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June 9, 2009

Mr. Glenn Von Gonton
Environmental Bureau
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: 2007 and 2008 Annual Groundwater Monitoring Report
JHHC, Will Cary #5 Emergency Pit – 1RP0465
Lea County, New Mexico

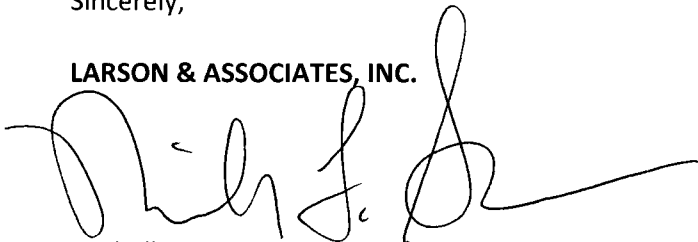
Dear Mr. Von Gonton:

The enclosed report is submitted to the New Mexico Oil Conservation Division on behalf of John H. Hendrix Corporation (JHHC) to present the results of groundwater monitoring performed at the Will Cary #5 for the 2007 and 2008 calendar years.

If you have any questions or concerns, please call me at 432.687.0901 to discuss.

Sincerely,

LARSON & ASSOCIATES, INC.



Michelle L. Green
Environmental Scientist
michelle@laenvironmental.com

Attachments 2007 and 2008 Annual Groundwater Monitoring Report

CC Mr. Ron Westbrook, JHHC
Mrs. Carolyn Haynes, JHHC
Mr. Larry Johnson, OCD Hobbs Office

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2009 JUN 11 AM 11 15

2007 and 2008 Annual Report

Will Cary #5 Emergency Pit

1RP0465

Lea County, New Mexico

Project No. 4-0123

June 9, 2009

Prepared for:

John H. Hendrix Corporation
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Prepared by:

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June 9, 2009

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1.0 Executive Summary

This report presents the 2007 and 2008 results for groundwater investigation and monitoring at the John H. Hendrix Corporation (JHHC) Will Cary #5 Lease located in Unit F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East, Eunice, Lea County, New Mexico (Site or Property, Figure 1).

The following groundwater investigation activities were conducted during the past two years:

- Groundwater Gauging and Sampling Event on March 7, 2007
- Groundwater Gauging and Sampling Event on August 15, 2007
- Groundwater Gauging Event on March 11, 2008
- Groundwater Gauging and Sampling Event on April 7-8, 2008
- Groundwater Gauging Event on July 1, 2008
- Groundwater Gauging and Sampling Event on September 4-5, 2008
- Groundwater Sampling Event for MW-1 on February 12, 2009

The following observations are documented in this report:

- Groundwater flow direction remains consistent towards the southeast
- Chloride or TDS values exceeding the WQCC domestic water quality standards were observed monitor wells MW-1 and MW-3
- The highest chloride and TDS values were observed in MW-1
- Chloride concentrations in MW-1 decreased approximately 30% between November 15, 2005 (12,100 mg/l) to February 12, 2009 (8,600 mg/l)
- Pump recovery from MW-1 has yielded approximately 638 gallons of water

Based on the monitoring results, Larson & Associates, Inc. (LAI) recommends the following investigation activities for 2009. Additional activities will be guided by the results of these recommendations. JHHC will continue monitoring groundwater semi-annually with the following proposed change:

- Collecting samples semi-annually for anions and TDS laboratory analysis from monitor wells – MW-1, MW-2, MW-3, MW-4, and MW-5
- Gauging all site monitor wells semi-annually
- Continue groundwater pump recovery from MW-1
- Reduce analyses to the chemical contaminants of interest; chlorides and TDS

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2.0 Investigation Chronology

The following events have been documented in connection with the 1RP0465 investigation.

July 6, 2004	New Mexico Oil Conservation Division (OCD) inspects the Will Cary lease. An open unlined pit was discovered during the routine inspection.
July 8, 2004	OCD issues a Notice of Violation (NOV) that required pit closure under the existing OCD rules.
January 20, 2005	Larson & Associates, Inc. (LAI) collected soil samples from five borings (BH-1 through BH-5) to assess extent of impact to vadose zone.
February 21, 2005	LAI compiles soil analytical results and submits <i>Investigation Report and Remediation Plan for Unlined Surface Impoundment</i> to the OCD.
April 2005	JHHC hauled approximately 1600 cubic yards of soil from the site its centralized surface waste management facility (NM-0021).
August 4, 2005	OCD granted verbal approval to fill the excavation, but required the installation of a clay barrier near the top of the excavation along with a monitor well near the southeast corner of the excavation.
September 15, 2005	MW-1 installed approximately 20 feet southeast of the excavation.
September 20, 2005	Initial investigation conducted. Chloride, Sulfate and TDS constituents were identified in MW-1 above WQCC domestic water quality standards.
September 28, 2005	LAI submits <i>Closure Report for Unlined Pit Excavation and Results of Groundwater Sample Analysis</i> , to OCD.
October 25, 2005	OCD approves requests to install an upgradient (northwest) groundwater monitoring well.
November 8, 2005	MW-2 installed approximately 450 feet northwest of the site.
November 11, 2005	Groundwater monitoring event conducted. Chloride, Sulfate and TDS constituents were identified in MW-1 above WQCC domestic water quality standards.
December 6, 2005	Work plan submitted to the OCD concerning groundwater contamination.
January 25, 2006	OCD approves work plan and requires a final investigation report to be submitted no later than 60 days after completing fieldwork.
January 2006	OCD verbally approved an extension to complete two groundwater sampling events with submittal of final investigation report to be submitted in January 2007.
January 2006	Aerial photographs dated February 2, 1949, April 28, 1954, February 4, 1968, August 1973, March 29, 1977, June 3, 1983, July 19, 1986 and January 1, 1991 were reviewed. Photographs did not reveal any other sources for the Chloride and TDS in the immediate vicinity.
February 1-2, 2006	Electromagnetic conductivity (EM) surveying activities commence.
February 23-24, 2006	MW-3 (northeast), MW-4 (southwest), and MW-5 (southeast) installed.
April 11, 2006	Groundwater monitoring event conducted. Chloride, Sulfate and TDS constituents were identified in MW-1 and MW-3.
April 13, 2006	Groundwater gauging event performed.
December 13, 2006	Groundwater gauging event performed.
December 14, 2006	Groundwater monitoring event conducted. Chloride, Sulfate and TDS constituents were identified in MW-1 and MW-3.

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December 2006	Attempted in-situ horizontal hydraulic conductivity (slug) test. Limited saturated thickness of the Ogallala formation prevented data collection.
January 31, 2007	<i>Groundwater Investigation Report for Will Cary Unlined Pit</i> submitted to OCD.
March 7, 2007	Groundwater monitoring event conducted. Chloride and TDS constituents were identified in MW-1 and MW-3.
August 20, 2007	Groundwater monitoring event conducted. Chloride and TDS constituents were identified in MW-1 and MW-3.
October 5, 2007	LAI performs pump test on MW-1. Determined that well could be continuously pumped at a rate of 80 mL/minute.
November 11, 2007	Installed 3,000 gallon poly tank next to MW-1.
December 13, 2007	Installed solar powered Xitech pump system.
January 3, 2008	Installed fence around remediation system, poly tank, and berm.
April 7, 2008	Groundwater gauging event performed.
April 8, 2008	Groundwater monitoring event conducted. Chloride and TDS constituents were identified in MW-1 and MW-3.
July 1, 2008	Xitech pump malfunctioned. JHHC decided to switch air supply to cylinder.
September 4-5, 2008	Groundwater gauging event performed. Groundwater monitoring event conducted. Chloride and TDS constituents were identified in MW-1 and MW-3.
February 12, 2009	Groundwater monitoring event conducted by Roseanne Johnson on behalf of JHHC. Chloride constituent was identified in MW-1.

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3.0 Vicinity Characteristics

3.1 Topography

The elevation of the Site is approximately 3,300 feet above mean sea level as shown on the Eunice, New Mexico (1969) USGS 7.5-Minute Quadrangle Maps. The topographic region is nearly flat with a slight southerly slope. A current topographic map is included as Figure 1.

3.2 Geology

The *Geologic Map of New Mexico* (2003) and the *Geologic Atlas of Texas, Hobbs Sheet* indicate the vicinity's surface geology is comprised of Holocene to mid-Pleistocene age interlaid eolian and piedmont-slope deposits. This material covers the eastern flank of the Pecos River valley. These surficial deposits are primarily derived from reworking the underlying Tertiary-aged Ogallala Formation of the Southern High Plains, which are also comprised of alluvial and eolian deposits with petrocalcic soils. The Ogallala Formation is comprised of fluviatile sand, silt, clay and localized gravel, with indistinct to massive crossbeds. The Ogallala sand is generally fine- to medium-grained quartz.

Monitor well boring logs indicate a general lithology of laterally continuous shale across the site and occurs approximately between 76 to 86 feet below ground surface (bgs). The shale is overlain by the Tertiary-age Ogallala formation that consists of yellowish-red and reddish-yellow sand and silty sand. An unconsolidated veneer of eolian sand of approximately 15-foot thickness of carbonate-indurated sand (caliche) was observed at each location and is laterally continuous across the site. No vertical barriers (i.e., clay, shale, etc.) were observed in the borings, except in the Triassic-age shale, Chinle Formation, that is the lower confining unit for the Tertiary-age Ogallala formation.

3.3 Groundwater Occurrence

Regional direction for groundwater flow is towards the southeast. The *Office of the State Engineer Southeast New Mexico Water Level Data* does not identify any water well within the Section. Water levels observed at the facility have varied between 68.35 (MW-4, December 13, 2006) and 73.47 (MW-2, March 11, 2008) feet bgs during the life of this investigation.

3.4 Surface Water Occurrence

There are no streams, springs, or ponds on the facility, or within three miles of the site.

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4.0 Groundwater Monitoring Results

During the semi-annual groundwater monitoring events, all five monitor wells associated with this investigation were gauged and sampled as conditions allowed (Figure 2).

All monitoring data has been mapped using Surfer® version 8 surface contouring and mapping software. Data was reduced using the Kriging geostatistical gridding methodology. Kriging uses a linear least squares estimation algorithm that attempts to model trends suggested by the data.

4.1 Site-Specific Groundwater Hydrology

Table 1 presents a summary of the depth to groundwater measurements. No light-nonaqueous phase liquids (LNAPL) were observed in the established monitor wells during the 2007 and 2008 monitoring events. Table 1 summarizes groundwater gauging data.

4.1.1 March 2007 Event

Groundwater potentiometric surface stood between 3,296.85 feet (MW-2) and 3,293.64 feet (MW-5) elevation using WGS 84 datum reference.

Groundwater flow direction is towards the southeast, consistent with previously-reported groundwater flow direction. Groundwater gradient was calculated using monitor well pair (MW-2 and MW-5); the results of this pair indicate an estimated gradient of 0.00363 feet per foot (ft/ft).

Figure 3 is a Surfer®-generated plot of the observed groundwater gradient for the March 2007 monitoring event.

4.1.2 August 2007 Event

Groundwater potentiometric surface stood between 3,296.84 feet (MW-2) and 3,293.73 feet (MW-5) elevation using WGS 84 datum reference.

Groundwater flow direction is towards the southeast, consistent with the previous groundwater monitoring event. Groundwater gradient was calculated using the same monitor well pair as the March 2007 event (MW-2 and MW-5); the results of this pair indicate an estimated gradient of 0.00365 ft/ft.

Figure 4 is a Surfer®-generated plot of the observed groundwater gradient for the August 2007 monitoring event.

4.1.3 April 2008 Event

Groundwater potentiometric surface stood between 3,296.89 feet (MW-2) and 3,293.71 feet (MW-5) elevation using WGS 84 datum reference.

Groundwater flow direction is towards the southeast, consistent with the previous groundwater monitoring event. Groundwater gradient was calculated using the same monitor well pair as the March 2007 event (MW-2 and MW-5); the results of this pair indicate an estimated gradient of 0.00374 ft/ft.

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Figure 5 is a Surfer®-generated plot of the observed groundwater gradient for the April 2008 monitoring event.

4.1.4 September 2008 Event

Groundwater potentiometric surface stood between 3,296.82 feet (MW-2) and 3,293.62 feet (MW-5) elevation using WGS 84 datum reference.

Groundwater flow direction is towards the southeast, consistent with the previous groundwater monitoring event. Groundwater gradient was calculated using the same monitor well pairs as the March 2007 event (MW-2 to MW-5). The results of this pair indicate an estimated gradient of 0.00376 ft/ft.

Figure 6 is a Surfer®-generated plot of the observed groundwater gradient for the September 2008 monitoring event.

4.2 Groundwater Chemistry

Groundwater samples were collected from monitor wells after approximately three casing volumes of groundwater were removed from each well and the wells had sufficiently recovered. Purging and sampling was accomplished with either a stainless steel environmental pump with backflow preventer and polyethylene tubing, or for lower-volume wells, using dedicated disposable polyethylene bailers. Purge pumps were cleaned internally and externally with Alconox® and flushed with commercially available distilled water before the event and between wells.

Sample aliquots were collected in laboratory prepared containers, individually labeled, and placed into an ice-chilled chest. Lone Star Overnight courier services delivered the samples under custody seal and chain-of-custody control to DHL Analytical, Inc. (DHL), a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory in Round Rock, Texas. All samples were received intact and below the NELAP-required temperature parameter.

DHL was contracted to analyze the samples for benzene, toluene, ethylbenzene, and total xylenes (BTEX), dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, calcium, magnesium, potassium and sodium), anions (chloride, sulfate) and water quality parameters alkalinity, and total dissolved solids (TDS). Duplicate samples for a quality control (QC) check were submitted as blind samples to DHL. The duplicates were collected from MW-1 or MW-3 during the 2007 and 2008 sampling events, respectively. Laboratory analytical results are discussed in the following sections. Appendix A contains a CD-ROM of the laboratory analytical reports.

4.2.1 BTEX Analytical Results

Samples for the BTEX petroleum-compounds were submitted for analyses using EPA SW846 method 8021B. All samples for the 2007 and 2008 sampling events were below detection for the BTEX constituents. Table 2 presents a cumulative summary of the BTEX analyses.

Comparisons of the primary and duplicate samples indicate a deviation of 0.0%. No data quality exceptions were noted in the DHL case narratives.

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4.2.2 Dissolved Metal Analytical Results

Samples for metal analytes were submitted for analyses using EPA SW846 methods 6020 (arsenic, barium, cadmium, chromium, lead, selenium, silver, calcium, magnesium, potassium and sodium) and 7470A (mercury). All samples were laboratory-filtered to exclude particles larger than 0.45 μ and acidified with nitric acid within 24 hours of collection.

With the exception of selenium in MW-5 (downgradient), no metals were observed above WQCC human health concentrations on March 7, 2007. Table 3 presents a cumulative summary of the dissolved metals analyses.

March 2007 Selenium Results

Analytical data indicates selenium concentrations in excess of the 0.05 mg/l WQCC human health standard was observed in the downgradient MW-05 (0.0773 mg/l) only. Selenium is not associated with the unlined pit since no concentrations for MW-1 exceeded the regulatory limit.

Data quality exceptions noted in the DHL case narratives were validated, and did not adversely affect the data.

4.2.3 Water Chemistry Analytical Results

Water chemistry samples were analyzed for alkalinity (Standard Method M2320B), chloride and sulfate anions (Standard Method E300), and total dissolved solids (Standard Methods M2540C). Chloride or TDS values exceeding WQCC values were observed in monitor wells MW-1 and MW-3. The chloride and TDS in MW-3 is not associated with the unlined pit since this well is located cross-gradient. Table 4 presents a summary of water chemistry analytical results.

March 2007 Results

Chlorides – Analytical data indicates the following samples exhibited chloride concentrations in excess of the 250 mg/l WQCC domestic water supply standard in the following samples:

- MW-1 (10,900 mg/l)

TDS – Analytical data indicates the following samples exhibited TDS concentrations in excess of the 1,000 mg/l WQCC domestic water supply standard in the following samples:

- MW-1 (18,000 mg/l)
- MW-3 (1,260 mg/l)

No data quality exceptions were noted in the DHL case narratives.

Figures 7 and 11 are Surfer®-generated plots of observed chloride and TDS concentration for the March 2007 monitoring event.

August 2007 Results

Chlorides – Analytical data indicates the following samples exhibited chloride concentrations in excess of the 250 mg/l WQCC domestic water supply standard in the following samples:

- MW-1 (9,950 mg/l)
- MW-3 (269 mg/l)

TDS – Analytical data indicates the following samples exhibited TDS concentrations in excess of the 1,000 mg/l WQCC domestic water supply standard in the following samples:

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- MW-1 (18,300 mg/l)
- MW-3 (1,290 mg/l)

No data quality exceptions were noted in the DHL case narratives.

Figures 8 and 12 are Surfer®-generated plots of observed chloride and TDS concentration for the August 2007 monitoring event.

April 2008 Results

Chlorides – Analytical data indicates the following samples exhibited chloride concentrations in excess of the 250 mg/l WQCC domestic water supply standard in the following samples:

- MW-1 (9,710 mg/l)
- MW-3 (259 mg/l)

TDS – Analytical data indicates the following samples exhibited TDS concentrations in excess of the 1,000 mg/l WQCC domestic water supply standard in the following samples:

- MW-1 (16,900 mg/l)
- MW-3 (1,260 mg/l)

No data quality exceptions were noted in the DHL case narratives.

Figures 9 and 13 are Surfer®-generated plots of observed chloride and TDS concentration for the April 2008 monitoring event.

September 2008 Results

Chlorides – Analytical data indicates the following samples exhibited chloride concentrations in excess of the 250 mg/l WQCC domestic water supply standard in the following samples:

- MW-1 (9,460 mg/l)

TDS – Analytical data indicates the following samples exhibited TDS concentrations in excess of the 1,000 mg/l WQCC domestic water supply standard in the following samples:

- MW-1 (15,800 mg/l)
- MW-3 (1,080 mg/l)

No data quality exceptions were noted in the DHL case narratives.

Figures 10 and 14 are Surfer®-generated plots of observed chloride and TDS concentration for the September 2008 monitoring event.

February 2009 Results

Chlorides – Analytical data indicates the following samples exhibited chloride concentrations in excess of the 250 mg/l WQCC domestic water supply standard in the following sample:

- MW-1 (8,600 mg/l)

No data quality exceptions were noted in the Cardinal Laboratory report.

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5.0 Other Investigation Activities

In 2008 the following proposals and recommendations were made:

- Perform a pump down test on MW-1
- Determined that well could be continuously pumped at a rate of 80 mL/minute
- Install a recovery pump on MW-1

These proposed activities have been completed:

- Installation of Xitech solar recovery powered pump on MW-1

5.1 *Scheduled Activities*

The following activities are scheduled for completion during 2009:

- Gauging all site monitor wells semi-annually
- Collecting samples for Chloride and TDS laboratory analysis from monitor wells – MW-1, MW-2, MW-3, MW-4, and MW-5
- Continue pump recovery from MW-1

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6.0 Conclusions Based Upon Current Investigation Data

The following observations are documented in this report:

- Groundwater flow direction remains consistent towards the southeast
- Chloride or TDS values exceeding the WQCC domestic water supply standards were observed monitor wells MW-1 and MW-3
- The highest chloride and TDS values were observed in MW-1
- Chloride concentrations in MW-1 decreased approximately 30% between November 15, 2005 (12,100 mg/l) to February 12, 2009 (8,600 mg/l)
- Pump recovery from MW-1 has yielded approximately 638 gallons of water

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7.0 Proposed Remedial Investigation Actions for 2009

JHHC will continue monitoring groundwater semi-annually. Notice will be given to the OCD at least 48-hours prior to each sampling event and results will be reported to the OCD in an annual report to be submitted during the first half of 2010. Any significant changes in groundwater quality will be reported to the OCD as soon as possible. LAI proposes the following actions and changes for the upcoming events:

- Gauging all site monitor wells semi-annually
- Continue groundwater pump recovery from MW-1
- Collecting samples for anions and TDS laboratory analysis from monitor wells
- Reduce analyses to the chemical contaminants of interest; chlorides and TDS.

Table 1
Summary of Monitoring Well Drilling and Completion Details
John H. Hendrix Corporation, Will Cary #5 Emergency Pit
Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
Lea County, New Mexico

Well Information										Groundwater Data				
Well Number	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Product	Depth to Water	Corrected Water Elevation		
MW-1	09/13/05	90.00	92.14	2	3365.39	68.81 - 89.59	2.74	3368.13	4/13/2006	--	72.24	3295.89		
									12/13/2006	--	72.29	3295.84		
									3/7/2007	--	72.27	3295.86		
									8/15/2007	--	72.28	3295.85		
									3/11/2008	--	72.38	3295.75		
MW-2	11/08/05	82.40	83.35	2	3367.31	65.41 - 79.72	2.94	3370.25	4/8/2008	--	72.92	3295.21		
									7/1/2008	--	72.64	3295.49		
									9/4/2008	--	72.91	3295.22		
									4/13/2006	--	73.45	3296.8		
									12/13/2006	--	73.46	3296.79		
MW-3	02/23/06	80.00	80.48	2	3365.20	68.64 - 78.00	1.73	3366.93	3/7/2007	--	73.40	3296.85		
									8/15/2007	--	73.41	3296.84		
									3/11/2008	--	73.47	3296.78		
									4/7/2008	--	73.36	3296.89		
									7/1/2008	--	73.40	3296.85		
									9/4/2008	--	73.43	3296.82		
									4/13/2006	--	70.39	3296.54		
									12/13/2006	--	70.46	3296.47		
									3/7/2007	--	70.50	3296.43		
									8/15/2007	--	70.53	3296.40		
									3/11/2008	--	70.63	3296.30		
									4/7/2008	--	70.55	3296.38		
									7/1/2008	--	70.59	3296.34		
									9/4/2008	--	70.59	3296.34		

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Summary of Monitoring Well Drilling and Completion Details
John H. Hendrix Corporation, Will Cary #5 Emergency Pit
Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
Lea County, New Mexico

Groundwater Data												
Well Information												
Well Number	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Product	Depth to Water	Corrected Water Elevation
MW-4	02/23/06	80.00	80.48	2	3363.70	68.94 - 78.38	1.76	3365.46	4/13/2006	--	69.83	3295.63
									12/13/2006	--	69.82	3295.64
									3/7/2007	--	69.82	3295.64
									8/15/2007	--	69.77	3295.69
									3/11/2008	--	69.83	3295.63
									4/7/2008	--	69.73	3295.73
									7/1/2008	--	69.78	3295.68
									9/4/2008	--	69.79	3295.67
									4/13/2006	--	71.01	3293.50
									12/13/2006	--	68.35	3296.16
									3/7/2007	--	70.75	3293.76
									8/15/2007	--	70.78	3293.73
									3/11/2008	--	70.87	3293.64
									4/7/2008	--	70.80	3293.71
									7/1/2008	--	70.83	3293.68
									9/4/2008	--	70.89	3293.62

Notes

bgs - below ground surface

TOC - top of casing

Elevations are above mean sea level (3365) referenced to 1984 Geodetic Datum.

Wells drilled and constructed by Scarborough Drilling, Inc., Lamesa, Texas, Schedule 40 screw-threaded PVC casing and screen.

Table 1

Summary of Monitoring Well Drilling and Completion Details
 John H. Hendrix Corporation, Will Cary #5 Emergency Pit
 Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
 Lea County, New Mexico

Well Information										Groundwater Data				
Well Number	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Product	Depth to Water	Corrected Water Elevation		
MW-1	09/13/05	90.00	92.14	2	3365.39	68.81 - 89.59	2.74	3368.13	4/13/2006	--	72.24	3295.89		
									12/13/2006	--	72.29	3295.84		
									3/7/2007	--	72.27	3295.86		
									8/15/2007	--	72.28	3295.85		
									3/11/2008	--	72.38	3295.75		
									4/8/2008	--	72.92	3295.21		
									7/1/2008	--	72.64	3295.49		
									9/4/2008	--	72.91	3295.22		
MW-2	11/08/05	82.40	83.35	2	3367.31	65.41 - 79.72	2.94	3370.25	4/13/2006	--	73.45	3296.8		
									12/13/2006	--	73.46	3296.79		
									3/7/2007	--	73.40	3296.85		
									8/15/2007	--	73.41	3296.84		
									3/11/2008	--	73.47	3296.78		
									4/7/2008	--	73.36	3296.89		
									7/1/2008	--	73.40	3296.85		
									9/4/2008	--	73.43	3296.82		
MW-3	02/23/06	80.00	80.48	2	3365.20	68.64 - 78.00	1.73	3366.93	4/13/2006	--	70.39	3296.54		
									12/13/2006	--	70.46	3296.47		
									3/7/2007	--	70.50	3296.43		
									8/15/2007	--	70.53	3296.40		
									3/11/2008	--	70.63	3296.30		
									4/7/2008	--	70.55	3296.38		
									7/1/2008	--	70.59	3296.34		
									9/4/2008	--	70.59	3296.34		

Table 1
Summary of Monitoring Well Drilling and Completion Details
John H. Hendrix Corporation, Will Cary #5 Emergency Pit
Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
Lea County, New Mexico

Groundwater Data												
Well Information												
Well Number	Date Drilled	Drilled Depth (bgs)	Well Depth from TOC	Well Diameter (inches)	Surface Elevation	Screen Interval (bgs)	Casing Stickup	TOC Elevation	Date Gauged	Depth to Product	Depth to Water	Corrected Water Elevation
MW-4	02/23/06	80.00	80.48	2	3363.70	68.94 - 78.38	1.76	3365.46	4/13/2006	--	69.83	3295.63
									12/13/2006	--	69.82	3295.64
									3/7/2007	--	69.82	3295.64
									8/15/2007	--	69.77	3295.69
									3/11/2008	--	69.83	3295.63
									4/7/2008	--	69.73	3295.73
									7/1/2008	--	69.78	3295.68
									9/4/2008	--	69.79	3295.67
MW-5	02/24/06	78.00	79.65	2	3362.07	67.00 - 76.50	2.44	3364.51	4/13/2006	--	71.01	3293.50
									12/13/2006	--	68.35	3296.16
									3/7/2007	--	70.75	3293.76
									8/15/2007	--	70.78	3293.73
									3/11/2008	--	70.87	3293.64
									4/7/2008	--	70.80	3293.71
									7/1/2008	--	70.83	3293.68
									9/4/2008	--	70.89	3293.62

Notes

bgs - below ground surface

TOC - top of casing

Elevations are above mean sea level (3365) referenced to 1984 Geodetic Datum.

Wells drilled and constructed by Scarborough Drilling, Inc., Lamesa, Texas, Schedule 40 screw-threaded PVC casing and screen.

Table 2
Summary of BTEX Analysis of Groundwater Samples
John H. Hendrix Corporation, Will Cary #5 Emergency Pit
Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
Lea County, New Mexico

Well Number	Sample Date	Benzene	Toluene	Ethyl benzene	Xylene
WQCC Standard:					
MW-1	09/20/2005	<0.001	<0.001	<0.001	<0.004
	11/15/2005	<0.001	<0.001	<0.001	<0.004
	04/11/2006	<0.001	<0.001	<0.001	<0.004
	12/14/2006	<0.001	<0.001	<0.001	<0.002
	03/07/07	<0.0008	<0.002	<0.002	<0.003
	08/20/07	<0.0008	<0.002	<0.002	<0.003
	04/08/08	<0.0008	<0.002	<0.002	<0.003
	09/04/08	<0.001	<0.002	<0.001	<0.003
MW-2	11/15/2005	<0.001	<0.001	<0.001	<0.004
	04/11/2006	<0.001	<0.001	<0.001	<0.004
	12/14/2006	0.000558	<0.001	<0.001	<0.002
	03/07/07	<0.0008	<0.002	<0.002	<0.003
	08/20/07	<0.0008	<0.002	<0.002	<0.003
	04/08/08	<0.0008	<0.002	<0.002	<0.003
	09/05/08	<0.001	<0.002	<0.001	<0.003
MW-3	04/11/2006	<0.001	<0.001	<0.001	<0.004
	12/14/2006	<0.001	<0.001	<0.001	<0.002
	03/07/07	<0.0008	<0.002	<0.002	<0.003
	08/20/07	<0.0008	<0.002	<0.002	<0.003
	04/08/08	<0.0008	<0.002	<0.002	<0.003
	09/04/08	<0.001	<0.002	<0.001	<0.003
MW-4	04/11/2006	<0.001	<0.001	<0.001	<0.004
	12/14/2006	<0.001	<0.001	<0.001	<0.002
	03/07/07	<0.0008	<0.002	<0.002	<0.003
	08/20/07	<0.0008	<0.002	<0.002	<0.003
	04/08/08	<0.0008	<0.002	<0.002	<0.003
	09/05/08	<0.001	<0.002	<0.001	<0.003

Table 2

Summary of BTEX Analysis of Groundwater Samples
 John H. Hendrix Corporation, Will Cary #5 Emergency Pit
 Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
 Lea County, New Mexico

Well Number	Sample Date	Benzene	Toluene	Ethyl benzene	Xylene
WQCC Standard:					
		0.01	0.8	0.75	0.62
MW-5	04/11/2006	<0.001	<0.001	<0.001	<0.004
	12/14/2006	<0.001	<0.001	<0.001	<0.002
	03/07/07	<0.0008	<0.002	<0.002	<0.003
	08/20/07	<0.0008	<0.002	<0.002	<0.003
	04/08/08	<0.0008	<0.002	<0.002	<0.003
	09/04/08	<0.001	<0.002	<0.001	<0.003
Duplicate					
MW-3	12/14/06	<0.001	<0.001	<0.001	<0.002
MW-1	03/07/07	<0.0008	<0.002	<0.002	<0.003
MW-1	08/20/07	<0.0008	<0.002	<0.002	<0.003
MW-3	04/08/08	<0.0008	<0.002	<0.002	<0.003
MW-1	09/04/08	<0.001	<0.002	<0.001	<0.003

Notes: Analyses performed by Environmental Lab of Texas, Ltd., Odessa, Texas prior to 3/7/07

Analyses performed by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligrams per liter (mg/L)

< - Less than the method detection limit

Table 3

Summary of Dissolved Metals Analysis of Groundwater Samples

John H. Hendrix Corporation, Will Cary #5 Emergency Pit

Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East

Lea County, New Mexico

Well Number	Sample Date	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
WQCC Standard:		0.1	1.0	0.01	0.05	0.05	0.002	0.05	0.05
MW-1	09/20/05	0.0162	0.371	<0.001	<0.005	<0.011	<0.0005	0.0061	<0.005
	04/11/06	0.0486	0.0851	<0.00297	0.00331	<0.00843	<0.000250	0.0123	0.0219
	03/07/07	0.015	0.0968	<0.00150	<0.002	<0.0003	<0.00008	0.0102	<0.001
	08/20/07	0.0122	0.0914	<0.0003	<0.002	<0.0003	<0.00008	0.00689	<0.001
MW-2	11/15/05	0.0215	0.0571	<0.004	0.0126	0.0148	<0.001	0.00653	<0.005
	04/11/06	0.0147	0.0339	<0.000297	0.00458	<0.000843	0.00006	0.0103	<0.000754
	03/07/07	0.0258	0.0327	0.00062	0.00221	<0.0003	<0.00008	0.0108	<0.001
	08/20/07	0.0252	0.0273	<0.0003	0.00211	<0.0003	<0.00008	0.00888	<0.001
MW-3	04/11/06	0.00923	0.0369	<0.000297	0.00367	<0.000843	<0.000250	0.0177	<0.000754
	03/07/07	0.0205	0.0223	<0.0003	<0.002	<0.0003	<0.00008	0.0192	<0.001
	08/20/07	0.0211	0.0204	0.000616	<0.002	0.000734	<0.00008	0.0152	<0.001
	04/11/06	0.00567	0.0529	<0.000297	0.00411	<0.000843	0.00005	0.00834	<0.000754
MW-4	03/07/07	0.0165	0.0375	<0.0003	0.0226	<0.0003	<0.00008	0.00767	<0.001
	08/20/07	0.0184	0.0322	<0.0003	0.00209	<0.0003	<0.00008	0.00569	<0.001
	04/11/06	0.0113	0.0676	<0.000297	0.0033	0.00122	<0.000250	0.0113	<0.000504
	03/07/07	0.0192	0.0346	<0.0003	0.0233	<0.0003	<0.00008	0.0773	<0.001
Duplicate MW-1	08/20/07	0.0176	0.0278	<0.0003	0.00215	<0.0003	<0.00008	0.00663	<0.001
	03/07/07	0.0154	0.0952	<0.00150	<0.002	<0.0003	<0.00008	0.0103	<0.001
	08/20/07	0.0117	0.100	<0.0003	<0.002	<0.0003	<0.00008	0.00687	<0.001

Notes: Analyses performed by Environmental Lab of Texas, Ltd., Odessa, Texas:

Analyses performed by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligrams per liter (mg/L)

< - Less than the method detection limit

Table 4
Summary of Anion, Cation and Total Dissolved Solids Analysis of Groundwater Samples
John H. Hendrix Corporation, Will Cary #5 Emergency Pit
Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
Lea County, New Mexico

Well Number	Sample Date	Alkalinity	Chloride	Sulfate	TDS	Calcium	Magnesium	Potassium	Sodium
WQCC Standard:									
MW-1			250	600	1,000				
	09/21/05	233	9,550	1,200	19,300	870	519	102	4,300
	11/15/05	292	12,100	1,020	21,400	1,090	675	214	7,040
	04/11/06	378	10,000	671	19,600	744	448	141	7,590
	12/14/06	456	10,900	610	17,500	960	482	127	5,660
	03/07/07	429	10,900	414	18,000	546	327	78.6	5,320
	08/20/07	450	9,950	480	18,300	565	355	82.8	6,510
	04/08/08	458	9,710	475	16,900	--	--	--	--
MW-2	09/04/08	490	9,460	386	15,800	--	--	--	--
	02/12/09	--	8,600	--	--	--	--	--	--
	11/15/05	164	101	146	694	74.4	49.8	10.0	109
	04/11/06	163	142	214	756	60.1	44.8	7.9	113
	12/14/06	180	152	250	800	64.9	66.3	7.7	107
	03/07/07	187	137	221	804	62.6	46.6	74.4	102
	08/20/07	187	150	246	806	64.3	51.4	7.82	112
	04/08/08	181	161	247	816	--	--	--	--
MW-3	09/05/08	260	114	203	736	--	--	--	--
	04/11/06	164	248	367	1,180	98.4	65.2	10.6	146
	12/14/06	178	257	430	1,300	139	110	10.6	149
	03/07/07	176	244	394	1,260	108	712	9.88	127
	08/20/07	174	269	429	1,290	110	78	9.84	144
	04/08/08	171	259	443	1,260	--	--	--	--
	09/04/08	192	239	384	1,080	--	--	--	--
	04/11/06	200	146	155	638	55.3	37.6	8.62	115
MW-4	12/14/06	236	115	172	702	62.6	39.6	7.35	104
	03/07/07	220	102	156	665	51.3	37.5	7.16	92.4
	08/20/07	217	109	168	664	50.4	38.4	7.55	101
	04/08/08	217	113	173	653	--	--	--	--
	09/05/08	320	81	140	602	--	--	--	--

Table 4
Summary of Anion, Cation and Total Dissolved Solids Analysis of Groundwater Samples
John H. Hendrix Corporation, Will Cary #5 Emergency Pit
Unit Letter F (SE/4, NW/4), Section 22, Township 22 South, Range 37 East
Lea County, New Mexico

Well Number	Sample Date	Alkalinity	Chloride	Sulfate	TDS	Calcium	Magnesium	Potassium	Sodium
WQCC Standard:					250	600	1,000		
MW-5	04/11/06	192	185	157	754	49.3	32.3	8.48	175
	12/14/06	204	138	181	582	81.3	44.1	7.98	114
	03/07/07	204	104	142	586	56.4	40.8	7.40	85.4
	08/20/07	178	121	171	624	56.6	41.1	7.88	92.9
	04/08/08	184	132	178	690	--	--	--	--
	09/04/08	208	152	147	668	--	--	--	--
Duplicate									
MW-3	12/14/06	180	238	391	1,090	145	122	11.20	173
MW-1	03/07/07	427	11,200	489	17,800	588	353	73.1	4,660
MW-1	08/20/07	442	9,620	478	17,300	588	370	82.3	4,740
MW-3	04/08/08	171	271	449	1,270	--	--	--	--
MW-1	09/04/08	510	9,420	378	15,700	--	--	--	--

Notes: Analyses performed by Environmental Lab of Texas, Ltd., Odessa, Texas prior to 3/7/07

Analyses performed by DHL Analytical, Inc., Round Rock, Texas

Results are reported in milligrams per liter (mg/L)

< - Less than the method detection limit

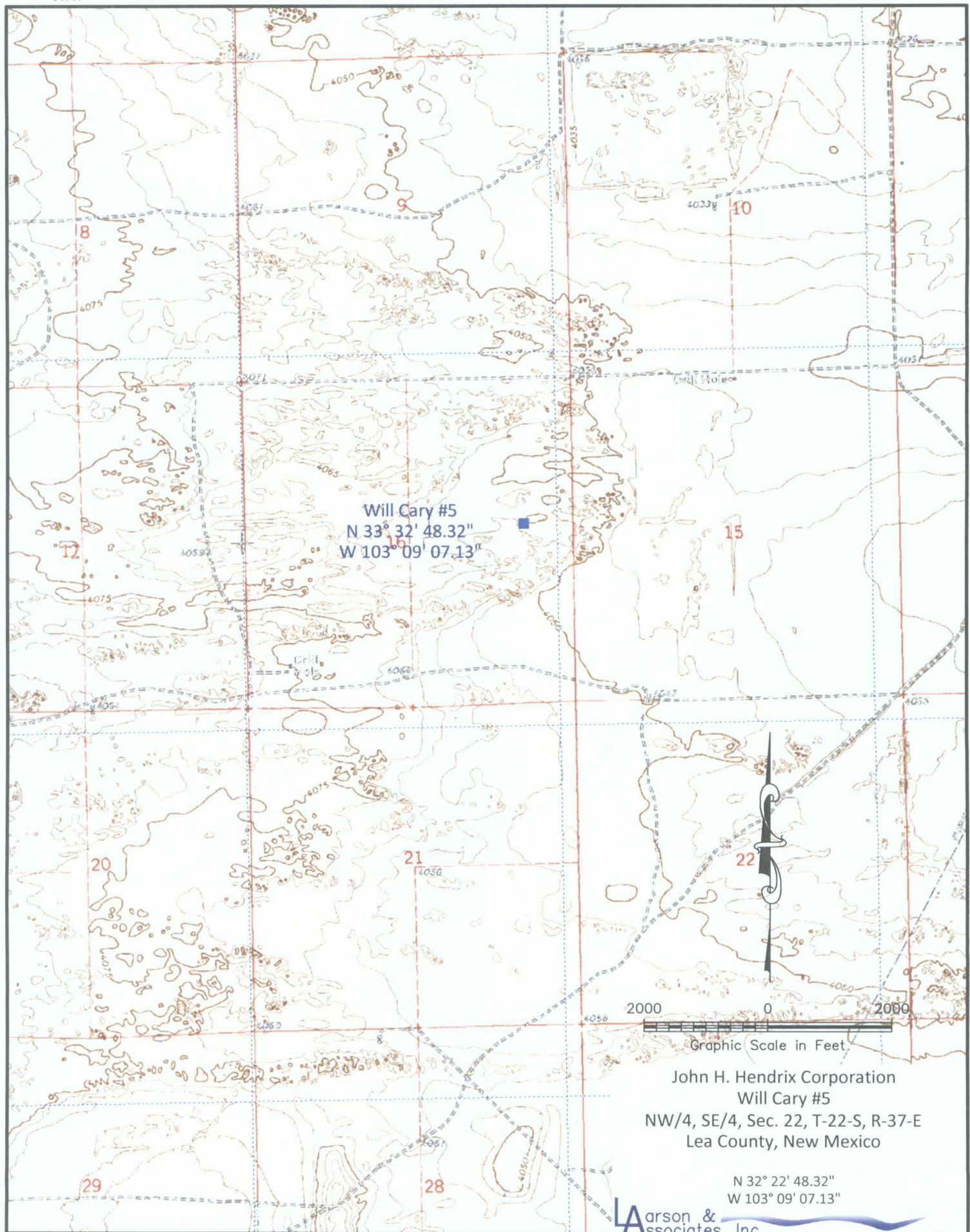


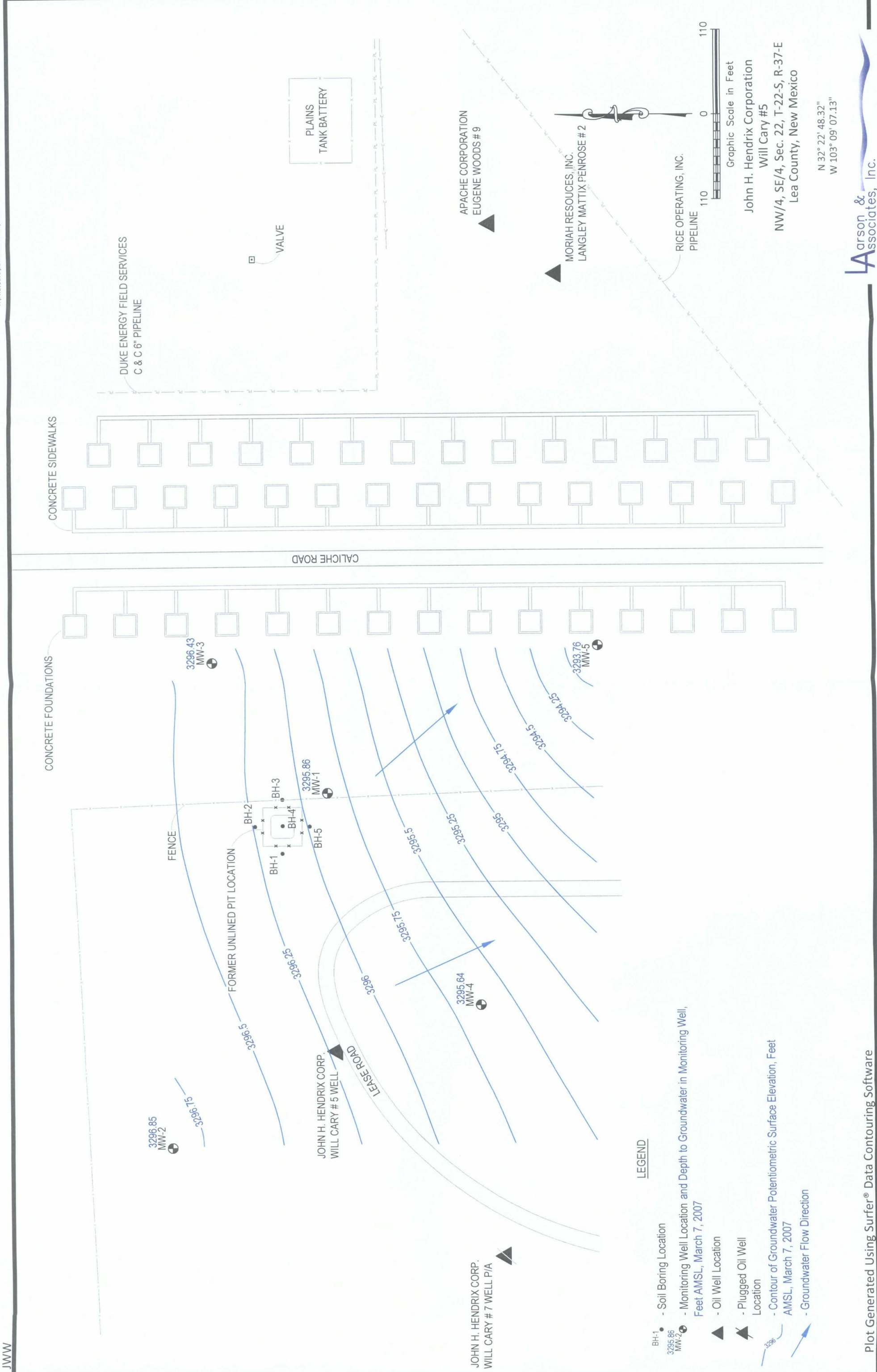
Figure 1 - Topographic Map



John H. Hendrix Corporation
Will Cary #5
NW/4, SE/4, Sec. 22, T-22-S, R-37-E
Lea County, New Mexico

N 32° 22' 48.32"
W 103° 09' 07.13"

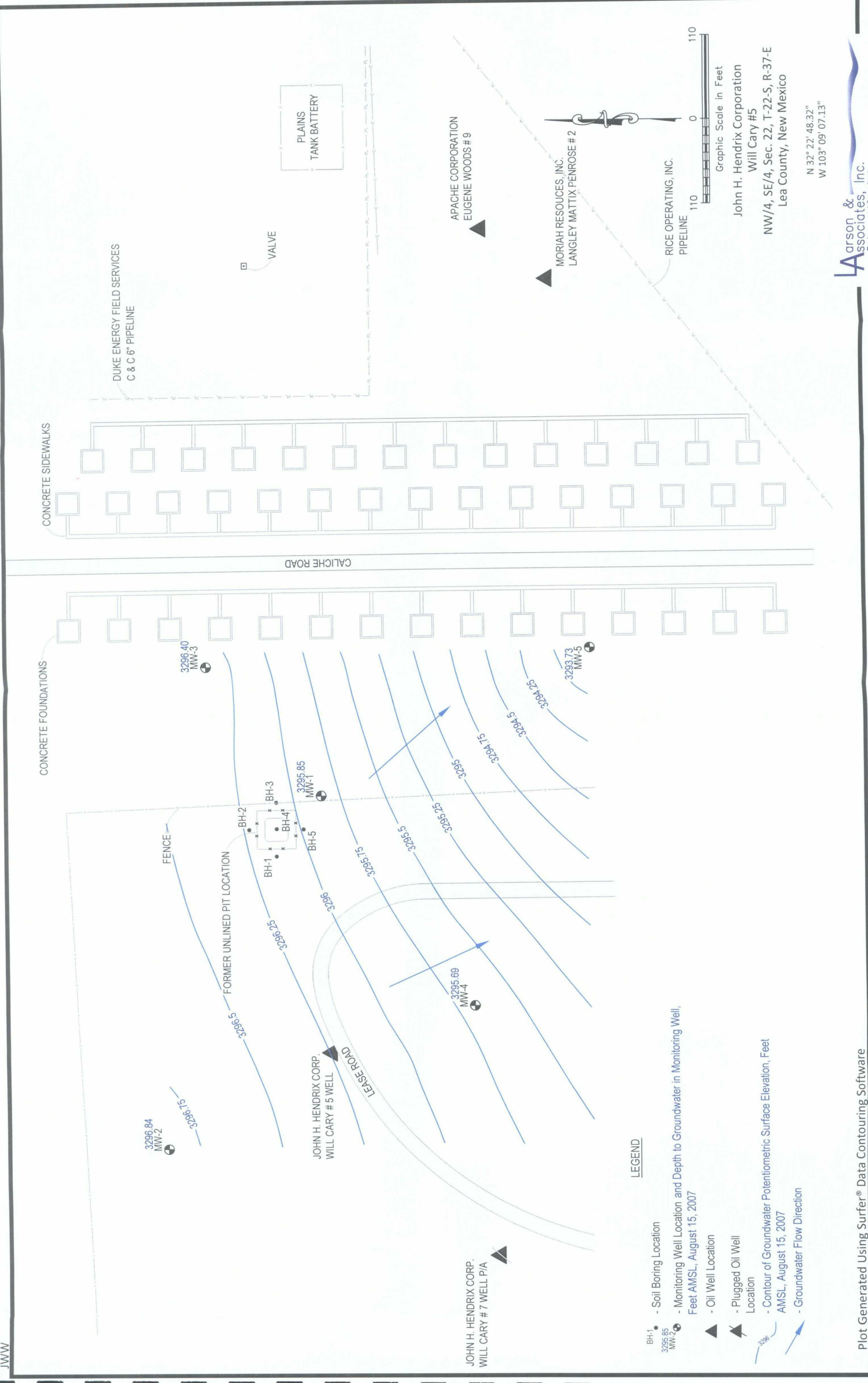
Larson &
Associates, Inc.
Environmental Consultants



Plot Generated Using Surfer® Data Contouring Software

Figure 3 - Groundwater Potentiometric Map March 7, 2007

JWW

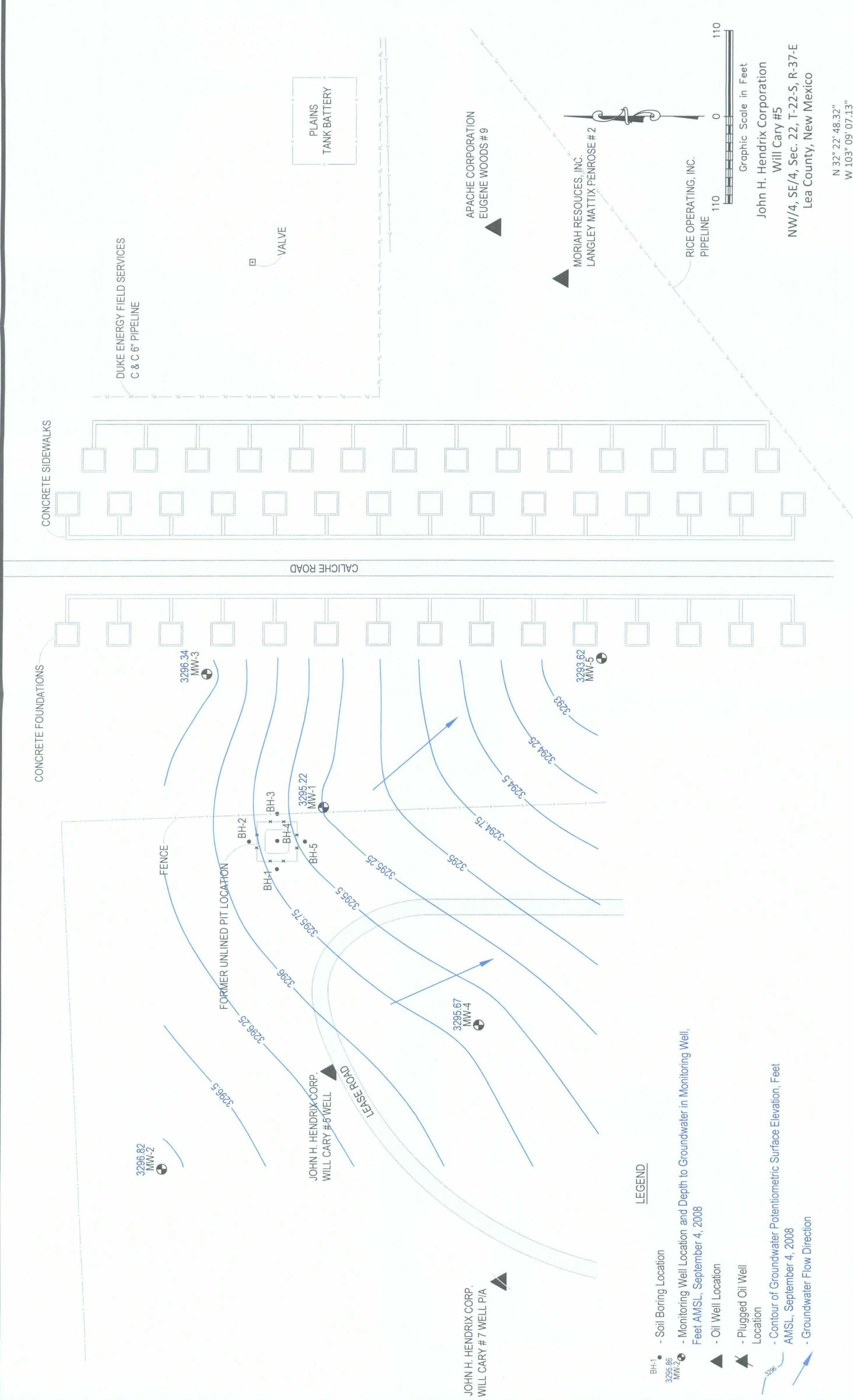


Plot Generated Using Surfer® Data Contouring Software

Figure 4 - Groundwater Potentiometric Map August 15, 2007

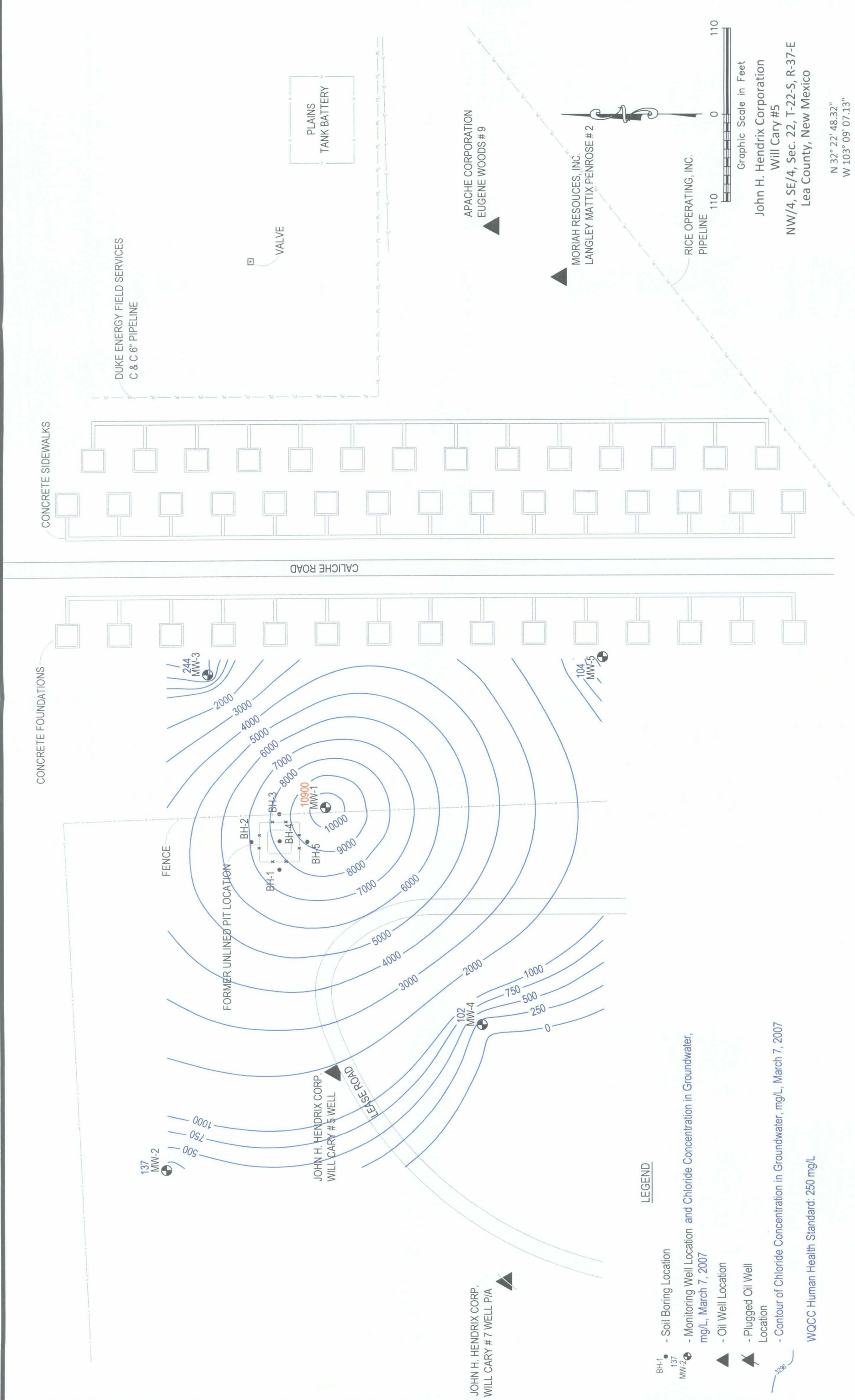


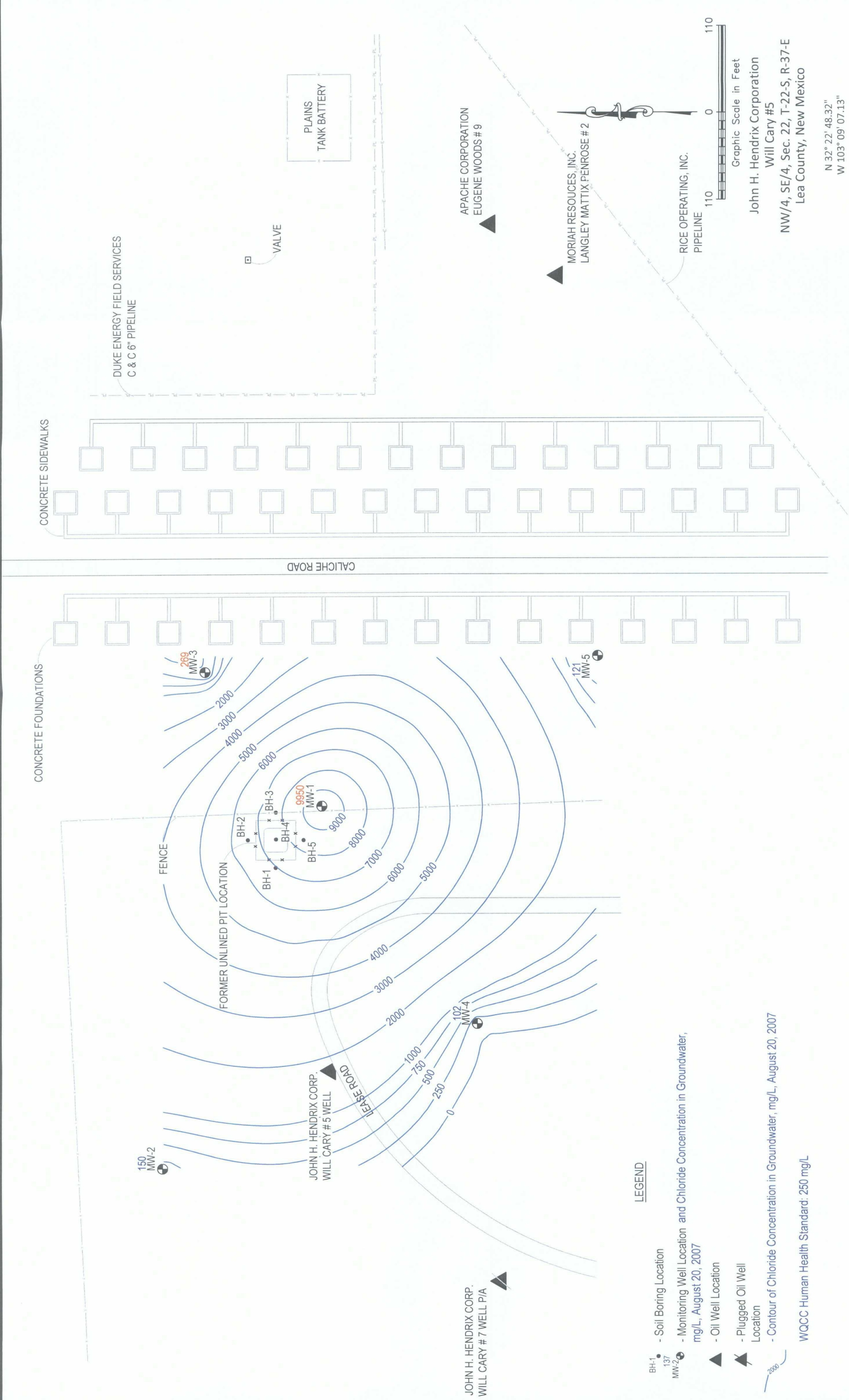
Figure 5 - Groundwater Potentiometric Map April 7, 2008



Plot Generated Using Surfer® Data Contouring Software

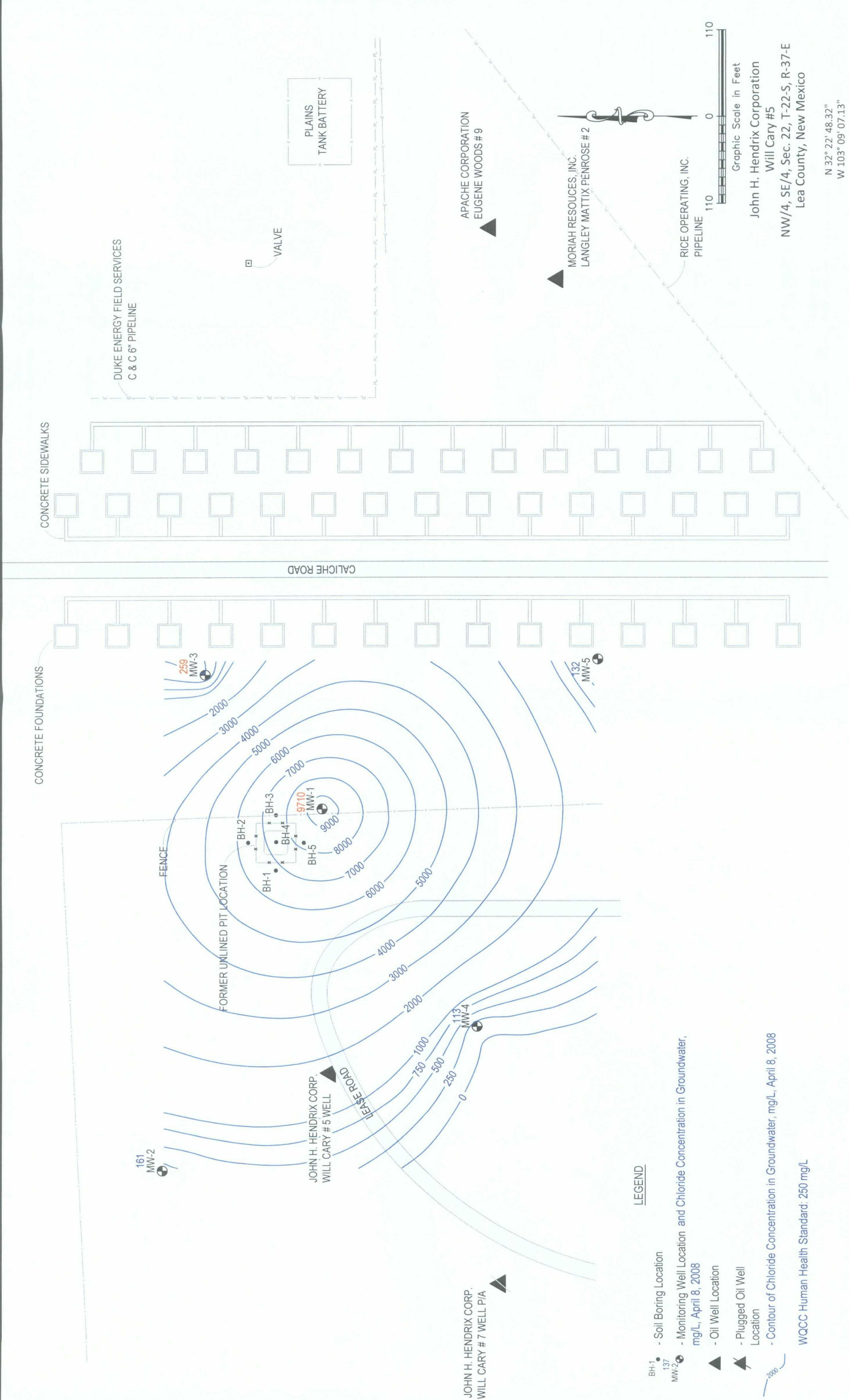
Figure 6 - Groundwater Potentiometric Map September 4, 2008

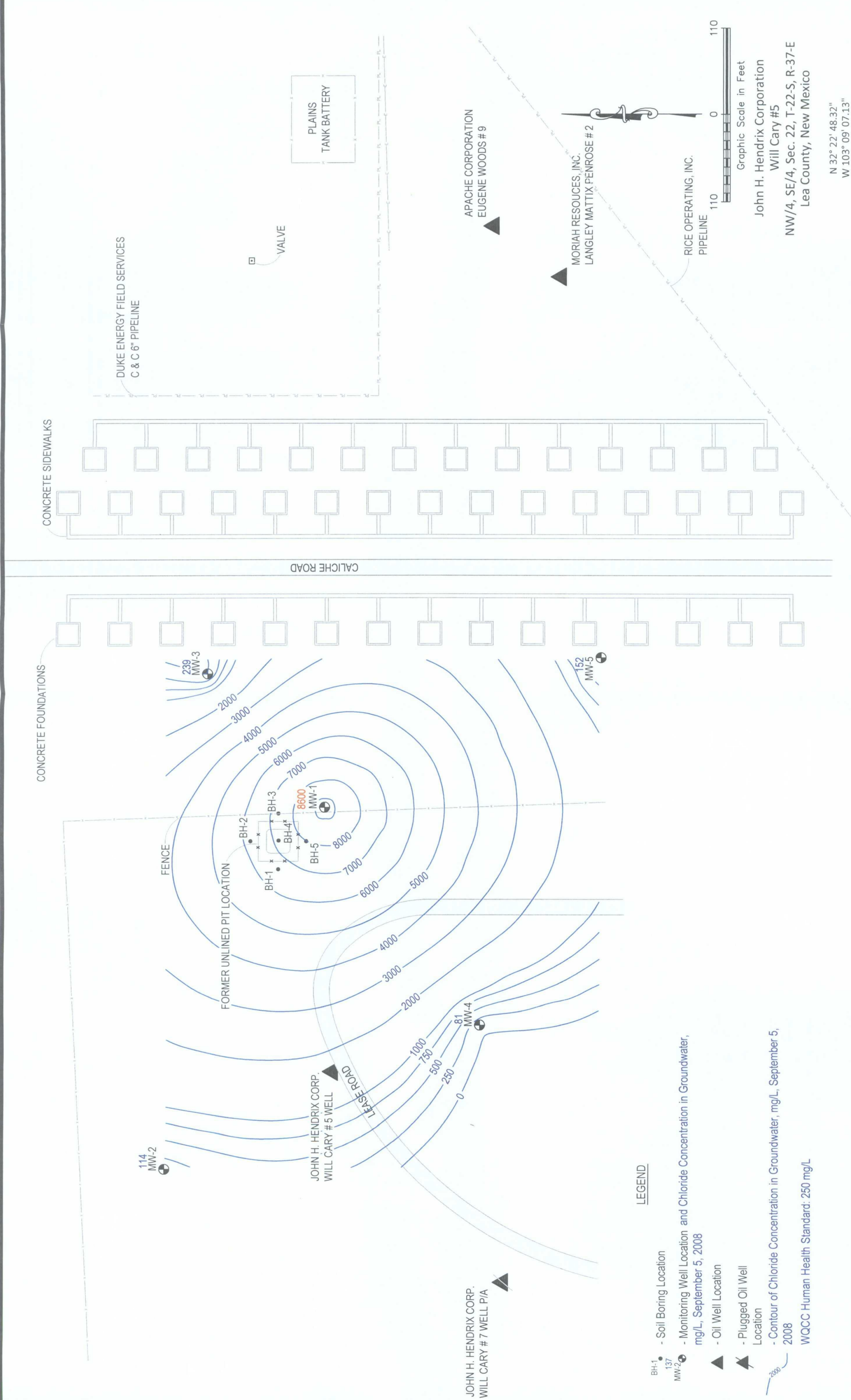


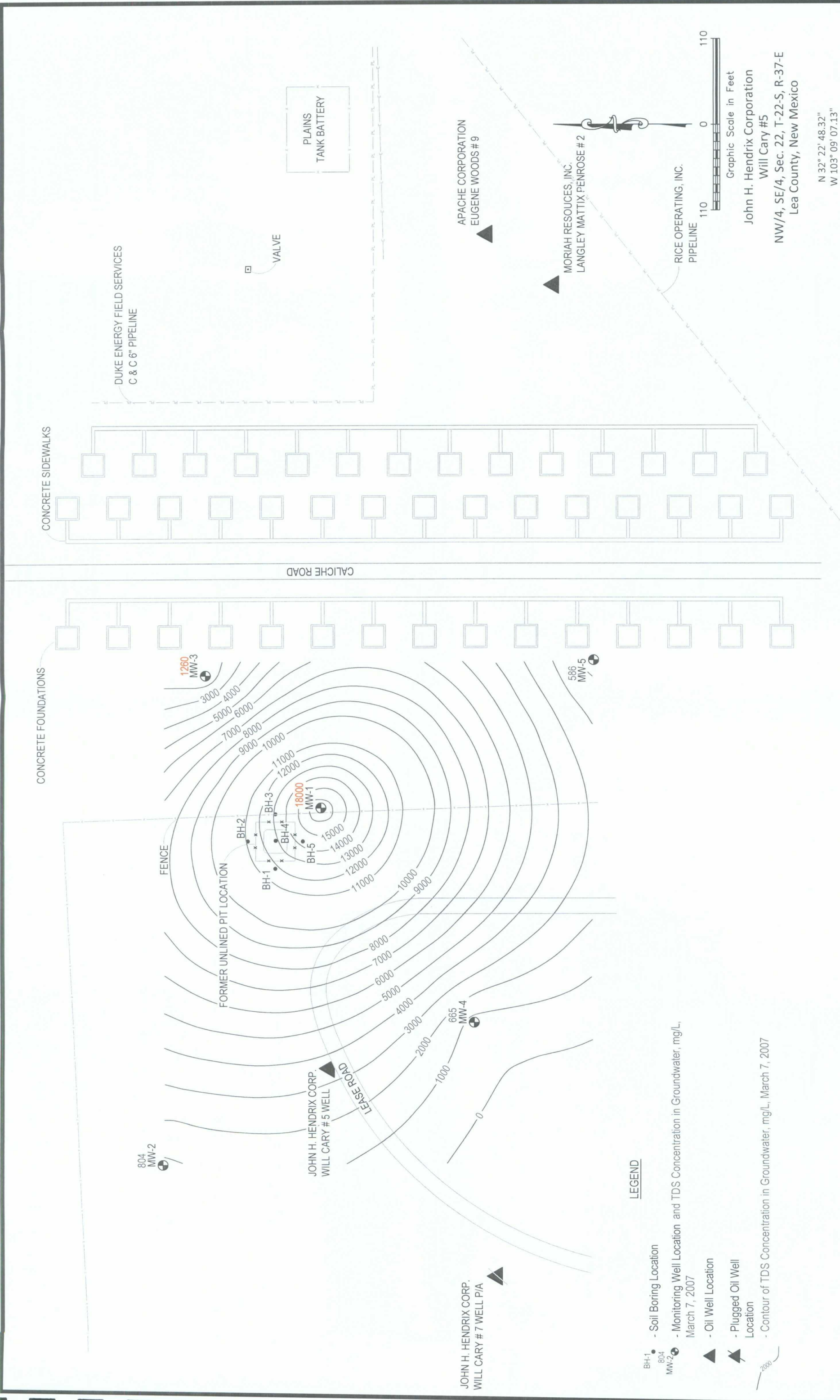


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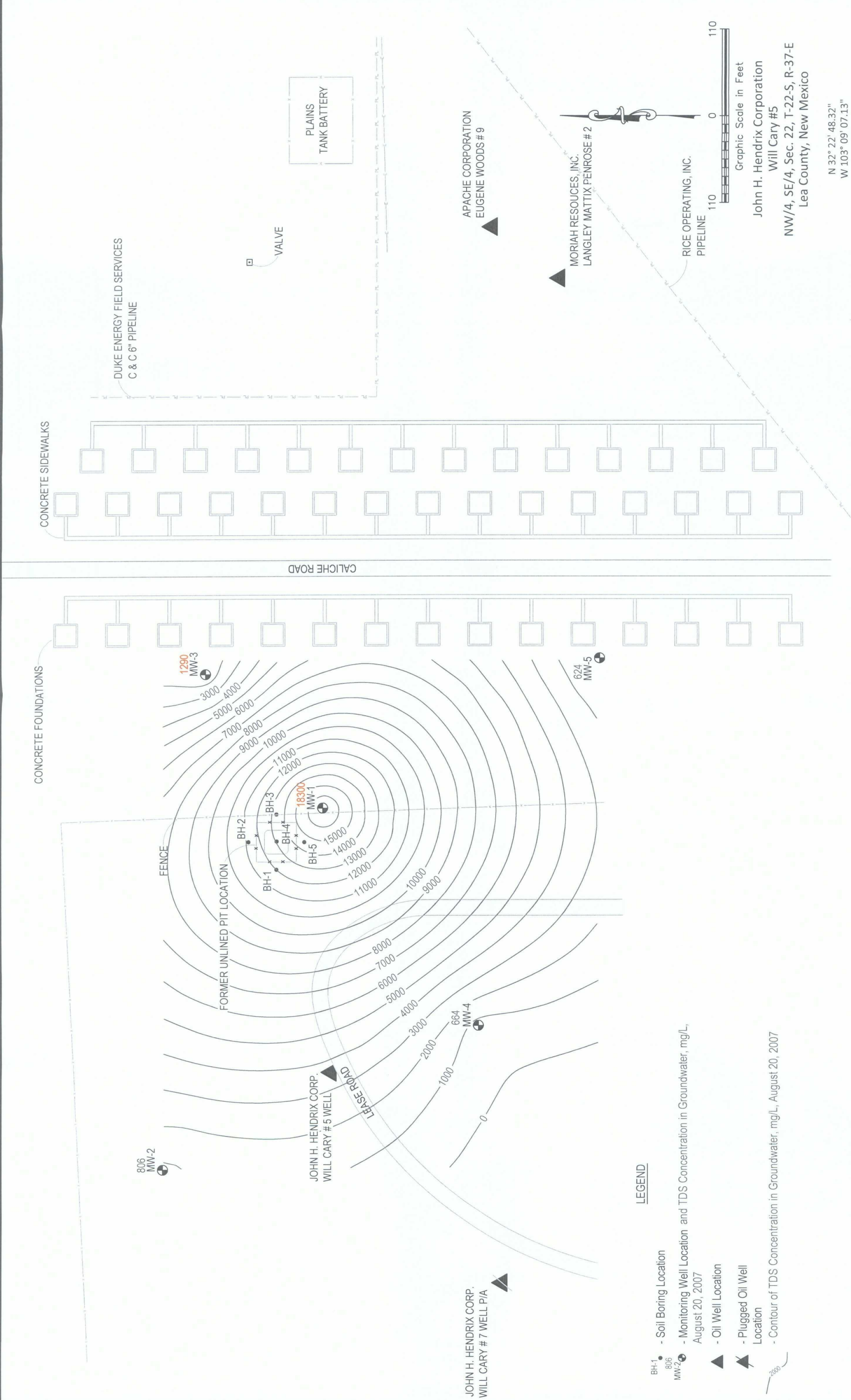
Figure 8 - Chloride Concentration Map August 20, 2007

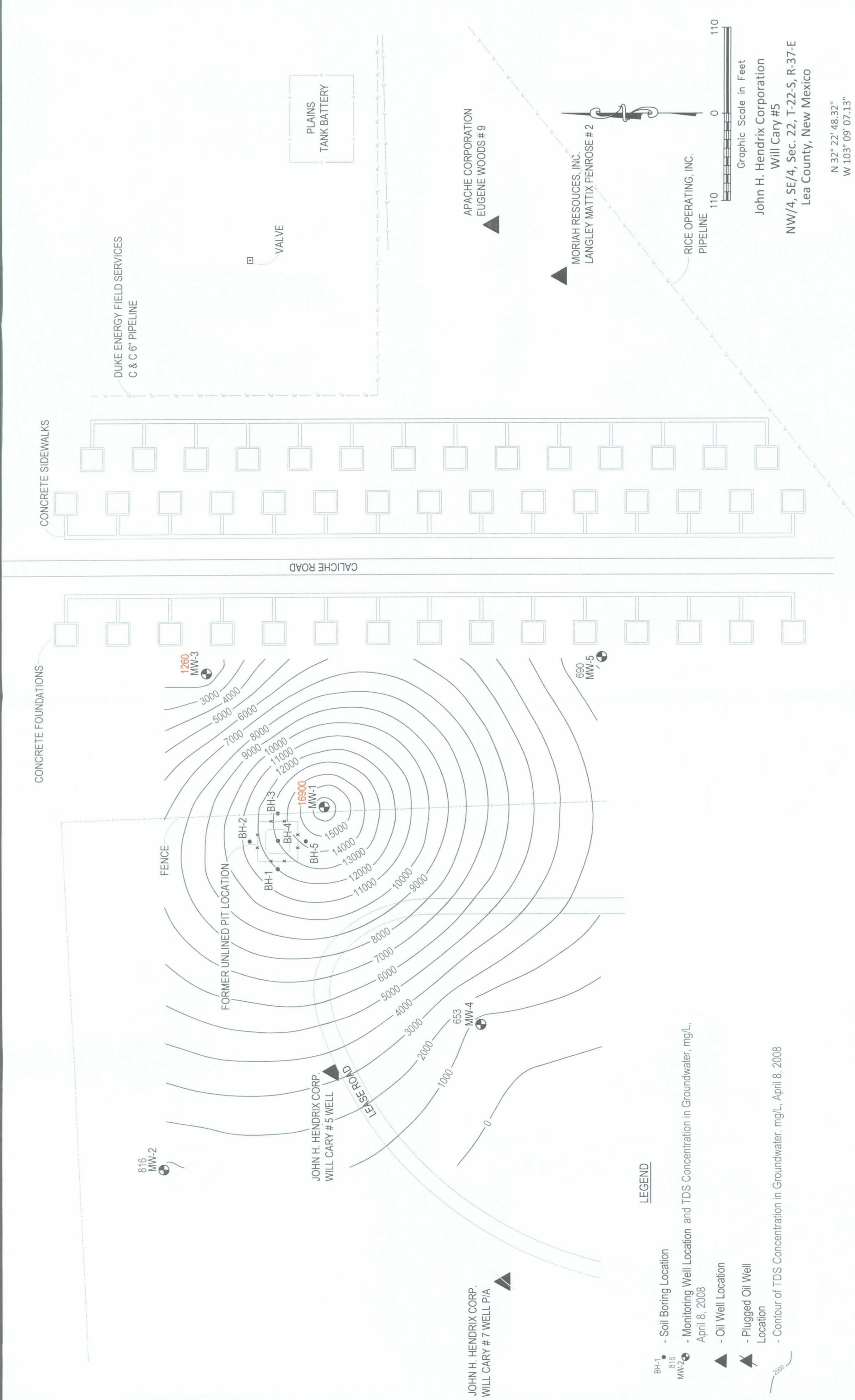






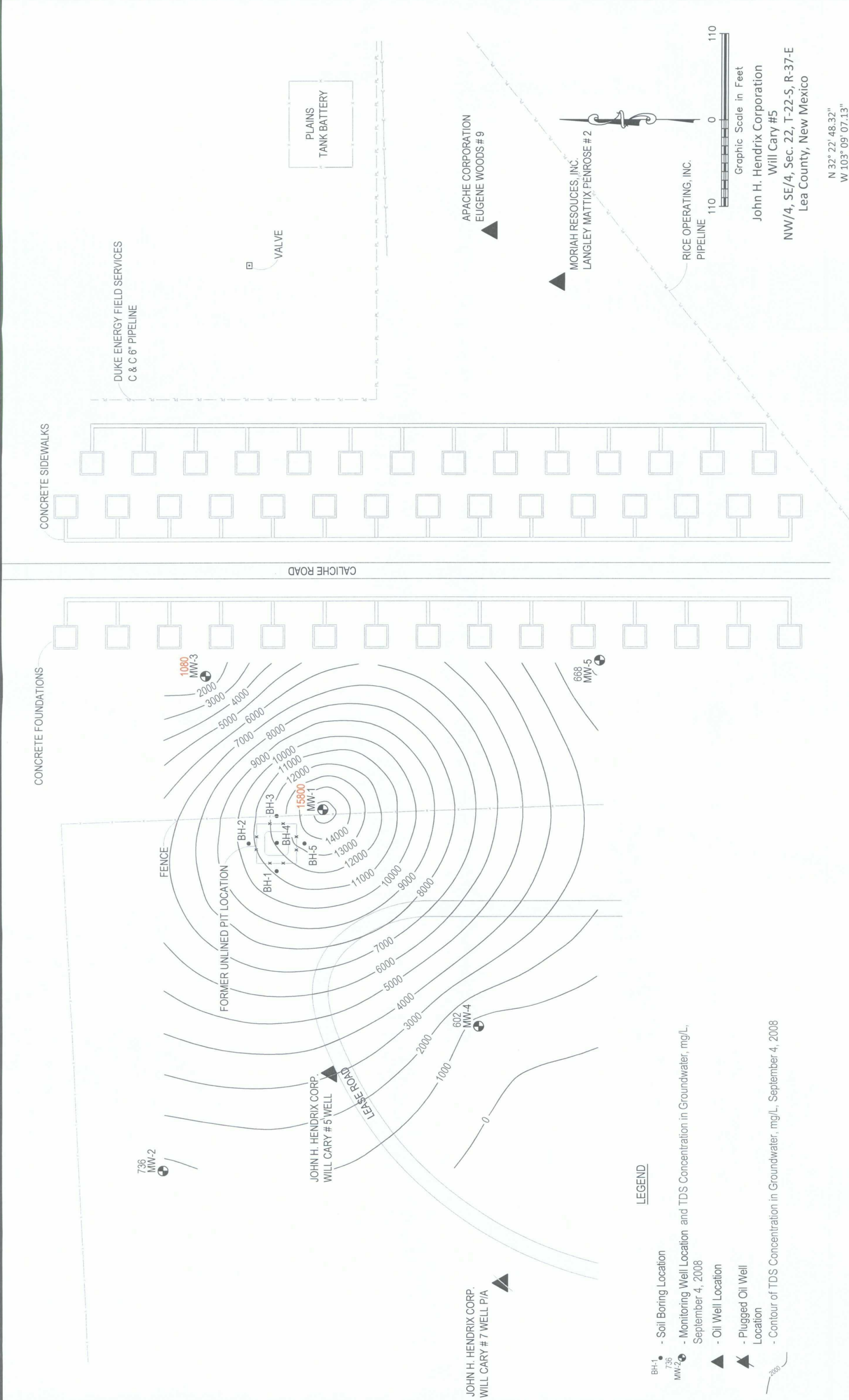
- LEGEND**
- Soil Boring Location
 - Monitoring Well Location and TDS Concentration in Groundwater, mg/L, March 7, 2007
 - Oil Well Location
 - Plugged Oil Well Location
 - Contour of TDS Concentration in Groundwater, mg/L, March 7, 2007





Plot Generated Using Surfer® Data Contouring Software

Figure 13 - TDS Concentration Map April 8, 2008



- LEGEND**
- Soil Boring Location
 - Monitoring Well Location and TDS Concentration in Groundwater, mg/L, September 4, 2008
 - Oil Well Location
 - Plugged Oil Well Location
 - Contour of TDS Concentration in Groundwater, mg/L, September 4, 2008

Plot Generated Using Surfer® Data Contouring Software

Figure 14 - TDS Concentration Map September 4, 2008

John H. Hendrix Corporation
Will Cary #5
NW/4, SE/4, Sec. 22, T-22-S, R-37-E
Lea County, New Mexico

N 32° 22' 48.32"
W 103° 09' 07.13"