

GW - 029

**MONITORING
REPORTS**

7/05/2006

GW029



MidContinent SBU
Chevron North America
Exploration and Production Company
P. O. Box 36366
Houston, TX 77236

July 5, 2006

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, New Mexico 87505

Subject: 2005 Annual Groundwater Monitoring Report
Buckeye Vacuum Field Unit, Lea County, New Mexico
Prepared for Chevron Environmental Management Company
OGRID No. 4323

Dear Mr. Price:

Enclosed is the subject report for work completed at the Buckeye Vacuum Field Unit (Vacuum Unit) during 2005. The report provides information and details on the ground water monitoring activities completed by Larson & Associates (Larson) and SECOR International (SECOR). Larson completed the monitoring work in the first half of 2005. Around September of 2005, this project was transferred to SECOR, and they completed the monitoring work for the second half of 2005.

All future monitoring and reporting work will be completed by the new contractor and Chevron's agent for this site:

SECOR International, Incorporated
3300 N 'A' Street, Suite 220
One Petroleum Center Building 8
Midland, TX 79705

If you have any questions concerning this report or the on-going work, please call me at (281) 561-3653. Or you can contact Mike Hagan with SECOR at (432) 416-0141.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott Toner".

Scott Toner
Remediation Project Manager

Enclosure

Cc: Ms. Patricia Caperton, NMOCD (without copy of report)
Mr. Ron Kallus, SECOR (without copy of report)
Mr. Mike Hagan, SECOR (without copy of report)

GW 029

2005 ANNUAL GROUNDWATER MONITORING REPORT

BUCKEYE VACUUM FIELD UNIT

LEA COUNTY, NM

April 2006

89CH.49386.07

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1.0 INTRODUCTION

1.1 Site Setting

The Buckeye Vacuum Field Unit is a tract of land located in Lea County, New Mexico originally operated by Texaco, but now it is operated by Chevron. Currently this groundwater remediation project is being managed by Chevron Environmental Management Company (CEMC). The site is located south of Buckeye, New Mexico, and is situated in the northeast quarter of Section 1, Township 18 South, Range 34 East, Lea County, New Mexico. Figure 1 presents a Site location and topographic map. The Buckeye Compressor Station is located to the north of the site, across County Road 57. Surface acreage in the area is oil field and ranch land. The Site plan is presented in Figure 2.

1.2 Environmental and Remediation History

In 1989, a total of 23 monitor wells were installed at the site to determine the source and delineate the extent of chloride impact to groundwater. Two extraction wells (RW-1 and RW-2) were also installed and continuously pumped to remediate groundwater at the site. A casing leak in a production well located on the property (VG SAU #58) was determined to be the source of the chloride impacting the groundwater. The production well was repaired in 1990 and plugged and abandoned in 2000.

Larson and Associates, Inc. (Larson) was retained by Chevron to conduct groundwater remediation and monitoring activities at the Buckeye Vacuum Field Unit. Groundwater monitoring of all monitor wells (TW-1 through TW-23) and the two recovery wells (RW-1 and RW-2) was conducted in 1990 and 1998. Thirteen monitor wells were plugged and abandoned in 1999, and the remaining ten monitor wells were sampled on a quarterly basis. Monitor well TW-23 was sampled on a monthly basis. As directed by the New Mexico Oil Conservation Division (NMOCD), six monitor wells and the two extraction wells were sampled on a semi-annual basis during 2000 and 2001, and well TW-23 was sampled quarterly. Pumping from wells RW-1 and RW-2 ceased in 2001 and a third extraction well (RW-3), located in the vicinity of monitor well TW-23, was installed in 2001. Groundwater recovery from extraction well RW-3 was initiated shortly after installation.

Following a sampling schedule directed by the NMOCD, groundwater monitoring continued at the site during 2002. On behalf of Chevron, Highlander Environmental Corp. (Highlander) submitted a Groundwater Monitoring Summary and Closure Report to the NMOCD on December 20, 2002, and requested closure. Site closure was denied by the NMOCD in a letter dated March 19, 2003, and groundwater monitoring was continued as directed.

Larson conducted groundwater monitoring at the site during 2003 and submitted an Annual Groundwater Monitoring Report, dated May 10, 2004, to the NMOCD. Based on the contents of that report, CEMC proposed a reduced sampling schedule, with seven monitor wells (TW-10, TW-11, TW-13, TW-14, TW-17, TW-19, and TW-20) to be sampled for chloride and total dissolved solids (TDS) semi-annually, and three monitor wells (TW-9, TW-15, and TW-23) to be sampled on a quarterly basis. The monitoring schedule was approved by NMOCD on

September 30, 2004. Larson preformed groundwater sampling during 2004 and the first half of 2005 and submitted an Annual Groundwater Monitoring Report, dated April 25, 2005 to CEMC.

The March and May 2005 data collected by Larson and the data collected by SECOR International, Inc (SECOR) in the second half of 2005 are discussed in this report as well. CEMC intends to report groundwater sampling data on a calendar year basis from this point forward.

2.0 CURRENT FIELD ACTIVITIES

Based on the results of the April 25, 2005 report submitted by Larson, groundwater monitoring will continue at the site until chloride concentrations have been remediated to below the New Mexico Water Quality Control Commission (WQCC) standards for a minimum of four consecutive quarters or four consecutive longer term sampling events.

2.1 Monitor Well Gauging

Groundwater elevation measurements have been taken bi-weekly since October 2005 with an electronic water/hydrocarbon interface probe prior to sampling. The static water levels for each event are documented in Table 1.

Historical groundwater elevations for each sampling event are provided on Table 2. Potentiometric surface maps for March, May and November 2005 are provided as Figures 3, 4 and 5. Over the course of 2005, groundwater elevations ranged from 3861.96 to 3859.66 feet above mean sea level across the site. The groundwater flow direction is toward the northeast, with an average hydraulic gradient of approximately 0.0019 vertical feet per horizontal foot.

2.2 Groundwater Sample Collection

Groundwater samples were collected in March 2005 by Larson from monitor wells TW-9, TW-10, TW-11, TW-13, TW-14, TW-15, TW-17, TW-19, TW-20 and TW-23 and extraction wells RW-2 and RW-3. The groundwater samples were delivered under chain-of-custody control to Environmental Lab of Texas, Inc. located in Odessa, TX and analyzed for chloride (EPA Method 300.0) and TDS (EPA Method 160.1). The results from this sampling event are included in the April 25, 2005 Annual Groundwater Monitoring Report submitted by Larson.

In addition, Larson collected groundwater samples from monitor wells TW-9, TW-15 and TW-23 in May 2005 and sent them to Environmental Lab of Texas, Inc. for chloride and TDS analysis using the same analytical methods. Groundwater samples were not collected for the preceding three mentioned monitor wells during the third quarter 2005.

In October 2005, SECOR collected groundwater samples from all ten monitor wells and two extraction wells at the site. Prior to sample collection, the wells were purged of a minimum of three casing volumes. The groundwater samples were collected using disposable PVC bailers following successful purging. The samples were then transferred to sample containers provided by the laboratory, labeled by the field groundwater sampler, placed on ice in a cooler, kept at a temperature of 4°C, and shipped under chain-of-custody to Lancaster Laboratories in Lancaster, PA for laboratory analysis. The groundwater samples were analyzed for chloride (EPA Method 300.0) and TDS (EPA Method 160.1). The results of all the 2005 sampling events are discussed in Section 3.0 of this report. Laboratory analytical reports for each sampling event of 2005 are included in the Appendices.

2.3 Groundwater Remediation and Waste Management

Groundwater is currently pumped from extraction well RW-3 on an alternating pumping (six hours on) and recovery (48 hours off) schedule to flush residual chloride from the capillary zone in the vicinity of VG SAU #58. The extracted groundwater is used as non-contact cooling water at the Buckeye Compressor Station, located north of the site, across County Road 57. Depth to groundwater measurements have been collected bi-weekly since October 2005 from all monitor and recovery wells on the site to observe any effects in groundwater levels caused by the pumping of extraction well RW-3. The chloride plume (concentrations exceeding 250 mg/L) has been localized around TW-23 and RW-3, except for the October 2005 sampling event, where the plume includes RW-2.

Purged groundwater from the sampling activities was disposed at an NMOCD permitted salt water disposal facility operated by Chapparel Services, Inc., located in Eunice, New Mexico.

3.0 ANALYTICAL RESULTS

The NMOCD provides regulatory oversight for this site, but uses the remediation standards set by the WQCC for chloride (250 mg/L) and for TDS (1,000 mg/L).

3.1 Chloride

3.1.1 March 2005 Sampling Event

An isopleth map of chloride concentrations for the March 2005 sampling event is presented in Figure 6. Chloride concentrations measured in the groundwater samples collected on March 3, 2005 from monitor wells TW-9, TW-10, TW-11, TW-13, TW-14, TW-19, TW-20 and extraction well RW-2 ranged from 25.3 mg/L (TW-20) to 90.0 mg/L (TW-13). All chloride concentrations from the groundwater samples collected from these monitor wells were below the WQCC standard of 250 mg/L. Monitor well TW-17 exhibited a chloride concentration of 178 mg/L, which was higher than it had been at any other time but, still below the standard. The groundwater samples collected from monitor wells TW-15, TW-23 and extraction well RW-3 exhibited chloride concentrations of 189 mg/L, 656 mg/L and 873 mg/L, respectively.

3.1.2 May 2005 Sampling Event

As per the sampling schedule approved by the NMOCD, chloride and TDS concentrations were measured in groundwater samples collected from monitor wells TW-9, TW-15 and TW-23 on May 27, 2005. Chloride concentrations were 53.7 mg/L, 184 mg/L and 835 mg/L, respectively. These concentrations were only marginally changed from the values recorded on March 3, 2005.

3.1.3 October 2005 Sampling Event

An isopleth map of chloride concentrations for the October 2005 sampling event is presented in Figure 7. Chloride concentrations measured in the groundwater samples collected on October 27, 2005 from monitor wells TW-9, TW-10, TW-11, TW-13, TW-14, TW-15, TW-17, TW-19 and TW-20 ranged from 31.8 mg/L (TW-11) to 115 mg/L (TW-15). The chloride concentration in the groundwater sample collected from TW-17 was 59.9 mg/L, down from 178 mg/L measured at the March sampling event. All chloride concentrations from the groundwater samples collected from these monitor wells were below the WQCC standard of 250 mg/L. Extraction well RW-2 exhibited a chloride concentration of 264 mg/L, which was, for the first time, above the WQCC standard. The groundwater samples collected from monitor wells TW-23 and extraction well RW-3 exhibited chloride concentrations of 284 mg/L and 298 mg/L, respectively. Chloride concentrations have not been this low in groundwater samples from monitor well TW-23 since February 11, 2004. The chloride concentration measured in the groundwater sample from RW-3 is the lowest to date. Both are just above the WQCC standard.

Chloride data trend charts for monitor wells TW-15 and TW-23 and recovery wells RW-2 and RW-3 are included in Table 3.

3.2 Total Dissolved Solids

The groundwater sample collected from monitor well TW-23 exhibited a TDS concentration of 1,680 mg/L for the March 3, 2005 sampling event, 2,680 mg/L for the May 9, 2005 sampling event and 1,460 mg/L for the October 27, 2005 event. All these values were above the WQCC remediation standard of 1,000 mg/L. Extraction well RW-3 exhibited TDS concentrations of 1,710 mg/L in the groundwater sample collected on March 3, 2005 and 844 mg/L in the groundwater sample collected on October 27, 2005. All other TDS concentrations measured in the groundwater samples collected during 2005 were below the WQCC standard.

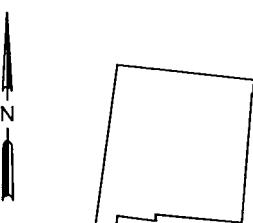
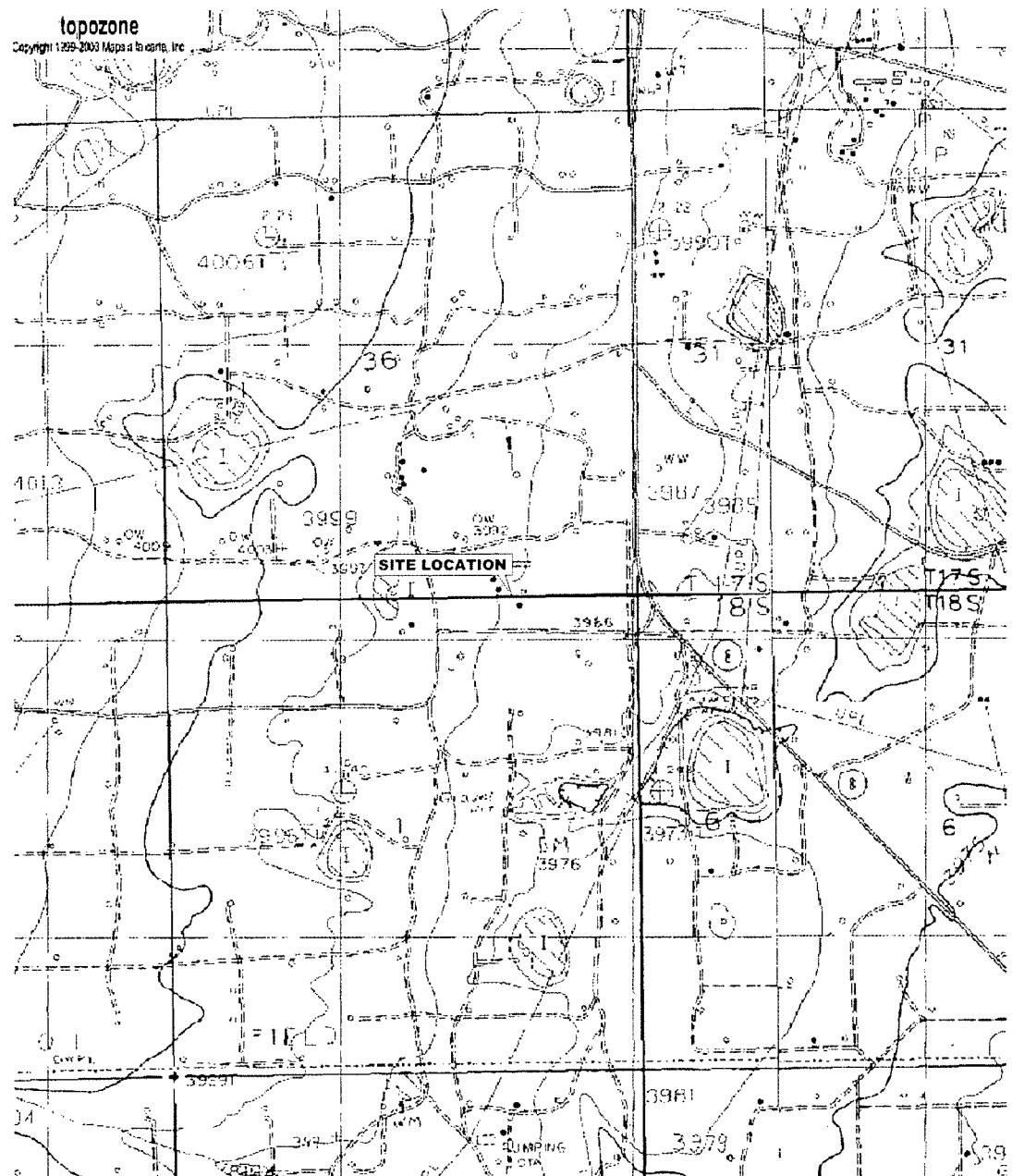
4. SUMMARY AND RECOMMENDATIONS

The following findings and conclusions can be drawn from the 2005 groundwater monitoring events:

- Depth to groundwater ranged from 122.18 feet (TW-15) to 127.79 (TW-9 and TW-20) below top of casing (TOC) on March 3, 2005.
- Depth to groundwater ranged from 122.13 feet (TW-15) to 128.67 (TW-9) below TOC on May, 9, 2005.
- Depth to groundwater ranged from 122.68 (TW-15) to 128.74 (TW-20) below TOC on November 1, 2005.
- The groundwater flow direction is toward the northeast, with an approximate hydraulic gradient of 0.0019 vertical feet per horizontal foot.
- All monitor wells, except for TW-23 and extraction wells RW-2 and RW-3, have exhibited chloride concentrations below the WQCC standard of 250 mg/L for a minimum of four consecutive quarters.
- Monitor well TW-23 exhibited chloride concentrations of 656 mg/L (March 2005), 835 mg/L (May 2005) and 284 mg/L (October 2005) which were all above the 250 mg/L WQCC state standard. Extraction well RW-3 exhibited chloride concentrations of 873 mg/L (March 2005) and 298 mg/L (October 2005), also above the state standard. However, chloride concentrations dropped in both wells in the groundwater samples collected in October 2005.
- Extraction well RW-2 has exhibited chloride concentrations below the WQCC standard since groundwater samples were first collected on May 28, 2004. The only exception is the most recent sampling event in October 2005, where the chloride concentration measured in the groundwater sample collected was 264 mg/L. This data point may be considered an anomaly pending the first half 2006 sampling results.
- Groundwater recovery from extraction well RW-3 is currently ongoing and appears to be having a positive impact on the chloride concentration measured in TW-23.
- TDS concentrations measured in the groundwater samples collected during 2005 were below the WQCC standard of 1,000 mg/L for all of the monitor or extraction wells except for groundwater samples collected from TW-23 and RW-3. The highest TDS concentration measured from groundwater samples from TW-23 was 2,680 (May 9, 2005) and 1,710 mg/L (March 3, 2005) from RW-3.

As per the Annual Groundwater Monitoring Report of April 25, 2005 which was submitted to CEMC by Larson, Chevron proposed to continue groundwater monitoring in the ten monitor wells until groundwater concentrations of chloride were below the WQCC standard for four consecutive quarters.

Monitor wells TW-10, TW-11, TW-13, TW-14, TW-17, TW-19 and TW-20 have shown chloride concentrations below the standard of 250 mg/L for at least the last four quarters. Chevron proposes that these wells continue to be sampled for chloride and TDS on a semi-annual basis. TW-15 exhibited slightly higher concentrations during 2005 and will remain on the quarterly sampling schedule as will TW-23 which has never shown chloride concentrations below the state standard other than the October 2005 sample which was slightly under 300 mg/L. Monitor well TW-9 will also continue to be sampled quarterly.



NEW MEXICO

A horizontal scale bar divided into six equal segments. The segments are labeled with the values 1, 1/2, 0, and 1 at their respective ends. Below the scale bar, the text "SCALE IN MILE" is centered.

SCALE IN MILE

REFERENCE: USGS 7.5 MINUTE QUADRANGLE: BUCKEYE, NEW MEXICO; 1985

SCALE IN FEET

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SECOR
10235 West Little York, Suite 400
Houston, Texas

EOF

CHEVRON ENVIRONMENTAL
MANAGEMENT COMPANY
BUCKEYE VACUUM FIELD UNIT
LEA COUNTY, NEW MEXICO

SITE LOCATION MAP

FIGURE:

1

JOB NUMBER:
80CH 49386 07

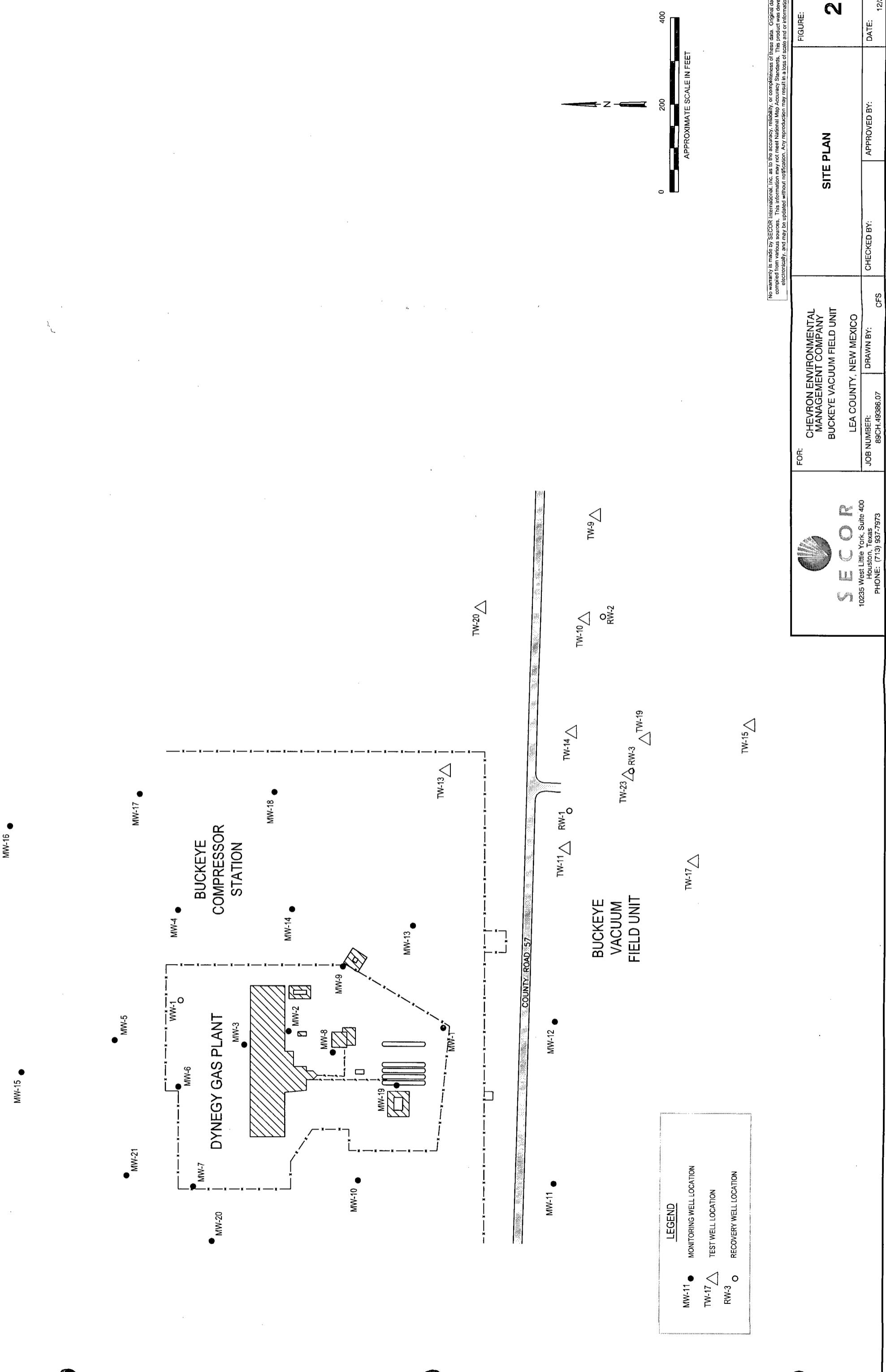
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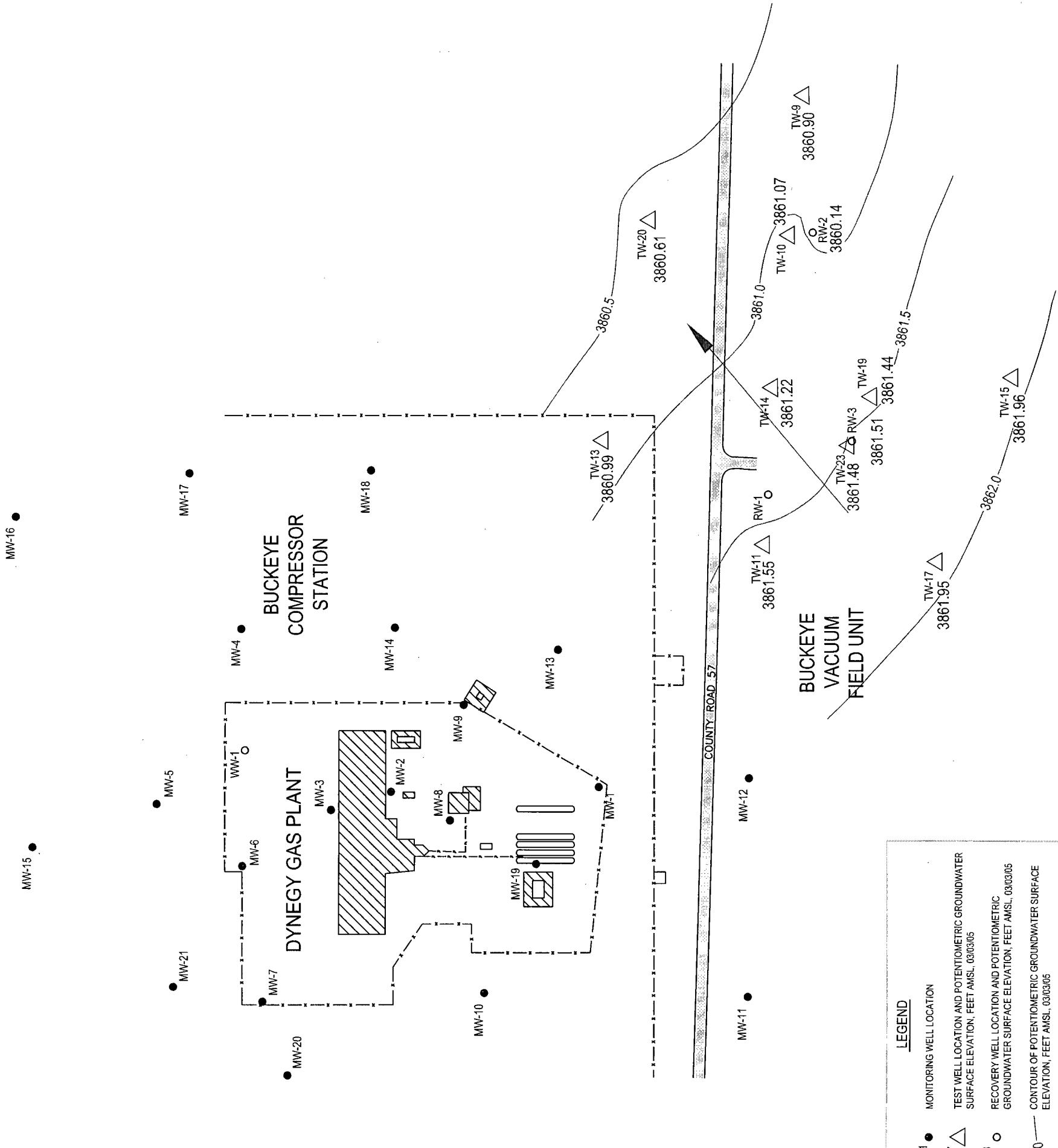
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12/30/05

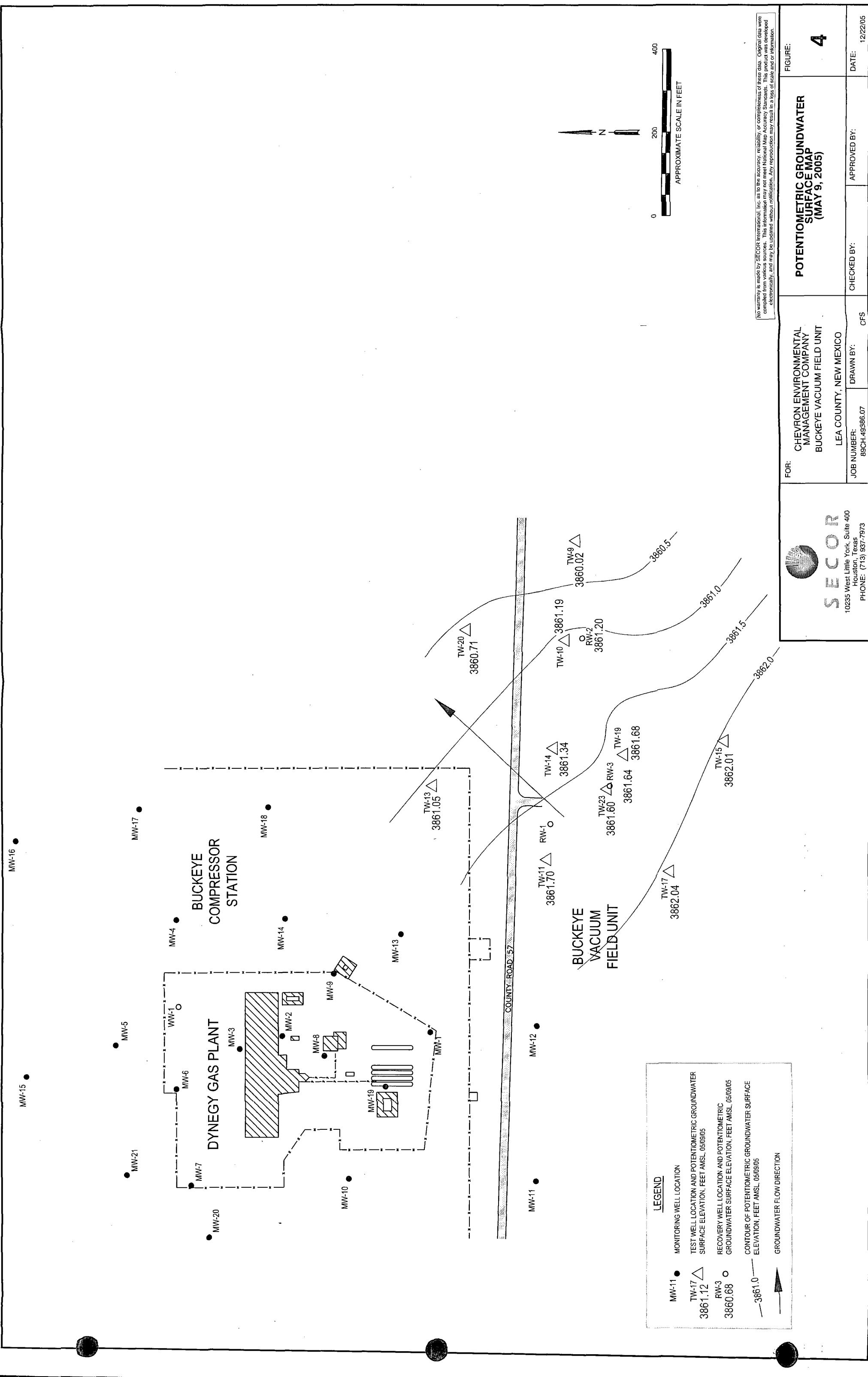




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FIGURE: 3
OMETRIC GROUNDWATER SURFACE MAP (MARCH 3, 2005)

LEA COUNTY, NEW MEXICO		CFS	CFS	DATE: 12/22/05
JOB NUMBER: 89CH-49386-07	DRAWN BY: HOU: (713) 987-7973			

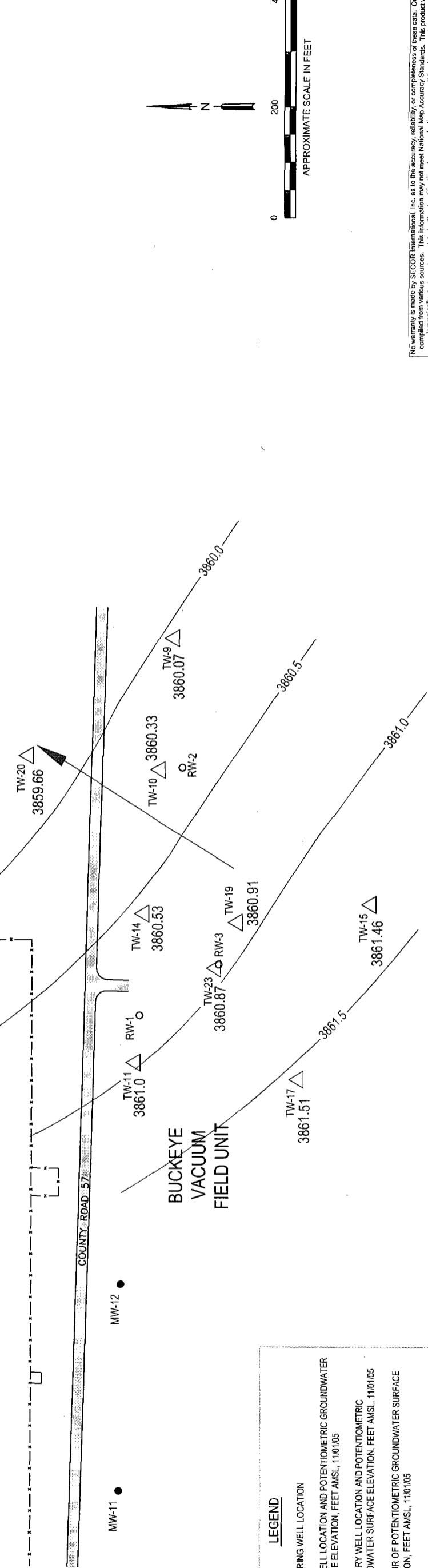
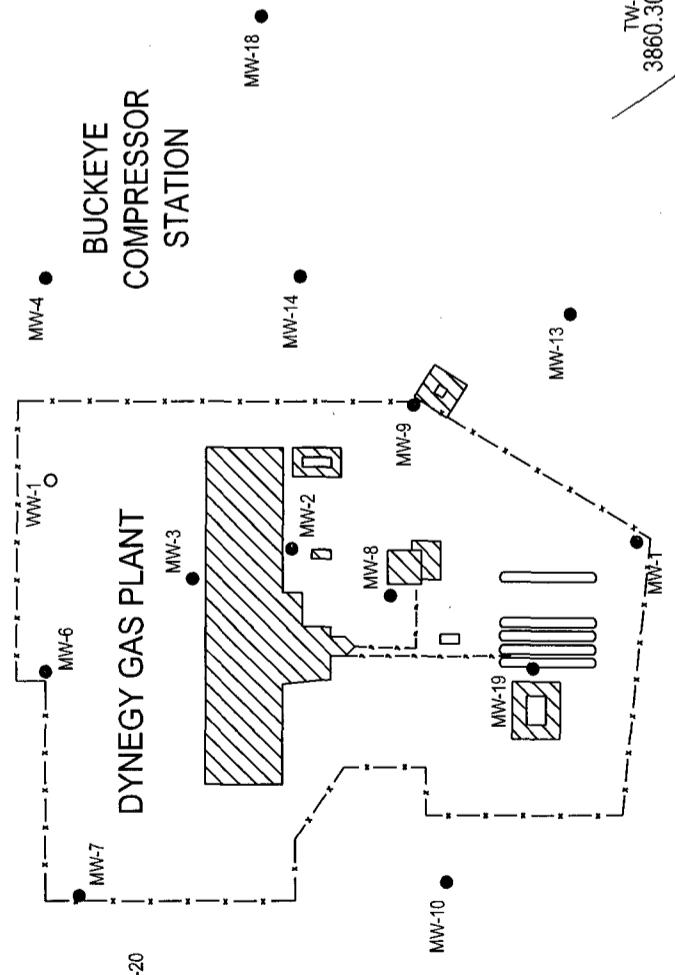


MW-16

MW-15

MW-21
MW-17
MW-16

DYNEGY GAS PLANT
BUCKEYE
COMPRESSOR
STATION



LEGEND

- MW-11 ● MONITORING WELL LOCATION
TW-17 △ TEST WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 11/01/05
3861.12 △ RECOVERY WELL LOCATION AND POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 11/01/05
RW-3 ○ CONTOUR OF POTENTIOMETRIC GROUNDWATER SURFACE ELEVATION, FEET AMSL, 11/01/05
3860.68 ○ GROUNDWATER FLOW DIRECTION

POTENTIOMETRIC GROUNDWATER SURFACE MAP (NOVEMBER 1, 2005)

FIGURE:

FOR:



10235 West Little York, Suite 400
Houston, Texas
PHONE: (713) 937-7973

CHEVRON ENVIRONMENTAL
MANAGEMENT COMPANY
BUCKEYE VACUUM FIELD UNIT
LEA COUNTY, NEW MEXICO

APPROVED BY:

DATE: 12/22/05

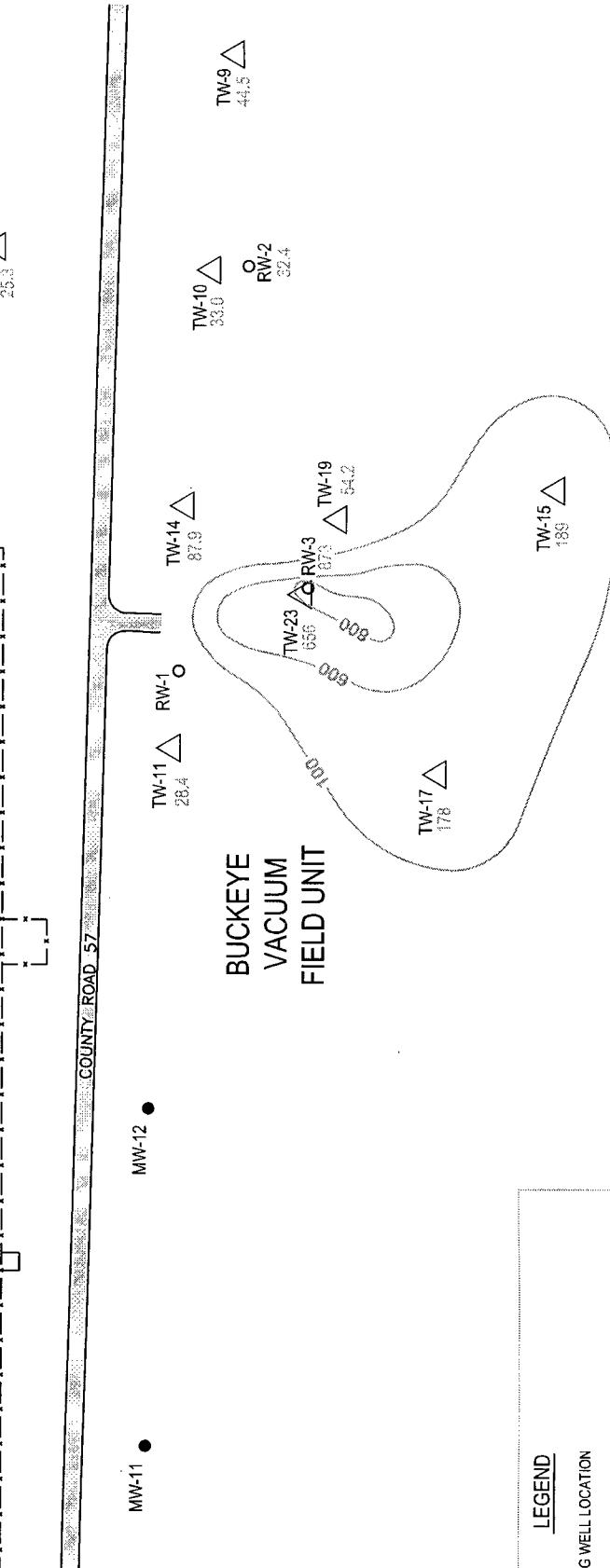
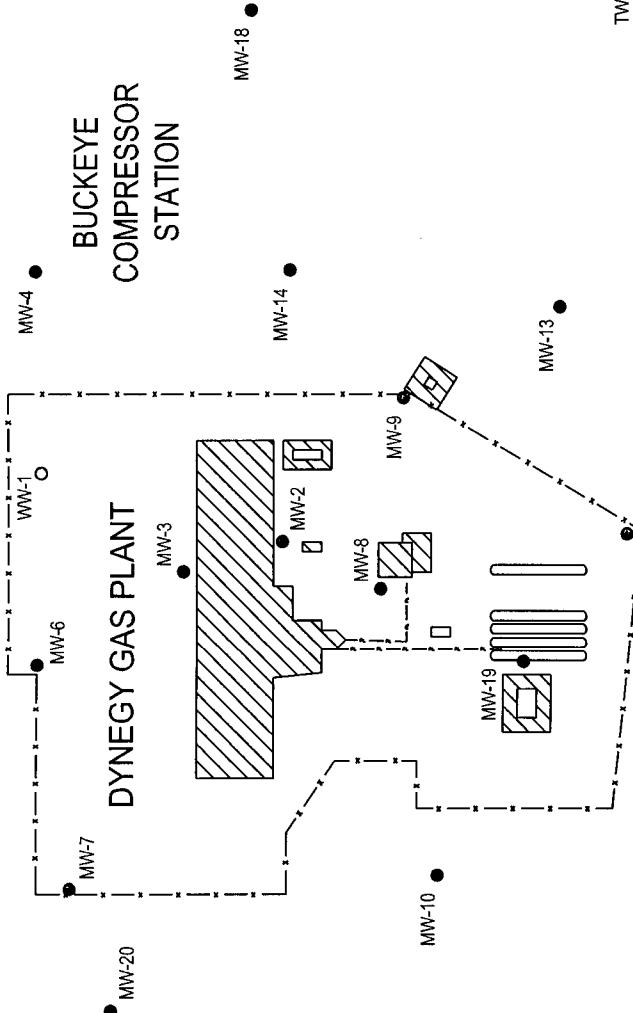
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APPROXIMATE SCALE IN FEET

MW-16

MW-15

MW-21
MW-5
MW-17
MW-7
MW-20DYNEGY GAS PLANT
BUCKEYE COMPRESSOR STATION

LEGEND

- MONITORING WELL LOCATION
- △ TEST WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 3/3/05
- RECOVERY WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 3/3/05
- CONTOUR OF CHLORIDE CONCENTRATION IN GROUNDWATER, (MG/L), 3/3/05
- MILLIGRAMS PER LITER

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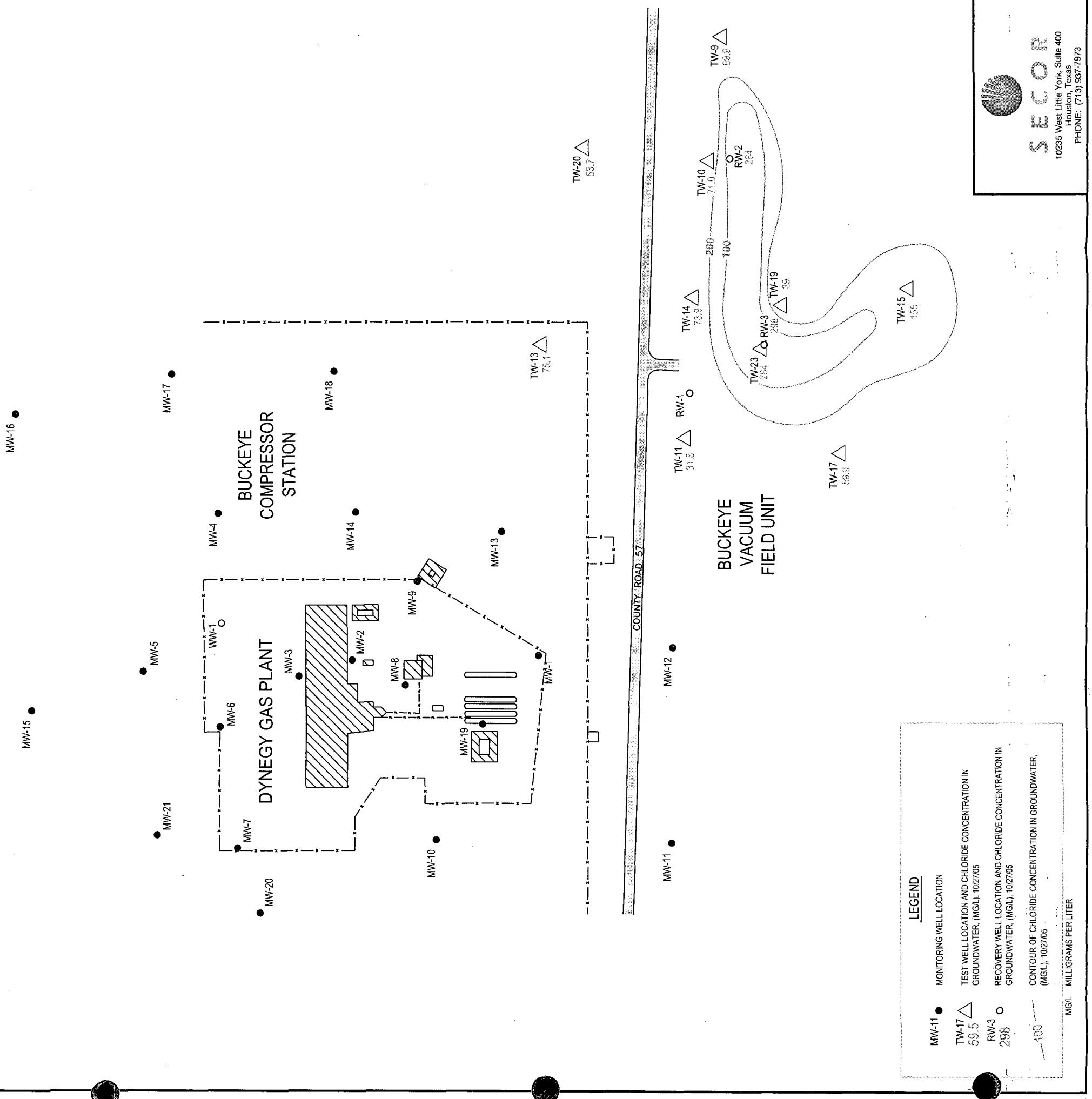


Table 1
Summary of Field and Laboratory Data
Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
TW-9	15-May-03	129.01	--	--	120	--
	23-Jun-03	---	--	--	--	--
	02-Jul-03	128.79	--	--	--	--
	11-Jul-03	128.92	--	--	--	--
	08-Aug-03	128.64	--	--	--	--
	26-Aug-03	128.69	--	--	--	--
	3-Sep-03	128.85	1443.20	24,655	--	--
	18-Sep-03	128.76	1476.00	31,920	--	--
	3-Oct-03	128.77	--	38,255	--	--
	7-Oct-03	128.97	1489.10	41,083	--	--
	13-Oct-03	129.05	1469.40	43,965	--	--
	21-Oct-03	128.92	1436.20	46,962	--	--
	6-Nov-03	129.16	1628.80	55,594	--	--
	18-Nov-03	128.97	0.00	61,607	442	892
	3-Dec-03	128.98	1653.00	69,530	--	--
	23-Dec-03	128.69	1416.90	78,414	--	--
	21-Jan.-04	128.77	1666.20	94,242	--	--
	2-Feb.-04	128.77	1469.00	102,200	--	--
	11-Feb.-04	128.62	0.00	107,770	420	972
	17-Feb-04	128.49	0.00	107,770	--	--
	9-Mar-04	128.76	0.00	115,194	--	--
	18-Mar-04	128.77	1489.00	121,755	--	--
	05-Apr-04	128.75	0.00	132,779	--	--
	12-Apr-04	128.95	1587.50	138,374	--	--
	28-Apr-04	128.59	0.00	140,682	--	--
	7-May-04	128.69	1489.10	142,175	--	--
	13-May-04	128.62	0.00	142,913	--	--
	27-May-04	128.65	0.00	145,015	88.2	461
	3-Jun-04	128.72	1403.80	146,427	--	--
	8-Jul-04	128.79	0.00	151,757	--	--
	20-Jul-04	128.62	0.00	521,213	--	--
	6-Aug-04	128.64	0.00	522,877	49	385
	17-Aug-04	128.66	0.00	524,952	--	--
	24-Aug-04	128.59	0.00	525,793	--	--
	30-Aug-04	128.59	0.00	527,041	--	--
	8-Sep-04	128.55	0.00	528,688	--	--
	13-Sep-04	128.58	0.00	529,509	--	--
	20-Sep-04	128.52	0.00	530,699	--	--
	21-Oct-04	128.33	0.00	535,744	--	--
	26-Oct-04	128.31	0.00	536,895	--	--
	12-Nov-04	128.22	1653.10	539,347	--	--
	5-Jan-05	128.90	0.00	550,929	--	--
	03-Mar-05	127.79	0.00	--	44.5	239
	11-Apr-05	127.67	3365.2 *	575,588	--	--
	9-May-05	128.67	--	576,968	53.7	378
	18-Oct-05	128.38	--	--	--	--
	27-Oct-05	--	--	--	89.9	431
	1-Nov-05	128.62	--	--	--	--
	29-Nov-05	129.24	--	--	--	--
	14-Dec-05	129.25	--	--	--	--
	5-Jan-06	129.41	--	--	--	--
	12-Jan-06	129.03	--	--	--	--
	25-Jan-06	129.30	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
Summary of Field and Laboratory Data
Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
TW-10	15-May-03	127.99	--	--	44.3	--
	23-Jun-03	127.75	--	--	--	--
	02-Jul-03	128.02	--	--	--	--
	11-Jul-03	128.09	--	--	--	--
	08-Aug-03	127.71	--	--	--	--
	26-Aug-03	127.80	--	--	--	--
	3-Sep-03	128.07	1443.20	24,655	--	--
	18-Sep-03	128.01	1476.00	31,920	--	--
	3-Oct-03	127.83	1436.60	38,255	--	--
	7-Oct-03	128.11	1489.10	41,083	--	--
	13-Oct-03	128.12	1469.40	43,965	--	--
	21-Oct-03	127.97	1436.20	46,962	--	--
	6-Nov-03	128.29	1626.80	55,594	--	--
	19-Nov-03	128.11	0.00	61,607	59.1	369
	3-Dec-03	128.19	1653.00	69,530	--	--
	23-Dec-03	127.83	1416.90	78,414	--	--
	21-Jan.-04	127.94	1666.20	94,242	--	--
	2-Feb.-04	127.05	1469.00	102,200	--	--
	11-Feb.-04	127.69	0.00	107,770	52.9	372
	17-Feb-04	127.56	0.00	107,770	--	--
	9-Mar-04	127.92	0.00	115,194	--	--
	18-Mar-04	127.99	1489.10	121,755	--	--
	05-Apr-04	127.80	0.00	132,779	--	--
	12-Apr-04	128.95	1587.50	138,374	--	--
	28-Apr-04	127.61	0.00	140,682	--	--
	7-May-04	126.88	1489.10	142,175	--	--
	13-May-04	127.66	0.00	142,913	--	--
	28-May-04	127.66	0.00	145,015	39.9	344
	3-Jun-04	126.79	1403.80	146,427	--	--
	8-Jul-04	127.79	0.00	151,757	--	--
	20-Jul-04	127.66	0.00	521,213	--	--
	6-Aug-04	127.69	0.00	522,877	45.4	354
	17-Aug-04	127.68	0.00	524,952	--	--
	24-Aug-04	127.62	0.00	525,793	--	--
	30-Aug-04	127.62	0.00	527,041	--	--
	8-Sep-04	127.59	0.00	528,688	--	--
	13-Sep-04	126.75	0.00	529,509	--	--
	20-Sep-04	127.57	0.00	530,699	--	--
	21-Oct-04	127.28	0.00	535,744	--	--
	26-Oct-04	127.28	0.00	536,895	--	--
	12-Nov-04	127.21	1659.60	539,399	--	--
	5-Jan-05	126.92	0.00	550,929	--	--
	03-Mar-05	126.80	0.00	---	33	226
	11-Apr-05	126.73	3365.2 *	575,588	--	--
	9-May-05	126.68	--	576,968	--	--
	18-Oct-05	127.33	--	--	--	--
	27-Oct-05	---	--	--	71	372
	1-Nov-05	127.54	--	--	--	--
	29-Nov-05	128.09	--	--	--	--
	14-Dec-05	128.12	--	--	--	--
	5-Jan-06	128.23	--	--	--	--
	12-Jan-06	127.94	--	--	--	--
	25-Jan-06	128.15	--	--	--	--

Notes:

mg/L - Milligrams per liter

'--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
Summary of Field and Laboratory Data
Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)					250	1000
TW-11	15-May-03	128.97	--	--	35.4	--
	23-Jun-03	128.64	--	--	--	--
	02-Jul-03	129.11	--	--	--	--
	11-Jul-03	129.04	--	--	--	--
	08-Aug-03	128.63	--	--	--	--
	26-Aug-03	128.71	--	--	--	--
	3-Sep-03	129.15	1443.20	24,655	--	--
	18-Sep-03	127.08	1476.00	31,920	--	--
	3-Oct-03	128.72	1436.60	38,255	--	--
	7-Oct-03	129.10	1489.10	41,083	--	--
	13-Oct-03	129.06	1469.40	43,965	--	--
	21-Oct-03	127.83	1436.20	46,962	--	--
	6-Nov-03	129.21	1626.80	55,594	--	--
	19-Nov-03	129.14	0.00	61,607	25.3	307
	3-Dec-03	129.20	1653.00	69,530	--	--
	23-Dec-03	128.69	1416.90	78,414	--	--
	21-Jan.-04	128.97	1666.20	94,242	--	--
	2-Feb.-04	128.87	1469.00	102,200	--	--
	11-Feb.-04	128.67	0.00	107,770	83.8	610
	17-Feb-04	128.37	0.00	107,770	--	--
	9-Mar-04	128.92	0.00	115,194	--	--
	18-Mar-04	128.97	1489.10	121,755	--	--
	05-Apr-04	126.61	0.00	132,779	--	--
	12-Apr-04	129.20	1587.50	138,374	--	--
	28-Apr-04	128.34	0.00	140,682	--	--
	7-May-04	128.66	1489.10	142,175	--	--
	13-May-04	124.83	0.00	142,913	--	--
	28-May-04	128.39	0.00	145,015	27.0	274
	3-Jun-04	128.69	1403.80	146,427	--	--
	8-Jul-04	128.45	0.00	151,757	--	--
	20-Jul-04	128.37	0.00	521,213	--	--
	5-Aug-04	128.42	0.00	522,877	30.1	269
	17-Aug-04	128.43	0.00	524,952	--	--
	24-Aug-04	128.35	0.00	525,793	--	--
	30-Aug-04	128.36	0.00	527,041	--	--
	8-Sep-04	128.31	0.00	528,688	--	--
	13-Sep-04	128.37	0.00	529,509	--	--
	20-Sep-04	127.57	0.00	530,699	--	--
	21-Oct-04	127.91	0.00	535,744	--	--
	26-Oct-04	127.96	0.00	536,895	--	--
	12-Nov-04	127.88	1659.60	539,347	--	--
	5-Jan-05	127.61	0.00	550,929	--	--
	03-Mar-05	127.56	0.00	---	28.4	174
	11-Apr-05	127.57	3365.2 *	575,588	--	--
	9-May-05	127.41	--	576,968	--	--
	18-Oct-05	127.98	--	--	--	--
	27-Oct-05	---	--	--	31.8	260
	1-Nov-05	128.11	--	--	--	--
	29-Nov-05	128.57	--	--	--	--
	14-Dec-05	128.63	--	--	--	--
	5-Jan-06	128.93	--	--	--	--
	12-Jan-06	128.49	--	--	--	--
	25-Jan-06	128.67	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD -concentration exceeded New Mexico WQCC standards

Table 1
Summary of Field and Laboratory Data
Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)					250	1000
TW-13	15-May-03	128.85	--	--	39.0	--
	23-Jun-03	128.77	--	--	--	--
	02-Jul-03	128.94	--	--	--	--
	11-Jul-03	128.93	--	--	--	--
	08-Aug-03	128.75	--	--	--	--
	26-Aug-03	128.80	--	--	--	--
	3-Sep-03	128.94	1443.20	24,655	--	--
	18-Sep-03	128.91	1476.00	31,920	--	--
	3-Oct-03	128.70	1436.60	38,255	--	--
	7-Oct-03	128.86	1489.10	41,083	--	--
	13-Oct-03	128.86	1469.40	43,965	--	--
	21-Oct-03	128.82	1436.20	46,962	--	--
	6-Nov-03	128.97	1626.80	55,594	--	--
	18-Nov-03	128.89	0.00	61,607	64.3	560
	3-Dec-03	128.90	1653.00	69,530	--	--
	23-Dec-03	128.67	1416.90	78,414	--	--
	21-Jan.-04	128.73	1666.20	94,242	--	--
	2-Feb.-04	128.77	1469.00	102,200	--	--
	11-Feb.-04	128.67	0.00	107,770	83.8	610
	17-Feb-04	128.54	0.00	107,770	--	--
	9-Mar-04	128.82	0.00	115,194	--	--
	18-Mar-04	128.87	1489.10	121,755	--	--
	05-Apr-04	128.74	0.00	132,779	--	--
	12-Apr-04	129.01	1587.50	138,374	--	--
	28-Apr-04	123.09	0.00	140,682	--	--
	7-May-04	128.70	1489.10	142,175	--	--
	13-May-04	128.67	0.00	142,913	--	--
	27-May-04	128.67	0.00	145,015	84.5	625
	3-Jun-04	128.79	1403.80	146,427	--	--
	8-Jul-04	128.75	0.00	151,757	--	--
	20-Jul-04	128.70	0.00	521,213	--	--
	6-Aug-04	128.66	0.00	522,877	74.8	596
	17-Aug-04	128.67	0.00	524,952	--	--
	24-Aug-04	128.62	0.00	525,793	--	--
	30-Aug-04	128.69	0.00	527,041	--	--
	8-Sep-04	128.61	0.00	528,688	--	--
	13-Sep-04	128.99	0.00	529,509	--	--
	20-Sep-04	129.58	0.00	530,699	--	--
	21-Oct-04	128.36	0.00	535,744	--	--
	26-Oct-04	128.34	0.00	536,895	--	--
	12-Nov-04	128.11	1659.60	539,399	--	--
	5-Jan-05	127.78	0.00	550,929	--	--
	03-Mar-05	127.74	0.00	--	90	502
	11-Apr-05	127.73	3365.2 *	575,588	---	---
	9-May-05	127.68	--	576,968	---	---
	18-Oct-05	128.26	--	--	---	---
	26-Oct-05	---	--	--	75.1	485
	1-Nov-05	128.43	--	--	--	--
	29-Nov-05	128.90	--	--	--	--
	14-Dec-05	128.95	--	--	--	--
	5-Jan-06	129.18	--	--	--	--
	12-Jan-06	128.88	--	--	--	--
	25-Jan-06	129.01	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
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Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)					250	1000
TW-14	15-May-03	126.78	--	--	65.0	--
	23-Jun-03	126.55	--	--	--	--
	02-Jul-03	127.35	--	--	--	--
	11-Jul-03	126.92	--	--	--	--
	08-Aug-03	126.52	--	--	--	--
	26-Aug-03	126.66	--	--	--	--
	3-Sep-03	127.29	1443.20	24,655	--	--
	18-Sep-03	127.25	1476.00	31,920	--	--
	3-Oct-03	126.75	1436.60	38,255	--	--
	7-Oct-03	127.32	1489.10	41,083	--	--
	13-Oct-03	127.34	1469.40	43,965	--	--
	21-Oct-03	126.95	1436.20	46,962	--	--
	6-Nov-03	127.47	1626.80	55,594	--	--
	19-Nov-03	127.28	0.00	61,607	25.4	368
	3-Dec-03	127.46	1653.00	69,530	--	--
	23-Dec-03	126.81	1416.90	78,414	--	--
	21-Jan.-04	127.17	1666.20	94,242	--	--
	2-Feb.-04	127.04	1469.00	102,200	--	--
	11-Feb.-04	127.32	0.00	107,770	29.6	339
	17-Feb-04	126.35	0.00	107,770	--	--
	9-Mar-04	127.01	0.00	115,194	--	--
	18-Mar-04	127.19	1489.10	121,755	--	--
	05-Apr-04	127.23	0.00	132,779	--	--
	12-Apr-04	127.47	1587.50	138,374	--	--
	28-Apr-04	126.39	0.00	140,682	--	--
	7-May-04	126.88	1489.10	142,175	--	--
	13-May-04	126.42	0.00	142,913	--	--
	28-May-04	126.44	0.00	145,015	30.3	346
	3-Jun-04	126.82	1403.80	146,427	--	--
	8-Jul-04	126.51	0.00	151,757	--	--
	20-Jul-04	126.41	0.00	521,213	--	--
	5-Aug-04	126.48	0.00	522,877	32.7	347
	17-Aug-04	126.54	0.00	524,952	--	--
	24-Aug-04	126.39	0.00	525,793	--	--
	30-Aug-04	126.39	0.00	527,041	--	--
	8-Sep-04	126.35	0.00	528,688	--	--
	13-Sep-04	126.31	0.00	529,509	--	--
	20-Sep-04	126.36	0.00	530,699	--	--
	21-Oct-04	125.90	0.00	535,744	--	--
	26-Oct-04	125.94	0.00	536,895	--	--
	12-Nov-04	126.09	1659.60	539,399	--	--
	5-Jan-05	125.54	0.00	550,929	--	--
	03-Mar-05	125.55	0.00	--	87.9	340
	11-Apr-05	125.61	3365.2 *	575,588	--	--
	9-May-05	125.43	--	576,968	--	--
	18-Oct-05	126.03	--	--	--	--
	27-Oct-05	--	--	--	73.9	419
	1-Nov-05	126.24	--	--	--	--
	29-Nov-05	126.68	--	--	--	--
	14-Dec-05	126.74	--	--	--	--
	5-Jan-06	127.03	--	--	--	--
	12-Jan-06	126.58	--	--	--	--
	25-Jan-06	126.75	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
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Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
TW-15	15-May-03	123.50	--	--	88.6	--
	23-Jun-03	123.28	--	--	--	--
	02-Jul-03	123.58	--	--	--	--
	11-Jul-03	123.65	--	--	--	--
	08-Aug-03	123.30	--	--	--	--
	26-Aug-03	123.36	--	--	--	--
	3-Sep-03	123.67	1443.20	24,655	--	--
	18-Sep-03	123.66	1476.00	31,920	--	--
	3-Oct-03	123.39	1436.60	38,255	--	--
	7-Oct-03	123.61	1489.10	41,083	--	--
	13-Oct-03	123.61	1469.40	43,965	--	--
	21-Oct-03	123.51	1436.20	46,962	--	--
	6-Nov-03	123.75	1626.80	55,594	--	--
	19-Nov-03	123.76	0.00	61,607	561	1132
	3-Dec-03	123.75	1653.00	69,530	--	--
	23-Dec-03	123.39	1416.90	78,414	--	--
	21-Jan.-04	123.60	1666.20	94,242	--	--
	2-Feb.-04	123.50	1469.00	102,200	--	--
	11-Feb.-04	123.34	0.00	107,770	419	908
	17-Feb-04	123.11	0.00	107,770	--	--
	9-Mar-04	123.47	0.00	115,194	--	--
	18-Mar-04	123.59	1489.10	121,755	--	--
	05-Apr-04	123.32	0.00	132,779	--	--
	12-Apr-04	123.77	1587.50	138,374	--	--
	28-Apr-04	--	--	--	--	--
	7-May-04	123.32	1489.10	142,175	--	--
	13-May-04	123.12	0.00	142,913	--	--
	27-May-04	123.06	0.00	145,015	93.4	439
	3-Jun-04	123.31	1403.80	146,427	--	--
	8-Jul-04	123.17	0.00	151,757	--	--
	20-Jul-04	123.11	0.00	521,213	--	--
	5-Aug-04	123.07	0.00	522,877	102	545
	17-Aug-04	123.08	0.00	524,952	--	--
	24-Aug-04	123.05	0.00	525,793	--	--
	30-Aug-04	123.04	0.00	527,041	--	--
	8-Sep-04	122.99	0.00	528,688	--	--
	13-Sep-04	123.00	0.00	529,509	--	--
	20-Sep-04	123.01	0.00	530,699	--	--
	21-Oct-04	121.73	0.00	535,744	--	--
	26-Oct-04	121.86	0.00	536,895	--	--
	12-Nov-04	122.17	1659.60	539,399	--	--
	5-Jan-05	122.21	0.00	550,929	--	--
	3-Mar-05	122.18	0.00	--	189	577
	11-Apr-05	122.15	3365.2 *	575,588	--	--
	9-May-05	122.13	--	576,968	184	711
	18-Oct-05	122.61	--	--		
	27-Oct-05	--	--	--	155	569
	1-Nov-05	122.68	--	--	--	--
	29-Nov-05	123.17	--	--	--	--
	14-Dec-05	123.22	--	--	--	--
	5-Jan-06	123.48	--	--	--	--
	12-Jan-06	123.33	--	--	--	--
	25-Jan-06	123.35	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
Summary of Field and Laboratory Data
Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
TW-17	15-May-03	122.87	--	--	31.9	--
	23-Jun-03	125.05	--	--	--	--
	02-Jul-03	125.52	--	--	--	--
	11-Jul-03	125.55	--	--	--	--
	08-Aug-03	125.17	--	--	--	--
	26-Aug-03	125.27	--	--	--	--
	3-Sep-03	125.56	1443.20	24,655	--	--
	18-Sep-03	125.55	1476.00	31,920	--	--
	3-Oct-03	125.25	1436.60	38,255	--	--
	7-Oct-03	125.52	1489.10	41,083	--	--
	13-Oct-03	125.50	1469.40	43,965	--	--
	21-Oct-03	125.30	1436.20	46,962	--	--
	6-Nov-03	125.64	1626.80	55,594	--	--
	19-Nov-03	125.64	0.00	61,607	26.7	295
	3-Dec-03	125.64	1653.00	69,530	--	--
	23-Dec-03	125.33	1416.90	78,414	--	--
	21-Jan.-04	125.44	1666.20	94,242	--	--
	2-Feb.-04	125.35	1469.00	102,200	--	--
	11-Feb.-04	125.15	0.00	107,770	24.9	294
	17-Feb-04	124.91	0.00	107,770	--	--
	9-Mar-04	125.38	0.00	115,194	--	--
	18-Mar-04	125.43	1489.10	121,755	--	--
	05-Apr-04	125.13	0.00	132,779	--	--
	12-Apr-04	125.58	1587.50	138,374	--	--
	28-Apr-04	124.89	0.00	140,682	--	--
	7-May-04	125.06	1489.10	142,175	--	--
	13-May-04	124.95	0.00	142,913	--	--
	28-May-04	124.89	0.00	145,015	26.7	302
	3-Jun-04	125.06	1403.80	146,427	--	--
	8-Jul-04	124.89	0.00	151,757	--	--
	20-Jul-04	124.81	0.00	521,213	--	--
	5-Aug-04	124.88	0.00	522,877	29.4	306
	17-Aug-04	124.87	0.00	524,952	--	--
	24-Aug-04	124.81	0.00	525,793	--	--
	30-Aug-04	124.83	0.00	527,041	--	--
	8-Sep-04	124.79	0.00	528,688	--	--
	13-Sep-04	124.74	0.00	529,509	--	--
	20-Sep-04	124.79	0.00	530,699	--	--
	21-Oct-04	123.80	0.00	535,744	--	--
	26-Oct-04	123.95	0.00	536,895	--	--
	12-Nov-04	124.03	1659.60	539,399	--	--
	5-Jan-05	124.05	0.00	550,929	--	--
	03-Mar-05	124.06	0.00	--	178	565
	11-Apr-05	124.00	3365.2 *	575,588	--	--
	9-May-05	123.97	--	576,968	--	--
	18-Oct-05	124.43	--	--	--	--
	26-Oct-05	--	--	--	59.9	362
	1-Nov-05	124.50	--	--	--	--
	29-Nov-05	124.93	--	--	--	--
	14-Dec-05	124.98	--	--	--	--
	5-Jan-06	125.30	--	--	--	--
	12-Jan-06	124.98	--	--	--	--
	25-Jan-06	125.11	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
Summary of Field and Laboratory Data
Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
TW-19	15-May-03	121.80	--	--	35.4	--
	23-Jun-03	125.21	--	--	--	--
	02-Jul-03	126.56	--	--	--	--
	11-Jul-03	125.62	--	--	--	--
	08-Aug-03	125.23	--	--	--	--
	26-Aug-03	125.32	--	--	--	--
	3-Sep-03	126.51	1443.20	24,655	--	--
	18-Sep-03	126.45	1476.00	31,920	--	--
	3-Oct-03	125.82	1436.60	38,255	--	--
	7-Oct-03	126.52	1489.10	41,083	--	--
	13-Oct-03	126.51	1469.40	43,965	--	--
	21-Oct-03	126.08	1436.20	46,962	--	--
	6-Nov-03	126.69	1626.80	55,594	--	--
	19-Nov-03	126.25	0.00	61,607	28.3	325
	3-Dec-03	126.77	1653.00	69,530	--	--
	23-Dec-03	125.91	1416.90	78,414	--	--
	21-Jan.-04	126.46	1666.20	94,242	--	--
	2-Feb-04	126.21	1469.00	102,200	--	--
	11-Feb-04	125.31	0.00	107,770	23.7	387
	17-Feb-04	125.02	0.00	107,770	--	--
	9-Mar-04	125.81	0.00	115,194	--	--
	18-Mar-04	126.40	1489.10	121,755	--	--
	05-Apr-04	125.31	0.00	132,779	--	--
	12-Apr-04	126.74	1587.50	138,374	--	--
	28-Apr-04	125.05	0.00	140,682	--	--
	7-May-04	126.07	1489.10	142,175	--	--
	13-May-04	125.15	0.00	142,913	--	--
	27-May-04	125.11	0.00	145,015	33.6	287
	3-Jun-04	125.82	1403.80	146,427	--	--
	8-Jul-04	125.11	0.00	151,757	--	--
	20-Jul-04	125.06	0.00	521,213	--	--
	5-Aug-04	125.14	0.00	522,877	42.8	344
	17-Aug-04	125.17	0.00	524,952	--	--
	24-Aug-04	125.05	0.00	525,793	--	--
	30-Aug-04	125.04	0.00	527,041	--	--
	8-Sep-04	124.98	0.00	528,688	--	--
	13-Sep-04	124.95	0.00	529,509	--	--
	20-Sep-04	124.99	0.00	530,699	--	--
	21-Oct-04	124.38	0.00	535,744	--	--
	26-Oct-04	123.46	0.00	536,895	--	--
	12-Nov-04	125.14	1659.60	539,399	--	--
	5-Jan-05	124.49	0.00	550,929	--	--
	03-Mar-05	124.26	0.00	--	54.2	224
	11-Apr-05	124.30	3365.2 *	575,588	--	--
	9-May-05	124.02	--	576,968	--	--
	18-Oct-05	124.66	--	--	--	--
	27-Oct-05	--	--	--	39	293
	1-Nov-05	124.79	--	--	--	--
	29-Nov-05	125.27	--	--	--	--
	14-Dec-05	125.31	--	--	--	--
	5-Jan-06	125.62	--	--	--	--
	12-Jan-06	125.20	--	--	--	--
	25-Jan-06	125.32	--	--	--	--

Notes:

mg/L - Milligrams per liter

'--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
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Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
TW-20	15-May-03	129.07	--	--	35.4	--
	23-Jun-03	128.71	--	--	--	--
	02-Jul-03	128.83	--	--	--	--
	11-Jul-03	128.80	--	--	--	--
	08-Aug-03	128.63	--	--	--	--
	26-Aug-03	128.73	--	--	--	--
	3-Sep-03	128.88	1443.20	24,655	--	--
	18-Sep-03	128.78	1476.00	31,920	--	--
	3-Oct-03	128.73	1436.60	38,255	--	--
	7-Oct-03	128.93	1489.10	41,083	--	--
	13-Oct-03	128.96	1469.40	43,965	--	--
	21-Oct-03	128.85	1436.20	46,962	--	--
	6-Nov-03	129.12	1626.80	55,594	--	--
	18-Nov-03	128.93	0.00	61,607	26.5	328
	3-Dec-03	128.94	1653.00	69,530	--	--
	23-Dec-03	128.66	1416.90	78,414	--	--
	21-Jan.-04	128.69	1666.20	94,242	--	--
	2-Feb.-04	128.78	1469.00	102,200	--	--
	11-Feb.-04	128.69	0.00	107,770	25.2	353
	17-Feb-04	128.46	0.00	107,770	--	--
	9-Mar-04	128.79	0.00	115,194	--	--
	18-Mar-04	128.79	1489.10	121,755	--	--
	05-Apr-04	128.79	0.00	132,779	--	--
	12-Apr-04	129.02	1587.50	138,374	--	--
	28-Apr-04	128.60	0.00	140,682	--	--
	7-May-04	128.72	1489.10	142,175	--	--
	13-May-04	128.66	0.00	142,913	--	--
	27-May-04	128.69	0.00	145,015	27.1	316
	3-Jun-04	128.81	1403.80	146,427	--	--
	8-Jul-04	128.76	0.00	151,757	--	--
	20-Jul-04	128.70	0.00	521,213	--	--
	6-Aug-04	128.67	0.00	522,877	31.8	338
	17-Aug-04	128.71	0.00	524,952	--	--
	24-Aug-04	128.64	0.00	525,793	--	--
	30-Aug-04	128.65	0.00	527,041	--	--
	8-Sep-04	128.59	0.00	528,688	--	--
	13-Sep-04	128.61	0.00	529,509	--	--
	20-Sep-04	128.57	0.00	530,699	--	--
	21-Oct-04	128.37	0.00	535,744	--	--
	26-Oct-04	128.34	0.00	536,895	--	--
	12-Nov-04	128.19	1659.60	539,399	--	--
	5-Jan-05	127.82	0.00	550,929	--	--
	3-Mar-05	127.79	0.00	--	25.3	232
	11-Apr-05	127.69	3365.2 *	575,588	--	--
	9-May-05	127.68	--	576,968	--	--
	18-Oct-05	128.43	--	--	--	--
	26-Oct-05	--	--	--	53.7	351
	1-Nov-05	128.74	--	--	--	--
	29-Nov-05	129.28	--	--	--	--
	14-Dec-05	129.24	--	--	--	--
	5-Jan-06	129.44	--	--	--	--
	12-Jan-06	129.00	--	--	--	--
	25-Jan-06	129.28	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

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Lea County, New Mexico

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New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
TW-23	15-May-03	124.42	--	--	1440	--
	23-Jun-03	124.31	--	--	--	--
	02-Jul-03	128.53	--	--	--	--
	11-Jul-03	124.56	--	--	--	--
	08-Aug-03	124.13	--	--	--	--
	26-Aug-03	124.26	--	--	--	--
	3-Sep-03	128.02	1443.20	24,655	--	--
	18-Sep-03	128.02	1476.00	31,920	--	--
	3-Oct-03	126.93	1436.60	38,255	--	--
	7-Oct-03	128.07	1489.10	41,083	--	--
	13-Oct-03	128.03	1469.40	43,965	--	--
	21-Oct-03	127.37	1436.20	46,962	--	--
	6-Nov-03	128.27	1626.80	55,594	--	--
	19-Nov-03	125.95	0.00	61,607	300	964
	3-Dec-03	128.45	1653.00	69,530	--	--
	23-Dec-03	127.17	1416.90	78,414	--	--
	21-Jan-04	128.12	1666.20	94,242	--	--
	2-Feb-04	127.57	1469.00	102,200	--	--
	11-Feb-04	124.16	0.00	107,770	117	603
	17-Feb-04	123.90	0.00	107,770	--	--
	9-Mar-04	125.20	0.00	115,194	--	--
	18-Mar-04	130.23	1489.10	121,755	--	--
	05-Apr-04	124.17	0.00	132,779	--	--
	12-Apr-04	128.30	1587.50	138,374	--	--
	28-Apr-04	123.87	0.00	140,682	--	--
	7-May-04	129.89	1489.10	142,175	--	--
	13-May-04	123.95	0.00	142,913	--	--
	27-May-04	123.94	0.00	145,015	617	1,710
	3-Jun-04	125.96	1403.80	146,427	--	--
	8-Jul-04	123.99	0.00	151,757	--	--
	20-Jul-04	123.90	0.00	521,213	--	--
	5-Aug-04	124.03	0.00	522,877	919	2,000
	17-Aug-04	124.10	0.00	524,952	--	--
	24-Aug-04	123.89	0.00	525,793	--	--
	30-Aug-04	123.91	0.00	527,041	--	--
	8-Sep-04	123.86	0.00	528,688	--	--
	13-Sep-04	123.89	0.00	529,509	--	--
	20-Sep-04	123.87	0.00	530,699	--	--
	21-Oct-04	123.19	0.00	535,744	--	--
	26-Oct-04	122.28	0.00	536,895	--	--
	12-Nov-04	127.01	1659.60	539,399	--	--
	5-Jan-05	123.50	0.00	550,929	--	--
	3-Mar-05	123.10	0.00	--	656	1,680
	11-Apr-05	123.24	3365.2 *	575,588	--	--
	9-May-05	122.98	--	576,968	835	2,680
	18-Oct-05	123.53	--	--	--	--
	27-Oct-05	--	--	--	284	1,460
	1-Nov-05	123.71	--	--	--	--
	29-Nov-05	124.13	--	--	--	--
	14-Dec-05	124.18	--	--	--	--
	12-Jan-06	124.06	--	--	--	--
	25-Jan-06	124.19	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

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New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
RW-1	15-May-03	126.65	--	--	--	--
	23-Jun-03	126.56	--	--	--	--
	02-Jul-03	127.10	--	--	--	--
	11-Jul-03	5.68	--	--	--	--
	08-Aug-03	--	0.00	519,964	--	--
	26-Aug-03	--	--	--	--	--
	1-Nov-05	no access				
RW-2	15-May-03	127.21	--	--	--	--
	23-Jun-03	124.04	--	--	--	--
	02-Jul-03	127.29	--	--	--	--
	11-Jul-03	127.21	--	--	--	--
	08-Aug-03	126.85	--	--	--	--
	26-Aug-03	126.92	--	--	--	--
	3-Sep-03	127.31	1443.20	24,655	--	--
	18-Sep-03	127.26	1476.00	31,920	--	--
	3-Oct-03	127.11	1436.60	38,255	--	--
	7-Oct-03	127.40	1489.10	41,083	--	--
	13-Oct-03	127.45	1469.40	43,965	--	--
	21-Oct-03	127.25	1436.20	46,962	--	--
	6-Nov-03	127.56	1626.80	55,594	--	--
	18-Nov-03	127.32	0.00	61,607	--	--
	3-Dec-03	127.46	1653.00	69,530	--	--
	23-Dec-03	127.05	1416.90	78,414	--	--
	21-Jan.-04	127.20	1666.20	94,242	--	--
	2-Feb.-04	127.21	1469.00	102,200	--	--
	11-Feb.-04	126.84	0.00	107,770	--	--
	17-Feb-04	126.68	0.00	107,770	--	--
	9-Mar-04	127.08	0.00	115,194	--	--
	18-Mar-04	127.24	1489.10	121,755	--	--
	05-Apr-04	126.95	0.00	132,779	--	--
	12-Apr-04	127.46	1587.50	138,374	--	--
	28-Apr-04	126.77	0.00	140,682	--	--
	7-May-04	127.04	1489.10	142,175	--	--
	13-May-04	126.82	0.00	142,913	--	--
	28-May-04	126.82	0.00	145,015	30.4	306
	3-Jun-04	127.01	1403.80	146,427	--	--
	8-Jul-04	126.95	0.00	151,757	--	--
	20-Jul-04	126.81	0.00	521,213	--	--
	6-Aug-04	126.81	0.00	522,877	34.6	354
	17-Aug-04	126.84	0.00	524,952	--	--
	24-Aug-04	126.77	0.00	525,793	--	--
	30-Aug-04	126.79	0.00	527,041	--	--
	8-Sep-04	126.71	0.00	528,688	--	--
	13-Sep-04	127.55	0.00	529,509	--	--
	20-Sep-04	126.72	0.00	530,699	--	--
	21-Oct-04	126.40	0.00	535,744	--	--
	26-Oct-04	126.41	0.00	536,895	--	--
	12-Nov-04	126.48	1659.60	539,399	--	--
	5-Jan-05	126.15	0.00	550,929	--	--
	3-Mar-05	126.90	0.00	--	32.4	244
	11-Apr-05	125.87	3365.2 *	575,588	--	--
	9-May-05	125.84	--	576,968	--	--
	27-Oct-05	--	--	--	264	600
	1-Nov-05	no access	--	--	--	--
	29-Nov-05	127.25	--	--	--	--
	14-Dec-05	127.26	--	--	--	--
	5-Jan-06	--	--	--	--	--
	12-Jan-06	127.08	--	--	--	--
	25-Jan-06	127.29				

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 1
Summary of Field and Laboratory Data
Buckeye Vacuum Field Unit
Lea County, New Mexico

Monitoring Well ID	Sample Date	Depth-to-Groundwater Feet TOC	Pumping Rate(BPD)	Total Flow(BBLs)	Chloride (mg/L) (EPA 300.0)	TDS (mg/L) (EPA 160.1)
New Mexico Water Quality Control Remediation Standards (mg/L)				250	1000	
RW-3	15-May-03	124.15	--	--	--	--
	23-Jun-03	126.91	--	--	--	--
	02-Jul-03	131.44	--	--	--	--
	11-Jul-03	123.99	--	--	--	--
	08-Aug-03	123.77	0.00	14,008	--	--
	26-Aug-03	123.80	0.00	20,743	--	--
	3-Sep-03	130.35	1443.20	24,655	--	--
	18-Sep-03	130.41	1476.00	31,920	--	--
	3-Oct-03	129.30	1436.60	38,255	--	--
	7-Oct-03	130.47	1489.10	41,083	--	--
	13-Oct-03	130.41	1469.40	43,965	--	--
	21-Oct-03	129.67	1436.20	46,962	--	--
	6-Nov-03	130.82	1626.80	55,594	--	--
	18-Nov-03	125.24	0.00	61,607	--	--
	3-Dec-03	131.27	1653.00	69,530	--	--
	23-Dec-03	129.40	1416.90	78,414	--	--
	21-Jan.-04	130.92	1666.20	94,242	--	--
	2-Feb.-04	129.88	1469.00	102,200	--	--
	11-Feb.-04	123.76	0.00	107,770	--	--
	17-Feb-04	123.46	0.00	107,770	--	--
	9-Mar-04	124.53	0.00	115,194	--	--
	18-Mar-04	127.83	1489.10	121,755	--	--
	05-Apr-04	123.75	0.00	132,779	--	--
	12-Apr-04	130.97	1587.50	138,374	--	--
	28-Apr-04	123.41	0.00	140,682	--	--
	7-May-04	129.89	1489.10	142,175	--	--
	13-May-04	123.56	0.00	142,913	--	--
	27-May-04	123.50	0.00	145,015	338	854
	3-Jun-04	126.78	1403.80	146,427	--	--
	8-Jul-04	123.58	0.00	151,757	--	--
	20-Jul-04	123.50	0.00	521,213	--	--
	6-Aug-04	123.58	0.00	522,877	700	1620
	17-Aug-04	123.64	0.00	524,952	--	--
	24-Aug-04	123.46	0.00	525,793	--	--
	30-Aug-04	123.48	0.00	527,041	--	--
	8-Sep-04	123.42	0.00	528,688	--	--
	13-Sep-04	123.49	0.00	529,509	--	--
	20-Sep-04	123.44	0.00	530,699	--	--
	21-Oct-04	123.88	0.00	535,744	--	--
	26-Oct-04	122.89	0.00	536,895	--	--
	12-Nov-04	129.90	1659.60	539,399	--	--
	5-Jan-05	122.78	0.00	550,929	--	--
	3-Mar-05	122.67	0.00	--	873	1710
	11-Apr-05	122.75	3365.2 *	575,588	--	--
	9-May-05	122.54	--	576,968	--	--
	27-Oct-05	--	--	--	298	844
	1-Nov-05	126.72	--	--	--	--
	25-Jan-06	123.78	--	--	--	--

Notes:

mg/L - Milligrams per liter

--: No data available

TOC-Top of casing

TDS - Total dissolved solids

* - pump not working, rate on manual setting

BOLD - concentration exceeded New Mexico WQCC standards

Table 2
Historical Groundwater Elevations
Buckeye Vacuum Field Unit
Lea County, NM

Monitoring Well ID	Date Gauged	TOC Elevation (ft.)	Depth To Water (ft.)	Water Elevation (ft.)	Monitoring Well ID	Date Gauged	TOC Elevation (ft.)	Depth To Water (ft.)	Water Elevation (ft.)
RW-2	05/15/03	3987.04		3987.04	TW-15	05/15/03	3984.14	123.50	3860.64
	11/18/03	3987.04		3987.04		11/19/03	3984.14	123.76	3860.38
	02/11/04	3987.04		3987.04		02/11/04	3984.14	123.34	3860.80
	05/28/04	3987.04	126.82	3860.22		05/27/04	3984.14	123.06	3861.08
	08/06/04	3987.04	126.81	3860.23		08/05/04	3984.14	123.07	3861.07
	03/03/05	3987.04	126.90	3860.14		03/03/05	3984.14	122.18	3861.96
	05/09/05	3987.04	125.84	3861.20		05/09/05	3984.14	122.13	3862.01
	11/01/05	3987.04		3987.04		11/01/05	3984.14	122.68	3861.46
	05/15/03	3984.18		3984.18	TW-17	05/15/03	3986.01	122.87	3863.14
RW-3	11/18/03	3984.18		3984.18		11/19/03	3986.01	125.64	3860.37
	02/11/04	3984.18		3984.18		02/11/04	3986.01	125.15	3860.86
	05/27/04	3984.18	123.50	3860.68		05/28/04	3986.01	124.89	3861.12
	08/06/04	3984.18	123.58	3860.60		08/05/04	3986.01	124.88	3861.13
	03/03/05	3984.18	122.67	3861.51		03/03/05	3986.01	124.06	3861.95
	05/09/05	3984.18	122.54	3861.64		05/09/05	3986.01	123.97	3862.04
	11/01/05	3984.18	126.72	3857.46		11/01/05	3986.01	124.50	3861.51
TW-9	05/15/03	3988.69	129.01	3859.68	TW-19	05/15/03	3985.70	121.80	3863.90
	11/18/03	3988.69	128.97	3859.72		11/19/03	3985.70	126.25	3859.45
	02/11/04	3988.69	128.62	3860.07		02/11/04	3985.70	125.31	3860.39
	05/27/04	3988.69	128.65	3860.04		05/27/04	3985.70	125.11	3860.59
	08/06/04	3988.69	128.64	3860.05		08/05/04	3985.70	125.14	3860.56
	03/03/05	3988.69	127.79	3860.90		03/03/05	3985.70	124.26	3861.44
	05/09/05	3988.69	128.67	3860.02		05/09/05	3985.70	124.02	3861.68
	11/01/05	3988.69	128.62	3860.07		11/01/05	3985.70	124.79	3860.91
TW-10	05/15/03	3987.87	127.99	3859.88	TW-20	05/15/03	3988.40	129.07	3859.33
	11/19/03	3987.87	128.11	3859.76		11/18/03	3988.40	128.93	3859.47
	02/11/04	3987.87	127.69	3860.18		02/11/04	3988.40	128.69	3859.71
	05/28/04	3987.87	127.66	3860.21		05/27/04	3988.40	128.69	3859.71
	08/06/04	3987.87	127.69	3860.18		08/06/04	3988.40	128.67	3859.73
	03/03/05	3987.87	126.80	3861.07		03/03/05	3988.40	127.79	3860.61
	05/09/05	3987.87	126.68	3861.19		05/09/05	3988.40	127.69	3860.71
	11/01/05	3987.87	127.54	3860.33		11/01/05	3988.40	128.74	3859.66
TW-11	05/15/03	3989.11	128.97	3860.14	TW-23	05/15/03	3984.58	124.42	3860.16
	11/19/03	3989.11	129.14	3859.97		11/19/03	3984.58	125.95	3858.63
	02/11/04	3989.11	128.67	3860.44		02/11/04	3984.58	124.16	3860.42
	05/28/04	3989.11	128.39	3860.72		05/27/04	3984.58	123.94	3860.64
	08/05/04	3989.11	128.42	3860.69		08/05/04	3984.58	124.03	3860.55
	03/03/05	3989.11	127.56	3861.55		03/03/05	3984.58	123.10	3861.48
	05/09/05	3989.11	127.41	3861.70		05/09/05	3984.58	122.98	3861.60
	11/01/05	3989.11	128.11	3861.00		11/01/05	3984.58	123.71	3860.87
TW-13	05/15/03	3988.73	128.85	3859.88					
	11/18/03	3988.73	128.89	3859.84					
	02/11/04	3988.73	128.67	3860.06					
	05/27/04	3988.73	128.67	3860.06					
	08/06/04	3988.73	128.66	3860.07					
	03/03/05	3988.73	127.74	3860.99					
	05/09/05	3988.73	127.68	3861.05					
	11/01/05	3988.73	128.43	3860.30					
TW-14	05/15/03	3986.77	126.78	3859.99					
	11/19/03	3986.77	127.28	3859.49					
	02/11/04	3986.77	127.32	3859.45					
	05/28/04	3986.77	126.44	3860.33					
	08/05/04	3986.77	126.48	3860.29					
	03/03/05	3986.77	125.55	3861.22					
	05/09/05	3986.77	125.43	3861.34					
	11/01/05	3986.77	126.24	3860.53					

Table 3
Chloride Data Trend Charts
Buckeye Vacuum Field Unit
Lea County, NM

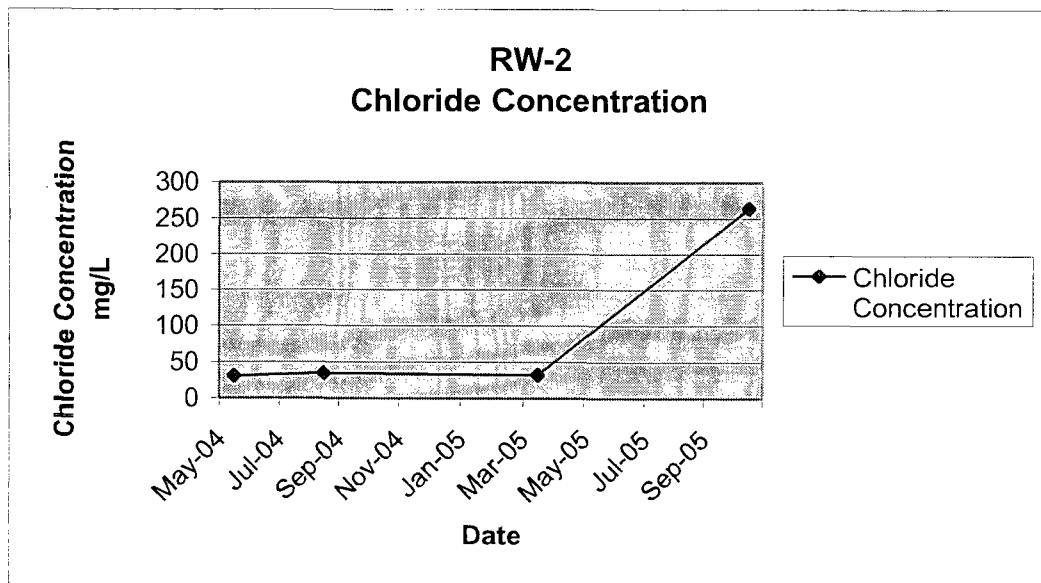
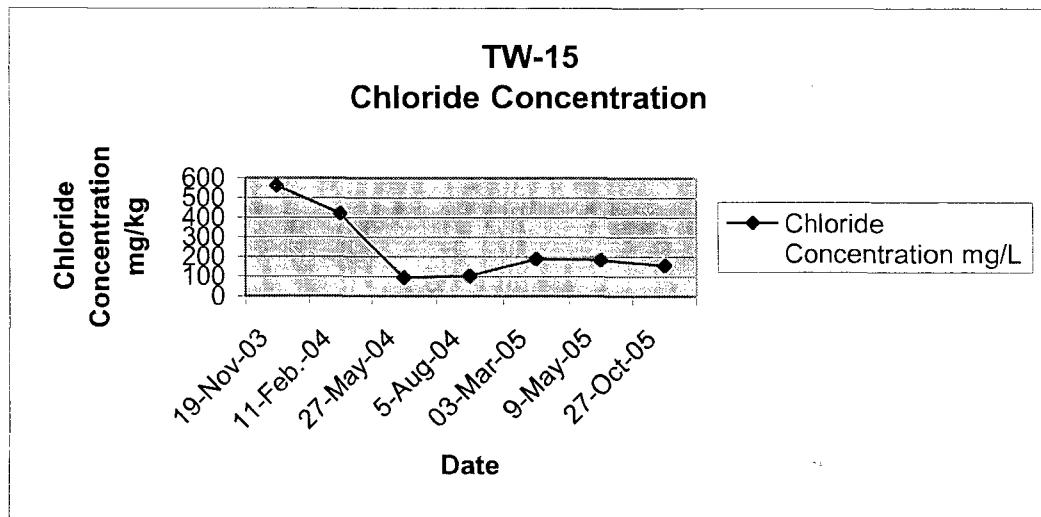
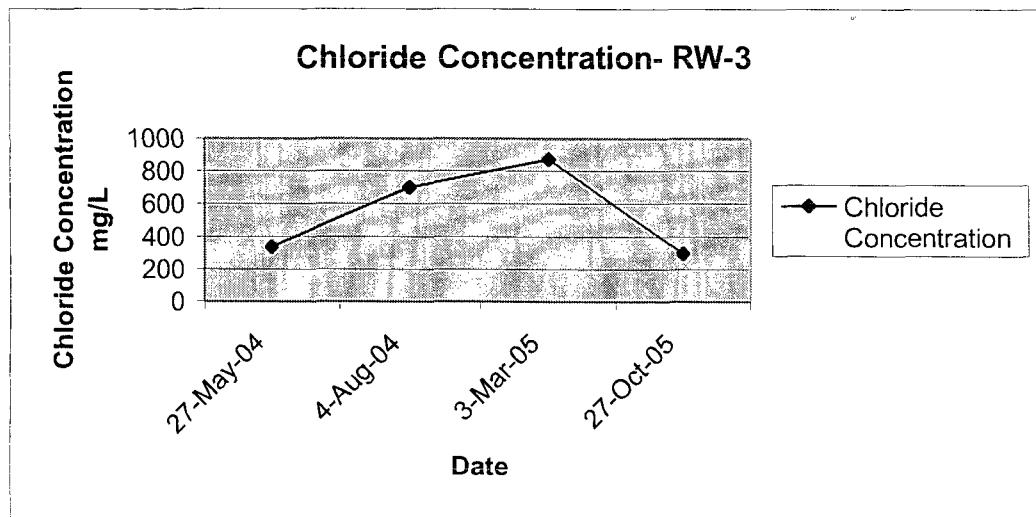
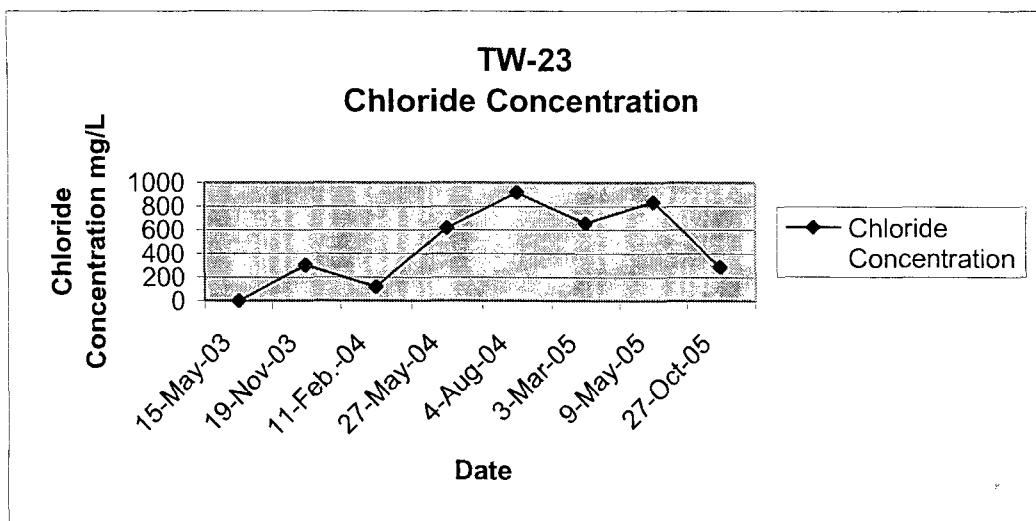


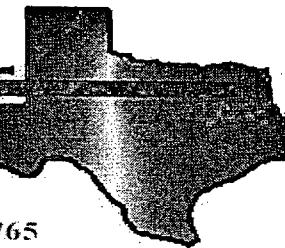
Table 3
Chloride Data Trend Charts
Buckeye Vacuum Field Unit
Lea County, NM



APPENDICES

Laboratory Analytical Data March 3, 2005
Laboratory Analytical Data May 11, 2005
Laboratory Analytical Data October 27, 2005

**ENVIRONMENTAL
LAB OF**



12600 West I-20 East - Odessa, Texas 79765

Analytical Report

Prepared for:

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Buckeye Chloride

Project Number: 2-0124

Location: None Given

Lab Order Number: 5C04009

Report Date: 03/10/05

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
03/10/05 14:56

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TW-13	5C04009-01	Water	03/03/05 11:35	03/04/05 08:05
TW-20	5C04009-02	Water	03/03/05 12:10	03/04/05 08:05
TW-9	5C04009-03	Water	03/03/05 12:35	03/04/05 08:05
TW-10	5C04009-04	Water	03/03/05 13:00	03/04/05 08:05
RW-2	5C04009-05	Water	03/03/05 13:43	03/04/05 08:05
TW-14	5C04009-06	Water	03/03/05 14:04	03/04/05 08:05
TW-11	5C04009-07	Water	03/03/05 14:26	03/04/05 08:05
TW-23	5C04009-08	Water	03/03/05 14:45	03/04/05 08:05
RW-3	5C04009-09	Water	03/03/05 14:48	03/04/05 08:05
DUP1	5C04009-10	Water	03/03/05 00:00	03/04/05 08:05
TW-19	5C04009-11	Water	03/03/05 15:32	03/04/05 08:05
TW-15	5C04009-12	Water	03/03/05 16:12	03/04/05 08:05
TW-17	5C04009-13	Water	03/03/05 16:44	03/04/05 08:05

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
03/10/05 14:56

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TW-13 (SC04009-01) Water									
Chloride	90.0	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	502	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-20 (SC04009-02) Water									
Chloride	25.3	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	232	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-9 (SC04009-03) Water									
Chloride	44.5	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	239	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-10 (SC04009-04) Water									
Chloride	33.0	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	226	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
RW-2 (SC04009-05) Water									
Chloride	32.4	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	244	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-14 (SC04009-06) Water									
Chloride	87.9	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	340	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-11 (SC04009-07) Water									
Chloride	28.4	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	174	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-23 (SC04009-08) Water									
Chloride	656	10.0	mg/L	20	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	1680	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
03/10/05 14:56

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
RW-3 (5C04009-09) Water									
Chloride	873	10.0	mg/L	20	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	1710	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
DUP1 (5C04009-10) Water									
Chloride	42.5	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	203	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-19 (5C04009-11) Water									
Chloride	54.2	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	224	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-15 (5C04009-12) Water									
Chloride	189	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	577	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	
TW-17 (5C04009-13) Water									
Chloride	178	2.50	mg/L	5	EC51006	03/08/05	03/08/05	EPA 300.0	
Total Dissolved Solids	565	5.00	"	1	EC50809	03/07/05	03/08/05	EPA 160.1	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
03/10/05 14:56

General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	---------	-----------	-------

Batch EC50809 - General Preparation (WetChem)

Blank (EC50809-BLK1)					Prepared: 03/07/05	Analyzed: 03/08/05				
Total Dissolved Solids	ND	5.00	mg/L							
Duplicate (EC50809-DUP1)		Source: 5C04009-01			Prepared: 03/07/05	Analyzed: 03/08/05				
Total Dissolved Solids	521	5.00	mg/L		502			3.71	20	

Batch EC51006 - General Preparation (WetChem)

Blank (EC51006-BLK1)					Prepared & Analyzed: 03/08/05					
Chloride	ND	0.500	mg/L							
LCS (EC51006-BS1)					Prepared & Analyzed: 03/08/05					
Chloride	9.56		mg/L	10.0		95.6	80-120			
Calibration Check (EC51006-CCV1)					Prepared & Analyzed: 03/08/05					
Chloride	10.3		mg/L	10.0		103	80-120			
Duplicate (EC51006-DUP1)		Source: 5C04009-01			Prepared & Analyzed: 03/08/05					
Chloride	89.0	2.50	mg/L		90.0			1.12	20	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
03/10/05 14:56

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K. Tuttle Date: 3-10-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

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If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

Page 5 of 5

Environmental Lab of Texas

12600 West 120 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

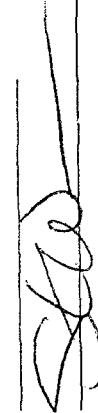
Project Manager: Cindy Crain

Company Name Larson & Assoc.

Company Address:

Telephone No:

Fax No:

Sampler Signature: 

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: Buckeye Chinkle

Project #: 2-0124

Project Loc:

PO #:

Telephone No:

Date Sampled

Fax No:

000800

FIELD CODE

No. of Containers *12*

Date Sampled

Time Sampled

Preservative	Matrix
Water	Other (Specify):
Soil	Sludge
None	None
H ₂ SO ₄	H ₂ SO ₄
NaOH	NaOH
HCl	HCl
HNO ₃	Ice
None	Other (Specify)

TCLP:	TOTAL:
BTEX 8021B/5030 or BTEX 8260	Volatile
Metals: As Ag Ba Cd Cr Pb Hg Se	Semi-volatile
Antimony (Sb), SO ₄ , CO ₃ , HCO ₃)	SAR / ESP / CEC
Cations (Ca, Mg, Na, K)	Others (Ca, Mg, Na, K)
TPH: 418.1 8015M 1005 1006	TPH: 418.1 8015M 1005 1006
Others (Ca, Mg, Na, K)	Others (Ca, Mg, Na, K)
Soil	Soil
Sludge	Sludge
Water	Water
None	None
H ₂ SO ₄	H ₂ SO ₄
NaOH	NaOH
HCl	HCl
HNO ₃	Ice
None	Other (Specify)

Analyze For:	
RCI	N.O.R.M.
705	705
CI	CI
FUSHTAT (Pre-Schedule)	
Standard TAT	

Special Instructions:

Relinquished by:	Date	Time	Received by:
<i>Steve Walker</i>	3/4/05	0805	

Relinquished by:	Date	Time	Relinquished by:	Date	Time
				3/4/05	08:05

Sample Containers Intact?
Temperature Upon Receipt:
Laboratory Comments: -2, 0 °C

250ml HDPE

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765

Phone: 432-563-1800
Fax: 432-563-1713

Project Manager: Cindy Crain

Company Name: Larson & Assoc

Company Address:

City/State/Zip:

Telephone No.:

Fax No.:

Sampler Signature:

Sheri

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Name: Buckeye Chloride

Project #: 2-0124

Project Loc:

PO #:

Analyze For:

		Analyze For:		Standard TAT		RUSH TAT (Pre-Schedule)	
TCLP:							
TOTAL:							
Metals: As Ag Ba Cd Cr Pb Hg Se							
SAR / ESP / CEC							
Abrasives (Cl, SO4, CO3, HCO3)							
Cations (Ca, Mg, Na, K)							
TPH: 418.1 8015M 1005 1006							
Other (Specify):							
Soil							
Sludge							
Water							
None							
H2SO4							
NaOH							
HCl							
HNO3							
Ice							
No. of Containers							
Date Sampled							
Time Sampled							
FIELD CODE							
-1	Twi 9	3/3/05	1532	1			
-2	Twi 5		1612	1			
-3	Twi 7		1644	1			

Sample Containers Intact?

Temperature Upon Receipt

Laboratory Comments: -2°C

250 ml HDPE

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
<i>[Signature]</i>	3/4/05	0805	<i>[Signature]</i>	3/4/05	0805

Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: Larson & Associates

Date/Time: 3/4/05 8:05

Order #: 5004009

Initials: CK

Sample Receipt Checklist

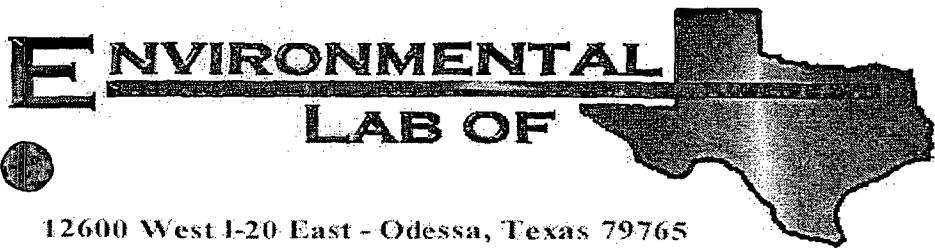
Temperature of container/cooler?	Yes	No	-2.0 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	Not present
Custody Seals intact on sample bottles?	Yes	No	Not present
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: _____ Date/Time: _____ Contacted by: _____
Regarding: _____

Corrective Action Taken:



Analytical Report

Prepared for:

Cindy Crain

Larson & Associates, Inc.

P.O. Box 50685

Midland, TX 79710

Project: Chev Tex/ Buckeye Chloride

Project Number: 2-0124

Location: None Given

Lab Order Number: 5E10007

Report Date: 05/11/05

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Chev Tex/ Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
05/11/05 11:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TW-9	5E10007-01	Water	05/09/05 11:35	05/10/05 08:00
TW-15	5E10007-02	Water	05/09/05 13:10	05/10/05 08:00
TW-23	5E10007-03	Water	05/09/05 13:46	05/10/05 08:00
DUP1	5E10007-04	Water	05/09/05 00:00	05/10/05 08:00

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Chev Tex/ Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
05/11/05 11:38

General Chemistry Parameters by EPA / Standard Methods
Environmental Lab of Texas

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TW-9 (SE10007-01) Water									
Chloride	53.7	2.50	mg/L	5	EE51107	05/10/05	05/10/05	EPA 300.0	
Total Dissolved Solids	378	5.00	"	1	EE51106	05/10/05	05/11/05	EPA 160.1	
TW-15 (SE10007-02) Water									
Chloride	184	2.50	mg/L	5	EE51107	05/10/05	05/10/05	EPA 300.0	
Total Dissolved Solids	711	5.00	"	1	EE51106	05/10/05	05/11/05	EPA 160.1	
TW-23 (SE10007-03) Water									
Chloride	835	25.0	mg/L	50	EE51107	05/10/05	05/10/05	EPA 300.0	
Total Dissolved Solids	2680	5.00	"	1	EE51106	05/10/05	05/11/05	EPA 160.1	
DUP1 (SE10007-04) Water									
Chloride	182	2.50	mg/L	5	EE51107	05/10/05	05/10/05	EPA 300.0	
Total Dissolved Solids	785	5.00	"	1	EE51106	05/10/05	05/11/05	EPA 160.1	

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Chev Tex/ Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
05/11/05 11:38

**General Chemistry Parameters by EPA / Standard Methods - Quality Control
Environmental Lab of Texas**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC Limits	RPD RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------------------	---------------	-------

Batch EE51106 - Filtration Preparation

Blank (EE51106-BLK1) Prepared: 05/10/05 Analyzed: 05/11/05

Total Dissolved Solids ND 5.00 mg/L

Duplicate (EE51106-DUP1) Source: 5E10007-01 Prepared: 05/10/05 Analyzed: 05/11/05

Total Dissolved Solids 434 5.00 mg/L 378 13.8 20

Batch EE51107 - General Preparation (WetChem)

Blank (EE51107-BLK1) Prepared & Analyzed: 05/10/05

Chloride ND 0.500 mg/L

LCS (EE51107-BS1) Prepared & Analyzed: 05/10/05

Chloride 10.1 mg/L 10.0 101 80-120

Calibration Check (EE51107-CCV1) Prepared & Analyzed: 05/10/05

Chloride 10.3 mg/L 10.0 103 80-120

Duplicate (EE51107-DUP1) Source: 5E10010-02 Prepared & Analyzed: 05/10/05

Chloride 367 2.50 mg/L 368 0.272 20

Larson & Associates, Inc.
P.O. Box 50685
Midland TX, 79710

Project: Chev Tex/ Buckeye Chloride
Project Number: 2-0124
Project Manager: Cindy Crain

Fax: (432) 687-0456
Reported:
05/11/05 11:38

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Raland K. Tuttle Date: 5-13-05

Raland K. Tuttle, Lab Manager
Celey D. Keene, Lab Director, Org. Tech Director
Peggy Allen, QA Officer

Jeanne Mc Murrey, Inorg. Tech Director
James L. Hawkins, Chemist/Geologist
Sandra Sanchez, Lab Tech.

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-563-1800.

Environmental Lab of Texas

The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Environmental Lab of Texas.

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Environmental Lab of Texas
Variance / Corrective Action Report – Sample Log-In

Client: LARSON

Date/Time: 5/10/05 9:00

Order #: SE10007

Initials: CR

Sample Receipt Checklist

Temperature of container/cooler?	Yes	No	5.5 C
Shipping container/cooler in good condition?	Yes	No	
Custody Seals intact on shipping container/cooler?	Yes	No	(Not present)
Custody Seals intact on sample bottles?	Yes	No	(Not present)
Chain of custody present?	Yes	No	
Sample Instructions complete on Chain of Custody?	Yes	No	
Chain of Custody signed when relinquished and received?	Yes	No	
Chain of custody agrees with sample label(s)	Yes	No	
Container labels legible and intact?	Yes	No	
Sample Matrix and properties same as on chain of custody?	Yes	No	
Samples in proper container/bottle?	Yes	No	
Samples properly preserved?	Yes	No	
Sample bottles intact?	Yes	No	
Preservations documented on Chain of Custody?	Yes	No	
Containers documented on Chain of Custody?	Yes	No	
Sufficient sample amount for indicated test?	Yes	No	
All samples received within sufficient hold time?	Yes	No	
VOC samples have zero headspace?	Yes	No	Not Applicable

Other observations:

Variance Documentation:

Contact Person: - _____ Date/Time: _____ Contacted by: _____
Regarding: _____

Corrective Action Taken:



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

SECOR International, Inc.
10235 West Little York Road
Houston TX 77040

713-937-7973

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 965292. Samples arrived at the laboratory on Saturday, October 29, 2005. The PO# for this group is UWPER-A5002-001 and the release number is BUCKEYE-SA.

<u>Client Description</u>	<u>Lancaster Labs Number</u>
TW-9 Grab Water Sample	4636133
TW-10 Grab Water Sample	4636134
TW-11 Grab Water Sample	4636135
TW-13 Grab Water Sample	4636136
TW-14 Grab Water Sample	4636137
TW-15 Grab Water Sample	4636138
TW-17 Grab Water Sample	4636139
TW-19 Grab Water Sample	4636140
TW-20 Grab Water Sample	4636141
TW-23 Grab Water Sample	4636142
RW-2 Grab Water Sample	4636143
RW-3 Grab Water Sample	4636144

ELECTRONIC
COPY TO

SECOR International, Inc.

Attn: Ronnie Kallus



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Questions? Contact your Client Services Representative
Wendy A Kozma at (717) 656-2300

Respectfully Submitted,

Robert Heisey
Robert Heisey
Senior Specialist



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636133

TW-9 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected: 10/27/2005 10:45 by RP

Account Number: 11842

Submitted: 10/29/2005 10:00

SECOR International, Inc.

Reported: 11/09/2005 at 10:41

10235 West Little York Road

Discard: 12/10/2005

Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Dilution Factor
			Result	Method Detection Limit	
00212	Total Dissolved Solids	n.a.	431.	9.7	mg/l
00224	Chloride	16887-00-6	89.9	30.0	mg/l

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	Total Dissolved Solids	EPA 160.1	1	11/02/2005 09:24	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	1	11/07/2005 14:49	Shannon L Phillips	100



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636134

TW10 Grab Water Sample
Buckeye Vacuum Semi - Annual GW Event

Collected: 10/27/2005 14:00 by RP

Account Number: 11842

Submitted: 10/29/2005 10:00

SECOR International, Inc.

Reported: 11/09/2005 at 10:41

10235 West Little York Road

Discard: 12/10/2005

Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Method Detection Limit	Units	Dilution Factor
			Result				
00212	Total Dissolved Solids	n. a.	372.		9.7	mg/l	1
00224	Chloride	16887-00-6	71.0		30.0	mg/l	100

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial #	Date and Time		
00212	Total Dissolved Solids	EPA 160.1	1	11/02/2005 09:24	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	1	11/07/2005 15:05	Shannon L Phillips	100



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636135

**TW11 Grab Water Sample
Buckeye Vacuum Semi - Annual GW Event**

Collected: 10/27/2005 15:25 by RP

Account Number: 11842

Submitted: 10/29/2005 10:00

SECOR International, Inc.

Reported: 11/09/2005 at 10:41

10235 West Little York Road

Discard: 12/10/2005

Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Method	Detection Limit	Units	Dilution Factor
			Result					
00212	Total Dissolved Solids	n.a.	260.		9.7		mg/l	1
00224	Chloride	16887-00-6	31.8		3.0		mg/l	10

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis		Analyst	Dilution Factor
			Trial #	Date and Time		
00212	Total Dissolved Solids	EPA 160.1	1	11/02/2005 09:24	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	1	11/08/2005 21:14	Shannon L Phillips	10



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636136

TW-13 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected: 10/26/2005 13:30 by RP

Account Number: 11842

Submitted: 10/29/2005 10:00

SECOR International, Inc.

Reported: 11/09/2005 at 10:41

10235 West Little York Road

Discard: 12/10/2005

Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Dilution Factor
			Result	Method Detection Limit	
00212	Total Dissolved Solids	n.a.	485.	9.7	mg/l
00224	Chloride	16887-00-6	75.1	30.0	mg/l

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	1	11/07/2005 15:37	Shannon L Phillips	100



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636137

TW-14 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected: 10/27/2005 14:40 by RP

Account Number: 11842

Submitted: 10/29/2005 10:00

SECOR International, Inc.

Reported: 11/09/2005 at 10:41

10235 West Little York Road

Discard: 12/10/2005

Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Dilution Factor
			Result	Method Detection Limit	
00212	Total Dissolved Solids	n.a.	419.	9.7	mg/l
00224	Chloride	16887-00-6	73.9	30.0	mg/l

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	Total Dissolved Solids	EPA 160.1	1	11/02/2005 09:24	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	1	11/07/2005 15:53	Shannon L Phillips	100



Analysis Report

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Lancaster Laboratories Sample No. WW 4636138

TW-15 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected: 10/27/2005 16:20 by RP Account Number: 11842

Submitted: 10/29/2005 10:00 SECOR International, Inc.
Reported: 11/09/2005 at 10:41 10235 West Little York Road
Discard: 12/10/2005 Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Dilution Factor
			Result	Method Detection Limit	
00212	Total Dissolved Solids	n.a.	569.	9.7	mg/l
00224	Chloride	16887-00-6	155.	30.0	mg/l

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	Total Dissolved Solids	EPA 160.1	1	11/02/2005 09:24	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	1	11/07/2005 16:42	Shannon L Phillips	100



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636139

TW-17 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected: 10/26/2005 17:05 by RP

Account Number: 11842

Submitted: 10/29/2005 10:00

SECOR International, Inc.

Reported: 11/09/2005 at 10:41

10235 West Little York Road

Discard: 12/10/2005

Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Dilution Factor
			Result	Method Detection Limit	
00212	Total Dissolved Solids	n.a.	362.	9.7	mg/l
00224	Chloride	16887-00-6	59.9	6.0	mg/l

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	2	11/08/2005 21:30	Shannon L Phillips	20



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636140

TW-19 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected: 10/27/2005 17:15 by RP

Account Number: 11842

Submitted: 10/29/2005 10:00

SECOR International, Inc.

Reported: 11/09/2005 at 10:41

10235 West Little York Road

Discard: 12/10/2005

Houston TX 77040

CAT No.	Analysis Name	CAS Number	As Received		Dilution Factor
			Result	Method Detection Limit	
00212	Total Dissolved Solids	n.a.	293.	9.7	mg/l
00224	Chloride	16887-00-6	39.0	3.0	mg/l

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	Total Dissolved Solids	EPA 160.1	1	11/02/2005 09:24	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	1	11/08/2005 21:46	Shannon L Phillips	10

Lancaster Laboratories Sample Nb. WW 4636141

TW20 Grab Water Sample
Buckeye Vacuum Semi - Annual GW Event

Collected: 10/26/2005 19:41 by RP Account Number: 11842

Submitted: 10/29/2005 10:00
Reported: 11/09/2005 at 10:41
Discard: 12/10/2005
SECOR International, Inc.
10235 West Little York Road
Houston TX 77040

CAT Nb.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
00212	Total Dissolved Solids	n.a.	351.	9.7	mg/l	1
00224	Chloride	16887-00-6	53.7	6.0	mg/l	20

Laboratory Chronicle

CAT Nb.	Analysis Name	Method	Trial	Date and Time	Analyst	Dilution Factor
00212	Total Dissolved Solids	EPA 160.1	1	11/01/2005 09:12	Anne L Kuenzli	1
00224	Chloride	EPA 300.0	2	11/08/2005 22:03	Shannon L Phillips	20



Analysis Report

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Page 1 of 1

Lancaster Laboratories Sample No. WW 4636142

TW-23 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

C	10 27 2005 18 00	A	N	11842
	10 29 2005 10 00	ECO	I	I
	11 09 2005 10 41	10235		
	12 10 2005	H	T	77040

CAT No.	Analysis Name	CAS Number	As Received		Dilution Factor
			Method	Result	
00212	T		1 460	38 8	1
00224	C	16887 00 6	284	30 0	100

C

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	T	E A 160 1	1	11 03 2005 10 31	A	1
00224	C	E A 300 0	1	11 07 2005 17 46		100



Analysis Report

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Page 1 o 1

Lancaster Laboratories Sample No. WW 4636143

RW-2 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected 10 7 00 1 0 by R

Account Number 11 4

Submitted 10 9 00 10 00
Reported 11 09 00 at 10 41
Discard 1 10 00

S C R nternational nc.
10 West Little ork Road
ouston T 77040

CAT No.	Analysis Name	CAS Number	As Received			Dilution Factor
			Result	Method	Detection Limit	
00 1	Total Dissolved Solids	n.a.	600.		19.4	m l
00 4	Chloride	16 7-00-6	64.		0.0	m l

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00 1	Total Dissolved Solids	A 160.1	1	11 0 00 10 1	Anne L uen li	1
00 4	Chloride	A 00.0	1	11 07 00 1 0	Shannon L hillips	100



Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Lancaster Laboratories Sample No. WW 4636144

RW-3 Grab Water Sample
Buckeye Vacuum Semi-Annual GW Event

Collected 10 27 2005 by R

Account Number 11 42

Submitted 10 2 2005 10 00
Reported 11 0 2005 at 10 42
Discard 12 10 2005

S C R nternational nc.
102 5 West Little ork Road
ouston T 77040

CAT No.	Analysis Name	CAS Number	As Received		Method Detection Limit	Units	Dilution Factor
			Result				
00212	Total Dissolved Solids	n.a.	44.		.	m l	1
00224	Chloride	16 7-00-6	2	.	0.0	m l	100

Laboratory Chronicle

CAT No.	Analysis Name	Method	Analysis			Dilution Factor
			Trial#	Date and Time	Analyst	
00212	Total Dissolved Solids	A 160.1	1	11 0 2005 10 1	Anne L uen li	1
00224	Chloride	A 00.0	1	11 07 2005 1 1	Shannon L hillips	100

Quality Control Summary

 Client Name S C R nternational nc.
 Reported 11 0 05 at 10 4 AM

Group Number 65

Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number 053050 1 01A Total Dissolved Solids	Sample number s N.D.		4636136 m 1	4636131 106	4636141		0-1 0	
Batch number 053060 1 01A Total Dissolved Solids	Sample number s N.D.		4636133-4636135 m 1	4636137-463613 104	4636140		0-1 0	
Batch number 053070 1 01A Total Dissolved Solids	Sample number s N.D.		463614 -4636144 m 1				0-1 0	
Batch number 05311401101A Chloride	Sample number s N.D.		4636133-4636141 0.30	m 1	7		0-110	
Batch number 05311401101B Chloride	Sample number s N.D.		463614 -4636144 0.30	m 1	7		0-110	

Sample Matrix Quality Control

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number 053050 1 01A Total Dissolved Solids	Sample number s 7	7	4636136 60-140	4636131 0	4636141 5	40.	.		5
Batch number 053060 1 01A Total Dissolved Solids	Sample number s 103	100	4636133-4636135 60-140	4636137-463613 5	4636140 3 7 0.	3 750.	1		5
Batch number 053070 1 01A Total Dissolved Solids	Sample number s 100	100	463614 -4636144 60-140	0	4636144 5	1 5 0.	1 560.		5
Batch number 05311401101A Chloride	Sample number s 101		4636133-4636141 0-110		166.	165.	1		3
Batch number 05311401101B Chloride	Sample number s 101		463614 -4636144 0-110		10.	.5	7 1		3

Analysis Request / Environmental Services Chain of Custody



Lancaster Laboratories Acct. # 11842 Group# 965292 Sample # 463613344 COC # 0100530

For Lancaster Laboratories use only

Please print. Instructions on reverse side correspond with circled numbers.

① Client: <u>SECOI</u>	Acct. #: _____	Acct. #: _____	PWSID #: _____	④	⑤	For Lab Use Only FSC: SCR #: <u>1208235</u>
Project Name#: <u>Buckeye Vacuum</u>	Project Manager: <u>Ronnie Kallas</u>	P.O.#: _____	Quote #: _____	⑥		
Sampler: <u>Bob Person</u>	Name of state where samples were collected: <u>PA</u>				Remarks	
②					③	
TW-9	10/27/05	1045	X	X	X	X
TW-10	10/27/05	1400	X	X	X	X
TW-11	10/27/05	1525	X	X	X	X
TW-13	10/26/05	1330	X	X	X	X
TW-14	10/27/05	1440	X	X	X	X
TW-15	10/27/05	1620	X	X	X	X
TW-17	10/26/05	1705	X	X	X	X
TW-19	10/27/05	1715	X	X	X	X
TW-20	10/26/05	1941	X	X	X	X
⑦ Turnaround Time Requested (TAT) (please circle): <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Rush (Rush TAT is subject to Lancaster Laboratories approval and surcharge.) Date results are needed: _____					Relinquished by: <u>Bob Person</u>	Date <u>10-29-05</u> Time <u>1421</u> Received by: <u>Bob Person</u>
Rush results requested by (please circle): Phone <u>713-937-7973</u> Fax # <u>713-983-8328</u> E-mail address: <u>r.kallas@secor.com</u>					Relinquished by: <u>Bob Person</u>	Date <u>10-28-05</u> Time <u>0200</u> Received by: <u>Bob Person</u>
⑧ Data Package Options (please circle if required)					SDG Complete?	
QC Summary	Type VI (Raw Data)	Yes	No	Relinquished by:		
Type I (Tier I)	GLP	Site-specific QC required? Yes	No	Date _____ Time _____ Received by: _____		
Type II (Tier II)	Other	(If yes, indicate QC sample and submit triplicate volume.)		Date _____ Time _____ Received by: _____		
Type III (NJ Red. Del.)	Internal Chain of Custody required? Yes	No	Date _____ Time _____ Received by: _____			Date _____ Time _____ Received by: _____
Type IV (CLP)						

Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17605-2425 (717) 656-2300
Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

Analysis Request / Environmental Services Chain of Custody



Lancaster Laboratories
Where quality is a science.

Lancaster Lab
where creativity is a science

For Lancaster Laboratories use only
p# 965292 Sample # 51

COC # 0100531

For Lancaster Laboratories use only
Acct. # 11342 Group# 965292 Sample # 41636133-44

Saints who have been canonized with elevated numbers

Explanation of Symbols and Abbreviations

none detected	P	Below Minimum Quantitation Level
Too Numerous To Count	P	Most Probable Number
International Units	P	cobalt-chloroplatinate units
micromhos/cm	P	nephelometric turbidity units
degrees Celsius	P	degrees Fahrenheit
milliequivalents	P	pound(s)
gram(s)	P	kilogram(s)
microgram(s)	P	milligram(s)
milliliter(s)	P	liter(s)
cubic meter(s)	P	microliter(s)

less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

greater than

estimated value – The result is \geq the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).

parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

parts per billion

e g Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

ga a fe

TIC is a possible aldol-condensation product
 Analyte was also detected in the blank
 Pesticide result confirmed by GC/MS
 Compound quantitated on a diluted sample
 Concentration exceeds the calibration range of the instrument
 Presumptive evidence of a compound (TICs only)

P Concentration difference between primary and confirmation columns $>25\%$
 Compound was not detected
 Defined in case narrative

o ga a fe

Value is $<$ CRDL, but \geq IDL
 Estimated due to interference
 Duplicate injection precision not met
 Spike sample not within control limits
 Method of standard additions (MSA) used for calculation
 Compound was not detected
 Post digestion spike out of control limits
 Duplicate analysis not within control limits
 Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

- In accepting analytical work, we warrant the accuracy of test results for the sample as submitted.

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