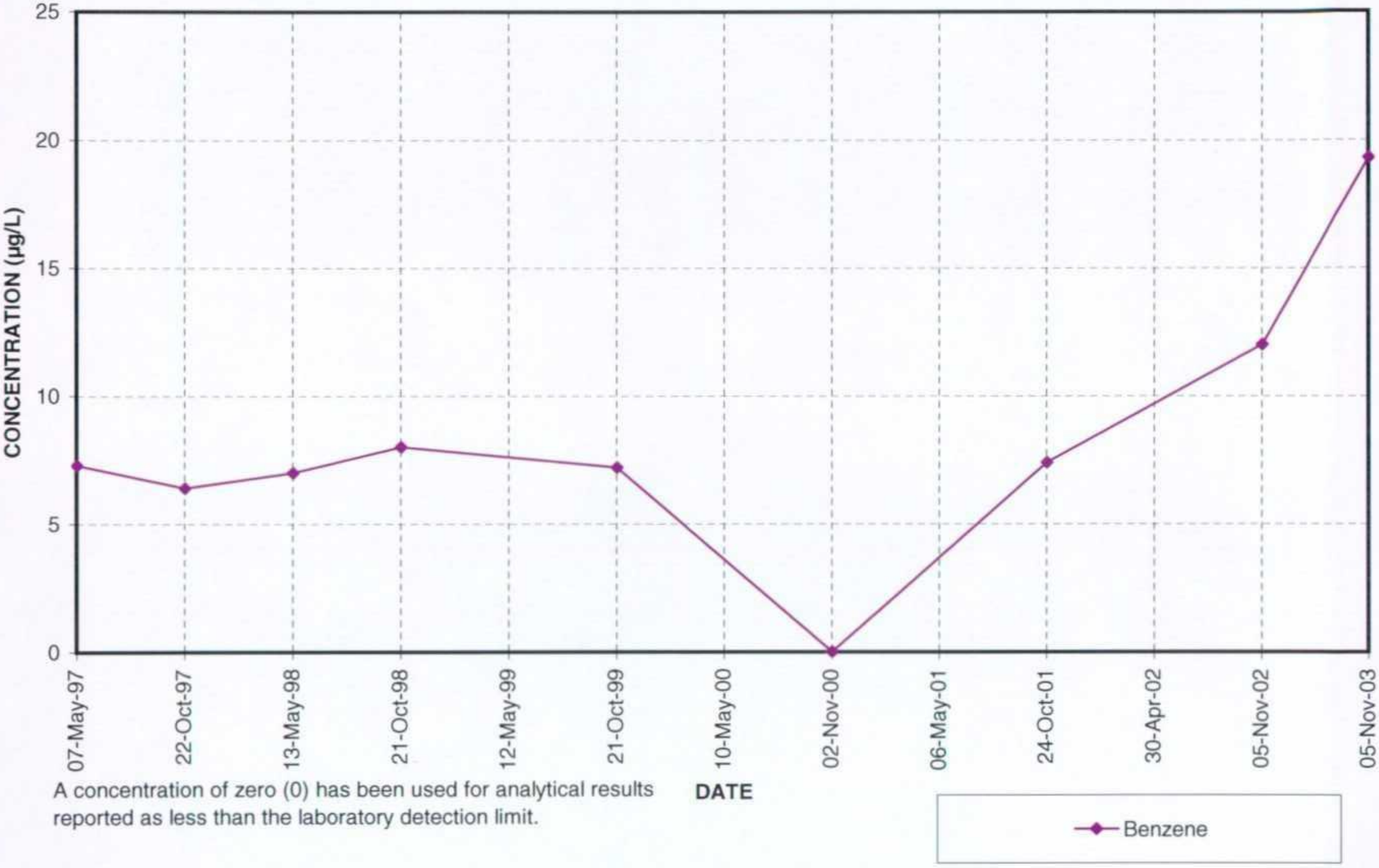
A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

MONITOR WELL ACW-07

MONITOR WELL ACW-07

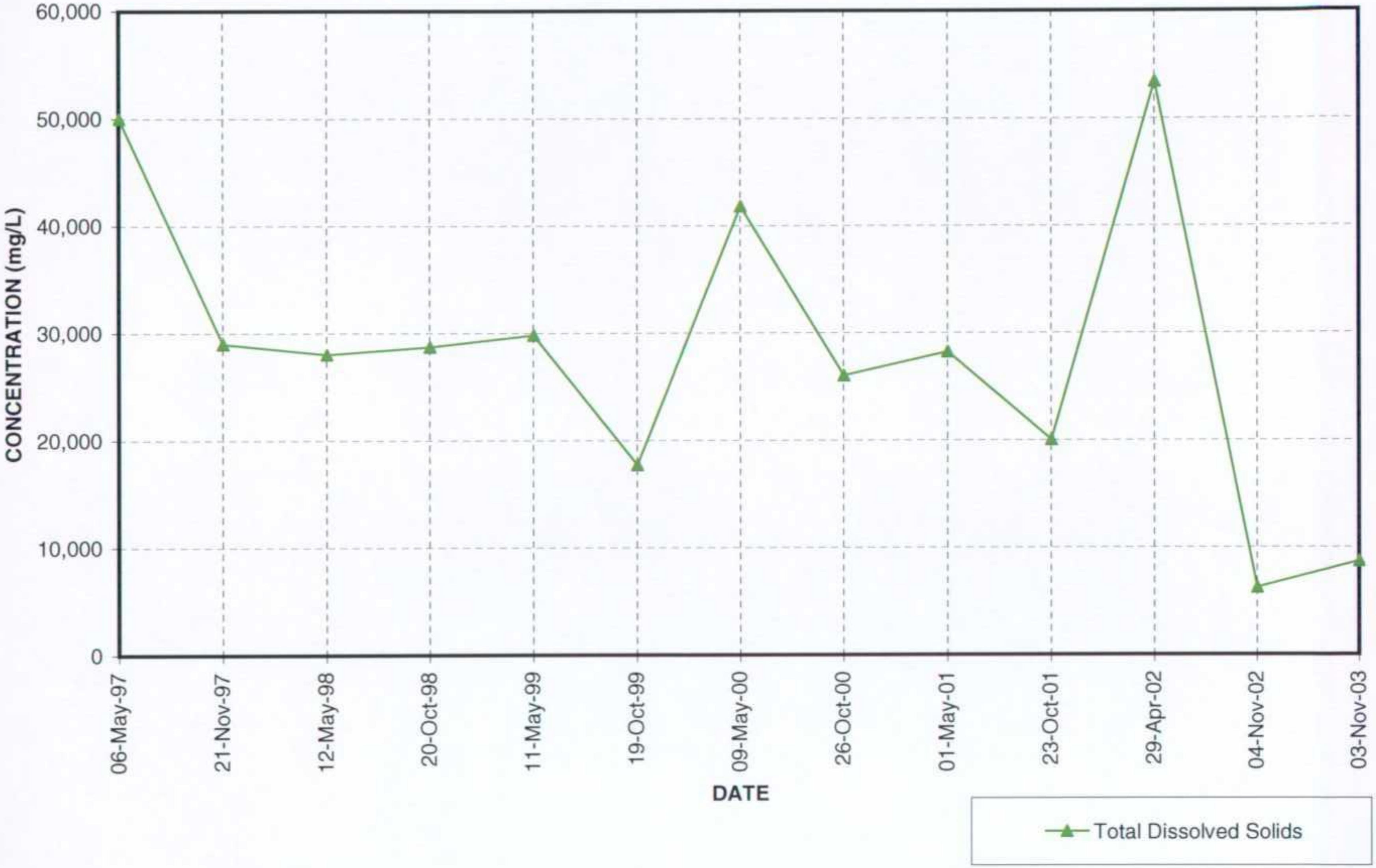


MONITOR WELL ACW-07

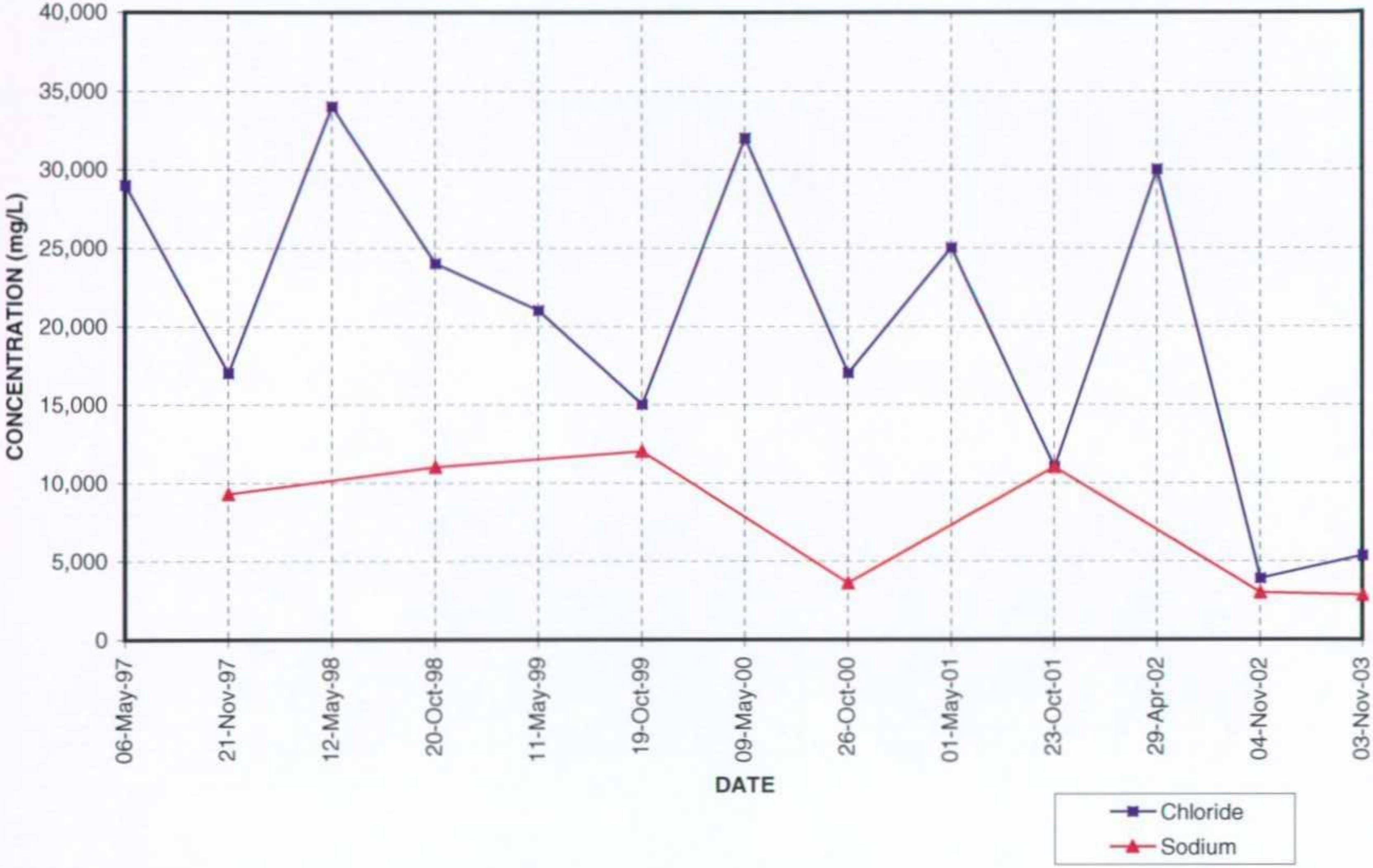


A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

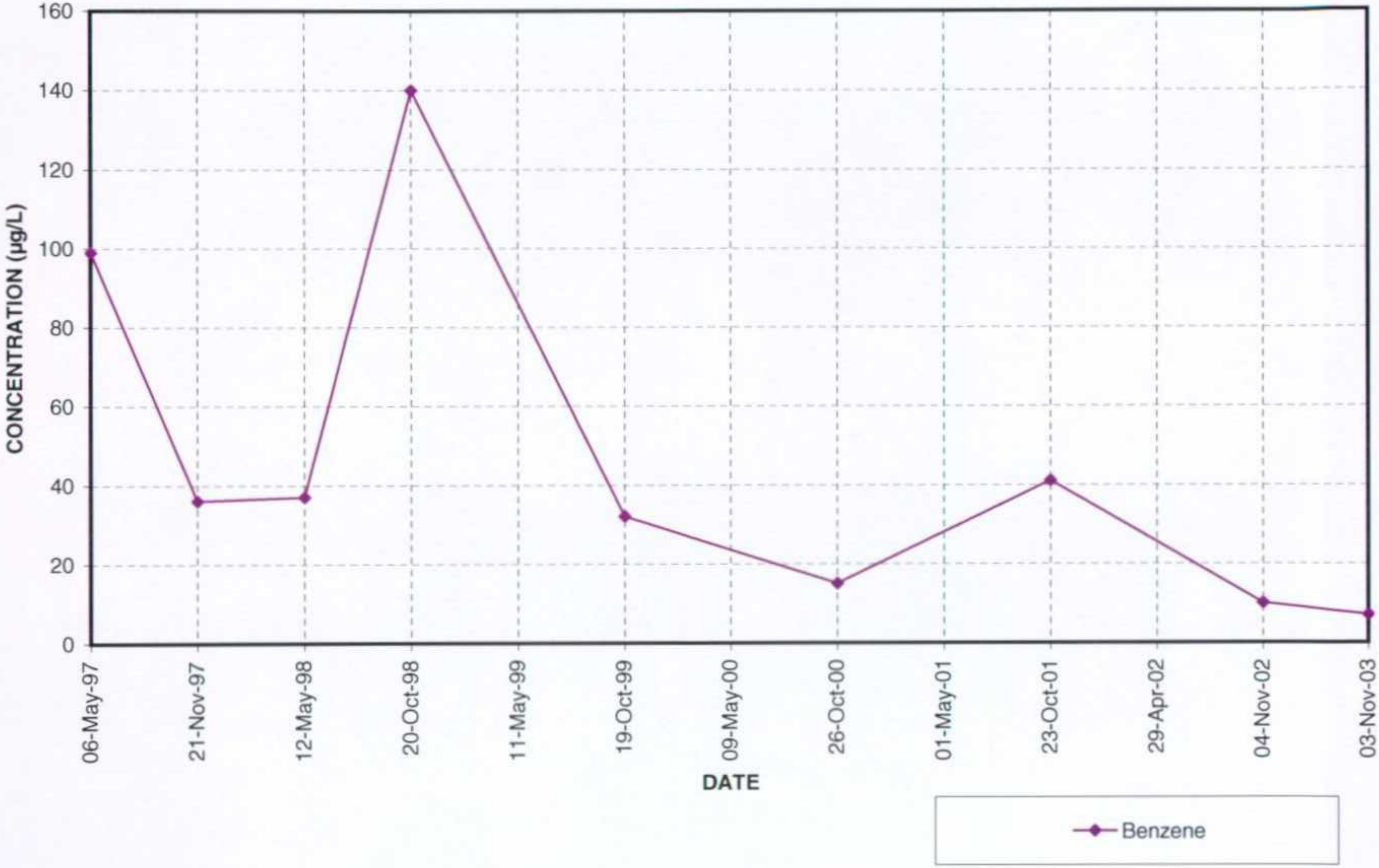
MONITOR WELL ACW-08



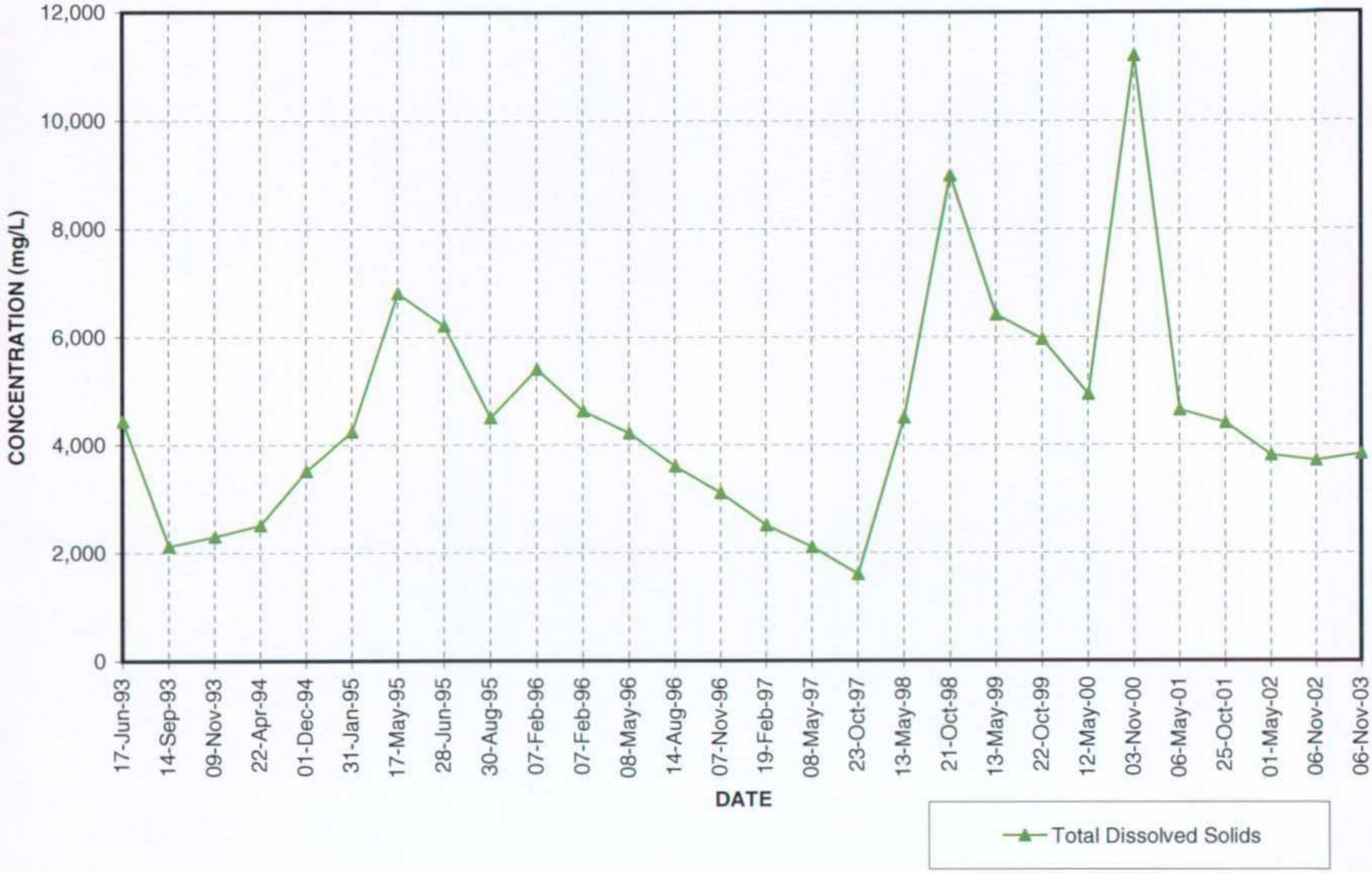
MONITOR WELL ACW-08



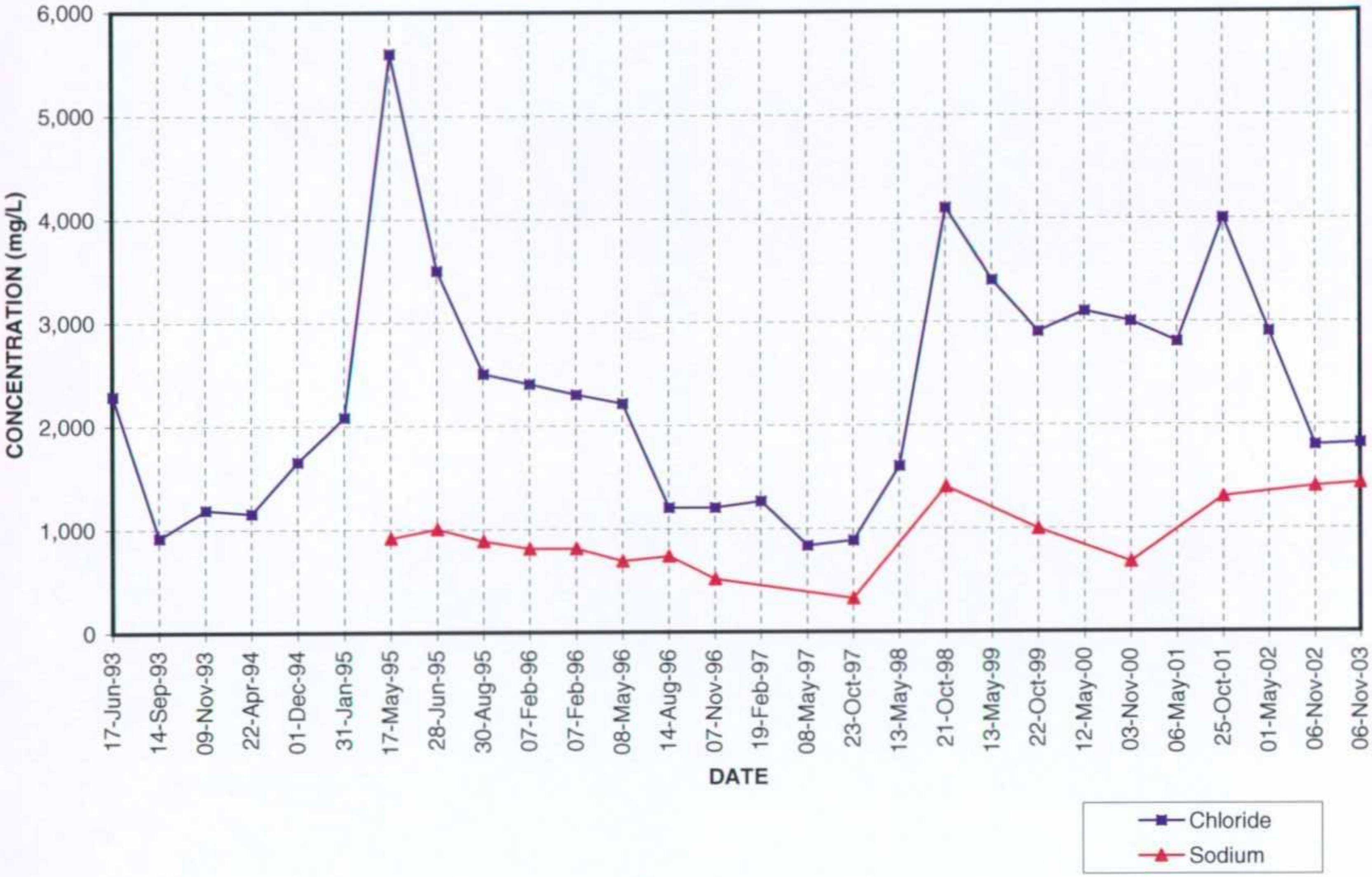
MONITOR WELL ACW-08



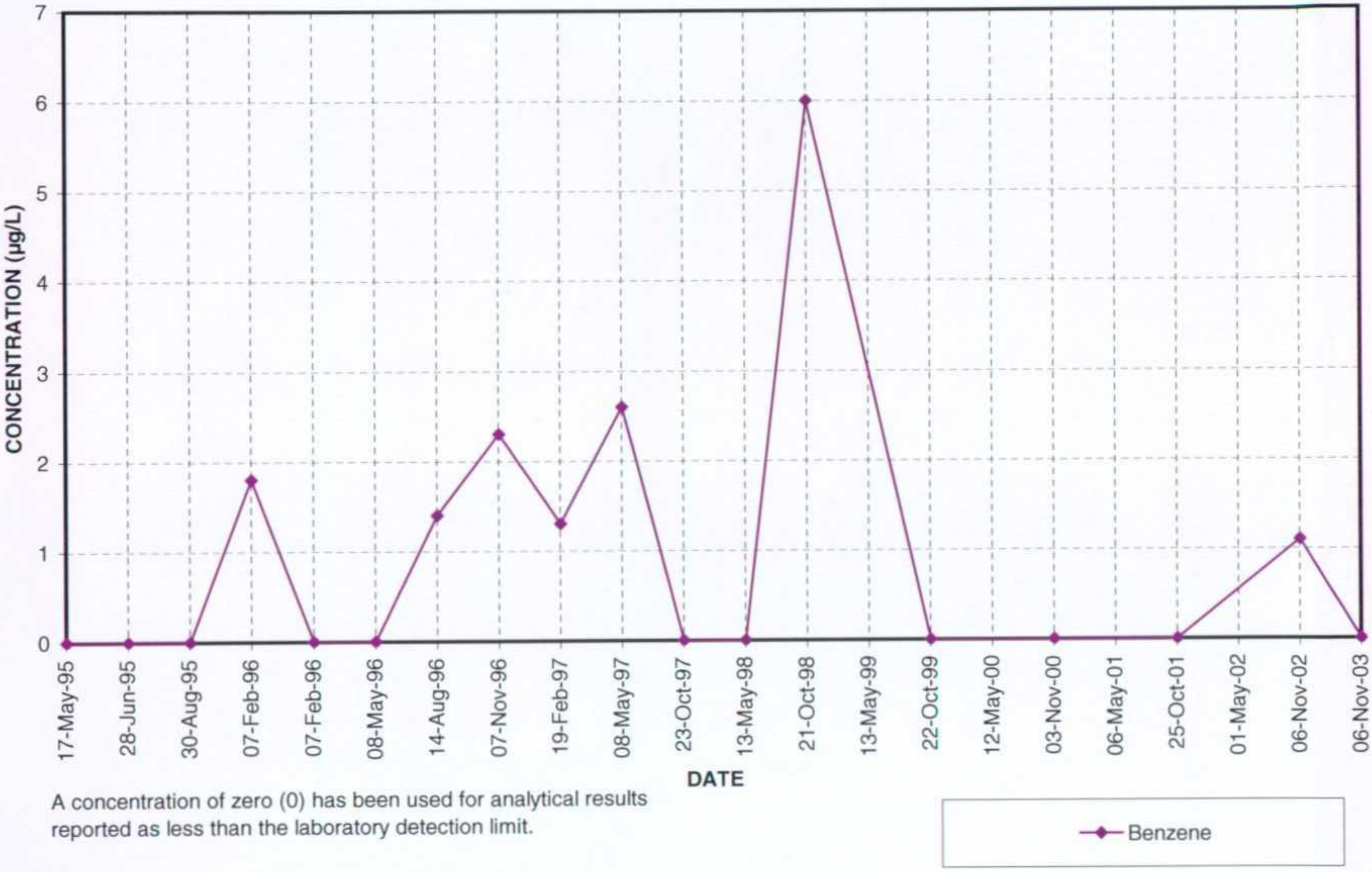
MONITOR WELL ACW-09



MONITOR WELL ACW-09

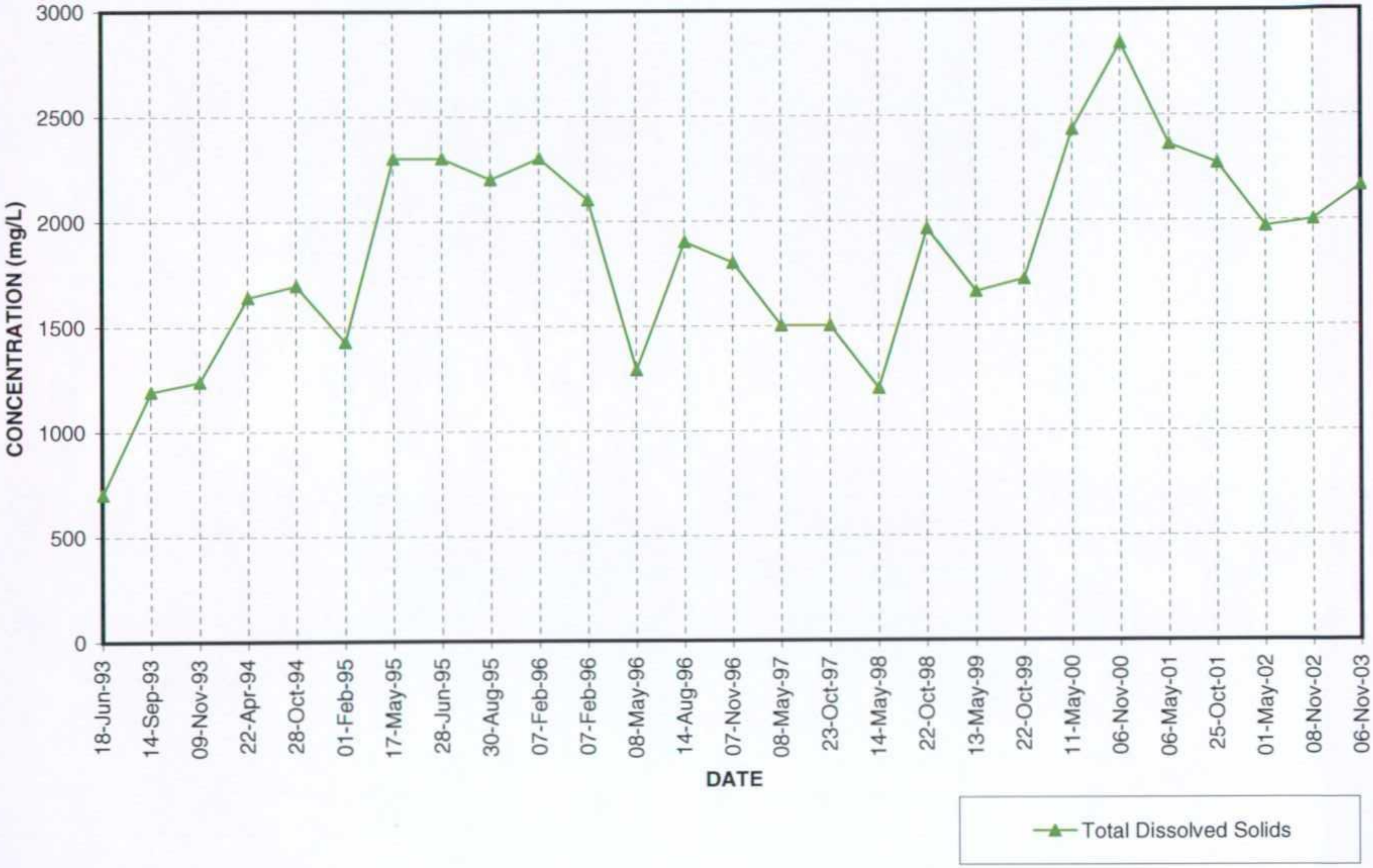


MONITOR WELL ACW-09

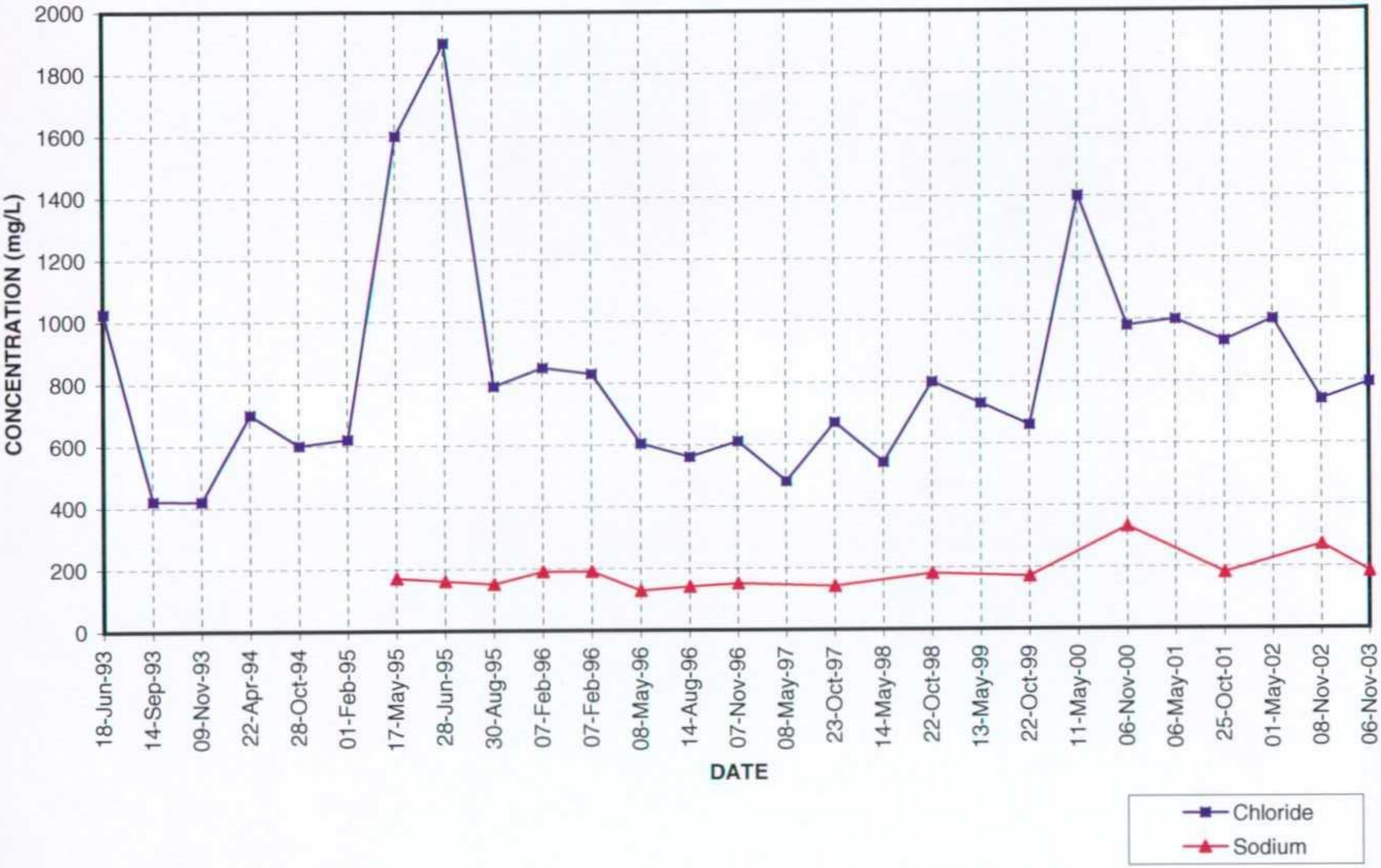


A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

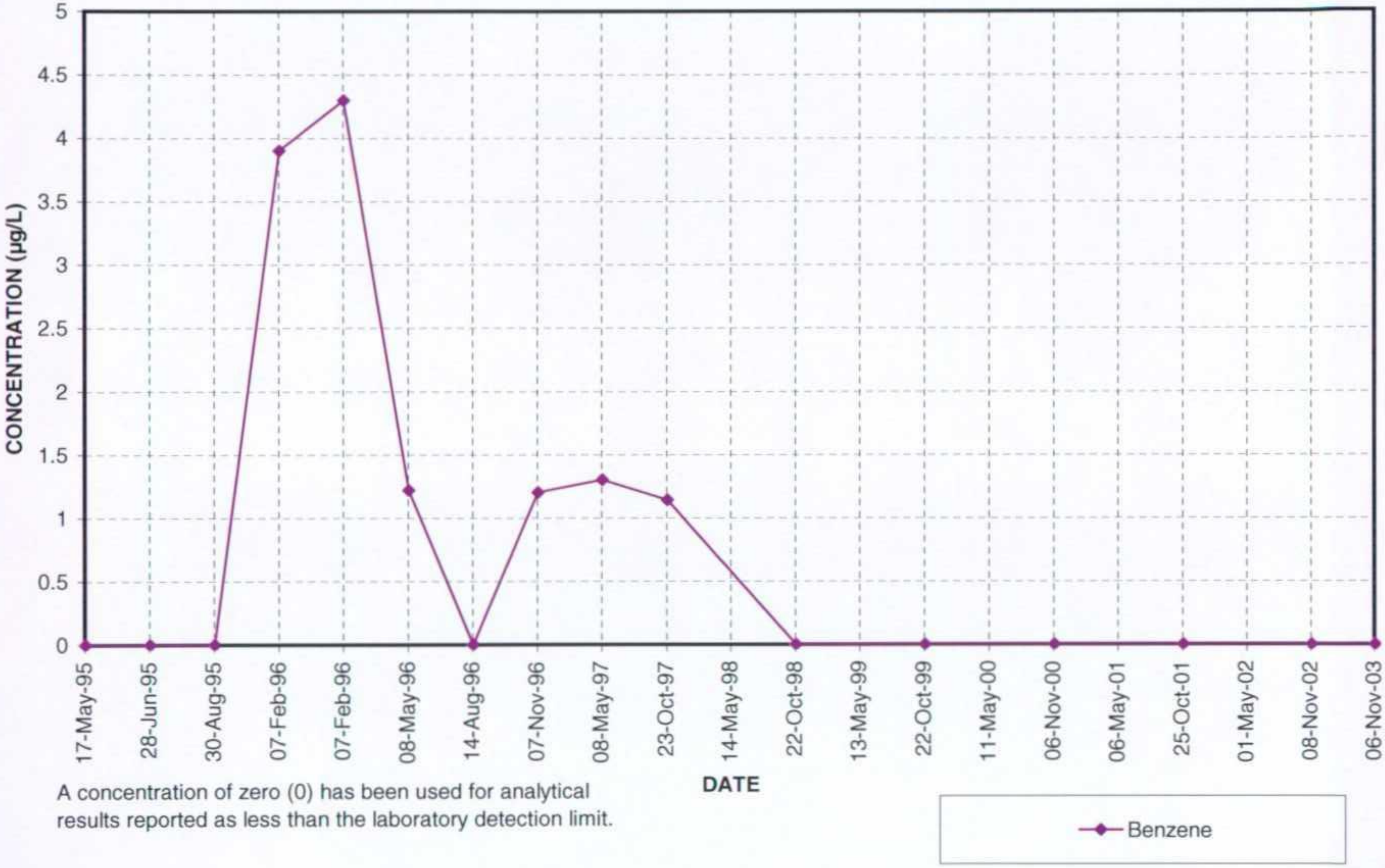
MONITOR WELL ACW-10



MONITOR WELL ACW-10



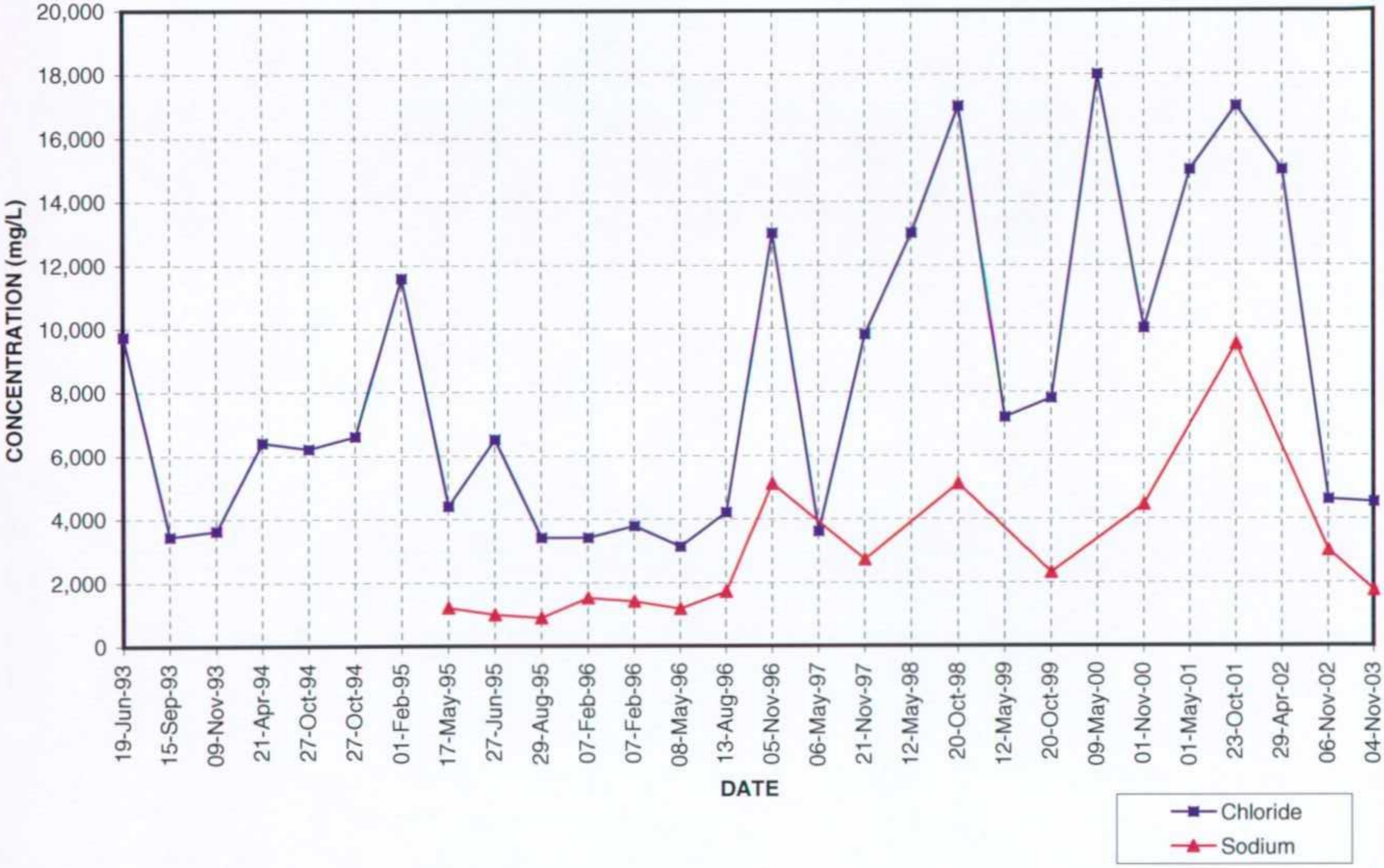
MONITOR WELL ACW-10



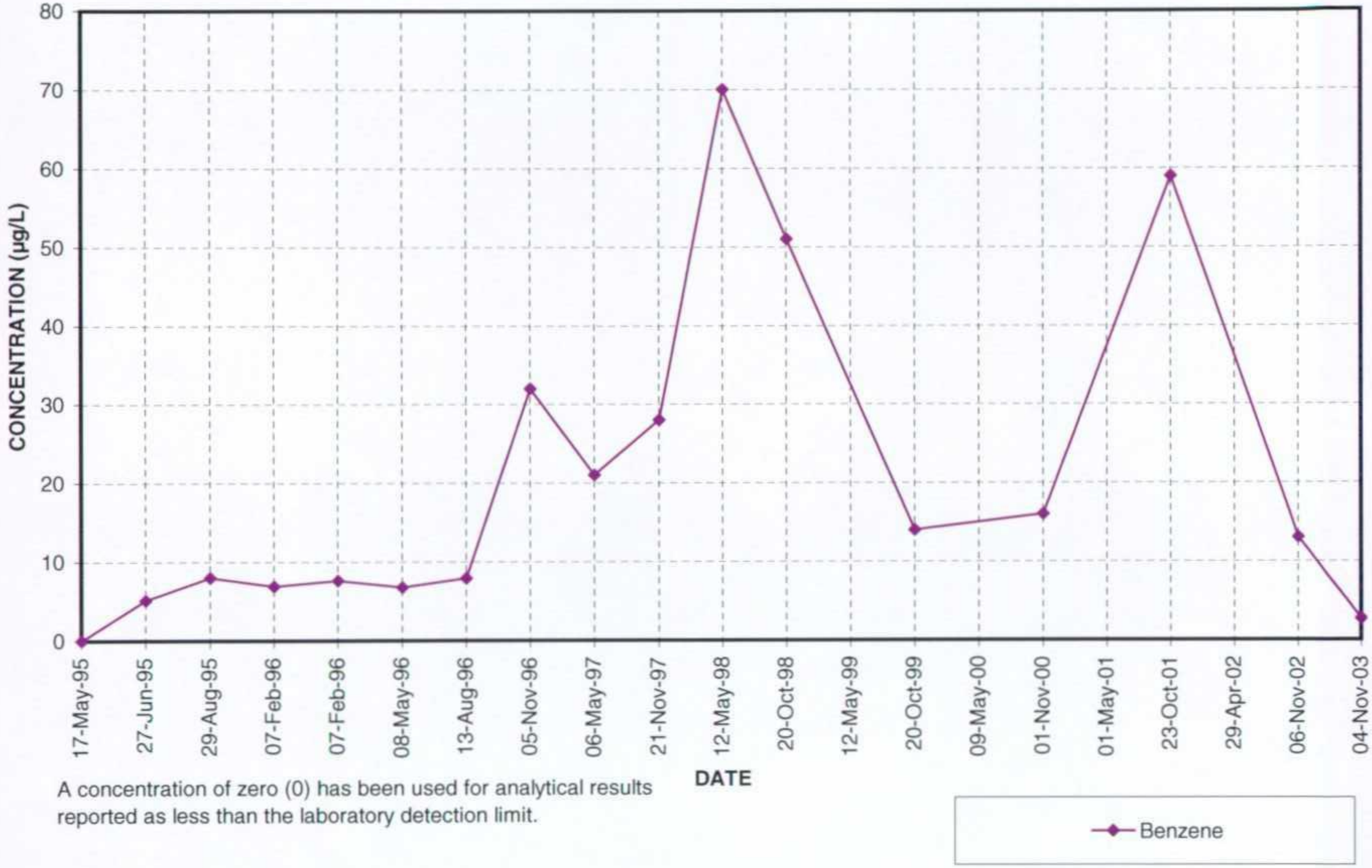
A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

MONITOR WELL ACW-11

MONITOR WELL ACW-11

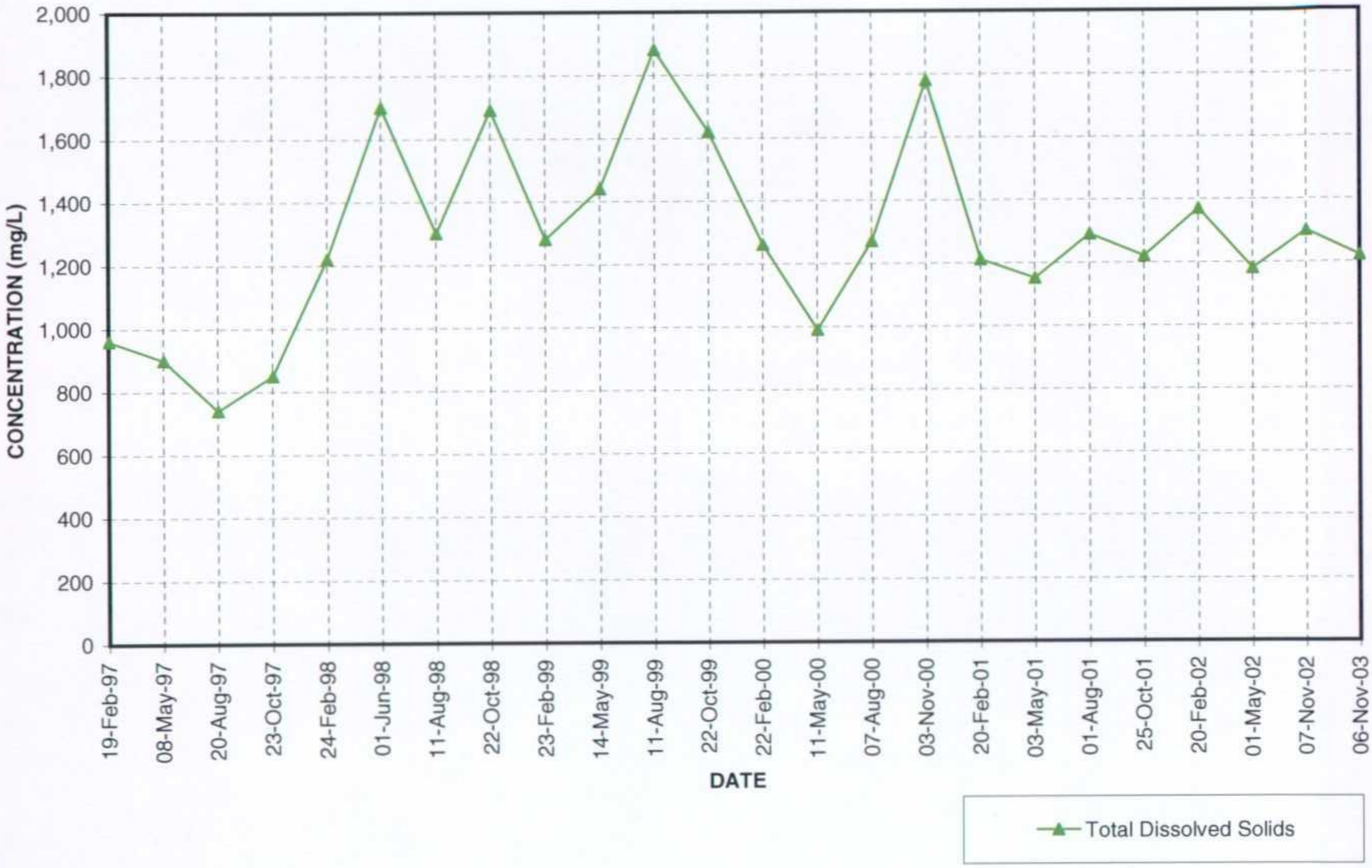


MONITOR WELL ACW-11

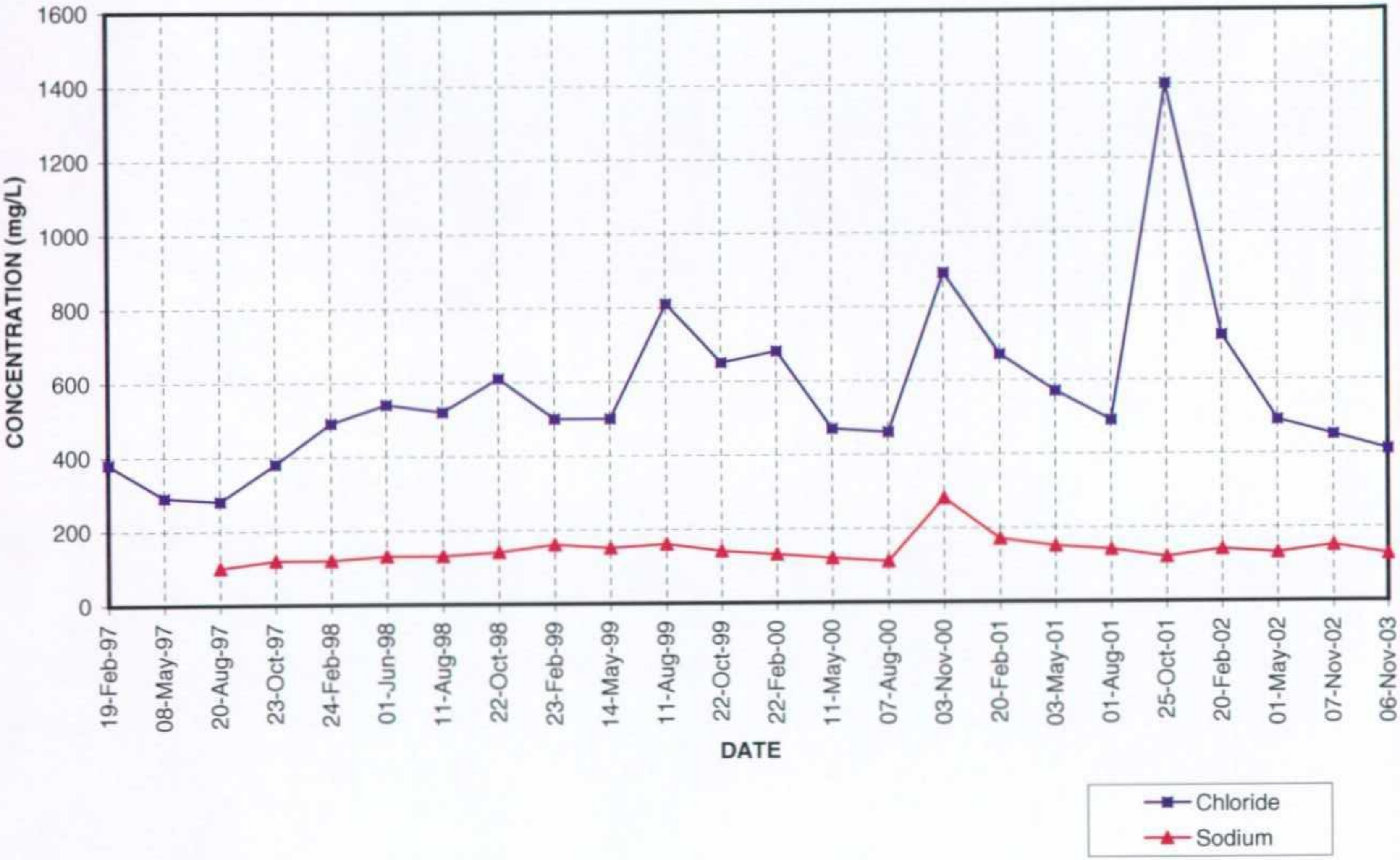


A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

MONITOR WELL ACW-12



MONITOR WELL ACW-12



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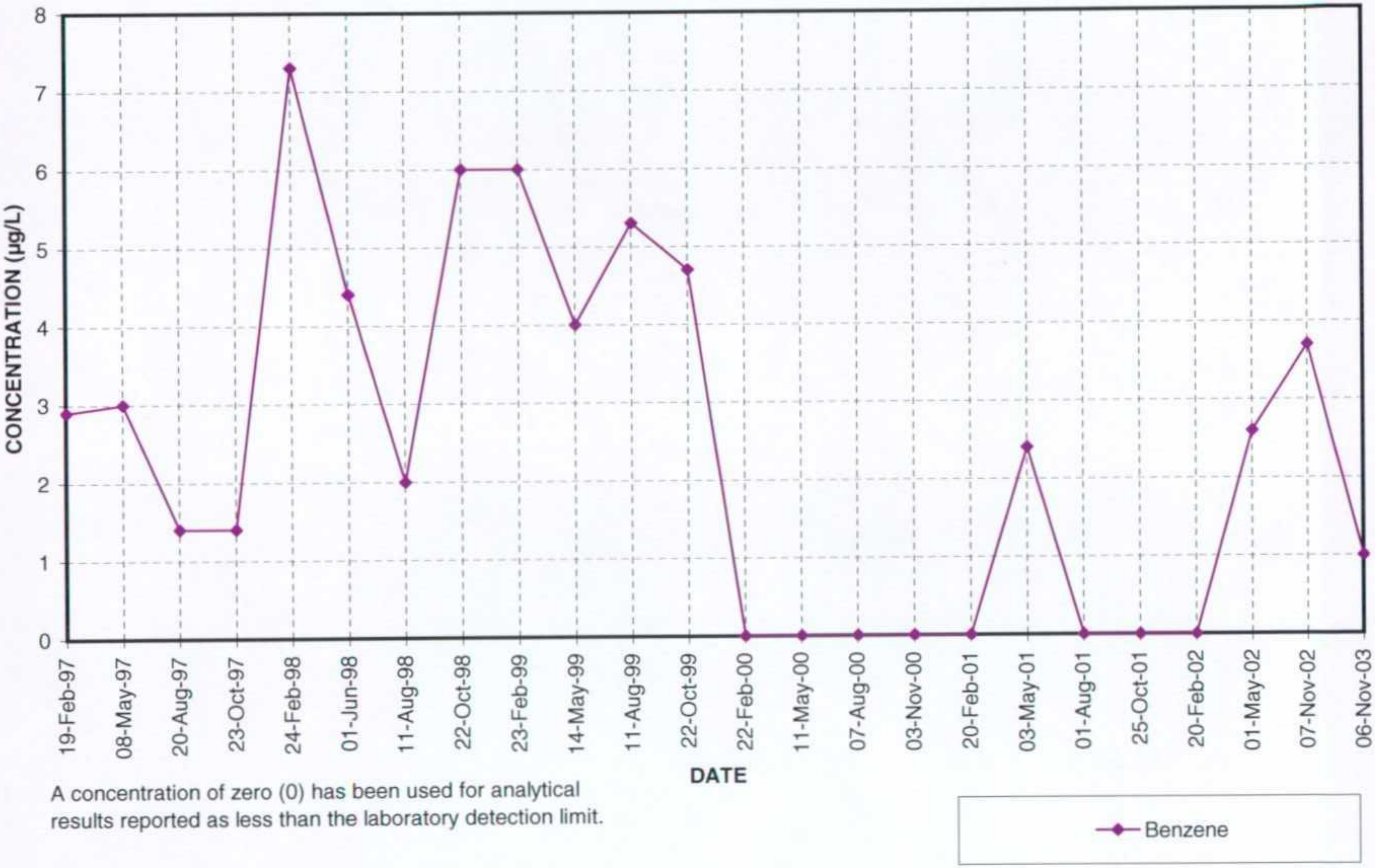

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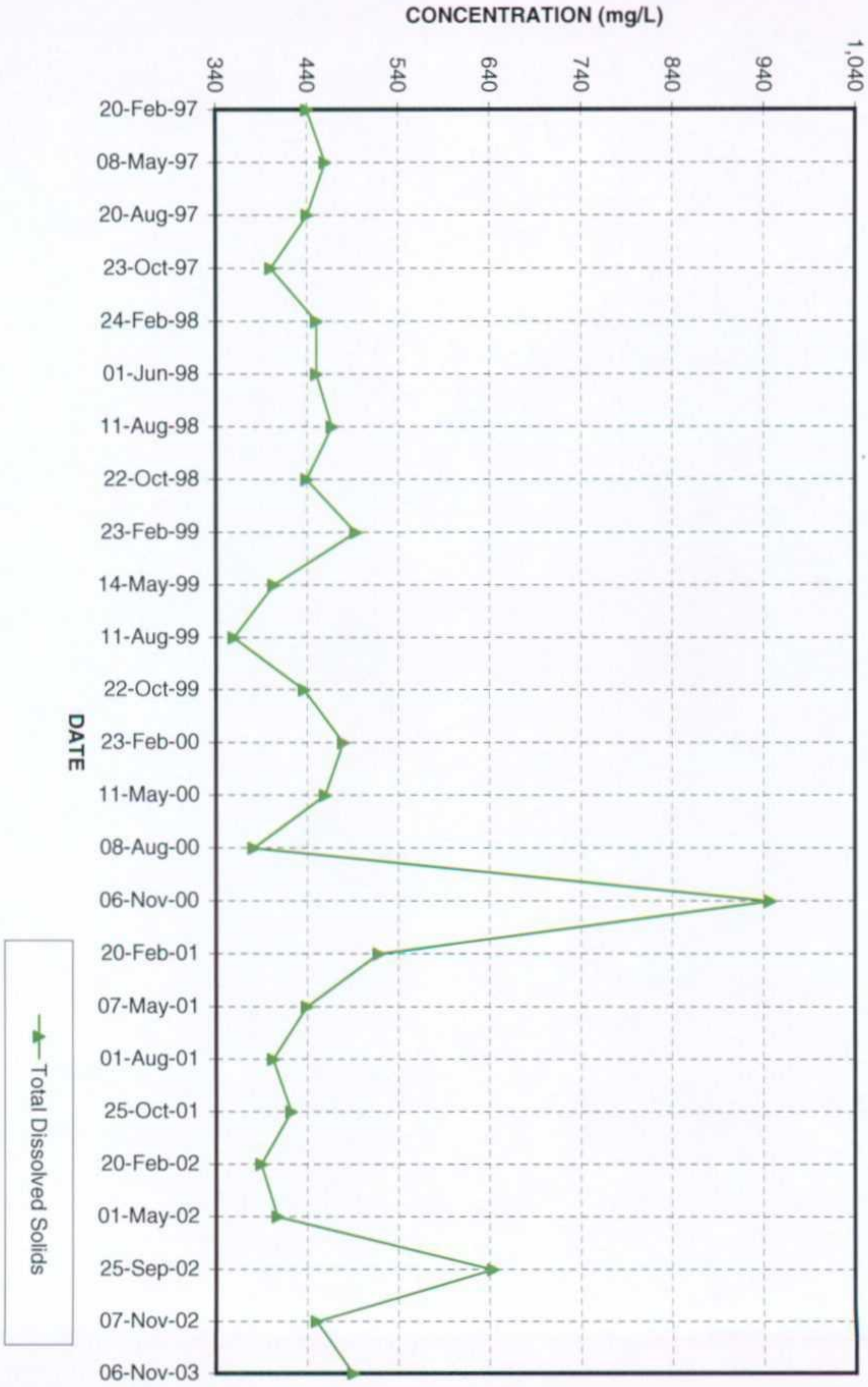

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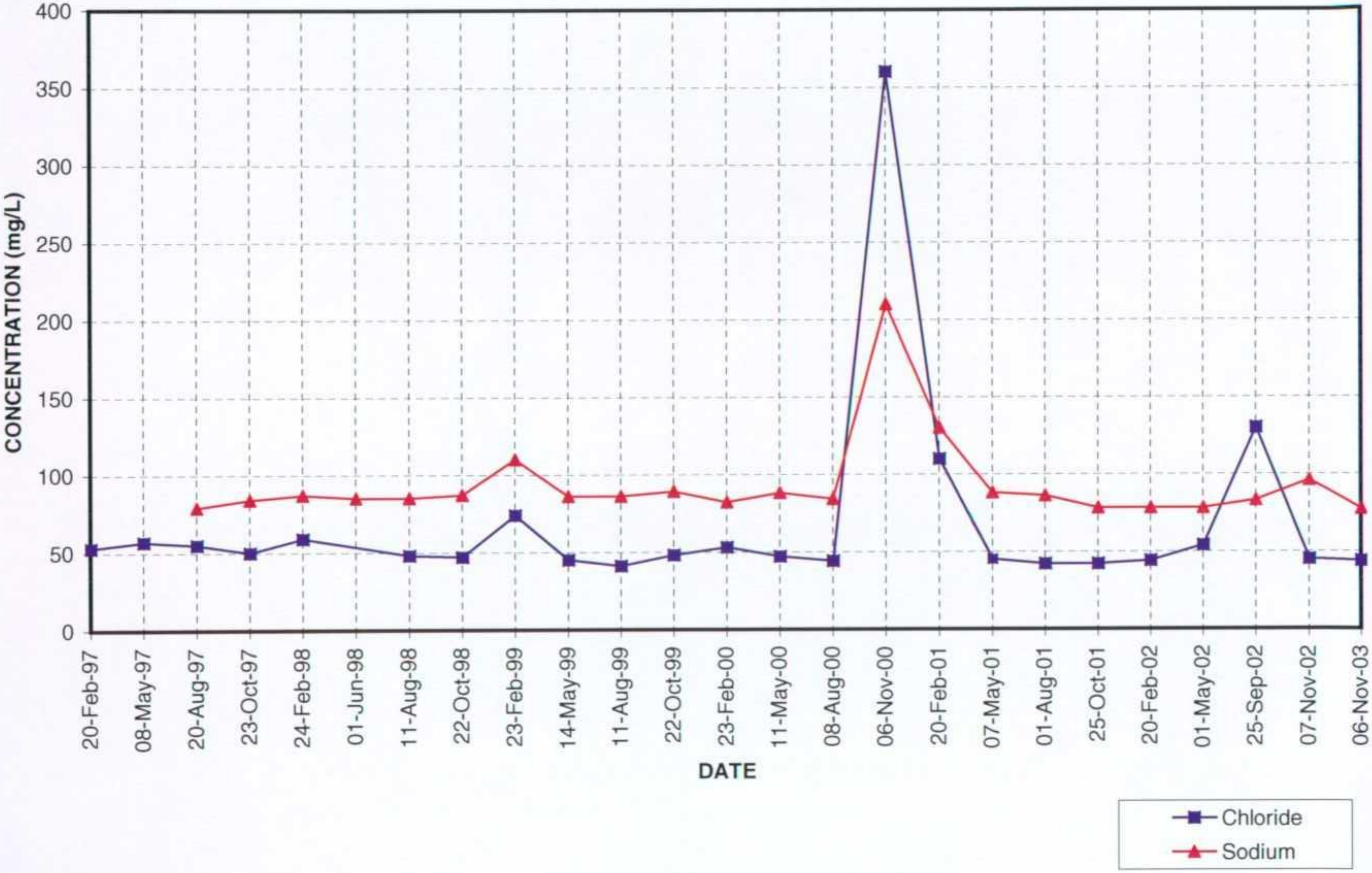
MONITOR WELL ACW-13



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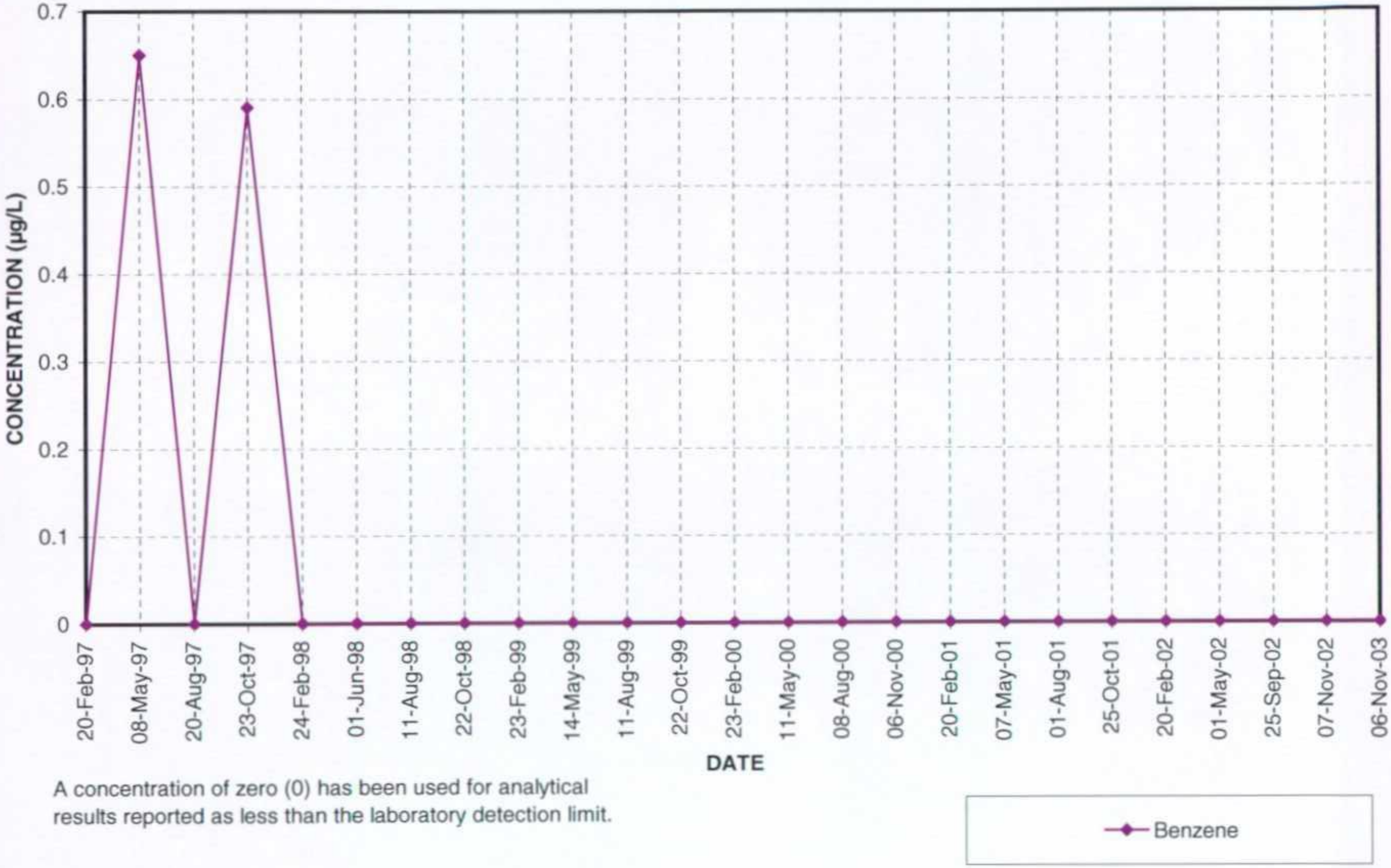

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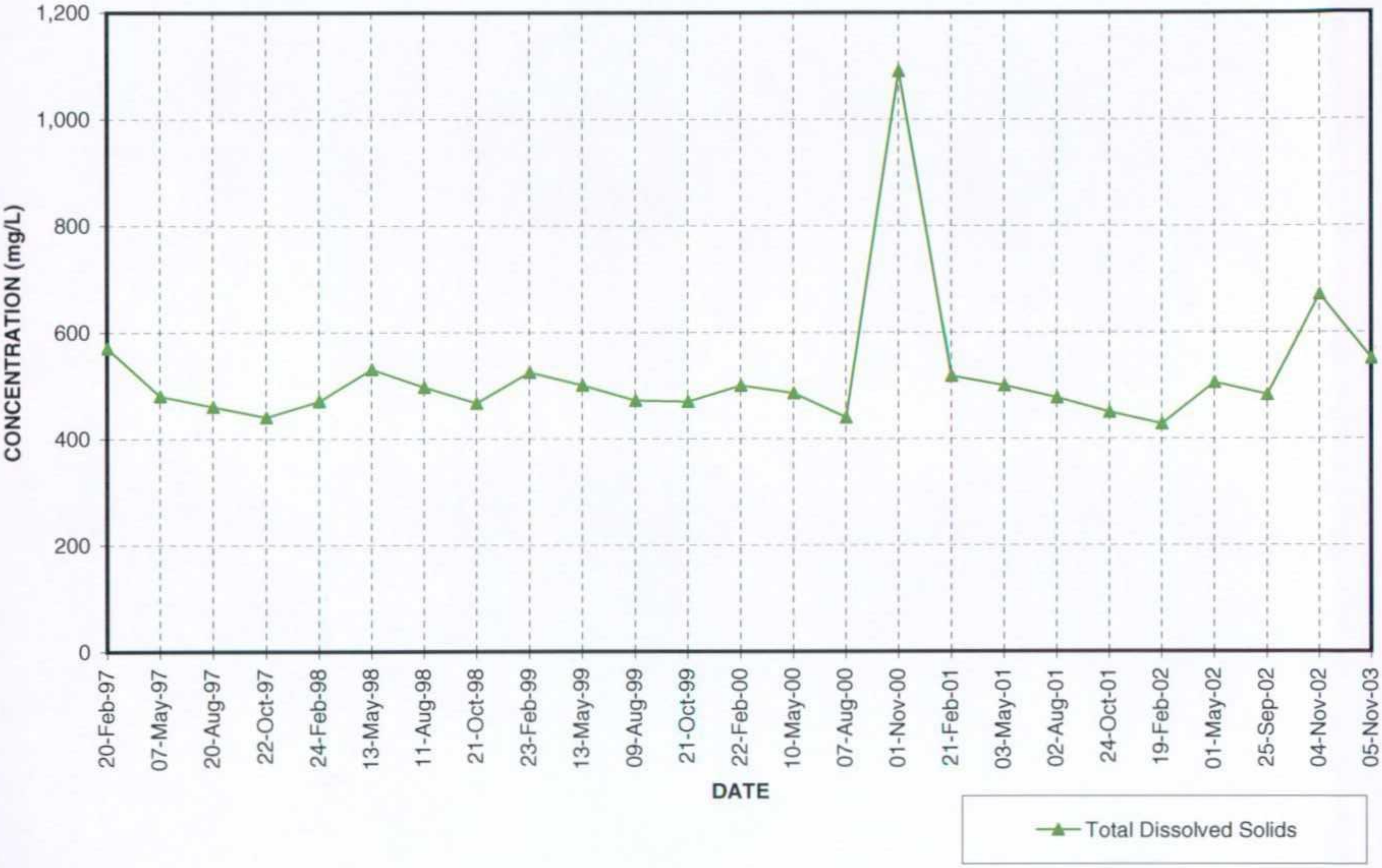

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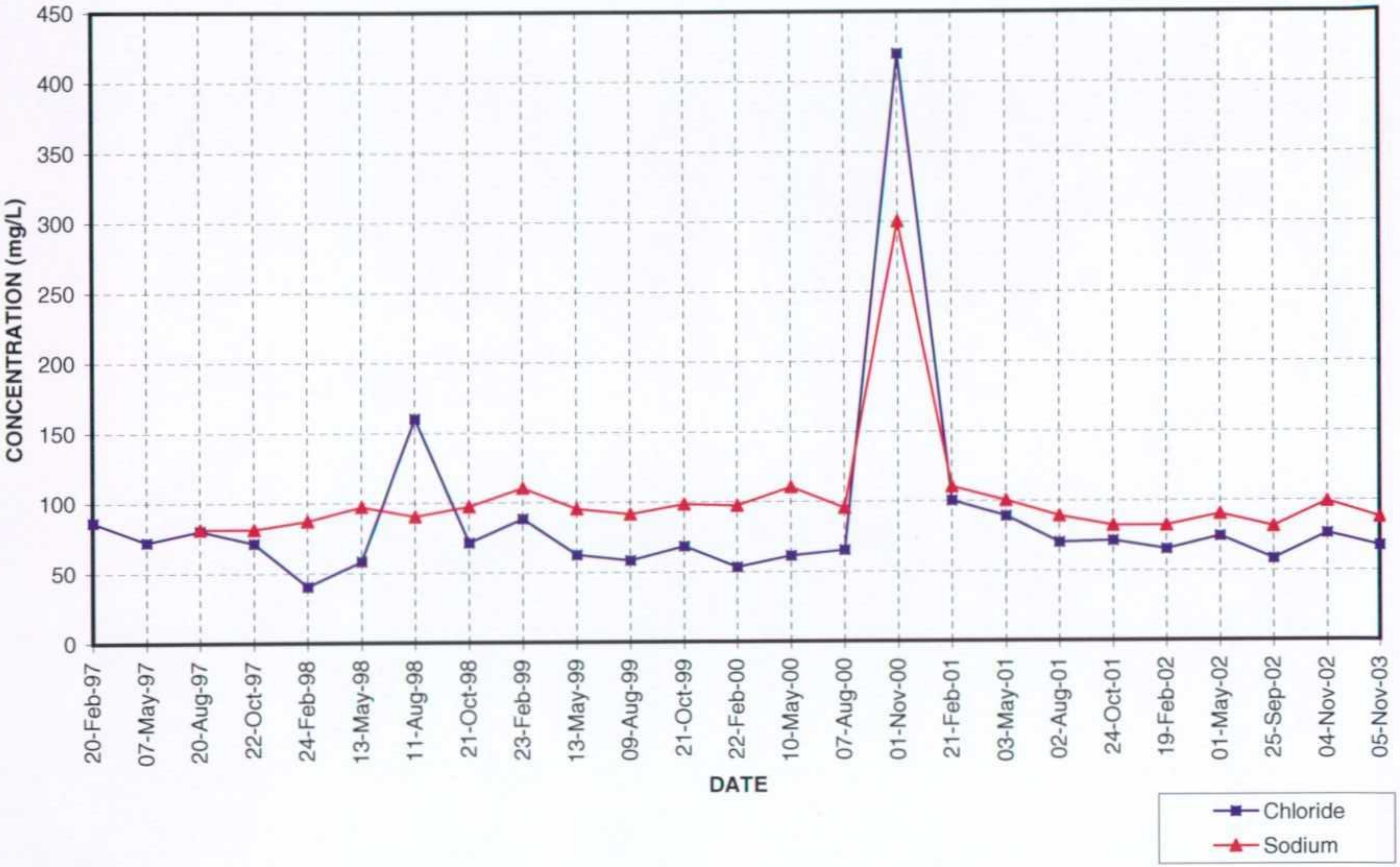

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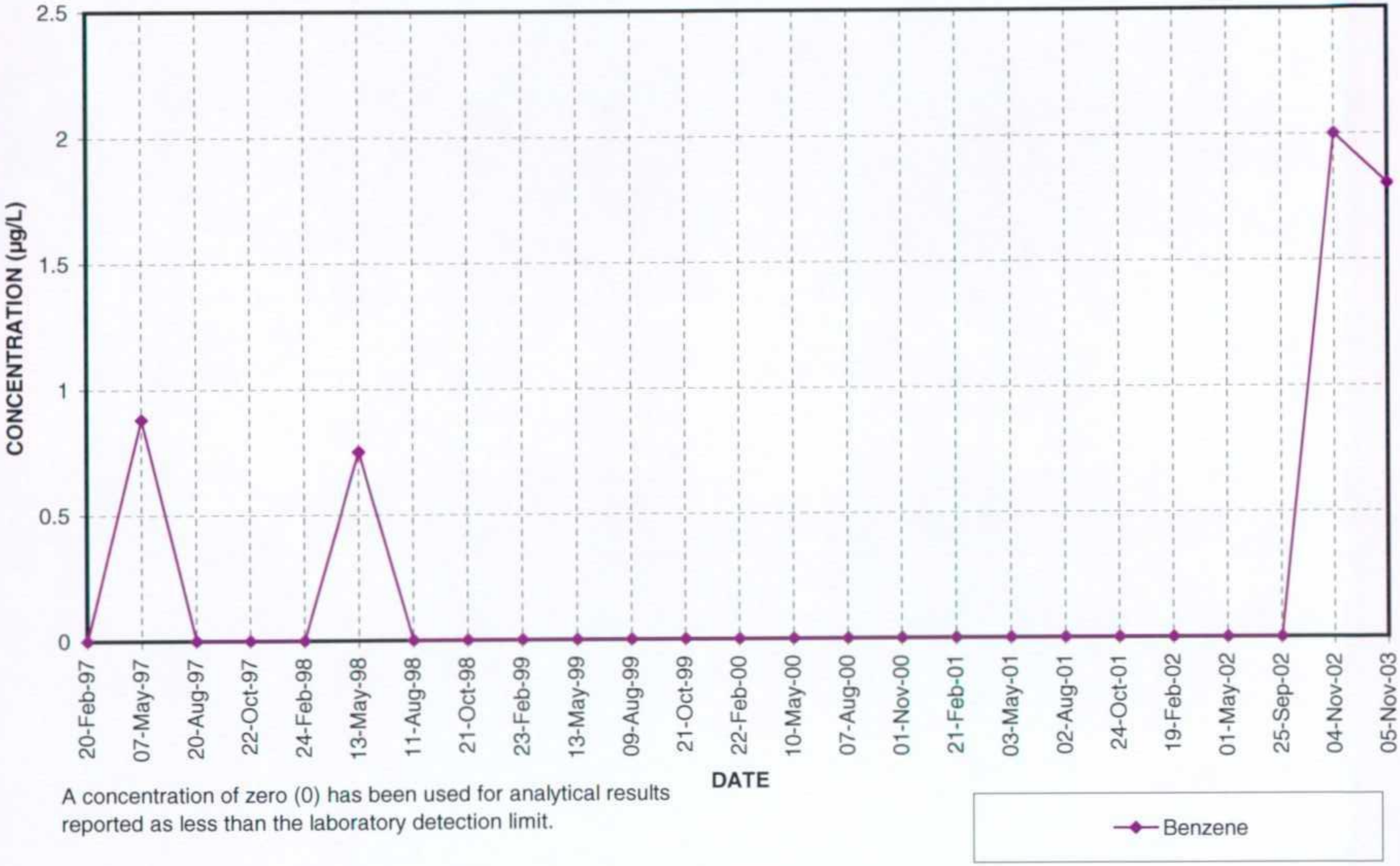

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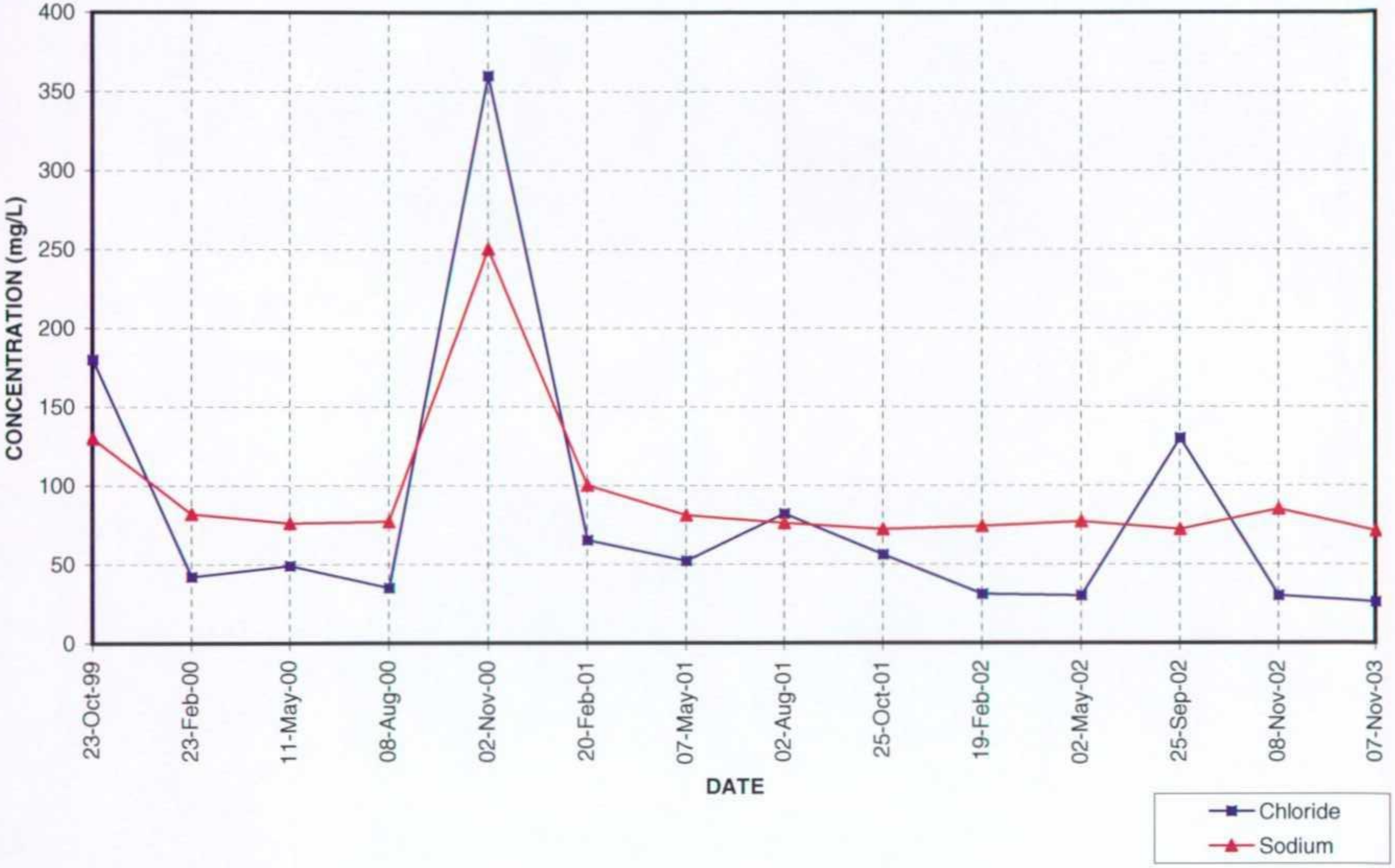
MONITOR WELL ACW-15



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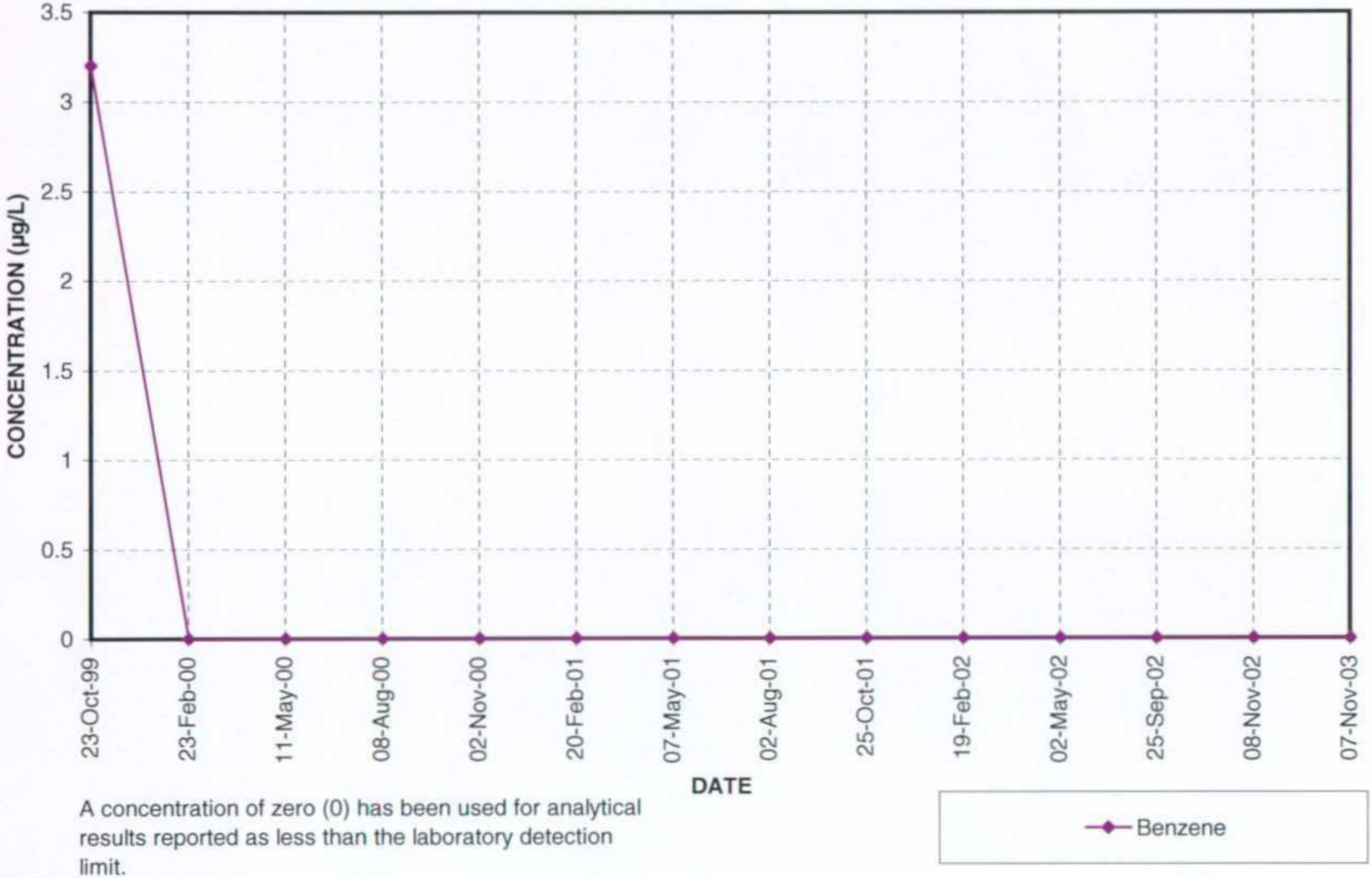

A concentration of zero (0) has been used for analytical results reported as less than the laboratory detection limit.

APPENDIX A
LABORATORY ANALYTICAL REPORTS

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ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

GROUNDWATER MODELING REPORT JAL NO. 4 PLANT LEA COUNTY, NEW MEXICO

February 6, 2003

Prepared for:
El Paso Natural Gas Company
614 Reilly Avenue
Farmington, New Mexico, 87401
713/420-3827

Prepared by:
Atkins Americas, Inc.
Environmental Division
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January 24, 2003

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JAL NO. 4 PLANT
LEA COUNTY, NEW MEXICO
JANUARY 24, 2003

1.0 INTRODUCTION

This groundwater modeling report (Report) summarizes a groundwater modeling evaluation conducted by Atkins Americas, Inc. Environmental Division (Atkins), formerly Atkins Benham, Inc. for the Jal No. 4 Gas Plant (Plant) located in Lea County, New Mexico. Specifically, groundwater capture zones were evaluated for existing and hypothetical shallow groundwater recovery wells at the Plant. The results of this analysis are intended to guide the operation of the existing recovery wells and the optimization of the overall groundwater recovery effort.

1.1 Background

The Plant property is comprised of approximately 181 acres of land located west of State Highway 18, approximately 9 miles north of the town of Jal, New Mexico. The Plant location and topographic features are shown on Figure 1. The Plant property occupies portions of Sections 31 and 32 of Township 23 South, Range 37 East, and Sections 5 and 6 of Township 24 South, Range 37 East, in Lea County, New Mexico.

The Plant was constructed by El Paso Natural Gas Company (EPNG) in 1952 to treat, compress and transport natural gas to EPNG's main transmission lines. EPNG discontinued their use of the Plant in 1987, leasing portions of the Plant property to Christie Gas Corporation (Christie) that same year. The Plant was eventually sold to Christie in 1991. EPNG has been made aware through discussions with Christie that negotiations are currently underway to sell the Plant to another party.

Brine and wastewater at the Plant was managed in eight (8) unlined retention ponds from 1952 to 1981. Beginning in 1981, brine at the Plant was managed in three (3) synthetic-lined retention ponds. In 1989, a leak was detected in one (1) of the brine retention ponds and two (2) ponds were retired. In response to the reported leak, the New Mexico Oil Conservation Division (NMOCD) requested that a hydrologic study be performed at the Plant. This request led to the drilling of three (3) groundwater monitor wells and a limited groundwater study at the Site in May 1989. The preliminary findings of this study indicated that chloride-impacted groundwater was present beneath the Plant. Subsequent to this discovery, numerous investigations have been conducted at the Site to characterize and delineate the affected groundwater plume.

To date, eighteen (18) groundwater monitor wells have been installed at the Site. These wells are located generally along the east side of the Plant property, and on off-site properties located east and southeast of the Plant. In addition to these groundwater monitor wells, two (2) groundwater recovery wells have been installed to recover brine impacted groundwater and prevent its downgradient migration. Impacted groundwater recovery was initiated in recovery well RW-1 in October 1999, and in recovery well RW-2 in January 2000. Groundwater recovered by the remediation system is disposed via an existing on-site injection well located within the Plant.

Atkins has been retained by EPNG since 1997 to compile the annual groundwater remediation reports for the Plant that are submitted to the NMOCD.

1.2 Previous Investigations and Reports

Several reports have been prepared by various parties to document activities at the Plant since the discovery of an impoundment liner leak in 1989. These documents were used to gather input data for the model. In chronological order, these documents include:

- *Expanded Hydrogeology Study for the El Paso Natural Gas Company Jal 4 Facility* (K.W. Brown & Associates, Inc., 1990);
- *Expanded Hydrogeology Study for the El Paso Natural Gas Company Jal 4 Facility: Phase II* (K.W. Brown & Associates, Inc., 1991);
- *Terrain Conductivity Survey Report* (Burlington Environmental Inc., 1992);
- *Phase III Groundwater Study EPNG Jal No. 4 Plant* (Burlington Environmental Inc., 1992);

- *Phase IV Groundwater Study at Jal No. 4 Plant in Jal, New Mexico* (Burlington Environmental Inc., 1993);
- *Phase IV Ground Water Contamination Study EPNG Jal No. 4, Lea County New Mexico 1997 Annual Report* (El Paso Natural Gas Company, 1998);
- *Plume Containment/Remediation Wells Groundwater Modeling Results* (memorandum by Mike Jacobs);
- *1997 Annual Groundwater Remediation Report, Jal #4 Plant, Lea County, New Mexico* (El Paso Natural Gas Company, 1998);
- *1998 Annual Groundwater Remediation Report, Jal #4 Plant, Lea County, New Mexico* (Roberts/Schornick & Associates, 1999);
- *1999 Annual Groundwater Remediation Report, Jal #4 Plant, Lea County, New Mexico* (Roberts/Schornick & Associates, 2000); and
- *2000 Annual Groundwater Remediation Report, Jal #4 Plant, Lea County, New Mexico* (Atkins Benham Inc. Environmental Division (formerly Roberts/Schornick & Associates), 2001).
- *2001 Annual Groundwater Remediation Report, Jal #4 Plant, Lea County, New Mexico* (Atkins Benham, Inc. Environmental Division (formerly Roberts/Schornick & Associates), 2002).

2.0 SITE SETTING

The shallow groundwater system beneath and hydraulically down gradient of the Plant was evaluated during this modeling exercise. Physical, climatological and hydrogeological data and information were gathered from multiple sources and utilized in the construction of the groundwater model. These data and information are discussed in the following Sections.

2.1 Climate, Precipitation, and Topography

The climate of southern Lea County is semiarid and characterized by low annual precipitation, low humidity, and a high average temperature (Nicholson, 1961). Average annual precipitation varies from approximately 8 inches in the southwest corner to 14 inches in the northeast corner of the county. Precipitation occurs mostly as thundershowers. Temperatures vary considerably, exceeding 100°F in summer and dropping below 0°F in the winter (K.W. Brown, 1990). The 49-year average (1932 to 1995) monthly precipitation for Jal, New Mexico ranges from a low of 0.4 inches in February and March to a maximum of 1.9 inches in September. The annual mean precipitation for Jal is 12.5 inches (Worldclimate, 2002). Average annual lake evaporation is 79 inches per year using evaporation pan measurements that provide estimates within a 15% error (K.W. Brown, 1990).

The rate of evaporation of water in southeastern New Mexico has been estimated using evaporation pan measurements. Due to differences between actual and experimental data, a reduction coefficient from 0.67 to 0.81 is selected to obtain an estimated lake evaporation value; a coefficient of 0.75 usually provides an estimate of annual lake evaporation within a 15% error. The Plant is located in the Pecos River Basin, which has no perennial streams (Permian, 1981). The area is characterized by irregular topography of low relief caused by drifting dune sand (BEI, 1992). A few intermittent streams and broad shallow drainages may flow following thunderstorms that typically occur in July and August. Most precipitation soon infiltrates the soil or evaporates. The land surface in the area of the Plant has little relief, falling approximately 30 feet per mile (Permian, 1981).

2.2 Geology and Groundwater

The Plant is situated in the northwestern portion of the Permian Basin, a large subsurface structural feature comprised of Paleozoic rocks. These rock units are important to oil and gas production; however, these units produce no potable water in the Jal area (BEI, 1992).

The principal near-surface hydrogeologic units of interest in the Jal area are the Triassic Dockum Group and Tertiary Ogallala Formation. The Ogallala Formation is overlain by Quaternary Alluvium throughout Lea County, but these two (2) units are undifferentiated in the Jal area. The Dockum Group is comprised of a basal formation consisting of undifferentiated Permian and Triassic red beds. These units are overlain by the Santa Rosa Sandstone, which is described as a red fine-to-coarse-grained sandstone with minor shale layers. The uppermost formation of the Dockum Group consists of the Chinle Formation. The Chinle Formation is predominantly red and green claystones with minor amounts of sandstone. The Dockum Group is potentially a minor source of potable water for southeastern Lea County; however, most wells in the Jal area that were screened in the Dockum group were abandoned in the 1950s. EPNG-12 located 3,500 feet northwest of the Jal No. 4 Plant is screened in the Chinle Formation at a depth of 175 to 234 feet below ground surface (bgs). The Ogallala Formation is described as a heterogeneous mixture of terrestrial sediments consisting primarily of calcareous unconsolidated sand, but ranging in size from clay through gravel (Nicholson, 1961). It is reported to have a layer of caliche near the top. The saturated thickness of the Ogallala aquifer in the Jal area is approximately 60 to 80 feet. Regional flow appears to be in a southeasterly direction and is influenced by the erosional surface of the Chinle Formation. A surface contact of the Ogallala Aquifer with the Chinle Formation has been shown just west of Jal (BEI, 1992).

Lithologies encountered during installation of wells at the Plant are consistent with the geologic descriptions provided above. During well installations by Burlington Environmental, Inc. (BEI) in 1993, the subsurface was characterized as an unconsolidated fine- to medium-grained sand with caliche fragments observed in drill cuttings between 15 and 25 feet bgs. Hard well-cemented, fine-grained sandstone fragments were observed in the drill cuttings from between 25 and 105 feet bgs. This depth interval, the sandstone is most likely interbedded with unconsolidated, fine-grained silty sands. The saturated zone below 105 feet is an unconsolidated well rounded and well sorted very fine to fine sand. Borings were terminated when red clay was encountered at approximately 170 feet bgs. Minor amounts of sand and gravel were observed in the cuttings with the red clay (BEI, 1993).

2.3 Potentiometric Surface and Hydraulic Gradient

In 1990, K.W. Brown and Associates (K.W. Brown) conducted a *Phase I Expanded Hydrogeology Study* and measured the depth to groundwater at approximately 100 to 110 feet below ground surface under unconfined conditions, and determined the hydraulic gradient to be 0.0018 feet per foot (ft/ft) with a flow direction to the southeast (S55E). The hydraulic gradient and flow direction were confirmed in the *Phase II Expanded Hydrogeology Study*, being measured at 0.0018 ft/ft and S60E, respectively (K.W. Brown, 1991). In 1993, the saturated thickness of the Ogallala was measured at approximately 60 feet. The hydraulic gradient was measured to be 0.0025 ft/ft with a southeasterly flow direction (BEI, 1993). Depth to groundwater is currently measured during each quarterly groundwater sampling event. These data indicate that the potentiometric surface is located approximately 100 feet bgs. The saturated thickness of the groundwater system exhibits little variability, and fluctuations in groundwater elevations have measured less than one (1) foot since 1997. Groundwater flow direction at the Plant is from northwest to southeast (S46E). The hydraulic gradient reported in February 2001 was approximately 0.002 ft/ft. Hydraulic gradient has fluctuated very little since 1997 (ABI, 2001).

2.4 Hydraulic Conductivity

K.W. Brown reported that attempts to measure the hydraulic conductivity during the *Phase I Expanded Hydrogeology Study* were unsuccessful, as were attempts to analyze data from a pump test conducted on well EPNG-12 in 1965. Hydraulic conductivity for the Ogallala formation was estimated to be on the order of 10^{-3} to 10^{-4} cm/sec, based upon field observations, the geologic materials identified at the Plant, and published hydraulic conductivity values (K.W. Brown, 1990). During the *Phase II Expanded Hydrogeology Study* conducted by K.W. Brown, a piezometer was installed near monitor well ENSR-3 for the purpose of conducting a pump test. The piezometer was designated as PTP-1 and was installed at a distance of 13.8 feet from ENSR-3. A pump test was attempted in November 1990, but the pump failed and the data generated were too short to analyze. A second pump test was performed in December 1990. An average pump rate of 13.37 gallons per minute (gpm) was maintained during the test. During pumping the recorded drawdown in PTP-1 ranged from 0 to 1.1 feet. Although the aquifer was unconfined, the drawdown to saturated thickness ratio was acceptable to K.W. Brown to warrant application of the Theis method. The transmissivity was found to be 6,128 gallons per day per foot (gpd/ft), the storage coefficient was calculated to be 0.0152, and the hydraulic conductivity was determined to be 4.5 x 10^{-3} cm/sec (K.W. Brown, 1991). In 2002, the data from this pump test were re-analyzed by Atkins. The parameter estimates presented by K.W. Brown appear reasonable for the data collected. However, uncertainty is introduced by the brevity of the pump test duration and pump tests are typically extended beyond 24 hours in an unconfined aquifer to fully account for casing storage. To address the uncertainty is, in March 2002, Atkins conducted a 24-hour pump test at the Site and evaluated the data derived from this test utilizing the Theis and Cooper-Jacob methods. These activities are presented in detail in Section 3.7.

2.5 Source of Impact

The Plant originally constructed by EPNG included a gasoline plant, a purification plant, a dehydration plant, and compression facilities. The Plant treated, compressed, and transported natural gas to EPNG's main transmission lines. In 1959 the Plant was upgraded; a new fractionating plant and underground storage wells were added (Permian, 1981). High salinity water (brine) and production water generated by the Plant were stored on-site in retention ponds from 1952 to 1981. Not all ponds were in continuous operation during this period and the exact operating period of specific ponds is unknown. The ponds were located on an 8.35-acre area on the eastern portion of the 181-acre Plant property. Wastewater generated from 1952 to 1981 was also discharged into unlined ponds. The unlined ponds were closed and capped with NMOCD approval (BEI, 1992). In 1981, brine produced at the Plant was discharged into three (3) ponds constructed with synthetic liners and leak detection (BEI, 1992). In 1989, EPNG detected a leak in the liner of a water storage pond associated with the Plant. The release consisted of brine produced by the Plant. At the request of the NMOCD, EPNG initiated a subsurface investigation of the leak in 1989 (EPNG, 1995). In correspondence dated January 12, 1995, the NMOCD requested that EPNG prepare a work plan to initiate recovery of contaminated groundwater as soon as possible, to install two (2) additional monitoring wells, and to initiate quarterly groundwater quality monitoring at the Plant. These tasks have been completed by EPNG.

Groundwater impacts beneath the Plant were first detected in August 1990 during a Phase I investigation conducted by K.W. Brown in 1990. The source for the groundwater impacts is believed to be the ponds, however, the exact pond or ponds that comprised the source is still unknown (BEI, 1992). The organic constituents of concern detected during the Phase III Groundwater Study were benzene, ethylbenzene, toluene, and total xylenes (BTEX), which were detected in groundwater samples collected near the eastern boundary of the Plant. The inorganic contaminants of concern sampled during the Phase III Groundwater Study were chloride, sulfate, total dissolved solids (TDS), potassium, and sodium (BEI, 1992). These organic and inorganic constituents continue to be monitored as part of the annual groundwater monitoring program (ABI, 2001).

The ponds were closed in stages, beginning in approximately 1982, in accordance with the Closure Plan (George, 1981). In general, these ponds were closed by backfilling with native soils and grading the surface of the backfill to direct runoff away from the ponds, thereby minimizing infiltration.

2.6 Recovery Wells

The locations of recovery wells (RW-1 and RW-2) are shown on Figure 2. Recovery well RW-1 is located on Plant property in close proximity to areas that have likely been sources for brine and hydrocarbon impacts to groundwater. This well was completed on June 23, 1996. Recovery well RW-2 is located hydraulically downgradient of RW-1 approximately 780 feet east of the Plant property boundary. This well was completed on June 30, 1996 (ABI, 2001). Completion records for recovery wells RW-1 and RW-2 are presented in Appendix A (NMSEO, 1997a and 1997b). EPNG has installed a below-grade pipeline that connects recovery wells RW-1 and RW-2 to a Class II water disposal well located immediately north of the Plant in the northwest quarter of the southwest quarter of Section 32-T23S-R37E. This well, referred to as the SWD-214, was approved for disposal by NMOCD on October 23, 1979 and has a perforated injection interval of 3,866 to 3,982 feet bgs. SWD-214 is currently owned and operated by Christie, and in 1999 EPNG entered into an agreement with Christie that provides EPNG with access to the disposal well for the purpose of disposing of all groundwater recovered from the remediation system.

Groundwater recovery from RW-1 began in October 1999 and from RW-2 in January 2000. In 2001, monitor well ENSR-2 was converted to a recovery well and connected to the system and EPNG received approval from the New Mexico State Engineer's Office (NMSEO) to alternate groundwater withdrawals from recovery wells RW-1 and ENSR-2 (ABI, 2001). Groundwater recovery from ENSR-2 was initiated in August 2000. A well completion record for ENSR-2 is provided in Appendix A.

During calendar year 2000, groundwater recoveries from RW-1, RW-2, and ENSR-2 totaled over 6.3 million gallons, as shown on Table 1. RW-1 was not operated in 2001. The total groundwater recovered from RW-2 and ENSR-2 during 2001 was over 2.2 million gallons, as shown on Table 2. In May 2002, EPNG received verbal authorization from the NMSEO to operate recovery wells RW-1 and ENSR-2 simultaneously. The total groundwater recovered from wells RW-1, RW-2 and ENSR-2 during 2002 was over 4.8 million gallons, as shown on Table 3. A limited amount of pump operation data was available to allow pump rates for each recovery well to be estimated. These data are presented on Table 4. In calendar year 2000, the average pump rates for RW-2 and ENSR-2 were estimated to be 8.6 gpm and 4.4 gpm, respectively. Based upon literature review and conversations with the NMSEO, these estimated groundwater withdrawal rates are lower than anticipated from the Ogallala Formation in this area.

3.0 SUMARY OF DATA PERTINENT TO GROUNDWATER MODEL

Modeling efforts were conducted during K.W. Brown's *Phase I Expanded Hydrogeology Study* and *Phase II Expanded Hydrogeology Study.* Additional modeling was performed by BEI as part of the *Phase III Groundwater Study* and by Mr. Mike Jacobs as a standalone evaluation in 1996. Each of these models is described in this Section, and a summary of the data available with ranges of values used is presented.

3.1 Modeling During Phase I Study

K.W. Brown's *Phase I Expanded Hydrogeology Study* reported use of the USGS's two (2)-dimensional finite difference Method of Characteristics (MOC) model to predict configuration of a contaminant plume. The model was calibrated using a 30-year period of retention pond and utilized electrical conductivity in groundwater as the primary calibration parameter. Following calibration, a 20-year migration period was simulated, and groundwater recovery was simulated for a 5-year duration. The groundwater gradient was reported to be 0.0018 ft/ft with a flow direction to the southeast (S55E). The saturated thickness of the aquifer at EPNG #1 was 63.7 feet in June 1990. As discussed in Section 2.4, attempts to measure hydraulic conductivity during this study were unsuccessful. Hydraulic conductivity was estimated to be 1×10^{-3} cm/s in the transport model, using electrical conductivity as the constituent of interest. The results of the model indicated that the electrical conductivity plume would extend to the southeast approximately 900 feet beyond Highway 18 (BEI, 1992). K.W. Brown recommended installation of five (5) recovery wells to remediate the affected groundwater. At least two (2) of these wells were to be pumped at 20 gpm for five (5) years, for a total of 57,600 gallons per day (K.W. Brown, 1990). The input values for the calibration run are listed below. Refer to K.W. Brown, 1990 for input values for the slug migration simulation and groundwater recovery simulation.

	K.W. Brown 1990 Calibration Model Run
Number of columns	17
Number of rows	20
Column width (feet)	200
Row height (feet)	200

Max. no time steps	30
Duration (years)	30
Storage coefficient	0
Porosity	0.2
Longitudinal dispersivity (feet)	300
Transverse dispersivity (feet)	90
Transmissivity (feet^2/day)	184.25
Distribution coefficient (cm^3/g)	0
Aquifer thickness (feet)	65
Hydraulic conductivity (cm/s)	1.00E-03
Aquifer recharge (inches/year)	0.1
Pond leakage rate (feet/year)	22
Pond water EC (μmhos/cm)	150,000
Pond 7: Cell 2 water EC (μmhos/cm)	75

3.2 Modeling During Phase II Study

In 1991, K.W. Brown reported the results of a *Phase II Expanded Hydrogeology Study* for the Plant. A pump test was conducted in monitor well ENSR-3 (screened depth 123 to 148 feet) and piezometer (PTP-1) used as the observation well. The continuous-rate pump test was conducted at an average pumping rate of 13.37 gallons per minute for a period of 5 hours and 50 minutes. Groundwater modeling performed during the Phase II study was similar to that performed for the Phase I study with the inclusion of new aquifer parameters determined from the pump test, as follows (BEI, 1992):

	K.W. Brown 1991 Calibration Model Run
Number of columns	20
Number of rows	20
Column width (feet)	200
Row height (feet)	200
Max. no time steps	30
Duration (years)	30
Storage coefficient	0
Porosity	0.2
Longitudinal dispersivity (feet)	100
Transverse dispersivity (feet)	30
Transmissivity (feet^2/day)	9.48E-03
Distribution coefficient (cm^3/g)	0
Aquifer thickness (feet)	65
Hydraulic conductivity (cm/s)	4.45E-03
Aquifer recharge (inches/year)	0.1
Pond 1: Cell 3 leakage rate (feet/year)	20.5
Pond 7: Cell 2 leakage rate (feet/year)	12.6
Pond 7: Cell 4 leakage rate (feet/year)	11.0

Pond 11: Cell 5 leakage rate (feet/year)	14.2
Pond 1: Cell 3 water EC (µmhos/cm)	150
Pond 7: Cell 2 water EC (µmhos/cm)	75
Pond 7: Cell 4 water EC (µmhos/cm))	40
Pond 11: Cell 5 water EC (µmhos/cm)	120

Electrical conductivity was simulated to extend 1,100 feet beyond Highway 18 to the southeast along the prevailing groundwater flow direction. Eight (8) pump and treat remedial options were presented by K.W. Brown for groundwater impact at the Plant. These options consisted of various configurations of recovery wells (pump) and injection wells (treat) (K.W. Brown, 1991).

3.3 Modeling During Phase III Study

As part of the *Phase III Groundwater Study*, BEI installed additional monitoring wells and gathered additional groundwater analytical data. The expanded analytical data set was compared to the K.W. Brown modeling results described above. The actual levels of electrical conductance were found to be several times less than those predicted by the groundwater model and more impact was observed in the southeasterly direction than predicted by K.W. Brown's model. BEI performed additional groundwater modeling for the Plant using QuickFlow v.1.04 software from Geraghty & Miller, Inc. and MYGRT v.2.0 from the Electric Power Research Institute (EPRI) (BEI, 1992).

3.3.1 QuickFlow Drawdown and Groundwater Capture Modeling

QuickFlow is an interactive analytical model that simulates two (2)-dimensional steady state and transient groundwater flow. The model was used to simulate the drawdown effects of pumping from wells with a uniform regional hydraulic gradient. Travel times for water particles to move toward a pumping well were simulated using the particle tracking feature of the model. BEI used the aquifer parameter values determined from the K.W. Brown pump test to attempt to replicate the observed field results with modeling, as follows (BEI, 1992):

	BEI Initial QuickFlow Model Run	BEI QuickFlow Calibration Run
Gradient	0.0018	0.0018
Pumping Rate (gpm)	13.37	13.37

Aquifer Thickness (ft)	80	80
Storage Coefficient	0.0152	0.0152
Hydraulic Conductivity (cm/s)	4.5×10^{-3}	1.0×10^{-2}
Actual Drawdown (ft)	1.1	1.1
Modeled Drawdown (ft)	1.7	1.4

The values for hydraulic conductivity (4.5×10^{-3} cm/s), storage coefficient (0.0152), and aquifer gradient (0.0018) determined during the Phase II study and the pumping rate (13.37 gpm) and duration of pumping used for the pump test were modeled to simulate the observed drawdown in the piezometer (PTP-1), which was located a distance of 13.8 feet from the pumping well. The aquifer thickness was measured to be approximately 65 feet during the Phase II investigation at monitor well EPNG-1. BEI measured the thickness to be approximately 75 feet at ACW-4 during the Phase III study. Aquifer thickness was assumed to be 80 feet for BEI's model runs, as shown above. The actual drawdown measured in the pump test (1.1 feet) could not be reproduced through modeling using the aquifer parameters determined from the pump test. BEI found the value for storage coefficient (0.0152) determined by K.W. Brown to be significantly less than typical range of storage coefficients reported for the Ogallala Formation (0.071 to 0.195; 0.161 average) in scientific literature. The storage coefficient value used will have an effect on the modeled drawdown. A sensitivity analysis for the QuickFlow model demonstrated a high degree of dependency on hydraulic conductivity, storativity, and sustainable pumping rate. BEI suggested that the actual hydraulic conductivity may be less than that determined by the pump test. The modeling output using a hydraulic conductivity of 1×10^{-2} cm/sec created the closest approximation of the model simulations (1.4 feet) to the observed drawdown at PTP-1 (1.1 feet) during the aquifer test, as listed for the BEI QuickFlow Calibration Run above (BEI, 1992).

Using the QuickFlow software, BEI conducted capture zone modeling using three (3) pumping wells (ACW-4, ACW-7, and a hypothetical well located at the southeast corner of the Plant property). The same pumping rate (13.37 gpm) was used, and a pumping duration of 200 days was assumed. Capture zone widths were measured at right angles to the groundwater flow directions. Significant variation in capture zone width was achieved by varying hydraulic conductivity. Simulated capture zones were smaller with hydraulic conductivity increased by one-half order of magnitude; conversely, the simulated capture zone covered the entire modeled area with hydraulic conductivity decreased by one-half order of magnitude. BEI again mentioned that the storage coefficient reported by K.W. Brown (0.0152) was much lower than the average value of 0.161 reported in the literature and noted that the capture zone simulated with K.W. Brown's data greatly exceeded the capture zone corresponding to BEI's calibration data. BEI suggested that an additional, longer duration, aquifer test would provide better model input data if actual distance versus drawdown data were collected from several wells at different distances from the pumping well. BEI stated that the existing pump test data did not provide data on the cone of depression, the primary piece of information needed to determine the optimal recovery well spacing. BEI recommended that recovery wells be placed closer together than required to be conservative unless more useful modeling could be performed with additional pump test data (BEI, 1992).

3.3.2 MYGRT Transport Modeling

MYGRT is an analytical fate and transport model that simulates horizontal and vertical downgradient concentrations as a function of time and distance. MYGRT is a steady state model based upon use of the one (1)-dimensional and two (2)-dimensional advection-dispersion equations and diffusion, retardation, and transformation. BEI modeled potential downgradient chloride plume migration using the MYGRT software and the aquifer parameters determined from the K.W. Brown pump test and input parameters from previous modeling by K.W. Brown. BEI assumed a 29-year duration of the source (pond operation between 1952 and 1981), and a 40-year duration of model (1952 to 1992). The initial source concentration was assumed to be at least the electrical conductance measured in monitoring well ACW-3 (35,000 μhmos/cm). BEI used the following input values for two (2) simulations (BEI, 1992):

	BEI Model Run 1	BEI Model Run 2
Background Concentration (μmhos/cm)	986	986
Source Concentration (μmhos/cm)	35,000	45,000
Porosity	0.30	0.30
Hydraulic Conductivity (cm/s)	4.5×10^{-3}	2.6×10^{-2}

Gradient	0.0018	0.0018
Seepage Velocity (m/yr)	8.5	5.0
Dispersivity (m)	90	19
Longitudinal Dispersion Coefficient (m^2/yr)	260	95
Vertical Dispersion Coefficient (m^2/yr)	25	25
Penetration Depth (m)	25	25
Aquifer Thickness (m)	25	25
Duration of Source (yr)	29	29
Duration of Model (yr)	40	40

Modeled concentrations from the first simulation did not match observed field concentrations; therefore, aquifer parameters (hydraulic conductivity, dispersivity, and source concentration) were varied until the simulated electrical conductance matched groundwater analytical results. The model input values reported above for BEI Model Run 2 were used to estimate the electrical conductance of the plume downgradient of monitoring well ACW-7. The MYGRT model is two (2)-dimensional; it assumes that the concentration is similar throughout the entire vertical depth at a given spatial location. Groundwater data used for the model were collected near the top of the aquifer; the lower part of the aquifer may have more elevated concentrations. The results of BEI's second MYGRT model run closely matched K.W. Brown's modeling results. BEI determined that the values used for seepage velocity, hydraulic conductivity, and dispersivity based on the K.W. Brown pump test were too high (BEI, 1992).

The MYGRT model was sensitive to the seepage velocity, which is based on hydraulic conductivity. By modifying seepage velocity, source concentration, and dispersivity, the concentrations observed in the field were simulated, but BEI did not believe the model represented a unique solution. BEI stated that solute transport modeling of the Site is complex due to potential multiple sources of uncertain source duration, which may be creating multiple pulses of solute moving downgradient past the monitoring wells. BEI stated that several uncertainties associated with the transport model (source duration, number of plumes present, aquifer properties affecting flow rate) reduced the level of confidence in the modeling results and recommended that the transport model should be reevaluated following installation of additional monitoring wells (BEI, 1992).

3.3.3 Recommendations of the Phase III Groundwater Study

Upon completion of the *Phase III Groundwater Study,* BEI recommended installation of an additional on-site well for use in aquifer testing. Additional, longer-duration, aquifer testing was recommended to obtain distance versus drawdown data to guide placement and design of recovery wells. A step test was recommended first to evaluate the maximum sustainable pumping rate from the aquifer, followed by a constant rate test over a period of 48 to 72 hours to observe drawdown in multiple surrounding monitoring wells. Proposed monitoring well ACW-13 was recommended as the pumping well based upon this well's diameter and screen placement (near base of the aquifer). BEI anticipated a much greater cone of depression from pumping a well that would permit drawdown from the full saturated thickness of the aquifer (BEI, 1992). Additional modeling was recommended to follow the pump test.

3.4 May 1996 Modeling

Additional groundwater modeling for the Plant was performed by Mr. Mike Jacobs in May 1996. The total volume of impacted groundwater in-place at this time was estimated to be approximately 339 million gallons based on the vertical and horizontal extent of the plume and the following formula (Jacobs, 1996):

$$V = A \cdot b \cdot p \cdot 7.48$$

Where: A = calculated area of plume (2,158,000 ft^2)
b = thickness of saturated zone (70 ft)
p = estimated porosity of the aquifer (0.30)
7.48 = volume of water in one cubic foot (gallons)

This volume was calculated to provide an estimate of time required to remediate the aquifer (Jacobs, 1996).

Monitor wells ACW-9 and ACW-4 were proposed as pumping wells, although it was noted that the four (4)-inch diameter casing and their design as monitoring wells would make conversion to pumping wells and later maintenance impractical. Aquifer parameters produced by K.W. Brown during the *Phase II Expanded Hydrogeology Study* were used with the Environmental Protection Agency (EPA) Well Head Protection Area (WHPA) Delineation Code computer model to predict capture zones for ACW-9 and ACW-4 as hypothetical pumping wells. The following input values were used for the model (Jacobs, 1996):

	Jacobs WHPA Model
Transmissivity (ft^2/d)	891
Hydraulic Gradient (ft/ft)	0.0018
Angle of Ambient Flow (degrees)	120
Aquifer Porosity (dimensionless)	0.30
Aquifer Thickness (ft)	70
Storage Coefficient	0.0152

This transmissivity value (891 ft^2/d) corresponds to the transmissivity of 6,128 gallons per day per foot (gpd/ft) reported by K.W. Brown (1991).

Pump rates of 2 gpm and 4 gpm were modeled simultaneously for ACW-4 and ACW-9, respectively. At a combined pumping rate of six (6) gpm (8,640 gpd) the time to remove the total volume of impacted groundwater (339 million gallons) was estimated by Jacobs to be approximately 107 years. These pump rates and capture zones were found to be insufficient for impacted groundwater containment and/or remediation. Additional simulations by Jacobs indicated that pump rates of 25 to 40 gpm per well should be adequate for plume capture and remediation. A combined pumping rate of 40 to 80 gpm was estimated to reduce remediation time to approximately eight (8) to 16 years. Based on a review of pump test data for the Plant and nearby water supply wells, Jacobs stated that the aquifer should support sustained pumping rates of 20 to 40 gpm in a 10-inch well without causing extreme drawdown (estimated to be from 5 to 15 feet) or de-watering of the aquifer (Jacobs, 1996).

3.5 2002 Reanalysis of K.W. Brown Pump Test Data

In January 2002, Atkins attempted to verify the aquifer parameters by reanalyzing the piezometer data from the K.W. Brown pump test conducted in 1991. AQTESOLV software was used to analyze these data by the Theis, Cooper-Jacob, Neuman, and

Moench methods assuming unconfined conditions. The assumed aquifer thickness was 64.27 feet and the anisotropy ratio was assumed to be 1. The distance from the pumping well (ENSR-3) to the piezometer (PTP-1) was 13.8 feet. These analyses resulted in estimates of transmissivity (T) and storage coefficient (S), as follows:

METHOD	TRANSMISSIVITY (gpd/ft)	STORAGE COEFFICIENT (dimensionless)
Theis	4,525.4	0.02041
Cooper-Jacob	4,902.9	0.01687
Neuman	1,554.4	0.02018
Quick Neuman	2,145.7	0.0184
Moench	2,012.7	0.01794

The results of these analyses and associated data plots are presented in Appendix B. The calculated transmissivity varied significantly by analysis type; the Cooper-Jacob method predicted the highest value and the Neuman method predicted the lowest value. All of the recalculated transmissivity values were lower than the value of 6,128 gpd/ft originally calculated by K.W. Brown in 1991. The storage coefficients also varied according to method, but not as significantly as transmissivity. All of the recalculated storage coefficients were higher than the value of 0.0152 calculated by K.W. Brown in 1991.

Atkins also analyzed the drawdown data for the pumping well (ENSR-3) as a second method for verifying the aquifer parameters. AQTESOLV software was used to analyze the data by the Theis, Cooper-Jacob, and Quick Neuman methods assuming unconfined conditions. The assumed aquifer thickness was 64.27 feet and the anisotropy ratio was assumed to be 1. For this simulation, since the intent was to evaluate transmissivity and storage coefficient, a linear distance of one (1) foot was assumed for the distance between the pumping well and the observation well. The results of these analyses and associated data plots are presented in Appendix B. As the plots show, the data set for the pumping well is incomplete. It appears that the pressure transducer was set too high above the pump and the drawdown that occurred within the well after two (2) minutes was not recorded. Based on the data available and discounting all data after two (2) minutes, these analyses resulted in estimates of transmissivity (T) and storage coefficient (S), as follows:

METHOD	TRANSMISSIVITY (gpd/ft)	STORAGE COEFFICIENT (dimensionless)
Theis	278.2	0.002621
Cooper-Jacob	284.7	0.0024
Quick Neuman	137.8	0.002224

3.6 Atkins 2002 Pump Test

During the period of March 26 through 27, 2002, Atkins conducted a step drawdown and a 24-hour pump test at the Plant utilizing monitor well ENSR-3 as the pumped well and piezometer PTP-1 as the observation well. The step drawdown test was conducted to determine the optimal pump rate at which the 24-hour pump test would be conducted so that the pumped well would be stressed to its maximum extent without over-evacuating the well. Stressing the well to this extent was defined prior to the pump test as depressing the water level within the pumped well by 65 percent throughout the pump test period. During the step drawdown test it was determined that the withdrawal rate that would stress the well was approximately 7.7 gpm.

Upon completion of the step drawdown test, the aquifer was allowed to recover for approximately three (3) hours. Once the aquifer had recovered, the 24-hour pump test was initiated. Throughout this 24-hour pump test 14,936 gallons of groundwater were withdrawn from ENSR-3 at an average flow rate of 10.37 gpm.

AQTESOLV^{TM} software was used to analyze the 2002 pump test data by the Theis and Cooper-Jacob methods assuming unconfined conditions and partially penetrating wells. The assumed saturated aquifer thickness was 64.27 feet and the anisotropy ratio was assumed to be 1. The distance from the pumping well (ENSR-3) to the piezometer (PTP-1) was measured by Atkins to be 13.8 feet. These analyses resulted in estimates of transmissivity and storage coefficient, as follows:

METHOD	**TRANSMISSIVITY (gpd/ft)**	**STORAGE COEFFICIENT (dimensionless)**
Theis (at PTP-1)	8,936.6	0.0035
Cooper-Jacob (at PTP-1)	9,551.2	0.002063
Theis (at ENSR-3)	1,051.4	0.004102
Cooper-Jacob (at ENSR-3)	662.2	0.001209

The results of these analyses and associated data plots are presented in Appendix C. The calculated transmissivity varied slightly by analysis type. The Theis method predicted the highest values and the Cooper-Jacob method predicted the lowest values. The transmissivity values derived utilizing these methods ranged from 662.2 gpd/ft to 8,936.6 gpd/ft. This range is consistent with the transmissivity values of 6,128 gpd/ft originally calculated by K.W. Brown in 1991. Storage coefficient also varied according to method. All of the storage coefficients produced by this pump test were lower than the value of 0.0152 calculated by K.W. Brown in 1991.

3.7 Summary of Available Data

Ranges of aquifer parameters and other pertinent data were reported and used in the various modeling efforts and studies previously described. These ranges of input data are summarized in this Section to provide guidance for model calibration and sensitivity analysis. These data are summarized as follows:

	Value	Data Type	Reference
Transmissivity (gpd/ft)	6,128	calculated/ measured	K.W. Brown 1991
Transmissivity (gpd/ft)	0.0709 to 1378.3	modeled	K.W. Brown 1990, K.W. Brown 1991
Transmissivity (gpd/ft)	8,936.6 to 9,551.2	calculated	Atkins, 2002

Hydraulic Conductivity (cm/s)	10^{-3} to 10^{-4}	literature	K.W. Brown 1990
Hydraulic Conductivity (cm/s)	1×10^{-2} to 4.45×10^{-3}	modeled	K.W. Brown 1991 BEI 1992
Hydraulic Conductivity (cm/s)	4.5×10^{-3}	calculated/ measured	K.W. Brown 1991
Hydraulic Conductivity (cm/s)	6.56×10^{-3} to 7.01×10^{-3}	calculated	Atkins, 2002
Hydraulic Gradient (ft/ft)	0.0018 to 0.0025	calculated/ measured	K.W. Brown 1990, K.W. Brown 1991 BEI 1992, 1993, Jacobs 1996, ABI 2001
Groundwater Flow Direction	S46E to S60E	calculated/ measured	K.W. Brown 1990, K.W. Brown 1991, ABI 2001
Saturated Aquifer Thickness (ft)	60 to 80	calculated/ measured	K.W. Brown 1990 BEI 1992, Jacobs 1996
Porosity (dimensionless)	0.20 to 0.30	literature	K.W. Brown 1990, K.W. Brown 1991, BEI 1992, Jacobs 1996
Storage Coefficient (dimensionless)	0.0152	calculated/ measured	K.W. Brown 1991 BEI 1992, Jacobs 1996
Storage Coefficient (dimensionless)	0.071 to 0.195	literature	BEI 1992
	<u>Value</u>	<u>Data Type</u>	<u>Reference</u>
Storage Coefficient (dimensionless)	0.01617 to 0.02073	calculated	Atkins, 2002
Longitudinal Dispersivity (ft)	100 - 300	literature	K.W. Brown 1990
Transverse Dispersivity (ft)	30 - 90	literature	K.W. Brown 1990

From a review of independent literature, aquifer characteristics values for transmissivity and hydraulic conductivity are as follows:

	Value	Data Type	Reference
Transmissivity (gpd/ft)	33,660 (average)	literature	Robson 1995
Hydraulic Conductivity (cm/s)	3.53×10^{-4} to 3.53×10^{-2}	literature	Robson 1995
Saturated Thickness (ft)	75 (average)	literature	Robson 1995

A preliminary estimate of the volume of impacted groundwater was made by Jacobs in 1996. Using an approximate area of the impacted groundwater plume of 2,158,000 ft^2, the volume of impacted water in saturated pore spaces was found to be approximately 339 million gallons (Jacobs, 1996). The indicator parameter and/or isopleth map used to determine the area used in Jacob's calculation is unclear. However, utilizing the calendar year 2001 isopleth map of chloride concentrations in groundwater to define the lateral extent of the impacted groundwater, Atkins calculated the area of the Site underlain by groundwater with chloride concentrations exceeding the EPA secondary drinking water standard (SMCL) of 250 mg/L. This area is approximately 9 million square feet and is shown on Figure 3. Note that the definition of this area is approximate because the area of impact is estimated on the north and south sides of the Plant where monitor wells do not exist. Using the formula previously used by Jacobs (1996), the volume of impacted water is in excess of 1,310 million gallons, calculated as follows:

$$V = A \cdot b \cdot p \cdot 7.48$$

Where: A = calculated area of plume (8,981,603 ft^2)
b = thickness of saturated zone (65 ft)
p = estimated porosity of the aquifer (0.30)
7.48 = volume of water in one cubic foot (gallons)

This estimated volume of affected groundwater is larger than the volume estimated by Jacobs 1996. The SMCL being defined as the remediation goal is likely the cause of this volumetric increase.

4.0 GROUNDWATER MODEL

Atkins has conducted this groundwater modeling effort to evaluate the effectiveness of the groundwater recovery system in operation at the Plant, and to identify options for optimizing the current and future groundwater capture of the system. The effects of current and future recovery wells were evaluated in terms of drawdown in a uniform regional hydraulic gradient. A particle tracking tool was used to estimate groundwater capture and particle travel times toward recovery wells. Existing data were gathered from multiple reports to assign model input parameters.

4.1 Modeling Guidance

Several technical references were used to guide preparation of this groundwater model, including EPA and American Society of Testing and Material (ASTM) guidelines such as:

- *Fundamentals of Ground-Water Modeling* (EPA/540/S-92/005),
- *Standard Guide for Comparing Ground-Water Flow Model Simulations to Site-Specific Information* (ASTM D 5490-93),
- *Standard Guide for Defining Boundary Conditions in Ground-Water Flow Modeling* (ASTM D 5609-94),
- *Standard Guide for Defining Initial Conditions in Ground-Water Flow Modeling* (ASTM D 5610-94),
- *Standard Guide for Conducting a Sensitivity Analysis for a Ground-Water Flow Model Application* (ASTM D 5611-94),
- *Standard Guide for Documenting a Ground-Water Flow Model Application* (ASTM D 5718-95),
- *Standard Guide for Subsurface Flow and Transport Modeling* (ASTM D 5880-95) and
- *Standard Guide for Calibrating a Ground-Water Flow Model Application* (ASTM D 5981-96).

4.2. WinFlow Groundwater Modeling Software

WinFlow groundwater model software was selected for this modeling effort because the data available for incorporation into the model did not warrant utilizing a complex three (3)-dimensional numerical model such as Modflow. WinFlow is an interactive, analytical modeling tool that simulates two (2)-dimensional steady state and transient groundwater flow and is similar to Geraghty & Miller's QuickFlow model. However, WinFlow is Microsoft Windows compatible and has been updated to incorporate additional analytical solution options to make it more functional. The steady state module simulates groundwater flow in a horizontal plane using analytical functions developed by Strack (1989). The transient module uses equations developed by Neuman for unconfined aquifers. Each module uses the principle of superposition to evaluate the effects from multiple analytical functions (wells, etc) in a uniform regional flow field. WinFlow depicts the flow field using streamlines, particle traces, and contours of hydraulic head (ESI, 2000).

4.2.1 Model Assumptions

WinFlow is designed to solve two (2)-dimensional groundwater flow problems in a horizontal plan (not cross-sections). The primary assumptions are as follows:

- *groundwater flow is horizontal,*
- *groundwater flow occurs in an infinite aquifer,*
- *aquifer hydraulic conductivity is assumed to be isotropic and homogeneous,*
- *reference head in the steady state model is constant throughout all calculations,*
- *all pumping rates, linesink fluxes, pond recharge, and elliptical recharge rates are constant through time,*
- *all wells are assumed to fully penetrate the aquifer and be perfectly efficient,*
- *linesinks are in perfect hydraulic communication with the aquifer, and*
- *particle traces and streamlines are two (2)-dimensional.*

WinFlow should not be applied to aquifers exhibiting strong vertical gradients unless by scale definition horizontal flow can still be considered dominant. Strong vertical gradients have not been documented for this aquifer and are not anticipated for this type of subsurface. Horizontal flow is expected to be dominate at this site. No groundwater divides are believed to be present in the vicinity of the Plant so the assumption of an infinite aquifer is applicable in this case. No data exist that define areas of significantly different hydraulic conductivity. Although boring logs indicate that the subsurface is somewhat heterogeneous when reviewed on a small scale, the assumption of homogeneity can be applied at the scale utilized for this model. It is appropriate to assume a constant reference head if this reference point is selected at a location sufficiently removed from the area of interest that the model is not sensitive to it. Constant pumping rates can be assumed if downtime for maintenance is short relative to pump run time. Pumping rates are assumed to be continuous during the time period modeled. In general, the recovery wells at the Plant do not conform to the assumption of fully penetrating, perfectly efficient wells. These conditions are not expected to significantly affect the outcome of the model. Linesinks were not used in this particular model.

4.3 Model Simulation and Calibration

The groundwater model was developed and initially calibrated by Atkins. Following these initial activities, a trial calibration run of the model was conducted by Atkins' sister company WS Atkins Consultants Limited (WS Atkins) (Epsom Surrey, England).

4.3.1 Steady State Simulation

A model is initially calibrated by taking the initial estimates of the model parameters and solving the model to observe how well it reproduces some known condition of the aquifer. Most models are initially calibrated against the steady state groundwater heads (Fetter, 1994). The first model run conducted by Atkins was a steady state simulation developed to reproduce the potentiometric surface measured prior to implementation of groundwater recovery. WinFlow requires definition of a reference head that is kept at a constant, known value throughout the simulations. The reference head is analogous to a constant head in a numerical model, and it is recommended that the reference head be located as far as possible from wells and other model elements as possible (ESI, 2000). The reference head location was selected at monitor well EPNG-12, which is located northwest of the Plant property boundary, as shown on Figure 2. The head (groundwater elevation) measured at EPNG-12 by K.W. Brown in 1990 was 3,205.92 feet above mean sea level (MSL), as shown in Appendix D. On this date, the hydraulic gradient was reported to be 0.0018 ft/ft with a groundwater flow direction of S60E. For this model simulation, the aquifer top and bottom were defined at elevations of 3,300 feet and 3,130 feet, respectively, which set the saturated thickness of the aquifer at approximately 65 feet.

Utilizing the head measured at EPNG-12 (3,205.92 feet above MSL) in 1990 as the reference head, the groundwater model was calibrated to approximate the June 14, 1993 potentiometric surface map prepared by BEI. A copy of BEI's potentiometric surface map has been included in Appendix D. The following model input values were used by Atkins to calibrate the model to approximate the June 14, 1993 potentiometric surface for the Plant:

	Atkins Initial WinFlow Model Parameters	Atkins WinFlow Calibration Parameters
Reference Head (ft)	3,205.92	3,207.2
Hydraulic Gradient (ft/ft)	0.0018	0.00192
Groundwater Flow Direction (degrees)	S60E	S10E
Aquifer Thickness (ft)	65	65
Storage Coefficient (dimensionless)	0.0152	0.0152
Hydraulic Conductivity (cm/s)	4.5×10^{-3}	4.5×10^{-3}
Porosity (dimensionless)	0.2	0.2

Initial calibration of the model to approximate the June 14, 1993 potentiometric surface was accomplished by varying the hydraulic gradient, reference head, and groundwater flow direction. The calibrated model data are shown on Figure 4. Atkins believes modification of these three (3) parameters during calibration is a valid approach because each has some uncertainty associated with its value. Addition of a calibration target at ACW-5 did not improve the model and it was discarded. Storage coefficient, hydraulic conductivity, and porosity did not affect the calibration of the potentiometric surface. EPNG-12 is located approximately 3,630 feet northeast of EPNG-1 and groundwater elevation has not been measured at that location since 1991. The hydraulic gradients utilized above are within the range of values listed in Section 3.6 and the angle of groundwater flow utilized is more easterly than the ranges reported in

Section 3.6. The focus of this calibration was the eastern area of the Plant rather than the vicinity of EPNG-12. It is likely that this calibrated model solution does not represent a unique solution, but rather one (1) of multiple approximations that could represent the aquifer.

4.3.2 Transient Simulation

The second model run conducted by Atkins was a transient simulation developed to reproduce the potentiometric surface during recovery well operation. The transient simulation was calibrated by modifying the calibrated steady state simulation described in the previous Section. During this simulation the WinFlow 1.0 Compatible solution was utilized. The reference head settings were not modified. Recharge was not included because sinks do not exist in this scenario, and a porosity of 0.25 was used. The four (4) transmissivity/storage coefficient combinations presented in Appendix C were evaluated. However, none of these four (4) coefficient combinations calibrated the model. The transient model was calibrated utilizing a transmissivity of 55 gpd/ft and a storage coefficient of 0.004.

4.3.3 Model Trial Calibration

Following initial development and calibration of the groundwater model by Atkins, WS Atkins conducted a model trial calibration run. This trial calibration run was conducted during the period July through September 2002 to insure that the model was tightly calibrated prior to conducting recovery well capture zone analysis. A copy of W.S. Atkins' draft groundwater model trail calibration report has been provided in Appendix E.

The results of the trial calibration run indicate that the model was well calibrated and only slight modifications to the model input parameters were necessary. The following model input values were used by WS Atkins to calibrate the groundwater model:

	WinFlow Model Parameters
Reference Head (ft)	3,204
Hydraulic Gradient (ft/ft)	0.00192
Groundwater Flow Direction (degrees)	S44E

Aquifer Thickness (ft)	64.27
Storage Coefficient (dimensionless)	0.0152
Hydraulic Conductivity (gpd/ft^2)	149
Porosity (dimensionless)	0.2

Following completion of groundwater model preparation and calibration activities, Atkins evaluated the groundwater capture zones of existing and hypothetical shallow groundwater recovery wells at the Plant. These evaluations are presented in the following Sections.

5.0 RECOVERY WELL CAPTURE ZONE ANALYSIS

In the 2001 Annual Groundwater Remediation Report (2001 Annual Report) it was recommended that EPNG focus their remediation efforts up on capturing the most highly impacted groundwater (i.e., groundwater with chloride levels greater than 5,000 mg/L) at the Site. The area of the Site, underlain with groundwater with a chloride concentration of 5,000 mg/L or greater, totals approximately 69.52 acres. Calculation of this area was based upon the chloride isopleth map included in the 2001 Annual Report. It is with this focus that Atkins conducted the capture zone analysis simulations presented in the following Sections.

5.1 Current Recovery Well Configuration

Atkins conducted a groundwater capture zone analysis for the current recovery well configuration of the remediation system in operation at the Site. The subject wells included in this model simulation were recovery wells RW-1, RW-2 and ENSR-2. For this analysis, each of these wells was simulated at a constant groundwater withdrawal rate of 15 gpm for a period of 20 years. This groundwater withdrawal rate was selected based upon literature review and upon conversations with NMSEO as to anticipated flow rates from the Ogallala Formation in this area.

The groundwater capture zones of the existing recovery wells have been overlain upon a map showing the 5,000 mg/L chloride concentration in groundwater contour. These data are presented on Figure 5. As can be seen on this Figure, the capture zone of recovery well RW-1 augments the capture zone of ENSR-2 and captures the most highly affected groundwater in the northern portion of the Site in five (5) to ten (10) years of constant pumping. In addition, recovery well RW-2 captures the most highly affected groundwater in the southern portion of the Site in a little over ten (10) years of constant pumping. Groundwater with chloride concentrations in excess of 5,000 mg/L located in the central and eastern portions of the Site will not be captured by the existing recovery well configuration. The current recovery well configuration pumping at a constant rate of 15 gpm per well for a period of 20 years would capture the groundwater with chloride concentrations in excess of 5,000 mg/L beneath approximately 39 acres (56.1%) of the Site.

5.2 Current Recovery Well Configuration Plus One Additional Recovery Well

Upon review of the results of the capture zone analysis for the recovery well configuration presented in Section 5.1, Atkins conducted a groundwater capture zone analysis for the current recovery well configuration plus one (1) additional proposed recovery well (PRW-3). The location of proposed recovery well PRW-3 was based upon locating this well on Plant property and adjacent to the most highly affected groundwater at the Site. Proposed recovery well PRW-3 was situated near monitor well ACW-8 because groundwater samples taken from this monitor well in 2001 exhibited high chloride concentrations (25,000 mg/L).

The subject wells included in this model simulation were recovery wells RW-1, RW-2, ENSR-2 and proposed recovery well PRW-3. For this analysis, each of these wells was simulated at a constant groundwater withdrawal rate of 15 gpm for a period of 20 years. The groundwater capture zones of the existing and proposed recovery wells have been overlain upon a map showing the 5,000 mg/L chloride concentration in groundwater contour. These data are presented on Figure 6. As can be seen on this Figure, the capture zone of recovery well RW-1 augments the capture zone of ENSR-2 and captures the most highly affected groundwater in the northern portion of the Site in five (5) to ten (10) years of constant pumping. Proposed recovery well PRW-3 captures the most highly affected groundwater in the central portion of the Site in approximately five (5) years of constant pumping. The addition of proposed recovery well PRW-3 causes the capture zone of recovery well RW-2 to widen, thereby capturing the highly affected groundwater in the central and southern portions of the Site. Recovery well RW-2 captures the affected groundwater in these areas in ten (10) to twenty (20) years of constant pumping. Groundwater with chloride concentrations in excess of 5,000 mg/L located in the eastern and extreme southern portions of the Site will not be captured by this recovery well configuration. This recovery well configuration, pumping at a constant rate of 15 gpm per well for a period of 20 years would capture the groundwater with chloride concentrations in excess of 5,000 mg/L beneath approximately 49.4 acres (71.1%) of the Site.

5.3 Current Recovery Well Configuration Plus Two Additional Recovery Wells

Upon review of the results of the capture zone analysis presented in Section 5.2, Atkins conducted a groundwater capture zone analysis for the current recovery well configuration plus two (2) additional proposed recovery wells (PRW-3 and PRW-4). The locations of the proposed recovery wells were based upon locating these wells on Plant property and adjacent to the most highly affected groundwater at the Site. Proposed recovery wells PRW-3 and PRW-4 were situated near monitor wells ACW-8 and ACW-11 because groundwater samples taken from these monitor wells in 2001 exhibited the high chloride concentrations (25,000 mg/L and 11,000 mg/l, respectively).

The subject wells included in this model simulation were recovery wells RW-1, RW-2, ENSR-2 and proposed recovery wells PRW-3 and PRW-4. For this analysis, each of these wells was simulated at a constant groundwater withdrawal rate of 15 gpm for a period of 20 years. The groundwater capture zones of the existing and proposed recovery wells have been overlain upon a map showing the 5,000 mg/L chloride concentration in groundwater contour. These data are presented on Figure 7. As can be seen on this Figure, the capture zone of recovery well RW-1 augments the capture zone of ENSR-2 and captures the most highly affected groundwater in the northern portion of the Site in five (5) to ten (10) years of constant pumping. Proposed recovery well PRW-3 captures the most highly affected groundwater in the central portion of the Site in approximately five (5) years of constant pumping, and proposed recovery well PRW-4 captures the most highly affected groundwater in the southern portion of the Site in two and a half (2.5) to five (5) years of constant pumping. The addition of proposed recovery wells PRW-3 and PRW-4 cause the capture zone of recovery well RW-2 to widen, thereby capturing the highly affected groundwater in the central, northern and southern portions of the Site. Recovery well RW-2 captures the affected groundwater in these areas in ten (10) to twenty (20) years of constant pumping. Groundwater with chloride concentrations in excess of 5,000 mg/L located in the eastern portions of the Site will not be captured by this recovery well configuration. This recovery well configuration, pumping at a constant rate of 15 gpm per well for a period of 20 years would capture the groundwater with chloride concentrations in excess of 5,000 mg/L beneath approximately 59.14 acres (85.1%) of the Site.

6.0 CONCLUSIONS

Based upon the groundwater modeling data presented herein, the following conclusions are presented:

- The portion of the Site underlain with groundwater containing a chloride concentration of 5,000 mg/L or greater is approximately 69.52 acres in area.

- The current recovery well configuration, pumping at a constant rate of 15 gpm per well for a period of 20 years, would capture the groundwater with chloride concentrations in excess of 5,000 mg/L beneath approximately 39 acres (56.1%) of the Site.

- The current recovery well configuration with the addition of proposed recovery well PRW-3, pumping at a constant rate of 15 gpm per well for a period of 20 years, would capture the groundwater with chloride concentrations in excess of 5,000 mg/L beneath approximately 49.4 acres (71.1%) of the Site.

- The current recovery well configuration with the addition of proposed recovery wells PRW-3 and PRW-4, pumping at a constant rate of 15 gpm per well for a period of 20 years, would capture the groundwater with chloride concentrations in excess of 5,000 mg/L beneath approximately 59.14 acres (85.1%) of the Site.

7.0 RECOMMENDATIONS

Based upon a thorough review of the data contained within this report, Atkins has formulated the following recommendations:

- Continue operation of the current groundwater remediation system at maximum design capacity. Each recovery well should be routinely monitored to identify groundwater recovery volumes, pumping rates, pumping times, and the quality of groundwater being discharged (via field measurements of specific conductance and chloride concentration).

- Efforts should be made to improve access to and capacity in Christie's SWD-214 disposal well to maximize groundwater recovery volumes. Ideally, EPNG's disposal capacity and recovery well configuration should be sufficient to allow hydraulic capture of the highly impacted groundwater (i.e., groundwater with chloride levels greater than 5,000 mg/L). If adequate disposal capacity cannot be developed and maintained within this disposal well, EPNG should pursue another disposal well(s) that can provide the disposal capacity required.

- Remediation efforts should focus on capturing the most highly impacted groundwater. Particular emphasis should be placed upon evaluating vertical variations in brine concentrations that may be present within the groundwater system. Construction of future recovery wells should target those groundwater intervals containing the most highly affected groundwater.

- Drill and install additional recovery wells, to enhance the effectiveness of the groundwater remediation system, and prevent further downgradient movement of impacted groundwater.

8.0 REFERENCES

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TABLES

TABLE 1: SUMMARY OF GROUNDWATER RECOVERY/DISPOSAL VOLUMES FOR YEAR 2000
JAL NO. 4 PLANT, EL PASO NATURAL GAS COMPANY, LEA COUNTY, NEW MEXICO

Month	CP-37 thru CP-42 Comb-S (RW1)			CP-37 thru CP-42 Comb-S (RW2)			ENSR 2		
	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)
	Present	Previous		Present	Previous		Present	Previous	
	1999 Annual Subtotal		**319,280**	**1999 Annual Subtotal**		**0**	**1999 Annual Subtotal**		**0**
Jan-00	433,650	319,280	114,370	159,310	0	159,310			0
Feb-00	433,650	433,650	0	429,320	159,310	270,010			0
Mar-00	472,140	433,650	38,490	608,920	429,320	179,600			0
Apr-00	724,480	472,140	252,340	889,340	608,920	280,420			0
May-00	1,063,690	724,480	339,210	1,356,030	889,340	466,690			0
Jun-00	1,328,830	1,063,690	265,140	1,721,820	1,356,030	365,790			0
Jul-00	1,556,340	1,328,830	227,510	2,023,570	1,721,820	301,750			0
Aug-00 (1)	1,656,180	1,556,340	99,840	2,368,940	2,023,570	345,370	141,380	0	141,380
Sep-00	1,656,180	1,656,180	0	2,725,930	2,368,940	356,990	416,060	141,380	274,680
Oct-00 (2)	1,809,960	1,656,180	153,780	2,951,330	2,725,930	483,083	621,600	416,060	205,540
Nov-00	1,894,790	1,809,960	84,830	2,951,330	2,951,330	475,352	621,600	621,600	0
Dec-00	1,894,790	1,894,790	0	3,234,350	2,951,330	283,020	780,240	621,600	158,640
	2000 Annual Subtotal		**1,575,510**	**2000 Annual Subtotal**		**3,967,385**	**2000 Annual Subtotal**		**780,240**
							2000 ANNUAL TOTAL		**6,323,135**

Notes:

(1) In October of 2000, EPC conducted a pump test in monitor well ENSR-2. This pump test was conducted to determine if this well was suitable for conversion into a recovery well to replace recovery well RW-1. A total of 153,780 gallons of groundwater were recovered during this pump test.

(2) Well designations CP-37 through CP-42 combined - S(RW-1) and (RW-2) denote permit file numbers issued by the New Mexico State Engineer's Office on June 24, 1997.

TABLE 2: SUMMARY OF GROUNDWATER RECOVERY/DISPOSAL VOLUMES FOR YEAR 2001
JAL NO. 4 PLANT, EL PASO NATURAL GAS COMPANY, LEA COUNTY, NEW MEXICO

Month	CP-37 thru CP-42 Comb-S (RW1)			CP-37 thru CP-42 Comb-S (RW2)			ENSR #2		
	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)
	Present	Previous		Present	Previous		Present	Previous	
	2000 Annual Subtotal		1,490,680	2000 Annual Subtotal		3,967,385	2000 Annual Subtotal		780,240
Jan-01	1,894,790	1,894,790	0	3,234,350	3,234,350	0	780,240	780,240	0
Feb-01	1,894,790	1,894,790	0	3,510,230	3,234,350	275,880	882,920	780,240	102,680
Mar-01	1,894,790	1,894,790	0	3,701,160	3,510,230	190,930	940,330	882,920	57,410
Apr-01	1,894,790	1,894,790	0	3,701,160	3,701,160	0	940,330	940,330	0
May-01	1,894,790	1,894,790	0	3,701,160	3,701,160	0	940,330	940,330	0
Jun-01	1,894,790	1,894,790	0	3,701,160	3,701,160	0	940,330	940,330	0
Jul-01	1,894,790	1,894,790	0	3,701,160	3,701,160	0	940,330	940,330	0
Aug-01	1,894,790	1,894,790	0	3,774,520	3,701,160	73,360	940,330	940,330	0
Sep-01	1,894,790	1,894,790	0	4,046,390	3,774,520	271,870	964,630	940,330	24,300
Oct-01	1,894,790	1,894,790	0	4,481,530	4,046,390	435,140	966,920	964,630	182,296
Nov-01	1,894,790	1,894,790	0	4,761,290	4,481,530	279,760	1,054,030	966,920	87,110
Dec-01	1,894,790	1,894,790	0	4,907,340	4,761,290	146,050	1,166,360	1,054,030	112,330
	2001 Annual Subtotal		0	2001 Annual Subtotal		1,672,990	2001 Annual Subtotal		566,126
							2001 ANNUAL TOTAL		2,239,116

Notes:

(1) Well designations CP-37 through CP-42 combined - S(RW-1) and (RW-2) denote permit file numbers issued by the New Mexico State Engineer's Office on June 24, 1997.

(2) Flow totalizer for ENSR-2 did not operate for entire month of October 2001. Difference (182,296 gallons) is actual amount of water removed from well.

TABLE 3: SUMMARY OF GROUNDWATER RECOVERY/DISPOSAL VOLUMES FOR YEAR 2002, JAL NO. 4 PLANT, EL PASO NATURAL GAS COMPANY, LEA COUNTY, NEW MEXICO

Month	CP-37 thru CP-42 Comb-S (RW1)			CP-37 thru CP-42 Comb-S (RW2)			ENSR #2		
	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)	Meter Readings		Difference (gallons)
	Present	Previous		Present	Previous		Present	Previous	
	2001 Annual Subtotal		1,490,680	2001 Annual Subtotal		4,113,435	2001 Annual Subtotal		1,346,366
Jan-02	1,894,790	1,894,790	0	5,236,770	4,907,340	329,430	1,375,740	1,166,360	209,380
Feb-02	1,894,790	1,894,790	0	5,609,220	5,236,770	372,450	1,706,540	1,375,740	330,800
Mar-02	1,894,790	1,894,790	0	5,840,000	5,609,220	230,780	1,920,160	1,706,540	213,620
Apr-02	1,894,790	1,894,790	0	6,006,760	5,840,000	166,760	2,037,980	1,920,160	117,820
May-02	1,894,790	1,894,790	0	6,130,580	6,006,760	123,820	2,101,990	2,037,980	64,010
Jun-02	1,936,380	1,894,790	41,590	6,323,550	6,130,580	192,970	2,162,090	2,101,990	60,100
Jul-02	2,020,000	1,936,380	83,620	6,489,890	6,323,550	166,340	2,190,090	2,162,090	28,000
Aug-02	2,067,630	2,020,000	47,630	6,608,110	6,489,890	118,220	2,298,930	2,190,090	108,840
Sep-02 (3)	2,080,030	2,067,630	48,849	6,894,300	6,608,110	286,190	2,470,690	2,298,930	171,760
Oct-02	2,080,030	2,080,030	0	7,239,800	6,894,300	345,500	2,694,990	2,470,690	224,300
Nov-02	2,126,210	2,080,030	46,180	7,431,420	7,239,800	191,620	2,840,170	2,694,990	145,180
Dec-02	2,126,210	2,126,210	0	7,826,860	7,431,420	395,440	2,842,030	2,840,170	1,860
	2002 Annual Subtotal		267,869	2002 Annual Subtotal		2,919,520	2002 Annual Subtotal		1,675,670
							2002 Annual Total		4,863,059

Notes:

(1) Well designations CP-37 through CP-42 combined - S(RW-1) and (RW-2) denote permit file numbers issued by the New Mexico State Engineer's Office on June 24, 1997.

14.92 acre-ft

(2) Total amount of water discharged includes gallons removed during pump test conducted in March 2002.

115,787 barrels

(3) RW-1 meter inoperable. Total volume this period was determined from totalizer.

TABLE 4: SUMMARY OF MONTHLY GROUNDWATER RECOVERY/DISPOSAL VOLUMES AND AVERAGE PUMP RATES
JAL NO. 4 PLANT, EL PASO NATURAL GAS COMPANY, LEA COUNTY, NEW MEXICO

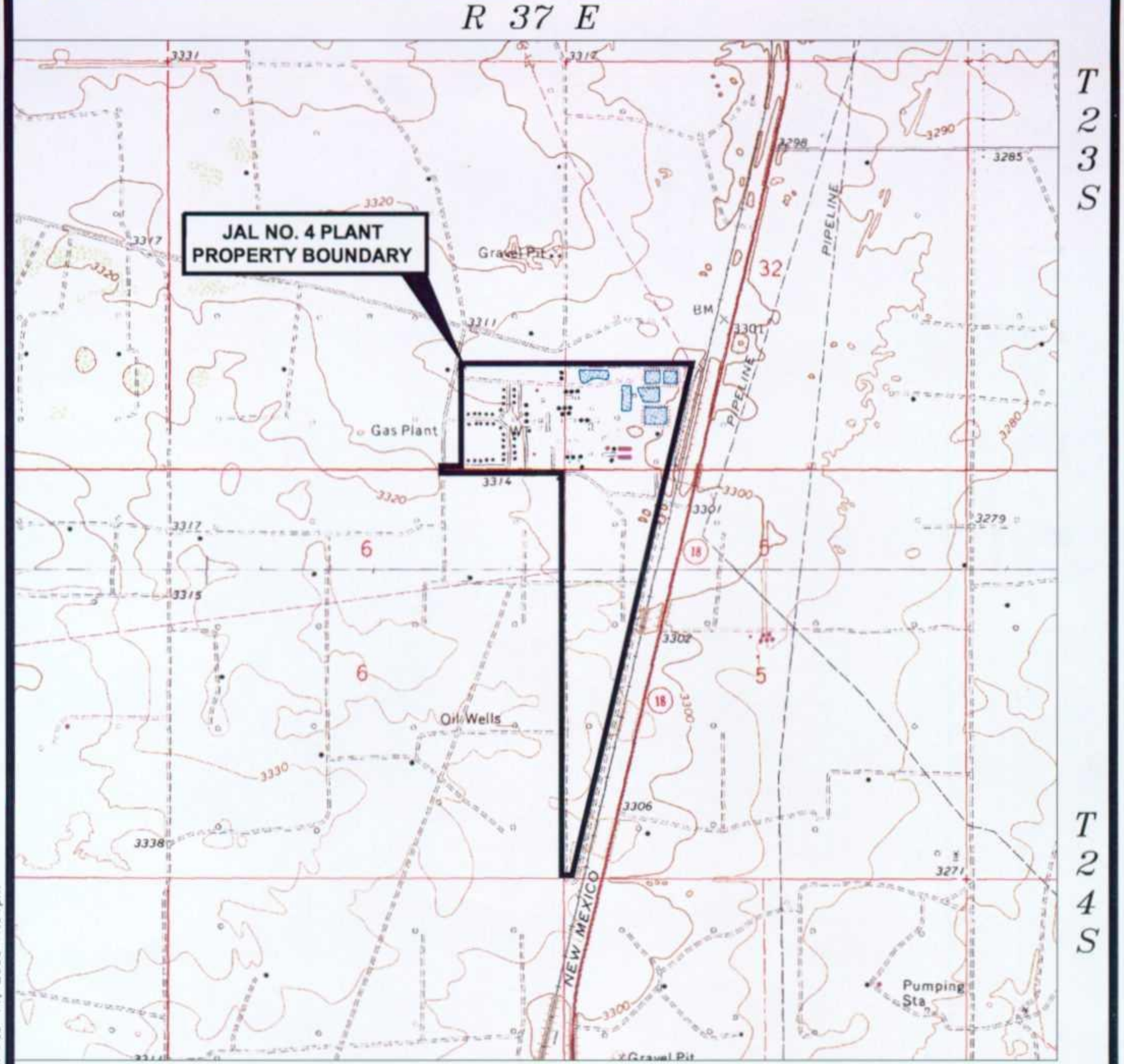
Well	Month	Groundwater Recovered (gal)	Operation Duration (days)	Operation Duration (min)	Calculated Pump Rate (gpm)	Annual Average Pump Rate (gpm)
2000						
RW-1	Jan-00	114,370	27	38,880	2.9	4.5
	Feb-00	0	1	1,440	0.0	
	Mar-00	38,490	2	2,880	13.4	
	Apr-00	252,340	17	24,480	10.3	
	May-00	339,210	27	38,880	8.7	
	Jun-00	265,140	30	43,200	6.1	
	Jul-00	227,510	31	44,640	5.1	
	Aug-00	99,840	31	44,640	2.2	
	Sep-00	0	1	1,440	0.0	
	Oct-00	153,780	31	44,640	3.4	
	Nov-00	84,830	30 [(1)]	43,200	2.0	
	Dec-00	0	1	1,440	0.0	
RW-2	Jan-00	159,310	27	38,880	4.1	8.7
	Feb-00	270,010	28	40,320	6.7	
	Mar-00	179,600	10	14,400	12.5	
	Apr-00	280,420	18	25,920	10.8	
	May-00	466,690	31	44,640	10.5	
	Jun-00	365,790	30	43,200	8.5	
	Jul-00	301,750	31	44,640	6.8	
	Aug-00	345,370	31	44,640	7.7	
	Sep-00	356,990	30	43,200	8.3	
	Oct-00	483,083	31	44,640	10.8	
	Nov-00	475,352	30	43,200	11.0	
	Dec-00	283,020	31	44,640	6.3	
ENSR-2	Aug-00	141,380	31	44,640	3.2	4.4
	Sep-00	274,680	30	43,200	6.4	
	Oct-00	205,540	31	44,640	4.6	
	Nov-00	0	0	0	0.0	
	Dec-00	158,640	31	44,640	3.6	
2001						
RW-2	Oct-01	435,140	31	44,640	9.7	9.7
ENSR-2	Oct-01	182,296	31	44,640	4.1	4.1

NOTES:

1. No data were available. A duration of 30 days was assumed.

FIGURES

FIGURES



AFTER U.S.G.S. 7.5 MIN. TOPO. QUAD., RATTLESNAKE CANYON, N.M., 1979, AND JAL NW, N.M., 1979

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FIGURE TITLE
PLANT LOCATION AND TOPOGRAPHIC FEATURES

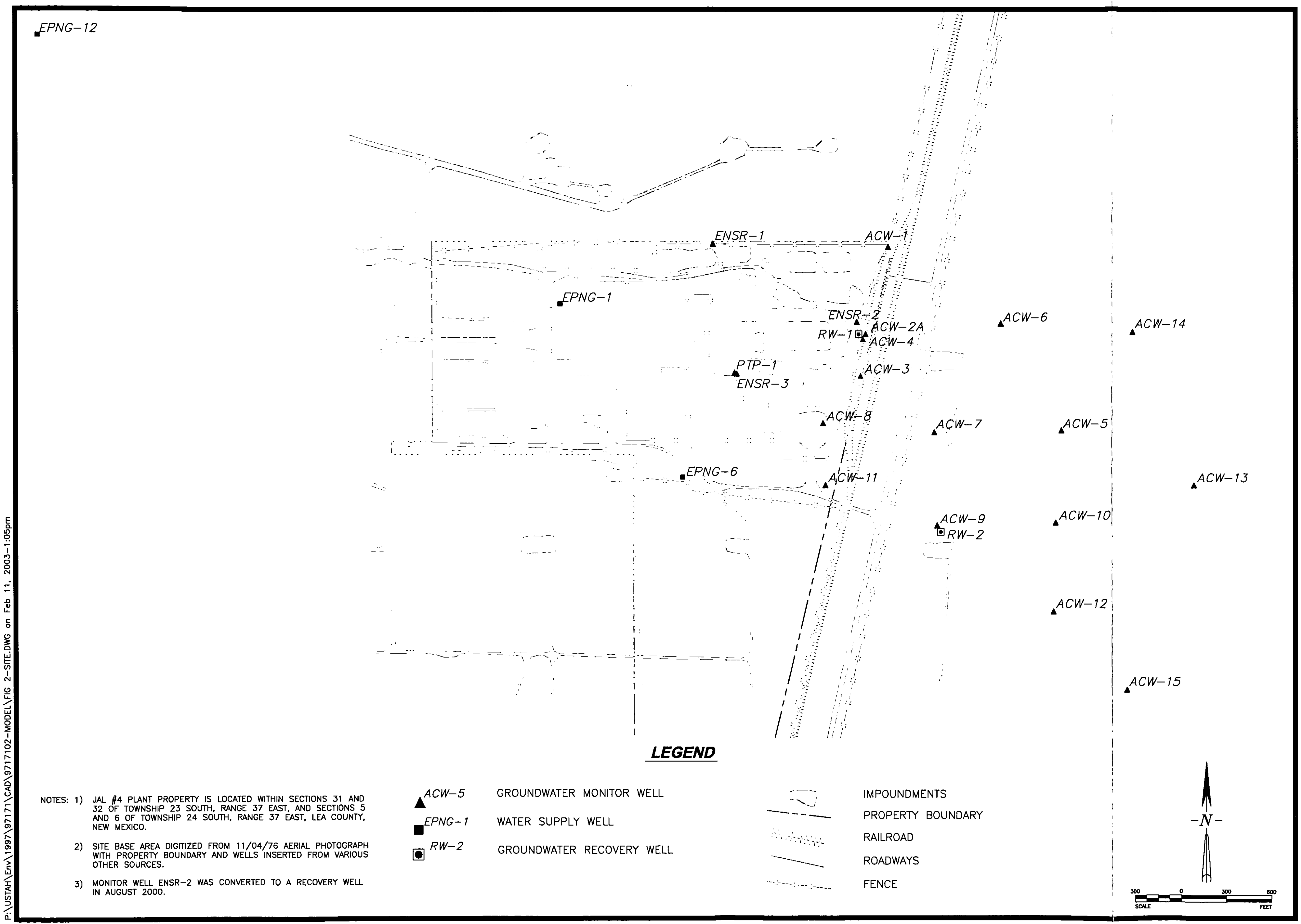
DOCUMENT TITLE
GROUNDWATER MODELING REPORT

CLIENT
EL PASO NATURAL GAS COMPANY

LOCATION
JAL #4 PLANT
LEA COUNTY, NEW MEXICO

DATE	1/20/03
SCALE	AS SHOWN
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG
PROJECT NUMBER	9717102
FIGURE NUMBER	1

P:\USTAH\Env\1997\97171\CAD\9717102-MODEL\FIG 1-TOPO.DWG on Feb 11, 2003-1:04pm



LEGEND

▲ ACW-5	GROUNDWATER MONITOR WELL
■ EPNG-1	WATER SUPPLY WELL
⊡ RW-2	GROUNDWATER RECOVERY WELL
	IMPOUNDMENTS
	PROPERTY BOUNDARY
	RAILROAD
	ROADWAYS
	FENCE

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.
3) MONITOR WELL ENSR-2 WAS CONVERTED TO A RECOVERY WELL IN AUGUST 2000.

P:\USTAH\Env\1997\97171\CAD\9717102-MODEL\FIG 2-SITE.DWG on Feb 11, 2003-1:05pm

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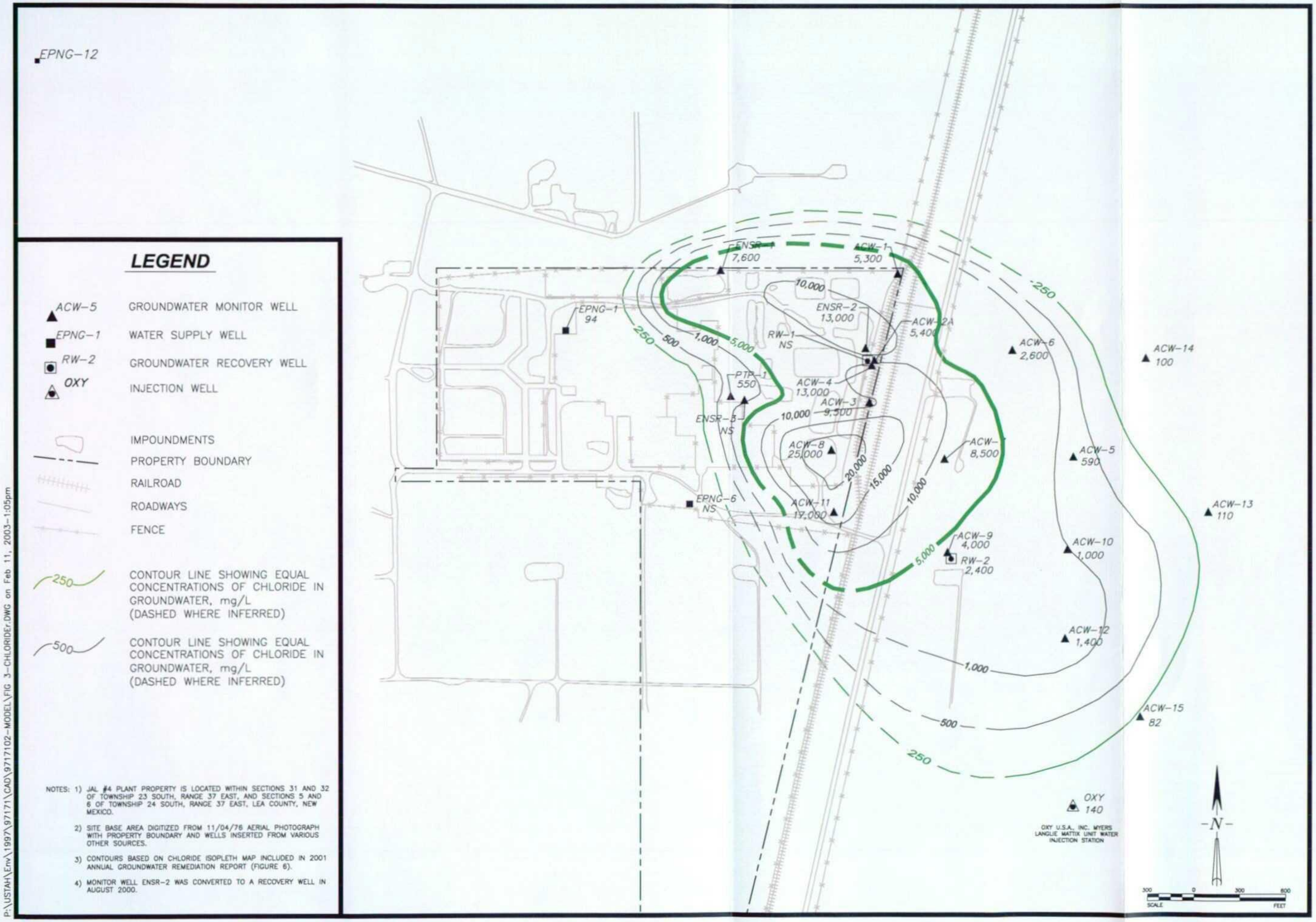
FIGURE TITLE	**SITE MAP**
DOCUMENT TITLE	GROUNDWATER MODELING REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 PLANT LEA COUNTY, NEW MEXICO

DATE	1/21/03
SCALE	1"=600'
DESIGNED BY	BEM
APPROVED BY	GHR
DRAWN BY	SKG

PROJECT NUMBER
9717102
FIGURE NUMBER
2



NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.
3) CONTOURS BASED ON CHLORIDE ISOPLETH MAP INCLUDED IN 2001 ANNUAL GROUNDWATER REMEDIATION REPORT (FIGURE 6).
4) MONITOR WELL ENSR-2 WAS CONVERTED TO A RECOVERY WELL IN AUGUST 2000.

P:\USTAH\Env\1997\97171\CAD\9717102-MODEL\FIG 3-CHLORIDEr.DWG on Feb 11, 2003-1:05pm

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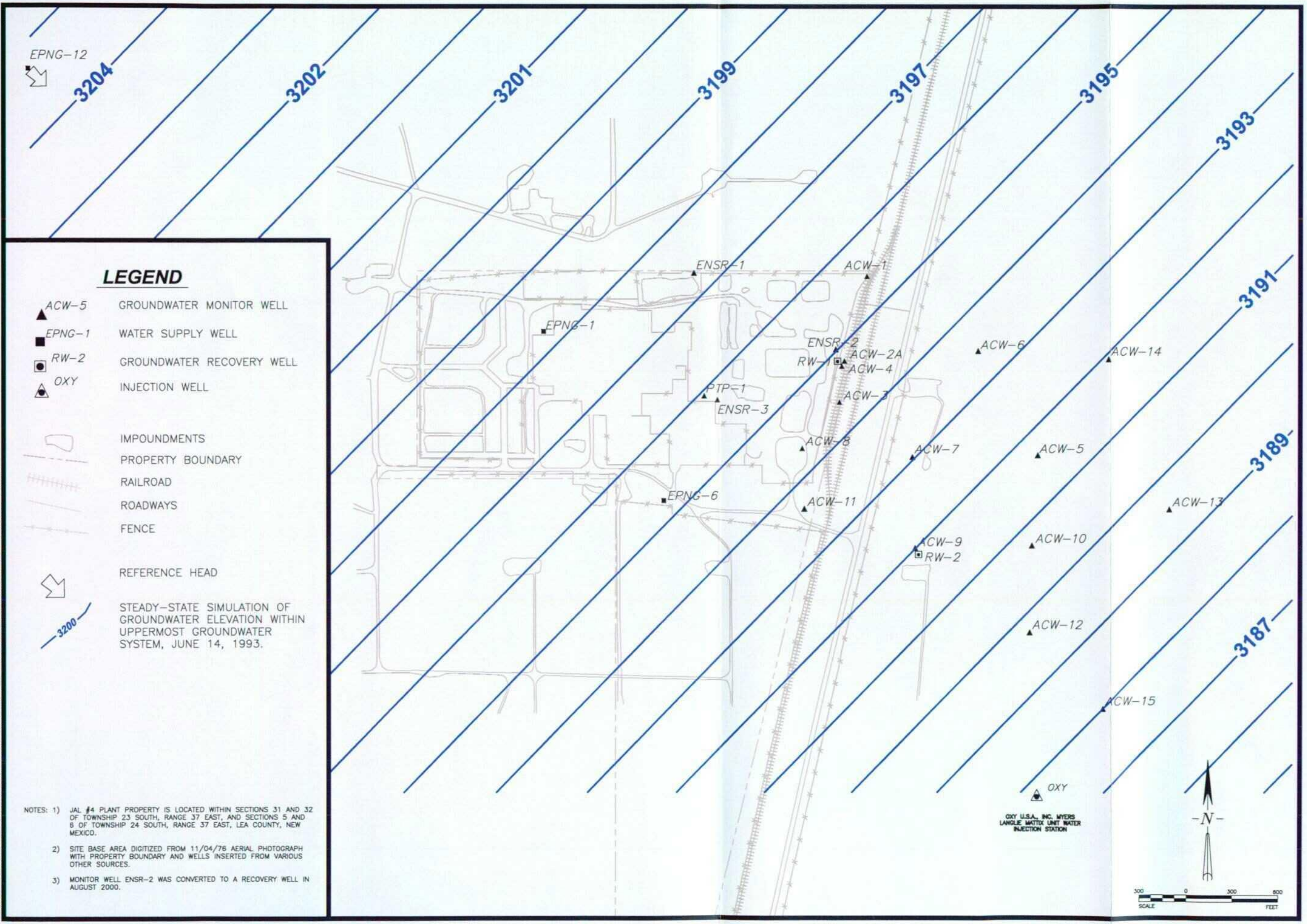
FIGURE TITLE	***APPROXIMATE AREA OF CHLORIDE IMPACTED GROUNDWATER***
DOCUMENT TITLE	GROUNDWATER MODELING REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 PLANT LEA COUNTY, NEW MEXICO

DATE	1/21/03
SCALE	1"=660'
DESIGNED BY	BEM
APPROVED BY	GHR
DRAWN BY	SKG

PROJECT NUMBER
9717102
FIGURE NUMBER
3



LEGEND

▲ ACW-5	GROUNDWATER MONITOR WELL
■ EPNG-1	WATER SUPPLY WELL
⊡ RW-2	GROUNDWATER RECOVERY WELL
▲ OXY	INJECTION WELL
	IMPOUNDMENTS
	PROPERTY BOUNDARY
	RAILROAD
	ROADWAYS
	FENCE
	REFERENCE HEAD
3200	STEADY-STATE SIMULATION OF GROUNDWATER ELEVATION WITHIN UPPERMOST GROUNDWATER SYSTEM, JUNE 14, 1993.

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.
3) MONITOR WELL ENSR-2 WAS CONVERTED TO A RECOVERY WELL IN AUGUST 2000.

P:\USTAH\Env\1997\97171\CAD\9717102-MODEL\FIG 4-POTENTIOMETRIC.DWG on Feb 11, 2003-1:05pm

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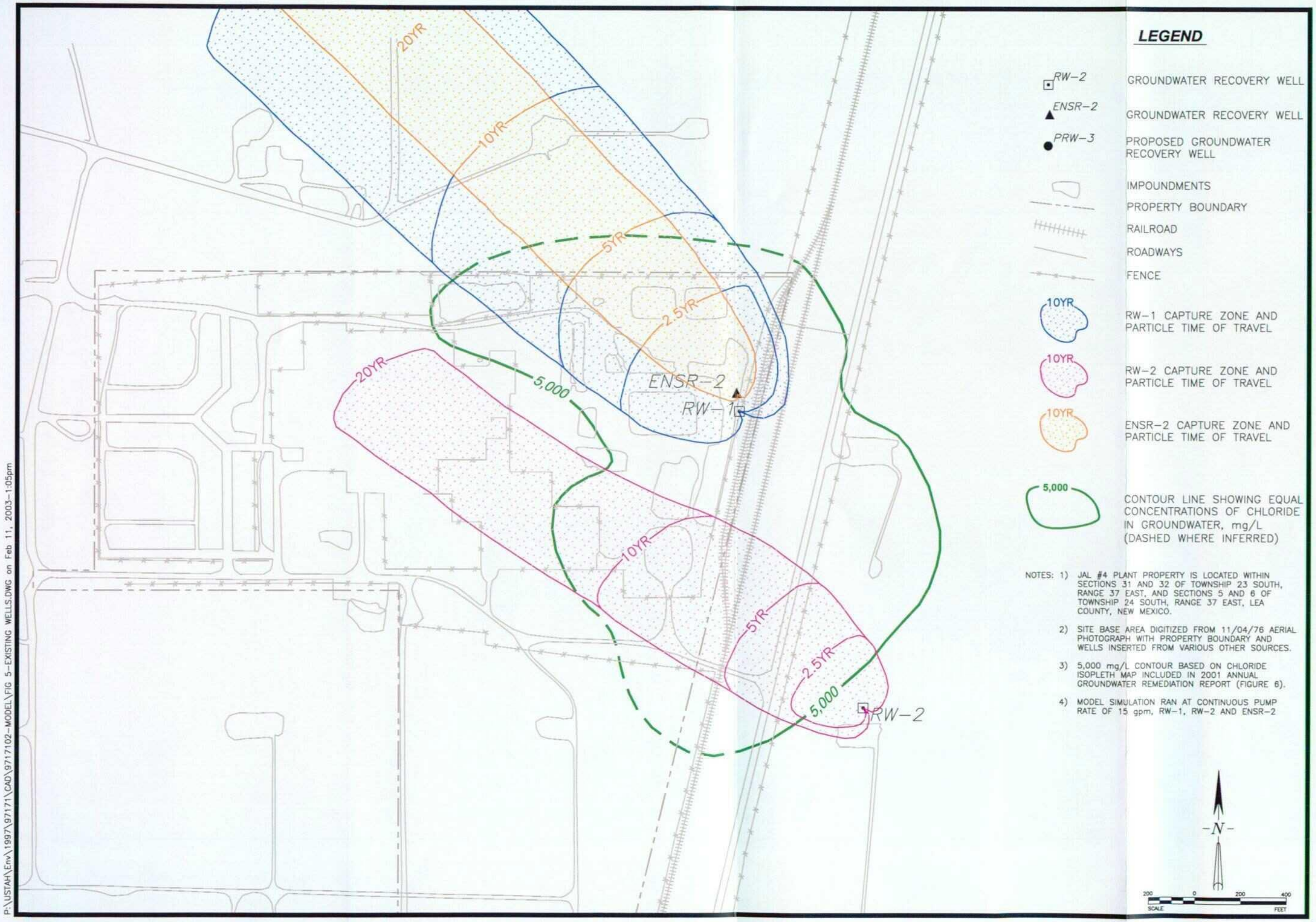
FIGURE TITLE	*CALIBRATED STEADY-STATE SIMULATION OF POTENTIOMETRIC SURFACE*
DOCUMENT TITLE	GROUNDWATER MODELING REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 PLANT LEA COUNTY, NEW MEXICO

DATE	1/21/03
SCALE	1"=600'
DESIGNED BY	NA
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717102
FIGURE NUMBER
4



LEGEND

⊡ RW-2	GROUNDWATER RECOVERY WELL
▲ ENSR-2	GROUNDWATER RECOVERY WELL
● PRW-3	PROPOSED GROUNDWATER RECOVERY WELL
	IMPOUNDMENTS
	PROPERTY BOUNDARY
	RAILROAD
	ROADWAYS
	FENCE
10YR	RW-1 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL
10YR	RW-2 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL
10YR	ENSR-2 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL
5,000	CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF CHLORIDE IN GROUNDWATER, mg/L (DASHED WHERE INFERRED)

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.
3) 5,000 mg/L CONTOUR BASED ON CHLORIDE ISOPLETH MAP INCLUDED IN 2001 ANNUAL GROUNDWATER REMEDIATION REPORT (FIGURE 6).
4) MODEL SIMULATION RAN AT CONTINUOUS PUMP RATE OF 15 gpm, RW-1, RW-2 AND ENSR-2

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Tulsa, Oklahoma 74137
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www.atkinsamericas.com

FIGURE TITLE: ***RECOVERY WELL CAPTURE ZONES***
CURRENT RECOVERY WELL CONFIGURATION

DOCUMENT TITLE: GROUNDWATER
MODELING REPORT

CLIENT: EL PASO NATURAL GAS COMPANY

LOCATION: JAL #4 PLANT
LEA COUNTY, NEW MEXICO

DATE	1/21/03
SCALE	1"=400'
DESIGNED BY	BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717102
FIGURE NUMBER
5

P:\USTAH\Env\1997\97171\CAD\9717102-MODEL\FIG 5-EXISTING WELLS.DWG on Feb 11, 2003-1:05pm

LEGEND

⊡ RW-2	GROUNDWATER RECOVERY WELL
▲ ENSR-2	GROUNDWATER RECOVERY WELL
● PRW-3	PROPOSED GROUNDWATER RECOVERY WELL
	IMPOUNDMENTS
	PROPERTY BOUNDARY
	RAILROAD
	ROADWAYS
	FENCE
10YR	RW-1 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL
10YR	RW-2 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL
10YR	ENSR-2 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL
10YR	PRW-3 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL
5,000	CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF CHLORIDE IN GROUNDWATER, mg/L (DASHED WHERE INFERRED)

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.
3) 5,000 mg/L CONTOUR BASED ON CHLORIDE ISOPLETH MAP INCLUDED IN 2001 ANNUAL GROUNDWATER REMEDIATION REPORT (FIGURE 6).
4) MODEL SIMULATION RAN AT CONTINUOUS PUMP RATE OF 15 gpm, RW-1, RW-2, ENSR-2 AND PRW-3.

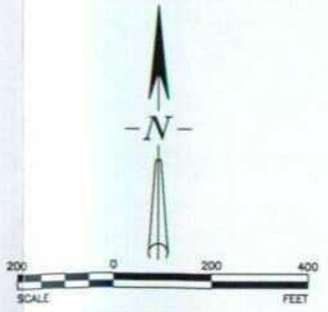

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FIGURE TITLE	**RECOVERY WELL CAPTURE ZONES CURRENT RECOVERY WELL CONFIGURATION PLUS ONE ADDITIONAL WELL**
DOCUMENT TITLE	GROUNDWATER MODELING REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 PLANT LEA COUNTY, NEW MEXICO

DATE	1/21/03
SCALE	1"=400'
DESIGNED BY	NA/BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717102
FIGURE NUMBER
6

P:\USTAH\Env\1997\97171\CAD\9717102-MODEL\FIG 6-1 PROPOSED WELL.DWG on Feb 11, 2003-1:05pm

LEGEND

RW-2 GROUNDWATER RECOVERY WELL

ENSR-2 GROUNDWATER RECOVERY WELL

PRW-3 PROPOSED GROUNDWATER RECOVERY WELL

IMPOUNDMENTS

PROPERTY BOUNDARY

RAILROAD

ROADWAYS

FENCE

10YR RW-1 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL

10YR RW-2 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL

10YR ENSR-2 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL

10YR PRW-3 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL

10YR PRW-4 CAPTURE ZONE AND PARTICLE TIME OF TRAVEL

5,000 CONTOUR LINE SHOWING EQUAL CONCENTRATIONS OF CHLORIDE IN GROUNDWATER, mg/L (DASHED WHERE INFERRED)

NOTES:
1) JAL #4 PLANT PROPERTY IS LOCATED WITHIN SECTIONS 31 AND 32 OF TOWNSHIP 23 SOUTH, RANGE 37 EAST, AND SECTIONS 5 AND 6 OF TOWNSHIP 24 SOUTH, RANGE 37 EAST, LEA COUNTY, NEW MEXICO.
2) SITE BASE AREA DIGITIZED FROM 11/04/76 AERIAL PHOTOGRAPH WITH PROPERTY BOUNDARY AND WELLS INSERTED FROM VARIOUS OTHER SOURCES.
3) 5,000 mg/L CONTOUR BASED ON CHLORIDE ISOPLETH MAP INCLUDED IN 2001 ANNUAL GROUNDWATER REMEDIATION REPORT (FIGURE 6).
4) MODEL SIMULATION RAN AT CONTINUOUS PUMP RATE OF 15 gpm, RW-1, RW-2, ENSR-2, PRW-3 AND PRW-4.

200 0 200 400
SCALE FEET

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FIGURE TITLE	*RECOVERY WELL CAPTURE ZONES* *CURRENT RECOVERY WELL CONFIGURATION PLUS TWO ADDITIONAL WELLS*
DOCUMENT TITLE	GROUNDWATER MODELING REPORT
CLIENT	EL PASO NATURAL GAS COMPANY
LOCATION	JAL #4 PLANT LEA COUNTY, NEW MEXICO

DATE	1/21/03
SCALE	1"=400'
DESIGNED BY	NA/BEM
APPROVED BY	BEM
DRAWN BY	SKG

PROJECT NUMBER
9717102
FIGURE NUMBER
7

P:\USTAH\Env\1997\97171\CAD\9717102-MODEL\FIG 7- 2 PROPOSED WELLS.DWG on Feb 11, 2003-1:06pm

APPENDICES

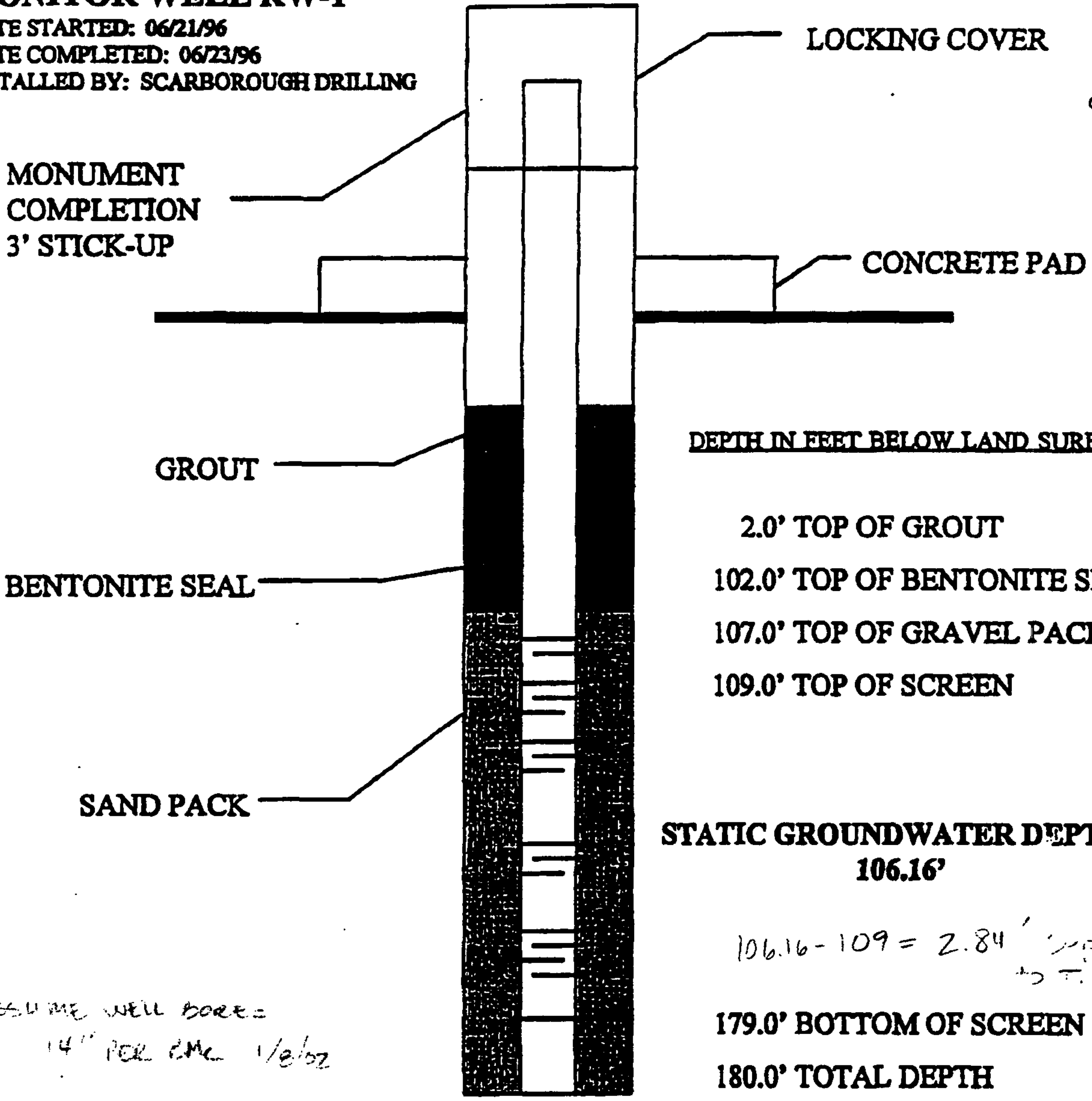
APPENDICES

APPENDIX A

Well Completion Records

MONITOR WELL RW-1

DATE STARTED: 06/21/96
DATE COMPLETED: 06/23/96
INSTALLED BY: SCARBOROUGH DRILLING



DEPTH IN FEET BELOW LAND SURFACE

2.0' TOP OF GROUT
102.0' TOP OF BENTONITE SEAL
107.0' TOP OF GRAVEL PACK
109.0' TOP OF SCREEN

STATIC GROUNDWATER DEPTH: 106.16'

106.16 - 109 = 2.84' depth to T.O.S. f/ water table

179.0' BOTTOM OF SCREEN
180.0' TOTAL DEPTH

70' SCREEN

ASSUME WELL BORE = 14" PER EMC 1/8/97

CASING TYPE: 10" SCH. 160 PVC
SCREEN TYPE: SCH. 160 PVC 0.35 SLOT
GRAVEL PACK: 08/16 VOLUME SILICA SAND

0.827' ID

PHILIP ENVIRONMENTAL SERVICES CORPORATION

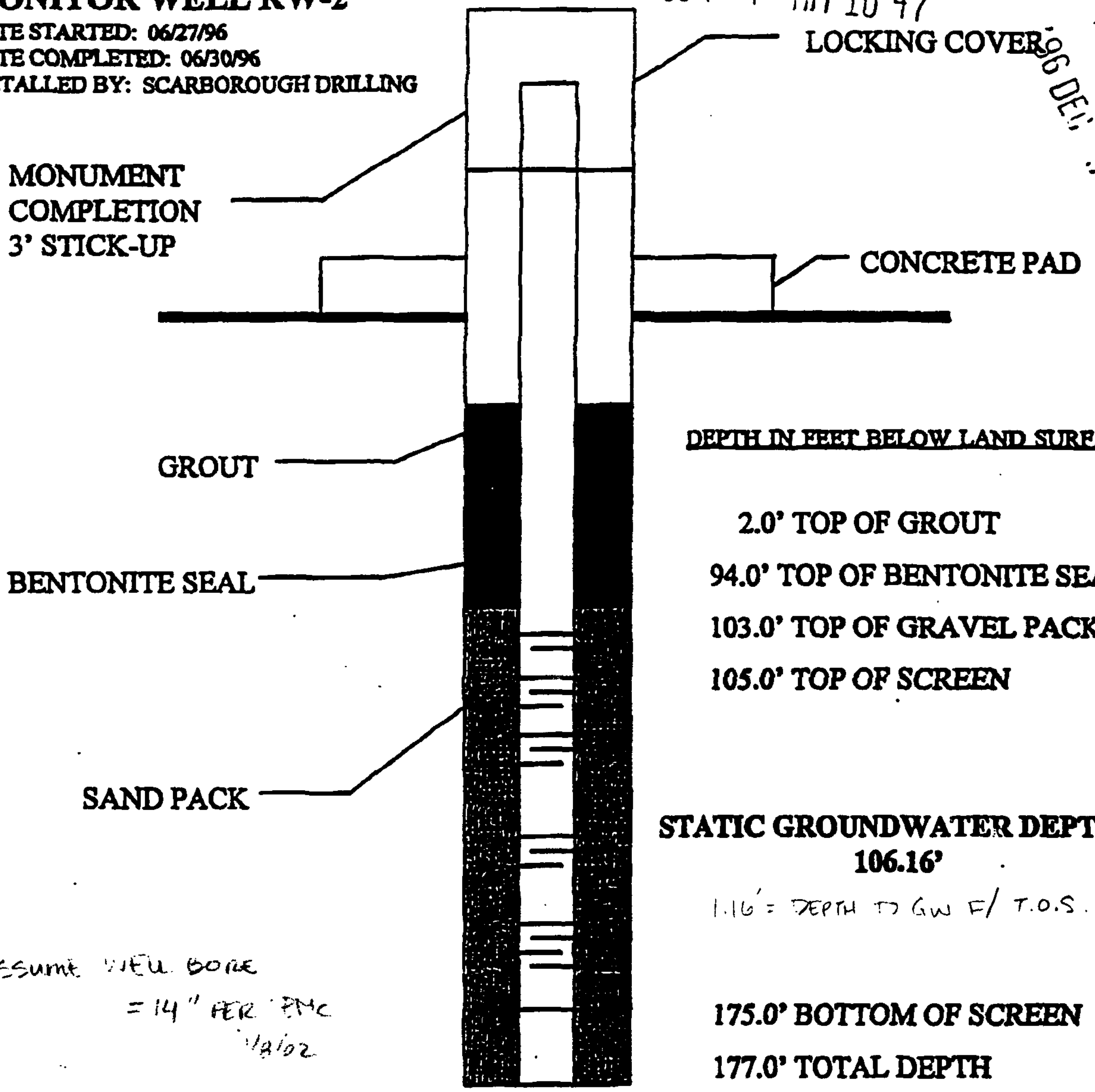
Monitor Well Installation Diagram

EL PASO NATURAL GAS JAL #4 PLANT
LEA COUNTY, NEW MEXICO
PROJECT NUMBER 14683

RW-2

MONITOR WELL RW-2

DATE STARTED: 06/27/96
DATE COMPLETED: 06/30/96
INSTALLED BY: SCARBOROUGH DRILLING



DEPTH IN FEET BELOW LAND SURFACE

2.0' TOP OF GROUT
94.0' TOP OF BENTONITE SEAL
103.0' TOP OF GRAVEL PACK
105.0' TOP OF SCREEN

STATIC GROUNDWATER DEPTH:
106.16'

1.16' = DEPTH TO GW F/ T.O.S.

Assume WELL BORE
= 14" PER PMC
1/8/02

175.0' BOTTOM OF SCREEN
177.0' TOTAL DEPTH

70' SCREEN

CASING TYPE: 10" SCH. 160 PVC
SCREEN TYPE: SCH. 160 PVC 0.35 SLOT
GRAVEL PACK: 08/16 VOLUME SILICA SAND

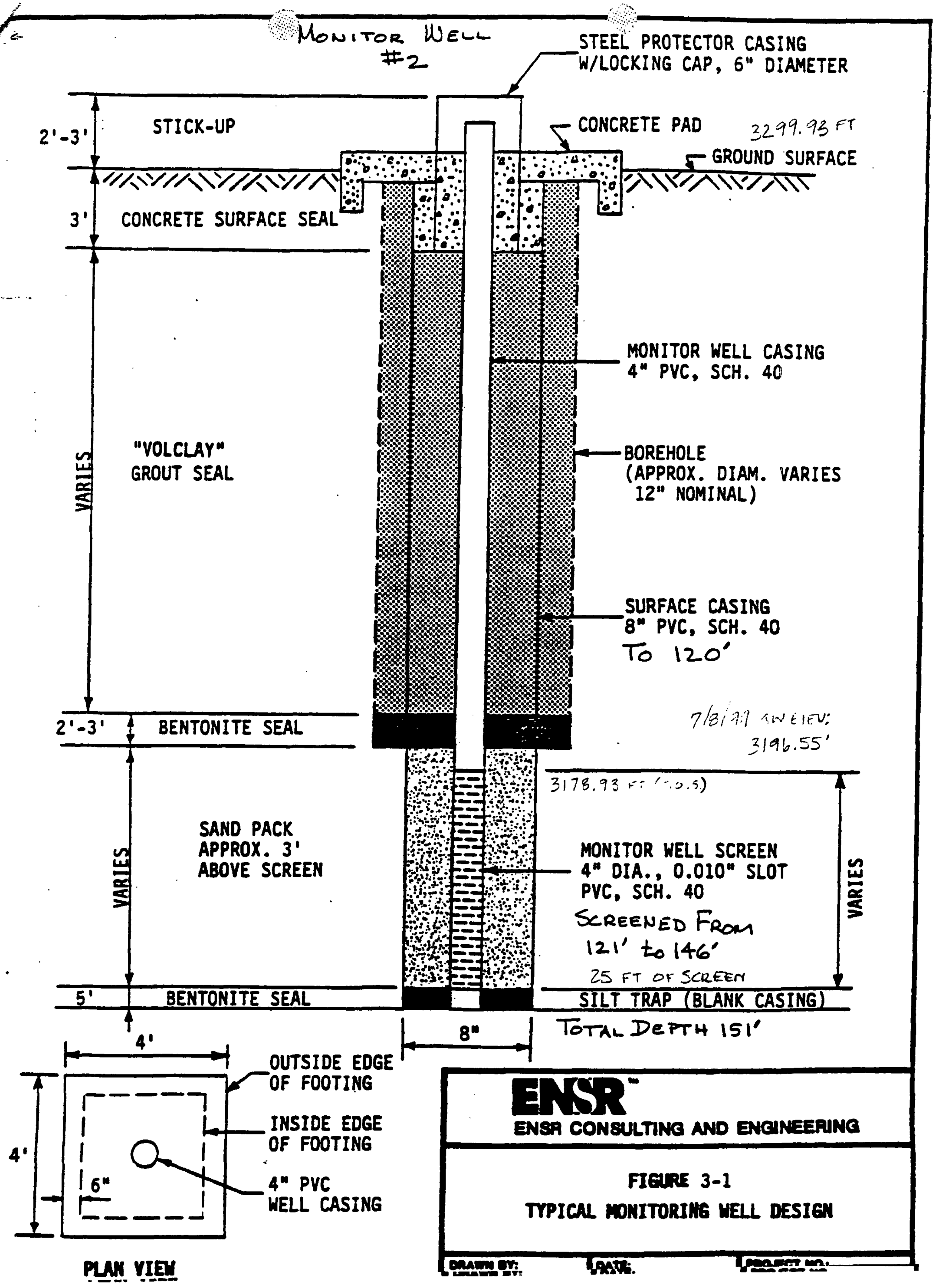
0.827' ID

PHILIP ENVIRONMENTAL SERVICES CORPORATION

Monitor Well Installation Diagram

EL PASO NATURAL GAS JAL #4 PLANT
LEA COUNTY, NEW MEXICO
PROJECT NUMBER 14683

MONITOR WELL
#2



ENSR

ENSR CONSULTING AND ENGINEERING

FIGURE 3-1

TYPICAL MONITORING WELL DESIGN

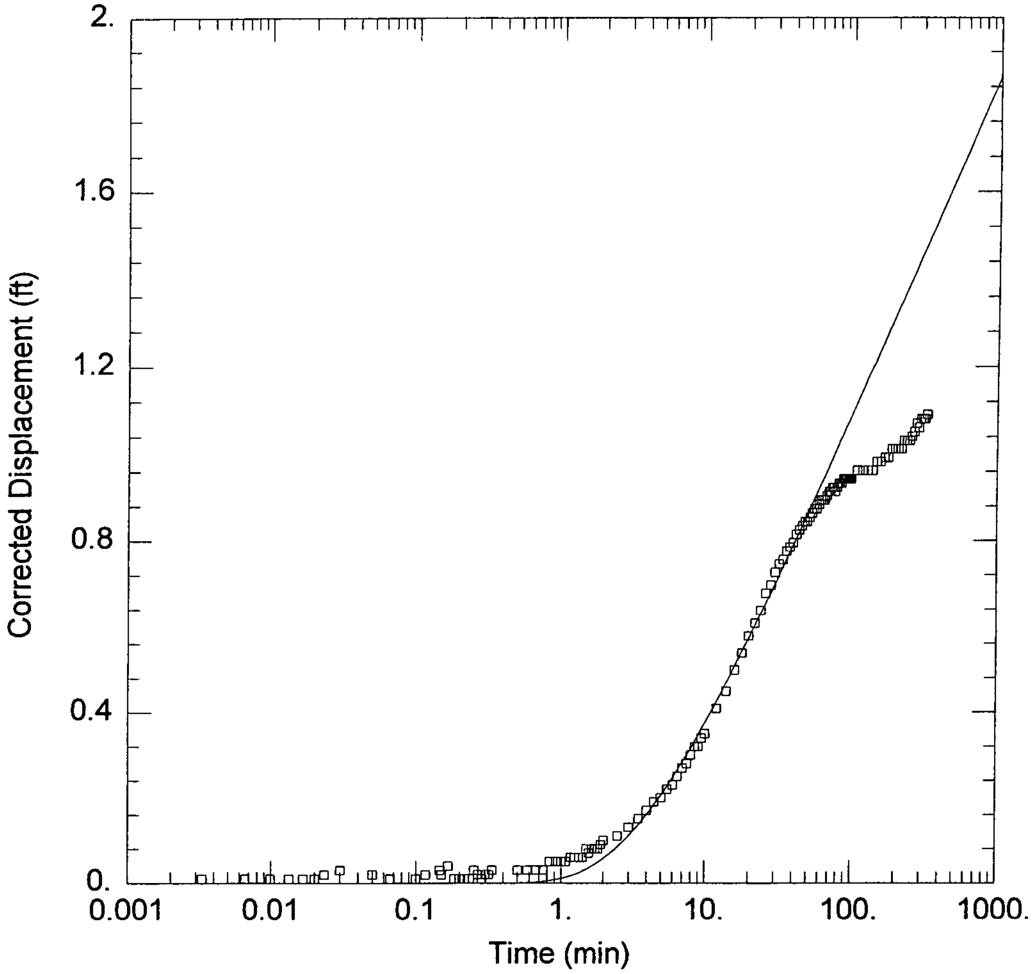
DRAWN BY: | DATE: | PROJECT NO.:

APPENDIX A

APPENDIX B

APPENDIX B

K.W. Brown Pump Test Data Reanalysis Results



K.W. BROWN JAL #4 PUMP TEST DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\KWBPTREPRO.aqt
Date: 04/24/02 Time: 08:50:50

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

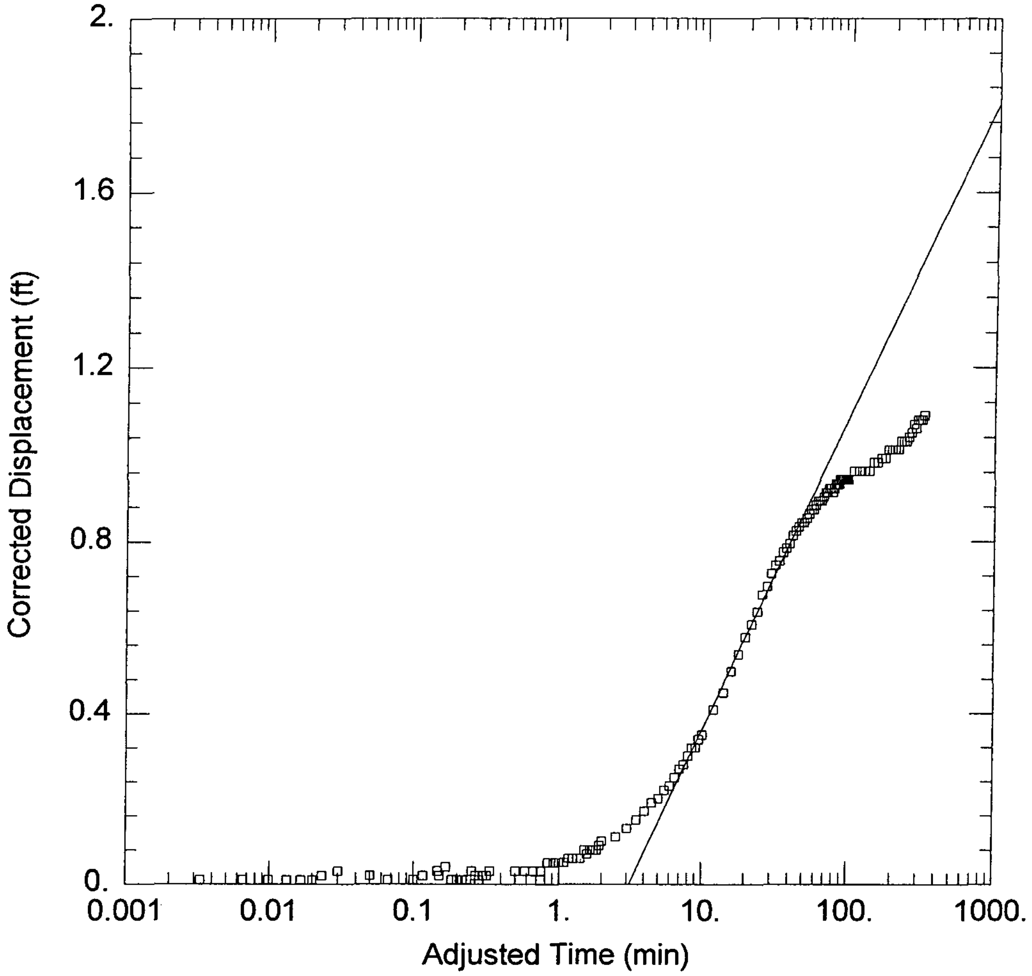
Observation Wells

Well Name	X (ft)	Y (ft)
□ PTP-1	13.8	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Theis

T = 4525.4 gal/day/ft
S = 0.02041
Kz/Kr = 1.
b = 64.27 ft



K.W. BROWN JAL #4 PUMP TEST DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\KWBPTREPRO.aqt
Date: 04/24/02 Time: 08:53:26

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

AQUIFER DATA

Saturated Thickness: 64.27 ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

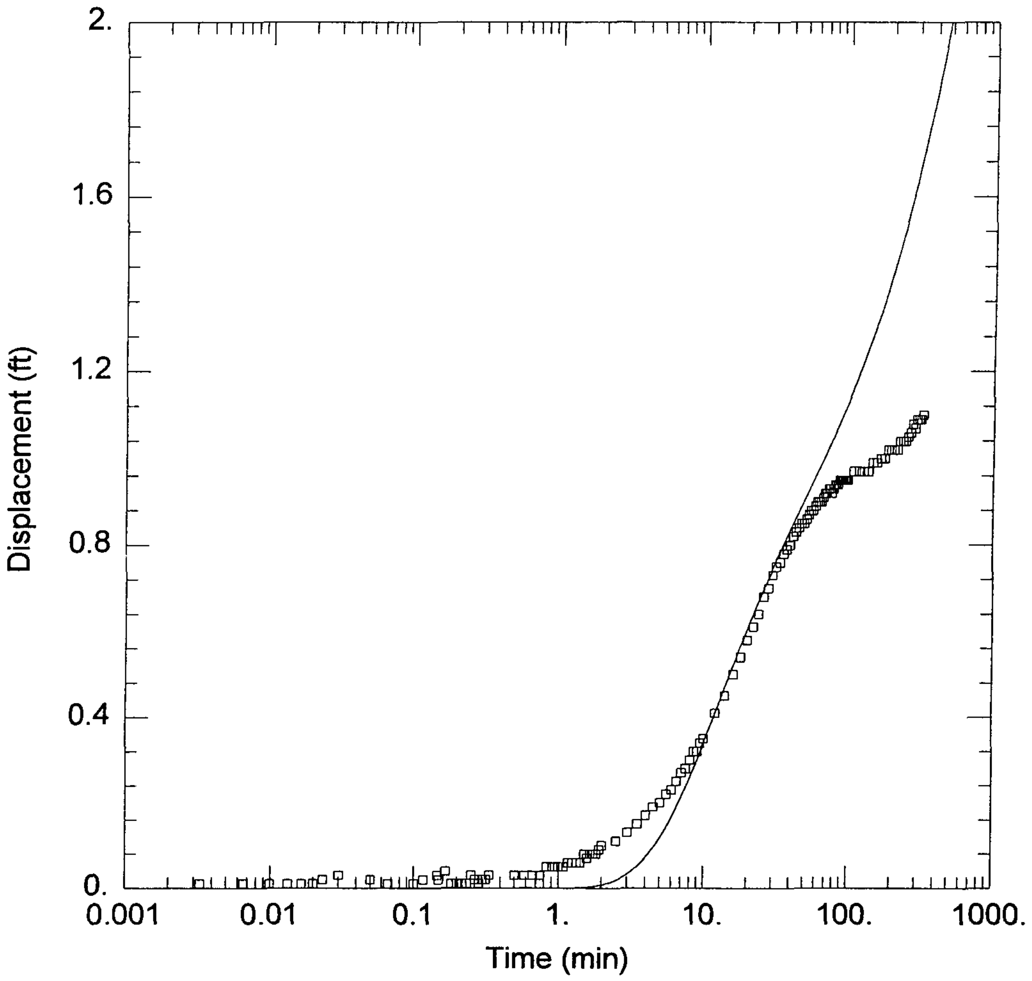
Observation Wells

Well Name	X (ft)	Y (ft)
□ PTP-1	13.8	0

SOLUTION

Aquifer Model: Unconfined Solution Method: Cooper-Jacob

T = 4902.9 gal/day/ft S = 0.01687



K.W. BROWN JAL #4 PUMP TEST DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\KWBPTREPRO.aqt
Date: 04/24/02 Time: 10:22:46

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

AQUIFER DATA

Saturated Thickness: 64.27 ft

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

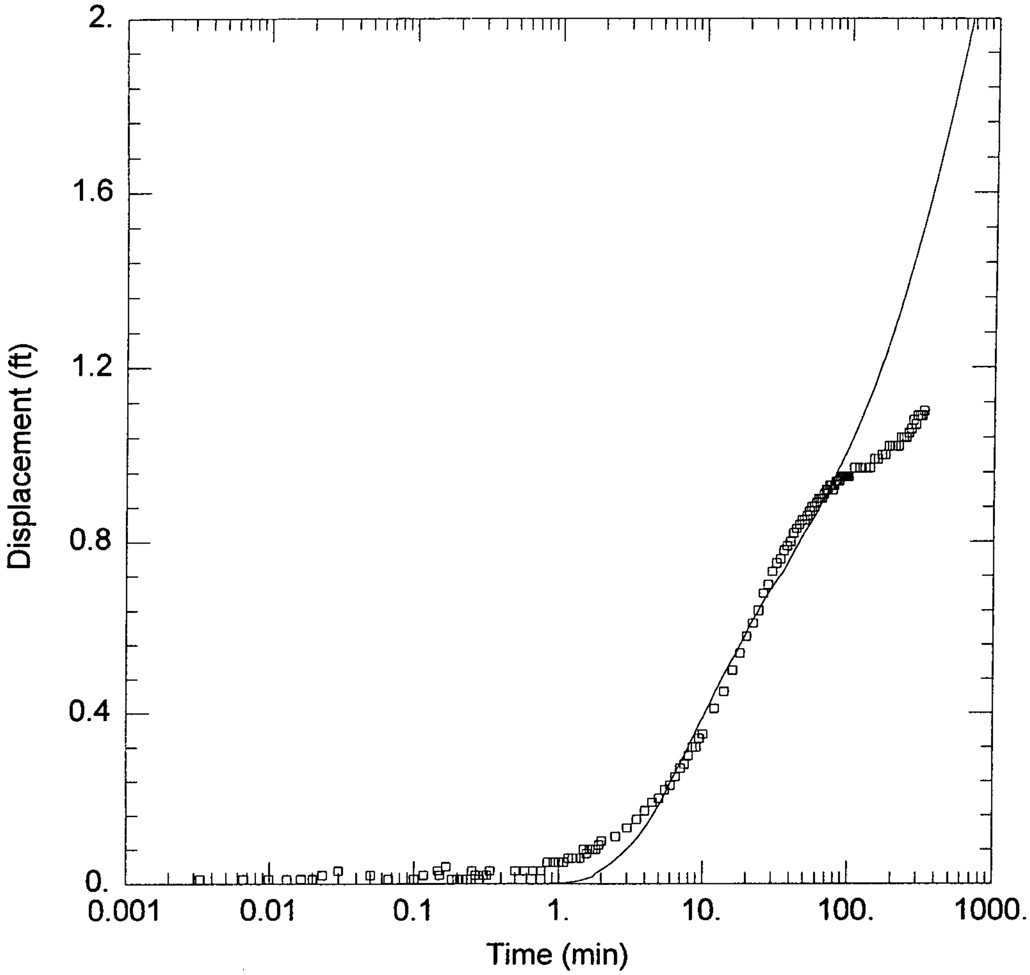
Observation Wells

Well Name	X (ft)	Y (ft)
□ PTP-1	13.8	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Neuman

T = 1554.4 gal/day/ft
S = 0.02018
Sy = 0.1
ß = 0.1



K.W. BROWN JAL #4 PUMP TEST DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\KWBPTREPRO.aqt
Date: 04/24/02 Time: 10:28:25

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

AQUIFER DATA

Saturated Thickness: 64.27 ft

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

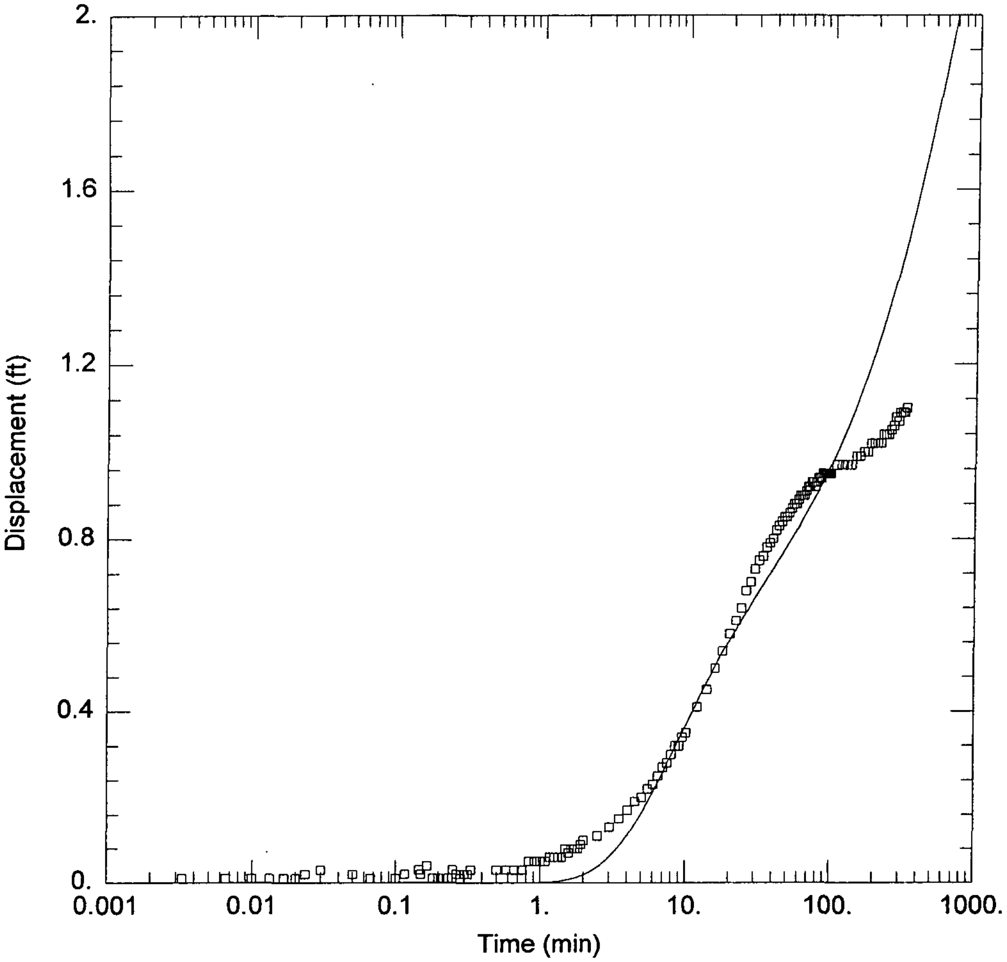
Observation Wells

Well Name	X (ft)	Y (ft)
□ PTP-1	13.8	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Quick Neuman

T = 2145.7 gal/day/ft
Sy = 0.1
S = 0.0184
ß = 0.1



K.W. BROWN JAL #4 PUMP TEST DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\KWBPTREPRO.aqt
Date: 04/24/02 Time: 11:03:24

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

AQUIFER DATA

Saturated Thickness: 64.27 ft
Anisotropy Ratio (Kz/Kr): 2.169

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

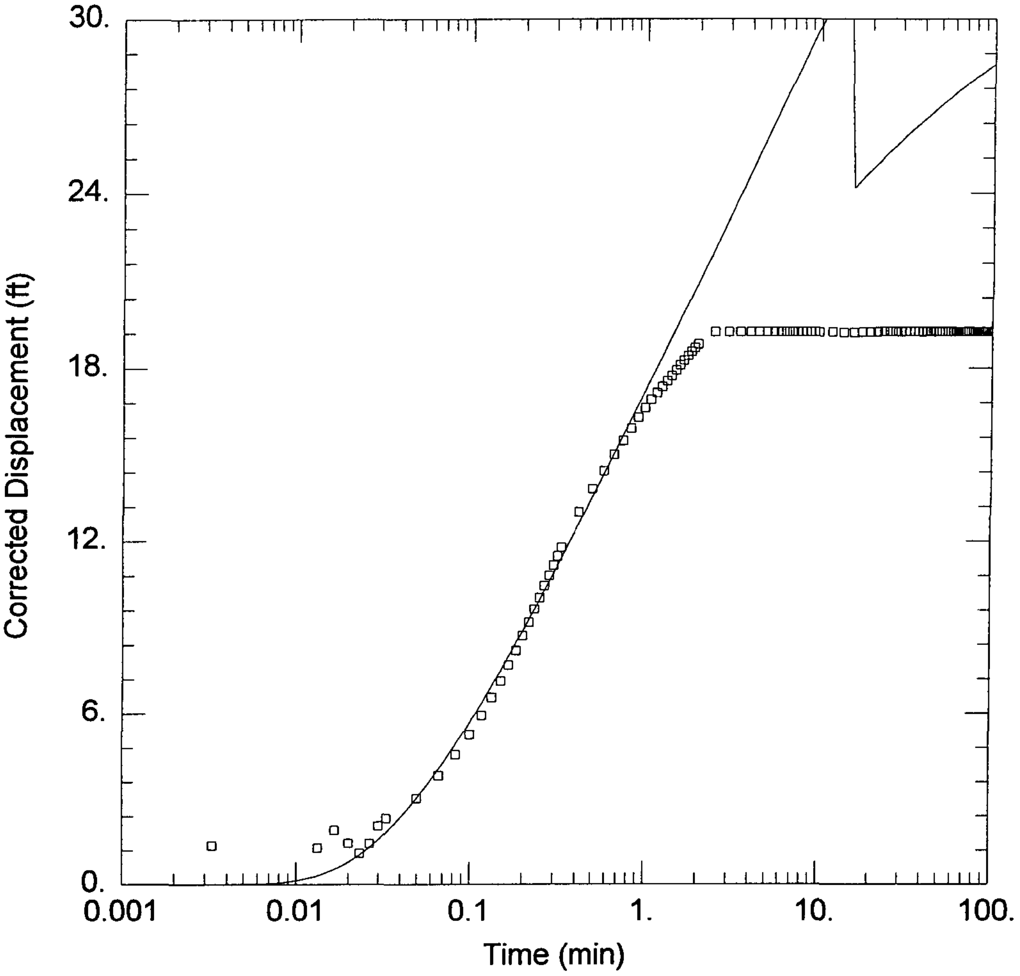
Well Name	X (ft)	Y (ft)
□ PTP-1	13.8	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Moench

T = 2012.7 gal/day/ft
Sy = 0.1
Sw = 0.
alpha = 1.E+30 min^{-1}

S = 0.01794
ß = 0.1
Rw = 1. ft



K.W. BROWN JAL #4 PUMP TEST ENSR-3 DRAWDOWN DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\ENSR3DrwDn.aqt
Date: 05/20/02 Time: 15:27:27

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ ENSR-3a	1	0

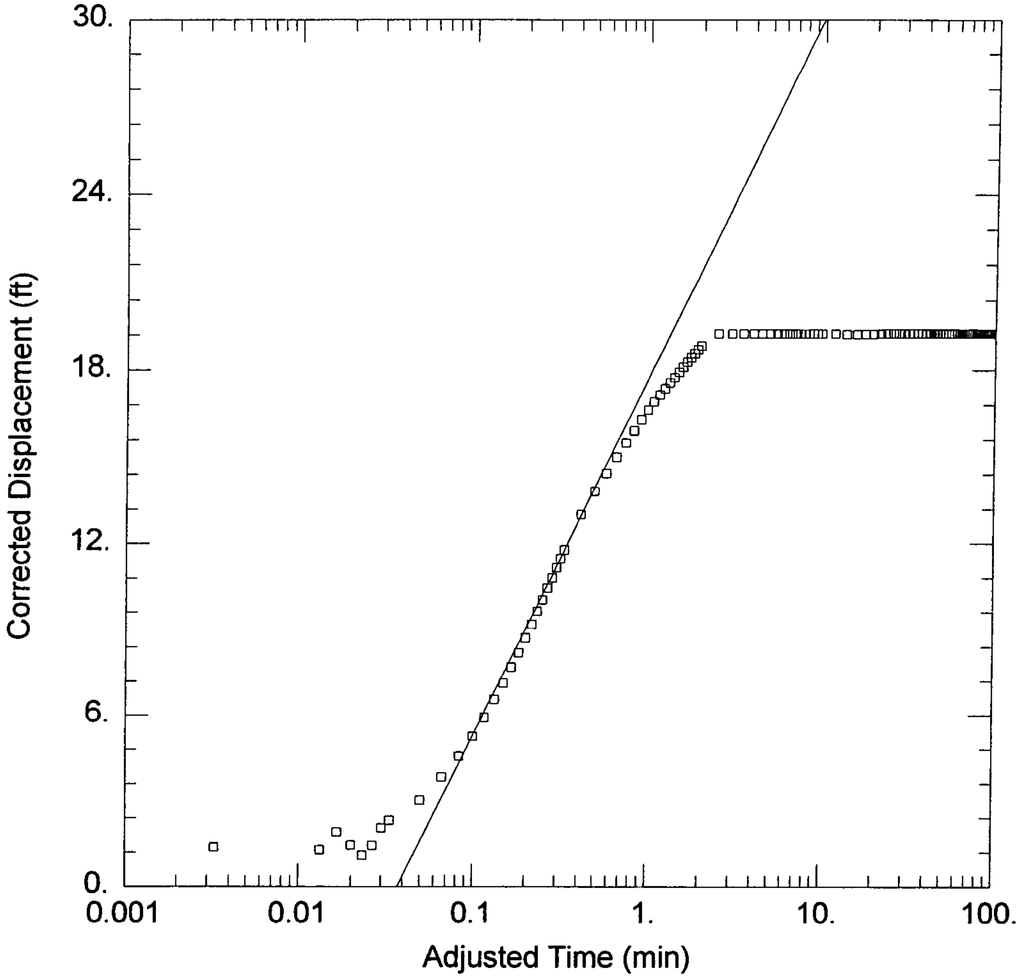
SOLUTION

Aquifer Model: Unconfined

Solution Method: Theis

T = 278.2 gal/day/ft
Kz/Kr = 1.

S = 0.002621
b = 64.27 ft



K.W. BROWN JAL #4 PUMP TEST ENSR-3 DRAWDOWN DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\ENSR3DrwDn.aqt
Date: 05/20/02 Time: 15:54:57

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

AQUIFER DATA

Saturated Thickness: 64.27 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ ENSR-3a	1	0

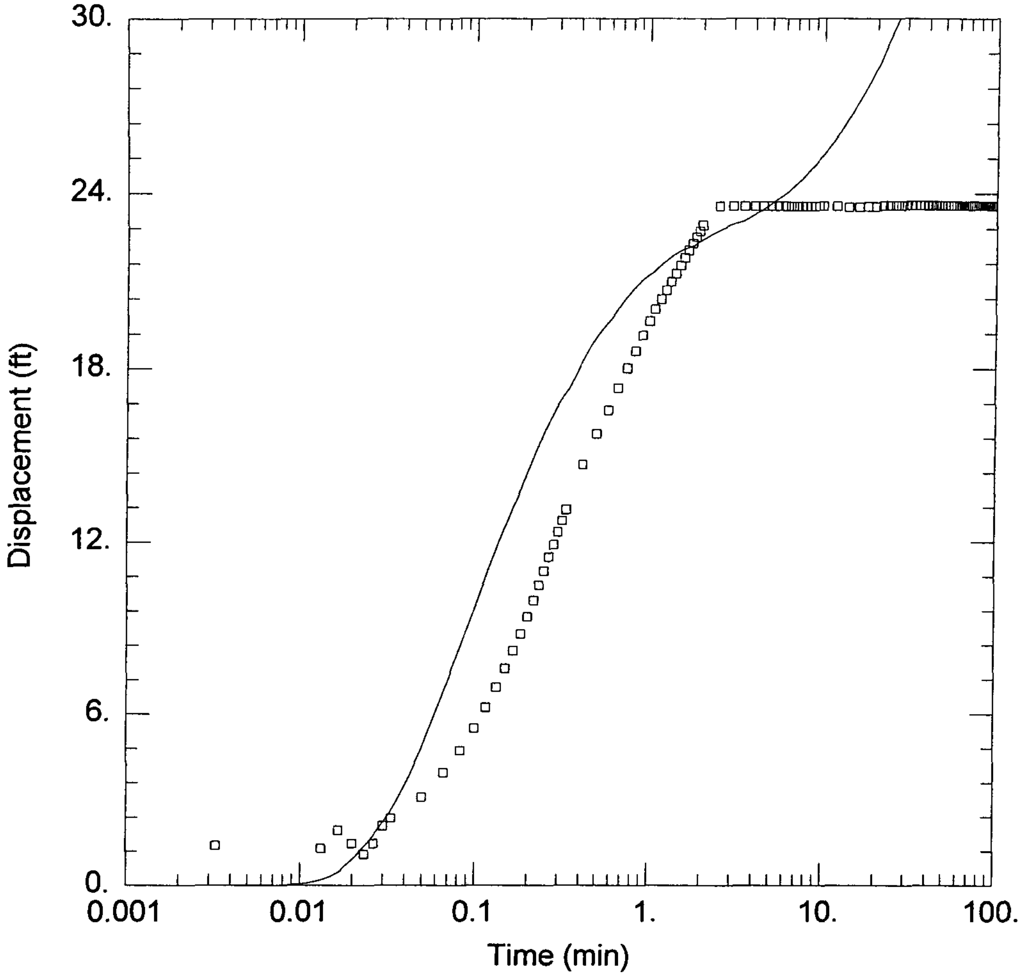
SOLUTION

Aquifer Model: Unconfined

Solution Method: Cooper-Jacob

T = 284.7 gal/day/ft

S = 0.002224



K.W. BROWN JAL #4 PUMP TEST ENSR-3 DRAWDOWN DATA REPROCESSED

Data Set: H:\1997\97171\9717102\MISC\AQTESOLV\ENSR3DrwDn.aqt
Date: 05/20/02 Time: 16:00:26

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 2124801
Test Location: Jal, New Mexico
Test Well: ENSR-3
Test Date: 12/19/1990

AQUIFER DATA

Saturated Thickness: 64.27 ft

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ ENSR-3a	1	0

SOLUTION

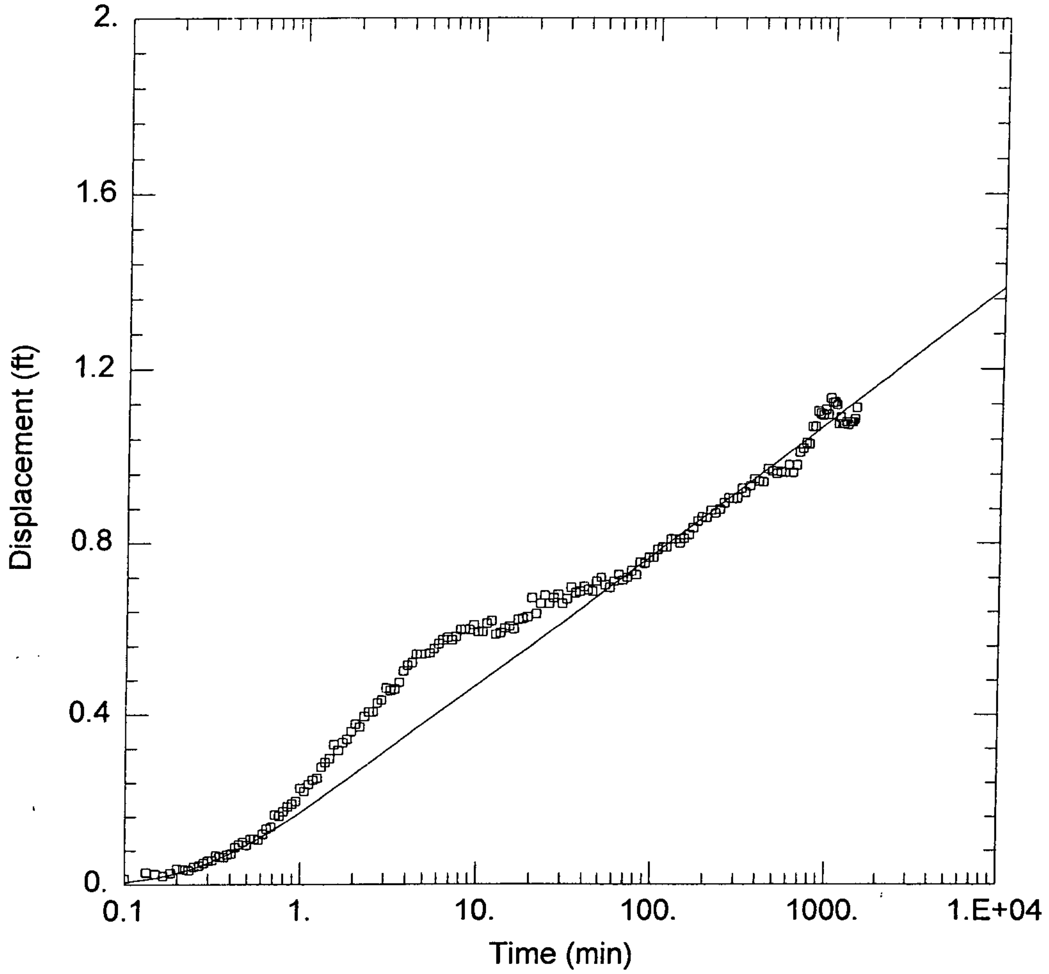
Aquifer Model: Unconfined
Solution Method: Quick Neuman

T = 137.8 gal/day/ft
S = 0.002224
Sy = 0.1
ß = 0.1

APPENDIX C

APPENDIX C

Atkins 2002 Pump Test Data Results



JAL #4 PUMP TEST - OBSERVATION WELL DATA

Data Set: H:\1997\97171\9717103\TABLES\PUMP TEST\Ptp1pump.aqt
Date: 04/10/02 Time: 16:03:28

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 9717103
Test Location: Jal #4 Plant, Jal, NM
Test Well: ENSR-3
Test Date: 3/26/02

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ PTP-1	13.8	0

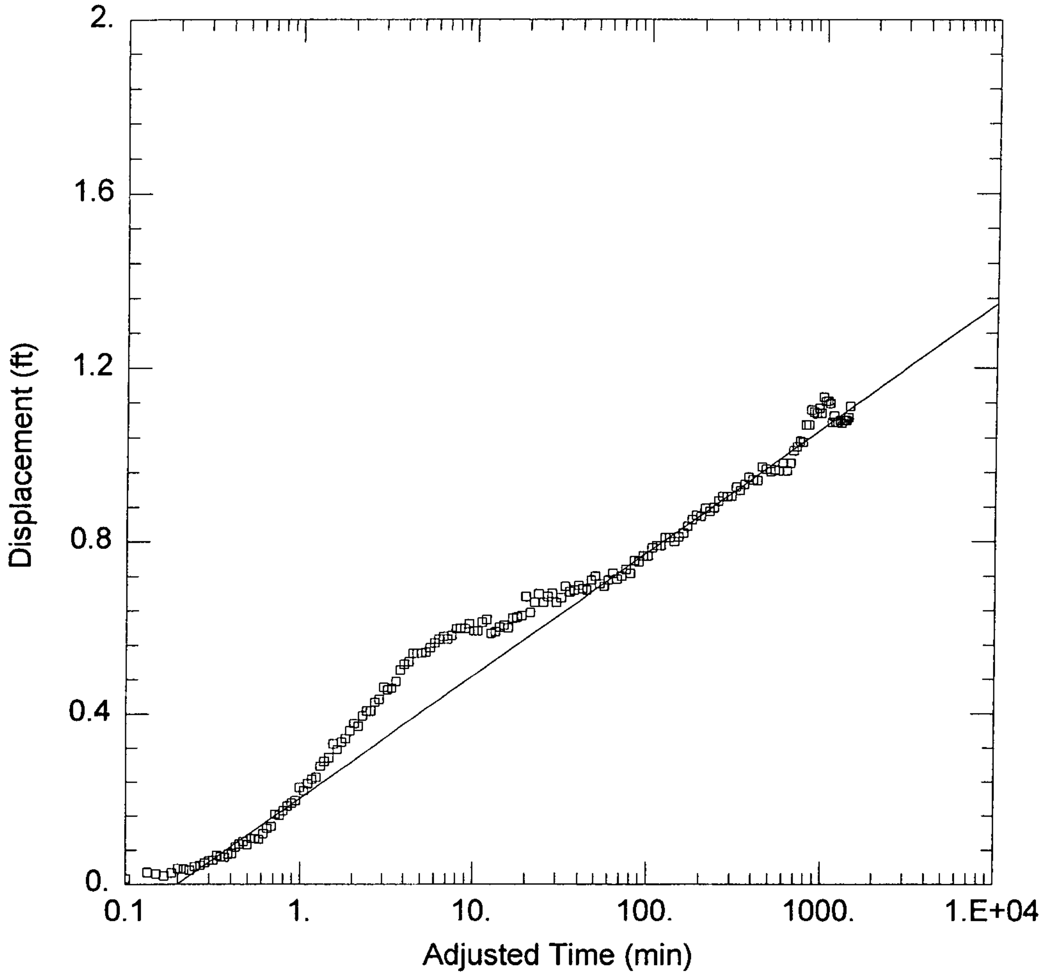
SOLUTION

Aquifer Model: Confined

Solution Method: Theis

T = 8936.6 gal/day/ft
Kz/Kr = 1.

S = 0.0035
b = 64.27 ft



JAL #4 PUMP TEST - OBSERVATION WELL DATA

Data Set: H:\1997\97171\9717103\TABLES\PUMP TEST\Ptp1pump1.aqt
Date: 04/10/02 Time: 16:11:36

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 9717103
Test Location: Jal #4 Plant, Jal, NM
Test Well: ENSR-3
Test Date: 3/26/02

AQUIFER DATA

Saturated Thickness: 64.27 ft

Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ PTP-1	13.8	0

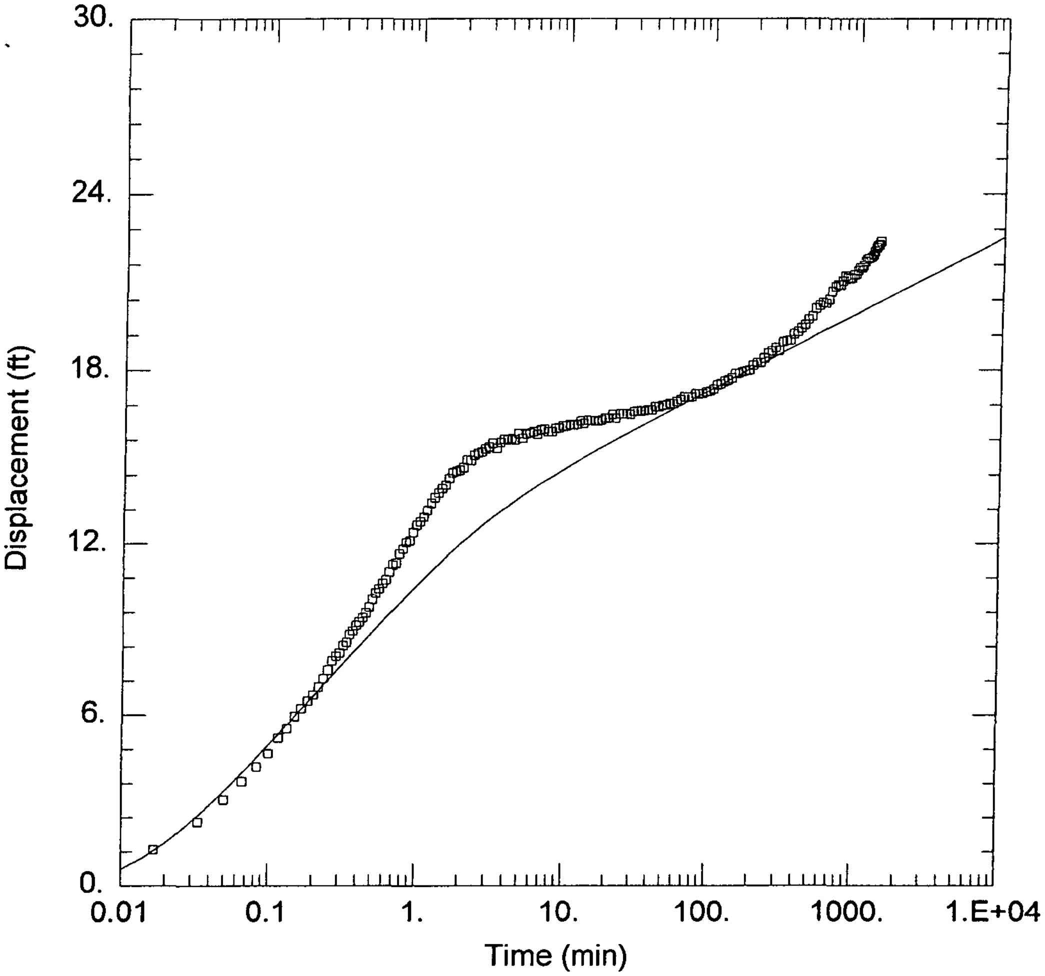
SOLUTION

Aquifer Model: Confined

Solution Method: Cooper-Jacob

T = 9551.2 gal/day/ft

S = 0.002063



JAL #4 PUMP TEST - PUMPED WELL DATA

Data Set: H:\1997\97171\9717103\TABLES\PUMP TEST\ENSR3pump1.aqt
Date: 04/10/02 Time: 16:24:30

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 9717103
Test Location: Jal #4 Plant, Jal, N
Test Well: ENSR-3
Test Date: 3/26/02

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
□ ENSR-3	1	0

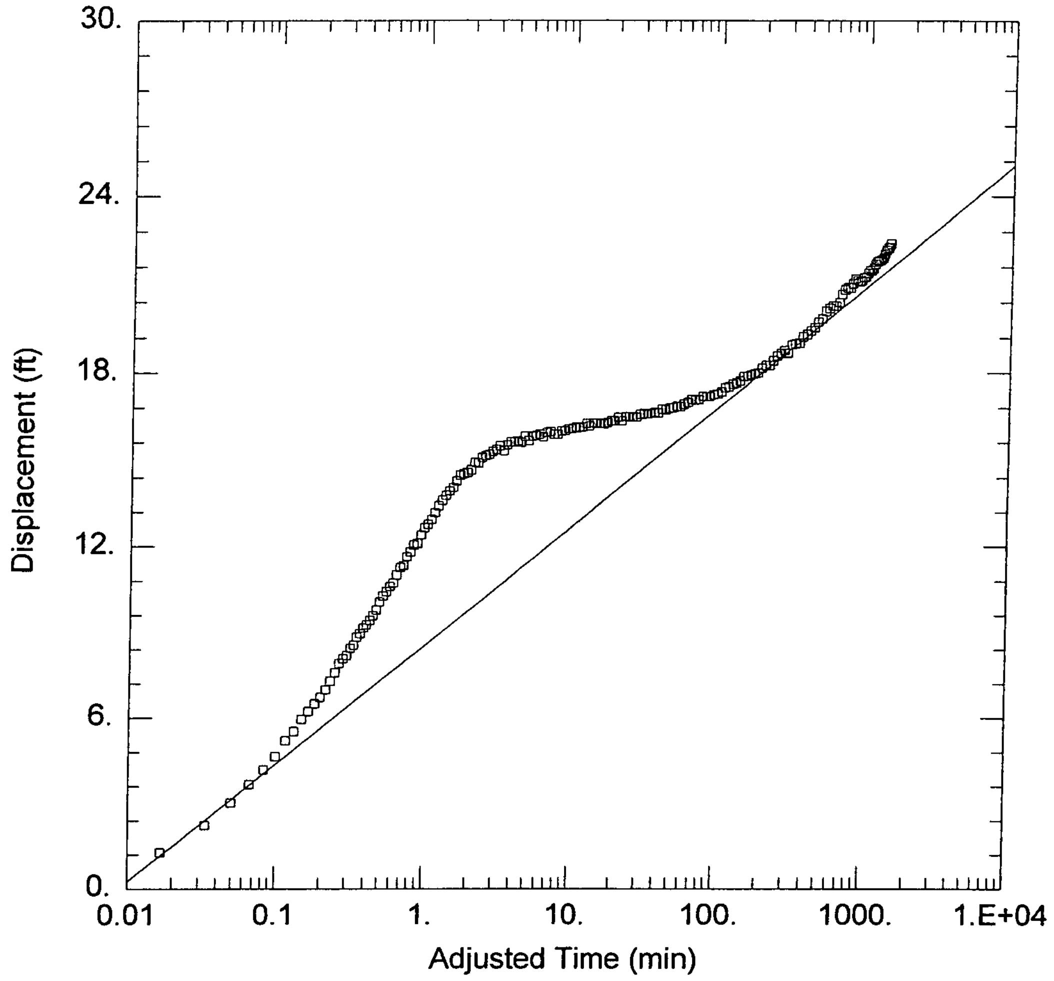
SOLUTION

Aquifer Model: Confined

Solution Method: Theis

T = 1051.4 gal/day/ft
Kz/Kr = 1.

S = 0.004102
b = 64.27 ft



JAL #4 PUMP TEST - PUMPED WELL DATA

Data Set: H:\1997\97171\9717103\TABLES\PUMP TEST\ENSR3pump.aqt
Date: 04/10/02 Time: 16:01:34

PROJECT INFORMATION

Company: Atkins Benham, Inc.
Client: El Paso Corporation
Project: 9717103
Test Location: Jal #4 Plant, Jal, NM
Test Well: ENSR-3
Test Date: 3/26/02

AQUIFER DATA

Saturated Thickness: 64.27 ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA

Pumping Wells

Well Name	X (ft)	Y (ft)
ENSR-3	0	0

Observation Wells

Well Name	X (ft)	Y (ft)
▫ ENSR-3	1	0

SOLUTION

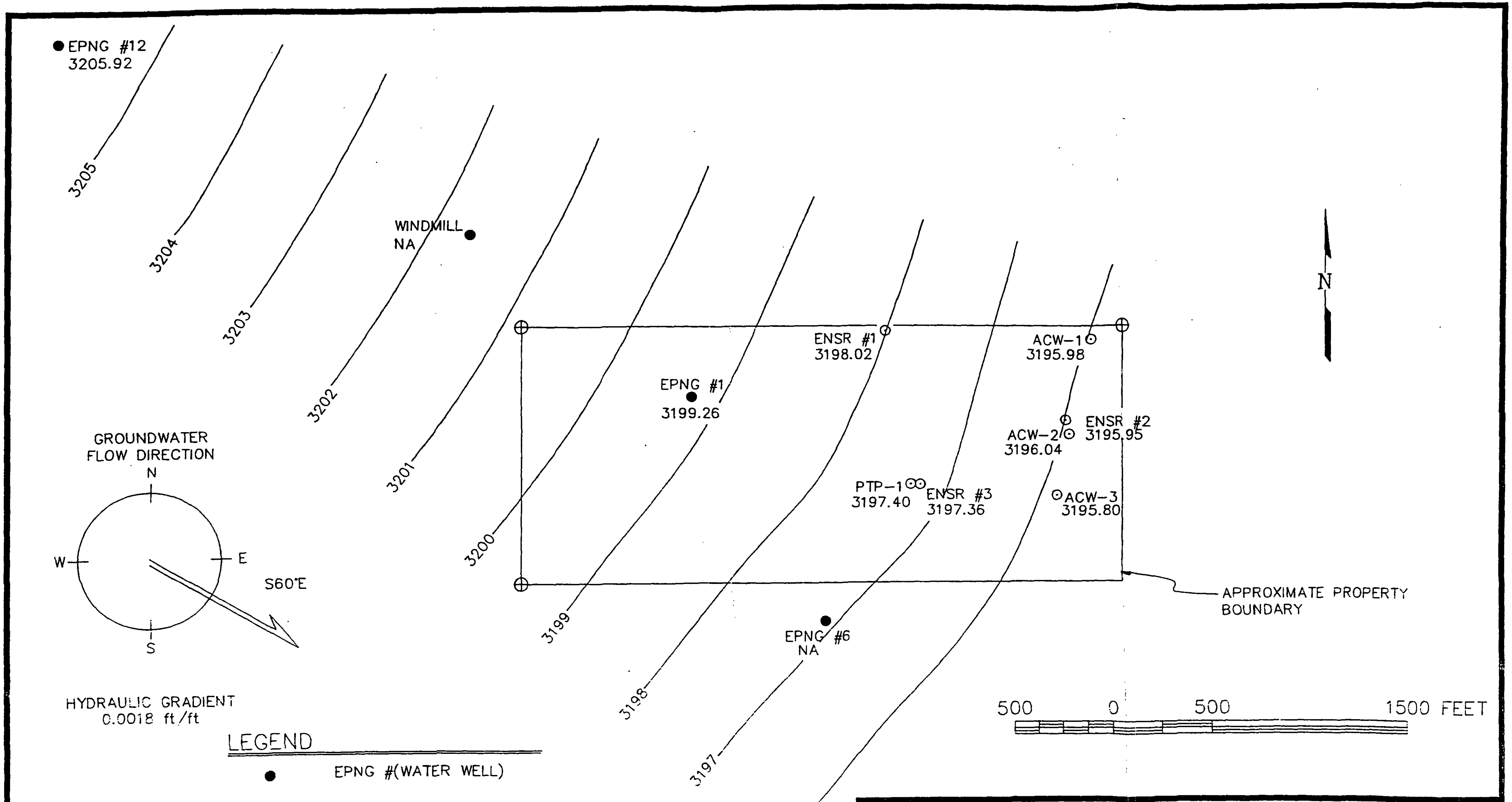
Aquifer Model: Confined
Solution Method: Cooper-Jacob

T = 662.2 gal/day/ft
S = 0.001209

APPENDIX D

APPENDIX D

Historical Groundwater Elevation Data



El Paso
Natural Gas Company

GROUNDWATER CONTOURS.

PROJECT: 637090006-270 (EP-JAL) | LOCATION: LEA COUNTY, NEW MEXICO

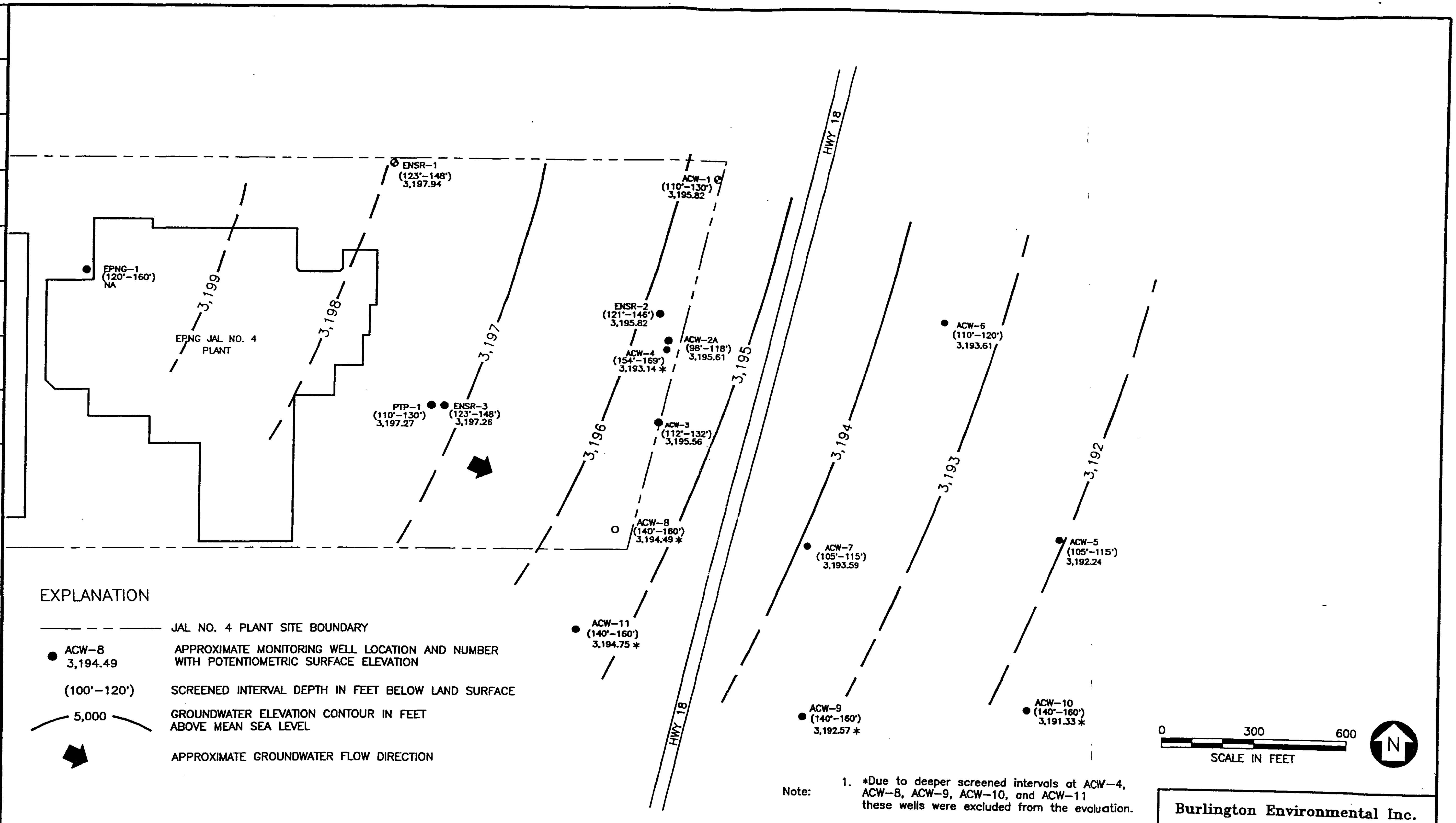
K.W. BROWN & ASSOCIATES, INC. DATE: 11-28-91

APPR: S.c | St Johnson | DRAWN BY: RSW | SCALE: 1"=500'

DATE: 1-28-91 | 1-29-91 | DATE: 7-11-90 | FIGURE: 4

10191A-002
REV. DATE
9/29/93

DRAWN BY		CHECKED BY		DOCUMENT MANAGER		PROJECT MANAGER	



EXPLANATION

——— — — ——— JAL NO. 4 PLANT SITE BOUNDARY

● ACW-8 3,194.49 APPROXIMATE MONITORING WELL LOCATION AND NUMBER WITH POTENTIOMETRIC SURFACE ELEVATION

(100'-120') SCREENED INTERVAL DEPTH IN FEET BELOW LAND SURFACE

5,000 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL

➡ APPROXIMATE GROUNDWATER FLOW DIRECTION

Note:

1. *Due to deeper screened intervals at ACW-4, ACW-8, ACW-9, ACW-10, and ACW-11 these wells were excluded from the evaluation.
2. This contour map is based on interpolation between widely spaced monitoring wells and only at the monitoring well is the elevation actually known.

Burlington Environmental Inc.

POTENTIOMETRIC SURFACE
MAP FOR JUNE 14, 1993

EPNG JAL NO. 4
JAL, NEW MEXICO
10191

FIGURE 3

APPENDIX E

APPENDIX E

WS Atkins Draft Groundwater Model Trial Calibration Report

ATKINS

Jal Plant No. 4,

Lea County,

New Mexico

Prepared for Atkins Benham, Inc.

Trial Calibration of Groundwater Flow Model

September 2002

Draft

September 2002

WS Atkins Consultants Limited

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Trial Calibration of Groundwater Flow Model

Jal Plant No. 4, Lea County, New Mexico

September 2002

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WS ATKINS CONSULTANTS LIMITED						

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TRIAL CALIBRATION OF GROUNDWATER FLOW MODEL
JAL PLANT No. 4
September 2002

1.0 INTRODUCTION

As requested by Atkins Benham, Inc. (ABI) (Ref. 2002156/C001/na), WS Atkins has reviewed and conducted a trial calibration of the groundwater flow model created for the Jal No. 4 gas plant located near Jal, New Mexico (Site). The original flow modelling conducted by ABI involved the setup and initial calibration of both steady state and transient models. The main objective of this trial work was to determine if the model would easily calibrate, and to determine if further work using the model would be feasible. The final calibrated model is intended for application in designing the placement and abstraction schedules for additional remediation wells.

WS Atkins has made slight modifications to the setups of the ABI models to improve the model calibration. This work is briefly described in the following sections.

2.0 STEADY STATE MODEL

The steady state model originally prepared by ABI was reviewed and slight modifications were made to the reference head, hydraulic conductivity and target heads used for calibration. Model setup, calibration and results are summarised below.

2.1 Model Setup

The steady state model period was setup for year 1998, prior to the remediation system start-up in October 1999. The input parameters are summarised in Table 1, which notes ABI's calibrated input parameter values, parameter ranges considered by Atkins and Atkins' calibrated input parameter values.

2.2 Calibration and Results

The steady state model was calibrated to pre-1999 average heads measured in nine monitoring wells located across the site. Pre-1999 groundwaer levels demonstrated an average standard deviation across the Site of 0.09, indicating minimal change in groundwater levels across the Site prior to 1999. Table 2 summarises the target heads used for calibration of the steady state model.

Table 2. Groundwater Elevation Targets for Steady State Model Calibration
Jal No 4 Plant, El Paso Corporation, Lea County, New Mexico

Monitor Well	Groundwater Elevation (ft amsl) Statistics for pre-1999	
	Average	St Deviation
ACW-01	3,195.11	0.36
ACW-05	3,191.65	0.06
ACW-06	3,192.97	0.06
ACW-09	3,192.18	0.05
ACW-10	3,191.19	0.07
ACW-11	3,193.30	0.07
ACW-12	3,190.19	0.07
ACW-13	3,190.15	0.04
ACW-14	3,190.73	0.06
mean standard deviation		***0.09***

The input parameters were modified during the calibration and compared with ABI values. The reference head was recalculated based on the pre-1999 hydraulic gradient and the observed head at RW-1. The hydraulic conductivity was changed from 19.23 ft/day used in the ABI model to 60 ft/day to reflect reanalysis of the Site pump test data. However, the steady state model is not sensitive to hydraulic conductivity changes.

The target statistics calculated for the calibrated model are provided in Table 3. Anderson and Woessner (1992)[1] state that the calibration value of a groundwater model can be assessed by the following relationship:

$$\text{Calibration Value} = \left[\frac{RSD}{OHR}\right] \times 100$$

Where:
RSD = residual standard deviation of simulated heads (ft amsl); and
OHR = observed range in heads across the site (ft amsl).

Usually a value between 10% and 15% notes a good calibration. A calibration value of 11% was achieved for the steady state model.

Table 3. Target Statistics for the Steady State Model (SS002)

Target Statistics	**Value**
Residual mean	-0.0314
Residual standard deviation (RSD)	0.548
Residual sum of squares	2.711
Absolute residual mean	0.462
Minimum residual	-1.144
Maximum residual	0.663
(RSD/range in observed heads)*100	***11.0%***

Note: range in observed heads for pre-1999 is 4.96 ft.

---

[1] Anderson, M.P. and W.W. Woessner. 1992. Applied Groundwater Modeling, Simulation of Flow and Advective Transport. Academic Press, Inc., San Diego, CA.

Table 4 provides a comparison of simulated and observed heads. The residual value notes the difference between the simulated and observed head for a particular well.

Table 4. Comparison of Observed and Simulated Heads, Steady State Model

Well Name	Observed Head (ft AMSL)	Simulated Head (ft AMSL)	Residual (ft)
ACW-01	3195.11	3195.43	-0.32
ACW-5	3191.65	3191.61	0.041
ACW-6	3192.97	3193.41	-0.44
ACW-9	3192.18	3191.96	0.22
ACW-10	3191.19	3190.65	0.54
ACW-11	3193.30	3193.61	-0.31
ACW-12	3190.19	3189.71	0.48
ACW-13	3190.15	3189.49	0.66
ACW-14	3190.73	3191.87	-1.14

Note: Observed heads are an average of heads measured before 1999

3.0 TRANSIENT MODEL

The transient model was also modified to improve model calibration. The ABI and Atkins transient models differ mainly in the setup of the model time period (see below).

3.1 Model Setup

The transient model period was setup for the period between January 2000 through February 2002. This period was selected for two (2) reasons:

1. To minimise the time lapse between the steady state and transient model periods; and

2. To adequately test the model representation of the changing heads across the Site over the time period that remediation abstractions are occurring.

The input parameters are summarised in Table 5 with justification for the ranges of values considered during the calibration. The following time discretisation parameters were applied to the model:

- No. of time steps = 17
- Initial time step value = 42 days
- Initial time step size = 42 days
- Maximum time step size = 900 days
- Time step multiplier = 1.2

The analytical solution method, Neuman (1972), was used which is applicable to unconfined aquifer conditions. The monthly abstraction rates applied for the recovery wells RW-1, RW-2 and ENSR-2 in the transient model are provided in Table 6.

3.2 Calibration and Results

The transient model was calibrated to heads measured in 15 monitoring wells located across the Site for the period between February 2000 to February 2002. Table 7 summarises the target heads used for calibration.

The target statistics calculated for the calibrated model are provided in Table 8 below.

Table 8. Target Statistics for the Transient Model (TR002), Including ACW-4 Target Heads.

Target Statistic	Value
Residual mean	0.0494
Residual standard deviation (RSD)	1.126
Residual sum of squares	138.5
Absolute residual mean	0.576
Minimum residual	-7.117
Maximum residual	3.264
(RSD/range in observed heads)*100	***12.0%***

Note: range in observed heads for 2000 to 20002 is 9.15 ft.

A calibration value (RSD/range in observed heads) of 12% was achieved for the transient model. However, it was observed that the simulated heads for ACW-4 did not agree favourably with the observed heads. The maximum residual was 7.1 ft, where the model is predicting higher heads for ACW-4 compared with observed heads. This is probably due to the close proximity of recovery well RW-1. The analytical solution method of the model does not allow for more accurate simulation of widely varying pumping water levels due to the limitations of more refined grid spacing and use of well storage effects in the calculations.

When target heads for ACW-4 are removed from the calculation of target statistics, the calibration value decreases to 7.7%. Table 9 summarises the target statistics, excluding ACW-4.

Table 9. Target Statistics for the Transient Model (TR004), Excluding ACW-4 Target Heads.

Target Statistics	Value
Residual mean	0.121
Residual standard deviation (RSD)	0.549
Residual sum of squares	33.2
Absolute residual mean	0.416
Minimum residual	-1.02
Maximum residual	2.99
(RSD/range in observed heads)*100	***7.7%***

Note: range in observed heads for 2000 to 2002 (excluding ACW-4) is 7.1 ft.

A series of hydrographs displaying the simulated heads and observed heads for the transient calibration period of February 2000 to February 2002 are displayed in Figures 1 through 6. A figure displaying the simulated potentiometric surface for February 2002 is not included in the report because it could not be transferred properly from the WinFlow programme as a stand alone figure for displaying the true positions of the simulated contours. The simulated contours and flow directions for February 2002 produced a less pronounced deflection or curve near RW-2. This is most likely contributed to the model limitations stated above.

3.3 Sensitivity Analysis

An informal, quick sensitivity analysis was conducted during model calibration. The transient model was not sensitive to most input parameter changes. However, the reference head was the most sensitive parameter and was modified from the head assigned in the steady state model. The revised reference head basically reflects slight head differences between the ending period of the steady state model and the starting period of the transient model. Sensitivity of time descritisation was not tested.

4.0 SUMMARY

The transient model is well calibrated according to the calibration criteria of 10 to 15% identifying a good calibration. However, lack of a better simulated representation of the groundwater flow patterns and elevation contours exist, and therefore limitations of applying the model for assessing remediation options with confidence needs to be considered.

Some sensitivity analysis has been conducted on the input parameters during the calibration of the transient model (as discussed above). Additional simulation trials on the sensitivity of the model can be conducted to determine if the model will be reliable for use in assessing remediation options. These trial simulations could include:

- Assess sensitivity changes in the transient model when applying different analytical solution methods (e.g. Hantush, 1960; Hantush and Jacob, 1955; Theis, 1935);

- Assess sensitivity changes to time descritisation;

- Place additional remediation wells at the anticipated abstraction rates and review the simulated groundwater flow patterns and contours;

- Add particles around the edge of the average 2001 chloride plume and simulate the particle traces while activating the proposed remediation wells; and

- Maintain well calibrated input parameters (within reasonable ranges) during the trial simulations described above.

TABLES

(not included in text)

Table 1. Input Parameters for Steady State Calibration Trial

Jal No 4 Plant, El Paso Corporation, Lea County, New Mexico

Input Parameter (unit)	ABI Calibrated Values	Atkins Parameter Range	Atkins Calibrated Values	Reference
Reference Head (ft)	3,207.20	3205.72	3205.7	Back calculated from RW-1 to EPNG-12 from pre-remediation (1999) water levels.
Reference Head Location	EPNG-12	EPNG-12	EPNG-12	
Groundwarter flow direction	S46E	S46E/316°	S46E/316°	Calculated from pre-1999 water level maps.
Saturated aquifer thickness (ft)	64.27	64.27	64.27	Observed saturated thickness.
Storage Coefficient (dimensionless)	0.003	0.015 to 0.3	Not used.	Storage coefficient for unconfined conditions; values gathered from site aquifer tests and researched sources (McAda, 1984; Havens, 1966; Theis, 1934).
Hydaulic Conductivitiy (ft/day)	19.23	60	60	Analysis of site pump testing gives an avg value of 69.5 and ranges from 35 to 81 ft/day
Gradient (ft/ft)	0.00192	0.00192 to 0.00208	0.00192	Calculated from pre-1999 and 2001 water level maps.
Porosity (dimensionless)	0.20	0.33 to 0.47	0.2	Researched values (McAda, 1984; Havens, 1996; Theis, 1934)
Aquifer top elevation (ft amsl)	3300	3300	3300	
Aquifer bottom elevation (ft amsl)	3130	3130	3130	
Recharge (in/yr)	None	0.25 to 0.5	Not used.	2% to 4% of annual precipitation, 12.5 in/yr (Hart and McAda, 1985; Theis, 1934)

Note: (1) Steady state calibration period: 1998, prior to remediation system starting in October 1999 (RW-1).
(2) Not required for small scale models for simulating remediation systems (ESI, 2000).

Table 5. Input Parameters for Transient Calibration Trial

Jal No 4 Plant, El Paso Corporation, Lea County, New Mexico

Input Parameter (unit)	ABI Calibrated Values	Atkins Parameter Range	Atkins Calibrated Values	Reference
Reference Head (ft)	3,207.20	3202.7 to 3205.3	3204	Back calculated from ACW-2a, 4 and 5 to EPNG-12 from 2001 water levels.
Reference Head Location	EPNG-12	EPNG-12	EPNG-12	
Groundwarter flow direction	S46E	S46E/316°	S46E/316°	Calculated from pre-1999 and 2001 water level maps.
Saturated aquifer thickness (ft)	64.27	64.27	64.27	Observed saturated thickness.
Storage Coefficient (dimensionless)	0.003	0.015 to 0.3	0.015^2	Specific capacity for unconfined conditions; values gathered from site aquifer tests and researched sources (McAda, 1984; Havens, 1966; Theis, 1934).
Hydaulic Conductivitiy (ft/day)	20	60	60	Analysis of site pump testing gives an avg value of 69.5 and ranges from 35 to 81 ft/day
Transmissivity (ft^2/day)	1285.4	2249 to 5206	2249^2	Calculated by using saturated thickness of 64.27 times the hydraulic conductivity range of 35 to 81 ft/day
Gradient (ft/ft)	0.00192	0.00192 to 0.00208	0.00192	Calculated from pre-1999 and 2001 water level maps.
Porosity (dimensionless)	0.20	0.33 to 0.47	0.2	Researched values (McAda, 1984; Havens, 1996; Theis, 1934)
Aquifer top elevation (ft amsl)	3300	3300	3300	
Aquifer bottom elevation (ft amsl)	3130	3130	3130	
Recharge (in/yr)	None	0.25 to 0.5	Not used.	2% to 4% of annual precipitation, 12.5 in/yr (Hart and McAda, 1985; Theis, 1934)

Notes: (1) Calibration period: January 2000 to March 2002.
(2) Optimised parameter between ranges specified in "Atkins Parameter Ranges".

Table 6. Abstraction Rates (ft^3/day), Transient Model Calibration

Jal No 4 Plant, El Paso Corporation, Lea County, New Mexico

Year	Month	RW-1	RW-2	ENSR 2
2000	January	566.34	788.88	0.00
	February	0.00	1289.30	0.00
	March	2573.06	2401.25	0.00
	April	1984.58	2082.90	0.00
	May	1679.72	2012.79	0.00
	June	1181.64	1630.20	0.00
	July	981.23	1301.42	0.00
	August	430.60	1489.55	609.76
	September	0.00	1590.99	1224.16
	October	663.24	2083.49	886.47
	November	378.06	2118.49	0.00
	December	0.00	1220.64	684.20
2001	January	0.00	0.00	0.00
	February	0.00	1317.33	490.30
	March	0.00	823.46	247.60
	April	0.00	0.00	0.00
	May	0.00	0.00	0.00
	June	0.00	0.00	0.00
	July	0.00	0.00	0.00
	August	0.00	316.39	0.00
	September	0.00	1211.63	108.30
	October	0.00	1876.72	786.23
	November	0.00	1246.80	388.22
	December	0.00	629.90	484.47
Average abstraction rate for 2001, to be applied for Jan-Feb 2002			***618.52***	***208.76***

Table 7. Target Values for Transient Model Calibration

Jal No 4 Plant, El Paso Corporation, Lea County, New Mexico

Monitor Well	Screened Interval (ft amsl)	Top of Casing Elevation (ft amsl)	Date	Time from Beginning of Simulation (days)	GW Elevation (ft amsl)	Maximum Observed Residual (ft)
ACW-01	110 to 130	3,300.87	22-Feb-00	53	3,195.06	0.49
			09-May-00	129	3,194.97	
			07-Aug-00	250	3,194.88	
			26-Oct-00	299	3,194.77	
			20-Feb-01	444	3,194.68	
			01-May-01	486	3,194.97	
			01-Aug-01	578	3,194.98	
			22-Oct-01	660	3,194.82	
			20-Feb-02	781	3,194.57	
ACW-2a	98 to 118	3,300.88	08-May-00	128	3,193.61	1.20
			26-Oct-00	299	3,193.37	
			02-May-01	487	3,194.57	
			22-Oct-01	660		
ACW-03	112 to 132	3,300.34	08-May-00	128	3,194.36	0.27
			26-Oct-00	299	3,194.13	
			01-May-01	486	3,194.40	
			23-Oct-01	661	3,194.19	
ACW-04	154 to 169	3,299.48	08-May-00	128	3,185.91	7.57
			26-Oct-00	299	3,186.23	
			02-May-01	487	3,193.48	
			22-Oct-01	660	3,191.49	
ACW-05	105 to 115	3,294.75	22-Feb-00	53	3,191.45	0.40
			10-May-00	130	3,191.43	
			07-Aug-00	219	3,191.35	
			26-Oct-00	299	3,191.25	
			20-Feb-01	416	3,191.13	
			06-May-01	491	3,191.18	
			01-Aug-01	578	3,191.29	
			24-Oct-01	662	3,191.05	
			20-Feb-02	781	3,191.05	
ACW-06	110 to 120	3,300.53	22-Feb-00	53	3,192.81	0.37
			10-May-00	130	3,192.78	
			07-Aug-00	219	3,192.69	
			26-Oct-00	299	3,192.63	
			20-Feb-01	416	3,192.53	
			06-May-01	491	3,192.58	
			01-Aug-01	578	3,192.66	
			24-Oct-01	662	3,192.44	
			20-Feb-02	781	3,192.46	
ACW-07	105 to 115	3,295.36	10-May-00	130	3,192.44	0.43
			26-Oct-00	299	3,192.16	
			06-May-01	491	3,192.28	
			24-Oct-01	662	3,192.01	
ACW-08	140 to 173	3,297.27	09-May-00	129	3,192.87	0.24
			26-Oct-00	299	3,192.63	
			01-May-01	486	3,192.79	
			24-Oct-01	662	3,192.67	
ACW-09	140 to 160	3,302.47	22-Feb-00	53	3,191.29	1.71
			12-May-00	132	3,190.58	
			07-Aug-00	219	3,191.25	
			26-Oct-00	299	3,190.27	
			20-Feb-01	416	3,190.06	
			04-May-01	489	3,191.62	
			01-Aug-01	578	3,191.77	
			25-Oct-01	663	3,190.30	
			20-Feb-02	781	3,190.49	
ACW-10	140 to 160	3,297.57	22-Feb-00	53	3,191.18	0.69
			12-May-00	132	3,190.94	
			07-Aug-00	219	3,190.80	
			26-Oct-00	299	3,190.68	
			20-Feb-01	416	3,190.58	
			06-May-01	491	3,190.75	
			01-Aug-01	578	3,190.81	
			25-Oct-01	663	3,190.56	
			20-Feb-02	781	3,190.49	

Table 7. Target Values for Transient Model Calibration

Jal No 4 Plant, El Paso Corporation, Lea County, New Mexico

Monitor Well	Screened Interval (ft amsl)	Top of Casing Elevation (ft amsl)	Date	Time from Beginning of Simulation (days)	GW Elevation (ft amsl)	Maximum Observed Residual (ft)
ACW-11	140 to 160	3,299.33	22-Feb-00	53	3,193.06	0.52
			09-May-00	129	3,193.02	
			07-Aug-00	219	3,192.79	
			26-Oct-00	299	3,192.68	
			20-Feb-01	416	3,192.63	
			01-May-01	486	3,192.88	
			01-Aug-01	578	3,192.93	
			23-Oct-01	661	3,192.76	
			20-Feb-02	781	3,192.54	
ACW-12	150 to 170	3,299.56	22-Feb-00	53	3,190.06	0.49
			11-May-00	131	3,189.99	
			07-Aug-00	219	3,189.91	
			26-Oct-00	299	3,189.78	
			20-Feb-01	416	3,189.66	
			03-May-01	488	3,189.81	
			01-Aug-01	578	3,189.80	
			25-Oct-01	663	3,189.57	
			20-Feb-02	781	3,189.59	
ACW-13	153 to 173	3,289.46	23-Feb-00	54	3,189.98	0.25
			11-May-00	131	3,189.99	
			07-Aug-00	219	3,189.93	
			26-Oct-00	299	3,189.96	
			20-Feb-01	416	3,189.81	
			06-May-01	491	3,189.84	
			01-Aug-01	578	3,189.85	
			25-Oct-01	663	3,189.85	
			20-Feb-02	781	3,189.74	
ACW-14	157 to 177	3,291.18	22-Feb-00	53	3,190.62	0.28
			10-May-00	130	3,190.66	
			07-Aug-00	219	3,190.57	
			26-Oct-00	299	3,190.56	
			20-Feb-01	416	3,190.43	
			03-May-01	488	3,190.46	
			01-Aug-01	578	3,190.43	
			24-Oct-01	662	3,190.43	
			19-Feb-02	780	3,190.38	
ACW-15	150 to 170	3,290.54	23-Feb-00	54	3,188.13	0.17
			11-May-00	131	3,188.12	
			07-Aug-00	219	3,188.09	
			26-Oct-00	299	3,188.12	
			20-Feb-01	416	3,187.99	
			06-May-01	491	3,188.03	
			01-Aug-01	578	3,187.96	
			25-Oct-01	663	3,187.98	
			19-Feb-02	780	3,187.97	

NOTES:

1. amsl : Above Mean Sea Level
2. NM : No Measurement Taken
3. Average residual for all wells is 9.15 ft.
4. Average residual for all wells, excluding ACW-4, is 7.1 ft.

FIGURES

Figure 1: Hydrograph (TR004) for ACW-1, ACW-2A and ACW3

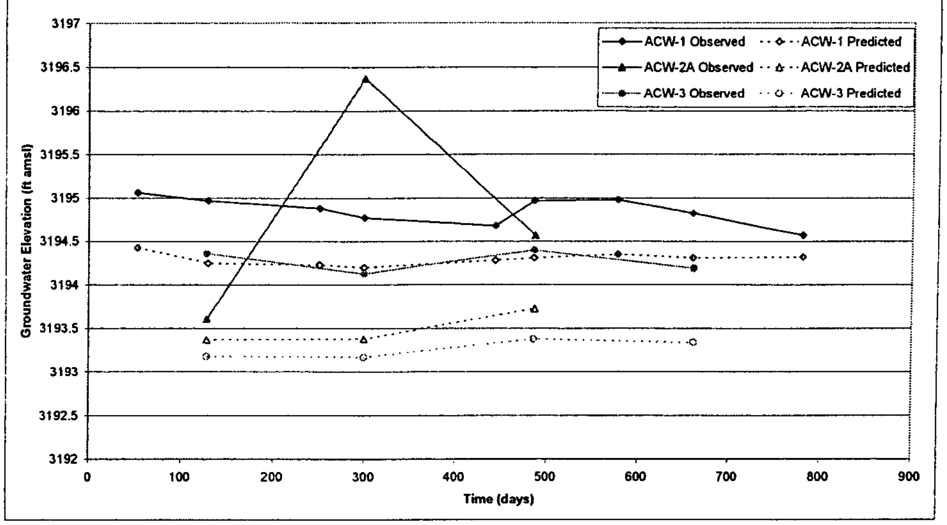


Figure 2: Hydrograph (TR004) for ACW-8, ACW-11 and ACW-7

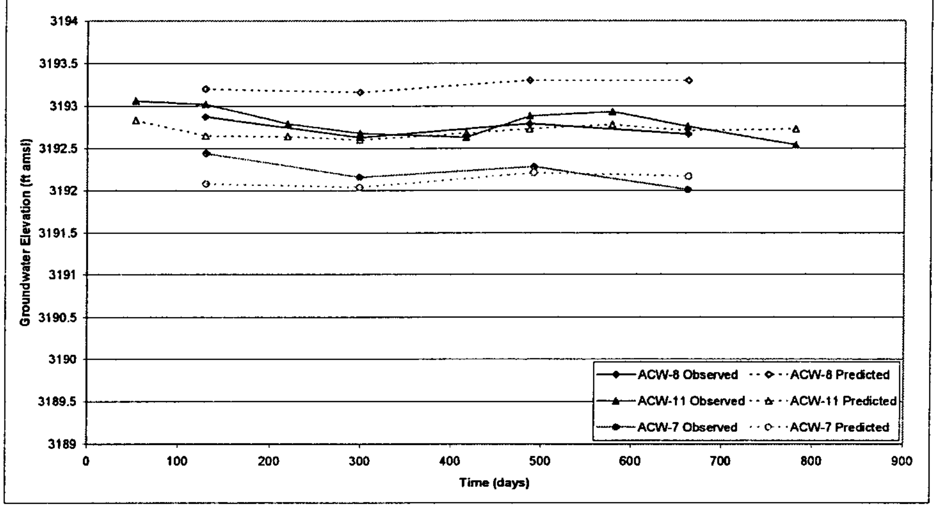


Figure 3: Hydrograph (TR004) for ACW-6, ACW-9 and ACW-5

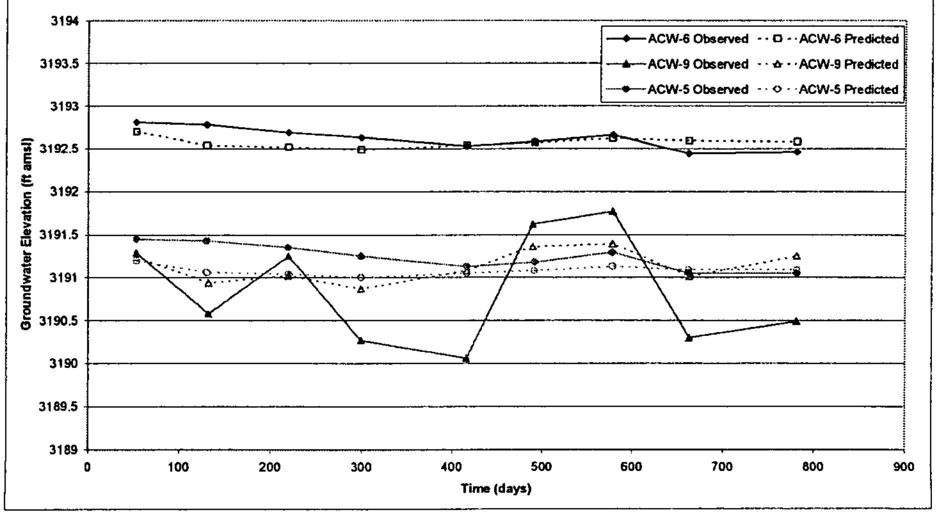


Figure 4: Hydrograph (TR004) for ACW-14, ACW-10 and ACW-12

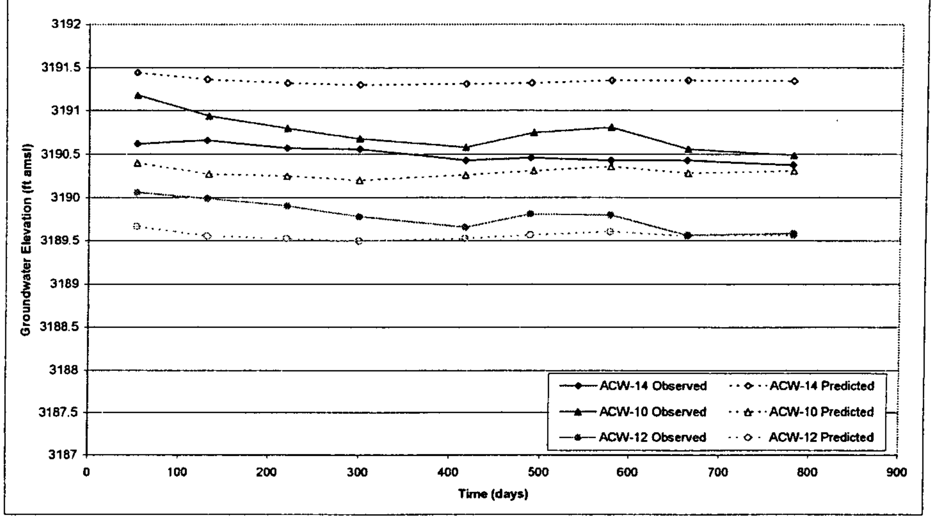


Figure 5: Hydrograph for ACW-13 and ACW-15

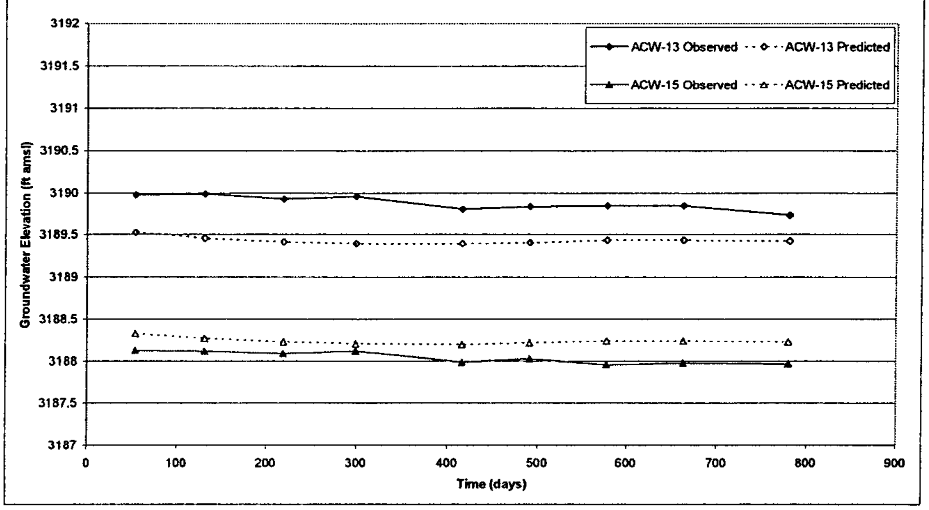
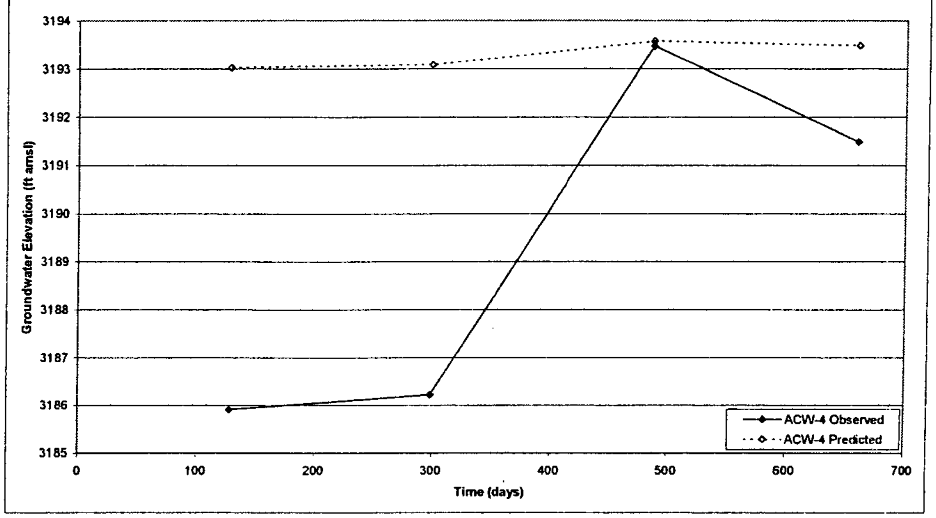


Figure 6: Hydrograph for ACW-4



Air Quality Permitting/Modeling

Cultural Resources/Threatened & Endangered Species

Environmental Engineering

Environmental Management Systems

Environmental Site Assessment/Audit

Expert Witness Testimony/Litigation Support

Field Investigation/Remediation

Health & Safety/Industrial Hygiene

Regulatory Compliance & Assessment

Soil/Groundwater Investigation

Soil/Groundwater Remediation

Soil/Hazardous Waste Management/Permitting

Spill Prevention Control & Countermeasures

Surface Impoundment Closure/Pits

Water Quality Permitting & Management

Wastewater Treatment Planning & Design

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