AP-062

Annual Monitoring Report

DATE:
JAN 2009

January 22, 2009

Samson Livestock "30" Reserve Pit
NMOCD Case # AP-62

2008 Annual Monitoring Report

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Location: T-21-S, R-35-E, Sec 30, Unit P
Latitude: North 32° 26' 41.2"
Longitude: West 103° 24' 6.9"
NMOCD#: AP-62

1 Executive Summary

The Samson Livestock "30" site, which is operated by Samson Resources Company (Samson), is located approximately 16 miles west of Eunice, New Mexico. The data presented in this 2008 Annual Monitoring Report permits us to conclude:

- The extent and magnitude of ground water impairment in the shallow zone is decreasing
- The extent and magnitude of ground water impairment in the deep zone is unchanged.
- The ground water pumping (source removal) program plus natural processes has reduced the magnitude of the documented ground water impairment
- The engineered ET infiltration barrier functions as designed and
- Continuation of the pump-and-use ground water remedy is appropriate

This report is consistent with the commitments made in the June 2006 Corrective Action Plan, September 2006 Stage 1/Stage 2 Abatement Report, Progress reports submitted in December 2006, May 2007, August 2007, and the November 2007 Final Abatement Report.

2 Work Elements Performed

Appendix A presents the chronology of events at the site followed by a brief description of all characterization and corrective action activities performed at the site. Appendix B provides copies of the field run tickets from the May to July 2008 pump-and-use source removal operation. The ground water monitoring laboratory reports are included in Appendix C and Appendix D provides graphs that depict the historic ground water impairment for each monitoring well.

Since November 2007, site activities included:

1. Termination of source removal operations from MW-1
2. Implementation of a pump-and-use source removal program from MW-3d
3. Quarterly sampling of all monitoring wells

3 Conclusions

3.1 ET Barrier Performing as Predicted

Soil moisture monitoring demonstrates that the moisture content within the ET Barrier is very low and has continued to decline over the past year. Table 1 indicates that the lower portion of the ET barrier has dried more slowly than the upper portion because the upper portion of the barrier is affected by evaporation to a larger extent. This result confirms the performance expectations of the ET Barrier presented in the November 2007 Final Abatement Report.

Table 1

Vadose Zone Measurement Date	ET Cover Monitoring Port No. 1 West 2.8-foot	No.2 Center 5-foot	No. 3 East 9-foot
4/17/07	80	81	80
5/1/07	7	15	17
5/21/07	3	10	9
7/18/07	1	1	7
8/9/07	1	1	7
12/6/07	0	0	4
4/3/08	0	0	3
8/19/08	0	0	4
11/20/08	0	0	3

As discussed below, ground water monitoring results also demonstrate that the chloride concentration of upper portion of the aquifer beneath the ET cover is declining over time. This observation supports a conclusion that the flux of chloride from the vadose zone to ground water beneath the cover is very low or nil.

3.2 Ground Water Flow Direction is Constant

Hicks Consultants gauged each of the monitoring wells and sampled each on a quarterly basis during 2008. Table 2 provides a summary of the historic gauging, purging, and sampling results. Ground water gradient maps (Plates 1A - 1D) indicate essentially no change in the gradient. Observations continue to support a flow rate of about 10 ft per 100 yrs as calculated and provided in the 2007 Final Abatement Report.

3.3 Pump-and-Use Source Removal Operations Removed Chloride

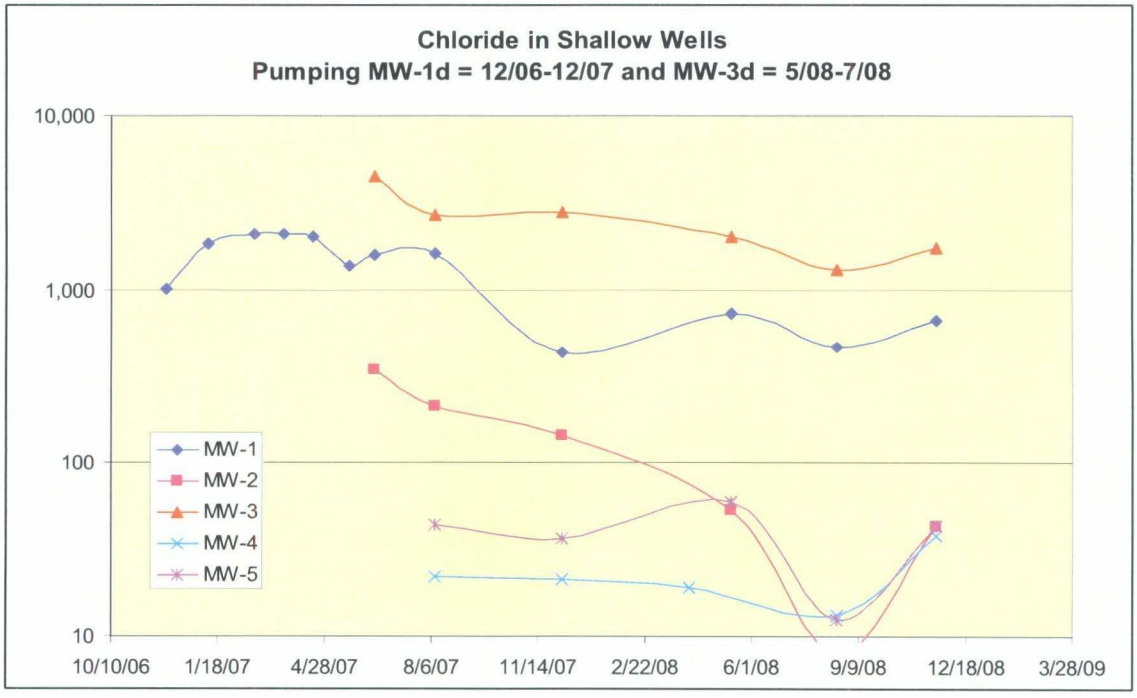
Ground water pumping operations removed approximately 16.4 tons of dissolved solids (59% chloride) from MW-1 (deep screens) in approximately 8,700 hours of pumping from November 30, 2006 to December 6, 2007. In addition, pumping removed approximately 7.8 tons of dissolved solids (60% chloride) from MW-3d in approximately 2,000 hours of pumping from May 7 to July 31, 2008. A total of 494,000 gallons of impaired ground water (14.4 tons chloride / 24.2 tons TDS) have been removed from the site to date.

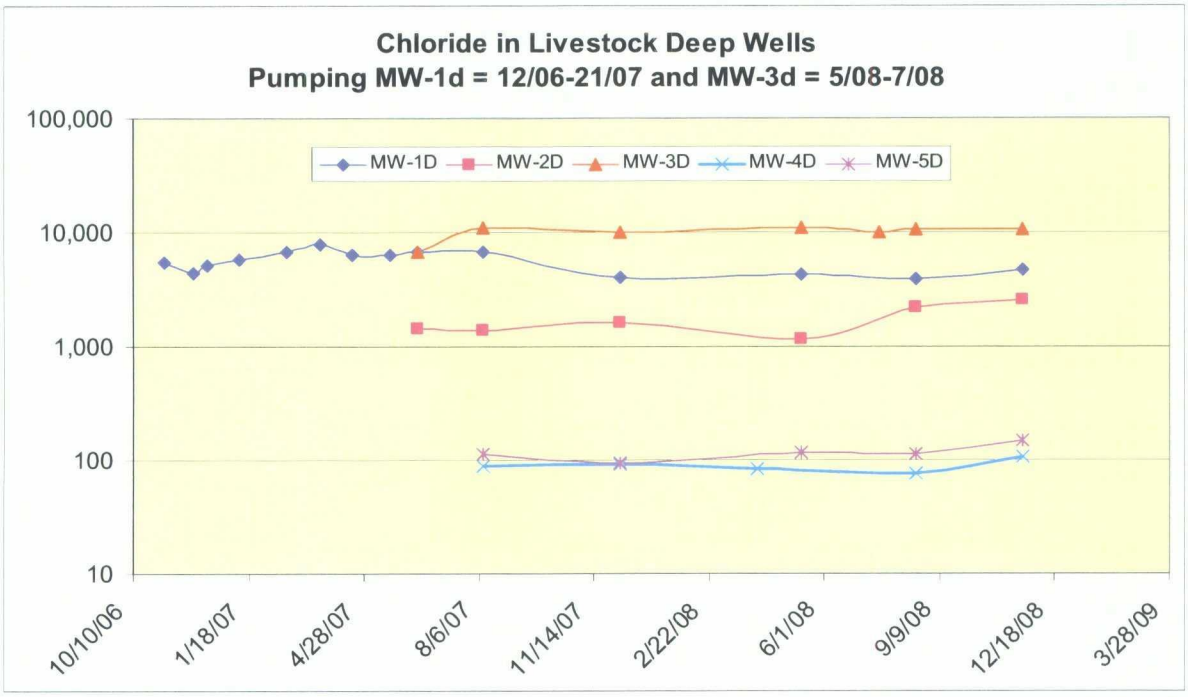
For many reasons, Samson disposed of all of the water pumped from 2006-07 and most of the water pumped in 2008.

3.4 Magnitude and Extent of Ground Water Impairment is Decreasing in the Shallow Zone and is Constant in the Deep Zone

Plate 2 depicts the laboratory results for both the shallow and deep zones for each 2008 sampling event.

The following graphs that depict chloride concentrations for both the shallow and deep ground water zones:





The data demonstrate that chloride concentrations in shallow ground water are decreasing over time - the magnitude of impairment in the shallow zone is decreasing. Data also show that chloride and TDS concentrations in MW-2s are consistently below ground water standards, thereby reducing the extent of impairment.

In the deep zone, chloride concentrations have decreased in MW-1d, remained constant at MW-3d (discounting the initial sampling data, which appears anomalous compared to TDS values) and increased in MW-2d. Insufficient data exist to determine if the most recent chloride analyses in MW-4d and 5d suggest an increasing trend or represent natural variation.

From a mass balance perspective, removing high concentrations of chloride via pumping the lower portion of the aquifer is reducing the magnitude of impairment in the deep zone. The effect of source removal pumping is not obvious in the ground water monitoring data.

	Avg Conc. Shallow Wells	
	Cl	TDS
2 sampling events before:	633	1,531
2 sampling events after:	439	1,127
Change	69%	74%

	Avg Conc. Deep Wells	
	Cl	TDS
2 sampling events before:	3,239	5,972
2 sampling events after:	3,457	5,634
Change	107%	94%

An analysis of the difference in concentrations during the most recent sampling events supports a conclusion that the magnitude of impairment in the shallow zone is decreasing while changes in the deep zone are less obvious.

3.5 The Geometry of Deep Zone Ground Water Impairment Is Changing

The chloride v. time graphs for the lower portion of the aquifer show:

1. Data from 2008 from MW-1 (deep screens) at the center of the former reserve pit shows lower chloride and TDS concentrations than 2007
2. Chloride and TDS concentrations at MW-2d have doubled in the past 6 months
3. Chloride and TDS concentrations at MW-3d are relatively constant
4. Discounting the anomalous TDS concentration in December 2007, chloride and TDS concentrations in MW-4d are constant
5. At MW-5d, recent data suggest an increasing trend for TDS and chloride.

Finally, MW-2d is the only deep monitoring well that cannot achieve a stable or decreasing conductivity reading during the pre-sample purge operation, regardless how many additional well volumes are recovered. Since MW-2d is a 4-inch diameter well, at least 90 gallons of water is recovered prior to sampling. Perhaps the purging procedure and natural migration is causing down gradient movement of saline ground water up gradient from the well.

4 Recommendation

1. On a regular basis, use the chloride-impacted water in lieu of fresh water for drilling fluids make-up water, road dust suppression, construction water for access roads and drilling pads. Record the volume of water used each year.
2. Collect and analyze ground water samples on annual basis for chloride, TDS and field specific conductance from MW-1 and MW-4.
3. During 2009, collect and analyze ground water samples from MW-2, MW-3 and MW-5 on quarterly basis for chloride, TDS and field specific conductance.
4. Cease the pump and use program when
   a. monitoring data demonstrate that the water quality is suitable for mature stock (less than 3000 mg/L TDS) or
   b. when there is no further use for the water and provide notice to NMOCD.
5. Monitor the gypsum blocks in the soil moisture ports whenever on site for ground water sampling to verify that the ET cover and infiltration depression is continuing to function as designed.

Plates

R.T. Hicks Consultants, Ltd.
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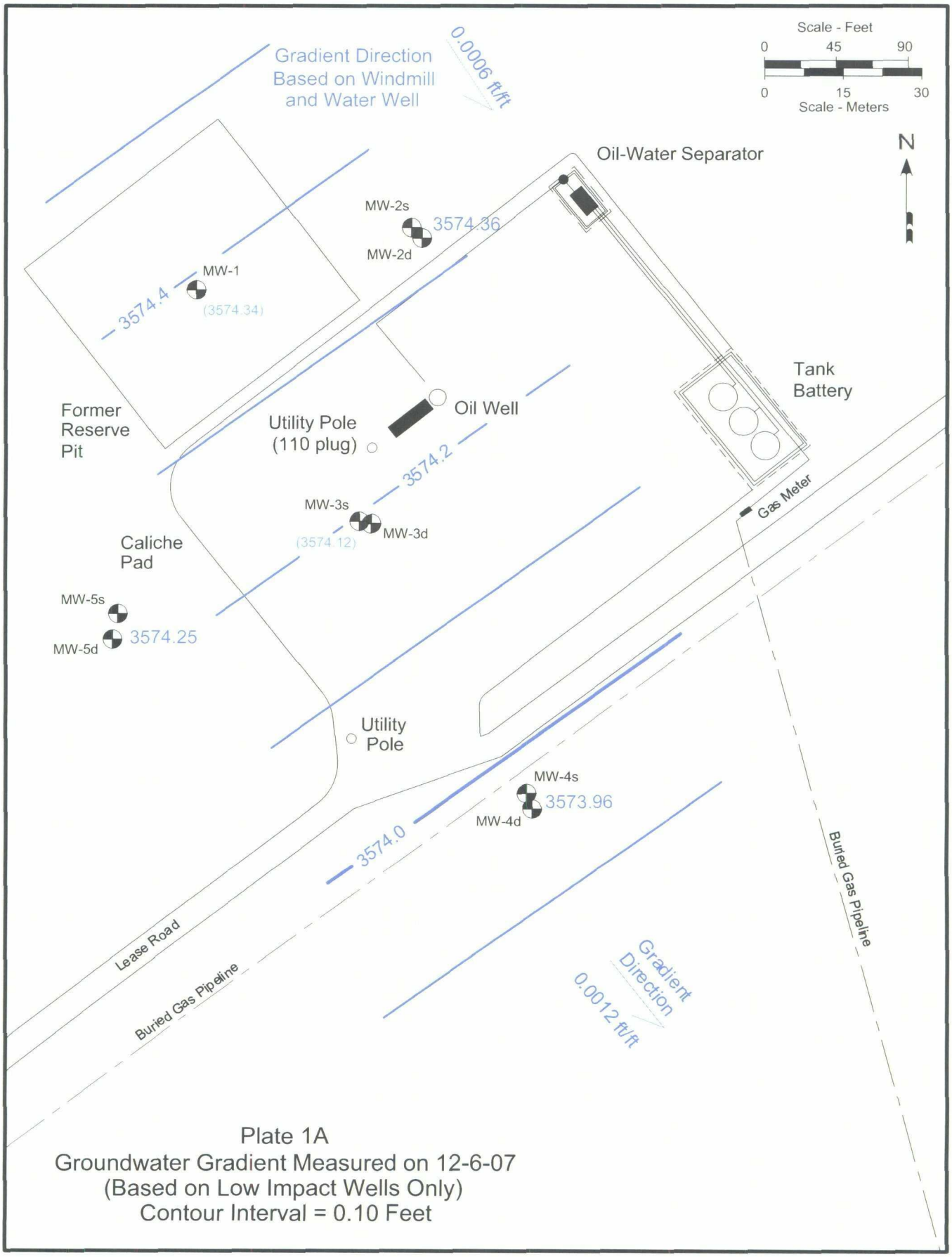

Plate 1A
Groundwater Gradient Measured on 12-6-07
(Based on Low Impact Wells Only)
Contour Interval = 0.10 Feet

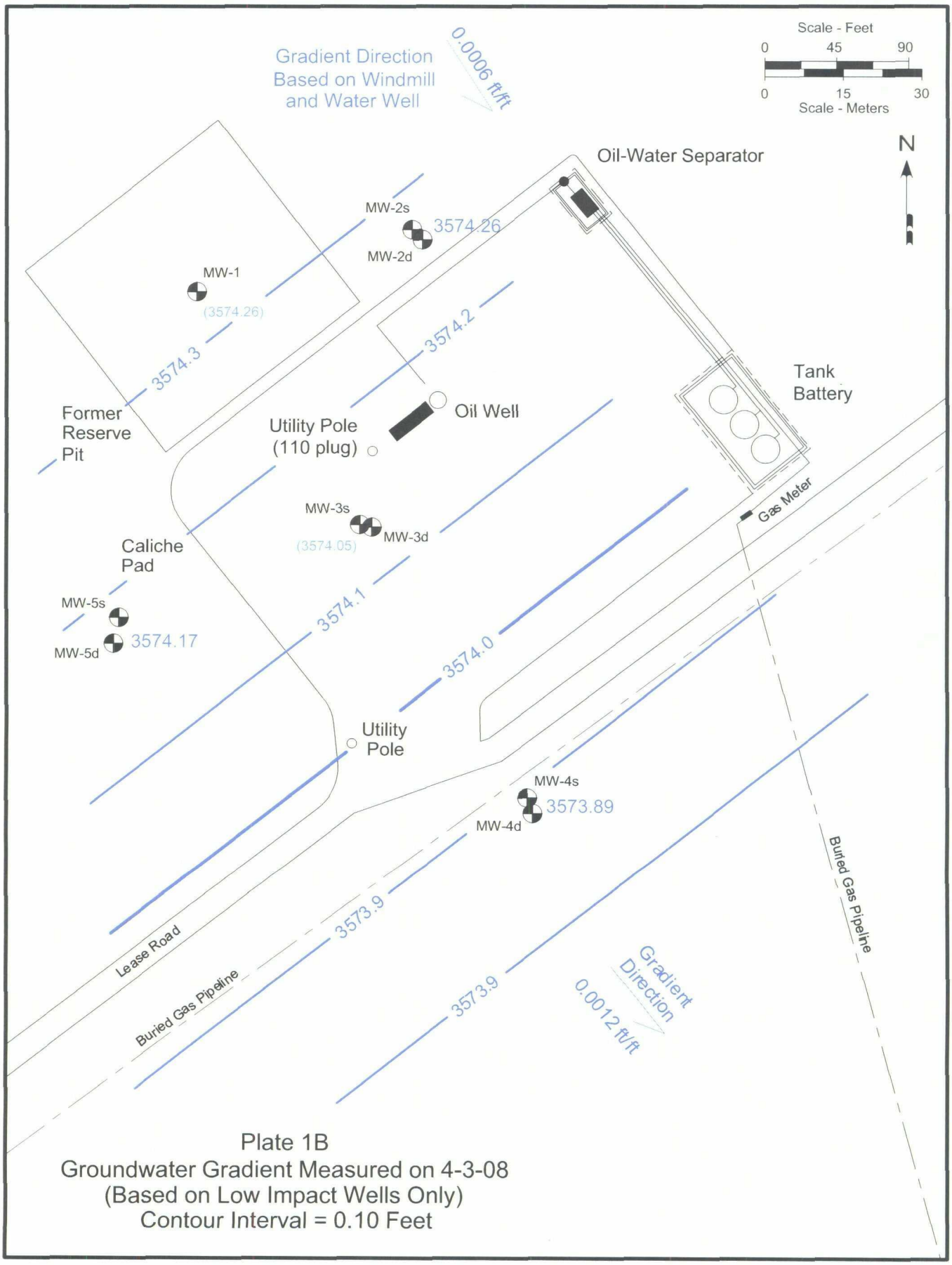

Plate 1B
Groundwater Gradient Measured on 4-3-08
(Based on Low Impact Wells Only)
Contour Interval = 0.10 Feet

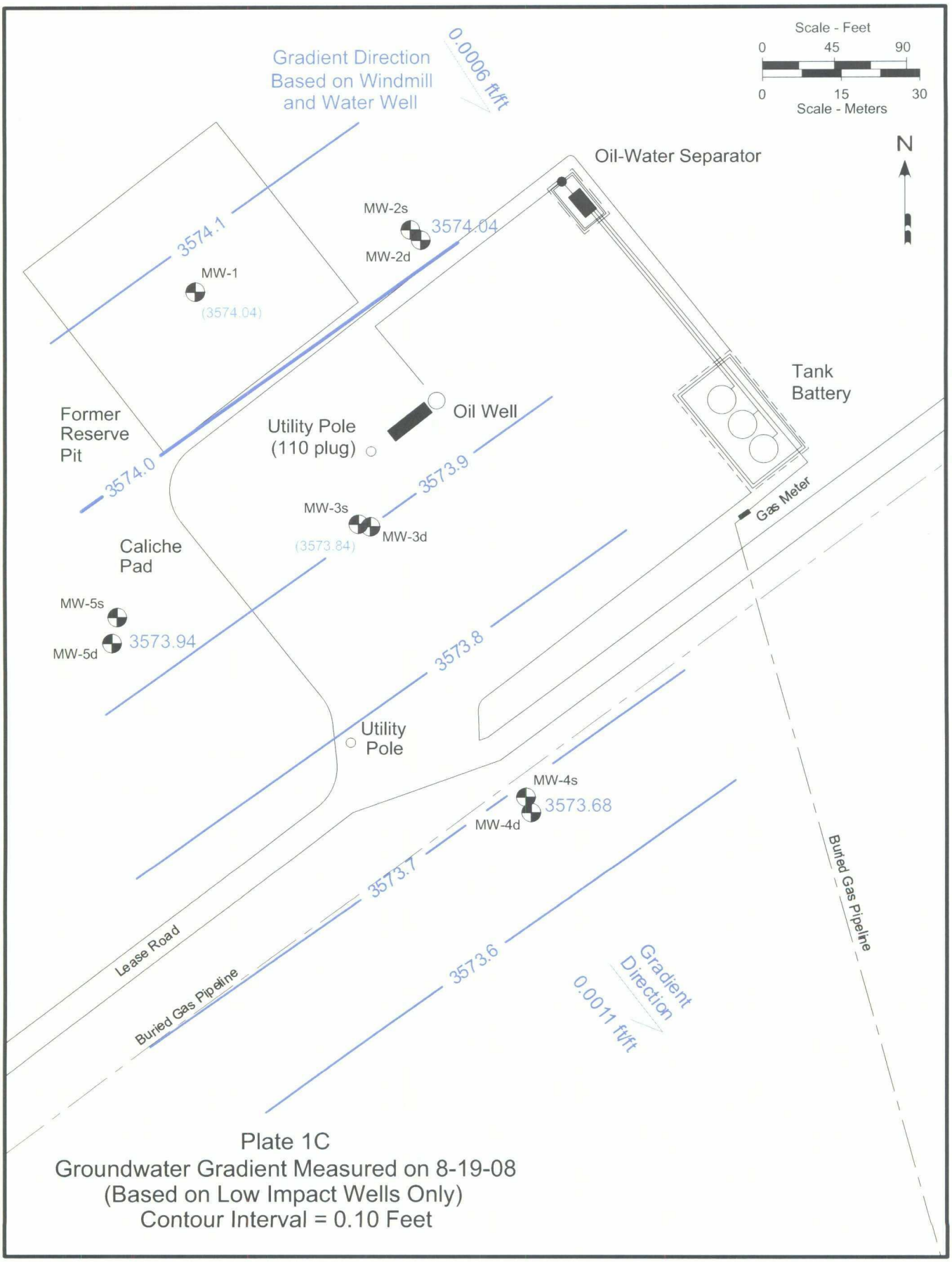

Plate 1C
Groundwater Gradient Measured on 8-19-08
(Based on Low Impact Wells Only)
Contour Interval = 0.10 Feet

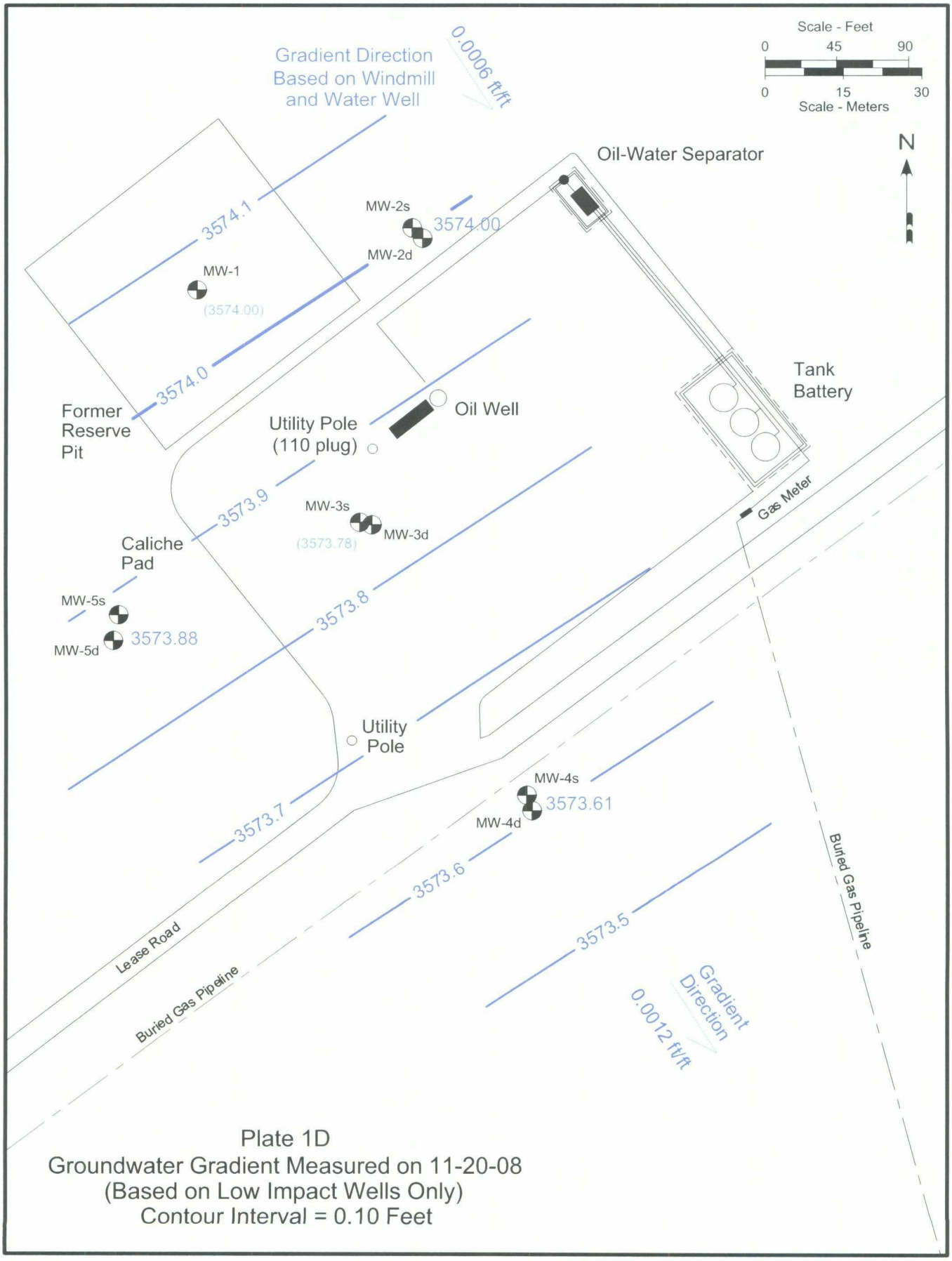

Plate 1D
Groundwater Gradient Measured on 11-20-08
(Based on Low Impact Wells Only)
Contour Interval = 0.10 Feet

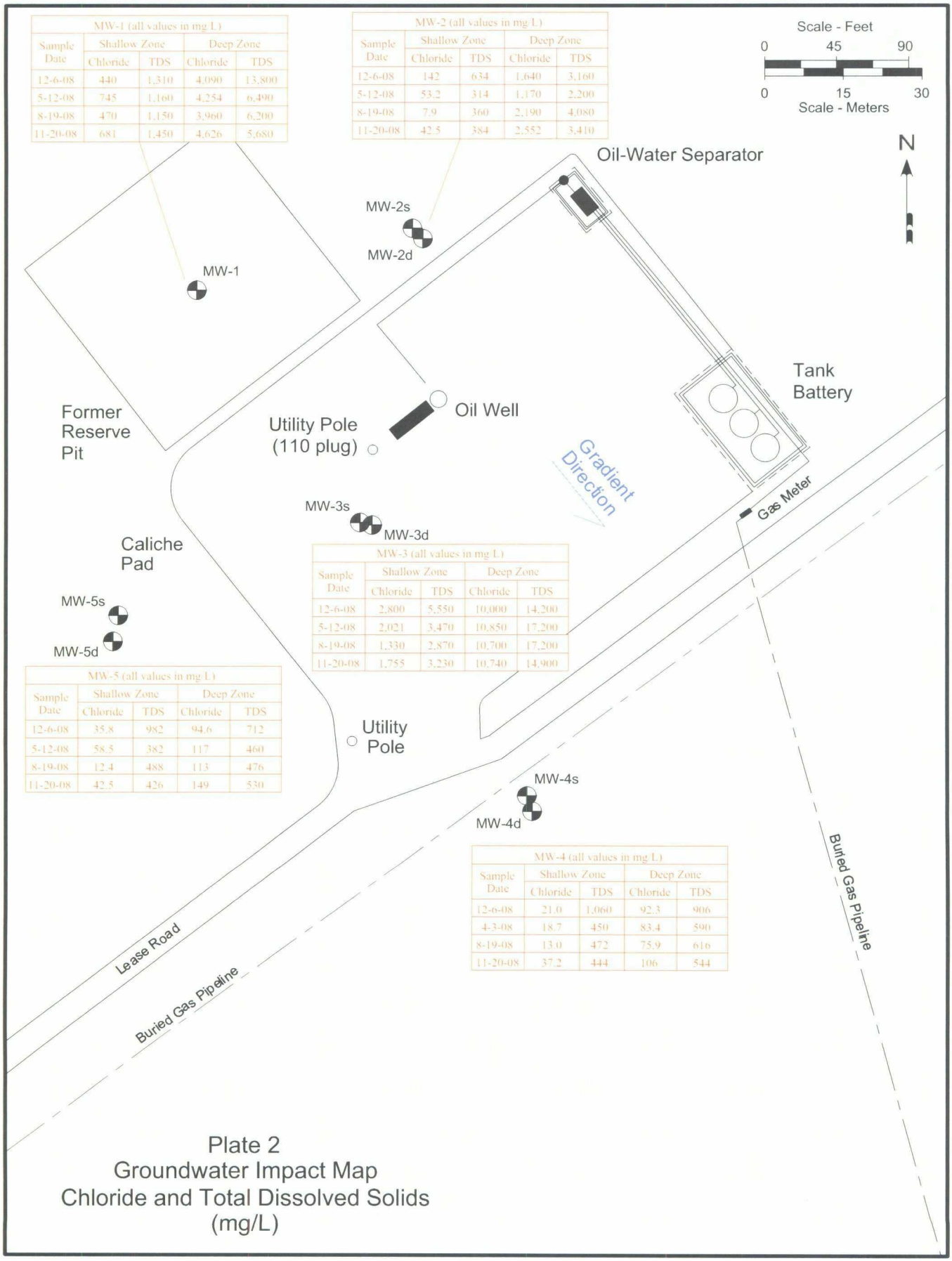

Plate 2
Groundwater Impact Map
Chloride and Total Dissolved Solids
(mg/L)

Appendix A

Chronology of Events

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Appendix A
Chronology of Events

09-30-02: Following the installation of the reserve pit, drilling of the Livestock "30" State No. 1 gas well commenced. The well lies within the Grama Ridge Morrow East Field.

04/05/04: After the completion of the gas well, while the reserve pit was drying out in preparation for closure, a significant precipitation event flooded the reserve pit and damaged the liner. Rainwater probably flushed the chloride from the cuttings, flowed through the liner tears and caused the impact to the underlying soil and ground water.

05-11-05: Samson contracted for the removal of the cuttings and some underlying material to a centralized facility. Soil samples collected in the excavation indicated that the material underlying the pit contained chloride concentrations and diesel-range organics but there is no evidence that regulated hydrocarbons were present in soil.

09-16-05: Ocotillo Environmental installed nine hollow-stem auger holes within and surrounding the reserve pit. The data showed elevated chloride concentrations (>1,000 mg/kg) in at several locations from the base of the excavation to the water table (approximately 40 feet below ground surface.

09-19-05: A sample from a temporary monitoring well (TMW-1) in the center of the pit showed elevated chloride concentrations.

Undated: A report by Ocotillo included recommendations to over-excavate the reserve pit to a depth of 30-feet, install a 20-mil plastic liner, backfill the pit with clean soil, and install monitoring wells surrounding the area to delineate the chloride impact to ground water.

03-15-06: Samson contracted with RT Hicks Consultants, Ltd to re-evaluate the reserve pit site and determine the feasibility of an alternate remedy for closure.

03-30-06: TMW-1 was purged of 30 gallons of water using a disposable bailer prior to sampling to determine the concentrations of chloride and total dissolved solids. The results indicated that the chloride concentration at TMW-1 had decreased significantly from the sample recovered on 9-19-05 but remained above WQCC Standards. A water sample recovered from the windmill-equipped water well located 1,800 feet to the northwest of the site established background water quality for the area.

05-10-06: The first of three additional ground water samples was recovered from TMW-1 over a 2-month period. In each case the well was purged of approximately 400 gallons prior to sampling. Chloride concentrations from each sample were generally consistent with the sample recovered on March 30, 2006.

06-12-06: Hicks Consultants submitted a Corrective Action Plan (CAP) for the proposed pit closure at the Livestock "30" site to Mr. Glenn Von Gonten, with the NMOCD in Santa Fe. The CAP presented a design for an evapotranspiration (ET) cover and recommended installation of the barrier over the reserve pit area to control the migration of additional chloride into the ground water. The CAP proposed a "point-of-use" ground water remedy.

07-12-06: A solar-powered pump installed in the 2-inch monitoring well (TMW-1) withdrew water at a rate of 1-2 gpm in order to determine if more aggressive water recovery would significantly decrease the chloride concentration in the ground water below the pit. Water discharged to the produced water tank.

08-30-06: In a meeting with Mr. Glenn Von Gotten and David Sanchez at the NMOCD offices in Santa Fe, Hicks Consultants and Samson presented the June 12, 2006 CAP and results of the ground water purging/sampling feasibility test. The result of the meeting was a commitment to submit a Stage 1/Stage 2 Abatement Plan and to proceed with construction of the ET Infiltration Barrier in advance of NMOCD approval of the Abatement Plan.

09-22-06: Hicks Consultants submitted a Stage 1/Stage 2 Abatement Plan to the NMOCD. The plan made minor changes to the CAP and to the planned closure of the reserve pit. The plan included a proposal to abate the chloride-impacted ground water through a point-of-use water withdrawal program.

09-28-06: Hicks Consultants supervised closure of the former reserve pit according to the plan provided to the NMOCD on September 22, 2006.

10-23-06: Closure of the former reserve pit was complete and the final surface topography was shaped and mapped.

10-30-06: Hicks Consultants supervised the installation of a 4-inch monitoring/recovery well (MW-1) at the location of the former 2-inch temporary monitoring well (TMW-1). MW-1 included screened intervals at the vadose zone/ground water interface and at the base of the aquifer, above the lower confining Triassic red shale formation. In addition, three vadose zone moisture monitoring ports were installed into the backfilled pit material.

11-30-06: Following the development of MW-1, a solar-powered pump (Abyss No. 1), was installed at the base of the aquifer. A rubber packer was placed five feet above the pump to restrict flow from the upper portion of the aquifer. Each month, a ground water sampling program sampled chloride-impacted ground water from the lower screen (pump) and upper screen (bailer).

12-18-06: A progress report submitted to the NMOCD described the closure of the former reserve pit, provided information regarding the final ET cover and described the installation of MW-1 and vadose zone moisture monitoring ports. The proposed Abatement Plan public notice and a request to begin using the withdrawn water for use in drilling was part of this submittal.

04-17-07: Gypsum blocks were installed in the soil moisture ports and checked to verify that they were working properly. Ground water samples were recovered from the deep screen (pump) and shallow screen (bailer) of MW-1.

05-01-07: Replaced Abyss No. 1 with Abyss No. 2 in MW-1. Abyss No. 1 ran for approximately 3,600 hours.

05-21-07: Direct wired the MW-1 pump to the solar power control box to by-pass faulty plug. Ground water samples were recovered from the deep screen (pump) and shallow screen (bailer) of MW-1.

05-23-07: A progress report submitted to the NMOCD described the on-going ground water recovery and monitoring efforts. A recommendation for additional monitoring well installation was part of this submittal.

05-30-07: Hicks Consultants supervised the installation of monitoring wells MW-2(s), MW-2(d), MW-3(s), and MW-3(d) to delineate the dissolved chloride plume in the ground water. Field activities continued through June 1, 2007. MW-2(s) was fully developed and MW-2(d), MW-3(s), and MW-3(d) were partially developed. All of the new monitoring wells were surveyed to determine the casing elevations relative to MW-1.

06-13-07: All of the monitoring wells, nearest water well, and the North windmill well were gauged. The North windmill was shut in and the pump in MW-1 was turned off on June 12, 2007 to allow the static water levels to recover. MW-2(d) and MW-3(s) were fully developed and MW-3(d) was partially developed (poor producer). All of the monitoring wells, including MW-1 (deep and shallow) were sampled.

07-18-07: Replaced Abyss No. 2 pump after 1,800 hours of operation with Abyss No. 1R (rebuilt) pump. The monitoring well casing elevations were re-surveyed to verify the June 1, 2007 data.

08-02-07: A progress report submitted to the NMOCD described the on-going ground water recovery /monitoring efforts, and the results of the monitoring well installation and sampling conducted in May and June 2007. A recommendation for two additional monitoring well clusters was part of this submittal.

08-07-07: Monitoring wells MW-4(s), MW-4(d), MW-5(s), and MW-5(d) were installed to the southwest and southeast of the former reserve pit in order to complete the delineation of the dissolved chloride in the ground water. Each of the new wells were developed and surveyed to determine the casing elevations relative to the existing wells. Sediment in MW-3(d) was clean out using compressed air and the well was fully developed. All of the monitoring wells were sampled to determine the concentrations of chloride and total dissolved solids.

11-20-07: The Final Abatement Plan was submitted to Mr. Glenn Von Goten of the NMOCD by RT Hicks Consultants on behalf of Samson.

12-06-07: Each of the monitoring wells were gauged and sampled to determine the concentrations of chloride and total dissolved solids. Removed Abyss No. 1R pump after approximately 3,300 hours of operation. Abyss No. 2R (rebuilt) pump was installed but failed immediately.

04-03-08: Each of the monitoring wells were gauged. MW-4(s) and MW-4(d) (down gradient) was sampled to determine the concentrations of chloride and total dissolved solids.

05-06-08: Installed 110-volt electric pump in MW-3(d), however the transformer for the on-site electric supply was too small to operate the 11.9-amp pump. Electrician installed new transformer and started pump at 1.5 gpm on 5/7/08.

05-12-08: Arrived on site and found pump in MW-3(d) operating at 1.2 gpm but the water level was at the pump depth. Approximately 5,500 gallons of water had been recovered in two frac tanks since the pumping operation began. A ground water sample was recovered from the pumping well and the flow rate was choked down to 1.15 gpm. Each of the other monitoring wells were gauged and MW-1, MW-2(s), MW-2(d), MW-3(s), MW-5(s), and MW-5(d) was sampled to determine the concentrations of chloride and total dissolved solids.

06-02-08: 650 bbls of water from MW-3(d) was transported by Lobo Trucking to the Samson Osudo 33 State Com. No. 1 well for use in the drilling reserve pit.

06-04-08: 110 bbls of water from MW-3(d) was transported by Key Energy to the Atha SWD for disposal.

06-19-08: 120 bbls of water from MW-3(d) was transported by Key Energy to the Atha SWD for disposal.

07-03-08: 240 bbls of water from MW-3(d) was transported by Key Energy to the Atha SWD for disposal.

07-15-/08: 220 bbls of water from MW-3(d) was transported by Key Energy to the Atha SWD for disposal.

07-18-08: Arrived on site and found pump in MW-3(d) operating at 1.25 gpm. A ground water sample was recovered from the pumping well but the flow rate was not adjusted.

07-23-08: 220 bbls of water from MW-3(d) was transported by Key Energy to the Atha SWD for disposal.

07-30-08: 330 bbls of water from MW-3(d) was transported by Key Energy to the Atha SWD for disposal.

07-31-08: The pump in MW-3(d) was turned off, but left in the well. 660 bbls of water was transported by Key Energy to the Atha SWD for disposal. Both frac tanks were removed from the site.

08-19-08: Each of the monitoring wells were gauged and sampled to determine the concentrations of chloride and total dissolved solids.

11-20-08: Each of the monitoring wells were gauged and sampled to determine the concentrations of chloride and total dissolved solids.

Summary of Activities Completed to Date

Initial Assessment

Following the discovery of elevated chloride concentrations in the soil below the former reserve pit by Samson, Ocotillio Environmental installed nine soil borings to define the extent of the impact to the soil. One of the soil borings was converted into a temporary monitoring well (TMW-1) in order to verify the impact to ground water. Details concerning these activities were provided with the September 22, 2006 Stage 1/Stage 2 Abatement Plan.

Closure of the Former Reserve Pit
From September 28 to October 23, 2006 the reserve pit was backfilled. An evapotranspiration (ET) cover and surface run-off infiltration area were constructed during the backfill operations. Following completion of the ET cover MW-1 was installed as a replacement to TMW-1 and three soil moisture monitoring ports were installed to verify the effectiveness of the ET cover. Detailed information concerning these activities were provided in the December 18, 2006 Progress Report. Re-seeding of the ET cover and the installation of gypsum blocks into the moisture ports occurred in April 2006. Based on monitoring of the gypsum blocks performed through August 9, 2007, as shown below, there is no indication that rain water is infiltrating the ET barrier.

Ground Water Pumping (Source Removal)
A solar-powered pump was installed in MW-1 on November 30, 2006, and the recovery of brine water, released for the reserve pit, along with ground water began at an average rate of 0.8 gallons per minute (gpm). All of the removed water is discharged into the on-site 500-barrel fiberglass tank, mixed with produced water from the gas well, and periodically transferred to a disposal facility. Information concerning these activities were provided in the May 23, 2007 Progress Report.

Dissolved Chloride Plume Delineation
Two clusters of monitoring wells, which included a shallow well screened at the surface of the aquifer and a deep well screened at the base of the aquifer, were installed to provide delineation of the chloride-impacted ground water to the northeast (MW-2) and the southeast (MW-3) of the former reserve pit. Information concerning the remediation/monitoring activities and the installation of MW-2 and MW-3 were provided in the August 2, 2007 Progress Report.

From August 7, to August 9, 2007 two additional clusters of monitoring wells were installed at the site. MW-4(s) and MW-4(d) were placed approximately 300 feet southeast from the former reserve pit to verify the down gradient extent of the chloride-impacted ground water. MW-5(s) and MW-5(d) were placed approximately 120 feet south of the former reserve pit in order to delineate the plume to the southwest of MW-3.

Each of the wells, including MW-1, MW-2, and MW-3, were drilled using a hollow-stem auger operated by Atkins Engineering of Roswell, NM. The shallow wells were screened with 20 feet of 2-inch (0.010-inch slot) PVC casing extending approximately 10 to 12 feet below the static water level and the deep wells were screened with 10 feet of similar casing placed at the base of the aquifer. Additional soil samples were not recovered during the drilling activity because the monitoring wells are located beyond the known extent of soil impact.

Following completion, each for the new wells were gauged, developed, and surveyed relative to the casing elevations of the existing monitoring wells. A site ground water gradient map was constructed using data from only MW-2, MW-4, and MW-5. Elevated dissolved solids in the

ground water at the MW-1 and MW-3 locations increase the specific gravity of the water such that measured fluid levels do not accurately reflect the potentiometric energy of the aquifer.

Ground water samples were recovered from each of the project monitoring wells using disposable bailers (shallow wells) or a small submersible pump (deep wells) to determine the concentrations of chloride and total dissolved solids (TDS) with major anion and cation analyses performed on selective samples. Information and lithologic logs concerning these activities were provided in the November 20, 2007 Final Abatement Report.

Activities Completed Since Previous Update

Ground Water Pumping (Source Removal)
The last of the solar-powered pumps initially installed in MW-1 on November 30, 2006 was removed on December 6, 2007. Approximately 386,769 gallons of brine water were recovered from the deep screened interval in MW-1 over 8,700 hours of operation from the three pumps. All of the removed water was discharged into the on-site 500-barrel fiberglass tank, mixed with produced water from the gas well, and periodically transferred to a disposal facility.

An additional 107,100 gallons of water was recovered from MW-3(d) using a 110-volt submersible pump. The recovered water was temporarily stored in two on-site frac tanks before being transferred to an oil well drilling operation for use in the reserve pit or transported to a disposal facility.

Ground Water Monitoring
From December 6, 2007 to November 20, 2008, four ground water monitoring event were conducted to verify the plume stability and determine the effect of the source removal operations to date.

Appendix B

Field Run Tickets

R.T. Hicks Consultants, Ltd.
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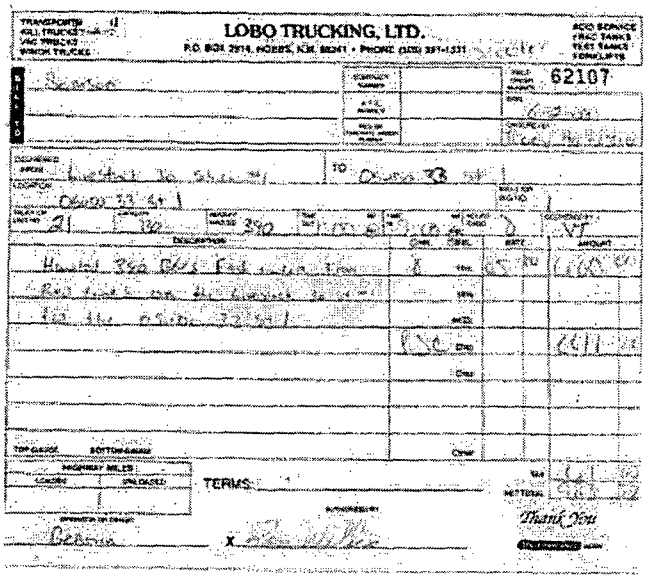
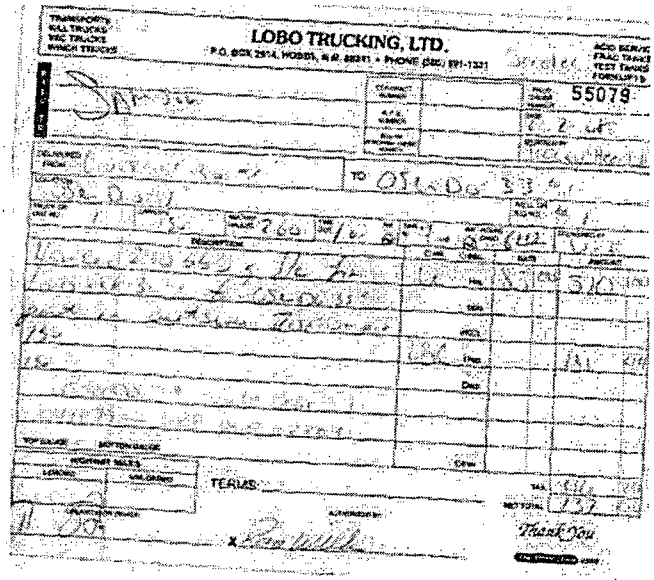


LOBO TRUCKING, LTD.
P.O. BOX 2914, HOBBS, N.M. 88241 • PHONE (505) 397-1331
62107
TERMS:
Thank You



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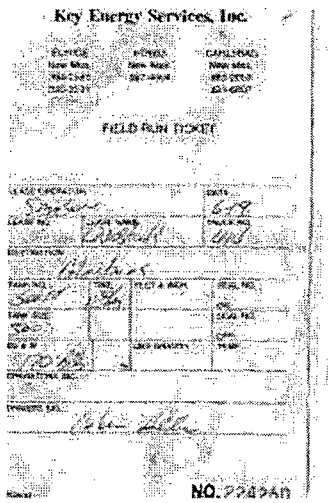
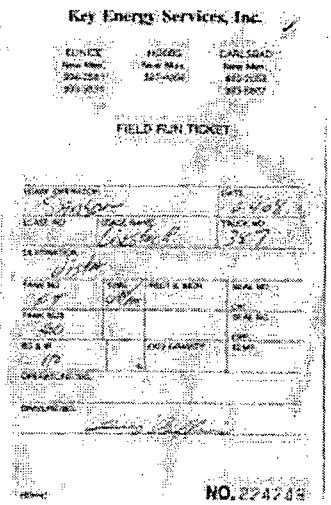
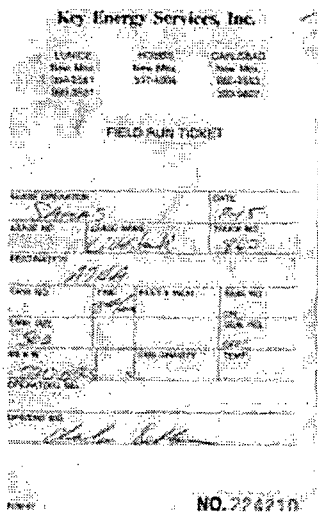


Key Energy Services, Inc.
FIELD RUN TICKET
NO. 224948



Key Energy Services, Inc.
FIELD RUN TICKET
NO. 224748



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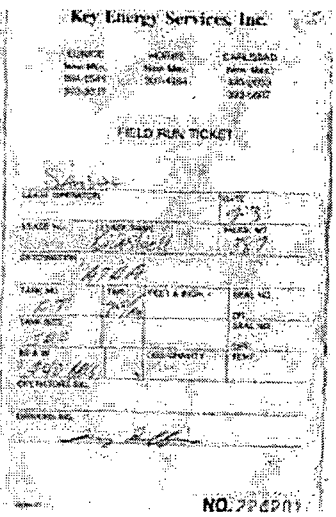

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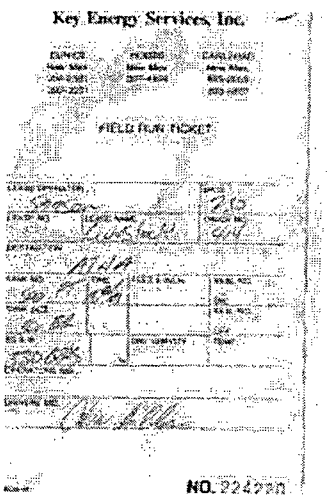
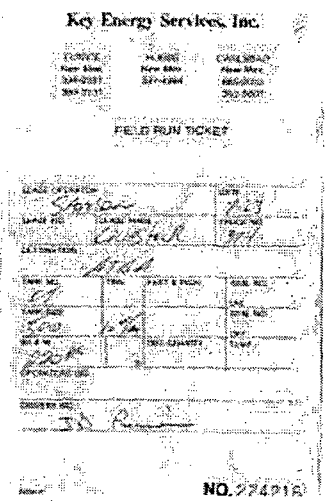
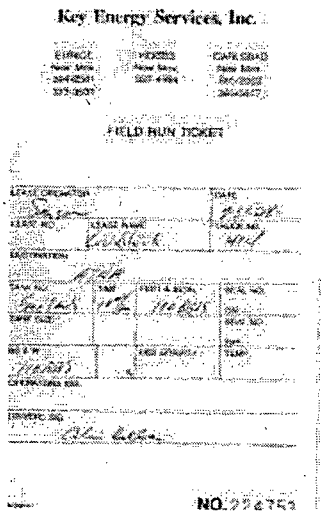
FIELD RUN TICKET
NO. 224901



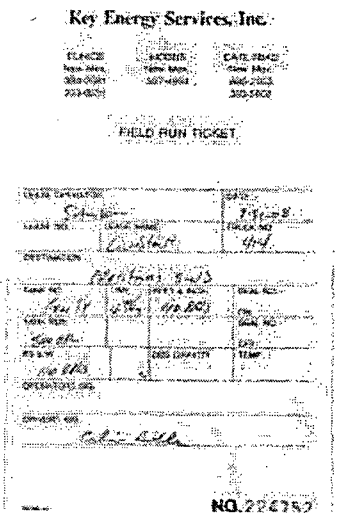
Key Energy Services, Inc.
FIELD RUN TICKET
NO. 224920



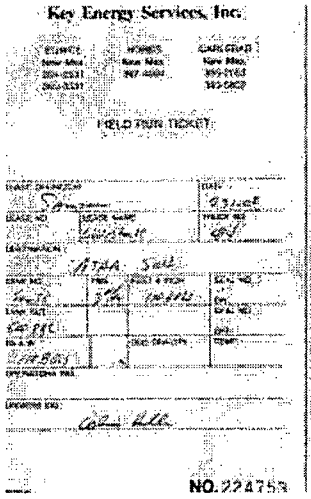
Key Energy Services, Inc.
FIELD RUN TICKET
NO. 224918



Key Energy Services, Inc.
FIELD RUN TICKET
NO. 224753

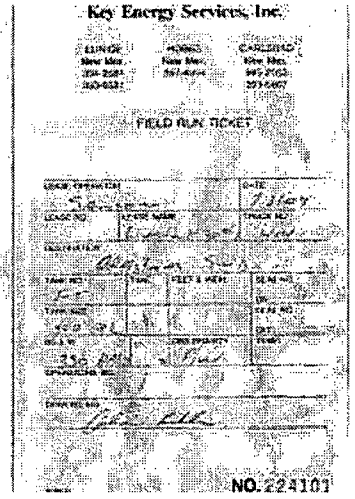


Key Energy Services, Inc.
FIELD RUN TICKET
NO. 224757


Key Energy Services, Inc.

FIELD RUN TICKET

NO. 224753


Key Energy Services, Inc.

FIELD RUN TICKET

NO. 224101

Summary of Water Removal

Date	Company	Ticket No.	Destination	Vol. (bbls)
6/2/08	Lobo Trucking	62107	Osudo 33 St. Com. #1	390
6/2/08	Lobo Trucking	55079	Osudo 33 St. Com. #1	260
6/4/08	Key Energy	224249	Atha SWD	110
6/19/08	Key Energy	224250	Atha SWD	120
7/3/08	Key Energy	224201	Atha SWD	240
7/15/08	Key Energy	224210	Atha SWD	220
7/23/08	Key Energy	224216	Atha SWD	220
7/30/08	Key Energy	224220	Atha SWD	330
7/31/08	Key Energy	224752	Atha SWD	110
7/31/08	Key Energy	224751	Atha SWD	110
7/31/08	Key Energy	224101	Atha SWD	330
7/31/08	Key Energy	224753	Atha SWD	110
			Total bbls Removed	**2550**

Appendix C

Laboratory Reports

R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Analytical Report 294158

for

RT Hicks Consultants Ltd. (Midland)

Project Manager: Dale Littlejohn

Samson Livestock 30

L-124-1207

11-DEC-07

12600 West I-20 East Odessa, Texas 79765

A Xenco Laboratories Company

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

11-DEC-07

Project Manager: **Dale Littlejohn**
RT Hicks Consultants Ltd. (Midland)
P.O. Box 7624

Midland, TX 79708

Reference: XENCO Report No: **294158**
Samson Livestock 30
Project Address: Lea Co., NM

Dale Littlejohn:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 294158. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 294158 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 294158

RT Hicks Consultants Ltd. (Midland), Midland, TX

Samson Livestock 30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1 (Top Screen)	W	Dec-06-07 12:45		294158-001
MW-1 (Btm Screen)	W	Dec-06-07 12:50		294158-002
MW-2(s)	W	Dec-06-07 08:15		294158-003
MW-2(d)	W	Dec-06-07 14:55		294158-004
MW-3(s)	W	Dec-06-07 14:00		294158-005
MW-3(d)	W	Dec-06-07 13:35		294158-006
MW-4(s)	W	Dec-06-07 09:25		294158-007
MW-4(d)	W	Dec-06-07 10:15		294158-008
MW-5(s)	W	Dec-06-07 08:45		294158-009
MW-5(d)	W	Dec-06-07 15:22		294158-010

Certificate of Analysis Summary 294158

RT Hicks Consultants Ltd. (Midland), Midland, TX

Project Name: Samson Livestock 30

Project Id: L-124-1207
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Fri Dec-07-07 09:40 am
Report Date: 11-DEC-07
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	294158-001		294158-002		294158-003		294158-004		294158-005		294158-006	
	Field Id:	MW-1 (Top Screen)		MW-1 (Btm Screen)		MW-2(s)		MW-2(d)		MW-3(s)		MW-3(d)	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Dec-06-07 12:45		Dec-06-07 12:50		Dec-06-07 08:15		Dec-06-07 14:55		Dec-06-07 14:00		Dec-06-07 13:35	
Inorganic Anions by EPA 300	*Extracted:*												
	Analyzed:	Dec-07-07 18:09		Dec-07-07 18:09		Dec-07-07 18:09		Dec-07-07 18:09		Dec-07-07 18:09		Dec-07-07 18:09	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		440	5.00	4090	50.0	142	5.00	1640	25.0	2800	100	10000	100
Residue, Filterable (TDS) by EPA 160.1	*Extracted:*												
	Analyzed:	Dec-10-07 15:00		Dec-10-07 15:00		Dec-10-07 15:00		Dec-10-07 15:00		Dec-10-07 15:00		Dec-10-07 15:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		1310	5.00	13800	5.00	634	5.00	3160	5.00	5550	5.00	14200	5.00

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 294158

RT Hicks Consultants Ltd. (Midland), Midland, TX

Project Name: Samson Livestock 30

Project Id: L-124-1207
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Fri Dec-07-07 09:40 am
Report Date: 11-DEC-07
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	294158-007		294158-008		294158-009		294158-010					
	Field Id:	MW-4(s)		MW-4(d)		MW-5(s)		MW-5(d)					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	Dec-06-07 09:25		Dec-06-07 10:15		Dec-06-07 08:45		Dec-06-07 15:22					
Inorganic Anions by EPA 300	*Extracted:*												
	Analyzed:	Dec-07-07 18:09		Dec-07-07 18:09		Dec-07-07 18:09		Dec-07-07 18:09					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		21.0	2.50	92.3	5.00	35.8	5.00	94.6	5.00				
Residue, Filterable (TDS) by EPA 160.1	*Extracted:*												
	Analyzed:	Dec-10-07 15:00		Dec-10-07 15:00		Dec-10-07 15:00		Dec-10-07 15:00					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total dissolved solids		1060	5.00	906	5.00	982	5.00	712	5.00				

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Blank Spike Recovery

Project Name: Samson Livestock 30

Work Order #: 294158 **Project ID:** L-124-1207

Lab Batch #: 710097 **Sample:** 710097-1-BKS **Matrix:** Water

Date Analyzed: 12/07/2007 **Date Prepared:** 12/07/2007 **Analyst:** LATCOR

Reporting Units: mg/L **Batch #:** 1

Inorganic Anions by EPA 300 Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	10.2	102	90-110	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS Recoveries

Project Name: Samson Livestock 30

Work Order #: 294158
Lab Batch #: 710097
Date Analyzed: 12/07/2007
QC- Sample ID: 294158-001 S
Reporting Units: mg/L

Date Prepared: 12/07/2007
Batch #: 1

Project ID: L-124-1207
Analyst: LATCOR
Matrix: Water

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	440	100	544	104	90-110	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Sample Duplicate Recovery

XENCO Laboratories

Project Name: Samson Livestock 30

Work Order #: 294158

Lab Batch #: 710097 **Project ID:** L-124-1207

Date Analyzed: 12/07/2007 **Date Prepared:** 12/07/2007 **Analyst:** LATCOR

QC- Sample ID: 294158-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

Inorganic Anions by EPA 300	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	440	432	2	20	

Lab Batch #: 710180

Date Analyzed: 12/10/2007 **Date Prepared:** 12/10/2007 **Analyst:** RBA

QC- Sample ID: 294158-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

Residue, Filterable (TDS) by EPA 160.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	1310	1290	2	30	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Dale Littlejohn
Company Name: RT Hicks Consultants Ltd
Company Address: P.O. Box 7624
City/State/Zip: Midland, Texas 79708
Telephone No: (432) 528-3878
Fax No: (432) 689-4578 (Fax)
Sampler Signature: Dale Littlejohn

Project Name: Samson Livestock 30
Project #: L-124-1207
Project Loc: Lea Co., NM
PO #:

LAB # (lab use only) 294158	FIELD CODE	Date Sampled	Time Sampled	No. of Containers / 1 HNO3	Preservative: Ice	HNO_3	HCl	NaOH	H_2SO_4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: / TOTAL: TPH 418.1 8015M 1005 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride	Bromide	Total Dissolved Solids		RUSH TAT (Pre-Schedule)	Standard TAT
-001	MW-1 (Top Screen)	12/6/07	1245	1	X					X		X														X		X			X
-002	MW-1 (Btm Screen)	12/6/07	1250	1	X					X		X														X		X			X
-003	MW-2(s)	12/6/07	0815	1	X					X		X														X		X			X
-004	MW-2(d)	12/6/07	1455	1	X					X		X														X		X			X
-005	MW-3(s)	12/6/07	1400	1	X					X		X														X		X			X
-006	MW-3(d)	12/6/07	1335	1	X					X		X														X		X			X
-007	MW-4(s)	12/6/07	0925	1	X					X		X														X		X			X
-008	MW-4(d)	12/6/07	1015	1	X					X		X														X		X			X
-009	MW-5(s)	12/6/07	0845	1	X					X		X														X		X			X
-010	MW-5(d)	12/6/07	1522	1	X					X		X														X		X			X

Special Instructions: Send Invoice to RT Hicks Consult. 901 Rio Grande Blvd. NW, Suite F-142, Albuquerque, NM 87104. Send results to Dale Littlejohn at the adress above.

Relinquished by:	Date	Time	Received by:	Date	Time
Dale Littlejohn	12/7/07	9:40			
Relinquished by:	Date	Time	Received by ELOT	Date	Time
			Jami Fitch	12.07.07	09:40

Sample Containers Intact? (Y) N
Temperature Upon Receipt: -2.0 °C not frozen
Laboratory Comments: w/labels no seals

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: RT Hicks

Date/ Time: 12-07-07

Lab ID # : 294158

Initials: JMF

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-2.0 °C not from °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	Yes	No	(Not Applicable)	

Variance Documentation

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

Regarding: _____

Corrective Action Taken:

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 301047

for

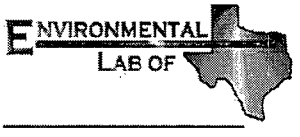
R.T. Hicks Consultants, LTD

Project Manager: Dale Littlejohn

Samson Livestock 30

L-124-0408

09-APR-08



12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

09-APR-08

Project Manager: **Dale Littlejohn**
R.T. Hicks Consultants, LTD
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Reference: XENCO Report No: **301047**
Samson Livestock 30
Project Address: Lea Co., NM

Dale Littlejohn:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 301047. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 301047 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 301047

R.T. Hicks Consultants, LTD, Albuquerque, NM

Samson Livestock 30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-4 (s)	W	Apr-03-08 13:57		301047-001
MW-4 (d)	W	Apr-03-08 13:40		301047-002

ENVIRONMENTAL LAB OF

Certificate of Analysis Summary 301047

R.T. Hicks Consultants, LTD, Albuquerque, NM

Project Name: Samson Livestock 30

Project Id: L-124-0408
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Thu Apr-03-08 05:00 pm
Report Date: 09-APR-08
Project Manager: Brent Barron, II

Analysis Requested									
	Lab Id:	301047-001		301047-002					
	Field Id:	MW-4 (s)		MW-4 (d)					
	Depth:								
	Matrix:	WATER		WATER					
	Sampled:	Apr-03-08 13:57		Apr-03-08 13:40					
Anions by EPA 300/300.1	*Extracted:*								
	Analyzed:	Apr-04-08 12:57		Apr-04-08 12:57					
	Units/RL:	mg/L	RL	mg/L	RL				
Chloride		18.7	2.50	83.4	5.00				
TDS by SM2540C	*Extracted:*								
	Analyzed:	Apr-04-08 16:30		Apr-04-08 16:30					
	Units/RL:	mg/L	RL	mg/L	RL				
Total dissolved solids		450	5.00	590	5.00				

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Blank Spike Recovery

Project Name: Samson Livestock 30

Work Order #: 301047 **Project ID:** L-124-0408

Lab Batch #: 719133 **Sample:** 719133-1-BKS **Matrix:** Water

Date Analyzed: 04/04/2008 **Date Prepared:** 04/04/2008 **Analyst:** LATCOR

Reporting Units: mg/L **Batch #:** 1

	BLANK /BLANK SPIKE RECOVERY STUDY					
Anions by EPA 300/300.1 **Analytes**	**Blank Result [A]**	**Spike Added [B]**	**Blank Spike Result [C]**	**Blank Spike %R [D]**	**Control Limits %R**	**Flags**
Chloride	ND	10.0	10.0	100	85-115	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS Recoveries

Project Name: Samson Livestock 30

Work Order #: 301047
Lab Batch #: 719133
Date Analyzed: 04/04/2008
QC- Sample ID: 301020-001 S
Reporting Units: mg/L

Date Prepared: 04/04/2008
Batch #: 1

Project ID: L-124-0408
Analyst: LATCOR
Matrix: Water

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	679	200	903	112	85-115	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Sample Duplicate Recovery

Project Name: Samson Livestock 30

Work Order #: 301047

Lab Batch #: 719133 **Project ID:** L-124-0408
Date Analyzed: 04/04/2008 **Date Prepared:** 04/04/2008 **Analyst:** LATCOR
QC- Sample ID: 301020-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Anions by EPA 300/300.1 Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	679	685	1	20	

Lab Batch #: 719392
Date Analyzed: 04/04/2008 **Date Prepared:** 04/04/2008 **Analyst:** RBA
QC- Sample ID: 301047-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

TDS by SM2540C Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY				
	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	450	440	2	30	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Dale Littlejohn
Company Name: RT Hicks Consultants Ltd
Company Address: P.O. Box 7624
City/State/Zip: Midland, Texas 79708
Telephone No: (432) 528-3878
Fax No: (432) 689-4578 (Fax)
Sampler Signature: Dale Littlejohn

Project Name: Samson Livestock 30
Project #: L-124-0408
Project Loc: Lea Co., NM
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TPH 418.1 8015M 1005 1006	TCLP: Cations (Ca, Mg, Na, K)	TCLP: Anions (Cl, SO4, CO3, HCO3)	TCLP: SAR / ESP / CEC	TCLP: Metals As Ag Ba Cd Cr Pb Hg Se	TCLP: Volatiles	TCLP: Semivolatiles	TCLP: BTEX 8021B/5030 or BTEX 8260	TOTAL: PCI	TOTAL: N O R M	TOTAL: Chloride	TOTAL: Bromide	TOTAL: Total Dissolved Solids	RUSH TAT (Pre-Schedule)	Standard TAT
01	MW-4(s)	4/3/08	1357	1	X					X		X														X		X		X
02	MW-4(d)	4/3/08	1340	1	X					X		X														X		X		X

Special Instructions: Send invoice to RT Hicks Consult. 901 Rio Grande Blvd. NW. Suite F-142, Albuquerque, NM 87104; Send results to Dale Littlejohn at the adress above.

Sample Containers Intact? Y N
Temperature Upon Receipt: 1.0
Laboratory Comments: Intact

Relinquished by:	Date	Time	Received by:	Date	Time
Dale Littlejohn	4/3/08	1700			
Relinquished by:	**Date**	**Time**	**Received by ELOT:**	**Date**	**Time**
				4/3/08	17.00

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: R.T. Hicks

Date/ Time: 4.3.08 17:00

Lab ID #: 320477

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	Yes	No	1.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

AL 4.4.08

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 303680

for

R.T. Hicks Consultants, LTD

Project Manager: Dale Littlejohn

Samson Livestock 30

L-124-0508

16-MAY-08

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

16-MAY-08

Project Manager: **Dale Littlejohn**
R.T. Hicks Consultants, LTD
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Reference: XENCO Report No: **303680**
Samson Livestock 30
Project Address: Lea Co., NM

Dale Littlejohn:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 303680. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 303680 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 303680

R.T. Hicks Consultants, LTD, Albuquerque, NM

Samson Livestock 30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1(s)	W	May-12-08 12:05		303680-001
MW-1(d)	W	May-12-08 11:55		303680-002
MW-2(s)	W	May-12-08 13:25		303680-003
MW-2(d)	W	May-12-08 14:00		303680-004
MW-3(s)	W	May-12-08 10:35		303680-005
MW-3(d)	W	May-12-08 09:25		303680-006
MW-5(s)	W	May-12-08 14:45		303680-007
MW-5(d)	W	May-12-08 15:12		303680-008

ENVIRONMENTAL LAB OF

Certificate of Analysis Summary 303680

R.T. Hicks Consultants, LTD, Albuquerque, NM

Project Name: Samson Livestock 30

Project Id: L-124-0508
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Mon May-12-08 05:15 pm
Report Date: 16-MAY-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	303680-001		303680-002		303680-003		303680-004		303680-005		303680-006	
	Field Id:	MW-1(s)		MW-1(d)		MW-2(s)		MW-2(d)		MW-3(s)		MW-3(d)	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	May-12-08 12:05		May-12-08 11:55		May-12-08 13:25		May-12-08 14:00		May-12-08 10:35		May-12-08 09:25	
Chloride by SM4500-CI- B	*Extracted:*												
	Analyzed:	May-13-08 11:06		May-16-08 10:03		May-13-08 11:06		May-13-08 11:06		May-13-08 11:06		May-16-08 10:03	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		744.5	5.000	4254	5.000	53.18	5.000	1170	5.000	2021	5.000	10850	5.000
TDS by SM2540C	*Extracted:*												
	Analyzed:	May-13-08 16:30		May-13-08 16:30		May-13-08 16:30		May-13-08 16:30		May-13-08 16:30		May-13-08 16:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		1160	5.00	6490	5.00	314	5.00	2200	5.00	3470	5.00	17200	5.00

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 303680

R.T. Hicks Consultants, LTD, Albuquerque, NM

Project Name: Samson Livestock 30

Project Id: L-124-0508
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Mon May-12-08 05:15 pm
Report Date: 16-MAY-08
Project Manager: Brent Barron, II

Analysis Requested							
	Lab Id:	303680-007		303680-008			
	Field Id:	MW-5(s)		MW-5(d)			
	Depth:						
	Matrix:	WATER		WATER			
	Sampled:	May-12-08 14:45		May-12-08 15:12			
Chloride by SM4500-Cl- B	***Extracted:***						
	Analyzed:	May-13-08 11:06		May-13-08 11:06			
	Units/RL:	mg/L	RL	mg/L	RL		
Chloride		58.49	5.000	117.0	5.000		
TDS by SM2540C	***Extracted:***						
	Analyzed:	May-13-08 16:30		May-13-08 16:30			
	Units/RL:	mg/L	RL	mg/L	RL		
Total dissolved solids		382	5.00	460	5.00		

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Blank Spike Recovery

Project Name: Samson Livestock 30

Work Order #: 303680 **Project ID:** L-124-0508

Lab Batch #: 722435 **Sample:** 722435-1-BKS **Matrix:** Water
Date Analyzed: 05/13/2008 **Date Prepared:** 05/13/2008 **Analyst:** IRO
Reporting Units: mg/L **Batch #:** 1

Chloride by SM4500-Cl- B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	100.0	91.46	91	70-125	

Lab Batch #: 722838 **Sample:** 722838-1-BKS **Matrix:** Water
Date Analyzed: 05/16/2008 **Date Prepared:** 05/16/2008 **Analyst:** IRO
Reporting Units: mg/L **Batch #:** 1

Chloride by SM4500-Cl- B Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
	BLANK /BLANK SPIKE RECOVERY STUDY					
Chloride	ND	100.0	89.33	89	70-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS / MSD Recoveries

Project Name: Samson Livestock 30

Work Order # : 303680 **Project ID:** L-124-0508

Lab Batch ID: 722435 **QC- Sample ID:** 303680-007 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 05/13/2008 **Date Prepared:** 05/13/2008 **Analyst:** IRO

Reporting Units: mg/L

Chloride by SM4500-Cl- B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	58.49	500.0	553.0	99	500.0	558.3	100	1	70-125	25	

Lab Batch ID: 722838 **QC- Sample ID:** 303680-002 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 05/16/2008 **Date Prepared:** 05/16/2008 **Analyst:** IRO

Reporting Units: mg/L

Chloride by SM4500-Cl- B Analytes	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	Spiked Sample %R [D]	Spike Added [E]	Duplicate Spiked Sample Result [F]	Spiked Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Chloride	4254	10000	14040	98	10000	14250	100	2	70-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*(D-G)/(D+G)

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Samson Livestock 30

Work Order #: 303680

Lab Batch #: 722587 **Project ID:** L-124-0508

Date Analyzed: 05/13/2008 **Date Prepared:** 05/13/2008 **Analyst:** WRU

QC- Sample ID: 303680-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	1160	1130	3	30	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Dale Littlejohn
Company Name: RT Hicks Consultants Ltd
Company Address: P.O. Box 7624
City/State/Zip: Midland, Texas 79708
Telephone No: (432) 528-3878
Fax No: (432) 689-4578 (Fax)
Sampler Signature:

Project Name: Samson Livestock 30
Project #: L-124-0508
Project Loc: Lea Co., NM
PO #:

LAB # (lab use only) 303680	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TCLP: TPH 418.1 / 8015M / 1005 / 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M	Chloride	Bromide	Total Dissolved Solids		RUSH TAT (Pre-Schedule)	Standard TAT
01	MW-1(s)	5/12/08	1205	1	X					X		X															X		X		X
02	MW-1(d)	5/12/08	1155	1	X					X		X															X		X		X
03	MW-2(s)	5/12/08	1325	1	X					X		X															X		X		X
04	MW-2(d)	5/12/08	1400	1	X					X		X															X		X		X
05	MW-3(s)	5/12/08	1035	1	X					X		X															X		X		X
06	MW-3(d)	5/12/08	0925	1	X					X		X															X		X		X
07	MW-5(s)	5/12/08	1445	1	X					X		X															X		X		X
08	MW-5(d)	5/12/08	1512	1	X					X		X															X		X		X

Special Instructions: Send Invoice to RT Hicks Consult. 901 Rio Grande Blvd. NW, Suite F-142, Albuquerque, NM 87104: Send results to Dale Littlejohn at the adress above.

Sample Containers Intact? (Y) N
Temperature Upon Receipt: -.5 Not Frozen
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Dale Littlejohn	5/14/08	1715			
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Andrea Lam	5/12/08	17:15

w/labels, no seals

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: R.T. Hicks

Date/ Time: 5.12.08 17:15

Lab ID # : 303680

Initials: CK

Sample Receipt Checklist

				Not Frozen	Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	-.5 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	(Not Present)	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	(Not Present)	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	(Not Applicable)	
#20	VOC samples have zero headspace?	Yes	No	(Not Applicable)	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 310635

for

R.T. Hicks Consultants, LTD

Project Manager: Dale Littlejohn

Samson Livestock 30

L-124-0808

25-AUG-08

E84880

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215 - Odessa/Midland, TX T104704215-08-TX

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Austin - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

25-AUG-08

Project Manager: **Dale Littlejohn**
R.T. Hicks Consultants, LTD
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Reference: XENCO Report No: **310635**
Samson Livestock 30
Project Address: Lea Co., NM

Dale Littlejohn:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 310635. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 310635 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 310635

R.T. Hicks Consultants, LTD, Albuquerque, NM

Samson Livestock 30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1 (s)	W	Aug-19-08 09:10		310635-001
MW-1 (d)	W	Aug-19-08 09:02		310635-002
MW-2 (s)	W	Aug-19-08 11:17		310635-003
MW-2 (d)	W	Aug-19-08 11:36		310635-004
MW-3 (s)	W	Aug-19-08 10:27		310635-005
MW-3 (d)	W	Aug-19-08 10:02		310635-006
MW-4 (s)	W	Aug-19-08 12:14		310635-007
MW-4 (d)	W	Aug-19-08 12:23		310635-008
MW-5 (s)	W	Aug-19-08 13:20		310635-009
MW-5 (d)	W	Aug-19-08 13:15		310635-010

Certificate of Analysis Summary 310635

R.T. Hicks Consultants, LTD, Albuquerque, NM

Project Name: Samson Livestock 30

Project Id: L-124-0808
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Wed Aug-20-08 03:50 pm
Report Date: 25-AUG-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	310635-001		310635-002		310635-003		310635-004		310635-005		310635-006	
	Field Id:	MW-1 (s)		MW-1 (d)		MW-2 (s)		MW-2 (d)		MW-3 (s)		MW-3 (d)	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Aug-19-08 09:10		Aug-19-08 09:02		Aug-19-08 11:17		Aug-19-08 11:36		Aug-19-08 10:27		Aug-19-08 10:02	
Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Aug-21-08 10:10		Aug-21-08 10:10		Aug-21-08 10:10		Aug-21-08 10:10		Aug-21-08 10:10		Aug-21-08 10:10	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		470	10.0	3960	50.0	7.90	5.00	2190	25.0	1330	25.0	10700	100
TDS by SM2540C	*Extracted:*												
	Analyzed:	Aug-21-08 16:25		Aug-21-08 16:25		Aug-21-08 16:25		Aug-21-08 16:25		Aug-21-08 16:25		Aug-21-08 16:25	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		1150	5.00	6200	5.00	360	5.00	4080	5.00	2870	5.00	17200	5.00

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 310635

R.T. Hicks Consultants, LTD, Albuquerque, NM

Project Name: Samson Livestock 30

Project Id: L-124-0808
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Wed Aug-20-08 03:50 pm
Report Date: 25-AUG-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	310635-007		310635-008		310635-009		310635-010					
	Field Id:	MW-4 (s)		MW-4 (d)		MW-5 (s)		MW-5 (d)					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	Aug-19-08 12:14		Aug-19-08 12:23		Aug-19-08 13:20		Aug-19-08 13:15					
Anions by EPA 300/300.1	*Extracted:*												
	Analyzed:	Aug-21-08 10:10		Aug-21-08 10:10		Aug-21-08 10:10		Aug-21-08 10:10					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		13.0	5.00	75.9	5.00	12.4	5.00	113	5.00				
TDS by SM2540C	*Extracted:*												
	Analyzed:	Aug-21-08 16:25		Aug-21-08 16:25		Aug-21-08 16:25		Aug-21-08 16:25					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total dissolved solids		472	5.00	616	5.00	488	5.00	476	5.00				

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL(PQL) and above the SQL(MDL).

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

* Outside XENCO'S scope of NELAC Accreditation

Blank Spike Recovery

Project Name: Samson Livestock 30

Work Order #: 310635 **Project ID:** L-124-0808

Lab Batch #: 731968 **Sample:** 731968-1-BKS **Matrix:** Water

Date Analyzed: 08/21/2008 **Date Prepared:** 08/21/2008 **Analyst:** LATCOR

Reporting Units: mg/L **Batch #:** 1 **BLANK /BLANK SPIKE RECOVERY STUDY**

Anions by EPA 300/300.1 Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	10.0	9.66	97	80-120	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS Recoveries

Project Name: Samson Livestock 30

Work Order #: 310635
Lab Batch #: 731968
Date Analyzed: 08/21/2008
QC- Sample ID: 310635-001 S
Reporting Units: mg/L

Date Prepared: 08/21/2008
Batch #: 1

Project ID: L-124-0808
Analyst: LATCOR
Matrix: Water

Inorganic Anions by EPA 300	MATRIX / MATRIX SPIKE RECOVERY STUDY					
Analytes	Parent Sample Result [A]	Spike Added [B]	Spiked Sample Result [C]	%R [D]	Control Limits %R	Flag
Chloride	470	200	717	124	80-120	X

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference [E] = 200*(C-A)/(C+B)
All Results are based on MDL and Validated for QC Purposes

Sample Duplicate Recovery

Project Name: Samson Livestock 30

Work Order #: 310635

Lab Batch #: 731968 **Project ID:** L-124-0808

Date Analyzed: 08/21/2008 **Date Prepared:** 08/21/2008 **Analyst:** LATCOR

QC- Sample ID: 310635-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

Anions by EPA 300/300.1	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Chloride	470	473	1	20	

Lab Batch #: 731985

Date Analyzed: 08/21/2008 **Date Prepared:** 08/21/2008 **Analyst:** WRU

QC- Sample ID: 310635-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	1150	1180	3	30	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Dale Littlejohn
Company Name: RT Hicks Consultants Ltd
Company Address: P.O. Box 7624
City/State/Zip: Midland, Texas 79708
Telephone No: (432) 528-3878
Fax No: (432) 689-4578 (Fax)
Sampler Signature: Dale Littlejohn

Project Name: Samson Livestock 30
Project #: L-124-0808
Project Loc: Lea Co., NM
PO #:

LAB # (lab use only) 316035	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (specify)	Analyze For: TPH 418.1 / 8015M	TCLP: 1005 / 1006	TOTAL: Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chloride	Bromide	Total Dissolved Solids		RUSH TAT (Pre-Schedule)	Standard TAT
01	MW-1(s)	8/19/08	0910	1	X					X		X															X		X			X
02	MW-1(d)	"	0902	1	X					X		X															X		X			X
03	MW-2(s)	"	1117	1	X					X		X															X		X			X
04	MW-2(d)	"	1136	1	X					X		X															X		X			X
05	MW-3(s)	"	1027	1	X					X		X															X		X			X
06	MW-3(d)	"	1002	1	X					X		X															X		X			X
07	MW-4(s)	"	1214	1	X					X		X															X		X			X
08	MW-4(d)	"	1223	1	X					X		X															X		X			X
09	MW-5(s)	"	1320	1	X					X		X															X		X			X
10	MW-5(d)	"	1315	1	X					X		X															X		X			X

Special Instructions: Send Invoice to RT Hicks Consult, 901 Rio Grande Blvd. NW. Suite F-142, Albuquerque, NM 87104; Send results to Dale Littlejohn at the adress above.

Sample Containers Intact? Y (N)
Temperature Upon Receipt: 1.5
Laboratory Comments:

Relinquished by:	Date	Time	Received by	Date	Time
Dale Littlejohn	8/20/08	3:50			
Relinquished by	Date	Time	Received by ELOT:	Date	Time
			Andrea Fann	8/20/08	3:50

1 Ipad w/ labels

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: R.T. Hicks

Date/ Time: 8.20.08 3:50

Lab ID #: 310035

Initials: AL

Sample Receipt Checklist

					Client Initials
#1	Temperature of container/ cooler?	(Yes)	No	1.5 °C	
#2	Shipping container in good condition?	(Yes)	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	~~Not Present~~	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	~~Not Present~~	
#5	Chain of Custody present?	(Yes)	No		
#6	Sample instructions complete of Chain of Custody?	(Yes)	No		
#7	Chain of Custody signed when relinquished/ received?	(Yes)	No		
#8	Chain of Custody agrees with sample label(s)?	(Yes)	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	(Yes)	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	(Yes)	No		
#11	Containers supplied by ELOT?	(Yes)	No		
#12	Samples in proper container/ bottle?	(Yes)	No	See Below	
#13	Samples properly preserved?	(Yes)	No	See Below	
#14	Sample bottles intact?	(Yes)	No		
#15	Preservations documented on Chain of Custody?	(Yes)	No		
#16	Containers documented on Chain of Custody?	(Yes)	No		
#17	Sufficient sample amount for indicated test(s)?	(Yes)	No	See Below	
#18	All samples received within sufficient hold time?	(Yes)	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	~~Not Applicable~~	
#20	VOC samples have zero headspace?	Yes	No	~~Not Applicable~~	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

Check all that Apply:

- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

Analytical Report 318487

for

R.T. Hicks Consultants, LTD

Project Manager: Dale Littlejohn

Samson Livestock 30

L-124-1108

26-NOV-08

12600 West I-20 East Odessa, Texas 79765

Texas certification numbers:
Houston, TX T104704215-08B - Odessa/Midland, TX T104704400-08

Florida certification numbers:
Houston, TX E871002 - Miami, FL E86678 - Tampa, FL E86675
Norcross(Atlanta), GA E87429

South Carolina certification numbers:
Norcross(Atlanta), GA 98015

North Carolina certification numbers:
Norcross(Atlanta), GA 483

Houston - Dallas - San Antonio - Tampa - Miami - Latin America
Midland - Corpus Christi - Atlanta

26-NOV-08

Project Manager: **Dale Littlejohn**
R.T. Hicks Consultants, LTD
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

Reference: XENCO Report No: **318487**
Samson Livestock 30
Project Address: Lea Co., NM

Dale Littlejohn:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number 318487. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. Estimation of data uncertainty for this report is found in the quality control section of this report unless otherwise noted. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 318487 will be filed for 60 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

Brent Barron, II
Odessa Laboratory Manager

Sample Cross Reference 318487

R.T. Hicks Consultants, LTD, Albuquerque, NM

Samson Livestock 30

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
MW-1 (s)	W	Nov-20-08 10:23		318487-001
MW-1 (d)	W	Nov-20-08 10:18		318487-002
MW-2 (s)	W	Nov-20-08 11:02		318487-003
MW-2 (d)	W	Nov-20-08 11:19		318487-004
MW-3 (s)	W	Nov-20-08 09:13		318487-005
MW-3 (d)	W	Nov-20-08 08:52		318487-006
MW-4 (s)	W	Nov-20-08 12:03		318487-007
MW-4 (d)	W	Nov-20-08 12:15		318487-008
MW-5 (s)	W	Nov-20-08 13:12		318487-009
MW-5 (d)	W	Nov-20-08 12:51		318487-010

Certificate of Analysis Summary 318487

R.T. Hicks Consultants, LTD, Albuquerque, NM

Project Name: Samson Livestock 30

Project Id: L-124-1108
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Fri Nov-21-08 02:37 pm
Report Date: 26-NOV-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	318487-001		318487-002		318487-003		318487-004		318487-005		318487-006	
	Field Id:	MW-1 (s)		MW-1 (d)		MW-2 (s)		MW-2 (d)		MW-3 (s)		MW-3 (d)	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Nov-20-08 10:23		Nov-20-08 10:18		Nov-20-08 11:02		Nov-20-08 11:19		Nov-20-08 09:13		Nov-20-08 08:52	
Chloride by SM4500-Cl- B	*Extracted:*												
	Analyzed:	Nov-24-08 09:35		Nov-24-08 09:35		Nov-24-08 09:35		Nov-24-08 09:35		Nov-24-08 09:35		Nov-24-08 09:35	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		680.6	5.000	4626	5.000	42.54	5.000	2552	5.000	1755	5.000	10740	5.000
TDS by SM2540C	*Extracted:*												
	Analyzed:	Nov-24-08 16:25		Nov-24-08 16:25		Nov-24-08 16:25		Nov-24-08 16:25		Nov-24-08 16:25		Nov-24-08 16:25	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		1450	5.00	5680	5.00	384	5.00	3410	5.00	3230	5.00	14900	5.00

Brent Barron
Odessa Laboratory Director

Certificate of Analysis Summary 318487

R.T. Hicks Consultants, LTD, Albuquerque, NM

Project Name: Samson Livestock 30

Project Id: L-124-1108
Contact: Dale Littlejohn
Project Location: Lea Co., NM

Date Received in Lab: Fri Nov-21-08 02:37 pm
Report Date: 26-NOV-08
Project Manager: Brent Barron, II

Analysis Requested													
	Lab Id:	318487-007		318487-008		318487-009		318487-010					
	Field Id:	MW-4 (s)		MW-4 (d)		MW-5 (s)		MW-5 (d)					
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER					
	Sampled:	Nov-20-08 12:03		Nov-20-08 12:15		Nov-20-08 13:12		Nov-20-08 12:51					
Chloride by SM4500-Cl- B	*Extracted:*												
	Analyzed:	Nov-24-08 09:35		Nov-24-08 09:35		Nov-24-08 09:35		Nov-24-08 09:35					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Chloride		37.22	5.000	106.4	5.000	42.54	5.000	148.9	5.000				
TDS by SM2540C	*Extracted:*												
	Analyzed:	Nov-24-08 16:25		Nov-24-08 16:25		Nov-24-08 16:25		Nov-24-08 16:25					
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL				
Total dissolved solids		444	5.00	544	5.00	426	5.00	530	5.00				

Brent Barron
Odessa Laboratory Director

Flagging Criteria

X In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to effect the recovery of the spike concentration. This condition could also effect the relative percent difference in the MS/MSD.

B A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.

D The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.

E The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.

F RPD exceeded lab control limits.

J The target analyte was positively identified below the MQL and above the SQL.

U Analyte was not detected.

L The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.

H The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.

K Sample analyzed outside of recommended hold time.

Blank Spike Recovery

Project Name: Samson Livestock 30

Work Order #: 318487 **Project ID:** L-124-1108

Lab Batch #: 741319 **Sample:** 741319-1-BKS **Matrix:** Water

Date Analyzed: 11/24/2008 **Date Prepared:** 11/24/2008 **Analyst:** LATCOR

Reporting Units: mg/L **Batch #:** 1

Chloride by SM4500-CI- B Analytes	Blank Result [A]	BLANK /BLANK SPIKE RECOVERY STUDY Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Chloride	ND	100.0	91.46	91	70-125	

Blank Spike Recovery [D] = 100*[C]/[B]
All results are based on MDL and validated for QC purposes.

Form 3 - MS / MSD Recoveries

Project Name: Samson Livestock 30

Work Order # : 318487 **Project ID:** L-124-1108

Lab Batch ID: 741319 **QC- Sample ID:** 318492-004 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 11/24/2008 **Date Prepared:** 11/24/2008 **Analyst:** LATCOR

Reporting Units: mg/L

	MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY										
Chloride by SM4500-Cl- B **Analytes**	**Parent Sample Result [A]**	**Spike Added [B]**	**Spiked Sample Result [C]**	**Spiked Sample %R [D]**	**Spike Added [E]**	**Duplicate Spiked Sample Result [F]**	**Spiked Dup. %R [G]**	**RPD %**	**Control Limits %R**	**Control Limits %RPD**	**Flag**
Chloride	212.7	1000	1234	102	1000	1234	102	0	70-125	25	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B
Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

Matrix Spike Duplicate Percent Recovery [G] = 100*(F-A)/E

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not ApplicableN = See Narrative, EQL = Estimated Quantitation Limit

Sample Duplicate Recovery

Project Name: Samson Livestock 30

Work Order #: 318487

Lab Batch #: 741373 **Project ID:** L-124-1108

Date Analyzed: 11/24/2008 **Date Prepared:** 11/24/2008 **Analyst:** WRU

QC- Sample ID: 318487-001 D **Batch #:** 1 **Matrix:** Water

Reporting Units: mg/L

TDS by SM2540C	SAMPLE / SAMPLE DUPLICATE RECOVERY				
Analyte	Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Total dissolved solids	1450	1410	3	30	

Spike Relative Difference RPD 200 * | (B-A)/(B+A) |
All Results are based on MDL and validated for QC purposes.

Environmental Lab of Texas

12600 West I-20 East
Odessa, Texas 79765
Phone: 432-563-1800
Fax: 432-563-1713

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Project Manager: Dale Littlejohn
Company Name: RT Hicks Consultants Ltd
Company Address: P.O. Box 7624
City/State/Zip: Midland, Texas 79708
Telephone No: (432) 528-3878
Fax No: (432) 689-4578 (Fax)
Sampler Signature: Dale T. Littlejohn

Project Name: Samson Livestock 30
Project #: L-124-1108
Project Loc: Lea Co., NM
PO #:

LAB # (lab use only)	FIELD CODE	Date Sampled	Time Sampled	No. of Containers	Preservative: Ice / 1 L H2O	HNO3	HCl	NaOH	H2SO4	None	Other (Specify)	Matrix: Water	Sludge	Soil	Other (Specify)	Analyze For: TCLP: TPH 418.1 / 8015M 1005 / 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, CO3, HCO3)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N (0 R M	Chloride	Bromide	Total Dissolved Solids	RUSH TAT (Pre-Schedule)	Standard TAT
318487																													
01	MW-1(s)	11/20/08	1023	1	X					X		X														X		X		X
02	MW-1(d)	"	1018	1	X					X		X														X		X		X
03	MW-2(s)	"	1102	1	X					X		X														X		X		X
04	MW-2(d)	"	1119	1	X					X		X														X		X		X
05	MW-3(s)	"	0913	1	X					X		X														X		X		X
06	MW-3(d)	"	0852	1	X					X		X														X		X		X
07	MW-4(s)	"	1203	1	X					X		X														X		X		X
08	MW-4(d)	"	1215	1	X					X		X														X		X		X
09	MW-5(s)	"	1312	1	X					X		X														X		X		X
10	MW-5(d)	"	1251	1	X					X		X														X		X		X

Special Instructions: Send invoice to RT Hicks Consult. 901 Rio Grande Blvd. NW, Suite F-142. Albuquerque, NM 87104. Send results to Dale Littlejohn at the adress above.

Sample Containers Intact? (Y) N
Temperature Upon Receipt: -1.6 Iced Frozen
Laboratory Comments:

Relinquished by:	Date	Time	Received by:	Date	Time
Dale T. Littlejohn	11.21.08				
Relinquished by:	Date	Time	Received by ELOT:	Date	Time
			Andrea Lam	11.21.08	14:37

w/labels no seals

Environmental Lab of Texas

Variance/ Corrective Action Report- Sample Log-In

Client: R.T. Hicks

Date/ Time: 11-21-08 14:37

Lab ID # : 318457

Initials: AL

Sample Receipt Checklist

				Not Frozen	Client Initials
#1	Temperature of container/ cooler?	Yes	No	-1.0 °C	
#2	Shipping container in good condition?	Yes	No		
#3	Custody Seals intact on shipping container/ cooler?	Yes	No	Not Present	
#4	Custody Seals intact on sample bottles/ container?	Yes	No	Not Present	
#5	Chain of Custody present?	Yes	No		
#6	Sample instructions complete of Chain of Custody?	Yes	No		
#7	Chain of Custody signed when relinquished/ received?	Yes	No		
#8	Chain of Custody agrees with sample label(s)?	Yes	No	ID written on Cont./ Lid	
#9	Container label(s) legible and intact?	Yes	No	Not Applicable	
#10	Sample matrix/ properties agree with Chain of Custody?	Yes	No		
#11	Containers supplied by ELOT?	Yes	No		
#12	Samples in proper container/ bottle?	Yes	No	See Below	
#13	Samples properly preserved?	Yes	No	See Below	
#14	Sample bottles intact?	Yes	No		
#15	Preservations documented on Chain of Custody?	Yes	No		
#16	Containers documented on Chain of Custody?	Yes	No		
#17	Sufficient sample amount for indicated test(s)?	Yes	No	See Below	
#18	All samples received within sufficient hold time?	Yes	No	See Below	
#19	Subcontract of sample(s)?	Yes	No	Not Applicable	
#20	VOC samples have zero headspace?	Yes	No	Not Applicable	

Variance Documentation

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

Regarding: _____

Corrective Action Taken: _____

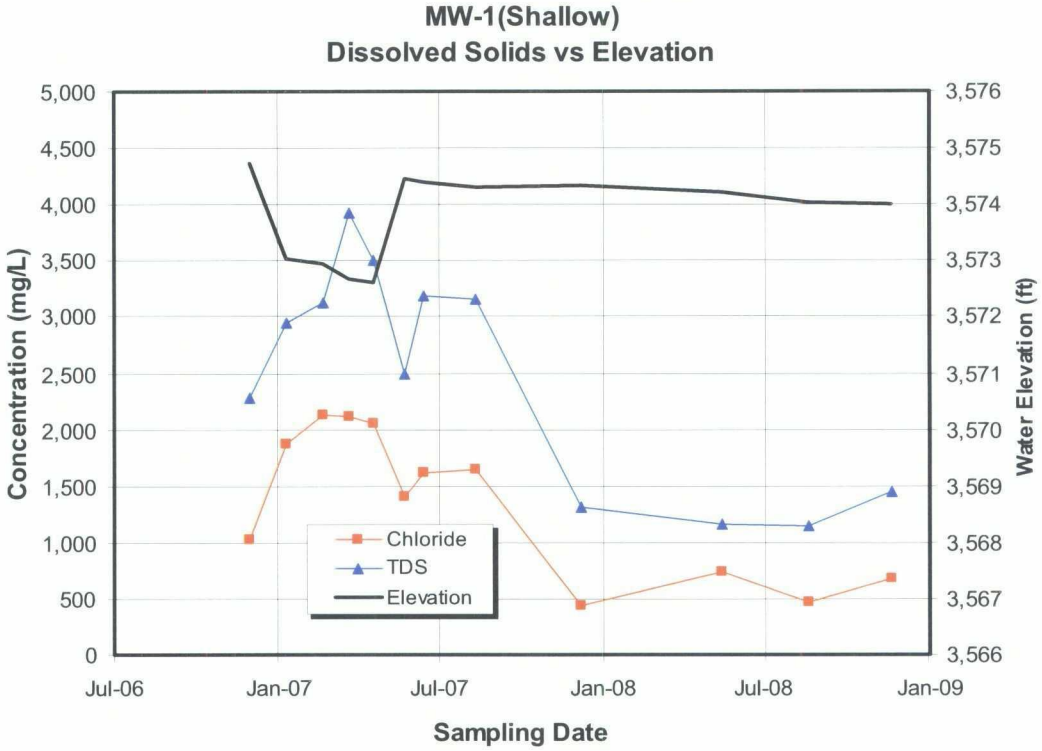
Check all that Apply:

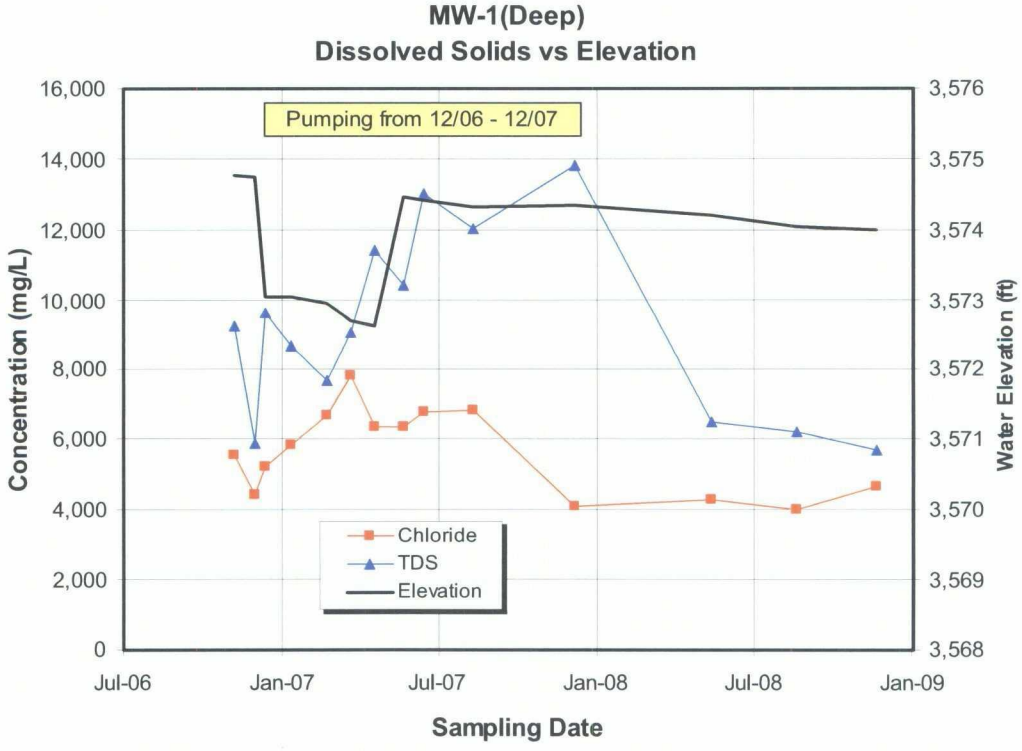
- ☐ See attached e-mail/ fax
- ☐ Client understands and would like to proceed with analysis
- ☐ Cooling process had begun shortly after sampling event

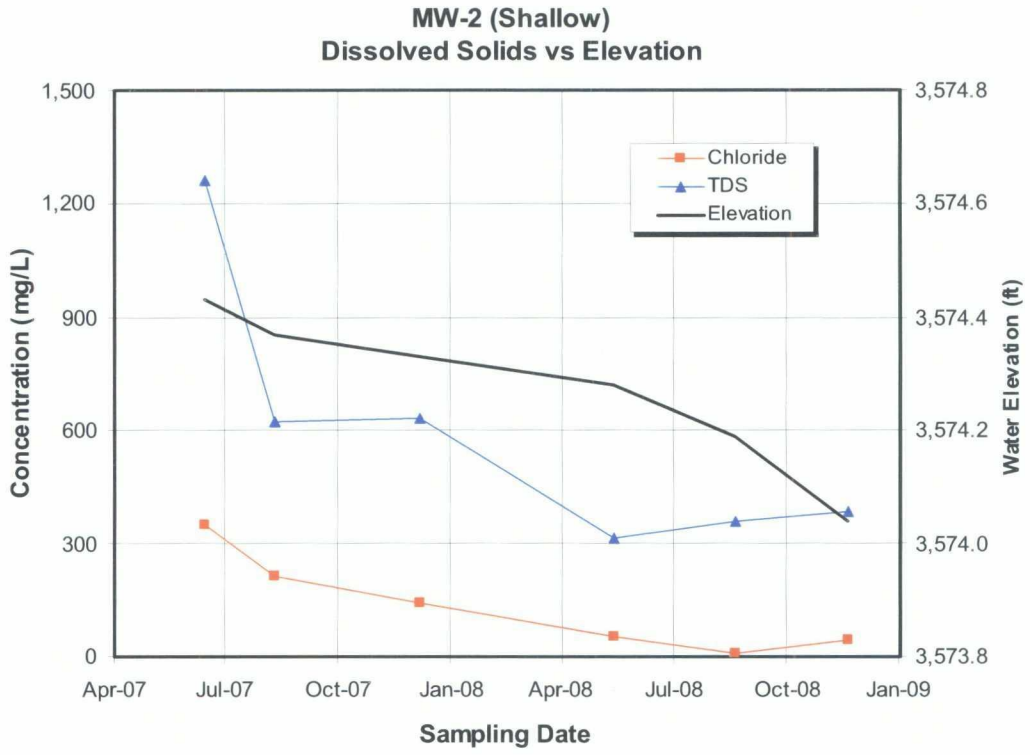
Appendix D

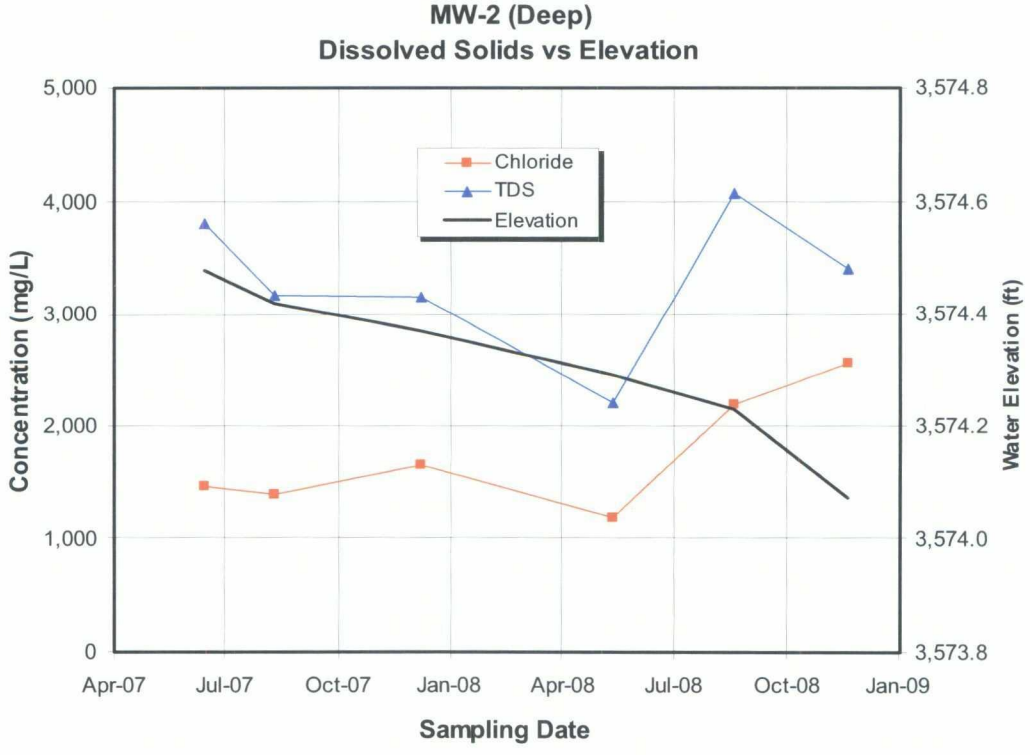
Historic Ground Water Data

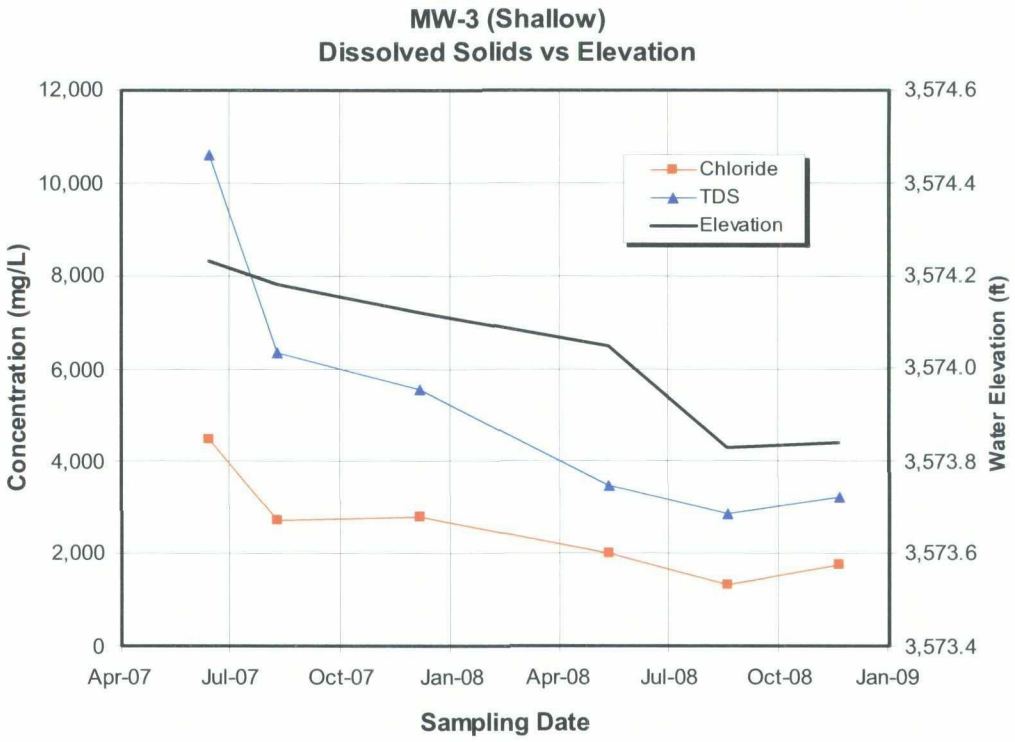
R.T. Hicks Consultants, Ltd.
901 Rio Grande Blvd. NW, Suite F-142
Albuquerque, NM 87104

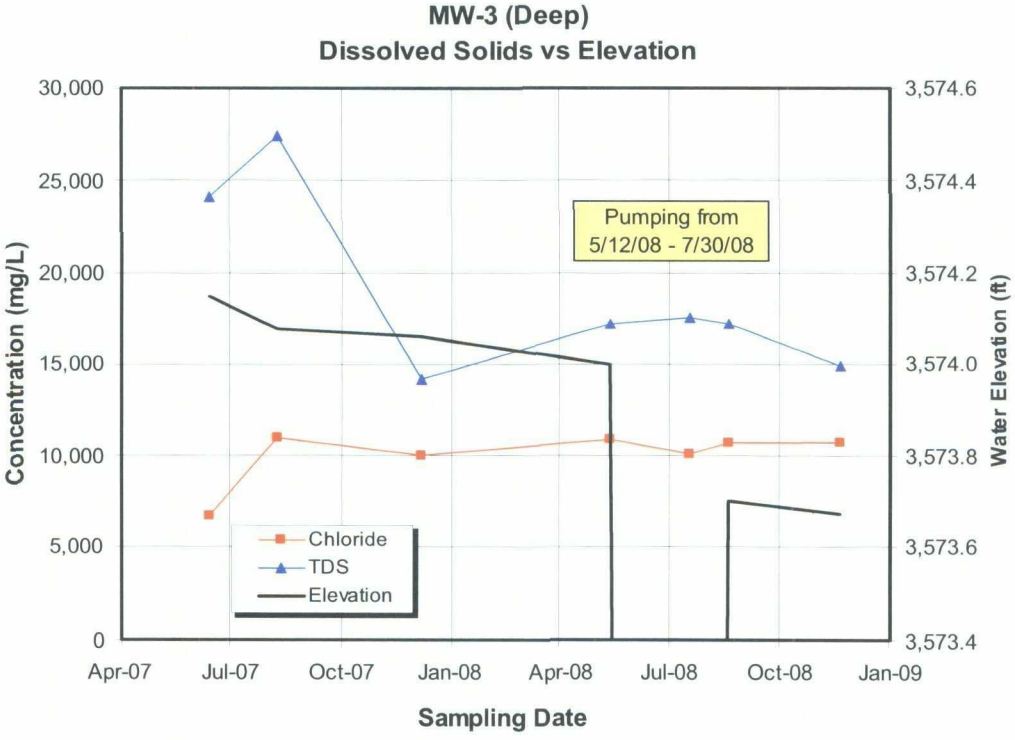

MW-1(Shallow)
Dissolved Solids vs Elevation
Concentration (mg/L)
Water Elevation (ft)
Sampling Date
Chloride
TDS
Elevation
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
3,576
3,575
3,574
3,573
3,572
3,571
3,570
3,569
3,568
3,567
3,566
Jul-06
Jan-07
Jul-07
Jan-08
Jul-08
Jan-09

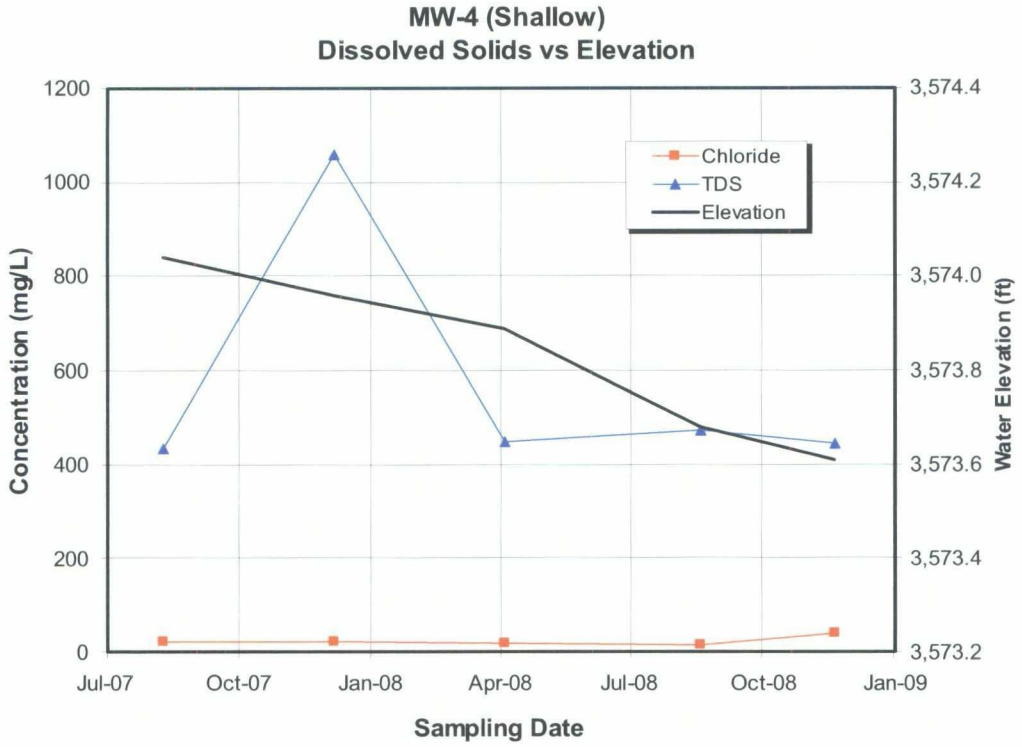

MW-1(Deep)
Dissolved Solids vs Elevation
Pumping from 12/06 - 12/07
Concentration (mg/L)
Water Elevation (ft)
Sampling Date
Chloride
TDS
Elevation
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
3,576
3,575
3,574
3,573
3,572
3,571
3,570
3,569
3,568
Jul-06
Jan-07
Jul-07
Jan-08
Jul-08
Jan-09

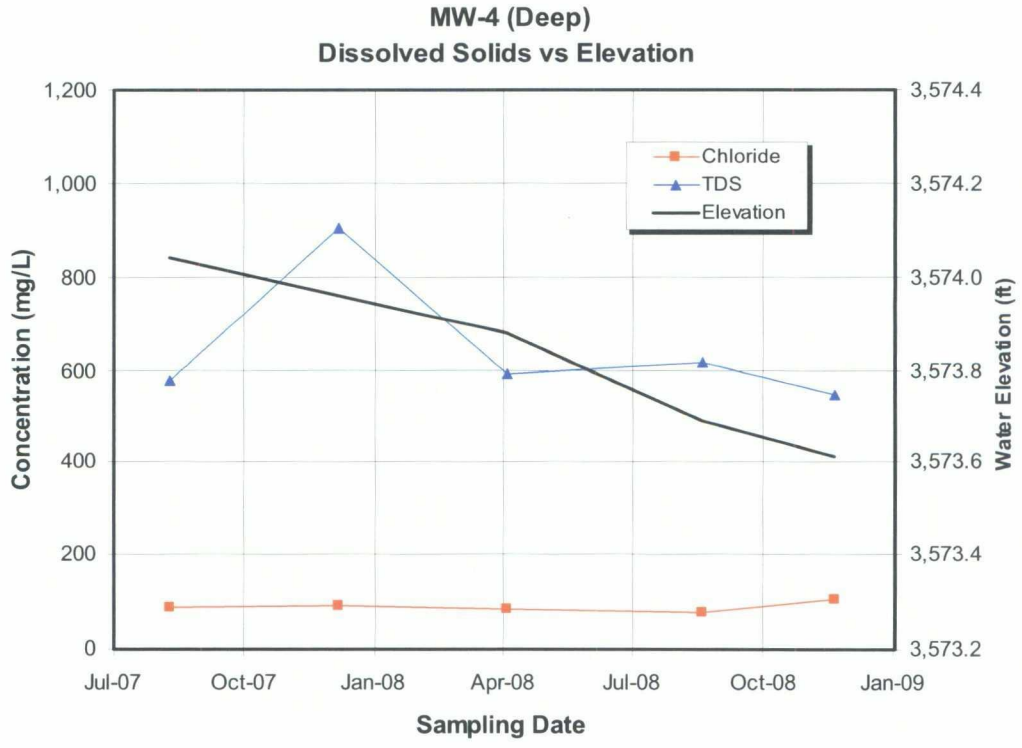

MW-2 (Shallow)
Dissolved Solids vs Elevation
Concentration (mg/L)
Water Elevation (ft)
Sampling Date
Chloride
TDS
Elevation
1,500
1,200
900
600
300
0
3,574.8
3,574.6
3,574.4
3,574.2
3,574.0
3,573.8
Apr-07
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09

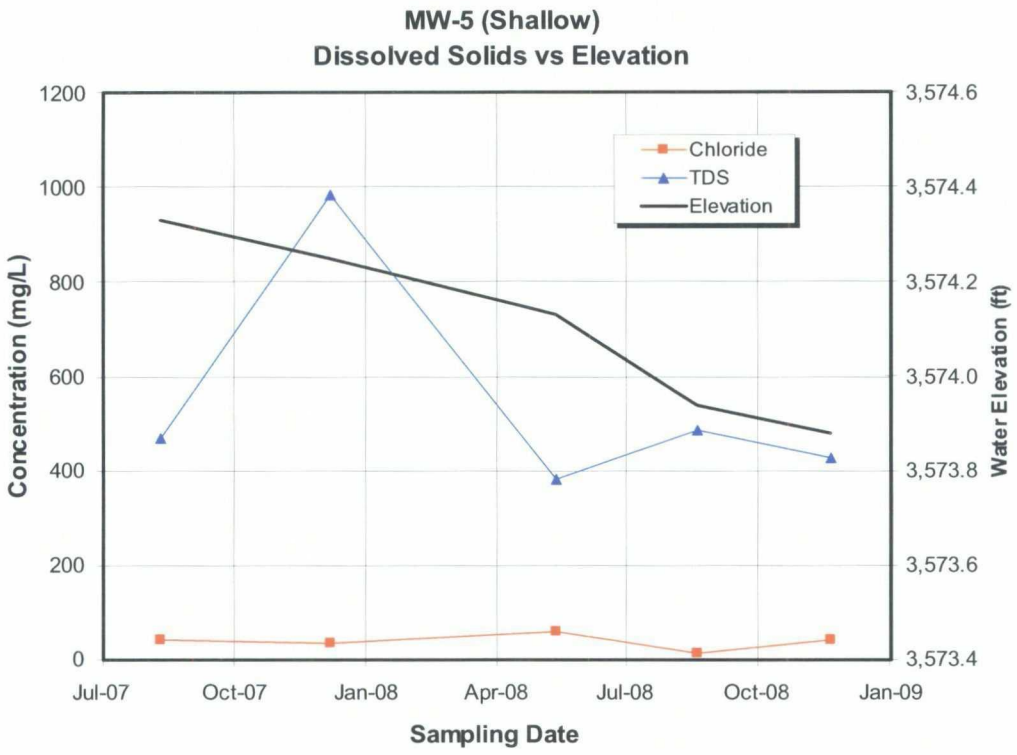

MW-2 (Deep)
Dissolved Solids vs Elevation
Concentration (mg/L)
Water Elevation (ft)
Sampling Date
Chloride
TDS
Elevation
5,000
4,000
3,000
2,000
1,000
0
3,574.8
3,574.6
3,574.4
3,574.2
3,574.0
3,573.8
Apr-07
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09

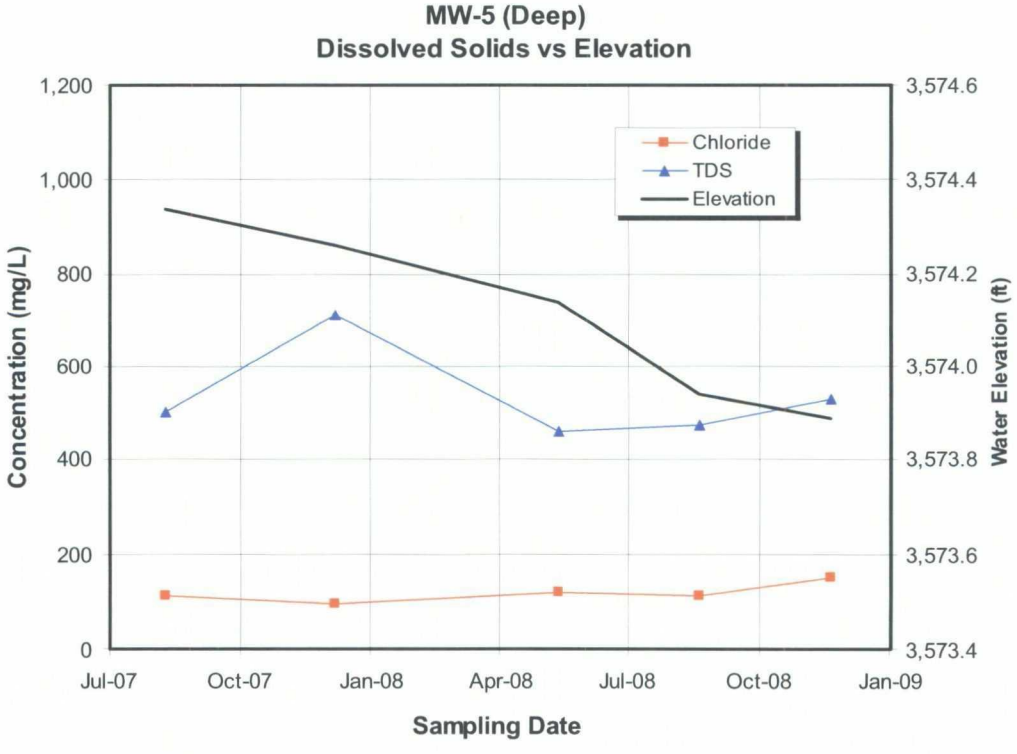

MW-3 (Shallow)
Dissolved Solids vs Elevation
12,000
10,000
8,000
6,000
4,000
2,000
0
Concentration (mg/L)
3,574.6
3,574.4
3,574.2
3,574.0
3,573.8
3,573.6
3,573.4
Water Elevation (ft)
Chloride
TDS
Elevation
Apr-07
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09
Sampling Date


MW-3 (Deep)
Dissolved Solids vs Elevation
30,000
25,000
20,000
15,000
10,000
5,000
0
Concentration (mg/L)
3,574.6
3,574.4
3,574.2
3,574.0
3,573.8
3,573.6
3,573.4
Water Elevation (ft)
Pumping from
5/12/08 - 7/30/08
Chloride
TDS
Elevation
Apr-07
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09
Sampling Date


MW-4 (Shallow)
Dissolved Solids vs Elevation
Concentration (mg/L)
Water Elevation (ft)
Sampling Date
Chloride
TDS
Elevation
1200
1000
800
600
400
200
0
3,574.4
3,574.2
3,574.0
3,573.8
3,573.6
3,573.4
3,573.2
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09


MW-4 (Deep)
Dissolved Solids vs Elevation
Concentration (mg/L)
Water Elevation (ft)
Sampling Date
Chloride
TDS
Elevation
1,200
1,000
800
600
400
200
0
3,574.4
3,574.2
3,574.0
3,573.8
3,573.6
3,573.4
3,573.2
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09


MW-5 (Shallow)
Dissolved Solids vs Elevation
Chloride
TDS
Elevation
Concentration (mg/L)
Water Elevation (ft)
1200
1000
800
600
400
200
0
3,574.6
3,574.4
3,574.2
3,574.0
3,573.8
3,573.6
3,573.4
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09
Sampling Date


MW-5 (Deep)
Dissolved Solids vs Elevation
Chloride
TDS
Elevation
Concentration (mg/L)
Water Elevation (ft)
1,200
1,000
800
600
400
200
0
3,574.6
3,574.4
3,574.2
3,574.0
3,573.8
3,573.6
3,573.4
Jul-07
Oct-07
Jan-08
Apr-08
Jul-08
Oct-08
Jan-09
Sampling Date