Kegan W. Boyer, P.G.
Project Manager

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Environmental Management Company
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February 17, 2015

Mr. Glenn von Gonten
Senior Hydrologist
Environmental Bureau
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Cooper-Jal Unit South Injection Station, Case No. 1R289
G.L. Erwin "A&B" federal NCT-2 Tank Battery, Case No. 1R254
2014 Annual Groundwater Monitoring Reports

Dear Mr. Von Gonten,

As Operator of the environmental projects at the Cooper-Jal Unit South Injection Station and the G.L. Erwin "A&B" Federal NCT-2 Tank Battery, Chevron Environmental Management Company (CEMC) is pleased to submit electronic versions of the following reports:

- *2014 Annual Groundwater Monitoring Report, Cooper-Jal Unit South Injection Station, Case No. 1R289, OGRID No. 4323, Section 24, Township 24 South, Range 36 East, Lea County, New Mexico*
- *2014 Annual Groundwater Monitoring Report, G.L. Erwin "A&B" Federal NCT-2 Tank Battery, Case No. 1R254, OGRID No. 4323, Section 35, Township 24 South, Range 37 East, Lea County, New Mexico*

These reports were prepared by Conestoga-Rovers & Associates (CRA) on behalf of CEMC to document the results of groundwater monitoring activities conducted at the above referenced sites in 2014.

Previously, Luke Welch maintained project management responsibilities for both of these projects; however, as of January 2105, I have assumed project responsibility and future correspondence should be addressed to me. Should you have any questions, please do not hesitate to contact me by phone at 713-372-7705 or via e-mail at kegan.boyer@chevron.com.

Sincerely,

Kegan W. Boyer, P.G.
Environmental Project Manager

cc: Dr. Tomas Oberding, NMOCD
Nancy Forster, CRA

CONESTOGA-ROVERS & ASSOCIATES

www.CRAworld.com

Final Report

2014 Annual Groundwater Monitoring Report

G.L. Erwin "A & B" Federal NCT-2 Tank Battery
Case No. 1R254, OGRID No. 4323
Section 35, Township 24 South, Range 37 East
Lea County, New Mexico

Prepared for: Chevron Environmental Management Company

Conestoga-Rovers & Associates
6320 Rothway, Suite 100
Houston, Texas 77040

February 2015 • 039126 • Report No. 12

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2014 Annual Groundwater Monitoring Report

G.L. Erwin "A & B" Federal NCT-2 Tank Battery
Case No. 1R254, OGRID No. 4323
Section 35, Township 24 South, Range 37 East
Lea County, New Mexico

Prepared for: Chevron Environmental Management Company
Upstream Business Unit
1400 Smith Street, Room 07086
Houston, Texas 77025

Submitted By:
Conestoga-Rovers & Associates

Ricardo Banda, P.G., Senior Geologist

Nancy Forster, Senior Project Manager

Conestoga-Rovers & Associates
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Houston, Texas 77040

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Section 1.0 Introduction

This Annual Groundwater Monitoring Report presents groundwater data collected during the 2014 reporting period at the G.L. Erwin "A & B" Federal NCT-2 Tank Battery (hereafter referred to as the "Site"). On April 2-3 and October 9-10, 2014, Conestoga-Rovers & Associates (CRA) conducted the semi-annual groundwater monitoring events on behalf of Chevron Environmental Management Company (CEMC).

The Site is located on Lea County Road J4, approximately 3 miles northeast of Jal, New Mexico in the southwest quarter (SW/4) of the southeast quarter (SE/4), Section 35, Township 24 South, Range 37 East, Lea County, New Mexico. The Site's coordinates are latitude N 32° 10' 11.9" and longitude W 103° 07' 46.9". The Site is relatively flat and improved with bermed, above ground storage tanks (ASTs), caliche roadways and oil and gas production equipment. The production equipment includes pipelines, ASTs of various capacities and active production wells. Land use in the vicinity of the Site includes rangeland with indigenous grass, livestock ranching, oil and gas production. The topography slopes gently southeast toward Monument Draw located approximately 1.5 miles east of the Site. A Site Location Map is presented as Figure 1. A Site Details Map is presented as Figure 2

Site assessment activities were initiated in 1993. In September 1993, Environmental Spill Control, Inc. (ESCI) of Hobbs, New Mexico performed a subsurface investigation in and around an unlined earthen produced water emergency pit which was located adjacent to the west edge of the Site. During the investigation, 16 boreholes ranging from 30 to 100 feet below ground surface (bgs) were installed to evaluate soil and groundwater at the Site. Analytical results indicated hydrocarbon impacts to the soil and chloride impacts to the groundwater. In September 1994, ESCI excavated the former pit to approximately 62 feet bgs and removed approximately 40,000 cubic yards of hydrocarbon affected soil. The excavation was lined from 62.5 feet up to 55.0 feet with a mixture of clean sand and clay and was backfilled with clean soil to the surface. ESCI submitted the pit closure report to Texaco Exploration and Production, Inc. (Texaco) in October 1994.

In February 1995, Texaco submitted a work plan to the New Mexico Oil Conservation Division (NMOCD) to assess affected groundwater at the Site. On March 28, 1995, the work plan was conditionally approved by the NMOCD. Two monitoring wells (west and southwest) were installed and sampled in 1997. Analytical results demonstrated groundwater chloride concentrations were at or above the New Mexico Water Quality Control Commission (NMWQCC) Standards. In January 1998, Highlander Environmental Corp. (Highlander) performed an electromagnetic (EM-34) terrain conductivity survey. Additionally, Highlander installed eight monitoring wells (MW-1 through MW-8) from February 1998 to January 1999 in order to further evaluate the extent of affected groundwater.

Texaco submitted a corrective action proposal plan in 2004 to the New Mexico Office of the State Engineer (NMOSE) to recover groundwater from the recovery well (RW-1). From September 2001 through October 2003, nine additional monitor wells were installed under the direction of Larson and Associates, Inc. (LA). On September 9, 2004, the NMOSE issued Permit CP 00886 to Divert Underground Waters from recovery well RW-1. An allocation for 6.5 acre-feet per annum was granted by the NMOSE in the permit. Monitor wells (MW-18 through MW-20) were installed under the direction of LA in November 2004. A total fluids groundwater recovery system was installed at RW-1 under CRA's direct supervision in September 2006. At the request of the NMOCD, two groundwater monitoring wells (MW-21 and MW-22) were installed at the Site on November 19, 2007 to further evaluate the extent of affected groundwater. Two additional monitoring wells (MW-23 and MW-24) were installed to the southeast of the Site on October 10-11, 2011. Also, on April 2-3, 2012 three monitor wells (MW-25, MW-26 and MW-27) were installed to facilitate the delineation of the chloride plume.

Semi-annual groundwater monitoring activities and annual reporting to the NMOCD for this Site have been performed by CRA since 2005.

Section 2.0 Regulatory Framework

2.1 New Mexico Oil Conservation Division

The NMOCD of the New Mexico Energy, Minerals, and Natural Resources Department has regulatory jurisdiction over corrective actions conducted at the Site. Corrective actions follow guidance given by the NMOCD in *Guidelines for Remediation of Leaks, Spills, and Releases (August 13, 1993)*. These guidelines require remediation of groundwater to the human health standards of the NNWQCC set forth in New Mexico Administrative Code 20.6.2.3103B as follows:

Analyte	***NMWQCC Standard for Groundwater (mg/L)***
Chloride	250
Total Dissolved Solids (TDS)	1000

On September 24, 2014, CRA and CEMC met with the NMOCD to provide site updates and to discuss plans for delineating the chloride plume and evaluating alternative remedial options for the Site. As discussed in the meeting, the installation of additional upgradient wells was being considered to aid in assessing background conditions and/or identifying a possible offsite source. Additional downgradient wells would also be evaluated to aid in determining the downgradient extent of the chloride plume. Per recommendation of the NMOCD, CRA and

CEMC would consider conducting aquifer testing for determining aquifer characteristics for the GWBU at the Site. The information from the aquifer testing would aid in optimizing the efficiency of the current groundwater recovery system and/or evaluating alternative remedial options. A work plan for future assessment activities will be submitted to the NMOCD.

During the meeting, it was also discussed that CRA and CEMC would like to consider reducing the number of wells sampled during future monitoring events, and reducing the analysis of parameters to only primary chemicals of concern (chlorides and TDS only). Generally, chloride is one of the ions that represent the greatest percentage of the dissolved particulate components of TDS in produced water. Other constituents such as fluoride, nitrate, sulfate, calcium, magnesium, potassium, and sodium have for the most part been non-detect and are not considered to be representative of the type of produced water present in the Site area. In addition to specific constituents, well locations and concentrations were evaluated to determine which wells were critical for continuing to monitor the extent of the chloride plume and concentration trends. It was determined that the following monitoring wells would provide sufficient data for the monitoring program: WW-1, West, MW-1, MW-2, MW-7, MW-9, MW-14, MW-18 (if water present), MW-21, MW-23, MW-24, MW-25, MW-26, and MW-27 (if water present).

In a letter dated December 15, 2014, CRA requested to eliminate the following wells from the monitoring program: Southwest, MW-3, MW-4, MW-5, MW-6, MW-8, MW-10, MW-11, MW-12, MW-13, MW-15, MW-16, MW-17, MW-19, MW-20 and MW-22. Reducing the number of wells sampled and reducing the analyses to only chlorides and TDS would assist in minimizing groundwater usage at the Site, while still providing sufficient data for monitoring purposes.

2.2 New Mexico Office of the State Engineer

The New Mexico Office of the State Engineer (NMOSE) governs water usage in the State of New Mexico. Applications for permit to appropriate groundwater were submitted to the NMOSE and were approved in September 2004. Usage of groundwater for remediation purposes was granted by the NMOSE under well permit CP 00886 for a total of 65 acre-feet (ac-ft.) per annum from recovery well RW-1. Correspondence submitted to the NMOSE in 2014 includes NMOSE Meter Reading Forms for January, April, July and October2014. Copies of the forms are provided in Appendix A. The next NMOSE Meter Reading Form will be submitted to the NMOSE in January 2015.

Section 3.0 Groundwater Sampling and Analysis

Groundwater at the Site is monitored semi-annually with a network of 31 wells. Monitoring well locations are shown on Figure 2 – Site Details Map. CRA performed ground water sampling events on April 2-3, 2014 and October 9-10, 2014 at the Site.

3.1 Field Methodology

Static fluid levels were measured with an electronic interface probe to the nearest hundredth of a foot and recorded. In addition, a conductivity probe was used to record the conductivity levels every two feet in each well to evaluate the vertical distribution of chloride-impacted groundwater. After recording conductivity levels, discreet samples were collected at the interval of highest conductivity using a Hydrosleeve™. Geochemical Water quality parameters (pH, temperature and conductivity) were recorded at the sampling depth. All non-disposable groundwater sampling equipment was decontaminated with a soap (Liquinox®) and potable water wash, a potable water rinse and a final de-ionized water rinse. Laboratory-supplied sample containers were filled directly from the Hydrosleeve™.

Groundwater samples were placed on ice in insulated coolers and chilled to a temperature of approximately 4°C (40°F). The coolers were sealed for shipment and proper chain-of-custody documentation accompanied the April 2014 samples to ALS Laboratory Group (ALS) in Houston, Texas for analysis of major cations, anions and TDS by various Environmental Protection Agency (EPA) Methods. Samples from the October 2014 event were submitted to Xenco Laboratories (Xenco) in Midland, Texas. Any fluids recovered during the sampling events were containerized and subsequently disposed of at a CEMC–approved and OCD-permitted salt water disposal (SWD) facility by a third party contractor.

3.2 Potentiometric Surface and Gradient

The aquifer or water-bearing zone monitored at the Site appears at the interface of a sandy gravel and underlying shale. Groundwater gradient maps for April and October 2014 are presented as Figures 3 and 4, respectively. Groundwater elevations ranged from 3,064.39 feet (MW-23) to 3,109.99 feet (MW-26) in April 2014 and from 3,064.35 feet (MW-23) to 3,109.82 feet (MW-26) in October 2014. Groundwater flow at the Site is to the southeast at a gradient of 0.012 feet/foot (ft/ft). Groundwater elevation data are presented in Table 1 and generally fall within historical ranges. A cumulative table of groundwater elevation data is presented in Appendix B.

3.3 Groundwater Results

The 2014 analytical results generally fall within historical ranges. In April 2014, twenty-nine (29) wells were sampled. In October 2014, twenty-eight wells were sampled. Monitor wells MW-18 and MW-27 were dry during the April and October sampling events, and MW-11 did not have sufficient water column to be sampled in October 2014. The absence of groundwater in MW-18 and MW-27 indicates the sandy gravel aquifer pinches out where the wells are screened across a less permeable sandy clay and/or shale bedrock appearing higher in the stratigraphic column.

In April 2014, chloride concentrations in twenty-six (26) monitoring wells were detected above the NMWQCC standard of 250 mg/L. Chloride concentrations ranged from 228 mg/L to 8,710 mg/L. In October 2014, chloride concentrations in twenty-five (25) monitoring wells were detected above the NMWQCC standard. Chloride concentrations ranged from 186 mg/L to 7,610 mg/L.

Generally, TDS concentrations exceeded the NMWQCC standard of 1000 mg/L in monitoring wells exhibiting exceeding concentrations for chloride. Chloride concentrations for the April and October 2014 groundwater monitoring events are depicted on Figure 5. Isoconcentration maps of chloride concentrations for the April and October sampling events are presented as Figures 6 and 7, respectively. Historic trend graphs of groundwater concentrations (TDS, chlorides) over time for RW-1, MW-7, MW-9, and MW-14 are provided in Appendix C.

An evaluation of chloride concentrations indicate that the extent of the chloride plume has not been delineated downgradient to the southeast or in upgradient or crossgradient directions. Higher chloride concentrations in upgradient and cross gradient wells indicate that there is likely chloride impacts related to other sources that could be commingled with the chloride plume related to the former produced water emergency pit at the Site. The aerial base map used in Figures 2 through 7 shows the abundance of oil and gas exploration and production activities surrounding the Site that could be contributing to the chloride impacts.

Analytical results from MW-21, in the April and October 2014 events (Figure 5) demonstrate chloride concentrations are below MNWQCC standards. However, chloride concentrations up gradient, cross gradient and down gradient (MW-19, MW-15 and MW-24, respectively) all exhibit chloride concentrations above the NMWQCC standard of 250 mg/L.

The other cations and anions analyzed (including fluoride, nitrate, sulfate, calcium, magnesium, potassium, and sodium) have for the most part been non—detect and are believed to not be representative of the type of produced water present in the Site area. During the April 2014 sampling event, fluoride was detected at a concentration above the NMWQCC standard of 1.6

mg/L in seven of the wells including MW-6, MW-7, MW-8, MW-9, MW-13, MW-17, MW-21. In October 2014, fluoride concentrations exceeded the NMWQCC standard in only four wells (MW-7, MW-8, MW-9, and MW-14). In April 2014, sulfate exceeded the NMWQCC standard of 600 mg/L in only one well (MW-14). No other sampled wells exceeded the NMWQCC groundwater standards for fluoride, sulfate, nitrate, calcium, magnesium, potassium and sodium. A cumulative summary table of groundwater analytical results is presented in Appendix D.

The certified analytical reports were reviewed by a CRA analytical chemist for laboratory and field method quality assurance/quality control (QA/QC). Based on data review, the data produced by the laboratories were deemed acceptable. Copies of the certified analytical reports, chain-of-custody documentation, and data validation memorandums are provided in Appendix E.

The distribution of chloride concentrations and the unpredictable nature of the aquifer will be considered for any future assessment and remediation activities associated with this Site. Additional wells will be installed to further delineate the extent of the chloride plume. Additional assessment activities proposed for 2015 are described in Section 5.0 below.

Section 4.0 Summary of Findings

Based on the groundwater monitoring activities performed at the Site, CRA presents the following summary:

- On September 24, 2014, CRA and CEMC met with the NMOCD to provide Site updates and to discuss plans for additional assessment and evaluating alternative remedial options for the Site. Additional assessment activities discussed during the meeting included: installation of additional wells to aid in delineating the chloride plume, aquifer testing for determining aquifer characteristics, and reducing the number of wells and analyses in the monitoring program.
- In a letter dated December 15, 2014, CRA requested eliminating the following wells from the monitoring program: Southwest, MW-3, MW-4, MW-5, MW-6, MW-8, MW-10, MW-11, MW-12, MW-13, MW-15, MW-16, MW-17, MW-19, MW-20 and MW-22. CRA also requested reducing the analyses to chlorides and TDS only.
- NMOSE Meter Reading Forms were submitted to the NMOSE for January, April, July and October 2014.

- Groundwater elevations ranged from 3,064.39 feet (MW-23) to 3,109.99 feet (MW-26) in April 2014 and from 3,064.35 feet (MW-23) to 3,109.82 feet (MW-26) in October 2014. Groundwater flow at the Site is to the southeast at a gradient of 0.012 ft/ft.
- The analytical results generally fall within historical ranges. Monitoring wells MW-18 and MW-27 were dry during the April and October 2014 sampling events, and MW-11 did not have sufficient water column to be sampled in October.
- During the April 2014 sampling event, chloride concentrations in twenty-six (26) monitoring wells were detected above the NMWQCC standard.
- In October 2014, chloride concentrations were detected above the NMWQCC standard in twenty-five (25) monitoring wells.
- During the April 2014 sampling event, fluoride was detected at a concentration above the NMWQCC standard in seven of the wells including MW-6, MW-7, MW-8, MW-9, MW-13, MW-17, MW-21. In October 2014, fluoride concentrations exceeded the NMWQCC standard in only four wells (MW-7, MW-8, MW-9, and MW-14). In April 2014, sulfate exceeded the NMWQCC standard in only one well (MW-14). No other sampled wells exceeded the NMWQCC groundwater standards for fluoride, sulfate, nitrate, calcium, magnesium, potassium, and sodium.
- The other cations and anions analyzed (including fluoride, nitrate, sulfate, calcium, magnesium, potassium, and sodium) have for the most part been non-detect and are believed to not be representative of impacts from the type of produced water present in the Site area. In a letter dated December 15, 2014, CRA requested eliminating fluoride, nitrate-N, sulfate, calcium, magnesium, potassium, and sodium from the monitoring program at the Site.
- Chloride concentrations indicate that the extent of the chloride plume has not been delineated. Higher chloride concentrations detected in wells upgradient and cross gradient of the Site indicate that there are likely chloride impacts related to other sources that could be commingled with the chloride plume related to the former produced water emergency pit.
- Additional wells will be installed to further delineate the extent of the chloride plume.

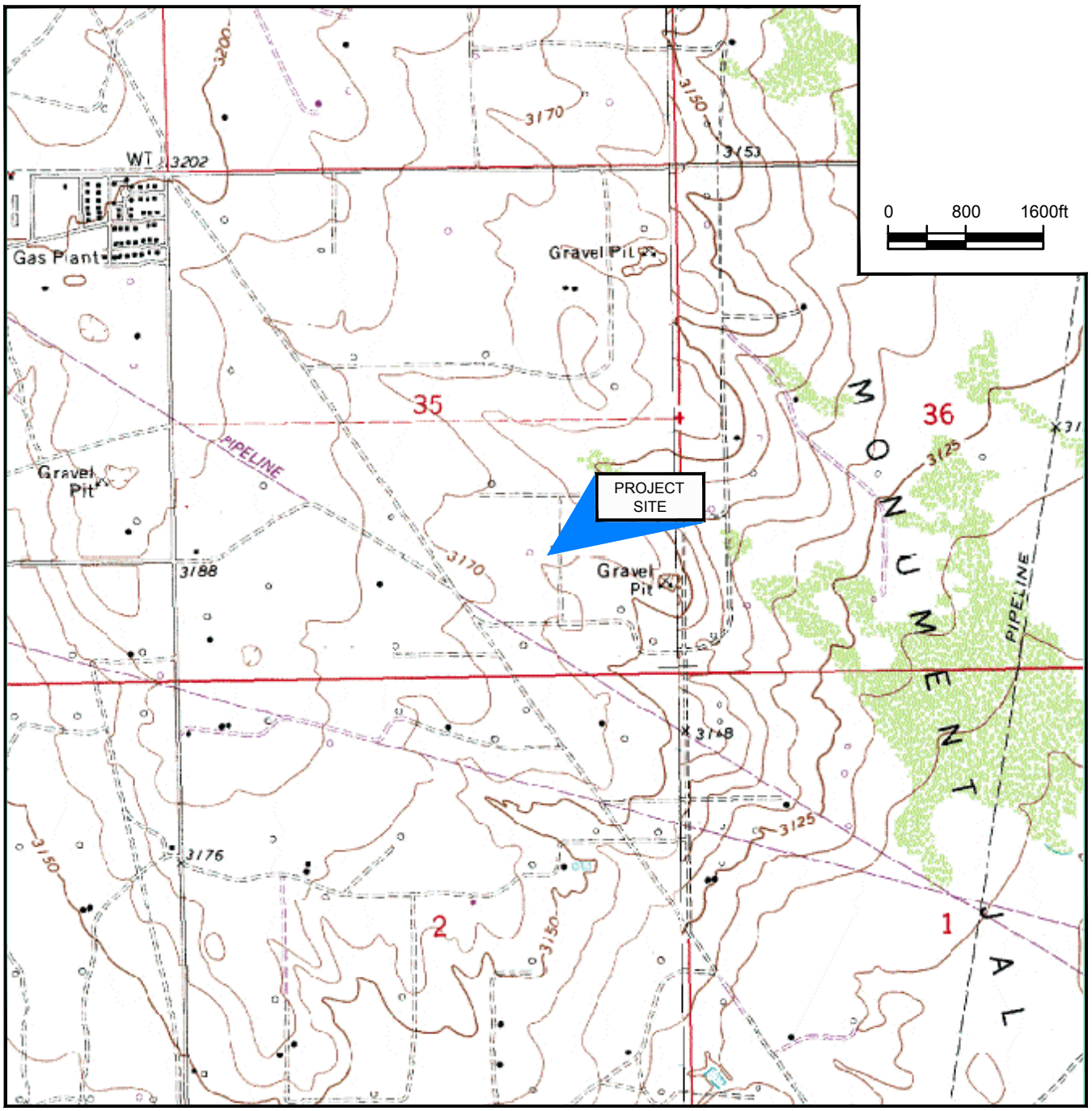
Section 5.0 Proposed Activities

Based upon the summary and conclusions presented in this report, the following is recommended for the 2015 calendar year:

- Submit NMOSE Meter Reading forms to the NMOSE in January, April, July, and October 2015.

- Pending approval from the NMOCD to reduce the number of wells, sample WW-1, West, MW-1, MW-2, MW-7, MW-9, MW-14, MW-18 (if water present), MW-21, MW-23, MW-24, MW-25, MW-26, and MW-27 (if water present) during the 2015 semi-annual groundwater monitoring events scheduled for April and October 2015.
- Analyze groundwater samples for chlorides and TDS only, pending approval from the NMOCD to eliminate analysis of other cations and anions.
- Install additional downgradient monitoring wells, to aid in determining the downgradient extent of the chloride plume. Also, install additional upgradient wells to aid in assessing background conditions or identifying a possible offsite source. If concentrations indicate a possible offsite source area, an alternate source demonstration will be evaluated.
- Conduct an aquifer pump test to determine aquifer characteristics at the Site to aid in optimizing the efficiency of the current groundwater recovery system and/or evaluating alternative remedial options.

Figures



SOURCE: USGS 7.5 MINUTE QUADS
"JAL NW AND JAL NE, NEW MEXICO"

LAT/LONG: 32.170° NORTH, 103.129° WEST
COORDINATE: NAD27 DATUM, U.S. FOOT
STATE PLANE ZONE - NEW MEXICO EAST

figure 1

SITE LOCATION MAP
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039124-2014(012)GN-DL001 DEC 24/2014

RE: ESRI 009 Aerial Photograph.

LEGEND

- MONITOR WELL LOCATION
- RECOVERY WELL LOCATION
- WATER WELL LOCATION
- GROUNDWATER RECOVERY SYSTEM

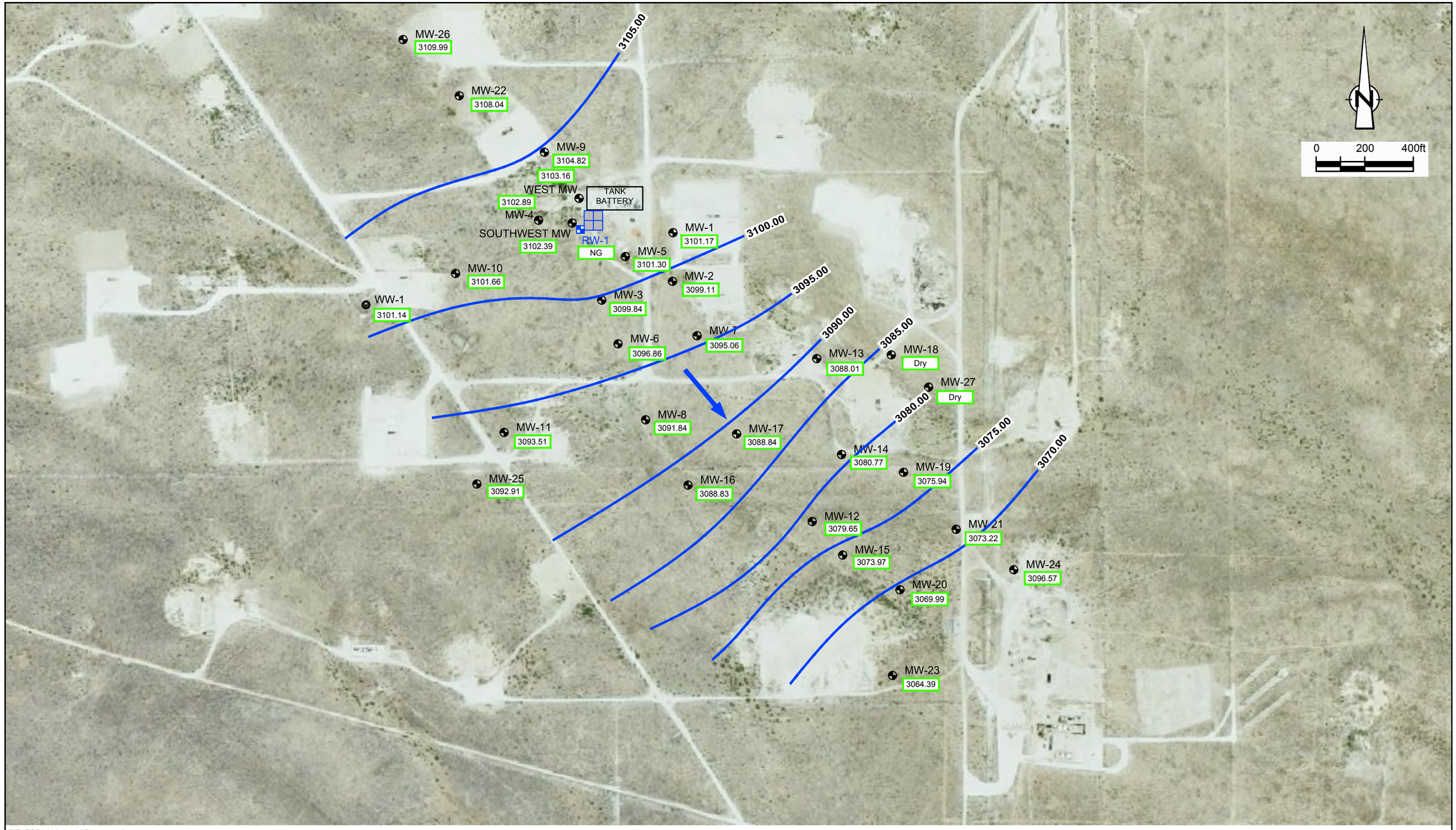
NOTES:

1. MONITOR WELL LOCATIONS AND TOP OF CASING ELEVATIONS ARE BASED ON A PROFESSIONAL SURVEY CONDUCTED BY PIPER SURVEYING COMPANY IN FEBRUARY AND JULY 1998, OCTOBER 2001, OCTOBER 2003, AND DECEMBER 2004, AND BY WEST COMPANY NOVEMBER 2011 AND JUNE 2012.
2. PUMP AND DISPOSE GROUNDWATER RECOVERY SYSTEM WAS INSTALLED IN SEPTEMBER 2006.
3. MONITOR WELLS MW-25, MW-26 AND MW-27 WERE INSTALLED IN APRIL 2012.

figure 2

SITE DETAILS MAP
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039124-2014(012)GN-DL001 DEC 24/2014



RE: ESRI 009 Aerial Photograph.

LEGEND

- MONITOR WELL LOCATION
- RECOVERY WELL LOCATION
- WATER WELL LOCATION
- GROUNDWATER RECOVERY SYSTEM
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 5.00 FT)
- 3092.91 ELEVATION OF GROUNDWATER (FT)
- DIRECTION OF GROUNDWATER FLOW
- NG GROUNDWATER NOT GAUGED

NOTES:

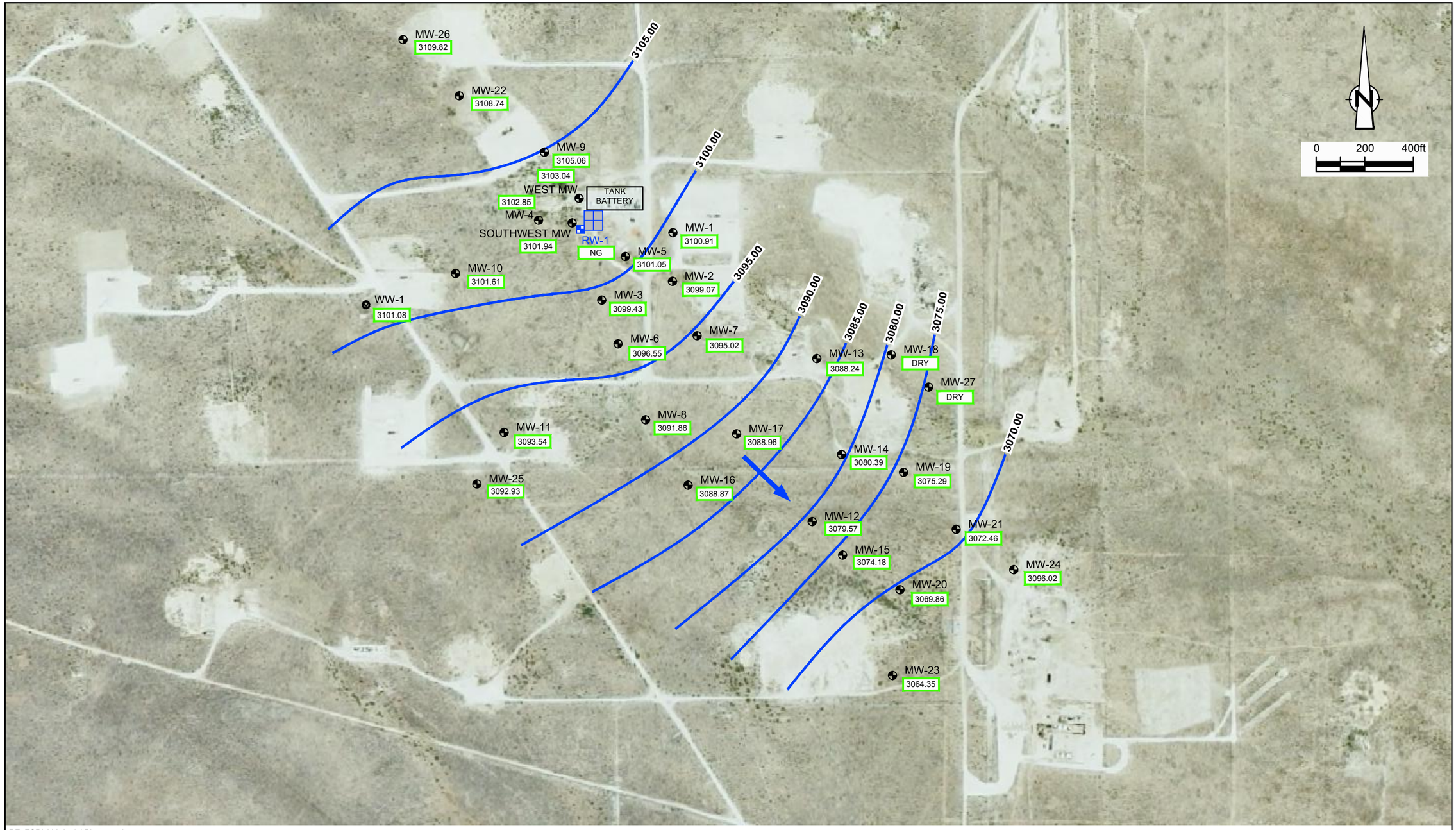
1. GROUNDWATER ELEVATIONS MEASUREMENTS COLLECTED ON APRIL 2, 2014.
2. MONITOR WELLS MW-24 AND RW-1 WERE NOT HONORED IN THE GRADIENT.

figure 3

GROUNDWATER GRADIENT MAP - APRIL 2014
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

039124-2014(012)GN-DL001 JAN 5/2015



RE: ESRI 009 Aerial Photograph.

LEGEND

- MONITOR WELL LOCATION
- RECOVERY WELL LOCATION
- WATER WELL LOCATION
- GROUNDWATER RECOVERY SYSTEM
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 5.00 FT)
- 3092.93 ELEVATION OF GROUNDWATER (FT)
- DIRECTION OF GROUNDWATER FLOW
- NG GROUNDWATER NOT GAUGED

NOTES:

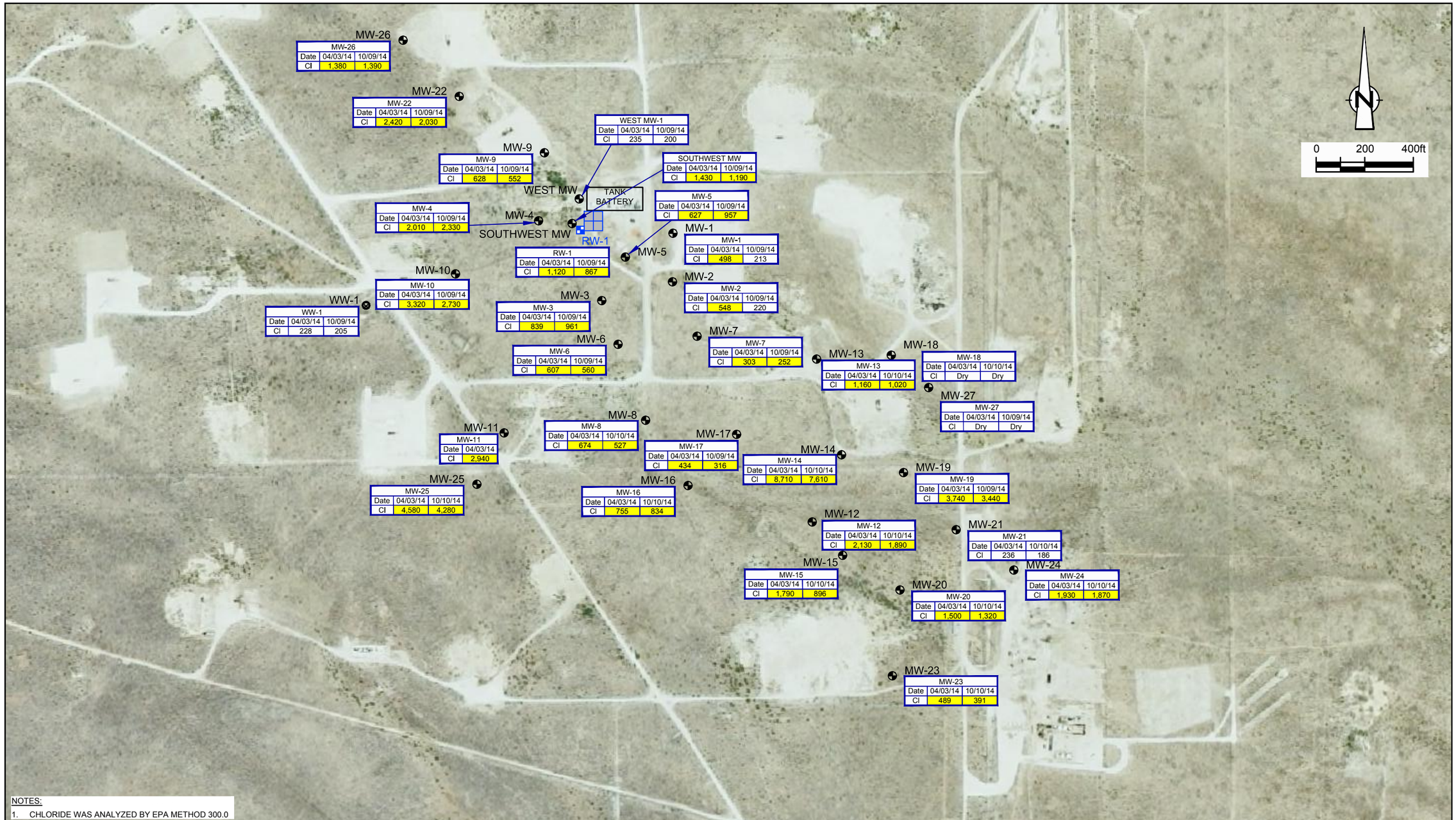
1. GROUNDWATER ELEVATIONS MEASUREMENTS COLLECTED ON OCTOBER 8, 2014.
2. GROUNDWATER ELEVATION DATA FOR MONITORING WELL MW-24 WAS NOT USED IN CALCULATING CONTOURS.

figure 4

GROUNDWATER GRADIENT MAP - OCTOBER 2014
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

039124-2014(012)GN-DL001 JAN 5/2015



NOTES:

1. CHLORIDE WAS ANALYZED BY EPA METHOD 300.0

RE: ESRI 009 Aerial Photograph.

LEGEND

- MONITOR WELL LOCATION
- RECOVERY WELL LOCATION
- WATER WELL LOCATION
- GROUNDWATER RECOVERY SYSTEM

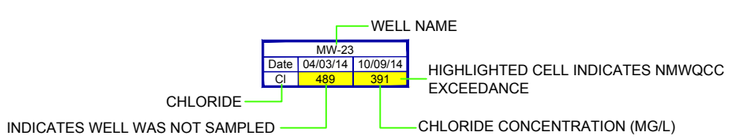
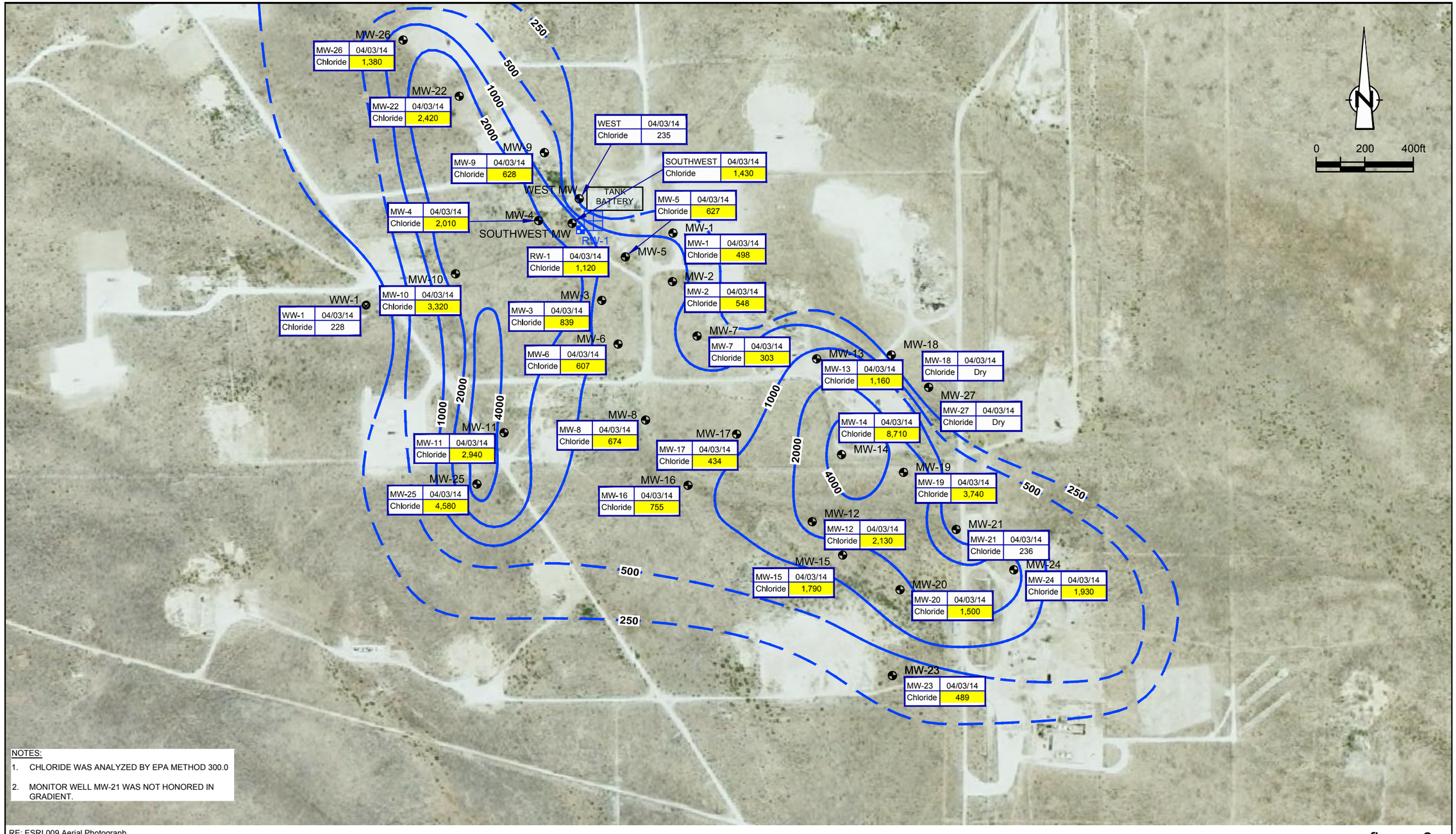


figure 5

CHLORIDE CONCENTRATION MAP - APRIL AND OCTOBER 2014
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

039124-2014(012)GN-DL001 JAN 8/2015



NOTES:

1. CHLORIDE WAS ANALYZED BY EPA METHOD 300.0
2. MONITOR WELL MW-21 WAS NOT HONORED IN GRADIENT.

RE: ESRI 009 Aerial Photograph.

LEGEND

- MONITOR WELL LOCATION
- RECOVERY WELL LOCATION
- WATER WELL LOCATION
- GROUNDWATER RECOVERY SYSTEM

CHLORIDE CONCENTRATION CONTOUR (MG/L)

NS NOT SAMPLED

SAMPLE DATE

SAMPLE LOCATION — MW-23 | 04/03/14 | Chloride | 489 — HIGHLIGHTED CELL INDICATES NMWQCC EXCEEDANCE

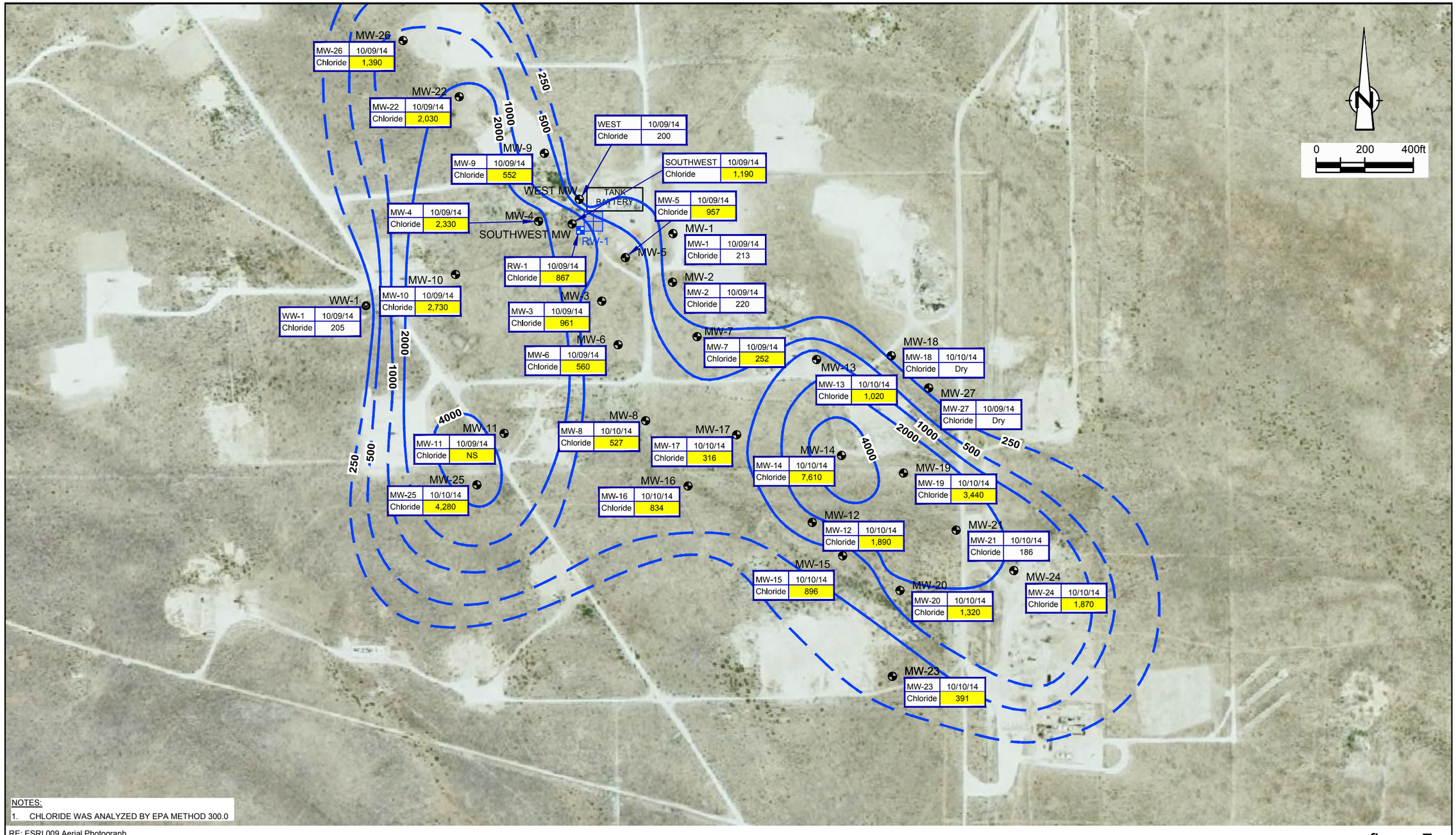
CONCENTRATION IN MG/L

figure 6

CHLORIDE ISOCONCENTRATION MAP - APRIL 2014
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

039124-2014(012)GN-DL001 JAN 8/2015



NOTES:

1. CHLORIDE WAS ANALYZED BY EPA METHOD 300.0

RE: ESRI 009 Aerial Photograph.

LEGEND

- MONITOR WELL LOCATION
- RECOVERY WELL LOCATION
- WATER WELL LOCATION
- GROUNDWATER RECOVERY SYSTEM

CHLORIDE CONCENTRATION CONTOUR (MG/L)

NS NOT SAMPLED

SAMPLE DATE

SAMPLE LOCATION — MW-23 | 10/09/14 | Chloride | 250 — HIGHLIGHTED CELL INDICATES NMWQCC EXCEEDANCE

CONCENTRATION IN MG/L

figure 7

CHLORIDE ISOCONCENTRATION MAP - OCTOBER 2014
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company

039124-2014(012)GN-DL001 JAN 8/2015

Tables

TABLE 1

2014 GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID *TOC[1] elevation* *Diameter (in)*	*DATE*	*Corrected* *Groundwater Elevation* *(ft above MSL[2])*
MW-01 *3,161.69* *2*	4/2/14 10/8/14	3101.17 3100.91
MW-02 *3,159.89* *2*	4/2/14 10/8/14	3099.11 3099.07
MW-03 *3,164.08* *2*	4/2/14 10/8/14	3099.84 3099.43
MW-04 *3,165.65* *2*	4/2/14 10/8/14	3102.89 3102.85
MW-05 *3,160.75* *2*	4/2/14 10/8/14	3101.30 3101.05
MW-06 *3,164.18* *2*	4/2/14 10/8/14	3096.86 3096.55
MW-07 *3,162.06* *2*	4/2/14 10/8/14	3095.06 3095.02
MW-08 *3,159.66* *2*	4/2/14 10/8/14	3091.84 3091.86
MW-09 *3,167.07* *2*	4/2/14 10/8/14	3104.82 3105.06
MW-10 *3,170.99* *2*	4/2/14 10/8/14	3101.66 3101.61
MW-11 *3,168.24* *2*	4/2/14 10/8/14	3093.51 3093.54
MW-12 *3,152.48* *2*	4/2/14 10/8/14	3079.65 3079.57
MW-13 *3,154.92* *2*	4/2/14 10/8/14	3088.01 3088.24
MW-14 *3,151.91* *2*	4/2/14 10/8/14	3080.77 3080.39
MW-15 *3,152.48* *2*	4/2/14 10/8/14	3073.97 3074.18
MW-16 *3,157.25* *2*	4/2/14 10/8/14	3088.83 3088.87
MW-17 *3,158.37* *2*	4/2/14 10/8/14	3088.84 3088.96

TABLE 1

2014 GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID *TOC[1] elevation* *Diameter (in)*	*DATE*	*Corrected* *Groundwater Elevation* *(ft above MSL[2])*
MW-18 *3,151.08* 2	4/2/14 10/8/14	DRY DRY
MW-19 *3,147.79* *2*	4/2/14 10/8/14	3075.94 3075.29
MW-20 *3,151.56* *2*	4/2/14 10/8/14	3069.99 3069.86
MW-21 *3,145.87* *2*	4/2/14 10/8/14	3073.22 3072.46
MW-22 *3,170.64* *2*	4/2/14 10/8/14	3108.04 3108.74
MW-23 *3,154.38* *2*	4/2/14 10/8/14	3064.39 3064.35
MW-24 *3,146.07* *2*	4/2/14 10/8/14	3096.57 3096.02
MW-25 *3,171.32* *2*	4/2/14 10/8/14	3092.91 3092.93
MW-26 *3,172.84* *2*	4/2/14 10/8/14	3109.99 3109.82
MW-27 *3,146.60* *2*	4/2/14 10/8/14	DRY DRY
WW-1 *3,170.21* *4*	4/2/14 10/8/14	3101.14 3101.08
West MW *3,164.44* *2*	4/2/14 10/8/14	3103.16 3103.04
Southwest MW *3,164.54* *2*	4/2/14 10/8/14	3102.39 3101.94
RW-1 *3,163.52* *4*	4/2/14 10/8/14	NG NG

Notes:

1 - Top of Casing
2 - Mean Sea Level
3 - Below ground surface
NG - Not Gauged
All depths were measured from the TOC
Professional Surveys were conducted by Piper Surveying Company in February and July 1998, October 2001, October 2003 and December 2004
Professional Surveys were conducted by West Company in November 2011 and June 2012.

TABLE 2

2014 GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Monitoring Well ID	*Sample Date*	*Chloride (mg/L)*	*Total Dissolved Solids (mg/L)*
NMWQCC Standards		***250***	***1000***
MW-1	04/03/14	**498**	**1160**
	10/09/14	**213 J**	**554**
Dup-2	10/09/14	**427 J**	**559**
MW-2	04/03/14	**548**	**132**
	10/09/14	**220**	**939**
MW-3	04/03/14	**839**	**2280**
	10/09/14	**961**	**3400**
MW-4	04/06/14	**2010**	**3360**
	10/09/14	**2330**	**5870**
MW-5	04/03/14	**627**	**1460**
	10/09/14	**957**	**3750**
MW-6	04/03/14	**607**	**1880**
	10/09/14	**560**	**1730**
MW-7	04/03/14	**303**	**1020**
	10/09/14	**252**	**955**
MW-8	04/03/14	**674**	**1560**
	10/09/14	**527**	**1550**
MW-9	04/03/14	**628**	**1560**
	10/09/14	**552**	**2020**
MW-10	04/03/14	**3320**	**9500**
	10/09/14	**2730**	**7930**
MW-11	04/03/14	**2940**	**9080**
	10/09/14	NS- Insufficent Water Column	
MW-12	04/03/14	**2130**	**1300***
	10/09/14	**1890**	**6290**
MW-13	04/03/14	**1160**	**4360**
	10/10/14	**1020**	**3500**
MW-14	04/03/14	**8710**	**8460***
DUP-1	04/03/14	**9430**	**19900**
	10/10/14	**7610**	**19000**
MW-15	04/03/14	**1790**	**3620**
DUP- 2	04/03/14	**1030**	**3560**
	10/10/14	**896**	**1830**
MW-16	04/03/14	**755**	**2180**
	10/10/14	**834**	**1550**
MW-17	04/03/14	**434**	**7360**
	10/10/14	**316**	**1790**
DUP-3	10/10/14	**313**	**1140**
MW-18	04/03/14	DRY	
	10/10/14	DRY	
MW-19	04/03/14	**3740**	**13100**
	10/10/14	**3440**	**7560**
MW-20	04/03/14	**1500**	**5140**

TABLE 2

2014 GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Monitoring Well ID	*Sample Date*	*Chloride (mg/L)*	*Total Dissolved Solids (mg/L)*
NMWQCC Standards		***250***	***1000***
	10/10/14	**1320**	**4180**
MW-21	04/03/14	**236**	**1010**
	10/10/14	**186**	**1080**
MW-22	04/03/14	**2420**	**4660**
	10/09/14	**2030**	**5150**
MW-23	04/03/14	**489**	**1500**
	10/10/14	**391**	**1010**
MW-24	04/03/14	**1930**	**7300**
	10/10/14	**1870**	**5850**
MW-25	04/03/14	**4580**	**12200**
	10/10/14	**4280**	**11400**
MW-26	04/03/14	**1380**	**3300**
	10/09/14	**1390**	**3920**
MW-27	04/03/14	DRY	
	10/09/14	DRY	
West	04/03/14	**235**	**680**
	10/09/14	**200**	**861**
Southwest	04/03/14	**1430**	**2760**
	10/09/14	**1190**	**5210**
RW-1	04/03/14	**1280**	**1840**
DUP-3	04/03/14	**1120**	**2300**
	10/09/14	**867**	**2190**
DUP-1	10/09/14	**847**	**2290**
WW-1	04/03/14	**228**	**792**
	10/09/14	**205**	**916**
	10/09/14	**205**	**916**

NOTES:
1. NMWQCC - New Mexico Water Quality Control Commission
2. mg/L - milligrams per liter
3. NA - Not Analyzed
4. J - Reported as an estimate
5. Cells shaded yellow indicate that concentration exceeds NMWQCC standard.
6. NS - Not sampled
7. * Reported TDS concentration includes a low bias. Not used in trend comparison.

Appendices

Appendix A

New Mexico Office of the State Engineer Submittals

New Mexico Office of the State Engineer
Meter Reading Email Form

OSE File Number: CP-886
OSE Well/POD Number: CP-886
Meter Record Number: Add this item for multiple meters/wells (If Known)[1]

WELL OWNER or CONTACT ADDRESS:

☐ Check here if this is a new address

Name: Chevron USA
Contact: Kim Lambert (Conestoga Rovers & Associates, Agent)
Address: 2135 S. Loop 250 W.

City: Midland State: TX Zip: 79703

Work Phone (432) 686-0086
Home Phone (432) 272-9700
Email Address: klambert@craworld.com

1. WATER METER INFORMATION:

Serial Number: 1101203
Meter Make: Niagara Liquid Meters
Meter Model: 122
Number of Dials: 8
Multiplier: 1
Unit of Measure: Gallons

2. METER READING INFORMATION:

Meter Reading: 0278193.8
Reading Date: 12/20/13

3. COMMENTS: The remediation system is operational.

Submitted by: Kim Lambert

New Mexico Office of the State Engineer
Meter Reading Email Form

OSE File Number: CP-886
OSE Well/POD Number: CP-886
Meter Record Number: Add this item for multiple meters/wells
(If Known)[1]

WELL OWNER or CONTACT ADDRESS:
☒ Check here if this is a new address
Name: Chevron USA
Contact: Nancy Forster (Conestoga Rovers & Associates, Agent)
Address: 6320 Rothway Street, Suite 100

City: Houston State: TX Zip: 77040

Work Phone (713) 734-3090
Cell Phone (832) 799-4288
Email Address: nforster@craworld.com

1. WATER METER INFORMATION:

Serial Number: 1101203
Meter Make: Niagara Liquid Meters
Meter Model: 122
Number of Dials: 8
Multiplier: 1
Unit of Measure: Gallons

2. METER READING INFORMATION:

Meter Reading: 0298905.6
Reading Date: 4/3/14

3. COMMENTS: A new meter was installed within the last 3 months. The meter reading was adjusted to reflect the last reading on the prior meter (0278193.8) and the current reading on the new meter (0020711.8). The remediation system is operational.

Submitted by: Nancy Forster

New Mexico Office of the State Engineer
Meter Reading Email Form

OSE File Number: CP-886
OSE Well/POD Number: CP-886
Meter Record Number: Add this item for multiple meters/wells
(If Known)[1]

WELL OWNER or CONTACT ADDRESS:
☐ Check here if this is a new address
Name: Chevron USA
Contact: Nancy Forster (Conestoga Rovers & Associates, Agent)
Address: 6320 Rothway Street, Suite 100

City: Houston State: TX Zip: 77040

Work Phone (713) 734-3090
Cell Phone (832) 799-4288
Email Address: nforster@craworld.com

1. WATER METER INFORMATION:

Serial Number: 1101203
Meter Make: Niagara Liquid Meters
Meter Model: 122
Number of Dials: 8
Multiplier: 1
Unit of Measure: Gallons

2. METER READING INFORMATION:

Meter Reading: 0340885.3
Reading Date: 6/27/14

3. COMMENTS: The above meter reading reflects the reading on the new meter (0062691.5) replaced within the last 6 months added to the last reading on the prior meter (0278193.8). The remediation system is operational.

Submitted by: Nancy Forster

New Mexico Office of the State Engineer
Meter Reading Email Form

OSE File Number: CP-886
OSE Well/POD Number: CP-886
Meter Record Number: Add this item for multiple meters/wells
(If Known)[1]

WELL OWNER or CONTACT ADDRESS:
☐ Check here if this is a new address
Name: Chevron USA
Contact: Nancy Forster (Conestoga Rovers & Associates, Agent)
Address: 6320 Rothway Street, Suite 100

City: Houston State: TX Zip: 77040

Work Phone (713) 734-3090
Cell Phone (832) 799-4288
Email Address: nforster@craworld.com

1. WATER METER INFORMATION:

Serial Number: 1101203
Meter Make: Niagara Liquid Meters
Meter Model: 122
Number of Dials: 8
Multiplier: 1
Unit of Measure: Gallons

2. METER READING INFORMATION:

Meter Reading: 0418755.7
Reading Date: 10/10/14

3. COMMENTS: The above meter reading reflects the reading on the new meter (0140561.9) replaced within the last 10 months added to the last reading on the prior meter (0278193.8). The remediation system is operational.

Submitted by: Nancy Forster

Appendix B

Cumulative Summary of Groundwater Gauging Measurements

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-01	2/4/98	64.15	---	---	3097.54	87.70	55'-85'
3,161.69	2/7/01	61.40	---	---	3100.29	---	
2	4/30/02	61.43	---	---	3100.26	---	
	10/11/02	61.43	---	---	3100.26	---	
	12/26/02	61.43	---	---	3100.26	---	
	2/17/03	61.42	---	---	3100.27	---	
	5/29/03	61.58	---	---	3100.11	---	
	8/22/03	61.37	---	---	3100.32	---	
	11/5/03	61.35	---	---	3100.34	---	
	2/3/04	61.34	---	---	3100.35	---	
	5/5/04	61.13	---	---	3100.56	---	
	8/2/04	61.08	---	---	3100.61	---	
	11/23/04	60.61	---	---	3101.08	---	
	2/9/05	60.46	---	---	3101.23	---	
	8/4/05	60.62	---	---	3101.07	---	
	2/22/06	60.30	---	---	3101.39	84.60	
	8/24/06	60.46	---	---	3101.23	84.60	
	2/27/07	60.12	---	---	3101.57	---	
	8/23/07	59.88	---	---	3101.81	---	
	2/18/08	59.95	---	---	3101.74	84.59	
	8/11/08	59.99	---	---	3101.70	84.59	
	2/16/09	60.44	---	---	3101.25	---	
	7/27/09	60.57	---	---	3101.12	---	
	2/22/10	60.73	---	---	3100.96	---	
	7/26/10	60.48	---	---	3101.21	---	
	2/15/11	60.42	---	---	3101.27	---	
	8/16/11	60.39	---	---	3101.30	84.60	
	2/20/12	60.52	---	---	3101.17	82.05	
	8/23/12	60.56	---	---	3101.13	81.91	
	2/18/13	60.51	---	---	3101.18	81.87	
	8/13/13	60.76	---	---	3100.93	81.87	
	4/2/14	60.52	---	---	3101.17	81.66	
	10/9/14	60.78	---	---	3100.91	81.85	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-02	2/4/98	61.33	---	---	3098.56	72.94	50'-70'
3,159.89	2/7/01	61.45	---	---	3098.44	---	
2	4/30/02	61.47	---	---	3098.42	---	
	10/11/02	61.46	---	---	3098.43	---	
	12/26/02	61.52	---	---	3098.37	---	
	2/17/03	61.53	---	---	3098.36	---	
	5/29/03	61.48	---	---	3098.41	---	
	8/22/03	61.41	---	---	3098.48	---	
	11/5/03	61.38	---	---	3098.51	---	
	2/3/04	61.35	---	---	3098.54	---	
	5/5/04	61.20	---	---	3098.69	---	
	8/2/04	61.11	---	---	3098.78	---	
	11/23/04	60.52	---	---	3099.37	---	
	2/9/05	60.45	---	---	3099.44	---	
	8/4/05	66.60	---	---	3093.29	---	
	2/22/06	60.26	---	---	3099.63	72.81	
	8/24/06	60.42	---	---	3099.47	72.81	
	2/27/07	60.04	---	---	3099.85	---	
	8/23/07	59.80	---	---	3100.09	---	
	2/18/08	59.83	---	---	3100.06	72.82	
	8/11/08	59.89	---	---	3100.00	72.81	
	2/16/09	60.42	---	---	3099.47	---	
	7/27/09	60.55	---	---	3099.34	---	
	2/22/10	60.56	---	---	3099.33	---	
	7/26/10	60.73	---	---	3099.16	---	
	2/15/11	60.50	---	---	3099.39	---	
	8/16/11	60.43	---	---	3099.46	72.81	
	2/20/12	60.56	---	---	3099.33	72.76	
	8/23/12	60.85	---	---	3099.04	72.86	
	2/18/13	60.86	---	---	3099.03	72.85	
	8/13/13	60.85	---	---	3099.04	---	
	4/2/14	60.78	---	---	3099.11	72.34	
	10/9/14	60.82	---	---	3099.07	72.91	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-03	2/4/98	65.18	---	---	3098.90	73.26	50'-70'
3,164.08	2/7/01	65.22	---	---	3098.86	---	
2	4/30/02	65.11	---	---	3098.97	---	
	10/11/02	65.14	---	---	3098.94	---	
	12/26/02	65.15	---	---	3098.93	---	
	2/17/03	65.15	---	---	3098.93	---	
	5/29/03	65.19	---	---	3098.89	---	
	8/22/03	65.09	---	---	3098.99	---	
	11/5/03	65.09	---	---	3098.99	---	
	2/3/04	65.06	---	---	3099.02	---	
	5/5/04	64.97	---	---	3099.11	---	
	8/2/04	64.54	---	---	3099.54	---	
	11/23/04	64.47	---	---	3099.61	---	
	2/9/05	64.18	---	---	3099.90	---	
	8/4/05	64.30	---	---	3099.78	---	
	2/22/06	63.93	---	---	3100.15	73.14	
	8/24/06	64.09	---	---	3099.99	73.14	
	2/27/07	63.74	---	---	3100.34	---	
	8/23/07	63.54	---	---	3100.54	---	
	2/18/08	63.55	---	---	3100.53	73.13	
	8/11/08	63.61	---	---	3100.47	73.13	
	2/16/09	64.09	---	---	3099.99	---	
	7/27/09	64.22	---	---	3099.86	---	
	2/22/10	64.15	---	---	3099.93	---	
	7/26/10	64.46	---	---	3099.62	---	
	2/15/11	64.16	---	---	3099.92	73.15	
	8/16/11	64.04	---	---	3100.04	73.13	
	2/20/12	64.20	---	---	3099.88	73.06	
	8/24/12	64.44	---	---	3099.64	73.11	
	2/18/13	64.27	---	---	3099.81	73.10	
	8/13/13	64.49	---	---	3099.59	---	
	4/2/14	64.24	---	---	3099.84	72.87	
	10/9/14	64.65	---	---	3099.43	73.20	
MW-04	2/4/98	63.94	---	---	3101.71	73.31	50'-70'
3,165.65	10/19/00	63.80	---	---	3101.85	---	
2	2/7/01	63.78	---	---	3101.87	---	
	4/30/02	63.72	---	---	3101.93	---	
	10/11/02	63.74	---	---	3101.91	---	
	12/26/02	63.74	---	---	3101.91	---	
	2/17/03	63.74	---	---	3101.91	---	
	5/29/03	63.83	---	---	3101.82	---	
	8/22/03	63.71	---	---	3101.94	---	
	11/5/03	63.68	---	---	3101.97	---	
	2/3/04	63.64	---	---	3102.01	---	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-04 (cont)	5/5/04	63.55	---	---	3102.10	---	
	8/2/04	63.45	---	---	3102.20	---	
	11/23/04	62.91	---	---	3102.74	---	
	2/9/05	62.83	---	---	3102.82	---	
	8/4/05	63.12	---	---	3102.53	---	
	2/23/06	62.80	---	---	3102.85	73.11	
	8/25/06	62.97	---	---	3102.68	73.11	
	2/27/07	62.60	---	---	3103.05	---	
	8/23/07	62.33	---	---	3103.32	---	
	2/18/08	62.35	---	---	3103.30	73.1	
	8/11/08	62.38	---	---	3103.27	73.11	
	2/16/09	62.73	---	---	3102.92	---	
	7/27/09	62.85	---	---	3102.80	---	
	2/22/10	62.72	---	---	3102.93	---	
	7/26/10	62.99	---	---	3102.66	---	
	2/15/11	62.70	---	---	3102.95	---	
	8/16/11	62.64	---	---	3103.01	73.11	
	2/20/12			NG		---	
	8/24/12	63.41	---	---	3102.24	73.12	
	2/18/13	64.27	---	---	3101.38	73.11	
	8/13/13	62.93	---	---	3102.72	---	
	4/2/14	62.76	---	---	3102.89	73.03	
	10/9/14	62.80	---	---	3102.85	73.08	
MW-05	2/4/98	60.33	---	---	3100.42	73.10	50'-70'
3,160.75	10/19/00	60.25	---	---	3100.50	---	
2	2/7/01	60.58	---	---	3100.17	---	
	4/30/02	62.27	---	---	3098.48	---	
	10/11/02	60.29	---	---	3100.46	---	
	12/26/02	60.29	---	---	3100.46	---	
	2/17/03	60.30	---	---	3100.45	---	
	5/29/03	60.33	---	---	3100.42	---	
	8/22/03	60.24	---	---	3100.51	---	
	11/5/03	60.24	---	---	3100.51	---	
	2/3/04	60.20	---	---	3100.55	---	
	5/5/04	60.04	---	---	3100.71	---	
	8/2/04	59.97	---	---	3100.78	---	
	11/23/04	59.51	---	---	3101.24	---	
	2/9/05	59.32	---	---	3101.43	---	
	8/4/05	59.55	---	---	3101.20	---	
	2/22/06	59.22	---	---	3101.53	72.95	
	8/24/06	59.39	---	---	3101.36	72.95	
	2/27/07	59.03	---	---	3101.72	---	
	8/23/07	58.84	---	---	3101.91	---	
	2/18/08	58.83	---	---	3101.92	72.95	
	8/11/08	58.84	---	---	3101.91	72.95	
	2/16/09	59.36	---	---	3101.39	---	
	7/27/09	59.50	---	---	3101.25	---	
	2/22/10	59.35	---	---	3101.40	---	
	7/26/10	59.72	---	---	3101.03	---	
	2/15/11			NG		---	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-05 (cont)	8/16/11	59.28	---	---	3101.47	72.95	
	2/20/12	59.46	---	---	3101.29	72.86	
	8/24/12	59.47	---	---	3101.28	72.69	
	2/18/13	59.51	---	---	3101.24	72.88	
	8/13/13	59.71	---	---	3101.04	---	
	4/2/14	59.45	---	---	3101.30	72.68	
	10/9/14	59.70	---	---	3101.05	72.85	
MW-06	2/7/01	68.00	---	---	3096.18	77.24	59'-74'
3,164.18	4/30/02	68.10	---	---	3096.08	---	
2	10/11/02	68.04	---	---	3096.14	---	
	12/26/02	68.03	---	---	3096.15	---	
	2/17/03	68.03	---	---	3096.15	---	
	5/29/03	68.38	---	---	3095.80	---	
	8/22/03	67.99	---	---	3096.19	---	
	11/5/03	67.99	---	---	3096.19	---	
	2/3/04	67.92	---	---	3096.26	---	
	5/5/04	67.88	---	---	3096.30	---	
	8/2/04	67.78	---	---	3096.40	---	
	11/23/04	67.31	---	---	3096.87	---	
	2/9/05	67.17	---	---	3097.01	---	
	8/4/05	63.13	---	---	3101.05	---	
	2/22/06	66.72	---	---	3097.46	77.00	
	8/24/06	66.93	---	---	3097.25	77.00	
	2/27/07	66.58	---	---	3097.60	---	
	8/27/07	66.35	---	---	3097.83	---	
	2/18/08	66.35	---	---	3097.83	77.00	
	8/11/08	66.39	---	---	3097.79	77.00	
	2/16/09	66.94	---	---	3097.24	---	
	7/27/09	67.04	---	---	3097.14	---	
	2/22/10	67.10	---	---	3097.08	---	
	7/26/10	67.32	---	---	3096.86	---	
	2/15/11	67.15	---	---	3097.03	77.05	
	8/16/11	67.09	---	---	3097.09	77.00	
	2/20/12	67.14	---	---	3097.04	76.95	
	8/24/12	67.53	---	---	3096.65	76.87	
	2/18/13	67.68	---	---	3096.50	76.91	
	8/13/13	67.41	---	---	3096.77	---	
	4/2/14	67.32	---	---	3096.86	76.80	
	10/9/14	67.63	---	---	3096.55	77.01	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-07	2/7/01	67.25	---	---	3094.81	73.45	55'-70'
3,162.06	4/30/02	67.50	---	---	3094.56	---	
2	10/11/02	67.53	---	---	3094.53	---	
	12/26/02	67.53	---	---	3094.53	---	
	2/17/03	67.53	---	---	3094.53	---	
	5/29/03	67.61	---	---	3094.45	---	
	8/22/03	67.49	---	---	3094.57	---	
	11/5/03	67.47	---	---	3094.59	---	
	2/3/04	67.46	---	---	3094.60	---	
	5/5/04	67.44	---	---	3094.62	---	
	8/2/04	67.34	---	---	3094.72	---	
	11/23/04	67.02	---	---	3095.04	---	
	2/9/05	67.74	---	---	3094.32	---	
	8/4/05	66.62	---	---	3095.44	---	
	2/22/06	66.31	---	---	3095.75	72.56	
	8/24/06	66.37	---	---	3095.69	72.56	
	2/27/07	66.05	---	---	3096.01	---	
	8/23/07	65.87	---	---	3096.19	---	
	2/18/08	65.88	---	---	3096.18	72.55	
	8/11/08	65.91	---	---	3096.15	72.55	
	2/16/09	66.35	---	---	3095.71	---	
	7/27/09	66.51	---	---	3095.55	---	
	2/22/10	66.70	---	---	3095.36	---	
	7/26/10	66.86	---	---	3095.20	---	
	2/15/11	66.74	---	---	3095.32	72.22	
	8/16/11	66.73	---	---	3095.33	72.30	
	2/20/12	66.74	---	---	3095.32	---	
	8/23/12	66.98	---	---	3095.08	71.87	
	2/18/13	66.97	---	---	3095.09	71.86	
	8/13/13	67.03	---	---	3095.03	---	
	4/2/14	67.00	---	---	3095.06	71.79	
	10/9/14	67.04	---	---	3095.02	71.90	
MW-08	2/3/99	68.21	---	---	3091.45	70.66	50'-70'
3,159.66	2/7/01	68.30	---	---	3091.36	---	
2	4/30/02	68.42	---	---	3091.24	---	
	10/11/02	68.30	---	---	3091.36	---	
	12/26/02	68.30	---	---	3091.36	---	
	2/17/03	68.30	---	---	3091.36	---	
	5/29/03	68.36	---	---	3091.30	---	
	8/22/03	68.26	---	---	3091.40	---	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-08 (cont)	11/5/03	68.26	---	---	3091.40	---	
	2/3/04	68.24	---	---	3091.42	---	
	5/5/04	68.24	---	---	3091.42	---	
	8/2/04	68.17	---	---	3091.49	---	
	11/23/04	67.72	---	---	3091.94	---	
	2/9/05	67.41	---	---	3092.25	---	
	8/4/05	67.39	---	---	3092.27	---	
	2/22/06	67.04	---	---	3092.62	73.40	
	8/24/06	67.29	---	---	3092.37	73.40	
	2/27/07	66.87	---	---	3092.79	---	
	8/23/07	66.77	---	---	3092.89	---	
	2/18/08	66.79	---	---	3092.87	73.40	
	8/11/08	66.81	---	---	3092.85	73.40	
	2/16/09	67.31	---	---	3092.35	---	
	7/27/09	67.40	---	---	3092.26	---	
	2/22/10	67.53	---	---	3092.13	---	
	7/26/10	67.65	---	---	3092.01	---	
	2/15/11	67.65	---	---	3092.01	73.43	
	8/16/11	67.59	---	---	3092.07	73.40	
	2/20/12	67.59	---	---	3092.07	73.38	
	8/23/12	67.73	---	---	3091.93	73.40	
	2/19/13	67.86	---	---	3091.80	73.42	
	8/13/13	67.76	---	---	3091.90	---	
	4/2/14	67.82	---	---	3091.84	73.35	
	10/9/14	67.80	---	---	3091.86	73.60	
MW-09	4/30/02	63.65	---	---	3103.42	70.39	55'-70'
3,167.07	10/11/02	63.59	---	---	3103.48	---	
2	12/26/02	63.59	---	---	3103.48	---	
	2/17/03	63.60	---	---	3103.47	---	
	5/29/03	63.73	---	---	3103.34	---	
	8/22/03	63.56	---	---	3103.51	---	
	11/5/03	63.55	---	---	3103.52	---	
	2/3/04	63.47	---	---	3103.60	---	
	5/5/04	63.27	---	---	3103.80	---	
	8/2/04	63.24	---	---	3103.83	---	
	11/23/04	62.40	---	---	3104.67	---	
	2/9/05	62.50	---	---	3104.57	---	
	8/4/05	62.89	---	---	3104.18	---	
	2/23/06	62.48	---	---	3104.59	69.60	
	8/25/06	62.68	---	---	3104.39	69.60	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-09 (cont)	2/27/07	62.23	---	---	3104.84	---	
	8/23/07	61.88	---	---	3105.19	---	
	2/18/08	61.90	---	---	3105.17	69.59	
	8/11/08	61.91	---	---	3105.16	69.59	
	2/16/09	62.33	---	---	3104.74	---	
	7/27/09	62.42	---	---	3104.65	---	
	2/22/10	62.33	---	---	3104.74	---	
	7/26/10	62.53	---	---	3104.54	---	
	2/15/11	62.25	---	---	3104.82	---	
	8/16/11	62.29	---	---	3104.78	69.59	
	2/20/12			NG		---	
	8/24/12	62.53	---	---	3104.54	68.67	
	2/19/13	62.45	---	---	3104.62	68.60	
	8/13/13	62.43	---	---	3104.64	---	
	4/2/14	62.25	---	---	3104.82	68.53	
	10/9/14	62.01	---	---	3105.06	68.45	
MW-10	4/30/02	70.35	---	---	3100.64	69.16	54'-69'
3,170.99	10/11/02	70.49	---	---	3100.50	---	
2	12/26/02	70.50	---	---	3100.49	---	
	2/17/03	70.50	---	---	3100.49	---	
	5/29/03	70.37	---	---	3100.62	---	
	8/22/03	70.47	---	---	3100.52	---	
	11/5/03	70.49	---	---	3100.50	---	
	2/3/04	70.43	---	---	3100.56	---	
	5/5/04	70.38	---	---	3100.61	---	
	8/2/04	70.26	---	---	3100.73	---	
	11/23/04	69.78	---	---	3101.21	---	
	2/9/05			NG		---	
	8/4/05	69.89	---	---	3101.10	---	
	2/22/06	69.59	---	---	3101.40	71.95	
	8/25/06	69.65	---	---	3101.34	71.95	
	2/27/07	69.29	---	---	3101.70	---	
	8/23/07	69.06	---	---	3101.93	---	
	2/18/08	69.06	---	---	3101.93	71.94	
	8/11/08	69.05	---	---	3101.94	71.94	
	2/16/09	69.74	---	---	3101.25	---	
	7/27/09	69.27	---	---	3101.72	---	
	2/22/10	69.30	---	---	3101.69	---	
	7/26/10	69.40	---	---	3101.59	---	
	2/15/11			NG		---	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-10 (cont)	8/16/11	69.28	---	---	3101.71	71.95	
	2/20/12			NG		---	
	8/24/12	69.41	---	---	3101.58	71.97	
	2/19/13	69.40	---	---	3101.59	71.95	
	8/13/13	69.34	---	---	3101.65	71.94	
	4/2/14	69.33	---	---	3101.66	71.91	
	10/9/14	69.38	---	---	3101.61	72.20	
MW-11	4/30/02			DRY		72.78	58'-73'
3,168.24	10/11/02			DRY		---	
2	12/26/02			DRY		---	
	2/17/03			DRY		---	
	5/29/03			DRY		---	
	8/22/03			DRY		---	
	11/5/03			DRY		---	
	2/3/04			DRY		---	
	5/5/04			DRY		---	
	8/2/04			DRY		---	
	11/23/04			DRY		---	
	2/9/05			DRY		---	
	8/4/05	61.91	---	---	3106.33	---	
	2/22/06	74.71	---	---	3093.53	75.45	
	8/24/06	74.71	---	---	3093.53	75.45	
	2/27/07	74.51	---	---	3093.73	---	
	8/23/07	74.38	---	---	3093.86	---	
	2/18/08	74.21	---	---	3094.03	75.45	
	8/11/08	74.38	---	---	3093.86	75.44	
	2/16/09	74.46	---	---	3093.78	---	
	7/27/09	74.45	---	---	3093.79	---	
	2/22/10	74.52	---	---	3093.72	---	
	7/26/10	74.61	---	---	3093.63	---	
	2/15/11	74.56	---	---	3093.68	75.50	
	8/16/11	74.63	---	---	3093.61	75.50	
	2/20/12			NG		---	
	8/23/12	74.62	---	---	3093.62	75.55	
	2/18/13	74.65	---	---	3093.59	75.45	
	8/13/13	74.66	---	---	3093.58	75.44	
	4/2/14	74.73	---	---	3093.51	75.40	
	10/9/14	74.7	---	---	3093.54	75.60	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-12	4/30/02	72.80	---	---	3079.68	74.37	59'-74'
3,152.48	10/11/02	72.81	---	---	3079.67	---	
2	12/26/02	72.82	---	---	3079.66	---	
	2/17/03	72.82	---	---	3079.66	---	
	5/29/03	72.77	---	---	3079.71	---	
	8/22/03	72.81	---	---	3079.67	---	
	11/5/03	72.81	---	---	3079.67	---	
	2/3/04	72.83	---	---	3079.65	---	
	5/5/04	72.78	---	---	3079.70	---	
	8/2/04	72.81	---	---	3079.67	---	
	11/23/04	72.69	---	---	3079.79	---	
	2/9/05	72.83	---	---	3079.65	---	
	8/4/05	72.48	---	---	3080.00	---	
	2/22/06	72.15	---	---	3080.33	77.60	
	8/24/06	71.91	---	---	3080.57	77.60	
	2/27/07	71.75	---	---	3080.73	---	
	8/23/07	71.51	---	---	3080.97	---	
	2/18/08	71.42	---	---	3081.06	77.60	
	8/11/08	71.46	---	---	3081.02	77.60	
	2/16/09	73.13	---	---	3079.35	---	
	7/27/09	71.59	---	---	3080.89	---	
	2/22/10	71.94	---	---	3080.54	---	
	7/26/10	72.21	---	---	3080.27	---	
	2/15/11	72.36	---	---	3080.12	77.57	
	8/16/11	72.50	---	---	3079.98	77.67	
	2/20/12	72.45	---	---	3080.03	77.52	
	8/22/12	72.71	---	---	3079.77	77.50	
	2/19/13	72.65	---	---	3079.83	77.63	
	8/13/13	72.59	---	---	3079.89	---	
	4/2/14	72.83	---	---	3079.65	77.35	
	10/9/14	72.91	---	---	3079.57	77.81	
MW-13	4/30/02	66.97	---	---	3087.95	67.90	53'-68'
3,154.92	10/11/02	66.38	---	---	3088.54	---	
2	12/26/02	66.37	---	---	3088.55	---	
	2/17/03	66.37	---	---	3088.55	---	
	5/29/03	66.68	---	---	3088.24	---	
	8/22/03	67.06	---	---	3087.86	---	
	11/5/03	67.36	---	---	3087.56	---	
	2/3/04	67.11	---	---	3087.81	---	
	5/5/04	67.05	---	---	3087.87	---	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-13 (cont)	8/2/04	67.21	---	---	3087.71	---	
	11/23/04	66.82	---	---	3088.10	---	
	2/9/05	66.50	---	---	3088.42	---	
	8/4/05	66.11	---	---	3088.81	---	
	2/22/06	65.73	---	---	3089.19	70.54	
	8/24/06	65.45	---	---	3089.47	70.54	
	2/27/07	65.22	---	---	3089.70	---	
	8/23/07	65.06	---	---	3089.86	---	
	2/18/08	65.10	---	---	3089.82	70.54	
	8/11/08	65.12	---	---	3089.80	70.54	
	2/16/09	64.74	---	---	3090.18	---	
	7/27/09	64.89	---	---	3090.03	---	
	2/22/10	65.19	---	---	3089.73	---	
	7/26/10	65.45	---	---	3089.47	---	
	2/15/11	65.60	---	---	3089.32	70.50	
	8/16/11	65.79	---	---	3089.13	70.50	
	2/20/12	65.83	---	---	3089.09	70.49	
	8/23/12	66.01	---	---	3088.91	70.55	
	2/19/13	66.11	---	---	3088.81	70.53	
	8/13/13	66.17	---	---	3088.75	---	
	4/2/14	66.91	---	---	3088.01	70.47	
	10/9/14	66.68	---	---	3088.24	70.51	
MW-14	11/5/03	71.60	---	---	3080.31	92.43	79.5'-89.5'
3,151.91	2/3/04	71.62	---	---	3080.29	---	
2	5/5/04	71.67	---	---	3080.24	---	
	8/2/04	71.69	---	---	3080.22	---	
	11/23/04	71.60	---	---	3080.31	---	
	2/9/05	71.30	---	---	3080.61	---	
	8/4/05	70.90	---	---	3081.01	---	
	2/22/06	70.49	---	---	3081.42	92.30	
	8/24/06	70.24	---	---	3081.67	92.3	
	2/27/07	70.05	---	---	3081.86	---	
	8/23/07	69.78	---	---	3082.13	---	
	2/18/08	69.68	---	---	3082.23	92.29	
	8/11/08	69.72	---	---	3082.19	92.30	
	2/16/09	69.31	---	---	3082.60	---	
	7/27/09	69.37	---	---	3082.54	---	
	2/22/10	69.65	---	---	3082.26	---	
	7/26/10	69.95	---	---	3081.96	---	
	2/15/11	70.20	---	---	3081.71	92.15	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-14 (cont)	8/16/11	70.39	---	---	3081.52	89.50	
	2/20/12	70.48	---	---	3081.43	92.07	
	8/23/12	70.81	---	---	3081.10	91.99	
	2/19/13	70.97	---	---	3080.94	91.79	
	8/13/13	70.92	---	---	3080.99	---	
	4/2/14	71.14	---	---	3080.77	92.82	
	10/9/14	71.52	---	---	3080.39	91.90	
MW-15	11/5/03			DRY		87.45	64.5'-84.5'
3,152.48	2/3/04			DRY		---	
2	5/5/04			DRY		---	
	8/2/04			DRY		---	
	11/23/04			DRY		---	
	2/9/05			DRY		---	
	8/4/05	86.91	---	---	3065.57	---	
	2/22/06	86.54	---	---	3065.94	87.40	
	8/24/06	86.34	---	---	3066.14	87.40	
	2/27/07	85.73	---	---	3066.75	---	
	8/23/07	85.26	---	---	3067.22	---	
	2/18/08	81.90	---	---	3070.58	87.40	
	8/11/08	81.99	---	---	3070.49	87.42	
	2/16/09	77.83	---	---	3074.65	---	
	7/27/09	77.19	---	---	3075.29	---	
	2/22/10	77.06	---	---	3075.42	---	
	7/26/10	77.05	---	---	3075.43	---	
	2/15/11	77.08	---	---	3075.40	87.50	
	8/16/11	77.23	---	---	3075.25	84.50	
	2/20/12	77.31	---	---	3075.17	87.38	
	8/22/12	77.50	---	---	3074.98	87.28	
	2/19/13	77.61	---	---	3074.87	87.40	
	8/13/13	77.78	---	---	3074.70	---	
	4/2/14	78.51	---	---	3073.97	87.30	
	10/9/14	78.30	---	---	3074.18	87.41	
MW-16	11/5/03	65.68	---	---	3091.57	77.22	59.5'-74.5'
3,157.25	2/3/04	68.67	---	---	3088.58	---	
2	5/5/04	68.69	---	---	3088.56	---	
	8/2/04	68.65	---	---	3088.60	---	
	11/23/04	68.10	---	---	3089.15	---	
	2/9/05	67.53	---	---	3089.72	---	
	8/4/05	67.77	---	---	3089.48	---	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-16 (cont)	2/22/06	67.24	---	---	3090.01	74.42	
	8/24/06	67.66	---	---	3089.59	74.42	
	2/27/07	67.09	---	---	3090.16	---	
	8/23/07	67.10	---	---	3090.15	---	
	2/18/08	67.03	---	---	3090.22	74.42	
	8/11/08	67.09	---	---	3090.16	74.42	
	2/16/09	67.85	---	---	3089.40	---	
	7/27/09	67.92	---	---	3089.33	---	
	2/22/10	68.10	---	---	3089.15	---	
	7/26/10	68.20	---	---	3089.05	---	
	2/15/11	68.18	---	---	3089.07	74.47	
	8/16/11	68.16	---	---	3089.09	74.50	
	2/20/12	68.12	---	---	3089.13	74.41	
	8/23/12	68.20	---	---	3089.05	74.41	
	2/19/13	68.43	---	---	3088.82	74.48	
	8/13/13	68.25	---	---	3089.00	---	
	4/2/14	68.42	---	---	3088.83	74.45	
	10/9/14	68.38	---	---	3088.87	74.61	
MW-17	11/5/03	69.51	---	---	3088.86	79.37	57'-77'
3,158.37	2/3/04	69.53	---	---	3088.84	---	
2	5/5/04	69.52	---	---	3088.85	---	
	8/2/04	70.12	---	---	3088.25	---	
	11/23/04	69.31	---	---	3089.06	---	
	2/9/05	69.04	---	---	3089.33	---	
	8/4/05	68.90	---	---	3089.47	---	
	2/22/06	68.72	---	---	3089.65	80.10	
	8/24/06	68.78	---	---	3089.59	80.10	
	2/27/07	68.55	---	---	3089.82	---	
	8/23/07	68.50	---	---	3089.87	---	
	2/18/08	68.41	---	---	3089.96	80.10	
	8/11/08	68.43	---	---	3089.94	80.10	
	2/16/09	68.87	---	---	3089.50	---	
	7/27/09	68.99	---	---	3089.38	---	
	2/22/10	69.14	---	---	3089.23	---	
	7/26/10	69.22	---	---	3089.15	---	
	2/15/11	69.23	---	---	3089.14	79.82	
	8/16/11	69.23	---	---	3089.14	79.96	
	2/20/12	69.19	---	---	3089.18	76.95	
	8/23/12	69.36	---	---	3089.01	77.02	
	2/19/13	69.49	---	---	3088.88	76.93	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-17 (cont)	8/13/13	69.31	---	---	3089.06	---	
	4/2/14	69.53	---	---	3088.84	76.95	
	10/9/14	69.41	---	---	3088.96	76.98	
MW-18	11/23/04			DRY		76.98	54.5'-74.5
3,151.08	2/9/05			DRY		---	
2	8/4/05			DRY		---	
	2/22/06			DRY		78.43	
	8/24/06			DRY		78.43	
	2/27/07			DRY		---	
	8/23/07			DRY		---	
	2/18/08			DRY		78.44	
	8/11/08			DRY		78.44	
	2/16/09			DRY		---	
	7/27/09			DRY		---	
	2/22/10			DRY		---	
	7/26/10			DRY		---	
	2/15/11			DRY		---	
	8/16/11			DRY		74.50	
	2/20/12			DRY		78.40	
	8/23/12			DRY		78.41	
	2/18/13			DRY		---	
	8/13/13			DRY		---	
	4/2/14			DRY		78.35	
	10/9/14			DRY		78.35	
MW-19	11/23/04	72.63	---	---	3075.16	104.41	82.5'-102.5'
3,147.79	2/9/05	72.36	---	---	3075.43	---	
2	8/4/05	72.18	---	---	3075.61	---	
	2/22/06	71.83	---	---	3075.96	105.55	
	8/24/06	71.57	---	---	3076.22	105.55	
	2/27/07	71.28	---	---	3076.51	---	
	8/23/07	70.75	---	---	3077.04	---	
	2/18/08	70.29	---	---	3077.50	105.53	
	8/11/08	70.33	---	---	3077.46	105.50	
	2/16/09	71.54	---	---	3076.25	---	
	7/27/09	70.71	---	---	3077.08	---	
	2/22/10	69.91	---	---	3077.88	---	
	7/26/10	70.15	---	---	3077.64	---	
	2/15/11	70.26	---	---	3077.53	105.60	
	8/16/11	70.50	---	---	3077.29	102.50	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-19 (cont)	2/20/12	70.61	---	---	3077.18	105.52	
	8/23/12	70.01	---	---	3077.78	105.61	
	2/19/13	71.34	---	---	3076.45	105.52	
	8/13/13	71.31	---	---	3076.48	---	
	4/2/14	71.85	---	---	3075.94	105.37	
	10/9/14	72.50	---	---	3075.29	105.40	
MW-20	11/23/04	81.81	---	---	3069.75	94.94	72.5'-92.5'
3,151.56	2/9/05	81.85	---	---	3069.71	---	
2	8/4/05	81.81	---	---	3069.75	---	
	2/22/06	81.71	---	---	3069.85	92.23	
	8/24/06	81.66	---	---	3069.90	92.23	
	2/27/07	81.39	---	---	3,070.17	---	
	8/23/07	81.20	---	---	3,070.36	---	
	2/18/08	80.93	---	---	3,070.63	92.21	
	8/11/08	80.96	---	---	3070.60	92.20	
	2/16/09	80.58	---	---	3070.98	---	
	7/27/09	80.42	---	---	3071.14	---	
	2/22/10	80.35	---	---	3071.21	---	
	7/26/10	80.39	---	---	3071.17	---	
	2/15/11	80.38	---	---	3071.18	90.40	
	8/16/11	80.52	---	---	3071.04	92.50	
	2/20/12	80.61	---	---	3070.95	89.66	
	8/22/12	80.85	---	---	3070.71	89.34	
	2/19/13	81.09	---	---	3070.47	89.41	
	8/13/13	81.23	---	---	3070.33	---	
	4/2/14	81.57	---	---	3069.99	89.54	
	10/9/14	81.70	---	---	3069.86	89.31	
MW-21	11/20/07	71.05	---	---	3074.82	99.00	67'-97'
3,145.87	2/18/08	70.96	---	---	3074.91	98.60	
2	8/11/08	71.01	---	---	3074.86	98.60	
	2/16/09	70.78	---	---	3075.09	---	
	7/27/09	70.71	---	---	3075.16	---	
	2/22/10	70.83	---	---	3075.04	---	
	7/26/10	71.03	---	---	3074.84	---	
	2/15/11	71.04	---	---	3074.83	97.68	
	8/16/11	71.31	---	---	3074.56	97.00	
	2/20/12	71.50	---	---	3074.37	97.44	
	8/22/12	71.79	---	---	3074.08	96.98	
	2/19/13	72.06	---	---	3073.81	97.05	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-21 (cont)	8/13/13	72.27	---	---	3073.60	---	
	4/2/14	72.65	---	---	3073.22	96.88	
	10/9/14	73.41	---	---	3072.46	96.98	
MW-22	11/20/07	62.35	---	---	3108.29	68.95	46.5'-66.5'
3,170.64	2/18/08	62.59	---	---	3108.05	68.60	
2	8/11/08	62.62	---	---	3108.02	68.60	
	2/16/09	62.68	---	---	3107.96	---	
	7/27/09	62.90	---	---	3107.74	---	
	2/22/10	62.74	---	---	3107.90	---	
	7/26/10	62.80	---	---	3107.84	---	
	2/15/11	62.59	---	---	3108.05	---	
	8/16/11	62.71	---	---	3107.93	68.60	
	2/21/12			NG		---	
	8/24/12	62.91	---	---	3107.73	68.21	
	2/19/13	62.61	---	---	3108.03	68.10	
	8/13/13	62.60	---	---	3108.04	---	
	4/2/14	62.60	---	---	3108.04	68.01	
	10/9/14	61.90	---	---	3108.74	67.99	
MW-23	2/20/12	89.59	---	---	3064.79	103.52	70-100'
3,154.38	8/22/12	89.54	---	---	3064.84	102.01	
2	2/19/13	89.71	---	---	3064.67	102.07	
	8/13/13	89.72	---	---	3064.66	---	
	4/2/14	89.99	---	---	3064.39	102.07	
	10/9/14	90.03	---	---	3064.35	102.03	
MW-24	2/20/12	48.81	---	---	3097.26	59.86	30-60'
3,146.07	8/22/12	49.11	---	---	3096.96	62.90	
2.00	2/19/13	49.23	---	---	3096.84	62.89	
	8/13/13	49.35	---	---	3096.72	---	
	4/2/14	49.50	---	---	3096.57	62.65	
	10/9/14	50.05	---	---	3096.02	63.01	
MW-25	4/5/12	78.08	---	---	3093.24	97.00	65-95'
3,171.32	5/24/12	77.96	---	---	3093.36	---	
2	8/23/12	77.79	---	---	3093.53	96.18	
	2/19/13	78.16	---	---	3093.16	96.11	
	8/13/13	78.15	---	---	3093.17	---	
	4/2/14	78.41	---	---	3092.91	96.03	
	10/9/14	78.39	---	---	3092.93	95.63	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
MW-26	4/5/12	63.02	---	---	3109.82	76.58	55-75'
3,172.84	5/24/12	63.02	---	---	3109.82	---	
2	8/24/12	63.02	---	---	3109.82	76.61	
	2/19/13	62.98	---	---	3109.86	76.45	
	8/13/13	62.89	---	---	3109.95	---	
	4/2/14	62.85	---	---	3109.99	76.12	
	10/9/14	63.02	---	---	3109.82	75.83	
MW-27	4/5/12	46.30	---	---	3100.30	48.80	25-45'
3,146.60	8/23/12			DRY		48.79	
2	2/19/13	48.20	---	---	3098.40	48.75	
	8/13/13			DRY		48.56	
	4/2/14			DRY		48.53	
	10/9/14			DRY		48.50	
WW-1	4/30/02	70.21	---	---	3100.00	---	--
3,170.21	10/11/02	69.71	---	---	3100.50	---	
4	12/26/02	69.70	---	---	3100.51	---	
	2/17/03	69.70	---	---	3100.51	---	
	5/29/03	67.37	---	---	3102.84	---	
	8/22/03	70.27	---	---	3099.94	---	
	11/5/03	70.23	---	---	3099.98	---	
	2/3/04	70.31	---	---	3099.90	---	
	5/5/04	70.23	---	---	3099.98	---	
	8/2/04	69.47	---	---	3100.74	---	
	11/23/04	69.92	---	---	3100.29	---	
	2/9/05	69.75	---	---	3100.46	---	
	8/4/05	69.89	---	---	3100.32	---	
	2/22/06	69.51	---	---	3100.70	---	
	8/25/06	69.50	---	---	3100.71	192.00	
	2/27/07	69.20	---	---	3101.01	---	
	8/23/07	68.99	---	---	3101.22	---	
	2/18/08	69.00	---	---	3101.21	192.00	
	8/11/08	68.95	---	---	3101.26	191.98	
	2/16/09	69.00	---	---	3101.21	---	
	7/27/09	69.00	---	---	3101.21	---	
	2/22/10	68.89	---	---	3101.32	---	
	7/26/10			NG		---	
	2/15/11			NG		---	
	8/16/11			NG		---	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
WW-1 (cont)	2/20/12	69.05	---	---	3101.16	195.00	
	8/23/12	69.22	---	---	3100.99	180.04	
	2/18/13	69.22	---	---	3100.99	180.04	
	8/13/13	69.09	---	---	3101.12	---	
	4/2/14	69.07	---	---	3101.14	179.73	
	10/9/14	69.13	---	---	3101.08	179.98	
West MW	8/22/97	62.58	---	---	3101.86	70.43	--
3,164.44	2/4/98	62.50	---	---	3101.94	---	
2	10/19/00	62.37	---	---	3102.07	---	
	2/7/01	62.43	---	---	3102.01	---	
	4/30/02	62.37	---	---	3102.07	---	
	10/11/02	62.35	---	---	3102.09	---	
	12/26/02	62.34	---	---	3102.10	---	
	2/17/03	62.34	---	---	3102.10	---	
	5/29/03	62.22	---	---	3102.22	---	
	8/22/03	62.35	---	---	3102.09	---	
	11/5/03	62.31	---	---	3102.13	---	
	2/3/04	62.27	---	---	3102.17	---	
	5/5/04	62.11	---	---	3102.33	---	
	8/2/04	62.01	---	---	3102.43	---	
	11/23/04	61.40	---	---	3103.04	---	
	2/9/05	61.30	---	---	3103.14	---	
	8/4/05	61.61	---	---	3102.83	---	
	2/23/06	61.24	---	---	3103.20	67.28	
	8/25/06	61.43	---	---	3103.01	67.28	
	2/27/07	61.03	---	---	3103.41	---	
	8/23/07	60.74	---	---	3103.70	---	
	2/18/08	60.97	---	---	3103.47	67.28	
	8/11/08	61.06	---	---	3103.38	67.28	
	2/16/09	61.27	---	---	3103.17	---	
	7/27/09	61.42	---	---	3103.02	---	
	2/22/10	61.26	---	---	3103.18	---	
	7/26/10	61.62	---	---	3102.82	---	
	2/15/11	61.20	---	---	3103.24	---	
	8/16/11	61.21	---	---	3103.23	67.28	
	2/21/12			NG		---	
	8/24/12	61.52	---	---	3102.92	67.24	
	2/18/13	61.43	---	---	3103.01	67.28	
	8/13/13	61.56	---	---	3102.88	---	
	4/2/14	61.28	---	---	3103.16	67.22	
	10/9/14	61.40	---	---	3103.04	67.20	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
Southwest MW	8/22/97	63.25	---	---	3101.29	70.45	--
3,164.54	2/4/98	63.21	---	---	3101.33	---	
2	10/19/00	63.06	---	---	3101.48	---	
	2/7/01	63.10	---	---	3101.44	---	
	4/30/02	63.06	---	---	3101.48	---	
	10/11/02	62.72	---	---	3101.82	---	
	12/26/02	62.70	---	---	3101.84	---	
	2/17/03	62.70	---	---	3101.84	---	
	5/29/03	62.92	---	---	3101.62	---	
	8/22/03	63.04	---	---	3101.50	---	
	11/5/03	63.03	---	---	3101.51	---	
	2/3/04	62.99	---	---	3101.55	---	
	5/5/04	62.90	---	---	3101.64	---	
	8/2/04	62.71	---	---	3101.83	---	
	11/23/04	62.17	---	---	3102.37	---	
	2/9/05	62.05	---	---	3102.49	---	
	8/4/05	62.33	---	---	3102.21	---	
	2/23/06	61.98	---	---	3102.56	70.16	
	8/25/06	62.17	---	---	3102.37	70.16	
	2/27/07	61.78	---	---	3102.76	---	
	8/23/07	61.52	---	---	3103.02	---	
	2/18/08	61.9	---	---	3102.64	70.16	
	8/11/08	61.93	---	---	3102.61	70.16	
	2/16/09	62.10	---	---	3102.44	---	
	7/27/09	62.19	---	---	3102.35	---	
	2/22/10	62.00	---	---	3102.54	---	
	7/26/10	62.64	---	---	3101.90	---	
	2/15/11			NG		---	
	8/16/11	61.94	---	---	3102.60	---	
	2/21/12			NG		---	
	8/24/12	62.03	---	---	3102.51	70.35	
	2/18/13	62.75	---	---	3101.79	70.41	
	8/13/13	62.50	---	---	3102.04	---	
	4/2/14	62.15	---	---	3102.39	70.37	
	10/9/14	62.60	---	---	3101.94	70.35	

APPENDIX B

CUMULATIVE SUMMARY OF GROUNDWATER GAUGING MEASUREMENTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

WELL ID TOC[1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL[2])*	*Total Depth (ft)*	*Screen Interval (bgs[3])*
RW-1	1/14/99	50.85	---	---	3112.67	76.30	53'-73'
3,163.52	10/19/00	62.33	---	---	3101.19	---	
4	4/30/02	62.28	---	---	3101.24	---	
	10/11/02	62.27	---	---	3101.25	---	
	12/26/02	62.26	---	---	3101.26	---	
	2/17/03	62.26	---	---	3101.26	---	
	5/29/03	62.34	---	---	3101.18	---	
	8/22/03	62.25	---	---	3101.27	---	
	11/5/03	62.25	---	---	3101.27	---	
	2/3/04	62.20	---	---	3101.32	---	
	5/5/04	62.12	---	---	3101.40	---	
	8/2/04	61.96	---	---	3101.56	---	
	11/23/04	61.46	---	---	3102.06	---	
	2/9/05	61.30	---	---	3102.22	---	
	8/4/05	61.51	---	---	3102.01	---	
	2/23/06	61.20	---	---	3102.32	75.45	
	8/25/06	61.36	---	---	3102.16	75.45	
	2/27/07	62.44	---	---	3101.08	---	
	8/23/07			NG		---	
	2/18/08			NG		---	
	2/16/09			NG		---	
	7/27/09			NG		---	
	2/22/10			NG		---	
	7/26/10			NG		---	
	2/15/11			NG		---	
	8/16/11	61.14	---	---	3102.38	---	
	2/20/12			NG		---	
	8/24/12			NG		---	
	2/18/13	69.96	---	---	3093.56	72.30	
	8/13/13			NG		---	
	4/2/14			NG		---	
	10/9/14			NG		---	

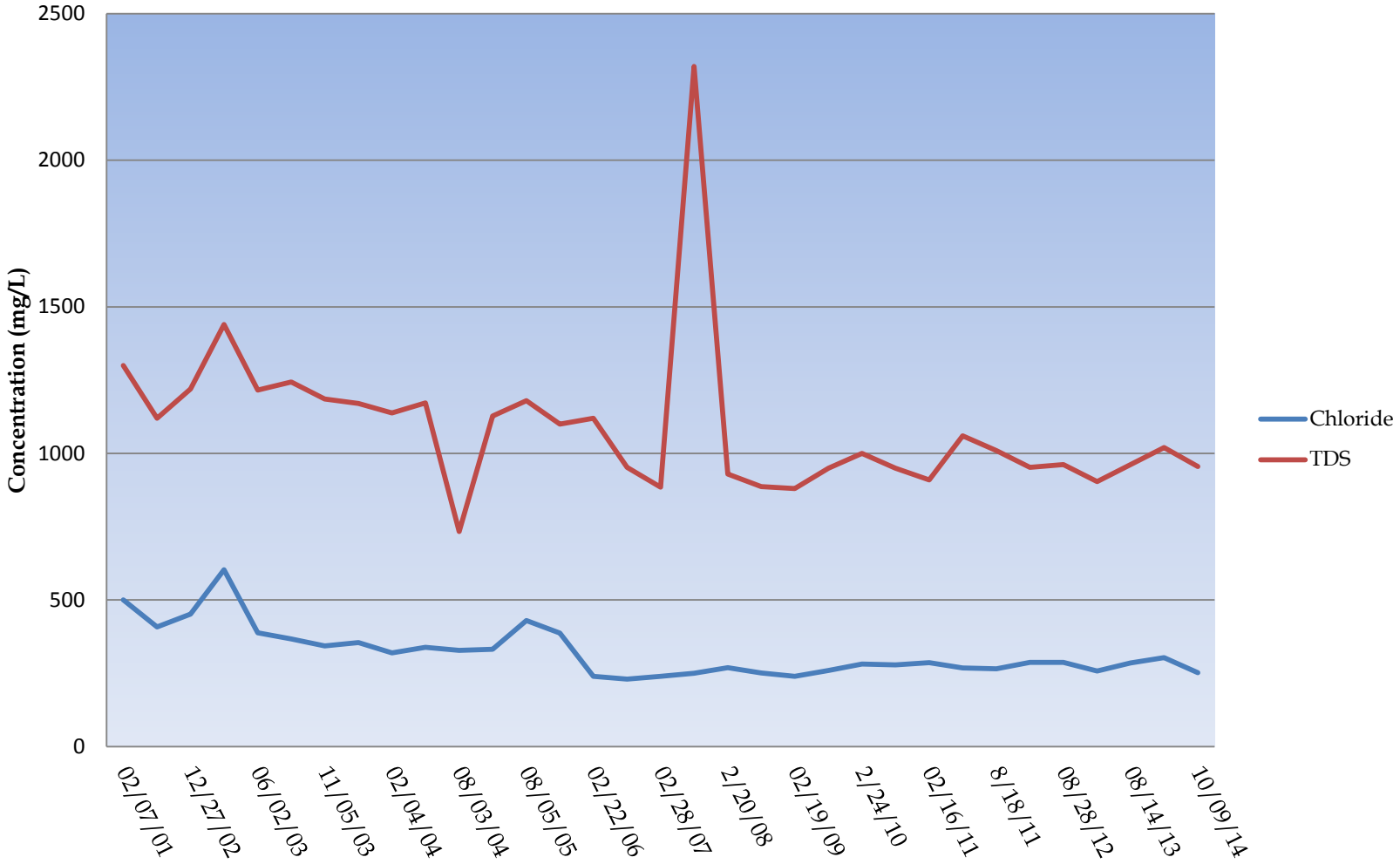
Notes:

1 - Top of Casing
2 - Mean Sea Level
3 - Below ground surface
NG - Not Gauged
All depths were measured from the TOC
Professional Surveys were conducted by Piper Surveying Company in February and July 1998, October 2001 October 2003 and December 2004
Professional Surveys were conducted by West Company in November 2011 and June 2012

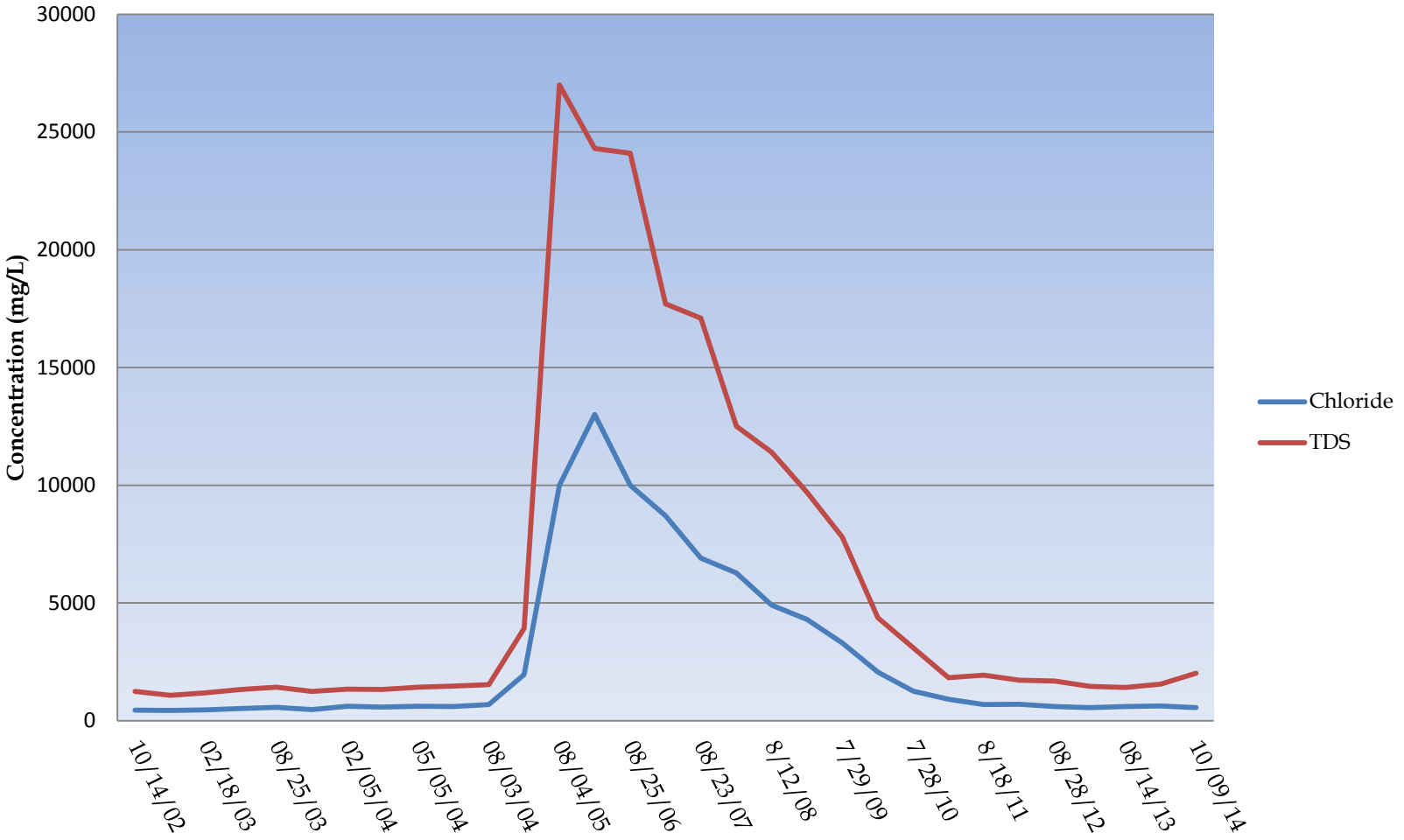
Appendix C

Charts of Chloride/TDS Concentrations versus Time

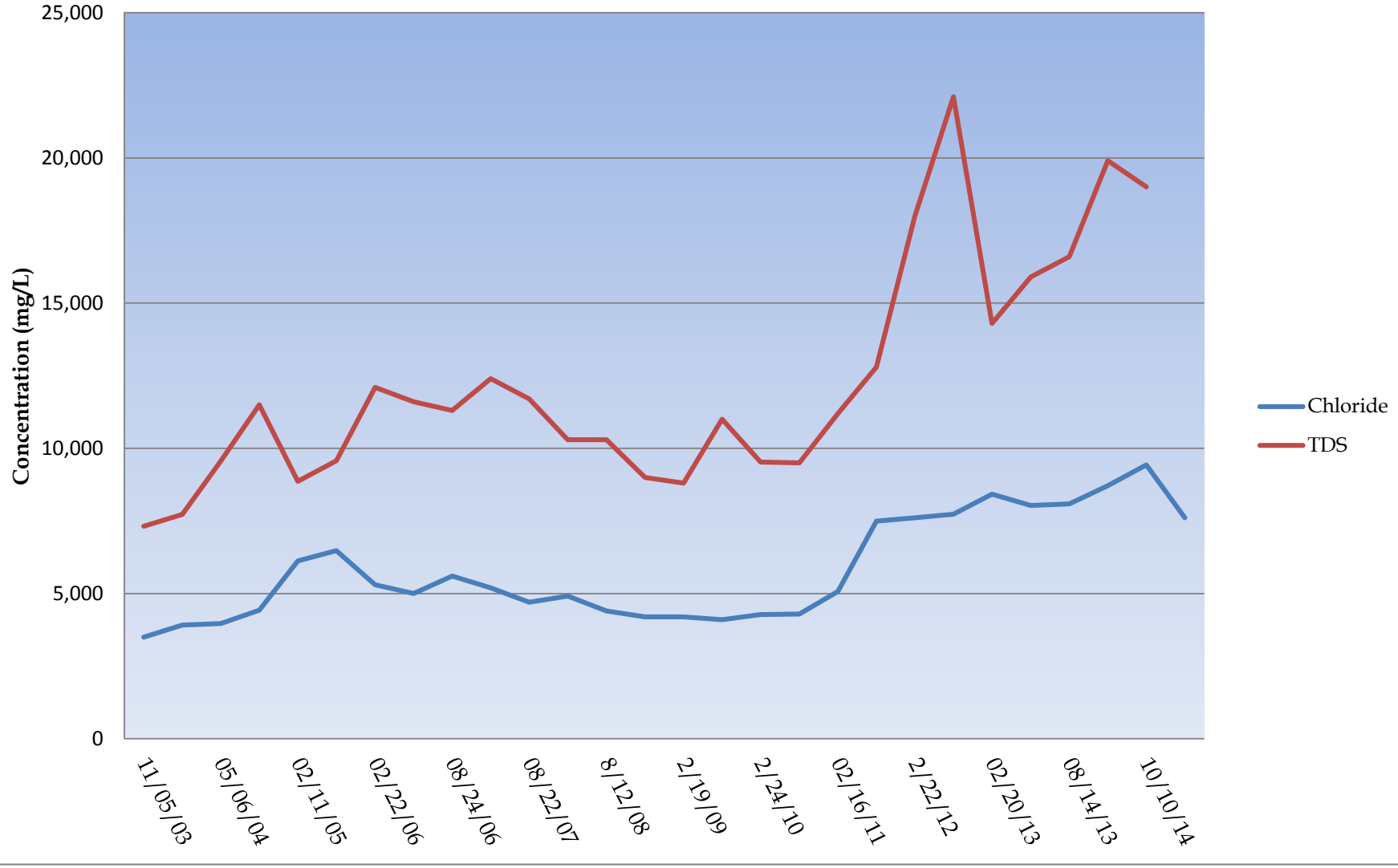
G.L. ERWIN "A & B" FEDERAL NCT 2 TANK BATTERY
SW/4, SE/4, SECTION 35, T 24 S, R 37 E
LEA COUNTY, NEW MEXICO
DOWNGRADIENT WELL (MW-7)



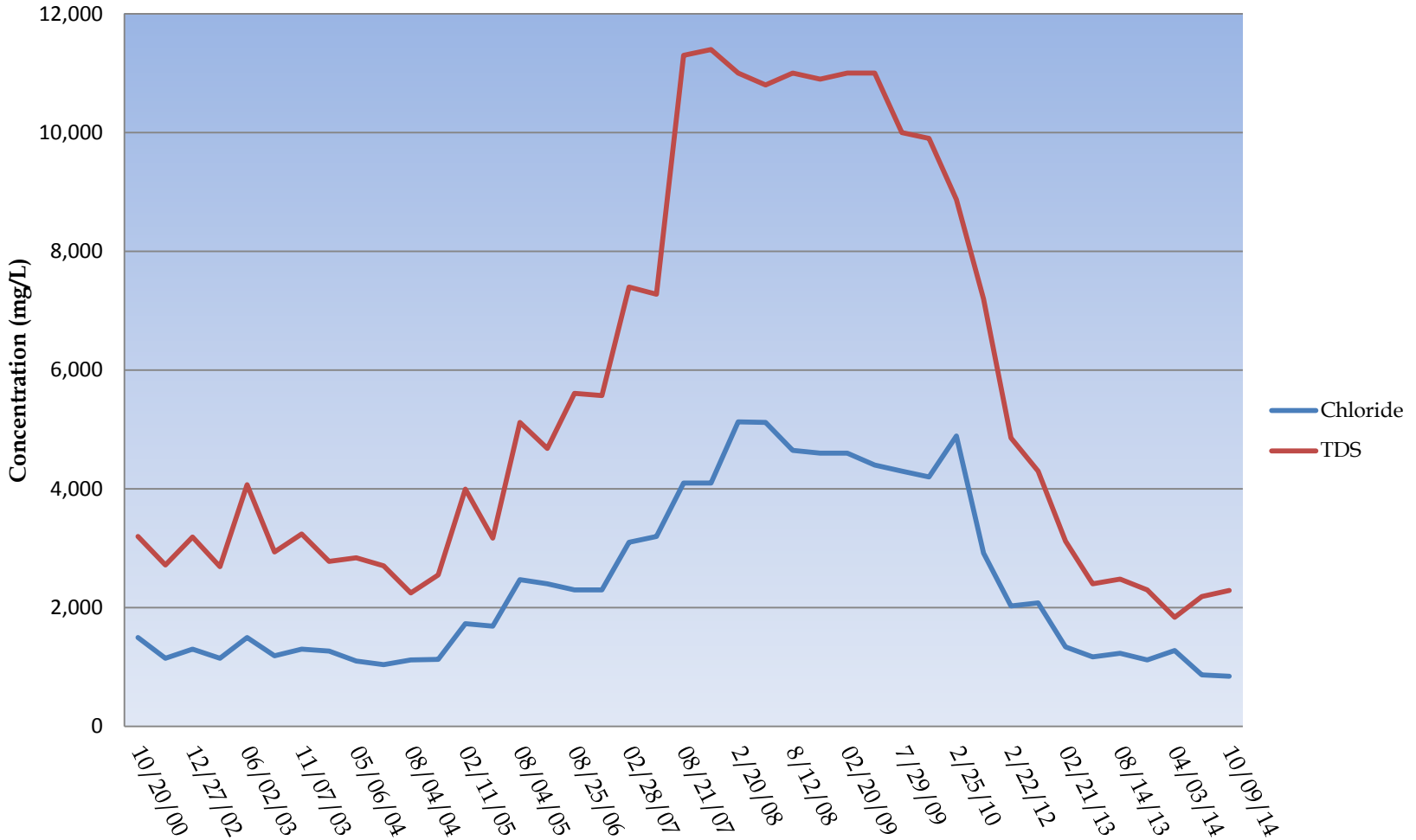
G.L. ERWIN "A & B" FEDERAL NCT 2 TANK BATTERY
SW/4, SE/4, SECTION 35, T 24 S, R 37 E
LEA COUNTY, NEW MEXICO
UPGRADIENT WELL (MW-9)



G.L. ERWIN "A & B" FEDERAL NCT 2 TANK BATTERY
SW/4, SE/4, SECTION 35, T 24 S, R 37 E
LEA COUNTY, NEW MEXICO
DOWNGRADIENT WELL (MW-14)



G.L. ERWIN "A & B" FEDERAL NCT 2 TANK BATTERY
SW/4, SE/4, SECTION 35, T 24 S, R 37 E
LEA COUNTY, NEW MEXICO
RECOVERY WELL (RW-1)



Appendix D

Cumulative Summary of Groundwater Analytical Results

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-1	02/17/98	<2.0	220	233	--	--	92	--	--	--	--	812	276	--
	02/07/01	<1.0	136	440	2.1	2.8	70	15.7	55.8	11.4	115	1,200	--	--
	05/03/02	<1.0	144	428	1.6	3.06	72.5	103	38.7	8.68	105	--	--	<1.00
	10/11/02	<0.1	155	230	---	---	109	69.3	24.8	7.45	125	737	---	<0.10
	12/27/02	<0.1	149	248	---	---	109	76.6	27.4	5.16	129	728	---	<0.10
	02/18/03	<0.1	147	213	---	---	114	59.1	21.4	5.06	116	713	---	<0.10
	06/02/03	<1.0	132	434	1.77	2.99	73.3	135	47.8	8.62	118	1,320	---	<1.00
	08/25/03	<1.0	144	279	1.76	3.39	73.3	92.7	31.3	7.17	118	856	---	<1.00
	11/05/03	<1.0	162	330	1.94	3.42	78.9	110	37.7	9.03	114	994	---	<1.00
	02/04/04	<1.0	142	390	1.92	3.25	71.1	117	43.2	10.2	113	940	---	<1.00
	05/06/04	<1.00	260	403	1.9	4.8	135	60.2	18.3	8.93	302	1,316	---	<1.00
	08/03/04	<0.1	155	222	---	---	83.2	64.1	30.8	6.41	127	431	---	<0.10
Dup	08/03/04	<0.1	158	301	---	---	104	101	45.5	672	436	605	---	<0.10
	02/11/05	<1.00	146	289	2.68	4.3	79.2	97.9	33.5	8.18	108	840	---	<1.00
	08/05/05	<1.00	156	245	2.08	4.34	89.6	75.5	26.7	6.99	125	856	---	<1.00
	02/22/06	<10.0	160	180	1.6	3.5	83	55.9	18.7	5.19	104	707	---	<10.0
Dup	02/22/06	<10.0	170	160	1.6	3.5	85	57.9	20	5.23	102	840	---	<10.0
	08/24/06	<10.0	300	180	<2.5	3.11	81	57.4	19.3	4.36	107	660	---	<10.0
	02/28/07	<10	170	170	1.8	3.6	81	54.6	18.2	<5.0	103	650	---	<10
	08/23/07	<10	138	420	1.40	2.80	76.0	102	34.8	5.37	101	1,810	--	138
	2/20/08	<5.0	166	300	1.9	2.92	82.1	111	39.7	7.34	104	860	---	<5.0
	8/12/08	<1.53	212	217	1.48	3.06	79.6	57.8	19.5	5.2	114	692	---	<1.53
	02/19/09	<5.0	160	150	2.00	3.00	84.0	55.0	19.0	5.3	120	610	---	<5.0
	7/29/09	<5.0	79.0	150	0.95	1.40	41.0	67.0	24.0	5.9	110	500	---	<5.0
	2/25/10	<5	172	167	1.79	3.23	83.1	57.5	21.2	4.3	105	684	---	<5.0
Dup	2/25/10	<5	192	157	1.68	<0.100	83.9	52.6	17.6	4.3	103	544	---	<5.1
	7/28/10	<5	168	147	1.88	2.56	84.8	51.1	17.1	3.8	91.6	564	---	<5.0
	02/16/11	<2.0	165	149	1.74	3.12	82.0	57.5	18.7	3.98	94.4	510	---	<2.0
Dup 1	02/16/11	<2.0	145	155	1.74	3.25	81.9	55.3	17.9	4.02	91.9	604	---	<2.0
	8/18/11	<5.0	167	127	1.76	3.34	83.3	50.7	17.2	2.80	91.4	490	---	<5.0
	02/22/12	<5.00	153	385	1.61	2.70	67.7	96.3	33.5	5.12	96.5	1,280	---	<5.0
	08/29/12	<10.0	149	456	1.60	1.48	67.4	130	44.3	5.61	90.5	1,340	---	<10.0
	02/21/13	<6.00	141	452	1.17	2.24	69.9	139	45.6	6.39	104	1,300	---	<6.00
DUP-3	02/21/13	<6.00	141	454	1.18	2.26	70.8	141	44.4	6.30	101	1,170	---	<6.00
	08/14/13	<6.00	140	490	1.47	2.33	67.0	158	53.2	7.07	112	1,590	---	<6.00
	04/03/14	<10.0	182	498	1.30	1.73	66.5	139.0	48.2	6.33	103	1,160	---	<10.0
	10/09/14	<4.00	168	213 J	1.10	2.89 J	80.3	85.7 J	29.2 J	5.18	105	554	---	<4.00
Dup-2	10/09/14	<4.00	146	427 J	0.922	2.23 J	73.4	148 J	50.1 J	6.73	107	559	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-2	02/17/98	<2.0	360	423	--	--	141	--	--	--	--	1,257	124	--
	02/07/01	<1.0	234	570	2.7	5	130	124	40.7	10.9	359	1,500	--	--
	05/03/02	<1.0	262	349	2.28	5.36	148	21	6.18	8.52	315	--	--	<1.00
	10/11/02	10	250	337	---	---	176	18.1	4.92	7.49	329	1,120	---	<0.10
	12/27/02	12	238	319	---	---	142	17.8	5.16	6.1	339	1,110	---	<0.10
	02/18/03	<0.1	228	310	---	---	178	19.4	6.02	6.3	331	1,070	---	<0.10
	06/02/03	<1.0	206	769	2.05	4.43	115	176	52.6	9.94	383	1,955	---	<1.00
	08/25/03	<1.0	242	374	2.07	5.14	142	36.1	10.8	8.49	333	1,240	---	<1.00
	11/05/03	<1.0	232	498	2.21	5.13	145	68.7	21.1	10.1	327	1,354	---	<1.00
	02/04/04	<1.0	230	450	2.06	4.97	131	76.1	25.2	10.7	324	1,424	---	<1.00
	05/06/04	<1.00	150	341	1.79	3.23	75.3	108	38.5	8.38	102	984	---	<1.00
	08/03/04	<0.1	236	496	---	---	144	50.8	34.7	11	472	811	---	<0.10
	02/11/05	<1.00	220	604	2.79	5.48	130	103	34.5	11.3	324	1,462	---	<1.00
	08/05/05	<1.00	228	404	2.24	5.7	154	34.5	10.3	10.7	341	1,120	---	<1.00
	02/22/06	<10.0	250	320	1.7	5.1	150	19.5	5.84	6.15	259	1,150	---	<10.0
	8/24/06	<10.0	250	290	<2.5	3.78	140	26.3	7.7	4.23	298	1,610	---	<10.0
	02/28/07	<10	260	280	2.1	5.4	140	20.9	6.01	6.74	278	950	---	<10
	08/23/07	<10	226	290	1.70	5.30	140	19	5.6	<5	303	1,280	--	226
	2/20/08	<5	223	441	1.94	5.11	143	242	83.2	11.8	329	1,190	---	<5
	8/12/08	<1.53	287	331	2	5.39	144	20.6	5.8	6.5	308	1,080	---	<1.53
	2/19/09	<5	240	310	1.80	5.30	160	21.0	6.1	7.2	350	1,100	---	<5
	7/29/09	<5	200	730	1.50	4.60	130	16.0	4.6	3.1	160	1,900	---	<5
	2/25/10	<5	255	380	1.39	5.78	157	27.4	8.5	4.7	333	1,130	---	<5
	7/28/10	<5	275	273	1.58	4.68	167	20.8	5.6	4.3	354	1,010	---	<5
	02/16/11	<2.0	250	305	1.26	5.30	154	47.6	13.9	5.08	276	1,050	---	<2.0
	8/18/11	<5.0	251	259	1.52	5.56	158	24.6	6.98	3.48	263	1,090	---	<5.0
Dup 2	8/18/11	<5.0	272	255	1.38	6	135	21.0	5.36	4.08	276	1,090	---	<5.0
	2/22/12	<5.00	203	857	1.30	4.61	111	22.9	5.96	4.42	251	2,340	---	<5.00
	08/29/12	<10.0	165	1,180	1.29	2.19	83.9	335	105	8.09	236	3,360	---	<10.0
	02/21/13	<6.00	185	934	0.989	4.48	106	238	72.8	7.31	282	2,260	---	<6.00
	08/14/13	<6.00	177	1,140	1.36	4.29	113	292	105	8.41	264	2,780	---	<6.00
	04/03/14	<10.00	277	548	1.18	4.77	148	57.2	18.6	5.42	297	132	---	<10.00
	10/09/14	<4.00	260	220	0.81	5.96 J	173	31.5	8.9	5.75	274	939	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-3	02/17/98	<2.0	410	983	--	--	173	--	--	--	--	2,261	232	--
	02/07/01	8.0	278	890	3.4	7.3	200	56.7	18.7	20.4	648	2,100	---	--
	05/02/02	<1.0	298	735	2.84	7.57	213	27.5	8.39	24.7	42.8	--	--	<1.00
	05/03/02	<1.0	146	767	2.9	7.39	207	37.9	11.5	25.5	28.2	--	--	<1.00
	10/11/02	<0.1	288	753	---	---	272	29	9.18	20.6	622	1,960	---	<0.10
	12/27/02	<0.1	288	727	---	---	231	27	7.34	19.9	698	1,950	---	<0.10
	02/18/03	<0.1	277	762	---	---	180	25.2	7.84	16.4	580	1,950	---	<0.10
	06/02/03	<1.0	270	802	3.07	8.06	203	64.9	20	18.5	728	2,720	---	<1.00
	08/26/03	<1.0	282	799	3	7.99	198	54.9	18	16.4	597	2,320	---	<1.00
	11/06/03	<1.0	286	746	2.92	7.26	214	37.4	11.1	24.9	577	2,092	---	<1.00
Dup	11/06/03	<1.0	132	521	1.85	2.92	98.1	120	39.5	9.15	200	1,392	---	<1.00
	02/04/04	<1.0	296	755	2.74	7.36	205	42.7	13.1	27.1	546	2,275	---	<1.00
	05/07/04	<1.00	300	774	2.57	7.02	197	38.8	11.2	22.2	528	2,140	---	<1.00
	08/03/04	<0.1	291	798	---	---	155	21.5	16.7	25.8	794	1,640	---	<0.10
	02/11/05	<1.00	292	879	4.61	9.47	196	47	14.5	19.1	590	2,240	---	<1.00
	08/04/05	<1.00	282	922	2.86	8.17	217	48	14.7	21.1	630	1,950	---	<1.00
	02/22/06	<10.0	250	1,100	1.6	8.5	190	46.8	15.3	15.1	446	3,860	---	<10.0
	08/24/06	<10	260	750	2.6	6.43	190	25.3	7.68	11.9	565	1,990	---	<10.0
	02/28/07	<10	270	850	2.2	8.5	190	30.7	9.02	18	516	1,800	---	<10
	08/23/07	<10	204	1,000	1.50	9.50	190	228	80	<50	673	2,330	---	204
	2/20/08	<5	246	1,070	3.18	8.38	222	79.7	26.2	19.1	721	2,480	---	<5
	8/13/08	<5	222	1,180	2.59	8.27	210	46.8	14.3	17.5	896	2,700	---	<5
	02/19/09	<5	220	1,300	2.00	7.80	220	50.0	16.0	20.0	920	2,800	---	<5
	7/29/09	<5	190	1,600	1.60	7.60	210	140	47.0	26.0	770	3,400	---	<5
	2/24/10	<5	237	1,380	1.49	8.81	248	65.0	17.5	15.1	938	2,670	---	<5
	7/28/10	<5	221	1,230	1.68	7.12	259	84.8	24.6	14.1	857	2,680	---	<5
	02/16/11	<2.0	238	1,300	1.40	8.97	1,290	135	41.3	14.4	746	2,430	---	<2.0
	8/18/11	<5.0	227	1,250	1.42	9.18	887	76.3	23.2	11.2	700	2,750	---	<5.0
	2/22/12	<5.00	235	1,260	1.40	7.39	252	104	32.6	13.2	809	2,800	---	<5.00
Dup 2	02/22/12	<5.00	230	1,470	1.53	8.75	224	132	39.2	13.4	770	2,940	---	<5.00
	08/29/12	<10.0	283	1,200	1.72	6.42	271	56.3	16.4	13.1	745	2,600	---	<10.0
	02/21/13	<6.0	252	1,100	1.26	8.87	261	131	40.2	13.4	770	2,500	---	<6.00
	08/14/13	<6.0	275	1,330	1.40	7.59	309	254	87.9	12.3	925	2,890	---	<6.00
	04/03/14	<10.0	356	839	1.52	9.26	346	44.6	12.7	15.3	665	2,280	---	<10.00
	10/09/14	<4.00	291	961	0.752	7.36 J	300	106	32.8	16.0	671	3,400	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-4	02/17/98	<2.0	510	372	--	--	136	--	--	--	--	1,268	---	--
	02/07/01	<1.0	286	1,200	1.7	4.7	100	248	84.7	24	506	2,600	--	--
	05/03/02	<1.0	250	868	1	4.72	163	137	48.4	40.7	441	--	--	<1.00
	10/14/02	<0.1	342	381	--	--	124	9.39	2.48	38.4	405	1,220	--	<0.10
Dup	10/14/02	<0.1	358	372	--	--	116	8.82	2.38	37.4	409	1,260	--	<0.10
	12/27/02	<0.1	288	505	---	---	114	21.2	4.42	50.6	461	1,450	---	<0.10
Dup	12/27/02	<0.1	158	115	--	--	139	55.5	23	4.94	94.4	594	--	<0.10
	02/18/03	<0.1	264	691	---	---	118	32.2	7.5	59	474	1,610	---	<0.10
	05/30/03	<1.0	236	1,020	<2.00	5.53	79.6	113	29.7	59.8	664	2,670	---	<1.00
	08/25/03	<1.0	192	1,170	<2.00	5.43	72.9	143	35	82.1	616	2,935	---	<1.00
	11/07/03	<1.0	194	1,620	<2.00	5.48	76.6	228	61.4	83.6	629	3,035	---	<1.00
	02/05/04	<1.0	170	1,730	<2.00	5.93	79	277	75.9	108	630	3,380	---	<1.00
	05/06/04	<1.00	158	2,150	<3.00	5.94	88.2	407	99.9	99.7	593	4,090	---	<1.00
	08/03/04	<0.1	150	2,730	---	---	125	632	191	124	832	6,810	---	<0.10
	02/11/05	<1.00	136	4,520	<1.00	5.19	127	1,060	289	156	983	9,030	---	<1.00
	08/04/05	<1.00	132	6,580	<1.00	5.34	166	1,650	375	142	1,440	13,200	---	<1.00
	02/23/06	<10.0	130	9,100	<2.5	10	220	1,510	326	141	1,070	17,900	---	<10.0
	08/25/06	<10.0	140	12,000	<5	6.13	290	1,550	364	136	1,890	17,500	---	<10.0
	02/28/07	<10	170	10,000	<250	<200	<2000	1,550	310	160	1,520	21,800	---	<10
	08/21/07	<10	167	10,000	0.30	9	490	1,630	443	112	3,080	26,000	---	167
	2/20/08	<5	210	8,220	1.33 B	6.05	587	1,200	372	143	3,160	18,200	---	<5
	8/13/08	<5	263	6,270	<1.5	6.64	607	770.0	209	97.3	2,510	15,100	---	<5
	02/19/09	<5	300	4,900	<0.50	5.60	620	580.0	160	72.0	2,200	11,000	---	<5
	7/29/09	<5	320	3,700	<0.50	6.40	580	380.0	110	63.0	1,800	8,400	---	<5
	2/25/10	<5	338	3,590	0.23	5.94	478	378.0	107	40.0	1,830	7,940	---	<5
	7/28/10	<5	283	3,840	0.45	4.00	419	273.0	62.8	30.4	1,840	8,820	---	<5
	02/16/11	<2.0	337	2,480	0.540	4.08	1,240	179	53.6	30.6	1,300	5,840	---	<2.0
	8/18/11	<5.0	358	2,530	0.680	5.39	479	156	41.4	23.9	1,240	4,870	---	<5.0
	2/22/12	<5.00	292	3,250	0.718	5.30	220	656	204	27.8	1,180	8,100	---	<5.00
	08/28/12	<5.00	227	3,860	0.538	3.06	315	880	263	27.8	1,050	9,420	---	<5.00
	02/21/13	<6.00	303	2,450	0.581	5.53	331	761	228	27.5	1,070	5,170	---	<6.00
	08/14/13	<6.00	257	3,420	0.658	3.83	324	711	231	28	1,160	6,500	---	<6.00
	04/03/14	<10.0	380	2,010	<0.50	3.83	353	185	52.0	23.3	1,140	3,360	---	<10.0
	10/09/14	<4.00	259	2,330	0.292	3.71 J	312	420	130	26.7	1,020	5,870	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-5	02/17/98	<2.0	360	408	--	--	151	--	--	--	--	1,219	116	--
	02/07/01	<1.0	214	570	1.6	4.8	140	123	40.8	20.3	331	1,500	--	--
	05/03/02	<1.0	238	335	0.96	5.36	162	37.3	11.1	27.3	287	--	--	<1.00
	10/11/02	<0.1	232	337	---	---	173	31.8	10	20.7	305	1,100	---	<0.10
	12/27/02	<0.1	232	337	---	---	171	31.3	8.55	20.6	319	1,210	---	<0.10
	02/18/03	<0.1	210	319	---	---	176	27.2	8.48	16.5	231	1,110	---	<0.10
	06/02/03	<1.0	196	588	1.23	4.86	142	132	40.5	21.2	364	1,644	---	<0.10
	08/26/03	<1.0	210	447	1.32	4.85	141	95.1	29	23.4	291	1,480	---	<1.00
	11/06/03	<1.0	214	456	1.43	5.11	152	94	29.3	24.8	282	1,430	---	<1.00
	02/04/04	<1.0	206	504	1.38	5.31	147	95.1	31.4	27.3	289	1,410	---	<1.00
	05/07/04	<1.00	222	381	1.02	5.98	151	55.9	16.3	25.7	301	1,250	---	<1.00
Dup	05/07/04	<1.00	242	330	1.04	5.75	152	50.7	14.6	27.4	292	1,168	---	<1.00
	08/03/04	<0.1	229	461	---	---	155	47.9	31.3	31.1	435	968	---	<0.10
	02/11/05	<1.0	288	408	2.58	8.36	243	46.2	13.3	30.6	433	1,598	---	<1.0
	08/04/05	<1.00	256	423	1.83	6.82	201	60.5	18.6	20.3	354	1,334	---	<1.00
Dup 1	08/04/05	<1.00	242	394	1.82	6.74	200	49.2	14.8	21.5	341	1,220	---	<1.00
	02/22/06	<10.0	220	800	1.3	6.6	160	222	69.4	14	274	2,670	---	<10.0
	08/24/06	<10.0	190	930	<5	5.09	140	145	47.6	13.1	295	1,280	---	<10.1
	02/28/07	<10	300	730	3.5	5.2	340	36.9	10.6	18.4	301	1,310	---	<10.2
	08/23/07	<10	115	360	1.80	5.20	170	50.1	18.4	16.4	291	2,500	---	<10.3
	2/20/08	<5	255	505	2.9	5.61	168	127	42.1	19.6	353	1,500	---	<10.4
	8/13/08	<5	220	438	1.77	6.20	191	62.8	19.3	23.9	362	1,300	---	<10.5
	02/19/09	<5	220	390	1.60	6.20	200	63.0	19.0	25.0	310	1,200	---	<10.6
	7/29/09	<5	210	490	1.40	6.20	200	110	35.0	23.0	280	1,500	---	<10.7
	2/25/10	<5	223	326	1.02	6.27	195	58.0	19.0	16.5	232	1,120	---	<10.8
	7/28/10	<5	235	272	1.15	4.61	189	51.3	14.6	13.8	257	1,130	---	<10.9
Dup 2	7/28/10	<5	233	283	1.11	5.17	192	60.9	19.2	16.7	269	1,180	---	<10.10
	02/16/11	<2.0	206	272	1.12	5.87	413	64.7	18.8	14.9	240	1,010	---	<2.0
	8/18/11	<5.0	224	325	1.22	<0.0300	175	59.4	17.6	13.2	233	1,160	---	<5.0
	2/22/12	<5.00	174	1,140	0.860	4.06	94.6	55.4	16.0	14.9	272	3,330	---	<5.00
	08/29/12	<10.0	186	1,380	1.04	2.92	93.7	319	102	7.45	246	3,640	---	<10.0
	02/21/13	<6.0	159	1,350	0.762	3.99	101	224	69.2	10.5	339	3,110	---	<6.00
	08/14/13	<6.0	161	1470	1.01	3.57	102	370	125	9.47	281	3,780	---	<6.00
	04/03/14	<10.0	263	627	1.33	5.91	165	172	56.6	11.7	296	1,460	---	<10.0
	10/09/14	<4.00	185	957	0.572	3.99 J	124	263	84.8	11.1	344	3,750	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-6	02/07/01	<1.0	200	1,800	3.3	5.4	140	323	108	18.8	657	3,800	--	--
	05/02/02	<1.0	264	503	3.68	7.04	183	24.9	7.29	17.4	475	--	---	<1.00
	10/14/02	<0.1	262	620	--	--	206	18.6	5.34	17.5	556	1,670	--	<0.10
	12/27/02	36	218	620	--	--	192	21.2	6.08	13.6	584	1,650	---	<0.10
	02/18/03	16	238	638	---	---	298	22.1	6.43	11.8	524	1,700	---	<0.10
	06/02/03	<1.0	244	772	3.24	6.62	181	68.7	23.3	14.4	614	2,040	---	<1.00
	08/26/03	<1.0	246	607	2.95	6.65	179	35.9	11.6	12.2	525	2,370	---	<1.00
	11/06/03	<1.0	250	649	3.28	6.89	191	46	13.9	18.1	503	1,932	---	<1.00
	02/04/04	<1.0	266	713	3.15	7.2	189	48.9	15.4	19.9	517	2,210	---	<1.00
	05/07/04	<1.00	266	696	2.92	6.74	182	54.8	16.1	16	503	2,095	---	<1.00
	08/03/04	<0.1	260	718	---	---	240	22.7	21.7	21.7	825	1,430	---	<0.10
	02/11/05	<1.00	270	660	3.76	7.84	192	30.1	9.13	19.5	531	1,774	---	<1.00
	08/04/05	<1.00	268	764	3.16	7.83	206	56.6	18.8	15.3	576	1,650	---	<1.00
	02/22/06	<10.0	270	610	2.4	7.9	180	23.9	7.41	10.9	380	1,570	---	<10.0
	08/24/06	<10.0	260	590	3	5.96	170	108	35	9.38	448	1,880	---	<10.0
	02/28/07	<10	280	530	3	7.8	170	21	6.14	12.8	397	1,550	---	<10
	08/23/07	<10	265	1,100	2.30	7.60	150	29.8	11.7	8.35	440	3,970	---	265
	2/20/08	<5	227	799	3.05	7.43	163	181	62.4	15.7	492	1,930	---	<5
	8/13/08	<5	238	563	2.56	7.83	176	22.6	6.6	14.4	558	1,640	---	<5
	02/19/09	<5	370	1,200	2.00	6.10	150	140	47.0	16.0	590	3,200	---	<6
	7/29/09	<5	210	1,200	2.10	7.00	160	37.0	11.0	16.0	550	2,700	---	<5
	2/24/10	<5	243	780	2.07	7.89	193	39.7	10.6	9.0	558	1,910	---	<5
	7/28/10	<5	247	702	2.23	8.99	204	30.7	8.9	10.3	591	1,740	---	<5
	02/16/11	<2.0	214	768	1.56	6.36	385	30.8	8.32	9.81	539	1,800	---	<2.0
	8/18/11	<5.0	243	657	2.00	8.73	205	80.6	25.2	7.68	492	1,830	---	<5.0
	2/22/12	<5.00	273	685	2.28	9.03	228	85.5	27.7	8.62	504	1,810	---	<5.00
	08/29/12	<10.0	315	849	2.20	5.30	207	91.4	27.3	7.54	498	1,930	---	<10.0
	02/21/13	<6.00	253	812	1.71	8.30	221	25.8	7.77	8.68	496	1,900	---	<6.00
	08/14/13	<6.00	245	865	2.06	7.96	241	214	74.9	8.92	628	1,870	---	<6.00
	04/03/14	<10.0	329	607	2.34	9.32	265	41.1	12.2	9.04	517	1,880	---	<10.0
	10/09/14	<4.00	286	560	1.21	8.11 J	265	42.1	12.8	10.0	532	1,730	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-7	02/07/01	<1.0	238	500	3.2	4.1	100	80.3	27.3	10.4	326	1,300	---	---
	05/02/02	<1.0	244	466	2.94	4.18	106	46.6	17	8.42	307	---	---	<1.00
	10/11/02	<0.1	242	408	---	---	128	39.7	13.5	6.7	316	1,120	---	<0.10
	12/27/02	<0.1	232	452	---	---	109	56.2	19.2	5.82	353	1,220	---	<0.10
	02/17/03	<0.1	200	603	---	---	134	90.6	30.9	5.86	339	1,440	---	<0.10
	06/02/03	<1.0	242	388	3.23	4.33	115	39.5	12.5	6.16	370	1,216	---	<1.00
	08/25/03	<1.0	232	367	2.77	4.07	105	39.3	12.3	7.14	309	1,244	---	<1.00
	11/05/03	<1.0	240	343	3.08	4.16	117	36.6	11.4	7.67	304	1,186	---	<1.00
Dup	11/05/03	<1.0	238	355	3.04	4.19	117	34.7	10.8	7.63	298	1,170	---	<1.00
	02/04/04	<1.0	262	320	3.1	4.25	112	30.7	9.87	7.95	298	1,138	---	<1.00
	05/06/04	<1.00	260	339	2.9	4	112	35.2	10.3	6.81	282	1,172	---	<1.00
	08/03/04	<0.1	248	328	---	---	126	22.8	12.1	7.55	436	734	---	<0.10
	02/11/05	<1.00	238	332	3.76	4.65	123	31.5	9.99	7.75	296	1,128	---	<1.00
	08/05/05	<1.00	240	430	3.1	4.36	144	58.2	19.2	8.43	325	1,180	---	<1.00
Dup 2	08/05/05	<1.00	236	387	3.14	4.3	144	38.7	12.5	6.51	315	1,100	---	<1.00
	02/22/06	<10.0	290	240	2.6	3.3	120	30.6	9.98	4.89	227	1,120	---	<10.0
	08/24/06	<10.0	260	230	3.1	2.97	110	23.3	7.82	2.96	245	952	---	<10.0
	02/28/07	<10	270	240	3.3	3.6	100	21.3	6.57	<5	230	885	---	<10
	08/23/07	<10	261	250	2.70	3.20	110	18.8	8	<5	247	2,320	---	261
	2/20/08	<5	251	269	2.4	3.18	122	37.6	12.4	5.41	261	930	---	<5
	8/13/08	<5	274	251	2.41	3.21	121	25.0	7.6	4.9	273	887	---	<5
	02/19/09	<5	250	240	2.90	3.30	100	26.0	8.3	5.1	260	880	---	<5
	7/29/09	<5	260	260	2.90	3.90	110	40.0	13.0	5.8	250	950	---	<5
	2/24/10	<5	263	282	2.54	4.08	106	34.3	9.1	3.6	310	1,000	---	<5
	7/28/10	<5	259	279	2.61	3.39	113	28.5	9.0	3.6	265	950	---	<5
	02/16/11	<2.0	212	286	2.55	4.07	123	32.8	9.39	3.64	246	910	---	<2.0
	8/18/11	<5.0	248	268	2.76	4.16	121	27.5	8.56	2.31	234	1,060	---	<5.0
Dup 1	8/18/11	<5.0	262	265	2.58	4.27	105	29.4	8.22	3.32	255	1,010	---	<5.0
	2/22/12	<5.00	262	287	2.80	4.50	107	32.8	9.87	3.45	266	952	---	<5.00
	08/28/12	<10.0	275	287	2.90	2.88	123	27.2	8.41	3.20	252	962	---	<10.0
	02/21/13	<6.00	257	258	2.30	4.76	134	29.3	9.11	3.79	284	904	---	<6.00
	08/14/13	<6.00	244	285	2.74	4.92	143	32.4	9.27	3.92	283	962	---	<6.00
	04/03/14	<10.0	307	303	3.08	5.48	149	30.7	8.89	3.80	305	1,020	---	<10.0
	10/09/14	<4.00	257	252	1.74	4.90 J	146	28.1	8.31	3.75	286	955	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-8	02/07/01	**20**	**240**	**900**	**3.2**	**6.6**	**160**	**79.4**	**24.5**	**12.7**	**604**	**2,100**	--	--
	05/02/02	<1.0	**236**	**818**	**2.65**	**6.68**	**168**	**94.5**	**29.2**	**13**	**527**	--	---	<1.00
	10/14/02	<0.1	**250**	**842**	---	---	**194**	**52.4**	**20.4**	**10.8**	**597**	**1,920**	---	<0.10
	12/27/02	<0.1	**233**	**833**	---	---	**173**	**59.8**	**20**	**8.64**	**627**	**2,000**	---	<0.10
	02/18/03	<0.1	**213**	**833**	---	---	**185**	**53**	**17.6**	**7.13**	**489**	**1,930**	---	<0.10
	06/02/03	<1.0	**244**	**777**	**3.29**	**6.82**	**173**	**60**	**18.9**	**9.47**	**650**	**1,968**	---	<1.00
	08/25/03	<1.0	**244**	**738**	**2.85**	**6.42**	**159**	**59.4**	**17.3**	**11.4**	**534**	**1,996**	---	<1.00
	11/07/03	<1.0	**248**	**722**	**3.27**	**6.65**	**171**	**58.1**	**17.9**	**12.2**	**525**	**1,972**	---	<1.00
	02/04/04	<1.0	**254**	**764**	**3.77**	**7.85**	**161**	**55.2**	**18.2**	**13.2**	**522**	**2,038**	---	<1.00
	05/06/04	**8**	**262**	**774**	**3.36**	**7.43**	**164**	**56.2**	**16.9**	**10.7**	**501**	**1,968**	---	<1.00
	08/04/04	<0.1	**246**	**771**	---	---	**222**	**28.6**	**21.5**	**11**	**707**	**1,530**	---	<0.10
	02/11/05	<1.00	**238**	**818**	**4.28**	**8.46**	**167**	**58.3**	**19**	**13.2**	**543**	**2,080**	---	<1.00
	08/05/05	<1.00	**236**	**888**	**3.29**	**7.66**	**184**	**71.5**	**23.3**	**11.7**	**574**	**2,230**	---	<1.00
	02/22/06	<10.0	**230**	**810**	**2.4**	**7.9**	**170**	**55.1**	**18**	**8.05**	**390**	**1,740**	---	<10.0
	08/24/06	<10.0	**280**	**710**	**3.2**	**5.51**	**170**	**51.2**	**16.5**	**6**	**470**	**926**	---	<10.0
	02/28/07	<10	**260**	**740**	**3.3**	**7.3**	**170**	**68.3**	**20.7**	**8.59**	**381**	**1,780**	---	<10
	08/22/07	<10	**259**	**700**	**3.00**	**7.40**	**170**	**49.1**	**18.5**	**5.35**	**449**	**1,980**	---	**259**
	2/20/08	<5	**240**	**711**	**3.66**	**7.15**	**188**	**82.2**	**26.4**	**9.48**	**461**	**1,780**	---	<5
	8/12/08	<1.53	**357**	**668**	**2.99**	**6.74**	**171**	**64.1**	**19.7**	**8.5**	**541**	**1,750**	---	<1.53
	02/19/09	<5	**230**	**700**	**3.60**	**6.40**	**170**	**64.0**	**21.0**	**8.8**	**500**	**1,700**	---	<5
	7/29/09	<5	**290**	**740**	**3.50**	**6.80**	**170**	**60.0**	**19.0**	**9.5**	**490**	**1,800**	---	<5
	2/24/10	<5	**255**	**754**	**3.16**	**6.58**	**160**	**56.4**	**16.1**	**5.1**	**510**	**1,760**	---	<5
	7/28/10	<5	**263**	**711**	**3.43**	**5.67**	**164**	**54.2**	**17.0**	**4.8**	**533**	**1,720**	---	<5
	02/16/11	<2.0	**218**	**749**	**3.11**	**6.73**	**182**	**53.9**	**15.8**	**4.91**	**466**	**1,760**	---	<2.0
	8/18/11	<5.0	**257**	**676**	**3.21**	**7.56**	**148**	**47.2**	**15.0**	**3.68**	**440**	**1,770**	---	<5.0
	2/22/12	<5.00	**264**	**751**	**3.27**	**6.46**	**167**	**62.4**	**19.5**	**5.24**	**512**	**1,720**	---	<5.00
	02/20/13	<6.00	**271**	**643**	**3.17**	**7.01**	**203**	**46.6**	**15.0**	**4.66**	**443**	**1,590**	---	<6.00
	08/14/13	<6.00	**262**	**665**	**3.48**	**7.52**	**216**	**54.7**	**16.7**	**5.27**	**492**	**1,530**	---	<6.00
	04/03/14	<10.0	**336**	**674**	**4.01**	**8.17**	**206**	**54.4**	**16.3**	**5.20**	**450**	**1,560**	---	<10.0
	10/10/14	<4.00	**284**	**527**	**2.29**	**7.65**	**194**	**51.2**	**15.9**	**5.42**	**454**	**1,550**	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				250	1.6	10	600	---	---	---	---	1,000	---	---
MW-9	08/28/12	<10.0	268	684	3.49	5.06	176	83.1	25.4	5.70	483	1,670	---	<10.0
	05/01/02	<1.0	142	439	1.88	3.26	106	98.8	35.8	9.93	188	---	---	<1.00
	10/14/02	<0.1	137	443	---	---	119	88.4	33.1	10.4	216	1,240	---	<0.10
	12/27/02	<0.1	124	434	---	---	120	93.8	33.8	6.22	192	1,080	---	<0.10
	02/18/03	<0.1	105	461	---	---	126	99.3	34.1	5.62	200	1,190	---	<0.10
	05/30/03	<1.0	122	514	1.82	3.01	102	113	37.9	7.98	240	1,324	---	<1.00
	08/25/03	<1.0	114	562	1.58	2.98	95.2	120	39.2	9.45	219	1,428	---	<1.00
	11/07/03	<1.0	132	468	1.68	2.86	96.2	119	39	9.18	200	1,250	---	<1.00
	02/05/04	<1.0	124	610	2.32	4.18	97.7	125	41.1	10.3	221	1,345	---	<1.00
Dup	02/05/04	<1.0	120	581	1.23	2.19	53.6	132	43.9	10.1	203	1,325	---	<1.00
	05/05/04	<1.00	122	616	1.39	2.68	91	142	50	9.65	212	1,428	---	<1.00
Dup	05/05/04	<1.00	124	599	1.43	2.72	92.2	144	46.7	9.82	223	1,476	---	<1.00
	08/03/04	<0.1	110	691	---	---	115	184	62.9	10.5	279	1,530	---	<0.10
	02/11/05	<1.00	98	1,960	3.63	5.36	103	495	164	21.5	388	3,920	---	<1.00
	08/04/05	<1.00	218	10,000	1.54	5.15	224	2,280	686	42.8	1,390	27,000	---	<1.00
	02/23/06	<10.0	110	13,000	<2.5	19	430	2,050	438	47.8	1,450	24,300	---	<10.0
	08/25/06	<10.0	260	10,000	<2.5	3.75	360	1,330	360	38.3	1,920	24,100	---	<10.0
	02/28/07	<10	140	8,700	<0.5	4.6	430	1,180	276	46.9	1,510	17,700	---	<10
	08/23/07	<10	157	6,900	<0.1	3.70	400	934	283	<50	2,290	17,100	---	157
	2/20/08	<5	229	6,270	<0.3	<0.2	447	867	293	27.7	2,190	12,500	---	<5
	8/12/08	<1.53	257	4,910	1.19	3.74	443	720	236	36.2	1760	11,400	---	<1.53
	02/19/09	<5	310	4,300	0.75	3.00	490	600	190	25.0	1900	9,700	---	<5
	7/29/09	<5	250	3,300	0.91	3.40	500	420	150	32.0	1400	7,800	---	<5
	2/24/10	<5	304	2,070	1.00	3.56	452	249	65.5	9.2	1220	4,370	---	<5
	7/28/10	<5	312	1,260	1.41	2.38	413	136	46.7	7.7	848	3,100	---	<5
	02/16/11	<2.0	311	911	1.55	3.03	562	92.5	29.9	6.80	600	1,830	---	<2.0
	8/18/11	<5.0	285	689	2.06	2.95	294	62.7	21.1	3.92	484	1,940	---	<5.0
	2/22/12	<5.00	269	693	2.39	3.19	236	51.4	17.9	5.23	508	1,720	---	<5.00
	08/28/12	<10.0	366	607	2.67	1.72	206	62.3	15.9	4.50	433	1,680	---	<10.0
	02/21/13	<6.00	250	561	2.35	2.94	192	39.5	13.3	4.26	423	1,460	---	<6.00
	08/14/13	<6.00	224	603	2.91	2.68	173	40.2	12.9	4.32	459	1,410	---	<6.00
	04/03/14	<10.0	265	628	1.97	2.25	157	37.6	11.9	4.47	429	1,560	---	<10.0
	10/09/14	<4.0	211	552	1.92	2.67 J	159	35.5	10.7	4.91	460	2,020	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-10	10/14/02	<0.1	**204**	**71**	--	--	**145**	**42.3**	**22.8**	**7.77**	**87.3**	**593**	--	<0.10
	12/27/02	<0.1	**196**	**70**	---	---	**149**	**68.4**	**23.1**	**7.69**	**92.8**	**529**	---	<0.10
	02/18/03	<0.1	**184**	**65**	---	---	**159**	**67.1**	**22.8**	**3.04**	**90.7**	**552**	---	<0.10
	06/02/03	<1.0	**198**	**55.7**	**1.6**	**4.31**	**134**	**75.7**	**22.4**	**4.95**	**80.4**	**624**	---	<1.00
	08/26/03	<1.0	**188**	**56.1**	**1.58**	**4.1**	**125**	**70.6**	**23.4**	**6.29**	**72.3**	**688**	---	<1.00
	11/07/03	<1.0	**200**	**70.9**	**1.69**	**4.19**	**131**	**70.2**	**23.5**	**5.8**	**69.3**	**638**	---	<1.00
	02/05/04	<1.0	**196**	**101**	**1.68**	**4.22**	**121**	**75.8**	**25.7**	**6.29**	**73.8**	**674**	---	<1.00
	05/07/04	<1.00	**174**	**186**	**1.4**	**3.8**	**111**	**92.9**	**30.1**	**6.34**	**78.3**	**736**	---	<1.00
	08/03/04	<0.1	**144**	**328**	---	---	**118**	**106**	**49.5**	**7.7**	**106**	**796**	---	<0.10
	02/11/05	<1.0	**112**	**1,110**	**3.44**	**5.86**	**93.1**	**357**	**115**	**14**	**157**	**2,295**	---	<1.00
	08/04/05	<1.00	**112**	**1,500**	**1.32**	**4.02**	**94.5**	**419**	**139**	**11.5**	**186**	**3,420**	---	<1.00
	02/22/06	<10.0	**89**	**2,000**	<0.50	**6.5**	**98**	**520**	**158**	**13.8**	**180**	**6,180**	---	<10.0
	08/25/06	<10.0	**110**	**2,200**	<2.5	**3.24**	**97**	**660**	**201**	**13.7**	**253**	**7,520**	---	<10.0
	02/28/07	<10	**360**	**2,200**	**0.8**	**4.2**	**100**	**601**	**168**	**16.9**	**224**	**6,140**	---	<10
	08/22/07	<10	**74.9**	**2,200**	**0.50**	**6.00**	**110**	**585**	**189**	<50	**270**	**7,270**	---	**74.9**
	2/20/08	<5	**253**	**1,930**	**0.75**	**3.3**	**109**	**551**	**186**	**17.8**	**280**	**4,620**	---	<5
	8/12/08	<1.53	**800**	**1,700**	**1.75**	**3.16**	**108**	**430**	**154**	**15.4**	**271**	**4,540**	---	<1.53
	02/20/09	<5	**370**	**1,600**	**0.76**	**2.70**	**130**	**410**	**150**	**15.0**	**300**	**4,300**	---	<5
	7/29/09	<5	**250**	**2,000**	**0.67**	**3.10**	**140**	**470**	**170**	**19.0**	**300**	**5,800**	---	<5
	2/24/10	<5	**126**	**2,840**	**0.46**	**3.26**	**126**	**670**	**228**	**12.7**	**399**	**5,720**	---	<6
	7/28/10	<5	**89.1**	**2,260**	**0.82**	**2.48**	**85.5**	**842**	**292**	**12.1**	**501**	**6,840**	---	<6
	02/16/11	<2.0	**112**	**3,880**	**0.471**	**3.66**	**1,670**	**884**	**307**	**17.0**	**586**	**7,790**	---	<2.0
	8/18/11	<5.0	**110**	**3,990**	**0.626**	**4.30**	**172**	**1,000**	**298**	**15.9**	**671**	**8,290**	---	<5.0
	2/22/12	<5.00	**122**	**4,590**	**0.703**	**4.89**	**185**	**1,050**	**330**	**19.0**	**857**	**14,000**	---	<5.00
	08/29/12	<5.00	**127**	**4,110**	**0.566**	**4.00**	**176**	**1,010**	**322**	**19.3**	**897**	**12,400**	---	<5.00
	02/21/13	<6.00	**123**	**3,940**	**0.480**	**4.61**	**204**	**909**	**274**	**17.2**	**860**	**7,100**	---	<6.00
	08/14/13	<6.00	**133**	**4,260**	**0.607**	**4.05**	**226**	**806**	**271**	**18.3**	**991**	**9,470**	---	<6.00
	04/03/14	<10.0	**175**	**3,320**	**0.806**	**4.42**	**270**	**774**	**237**	**18.9**	**930**	**9,500**	---	<10.0
	10/09/14	<4.00	**154**	**2,730**	**0.185**	**3.96 J**	**292**	**618**	**200**	**18.0**	**963**	**7,930**	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	*Sample Date*	*Carbonate (mg/L)*	*Bicarbonate (mg/L)*	*Chloride (mg/L)*	*Fluoride (mg/L)*	*Nitrate - N (mg/L)*	*Sulfate (mg/L)*	*Calcium (mg/L)*	*Magnesium (mg/L)*	*Potassium (mg/L)*	*Sodium (mg/L)*	*TDS (mg/L)*	*Hardness (mg/L)*	*Hydroxide (mg/L)*
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-11	04/30/02	DRY												
	10/11/02	DRY												
	12/26/02	DRY												
	02/17/03	DRY												
	05/29/03	DRY												
	08/22/03	DRY												
	11/05/03	DRY												
	02/03/04	DRY												
	05/05/04	DRY												
	08/02/04	DRY												
	11/23/04	DRY												
	02/09/05	DRY												
	08/04/05	NS - Insufficent Water Column												
	02/22/06	NS - Insufficent Water Column												
	02/28/07	NS - Insufficent Water Column												
	08/22/07	NS - Insufficent Water Column												
	02/20/08	NS - Insufficent Water Column												
	08/12/08	NS - Insufficent Water Column												
	02/19/09	<5	**370.0**	**1,700**	**0.80**	**3.00**	**100.0**	**430.0**	**150.0**	**17.0**	**380.0**	**4,500**	---	**5**
	07/29/09	<5	**490.0**	**1,800**	**0.72**	**3.80**	**120.0**	**420.0**	**140.0**	**19.0**	**340.0**	**5,000**	---	<5
	02/16/11	<2.0	**115**	**1,720**	**0.607**	**3.40**	**760**	**365**	**116**	**9.65**	**336**	**3,420**	---	<2.0
	08/18/11	NS - Insufficent Water Column												
	02/22/12	<5.00	**131**	**2,240**	**0.654**	**3.64**	**145**	**588**	**176**	**12.2**	**456**	**6,470**	---	<5.00
	08/28/12	<5.00	**146**	**2,450**	**0.668**	**2.14**	**128**	**563**	**169**	**12.6**	**460**	**7,980**	---	<5.00
	02/20/13	<6.00	**128**	**2,540**	**0.518**	**3.20**	**137**	**711**	**208**	**13.2**	**502**	**5,420**	---	<6.00
	08/14/13	<6.00	**117**	**3,070**	**0.589**	**3.22**	**140**	**779**	**260**	**15.1**	**579**	**6,620**	---	<6.00
	04/03/14	<10.0	**151**	**2,940**	**0.788**	**3.74**	**161**	**820**	**252**	**16.2**	**576**	**9,080**	---	<10.0
	10/10/14	NS - Insufficent Water Column												

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-12	05/02/02	<1.0	**88**	**1,120**	**1.37**	**4.09**	**45.3**	**431**	**153**	**17.7**	**123**	--	---	<1.00
	10/11/02	<0.1	**93**	**1,370**	---	---	**47.5**	**438**	**161**	**15.4**	**127**	**2,860**	---	<0.10
	12/27/02	<0.1	**78**	**1,520**	---	---	**49.3**	**507**	**181**	**14.1**	**151**	**3,460**	---	<0.10
	02/17/03	<0.1	**68**	**1,530**	---	---	**52.4**	**461**	**170**	**13.3**	**136**	**3,980**	---	<0.10
	06/02/03	<1.0	**72**	**1,380**	<2.00	**5.06**	**45.8**	**491**	**157**	**15.3**	**151**	**3,250**	---	<1.00
	08/26/03	<1.0	**66**	**1,550**	<2.00	**4.94**	**45.9**	**525**	**178**	**14.8**	**156**	**3,855**	---	<1.00
	11/06/03	<1.0	**80**	**1,610**	**2.25**	**4.81**	**50.3**	**568**	**189**	**20.1**	**159**	**3,860**	---	<1.00
	02/05/04	<1.0	**74**	**1,680**	**2.19**	**5.13**	**46**	**525**	**181**	**21.6**	**160**	**2,910**	---	<1.00
	05/07/04	<1.0	**70**	**1,620**	<3.00	**5.13**	**53.6**	**541**	**178**	**18.5**	**152**	**3,085**	---	<1.0
	08/03/04	<0.1	**66**	**1,680**	---	---	**55.2**	**680**	**252**	**31.1**	**211**	**4,300**	---	<0.10
	02/11/05	<1.00	**82**	**1,770**	**2.04**	**6.08**	**47.7**	**503**	**176**	**17.8**	**138**	**3,080**	---	<1.00
	08/05/05	<1.00	**72**	**1,800**	**1.66**	**4.69**	**48.6**	**547**	**194**	**15.2**	**149**	**4,180**	---	<1.00
	02/22/06	<10.0	**73**	**1,700**	**0.7**	**6.7**	**48**	**415**	**135**	**14.9**	**129**	**4,890**	---	<10.0
	08/24/06	<10.0	**87**	**1,700**	**0.93**	**3.06**	**48**	**463**	**157**	**12.2**	**140**	**6,190**	---	<10.0
	02/28/07	<10	**95**	**1,900**	**1.3**	**6.9**	**65**	**521**	**154**	**16.1**	**155**	**5,840**	---	<10
	08/22/07	<10	**108**	**1,800**	**0.70**	**6.00**	**52.0**	**476**	**151**	**11.9**	**143**	**6,470**	---	**108**
	2/20/08	<5	**83.8**	**2,020**	**0.93**	**3.99**	**70.8**	**589**	**211**	**18.1**	**179**	**4,580**	---	<5
	8/12/08	<1.53	**77**	**2,140**	**1.68**	**3.84**	**86.1**	**647**	**221**	**17.9**	**212**	**5,160**	---	<1.53
	02/19/09	<5	**120**	**2,600**	**0.97**	**3.20**	**120**	**810**	**280**	**23.0**	**340**	**5,400**	---	<5
	7/29/09	<5	**94.0**	**2,700**	**1.20**	**3.80**	**120**	**700**	**270**	**28.0**	**330**	**7,000**	---	<5
	2/24/10	<5	**89.1**	**2,120**	**0.61**	**3.74**	**69.4**	**626**	**218**	**12.9**	**214**	**4,290**	---	<5
	7/28/10	<5	**83.0**	**1,560**	**1.47**	**2.84**	**164**	**681**	**240**	**14.2**	**279**	**5,680**	---	<5
	02/16/11	<2.0	**84.6**	**2,430**	**0.747**	**3.91**	**73.6**	**528**	**184**	**11.1**	**190**	**4,390**	---	<2.0
	8/18/11	<5.0	**85.5**	**2,110**	**0.908**	**4.08**	**62.7**	**560**	**183**	**10.5**	**169**	**5,000**	---	<5.0
	2/22/12	<5.00	**91.2**	**2,270**	**0.990**	**4.36**	**67.3**	**650**	**217**	**13.4**	**209**	**4,110**	---	<5.00
	08/28/12	<10.0	**98.0**	**2,040**	**0.840**	**2.52**	**57.6**	**589**	**190**	**12.2**	**173**	**5,690**	---	<10.0
	02/20/13	<6.00	**88.2**	**2060**	**0.774**	**3.81**	**59.0**	**658**	**204**	**12.9**	**186**	**3,790**	---	<6.00
	08/14/13	<6.00	**86.9**	**1,930**	**0.792**	**3.82**	**65.3**	**596**	**203**	**13.3**	**180**	**4,550**	---	<6.00
	04/03/14	<10.0	**110.0**	**2,130**	**1.18**	**4.21**	**59.6**	**650**	**194**	**13.0**	**177**	**1300***	---	<10.0
	10/10/14	<4.00	**83.6**	**1,890**	**0.269**	**3.92**	**55.2**	**595**	**208**	**13.5**	**180**	**6,290**	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-13	05/02/02	<1.0	122	277	2.31	4.38	131	125	44.3	10.2	65.6	--	---	<1.00
	10/11/02	<0.1	115	337	---	---	124	135	46.5	9.47	88.6	1,210	---	<0.10
	12/27/02	<0.1	104	408	---	---	132	160	55.2	9.71	84.5	1,260	---	<0.10
	02/17/03	<0.1	80	443	---	---	144	152	54.9	8.88	108	1,370	---	<0.10
	06/02/03	<1.0	102	421	2.27	4.43	122	153	56	11	90.9	1,260	---	<1.00
	08/26/03	<1.0	92	500	2.1	4.23	115	179	66	12	95.6	1,360	---	<1.00
	11/06/03	<1.0	98	492	2.25	4.42	125	193	68.6	14.3	91.5	1,434	---	<1.00
	02/05/04	<1.0	96	543	2.3	4.56	120	179	65.6	15.4	98.3	1,220	---	<1.00
	05/07/04	<1.00	98	496	2.04	4.14	116	184	62.2	12.8	89.3	1,278	---	<1.00
	08/03/04	<0.1	95	532	---	---	116	225	77.3	15	111	1,410	---	<0.10
	02/11/05	<1.00	100	491	2.19	5.36	117	171	61.7	13.3	92.3	1,260	---	<1.00
	08/05/05	<1.00	96	759	2.29	5.11	125	217	70.8	12.7	103	1,550	---	<1.00
	02/22/06	<10.0	89	590	1.7	4.8	120	177	61.2	11.5	91.8	2,090	---	<10.0
	08/24/06	<10.0	150	760	<2.5	3.58	120	228	78.7	10.9	107	2,590	---	<10.0
	02/28/07	<10	90	880	2	5.2	140	262	84.8	14.6	113	3,060	---	<10
	08/22/07	<10	129	980	1.60	4.0	130	279	94.7	11.6	122	3,480	---	129
	2/20/08	<5	209	1,260	1.57	4.02	153	362	145	20.1	172	3,070	---	<5
	8/13/08	<5	141	1,410	2.33	1.53	154	389	155	20.1	176	4,940	---	<5
	02/19/09	5	130	1,800	1.50	3.10	180	580	200	24.0	240	4,700	---	5
	7/29/09	<5	120	1,800	1.40	4.10	400	540	220	27.0	210	5,900	---	<5
	2/24/10	<5	91.1	1,570	1.05	3.53	150	452	139	13.0	160	3,400	---	<5
	7/28/10	<5	89.1	4,340	1.08	3.01	921	468	136	12.1	156	4,420	---	<5
	02/16/11	<2.0	82.7	1,630	1.36	3.88	1,680	392	150	14.0	170	4,440	---	<2.0
	8/18/11	<5.0	87.7	1,640	1.57	4.04	166	404	138	11.8	156	4,100	---	<5.0
	2/22/12	<5.00	88.9	1,580	1.46	4.21	120	478	154	14.1	174	3,930	---	<5.00
	08/28/12	<10.0	119	1,570	1.49	2.50	155	455	154	14.4	179	4,130	---	<10.0
	02/20/13	>6.00	113	1,400	1.26	3.78	150	428	139	13.4	165	3,300	---	<6.00
	08/18/13	<6.00	103	1,420	1.43	3.75	156	386	150	14.9	176	3,930	---	<6.00
	04/03/14	<10.0	130	1,160	1.92	3.98	156	370	125	13.1	154	4,360	---	<10.0
	10/10/14	<4.00	101	1,020	0.829	3.78	148	326	117	12.6	143	3,500	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				250	1.6	10	600	---	---	---	---	1,000	---	---
MW-14	11/05/03	<1.0	100	3,500	<4.00	6.58	525	951	324	45.3	732	7,315	---	<1.00
	02/04/04	<1.0	74	3,910	<3.00	6.01	559	966	320	46.1	840	7,720	---	<1.0
	05/06/04	<1.00	86	3,970	<4.00	5.54	594	997	350	42.5	836	9,560	---	<1.00
	08/04/04	<0.1	78	4,430	---	---	895	1,350	455	60.3	1,220	11,500	---	<0.10
	02/11/05	<1.00	80	6,120	3.5	5.99	752	1,180	370	56.8	1,250	8,860	---	<1.00
	08/05/05	<1.00	86	6,480	1.84	5.04	882	1,230	400	46.3	1,440	9,570	---	<1.00
	02/22/06	<10.0	81	5,300	<0.50	11	700	914	253	34.1	885	12,100	---	<10.0
Dup	02/22/06	<10.0	82	5,000	<0.50	<40	690	916	253	34	884	11,600	---	<10.0
	08/24/06	<10.0	85	5,600	<5	3.74	690	942	266	27.8	1,370	11,300	---	<10.0
	02/28/07	<10	95	5,200	<0.5	4.3	620	758	193	36.9	1,060	12,400	---	<10
	08/22/07	<10	92.2	4,700	0.30	3.90	610	823	249	<50	1,420	11,700	---	92.2
	2/20/08	<5	108	4,910	3.14	3.7	674	847	272	25.7	1,510	10,300	---	<5
	8/12/08	<1.53	101	4,400	1.32	3.50	668	781	237	38.2	1650	10,300	---	<1.53
	02/19/09	<5	100	4,200	1.20	2.50	760	780	230	38.0	1600	9,000	---	<5
Dup	2/19/09	<5	100	4,200	1.20	2.40	760	700	220	24.0	1700	8,800	---	<5
	7/29/09	<5	110	4,100	1.40	2.90	830	690	200	39.0	1500	11,000	---	<5
	2/24/10	<5	107	4,280	1.04	3.36	844	752	218	18.9	1480	9,530	---	<5
	7/28/10	<5	107	4,290	1.18	2.17	83.8	844	256	15.1	1660	9,500	---	<5
	02/16/11	<2.0	85.4	5,070	0.706	0.424	1,470	902	294	21.4	1,650	11,200	---	<2.0
	8/18/11	13.1	109	7,490	0.274	3.65	1,010	1,410	318	20.3	2,280	12,800	---	<5.0
	2/22/12	<5.00	108	7,610	0.464	4.17	597	1,480	423	26.2	2,540	18,000	---	<5.00
	08/28/12	<10.0	113	7,730	0.698	2.48	816	1,390	389	23.0	2,330	22,100	---	<10.0
	02/20/13	<6.00	103	8,420	0.738	3.76	819	1,470	368	28.0	2,370	14,300	---	<6.00
	08/14/13	<6.00	102	8,030	1.08	4.53	708	1,470	423	28.4	2,890	15,900	---	<6.00
DUP-3	08/14/13	<6.00	102	8,090	0.970	3.99	736	1,520	431	29.5	2,950	16,600	---	<6.00
	04/03/14	<10.0	133	8,710	1.250	4.52	721	1,470	393	27.0	3,030	8460*	---	<10.0
DUP-1	04/03/14	<10.0	133	9,430	0.732	3.63	668	1,520	394	28.7	2,940	19,900	---	<10.0
	10/10/14	<4.00	103	7,610	1.770	4.28	<1.00	1,270	384	33.5	2,640	19,000	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-15	11/05/03	DRY												
	02/03/04	DRY												
	05/05/04	DRY												
	08/02/04	DRY												
	11/23/04	DRY												
	02/09/05	DRY												
	08/04/05	NS - Insufficent Water Column												
	02/22/06	NS - Insufficent Water Column												
	02/28/07	<10	**170**	**90**	**2.2**	**2.2**	**71**	**57.3**	**19.8**	**6.03**	**52.9**	**575**	---	<10
	08/22/07	<10	**146**	**150**	**1.80**	**2.10**	**65.0**	**66.4**	**24.1**	**5.98**	**60.2**	**652**	---	**146**
	2/20/08	<5	**117**	**487**	**1.68**	**2.19**	**61.1**	**161**	**62.2**	**10.5**	**88.1**	**1,500**	---	<5
	8/12/08	<1.53	**101.0**	**792**	**1.81**	**2.38**	**68.3**	**238.0**	**92.0**	**13.3**	**120.0**	**2,370**	---	<1.53
	02/19/09	<5	**100.0**	**840**	**1.30**	**2.20**	**74.0**	**290.0**	**110.0**	**14.0**	**110.0**	**2,000**	---	<5
	7/29/09	<5	**83.0**	**1,000**	**1.30**	**2.70**	**85.0**	**270.0**	**110.0**	**15.0**	**130.0**	**3,300**	---	<5
	2/25/10	<5	**99.2**	**1,120**	**0.97**	**2.84**	**74.0**	**301.0**	**116.0**	**12.5**	**135.0**	**2,450**	---	<5
	7/28/10	<5	**91.1**	**801**	**1.16**	**2.02**	**152.0**	**337.0**	**110.0**	**11.1**	**128.0**	**3,350**	---	<5
	02/16/11	<2.0	**96.4**	**1,230**	**1.05**	**2.73**	**84.1**	**293**	**110**	**11.4**	**124**	**2,810**	---	<2.0
	8/18/11	<5.0	**97.0**	**1,110**	**1.20**	**2.84**	**83.4**	**293**	**103**	**9.52**	**115**	**3,720**	---	<5.0
	2/22/12	<5.00	**98.4**	**1,200**	**1.21**	**2.93**	**85.8**	**325**	**106**	**10.9**	**124**	**3,390**	--	<5.00
	08/24/12	<10.0	**108**	**1,430**	**1.13**	**2.43**	**84.4**	**357**	**133**	**13.4**	**147**	**3,640**	---	<10.0
Dup	08/24/12	<5.00	**107**	**1,420**	**1.11**	**2.42**	**84.6**	**361**	**131**	**13.2**	**148**	**4,160**	---	<5.00
	02/20/13	<6.00	**101**	**1,170**	**1.04**	**2.65**	**86.3**	**330**	**117**	**12.1**	**135**	**2,790**	---	<6.00
	08/15/13	<6.00	**96.9**	**1,010**	**1.19**	**2.92**	**92.7**	**237**	**121**	**12.7**	**143**	**3,180**	---	<6.00
	04/03/14	<10.0	**128.0**	**1,790**	**1.43**	**2.76**	**84.6**	**289**	**104**	**11.0**	**127**	**3,620**	---	<10.0
DUP-2	04/03/14	<10.0	**127.0**	**1,030**	**0.932**	**2.01**	**79.4**	**293**	**99.8**	**11.8**	**123**	**3,560**	---	<10.0
	10/10/14	<4.00	**98.5**	**896**	**0.607**	**2.58**	**80.6**	**293**	**108**	**11.9**	**129**	**1,830**	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-16	11/06/03	<1.0	188	863	1.79	5.65	150	183	55.6	14.2	372	2,100	---	<1.00
	02/04/04	<1.0	174	937	2.19	6.59	123	235	76.8	15.2	299	2,200	---	<1.00
	05/07/04	<1.00	172	953	<2.00	5.91	123	240	73.8	12.7	313	2,280	---	<1.00
	08/03/04	<0.1	158	1,010	---	---	159	250	87.5	13.5	382	2,560	---	<0.10
	02/11/05	<1.00	180	944	2.4	7.24	151	198	62.4	10.9	344	2,260	---	<1.00
	08/05/05	<1.00	230	568	1.99	5.14	146	134	46.9	8.7	249	1,420	---	<1.00
	02/22/06	<10.0	180	590	1.3	5.2	110	120	39.1	7.17	207	1,770	---	<10.0
	08/24/06	<10.0	490	500	<2.5	3.17	89	123	40.6	4.93	207	1,460	---	<10.0
	02/28/07	<10	220	410	1.6	4.6	110	71.8	22.2	6.46	228	1,200	---	<10
	08/22/07	<10	296	360	1.40	3.60	87	83	29.9	<5	215	1,280	---	296
	2/20/08	<5	190	338	1.31	2.91	88.3	141	47.9	6.53	154	990	---	<5
	8/12/08	<1.53	220	536	1.36	3.34	86.2	112	37.4	6.8	221	1,660	---	<1.53
	02/19/09	<5	190	710	1.30	4.10	110	130	42.0	8.7	340	1,900	---	<5
	7/29/09	<5	170	810	1.30	4.90	140	140	46.0	9.9	330	2,200	---	<5
	2/24/10	<5	194	866	1.05	4.75	132	173	46.9	5.7	318	1,980	---	<5
	7/28/10	<5	197	369	2.38	4.43	159	157	50.5	6.6	404	2,050	---	<5
	02/16/11	<2.0	197	862	1.18	5.13	260	138	39.8	5.67	347	1,990	---	<2.0
	8/18/11	<5.0	211	775	1.18	5.80	137	128	39.5	4.47	331	2,360	---	<5.0
	2/22/12	<5.00	211	874	1.34	6.12	139	158	45.0	5.64	396	2,090	---	<5.00
	08/28/12	<10.0	294	879	1.21	3.14	127	237	70.4	7.14	254	2,850	---	<10.0
	02/20/13	<6.00	238	816	1.15	5.42	159	207	67.8	6.99	304	1,900	---	<6.00
	08/14/13	<6.00	224	907	1.28	5.78	162	228	90.5	8.13	236	2,100	---	<6.00
	04/03/14	<10.0	266	755	1.51	6.09	162	181	52.1	6.72	321	2,180	---	<10.0
	10/10/14	<4.00	217	834	0.439	4.52	130	242	79.4	7.99	269	1,550	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-17	11/05/03	<1.0	154	587	2.06	3.85	104	177	58.2	12.5	184	1,556	---	<1.00
	02/04/04	<1.0	158	650	2.01	3.93	93.1	158	52.5	12.2	205	1,416	---	<1.00
Dup	02/04/04	<1.0	172	557	2.08	4.03	95.7	162	52.6	12.1	204	1,496	---	<1.00
	05/06/04	<1.00	162	604	1.77	3.57	91.2	182	57.7	10.9	176	1,416	---	<1.00
	08/04/04	<0.1	141	638	---	---	132	207	81	12.7	221	1,660	---	<0.10
	02/11/05	<1.00	174	572	2.94	4.61	101	134	45.9	11	229	1,470	---	<1.00
	08/05/05	<1.00	172	626	2.16	4.37	106	169	53.5	9.5	220	1,750	---	<1.00
	02/22/06	<10.0	150	580	1.5	4	97	123	40.1	8.04	187	1,810	---	<10.0
	08/24/06	<10.0	200	560	<2.5	3.06	100	140	46.1	5.94	178	1,700	---	<10.0
Dup	08/24/06	<10.0	320	530	<2.5	2.94	100	135	46.5	5.76	175	1,700	---	<10.0
	02/28/07	<10	180	530	2.2	4.1	130	94.9	30.3	7.06	213	1,240	---	<10
	08/22/07	<10	177	550	1.80	4.30	130	113	41.4	5.97	200	1,310	---	177
	2/20/08	<5	147	622	2.1	3.45	130	169	59.9	8.35	155	1,550	---	<5
	8/12/08	<1.53	173	519	1.86	3.37	125	124	43.0	7.9	222	1,660	---	<1.53
	02/19/09	<5	180	460	2.40	3.60	170	70.0	21.0	7.5	320	1,300	---	<5
	7/29/09	<5	190	440	2.40	4.00	180	76.0	24.0	7.4	270	1,300	---	<5
	2/24/10	<5	182	512	1.85	3.60	148	90.6	30.9	5.4	265	1,380	---	<5
	7/28/10	<5	217	4,840	0.80	3.09	513	87.7	28.8	4.9	245	1,390	---	<5
	02/16/11	<2.0	177	401	2.14	3.64	253	54.6	15.2	4.20	248	1,060	---	<2.0
Dup 2	02/16/11	<2.0	206	368	2.27	<0.030	259	53.0	16.4	4.18	238	1,060	---	<2.0
	8/18/11	<5.0	196	421	1.87	3.45	111	110	35.9	4.11	173	1,220	---	<5.0
	2/22/12	<5.00	207	441	2.08	3.33	109	98.8	29.7	4.90	220	1,140	---	<5.00
	08/28/12	<10.0	164	570	1.59	1.99	103	182	58.4	6.76	132	2,070	---	<10.0
	02/20/13	<6.00	192	511	1.75	3.33	130	153	50.4	6.09	160	1,280	---	<6.00
	08/14/13	<6.00	163	637	1.71	3.37	126	181	67.0	7.28	142	1,790	---	<6.00
	04/03/14	<10.0	253	434	2.54	4.07	133	112	36.8	5.78	197	7,360	---	<10.0
	10/10/14	<4.00	211	316	1.41	3.98	107	83.3	27.3	5.49	240	1,790	---	<4.00
Dup-3	10/10/14	<4.00	226	313	1.56	4.04	131	62	20.1	5.28	265	1,140	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	*Sample Date*	*Carbonate (mg/L)*	*Bicarbonate (mg/L)*	*Chloride (mg/L)*	*Fluoride (mg/L)*	*Nitrate - N (mg/L)*	*Sulfate (mg/L)*	*Calcium (mg/L)*	*Magnesium (mg/L)*	*Potassium (mg/L)*	*Sodium (mg/L)*	*TDS (mg/L)*	*Hardness (mg/L)*	*Hydroxide (mg/L)*
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-18	11/23/04							DRY						
	02/09/05							DRY						
	08/04/05							DRY						
	02/22/06							DRY						
	02/28/07							DRY						
	02/20/08							DRY						
	08/12/08							DRY						
	02/19/09							DRY						
	7/29/09							DRY						
	02/16/11							DRY						
	8/18/11							DRY						
	2/22/12							DRY						
	08/28/12							DRY						
	02/20/13							DRY						
	08/14/13							DRY						
MW-19	11/23/04	<1.00	**86**	**7,000**	<10.0	**17.3**	**582**	**2,020**	**678**	**52.4**	**1,590**	**12,900**	---	<1.00
	02/11/05	<1.00	**92**	**5,200**	**1.3**	**5.12**	**502**	**1,340**	**522**	**61.3**	**974**	**22,000**	---	<1.00
	08/05/05	<1.00	**82**	**4,850**	**1.76**	**4.7**	**450**	**1,200**	**422**	**50.6**	**793**	**9,750**	---	<1.00
Dup 3	08/05/05	<1.00	**80**	**5,170**	**1.87**	**4.83**	**462**	**1,270**	**463**	**51**	**814**	**15,800**	---	<1.00
	02/22/06	<10.0	**75**	**3,900**	<0.50	**8.9**	**400**	**870**	**271**	**32.6**	**464**	**8,830**	---	<10.0
	08/24/06	<10.0	**250**	**3,900**	<5	**3.01**	**390**	**902**	**293**	**28.8**	**582**	**10,900**	-	<10.0
	02/28/07	<10	**92**	**5,500**	<0.5	**4.4**	**600**	**901**	**247**	**37**	**658**	**12,700**	---	<10
	08/22/07	<10	**82.6**	**4,500**	**0.30**	**3.10**	**440.0**	**1,040**	**367**	<50	**686**	**11,600**	---	**82.6**
	2/20/08	<5	**80.1**	**4,800**	**1.72**	**3.62**	**476**	**1,130**	**437**	**31.2**	**684**	**10,300**	---	<5
	8/12/08	<1.53	**79.8**	**4,240**	**2.94**	**3.27**	**429**	**1,080**	**399**	**26.7**	**739.0**	**9,600**	---	<1.53
	02/19/09	<5	**89.0**	**5,300**	**0.90**	**3.20**	**540**	**1,200**	**450**	**37.0**	**1200**	**10,000**	---	<5
	7/29/09	<5	**94.0**	**5,300**	**1.10**	**4.00**	**580**	**1,200**	**400**	**37.0**	**1100**	**13,000**	---	<5
	2/24/10	<5	**91.1**	**4,720**	**0.44**	**3.73**	**457**	**1,110**	**427**	**28.2**	**809**	**9,080**	---	<5
	7/28/10	<5	**104**	**4,760**	**1.08**	**3.30**	**130**	**1,160**	**407**	**27.2**	**1110**	**10,400**	---	<5
	02/16/11	<2.0	**81.4**	**4,180**	**0.624**	**2.01**	**3,010**	**1,130**	**370**	**27.3**	**972**	**9,980**	---	<2.0
	8/18/11	<5.0	**97.6**	**4,550**	**0.752**	**3.95**	**383**	**1,020**	**345**	**24.0**	**676**	**11,100**	---	<5.0
	2/22/12	<5.00	**101**	**542**	**0.913**	**4.38**	**30.3**	**1,300**	**425**	**29.2**	**1,040**	**14,800**	---	<5.00
	08/28/12	<10.0	**107**	**4,240**	**0.788**	**2.64**	**416**	**1,020**	**348**	**24.8**	**682**	**13,300**	---	<10.0
	02/20/13	<6.00	**94.0**	**4,310**	**0.695**	**3.76**	**424**	**1,130**	**344**	**27.1**	**673**	**7,740**	---	<6.00
	08/14/13	<6.00	**94.5**	**3,780**	**0.896**	**3.84**	**382**	**1,050**	**376**	**28.1**	**710**	**8,740**	---	<6.0
	04/03/14	<10.0	**122.0**	**3,740**	**1.07**	**4.22**	**439**	**1,050**	**362**	**26.3**	**680**	**13,100**	---	<10.0
	10/10/14	<4.00	**95.6**	**3,440**	**0.132**	**3.86**	**416**	**965**	**369**	**29.2**	**663**	**7,560**	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-20	11/23/04	<1.00	82	606	2.49	2.9	79.7	176	62.6	13.6	104	985	---	<1.00
	02/11/05	<1.00	88	745	1.86	4.34	73.8	227	77.5	15	117	1,480	---	<1.00
	08/05/05	<1.00	80	1,170	1.76	4.55	84.5	326	116	14.7	162	2,640	---	<1.00
	02/22/06	<10.0	110	1,100	0.98	5.5	83	295	103	13.5	145	3,000	---	<10.0
	08/24/06	<10.0	1,100	1,100	<2.5	3.39	84	288	101	11.2	160	3,590	-	<10.0
	02/28/07	<10	110	1,300	1.4	5.1	95	332	107	14.6	165	4,500	---	<10
	08/22/07	<10	419	1,400	0.80	5.70	100.0	346	119	11.9	203	4,100	---	419
	2/20/08	<5	117	1,540	1.1	3.83	108	393	158	18.7	247	3,550	---	<5
	8/12/08	<1.53	135.0	1,570	2.02	3.73	113.0	392.0	154.0	18.5	249.0	4,290	---	<1.53
	02/19/09	<5	130.0	1,600	1.00	3.70	130.0	440.0	150.0	20.0	290.0	3,900	---	<5
	7/29/09	<5	120.0	1,700	1.10	4.10	150.0	400.0	150.0	21.0	280.0	4,600	---	<5
	2/25/10	<5	107.0	1,500	0.80	4.03	98.8	402.0	146.0	13.9	229.0	3,460	---	<5
	7/28/10	<5	102.0	245	2.00	3.43	143.0	451.0	156.0	13.6	289.0	4,740	---	<5
	02/16/11	<2.0	98.4	1,810	0.972	3.89	1,070	442	134	13.3	274	4,240	---	<2.0
	8/18/11	<5.0	106	1,610	1.16	3.99	135	393	128	11.1	253	4,550	---	<5.0
	2/22/12	<5.00	107	1,750	1.10	4.30	122	434	126	12.5	303	4,790	---	<5.00
	08/24/12	<5.00	123	1,830	1.03	3.46	134	440	152	14.2	295	4,510	---	<5.00
	02/20/13	<6.00	106	1,670	0.99	3.78	138	445	143	13.5	275	3,680	---	<6.00
	08/14/13	<6.00	104	1,470	1.02	4.17	121	435	152	15.1	275	4,310	---	<6.00
	04/03/14	<10.0	134	1,500	1.22	4.16	134	407	137	13.0	243	5,140	---	<10.00
	10/10/14	<4.00	107	1,320	0.496	3.82	121	387	139	137.0	233	4,180	---	<4.00
MW-21	11/28/07	1.14	415	482	---	---	128	173	64.4	18.3	115	1,440	---	1.14
	2/20/08	<5	115	606	1.9	5.15	159	205	71.3	14.4	110	1,740	---	<5
	8/12/08	<1.53	126	544	2.00	4.68	147	193	64.7	12.5	116	2,060	---	<1.53
	02/19/09	<5	190	400	2.10	4.30	140	150	46.0	11.0	120	1,200	---	<5
	7/29/09	<5	210	330	2.20	4.40	150	120	38.0	10.0	96	1,200	---	<5
	2/24/10	<5	184	280	1.79	4.04	143	123	37.8	7.9	100	1,030	---	<5
	7/28/10	<5	168	2,970	0.61	3.41	150	109	34.3	7.8	95.8	1,010	---	<5
	02/16/11	<2.0	149	240	1.87	4.56	250	106	33.4	8.13	90.0	888	---	<2.0
	8/18/11	<5.0	176	213	2.15	4.93	141	89.5	27.5	5.90	79.1	876	---	<5.0
	2/22/12	<5.00	192	208	2.16	5.50	118	89.2	24.8	6.82	74.3	894	---	<5.00
	08/24/12	<5.00	196	241	1.95	4.10	137	99.9	35.0	9.71	80.5	750	---	<5.00
	02/21/13	<6.00	181	182	1.98	4.77	121	91	29	8.1	84	700	---	<6.00
	08/14/13	<6.00	175	180	2.48	5.90	123	100	30.3	8.42	103	798	---	<6.00
	04/03/14	<10.0	222	236	2.72	5.98	230	117	37.4	8.98	108	1,010	---	<10.0
	10/10/14	<4.00	185	186	1.50	5.16	393	155	48.7	9.68	119	1,080	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-22	11/28/07	**1.14**	**2950**	**1,020**			**169**	**286**	**96.7**	**12.1**	**229**	**2,330**	---	**1.14**
	2/20/08	<5	**374**	**1,060**	**0.93**	**2.7**	**171**	**291**	**102**	**11.1**	**244**	**2,560**	---	<5
	8/12/08	<1.53	**143**	**1,370**	**1.70**	**2.73**	**167**	**359**	**129**	**12.9**	**272**	**3,670**	---	<1.53
	02/20/09	<5	**270**	**2,000**	**0.74**	**2.40**	**180**	**570**	**190**	**17.0**	**380**	**5,300**	---	<5
	7/29/09	<5	**310**	**3,000**	**0.85**	**2.60**	**200**	**730**	**260**	**25.0**	**570**	**6,700**	---	<5
	2/25/10	<5	**142**	**3,630**	**0.27**	**2.92**	**166**	**802**	**251**	**15.4**	**590**	**7,060**	---	<5
	7/28/10	<5	**136**	**3,640**	**0.64**	**2.17**	**204**	**982**	**309**	**15.9**	**865**	**8,760**	---	<5
	02/16/11	<2.0	**138**	**3,650**	**0.568**	**1.90**	**1,530**	**834**	**252**	**14.9**	**830**	**7,490**	---	<2.0
	8/18/11	<5.0	**142**	**4,020**	**0.594**	**2.94**	**206**	**745**	**232**	**13.7**	**974**	**8,900**	---	<5.0
	2/22/12	<5.00	**152**	**3,980**	**0.730**	**2.93**	**236**	**732**	**233**	**15.8**	**1,060**	**11,100**	---	<5.00
	08/29/12	<10.0	**171**	**3,210**	**0.791**	**1.79**	**258**	**603**	**195**	**15.0**	**1,080**	**9,460**	---	<10.0
	02/20/13	<6.00	**174**	**2,700**	**0.628**	**3.02**	**298**	**512**	**153**	**13.0**	**922**	**5,360**	---	<6.00
	08/14/13	<6.00	**183**	**2,660**	**0.839**	**2.55**	**294**	**437**	**129**	**12.7**	**996**	**5,450**	---	<6.00
	04/03/14	<10.0	**238**	**2,420**	**0.758**	**2.40**	**320**	**316**	**96.4**	**10.6**	**841**	**4,660**	---	<10.0
	10/09/14	<4.0	**183**	**2,030**	**0.395**	**2.72 J**	**257**	**349**	**108**	**12.7**	**907**	**5,150**	---	<4.0
MW-23	2/22/12	NS - Soap Contaminant in the well from drilling completion activities.												
	08/24/12	<5.00	**152**	**592**	**1.19**	<2.00	**91.2**	**155**	**55.0**	**8.44**	**114**	**1,460**	---	<5.00
	02/20/13	<6.00	**121**	**490**	**1.10**	**0.518**	**96.5**	**146**	**52.8**	**8.12**	**107**	**1,330**	---	<6.00
	08/14/13	<6.00	**117**	**458**	**1.29**	**0.686**	**93**	**156**	**52.8**	**8.82**	**111**	**1,510**	---	<6.00
	04/03/14	<10.0	**146**	**489**	**1.51**	**0.669**	**96.4**	**138**	**48.6**	**7.85**	**103**	**1,500**	---	<10.0
	10/10/14	<4.00	**127**	**391**	**0.716**	**0.717**	**85.7**	**140**	**51.9**	**8.61**	**107**	**1,010**	---	<4.00
MW-24	2/22/12	<5.00	**101**	**2,910**	**1.71**	**3.11**	**309**	**806**	**254**	**24.4**	**263**	**9,240**	---	<5.00
	08/24/12	<5.00	**118**	**3,140**	**1.05**	**3.18**	**309**	**866**	**263**	**25.1**	**291**	**9,160**	---	<5.00
	02/20/13	<6.00	**97.4**	**2,500**	**0.985**	**3.41**	**277**	**826**	**233**	**22.7**	**263**	**4,780**	---	<6.00
DUP-1	02/20/13	<6.00	**97.7**	**2,500**	**0.983**	**3.42**	**281**	**806**	**224**	**22.9**	**253**	**4,940**	---	<6.00
	08/14/13	<6.00	**94**	**2,250**	**1.21**	**3.66**	**268**	**790**	**234**	**24.8**	**261**	**5,540**	---	<6.00
	04/03/14	<10.0	**125**	**1,930**	**1.34**	**3.71**	**286**	**3410**	**1020**	**108**	**1150**	**7,300**	---	<10.0
	10/10/14	<4.00	**96.9**	**1,870**	**0.386**	**3.41**	**268**	**647**	**208**	**22.9**	**230**	**5,850**	---	<4.00
MW-25	05/24/12	<5.00	**158**	**4,390**	**0.121**	**3.56**	**307**	**890**	**272**	**19.2**	**1,150**	**10,200**	---	<5.00
Dup 1	05/24/12	<5.00	**165**	**4,460**	**0.142**	**3.46**	**316**	**880**	**270**	**19.1**	**1,170**	**11,000**	---	<5.00
	08/28/12	<10.0	**294**	**4,350**	**0.618**	**2.32**	**290**	**877**	**255**	**18.4**	**1,150**	**11,400**	---	<10.0
	02/20/13	<6.00	**160**	**4,490**	**0.461**	**3.66**	**282**	**864**	**258**	**18.5**	**1,210**	**8,160**	---	<6.00
	08/14/13	<6.00	**138**	**4,870**	**0.552**	**3.60**	**255**	**929**	**289**	**20.2**	**1,370**	**10,100**	---	<6.00
DUP-2	08/14/13	<6.00	**150**	**5,160**	**0.651**	**3.87**	**268**	**900**	**287**	**20.2**	**1,340**	**11,400**	---	<6.00
	04/03/14	<10.0	**192**	**4,580**	**0.772**	**4.47**	**299**	**962**	**258**	**19.3**	**1,330**	**12,200**	---	<10.0
	10/10/14	<4.00	**152**	**4,280**	<0.100	**4.10**	**299**	**870**	**270**	**22.5**	**1,250**	**11,400**	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
MW-26	05/24/12	<5.00	200	2,320	0.858	2.45	236	241	75.3	11.4	1,000	5,020	---	<5.00
	08/29/12	<5.00	205	2,200	0.929	1.57	225	267	72.9	11.3	1,140	4,940	---	<5.00
	02/21/13	<6.00	213	1,950	0.689	2.65	240	210	58.7	9.82	944	3,640	---	<6.00
	08/14/13	<6.00	215	1,930	0.935	2.46	244	174	59.9	10.6	913	3,700	---	<6.00
	04/03/14	<10.0	270	1,380	1.02	2.31	273	173	51.0	8.78	838	3,300	---	<10.0
	10/09/14	<4.0	223	1,390	0.557	2.71 J	272	158	45.3	9.50	794	3,920	---	<4.0
MW-27	05/24/12	<5.00	138	1,270	0.838	1.02	640	405	124	22.5	330	3,660	---	<5.00
	08/29/12							DRY						
	02/21/13							DRY						
	08/14/13							DRY						
	04/03/14							DRY						
	10/09/14							DRY						
West	08/22/97	--	--	250	--	--	--	--	--	--	--	--	--	--
	02/17/98	<2.0	370	237	--	--	134	--	--	--	--	975	96	--
	02/07/01	<1.0	236	340	2	4.5	120	39.7	12.5	33.2	264	1,000	--	--
	05/03/02	<1.0	214	329	1.39	4.36	116	41.9	11.9	40.9	234	--	---	<1.00
	10/14/02	<0.1	210	337	--	--	127	39.3	9.37	35.6	290	986	--	<0.10
	12/27/02	<0.1	198	337	---	---	134	43.1	12.5	33.2	263	997	--	<0.10
	02/18/03	<0.1	190	354	---	---	141	33.6	9.78	23.9	152	1,010	---	<0.10
	05/30/03	<1.0	202	353	1.54	4.16	116	48.4	13.3	35.1	283	1,050	---	<1.00
	08/25/03	<1.0	194	351	1.5	4.08	112	49.4	13.2	38.4	265	1,066	---	<1.00
	11/07/03	<1.0	204	327	1.65	3.98	115	51.3	13.8	38.8	235	1,100	---	<1.00
	02/05/04	<1.0	196	345	1.66	4.09	112	51.6	14.6	41.4	235	1,074	---	<1.00
	05/06/04	<1.00	200	339	1.44	3.83	115	53.6	14	37.3	241	1,040	---	<1.00
	08/03/04	<0.1	186	337	---	---	147	41.7	20.1	49.1	297	717	---	<0.10
	02/11/05	<1.00	186	417	2.44	4.47	117	75.9	21.4	43.9	241	1,128	---	<1.00
	08/04/05	<1.00	150	526	1.54	4.16	129	87	23.6	42.2	280	1,104	---	<1.00
	02/23/06	<10.0	150	800	0.76	4	110	149	44.3	47.1	257	2,390	---	<10.0
	08/25/06	<10.0	150	1,500	<2.5	2.78	97	315	87.6	67.7	400	4,840	---	<10.0
	02/28/07	<10	120	2,500	0.86	6.6	120	515	130	98.7	410	7,600	---	<10
	08/21/07	<10	99.8	3,700	0.20	4.31	180	844	251	72.7	665	12,700	---	99.8
	2/20/08	<5	119	2,780	0.54	3.43	202	662	189	81.8	564	5,850	---	<5
	8/13/08	<5	175	1,940	1.57	3.89	227	387	119	61.8	588	5,570	---	<5
	02/19/09	<5	180	1,700	0.67	2.80	230	330	100	51.0	550	4,300	---	<5
	7/29/09	<5	190	1,200	0.81	3.40	240	230	74.0	37.0	400	3,200	---	<5
	7/28/10	<5	238	541	0.99	2.69	224	128	36.6	26.0	345	1,760	---	<5
	02/16/11	<2.0	193	417	1.10	3.56	329	91.0	24.8	20.0	263	1,300	---	<2.0
	8/18/11	<5.0	247	322	1.36	3.66	205	68.5	18.1	15.1	232	1,220	---	<5.0
	2/22/12	<5.00	246	312	1.34	3.28	183	68.0	18.5	15.4	221	1,080	---	<5.00
	08/29/12	<5.00	241	249	1.78	2.46	169	64.1	18.6	16.2	225	988	---	<5.00
	02/21/13	<6.00	243	226	1.34	3.78	175	56.7	16.7	14.6	212	872	---	<6.00
	08/14/13	<6.00	227	262	1.75	3.68	190	59.0	16.4	15.3	218	892	---	<6.00
	04/03/14	<10.0	281	235	1.41	3.07	159	48.9	15.3	14.2	201	680	---	<10.0
	10/09/14	<4.00	232	200	0.907	0.398	158	55.2	15.4	13.9	201	861	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				250	1.6	10	600	---	---	---	---	1,000	---	---
Southwest	08/22/97	--	--	3,300	--	--	--	---	--	--	--	--	--	--
	02/17/98	<2.0	420	2,170	--	--	255	--	--	--	--	4,719	712	--
	02/07/01	<1.0	326	1,900	2.2	5	350	197	59.1	---	1,078	4,100	--	--
	05/03/02	<1.0	272	1,490	1.38	4.51	301	200	65	46.4	744	--	--	<1.00
	10/14/02	<0.1	330	1,330	--	--	360	110	32.5	61.5	929	3,020	--	<0.10
	12/27/02	<0.1	308	1,280	---	---	319	107	31.9	66.8	980	3,040	--	<0.10
	02/18/03	<0.1	289	1,290	---	---	300	104	31.3	63	918	2,910	---	<0.10
Dup	02/18/03	<0.1	298	1,310	---	---	299	108	32.2	58.3	812	3,040	---	<0.10
	06/02/03	<1.0	304	1,420	2.34	5.83	282	161	45.7	49.1	935	4,070	---	<1.00
Dup	06/02/03	<1.0	290	1,370	2.12	5.65	287	169	54.5	45	899	3,420	---	<1.00
	08/25/03	<1.0	310	1,190	2.25	6.1	272	117	33.6	49.7	774	3,205	---	<1.00
Dup	08/25/03	<1.0	200	1,260	<2.00	5.61	75.5	159	41.8	79	591	3,270	---	<1.00
	11/07/03	<1.0	300	1,240	2.29	5.77	255	129	35.4	48.5	727	3,275	---	<1.00
	02/05/04	<1.0	300	1,240	2.37	6.17	238	109	33.1	52.2	716	2,860	---	<1.00
	05/06/04	<1.00	294	1,310	<3.00	6.38	231	158	30.8	53.2	780	3,180	---	<1.00
	08/03/04	<0.1	276	1,400	---	---	264	75.1	45.2	82.4	1,660	2,550	---	<0.10
	02/11/05	<1.00	260	2,920	1.33	9.61	230	323	94.5	84.4	1,240	5,575	---	<1.00
	08/04/05	<1.00	226	5,290	1.55	11.7	325	691	201	101	1,980	12,000	---	<1.00
	02/23/06	<10.0	300	3,000		11	450	373	108	77.1	896	6,300	---	<10.0
	08/25/06	<10.0	300	3,100	<5.0	5.99	600	415	117	74.9	1,240	7,600	---	<10.0
	02/28/07	<10	310	4,500	0.51	8.8	670	511	130	93.7	994	9,120	---	<10
	08/21/07	<10	265	5,500	0.10	11.7	860	879	242	82.6	2,040	14,900	---	265
	2/20/08	<5	278	5,940	0.63	9.3	896	1,010	281	120	2,300	13,100	---	<5
	8/13/08	<5	268	5,670	4.18	8.14	775	934	237	112	2110	13,700	---	<5
	02/19/09	<5	280	5,200	0.78	5.40	870	920	240	120	2300	13,000	---	<5
	7/29/09	<5	260	5,300	0.96	6.10	810	790	240	110	2200	12,000	---	<5
	7/28/10	<5	254	3,890	0.96	5.17	565	758	190	67.6	1770	8,850	---	<5
Dup 1	7/28/10	<5	274	4,050	0.89	3.98	591	667	184	67.9	1730	7,250	---	<5
	02/16/11	<2.0	228	3,360	0.881	0.812	2,450	538	156	63.3	1,470	8,320	---	<2.0
	8/18/11	<5.0	319	3,370	1.04	5.10	643	401	98.9	48.6	1,310	5,170	---	<5.0
	2/22/12	<5.00	324	2,800	1.19	5.63	502	365	99.8	48.6	1,280	6,860	---	<5.00
	08/29/12	<5.00	323	2,670	1.14	2.96	524	304	90.8	44.3	1,270	5,940	---	<5.00
	02/21/13	<6.00	359	1,750	1.08	4.43	498	323	86.7	36.3	1,120	4,020	---	<6.00
	08/13/13	<6.00	342	1,710	1.44	4.09	525	295	86.2	35.7	1,110	3,200	---	<6.00
	04/03/14	<10.0	417	1,430	1.28	3.40	405	139	39.8	32.4	845	2,760	---	<10.0
	10/09/14	<4.00	346	1,190	0.817	3.79 J	363	145	40.2	33.3	818	5,210	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				250	1.6	10	600	---	---	---	---	1,000	---	---
RW-1	10/20/00	<1.0	330	1,500	1.7	5.2	330	107	29.6	50	843	3,200	--	--
	10/14/02	<0.1	327	1,150	--	--	340	60.3	25.5	64.3	820	2,720	--	<0.10
	12/27/02	<0.1	294	1,300	--	--	330	123	40.3	56.8	933	3,190	--	<0.10
	02/18/03	<0.1	300	1,150	---	---	316	79.7	25.7	53	721	2,690	---	<0.10
	06/02/03	<1.0	276	1,500	2.05	5.34	275	194	67.21	40.8	923	4,070	---	<1.00
	08/25/03	<1.0	298	1,190	2.01	6.15	278	117	32.7	46.1	705	2,940	---	<1.00
	11/07/03	<1.0	298	1,300	2.13	5.56	266	166	48.1	51.7	106	3,240	---	<1.00
	02/05/04	<1.0	292	1,270	2.22	5.92	246	148	44.7	53.8	704	2,780	---	<1.00
	05/06/04	<1.00	310	1,100	<3.00	6.62	235	104	28.3	53.8	635	2,840	---	<1.00
Dup	05/06/04	<1.00	288	1,040	<3.00	6.64	243	90	24.1	44.5	642	2,705	---	<1.00
	08/04/04	<0.1	284	1,120	---	---	290	44.8	33	86.9	785	2,250	---	<0.10
Dup	08/04/04	<0.1	288	1,130	---	---	274	45	31.6	84	961	2,550	---	<0.10
	02/11/05	<1.00	262	1,730	3.59	8.93	217	172	51.5	84	910	3,995	---	<1.00
Dup	02/11/05	<1.00	268	1,690	2	8.59	224	159	46.4	81	813	3,170	---	<1.00
	08/04/05	<1.00	252	2,470	1.26	5.8	188	262	76.1	87.5	1,090	5,120	---	<1.00
	02/23/06	<10.0	290	2,400	<2.5	8.9	350	234	67.6	70.4	762	4,680	---	<10.0
	08/25/06	<10	290	2,300	<5	4.41	440	281	77.3	68.5	1,040	5,610	-	<10.0
Dup	08/25/06	<10.0	300	2,300	<5	4.6	450	272	77.3	67.1	1,030	5,570	-	<10.0
	02/28/07	<10	300	3,100	<0.5	3.5	590	353	97.7	82.2	848	7,400	---	<10
Dup	02/28/07	<10	290	3,200	<0.5	3.5	600	416	115	83.4	878	7,280	---	<10
	08/21/07	<10	265	4,100	0.30	3.54	620.0	656	193	72.6	1,640	11,300	---	265
Dup	08/21/07	<10	263	4,100	0.10	3.38	600.0	655	192	72.5	1,630	11,400	---	263
	2/20/08	<5	473	5,130	0.56	6.8	677	892	255	126	1,810	11,000	---	<5
Dup	2/20/08	<5	231	5,120	0.55	6.78	674	888	252	126	1,800	10,800	---	<5
	8/12/08	<1.53	255	4,650	1.06	6.43	628	816	232	107	1770	11,000	---	<1.53
Dup	8/12/08	<1.53	229	4,600	1.05	6.37	612	778	222	105	1740	10,900	---	<1.53
	02/20/09	<5	260	4,600	0.69	1.40	690	680	200	84.0	1700	11,000	---	<5
Dup	02/20/09	<5	240	4,400	0.65	4.20	630	660	190	83.0	1600	11,000	---	<5
	7/29/09	<5	240	4,300	0.73	3.30	620	650	220	94.0	1700	10,000	---	<5
Dup	7/29/09	<5	240	4,200	0.72	3.70	600	640	220	95.0	1700	9,900	---	<5
	2/25/10	<5	263	4,890	0.34	4.28	650	680	180	75.6	1650	8,870	---	<5
	7/28/10	<5	254	2,920	0.77	4.98	455	442	132	59.5	1310	7,200	---	<5
	2/22/12	<5.00	314	2,030	1.03	6.05	449	256	69.0	43.8	1,020	4,860	---	<5.00
Dup 1	02/22/12	<5.00	317	2,080	0.956	5.39	400	239	69.2	43.7	943	4,300	---	<5.00
	08/29/12							NS						
	02/21/13	<6.00	339	1,340	0.942	5.18	411	172	48.2	36.8	876	3,120	---	<6.00
DUP-2	02/21/13	<6.00	341	1,340	0.925	5.15	432	172	46.9	34.8	827	3,110	---	<6.00
	08/14/13	<6.00	298	1,170	1.22	4.52	389	127	34.6	30.8	724	2,400	---	<6.00
DUP-1	08/14/13	<6.00	311	1,230	1.36	4.79	416	126	35.5	31.1	704	2,480	---	<6.00
DUP-3	04/03/14	<10.0	382	1,120	1.25	4.12	345	111	30.5	28.4	667	2,300	---	<10.0
	04/03/14	<10.0	427	1,280	1.23	0.582	375	114	30.1	29.9	652	1,840	---	<10.0
	10/09/14	<4.00	318	867	0.836	4.32 J	293	101	28.1	29.9	645	2,190	---	<4.00
Dup-1	10/09/14	<4.00	317	847	0.733	4.30 J	295	101	27.8	29.6	640	2,290	---	<4.00

APPENDIX D

CUMULATIVE SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
G.L. ERWIN "A & B" FEDERAL NCT-2 TANK BATTERY
SW/4, SE/4, SECTION 35, TOWNSHIP 24 SOUTH, RANGE 37 EAST
LEA COUNTY, NEW MEXICO

Well Number	Sample Date	Carbonate (mg/L)	Bicarbonate (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Nitrate - N (mg/L)	Sulfate (mg/L)	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)	TDS (mg/L)	Hardness (mg/L)	Hydroxide (mg/L)
NMWQCC Standard (mg/L)				*250*	*1.6*	*10*	*600*	*---*	*---*	*---*	*---*	*1,000*	*---*	*---*
WW-1	05/01/02	<1.0	**172**	**97.2**	**1.64**	**4.05**	**137**	**51.4**	**23.4**	**8.23**	**84.9**	---	---	<1.00
	10/10/02	<0.1	**168**	**106**	---	---	**124**	**52.7**	**22.2**	**9.99**	**106**	**605**	---	<0.10
	12/27/02	<0.1	**157**	**111**	--	--	**134**	**55**	**22.5**	**5.3**	**96**	**572**	--	<0.10
	02/18/03	<0.1	**152**	**115**	---	---	**137**	**53.8**	**22.1**	**6.38**	**93.5**	**601**	---	<0.10
	06/02/03	<1.0	**154**	**127**	**1.69**	**3.77**	**119**	**59.5**	**24.1**	**7.14**	**118**	**621**	---	<1.00
	08/25/03	<1.0	**148**	**136**	**1.7**	**3.72**	**111**	**63**	**24**	**8.43**	**104**	**652**	---	<1.00
	11/07/03	<1.0	**156**	**149**	**1.8**	**3.62**	**111**	**62.3**	**24.4**	**8.3**	**95.5**	**669**	---	<1.00
	02/04/04	<1.0	**156**	**185**	**1.81**	**3.79**	**102**	**68.2**	**25.5**	**8.7**	**92.4**	**709**	---	<1.00
	05/05/04	<1.00	**148**	**204**	**1.54**	**3.48**	**99.7**	**71.9**	**26.5**	**8.25**	**120**	**695**	---	<1.00
	08/04/04	<0.1	**132**	**222**	---	---	**114**	**92.3**	**37.9**	**9.89**	**139**	**471**	---	<0.10
	08/04/05							NS						
	02/23/06							NS						
	03/01/07	<10	**130**	**360**	**1.50**	**3.20**	**77.0**	**101**	**30.7**	**5.9**	**103**	**1,060**	---	<10
	08/21/07							NS						
	2/21/08	<5	**106**	**461**	**1.22**	**2.9**	**84.4**	**112**	**41.4**	**6.82**	**118**	**1,310**	---	<5
	8/12/08							NS						
	02/20/09	<5	**150**	**320**	**1.30**	**2.80**	**100**	**97.0**	**33.0**	**6.4**	**110**	**1,100**	---	<5
	7/29/09							NS						
	2/24/10	<5	**128**	**246**	**1.23**	**2.89**	**115**	**80.10**	**27.20**	**4.93**	**107**	**804**	---	<5
	7/28/10							NS						
	2/16/11	<2.0	**127**	**232**	**1.21**	**2.80**	**232**	**83.3**	**26.8**	**5.40**	**101**	**822**	---	<2.0
	8/18/11							NS						
	2/22/12	<5.00	**163**	**229**	**1.40**	**2.92**	**103**	**81.0**	**27.0**	**5.51**	**102**	**834**	---	<5.00
	8/29/12	<5.00	**166**	**213**	**1.42**	**1.63**	**119**	**87.6**	**28.3**	**5.34**	**118**	**756**	---	<5.00
	2/20/13	<6.00	**165**	**218**	**1.16**	**2.55**	**134**	**83.0**	**28.6**	**5.58**	**108**	**724**	---	<6.00
	8/14/13	<6.00	**157**	**231**	**1.28**	**2.60**	**146**	**92.3**	**31.8**	**6.22**	**119**	**840**	---	<6.00
	4/3/14	<10.0	**207**	**228**	**1.43**	**2.69**	**145**	**92.7**	**31.0**	**6.16**	**116**	**792**	---	<10.0
	10/9/14	<4.00	**165**	**205**	**0.731**	**2.46 J**	**145**	**90.2**	**31.8**	**6.01**	**115**	**916**	---	<4.00

Notes

1. mg/L: Milligrams per liter
2. <: Concentration below test method detectin limit
3. - -: No data available
4. NS: Not Sampled
5. RW: Recovery well
6. WW: Water well
7. Highlight: Result exceeds NMWQCC standard
8. **Bold** indicates laboratory detection
9. B: This Qualifier indicates that the analyte is an estimated value between the RL and the MDL
10. All analyses prior to 10/14/02 conducted by TraceAnalysis, Inc., Lubbock, TX
11. Analyses from 10/14/02 conducted by Environmental Lab of Texas, Odessa, TX
12. Analyses from 5/30/03 through 08/2005 conducted by Trace Analysis Inc., Lubbock, TX
13. Analyses from 02/2006 through 08/2007, conducted by Pace Analytical, St. Rose, LA and Greenbay, WI Laboratories
14. Analyses from 02/2008 through 08/2009, conducted by Test America, Houston, TX
15. Analyses from 02/2010 and following, conducted by ALS Environmental, Houston, TX
16. * Reported TDS concentrations include a low bias. Not used in trend comparison.

Appendix E

Certified Laboratory Reports

CONESTOGA-ROVERS & ASSOCIATES

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MEMORANDUM

TO: Nancy Forster

REF. NO.: 039124

FROM: Chris G. Knight/cs/3 CK

DATE: May 8, 2014

RE: Analytical Results and Reduced Validation
Semiannual Groundwater Sampling Event
Chevron Environmental Management Company (CEMC) - G.L. Erwin Tank Battery
Lea County, New Mexico
April 2014

1.0 Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the CEMC – G.L. Erwin Tank Battery site during April 2014. Samples were submitted to ALC Environmental, located in Houston, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard Conestoga--Rovers & Associates (CRA) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, duplicate data, recovery data from surrogate spikes, laboratory control samples (LCS), matrix spikes (MS), and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", USEPA 540/R-94-013, February 1994

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2.0 Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3.0 Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

4.0 Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5.0 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

MS/MSD analyses were performed as specified in Table 1. For some of the analyses, the laboratory performed additional MS/MSD on non-site samples. The analysis of non-site spike samples cannot be used to assess accuracy and precision for the site samples.

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision with the following exceptions:

i. Several dissolved metals MS/MSD were reported with high recoveries due to matrix interference. No further action was required.

6.0 Field QA/QC Samples

The field QA/QC consisted of three field duplicate sample sets.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, three field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the practical quantitation limit (PQL), the evaluation criterion is one time the PQL value for water samples.

All field duplicate results were within acceptable agreement, demonstrating acceptable sampling and analytical precision.

7.0 Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable without qualification.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
APRIL 2014

					Analysis/Parameters							
Sample Identification	***Location***	***Matrix***	***Collection Date (mm/dd/yyyy)***	***Collection Time (hr:min)***	***Alkalinity***	***Dissolved Metals***	***Chloride***	***Fluoride***	***Nitrate (as N)***	***Sulfate***	***TDS***	***Comments***
WW-1-040314	WW-1	water	04/03/2014	09:30	X	X	X	X	X	X	X	
MW-10-040314	MW-10	water	04/03/2014	09:45	X	X	X	X	X	X	X	
MW-11-040314	MW-11	water	04/03/2014	10:00	X	X	X	X	X	X	X	
MW-25-040314	MW-25	water	04/03/2014	10:15	X	X	X	X	X	X	X	
MW-8-040314	MW-8	water	04/03/2014	10:30	X	X	X	X	X	X	X	
MW-16-040314	MW-16	water	04/03/2014	10:45	X	X	X	X	X	X	X	
MW-17-040314	MW-17	water	04/03/2014	11:00	X	X	X	X	X	X	X	
MW-14-040314	MW-14	water	04/03/2014	11:15	X	X	X	X	X	X	X	
DUP-1-040314	MW-14	water	04/03/2014	11:15	X	X	X	X	X	X	X	Field duplicate of MW-14
MW-12-040314	MW-12	water	04/03/2014	11:30	X	X	X	X	X	X	X	
MW-15-040314	MW-15	water	04/03/2014	11:45	X	X	X	X	X	X	X	
DUP-2-040314	MW-15	water	04/03/2014	11:45	X	X	X	X	X	X	X	Field duplicate of MW-15
MW-20-040314	MW-20	water	04/03/2014	12:00	X	X	X	X	X	X	X	
MW-23-040314	MW-23	water	04/03/2014	12:15	X	X	X	X	X	X	X	

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
APRIL 2014

					Analysis/Parameters							
Sample Identification	***Location***	***Matrix***	***Collection Date (mm/dd/yyyy)***	***Collection Time (hr:min)***	***Alkalinity***	***Dissolved Metals***	***Chloride***	***Fluoride***	***Nitrate (as N)***	***Sulfate***	***TDS***	***Comments***
MW-24-040314	MW-24	water	04/03/2014	12:30	X	X	X	X	X	X	X	MS/MSD-P
MW-21-040314	MW-21	water	04/03/2014	12:45	X	X	X	X	X	X	X	
MW-19-040314	MW-19	water	04/03/2014	13:00	X	X	X	X	X	X	X	
MW-13-040314	MW-13	water	04/03/2014	13:15	X	X	X	X	X	X	X	
MW-7-040314	MW-7	water	04/03/2014	13:30	X	X	X	X	X	X	X	
MW-6-040314	MW-6	water	04/03/2014	13:45	X	X	X	X	X	X	X	
MW-3-040314	MW-3	water	04/03/2014	14:00	X	X	X	X	X	X	X	MS/MSD-P
MW-5-040314	MW-5	water	04/03/2014	14:15	X	X	X	X	X	X	X	MS/MSD-P
RW-1-040314	RW-1	water	04/03/2014	14:30	X	X	X	X	X	X	X	
DUP-3-040314	RW-1	water	04/03/2014	14:30	X	X	X	X	X	X	X	Field duplicate of RW-1
W-MW-040314	West MW	water	04/03/2014	14:45	X	X	X	X	X	X	X	
SW-MW-040314	Southwest	water	04/03/2014	15:00	X	X	X	X	X	X	X	
MW-4-040314	MW-4	water	04/03/2014	15:15	X	X	X	X	X	X	X	
MW-2-040314	MW-2	water	04/03/2014	15:30	X	X	X	X	X	X	X	
MW-1-040314	MW-1	water	04/03/2014	15:45	X	X	X	X	X	X	X	
MW-9-040314	MW-9	water	04/03/2014	16:00	X	X	X	X	X	X	X	
MW-22-040314	MW-22	water	04/03/2014	16:15	X	X	X	X	X	X	X	
MW-26-040314	MW-26	water	04/03/2014	16:30	X	X	X	X	X	X	X	

Notes:

N - Nitrogen
TDS - Total Dissolved Solids
MS/MSD-P - Matrix Spike/ Matrix Spike Duplicate (partial parameters)

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
APRIL 2014

Sample Location:		*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*	*MW-9*
Sample Identification:		*MW-1-040314*	*MW-2-040314*	*MW-3-040314*	*MW-4-040314*	*MW-5-040314*	*MW-6-040314*	*MW-7-040314*	*MW-8-040314*	*MW-9-040314*
Sample Date:		*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*
Sample Type:										
	Units									
Metals										
Calcium (dissolved)	mg/L	139	57.2	44.6	185	172	41.1	30.7	54.4	37.6
Magnesium (dissolved)	mg/L	48.2	18.6	12.7	52.0	56.6	12.2	8.89	16.3	11.9
Potassium (dissolved)	mg/L	6.33	5.42	15.3	23.3	11.7	9.04	3.80	5.20	4.47
Sodium (dissolved)	mg/L	103	297	665	1140	296	517	305	450	429
General Chemistry										
Alkalinity, bicarbonate	mg/L	182	277	356	380	263	329	307	336	265
Alkalinity, carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, total (as CaCO3)	mg/L	182	277	356	380	263	329	307	336	265
Chloride	mg/L	498	548	839	2010	627	607	303	674	628
Fluoride	mg/L	1.30	1.18	1.52	<0.500	1.33	2.34	3.08	4.01	1.97
Nitrate (as N)	mg/L	1.73	4.77	9.26	3.83	5.91	9.32	5.48	8.17	2.25
Sulfate	mg/L	66.5	148	346	353	165	265	149	206	157
Total dissolved solids (TDS)	mg/L	1160	132	2280	3360	1460	1880	1020	1560	1560

Notes:

N - Nitrogen
CaCO3 - Calcium Carbonate

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
APRIL 2014

Sample Location:		*MW-10*	*MW-11*	*MW-12*	*MW-13*	*MW-14*	*MW-14*	*MW-15*	*MW-15*
Sample Identification:		*MW-10-040314*	*MW-11-040314*	*MW-12-040314*	*MW-13-040314*	*MW-14-040314*	*DUP-1-040314*	*MW-15-040314*	*DUP-2-040314*
Sample Date:		*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*
Sample Type:							*Duplicate*		*Duplicate*
	Units								
Metals									
Calcium (dissolved)	mg/L	774	820	650	370	1470	1520	289	293
Magnesium (dissolved)	mg/L	237	252	194	125	393	394	104	99.8
Potassium (dissolved)	mg/L	18.9	16.2	13.0	13.1	27.0	28.7	11.0	11.8
Sodium (dissolved)	mg/L	930	576	177	154	3030	2940	127	123
General Chemistry									
Alkalinity, bicarbonate	mg/L	175	151	110	130	133	133	128	127
Alkalinity, carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, total (as CaCO3)	mg/L	175	151	110	130	133	133	128	127
Chloride	mg/L	3320	2940	2130	1160	8710	9430	1790	1030
Fluoride	mg/L	0.806	0.788	1.18	1.92	1.25	0.732	1.43	0.932
Nitrate (as N)	mg/L	4.42	3.74	4.21	3.98	4.52	3.63	2.76	2.01
Sulfate	mg/L	270	161	59.6	156	721	668	84.6	79.4
Total dissolved solids (TDS)	mg/L	9500	9080	1300	4360	8460	19900	3620	3560

Notes:

N - Nitrogen
CaCO3 - Calcium Carbonate

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
APRIL 2014

Sample Location:		*MW-16*	*MW-17*	*MW-19*	*MW-20*	*MW-21*	*MW-22*	*MW-23*	*MW-24*
Sample Identification:		*MW-16-040314*	*MW-17-040314*	*MW-19-040314*	*MW-20-040314*	*MW-21-040314*	*MW-22-040314*	*MW-23-040314*	*MW-24-040314*
Sample Date:		*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*
Sample Type:									
	Units								
Metals									
Calcium (dissolved)	mg/L	181	112	1050	407	117	316	138	3410
Magnesium (dissolved)	mg/L	52.1	36.8	362	137	37.4	96.4	48.6	1020
Potassium (dissolved)	mg/L	6.72	5.78	26.3	13.0	8.98	10.6	7.85	108
Sodium (dissolved)	mg/L	321	197	680	243	108	841	103	1150
General Chemistry									
Alkalinity, bicarbonate	mg/L	266	253	122	134	222	238	146	125
Alkalinity, carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, total (as CaCO3)	mg/L	266	253	122	134	222	238	146	125
Chloride	mg/L	755	434	3740	1500	236	2420	489	1930
Fluoride	mg/L	1.51	2.54	1.07	1.22	2.72	0.758	1.51	1.34
Nitrate (as N)	mg/L	6.09	4.07	4.22	4.16	5.98	2.40	0.669	3.71
Sulfate	mg/L	162	133	439	134	230	320	96.4	286
Total dissolved solids (TDS)	mg/L	2180	7360	13100	5140	1010	4660	1500	7300

Notes:

N - Nitrogen
CaCO3 - Calcium Carbonate

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
APRIL 2014

Sample Location:		*MW-25*	*MW-26*	*RW-1*	*RW-1*	*Southwest*	*West MW*	*WW-1*
Sample Identification:		*MW-25-040314*	*MW-26-040314*	*DUP-3-040314*	*RW-1-040314*	*SW-MW-040314*	*W-MW-040314*	*WW-1-040314*
Sample Date:		*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*	*4/3/2014*
Sample Type:					*Duplicate*			
	Units							
Metals								
Calcium (dissolved)	mg/L	962	173	114	111	139	48.9	92.7
Magnesium (dissolved)	mg/L	258	51.0	30.1	30.5	39.8	15.3	31.0
Potassium (dissolved)	mg/L	19.3	8.78	29.9	28.4	32.4	14.2	6.16
Sodium (dissolved)	mg/L	1330	838	652	667	845	201	116
General Chemistry								
Alkalinity, bicarbonate	mg/L	192	270	427	382	417	281	207
Alkalinity, carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, total (as CaCO3)	mg/L	192	270	427	382	417	281	207
Chloride	mg/L	4580	1380	1280	1120	1430	235	228
Fluoride	mg/L	0.772	1.02	1.23	1.25	1.28	1.41	1.43
Nitrate (as N)	mg/L	4.47	2.31	0.582	4.12	3.40	3.07	2.69
Sulfate	mg/L	299	273	375	345	405	159	145
Total dissolved solids (TDS)	mg/L	12200	3300	1840	2300	2760	680	792

Notes:

N - Nitrogen
CaCO3 - Calcium Carbonate

TABLE 3

ANALYTICAL METHODS AND HOLDING TIME CRITERIA
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
APRIL 2014

Parameter	*Method*	*Matrix*	***Holding Time*** *Collection to Analysis (Days)*
Alkalinity	SM 2320B	Water	14
Dissolved Metals	SW-846 6020	Water	180
Chloride	EPA 300	Water	28
Flouride	EPA 300	Water	28
Nitrate (as N)	EPA 300	Water	2
Sulfate	EPA 300	Water	28
TDS	SM 2540C	Water	7

Notes:

SM	-"Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions
SW-846	-"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
EPA	-"Methods for Chemical Analysis of Water and Wastes", USEPA-600/4-79-020, March 1983, with subsequent revisions
N	-Nitrogen
TDS	-Total Dissolved Solids

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April 30, 2014

Nancy Forster
Conestoga Rovers & Associates
13091 Pond Springs Road, Suite A100
Austin, Texas 78729

Work Order: **HS14040178**

Laboratory Results for: **039124 G.L. Erwin**

Dear Nancy,

ALS Environmental received 32 sample(s) on Apr 04, 2014 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: Dane.Wacasey
Dane J. Wacasey

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Work Order: HS14040178

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14040178-01	WW-1-040314	Groundwater		03-Apr-2014 09:30	04-Apr-2014 10:35	☐
HS14040178-02	MW-10-040314	Groundwater		03-Apr-2014 09:45	04-Apr-2014 10:35	☐
HS14040178-03	MW-11-040314	Groundwater		03-Apr-2014 10:00	04-Apr-2014 10:35	☐
HS14040178-04	MW-25-040314	Groundwater		03-Apr-2014 10:15	04-Apr-2014 10:35	☐
HS14040178-05	MW-8-040314	Groundwater		03-Apr-2014 10:30	04-Apr-2014 10:35	☐
HS14040178-06	MW-16-040314	Groundwater		03-Apr-2014 10:45	04-Apr-2014 10:35	☐
HS14040178-07	MW-17-040314	Groundwater		03-Apr-2014 11:00	04-Apr-2014 10:35	☐
HS14040178-08	MW-14-040314	Groundwater		03-Apr-2014 11:15	04-Apr-2014 10:35	☐
HS14040178-09	MW-12-040314	Groundwater		03-Apr-2014 11:30	04-Apr-2014 10:35	☐
HS14040178-10	MW-15-040314	Groundwater		03-Apr-2014 11:45	04-Apr-2014 10:35	☐
HS14040178-11	MW-20-040314	Groundwater		03-Apr-2014 12:00	04-Apr-2014 10:35	☐
HS14040178-12	MW-23-040314	Groundwater		03-Apr-2014 12:15	04-Apr-2014 10:35	☐
HS14040178-13	MW-24-040314	Groundwater		03-Apr-2014 12:30	04-Apr-2014 10:35	☐
HS14040178-14	MW-21-040314	Groundwater		03-Apr-2014 12:45	04-Apr-2014 10:35	☐
HS14040178-15	MW-19-040314	Groundwater		03-Apr-2014 13:00	04-Apr-2014 10:35	☐
HS14040178-16	MW-13-040314	Groundwater		03-Apr-2014 13:15	04-Apr-2014 10:35	☐
HS14040178-17	MW-7-040314	Groundwater		03-Apr-2014 13:30	04-Apr-2014 10:35	☐
HS14040178-18	MW-6-040314	Groundwater		03-Apr-2014 13:45	04-Apr-2014 10:35	☐
HS14040178-19	MW-3-040314	Groundwater		03-Apr-2014 14:00	04-Apr-2014 10:35	☐
HS14040178-20	MW-5-040314	Groundwater		03-Apr-2014 14:15	04-Apr-2014 10:35	☐
HS14040178-21	MW-2-040314	Groundwater		03-Apr-2014 15:30	04-Apr-2014 10:35	☐
HS14040178-22	MW-1-040314	Groundwater		03-Apr-2014 15:45	04-Apr-2014 10:35	☐
HS14040178-23	MW-9-040314	Groundwater		03-Apr-2014 16:00	04-Apr-2014 10:35	☐
HS14040178-24	W-MW-040314	Groundwater		03-Apr-2014 14:45	04-Apr-2014 10:35	☐
HS14040178-25	SW-MW-040314	Groundwater		03-Apr-2014 15:00	04-Apr-2014 10:35	☐
HS14040178-26	MW-4-040314	Groundwater		03-Apr-2014 15:15	04-Apr-2014 10:35	☐
HS14040178-27	MW-22-040314	Groundwater		03-Apr-2014 16:15	04-Apr-2014 10:35	☐

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Work Order: HS14040178

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS14040178-28	MW-26-040314	Groundwater		03-Apr-2014 16:30	04-Apr-2014 10:35	☐
HS14040178-29	RW-1-040314	Water		03-Apr-2014 14:30	04-Apr-2014 10:35	☐
HS14040178-30	DUP-1-040314	Groundwater		03-Apr-2014 00:00	04-Apr-2014 10:35	☐
HS14040178-31	DUP-2-040314	Groundwater		03-Apr-2014 00:00	04-Apr-2014 10:35	☐
HS14040178-32	DUP-3-040314	Groundwater		03-Apr-2014 00:00	04-Apr-2014 10:35	☐

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Work Order: HS14040178

CASE NARRATIVE

Batch 80720, Dissolved Metals by SW6020, Sample HS14040176-01: MS/MSD was performed on an unrelated sample.

Batch 80772, Dissolved Metals by SW6020, Sample MW-24-040314: MS/MSD failed recovery criteria for select analytes due to matrix effect.

Batch 80720, Dissolved Metals by SW6020, Sample HS14040179-01: MS/MSD was performed on an unrelated sample.

Batch R231649, Total Dissolved Solids by SM2540C, Sample HS14040122-01: DUP was performed on an unrelated sample.

Batch R231805, Anions by E300, Sample HS14040181-03: MS/MSD was performed on an unrelated sample.

Batch R232100, Anions by E300, Sample HS14040181-03: MS/MSD was performed on an unrelated sample.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: WW-1-040314
Collection Date: 03-Apr-2014 09:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**207**		**10.0**	**mg/L**	1	07-Apr-2014 13:01
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:01
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:01
Alkalinity, Total (As CaCO3)	**207**		**10.0**	**mg/L**	1	07-Apr-2014 13:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: WW-1-040314
Collection Date: 03-Apr-2014 09:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-01
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**92.7**		**0.500**	**mg/L**	1	16-Apr-2014 07:56
Magnesium	**31.0**		**0.200**	**mg/L**	1	16-Apr-2014 07:56
Potassium	**6.16**		**0.200**	**mg/L**	1	16-Apr-2014 07:56
Sodium	**116**		**0.200**	**mg/L**	1	16-Apr-2014 07:56
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**792**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**228**		**2.50**	**mg/L**	5	04-Apr-2014 20:01
Fluoride	**1.43**		**0.500**	**mg/L**	5	04-Apr-2014 20:01
Nitrogen, Nitrate (As N)	**2.69**		**0.500**	**mg/L**	5	04-Apr-2014 20:01
Sulfate	**145**		**2.50**	**mg/L**	5	04-Apr-2014 20:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-10-040314
Collection Date: 03-Apr-2014 09:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**175**		**10.0**	**mg/L**	1	07-Apr-2014 13:12
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:12
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:12
Alkalinity, Total (As CaCO3)	**175**		**10.0**	**mg/L**	1	07-Apr-2014 13:12

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-10-040314
Collection Date: 03-Apr-2014 09:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-02
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**774**		**25.0**	**mg/L**	50	16-Apr-2014 21:42
Magnesium	**237**		**10.0**	**mg/L**	50	16-Apr-2014 21:42
Potassium	**18.9**		**0.200**	**mg/L**	1	16-Apr-2014 08:01
Sodium	**930**		**10.0**	**mg/L**	50	16-Apr-2014 21:42
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**9,500**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**3,320**		**25.0**	**mg/L**	50	17-Apr-2014 23:22
Fluoride	**0.806**		**0.500**	**mg/L**	5	04-Apr-2014 20:26
Nitrogen, Nitrate (As N)	**4.42**		**0.500**	**mg/L**	5	04-Apr-2014 20:26
Sulfate	**270**		**2.50**	**mg/L**	5	04-Apr-2014 20:26

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-11-040314
Collection Date: 03-Apr-2014 10:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**151**		**10.0**	**mg/L**	1	07-Apr-2014 13:27
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:27
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:27
Alkalinity, Total (As CaCO3)	**151**		**10.0**	**mg/L**	1	07-Apr-2014 13:27

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-11-040314
Collection Date: 03-Apr-2014 10:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-03
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**820**		**25.0**	**mg/L**	50	16-Apr-2014 21:47
Magnesium	**252**		**10.0**	**mg/L**	50	16-Apr-2014 21:47
Potassium	**16.2**		**0.200**	**mg/L**	1	16-Apr-2014 08:06
Sodium	**576**		**10.0**	**mg/L**	50	16-Apr-2014 21:47
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**9,080**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**2,940**		**25.0**	**mg/L**	50	17-Apr-2014 23:46
Fluoride	**0.788**		**0.500**	**mg/L**	5	04-Apr-2014 20:52
Nitrogen, Nitrate (As N)	**3.74**		**0.500**	**mg/L**	5	04-Apr-2014 20:52
Sulfate	**161**		**2.50**	**mg/L**	5	04-Apr-2014 20:52

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-25-040314
Collection Date: 03-Apr-2014 10:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**192**		**10.0**	**mg/L**	1	07-Apr-2014 13:32
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:32
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:32
Alkalinity, Total (As CaCO3)	**192**		**10.0**	**mg/L**	1	07-Apr-2014 13:32

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-25-040314
Collection Date: 03-Apr-2014 10:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-04
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**962**		**25.0**	**mg/L**	50	17-Apr-2014 14:30
Magnesium	**258**		**1.00**	**mg/L**	5	16-Apr-2014 21:07
Potassium	**19.3**		**1.00**	**mg/L**	5	16-Apr-2014 21:07
Sodium	**1,330**		**10.0**	**mg/L**	50	17-Apr-2014 14:30
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**12,200**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**4,580**		**50.0**	**mg/L**	100	18-Apr-2014 00:10
Fluoride	**0.772**		**0.500**	**mg/L**	5	04-Apr-2014 21:18
Nitrogen, Nitrate (As N)	**4.47**		**0.500**	**mg/L**	5	04-Apr-2014 21:18
Sulfate	**299**		**2.50**	**mg/L**	5	04-Apr-2014 21:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-8-040314
Collection Date: 03-Apr-2014 10:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**336**		**10.0**	**mg/L**	1	07-Apr-2014 13:38
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:38
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:38
Alkalinity, Total (As CaCO3)	**336**		**10.0**	**mg/L**	1	07-Apr-2014 13:38

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-8-040314
Collection Date: 03-Apr-2014 10:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-05
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**54.4**		**2.50**	**mg/L**	5	16-Apr-2014 21:12
Magnesium	**16.3**		**1.00**	**mg/L**	5	16-Apr-2014 21:12
Potassium	**5.20**		**1.00**	**mg/L**	5	16-Apr-2014 21:12
Sodium	**450**		**1.00**	**mg/L**	5	16-Apr-2014 21:12
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,560**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**674**		**5.00**	**mg/L**	10	18-Apr-2014 00:34
Fluoride	**4.01**		**0.500**	**mg/L**	5	04-Apr-2014 21:44
Nitrogen, Nitrate (As N)	**8.17**		**0.500**	**mg/L**	5	04-Apr-2014 21:44
Sulfate	**206**		**2.50**	**mg/L**	5	04-Apr-2014 21:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-16-040314
Collection Date: 03-Apr-2014 10:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**266**		**10.0**	**mg/L**	1	07-Apr-2014 13:44
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:44
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:44
Alkalinity, Total (As CaCO3)	**266**		**10.0**	**mg/L**	1	07-Apr-2014 13:44

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-16-040314
Collection Date: 03-Apr-2014 10:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-06
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**181**		**2.50**	**mg/L**	5	16-Apr-2014 21:17
Magnesium	**52.1**		**1.00**	**mg/L**	5	16-Apr-2014 21:17
Potassium	**6.72**		**1.00**	**mg/L**	5	16-Apr-2014 21:17
Sodium	**321**		**1.00**	**mg/L**	5	16-Apr-2014 21:17
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,180**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**755**		**5.00**	**mg/L**	10	18-Apr-2014 00:58
Fluoride	**1.51**		**0.500**	**mg/L**	5	04-Apr-2014 22:10
Nitrogen, Nitrate (As N)	**6.09**		**0.500**	**mg/L**	5	04-Apr-2014 22:10
Sulfate	**162**		**2.50**	**mg/L**	5	04-Apr-2014 22:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-17-040314
Collection Date: 03-Apr-2014 11:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**253**		**10.0**	**mg/L**	1	07-Apr-2014 13:50
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:50
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:50
Alkalinity, Total (As CaCO3)	**253**		**10.0**	**mg/L**	1	07-Apr-2014 13:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-17-040314
Collection Date: 03-Apr-2014 11:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-07
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**112**		**2.50**	**mg/L**	5	16-Apr-2014 21:22
Magnesium	**36.8**		**1.00**	**mg/L**	5	16-Apr-2014 21:22
Potassium	**5.78**		**1.00**	**mg/L**	5	16-Apr-2014 21:22
Sodium	**197**		**1.00**	**mg/L**	5	16-Apr-2014 21:22
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**7,360**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**434**		**2.50**	**mg/L**	5	04-Apr-2014 22:36
Fluoride	**2.54**		**0.500**	**mg/L**	5	04-Apr-2014 22:36
Nitrogen, Nitrate (As N)	**4.07**		**0.500**	**mg/L**	5	04-Apr-2014 22:36
Sulfate	**133**		**2.50**	**mg/L**	5	04-Apr-2014 22:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-14-040314
Collection Date: 03-Apr-2014 11:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**133**		**10.0**	**mg/L**	1	07-Apr-2014 13:56
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:56
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 13:56
Alkalinity, Total (As CaCO3)	**133**		**10.0**	**mg/L**	1	07-Apr-2014 13:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-14-040314
Collection Date: 03-Apr-2014 11:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-08
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**1,470**		**25.0**	**mg/L**	50	17-Apr-2014 14:35
Magnesium	**393**		**1.00**	**mg/L**	5	16-Apr-2014 21:27
Potassium	**27.0**		**1.00**	**mg/L**	5	16-Apr-2014 21:27
Sodium	**3,030**		**10.0**	**mg/L**	50	17-Apr-2014 14:35
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**8,460**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**8,710**		**50.0**	**mg/L**	100	18-Apr-2014 01:22
Fluoride	**1.25**		**0.500**	**mg/L**	5	04-Apr-2014 23:01
Nitrogen, Nitrate (As N)	**4.52**		**0.500**	**mg/L**	5	04-Apr-2014 23:01
Sulfate	**721**		**50.0**	**mg/L**	100	18-Apr-2014 01:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-12-040314
Collection Date: 03-Apr-2014 11:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-09
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**110**		**10.0**	**mg/L**	1	07-Apr-2014 14:01
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:01
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:01
Alkalinity, Total (As CaCO3)	**110**		**10.0**	**mg/L**	1	07-Apr-2014 14:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-12-040314
Collection Date: 03-Apr-2014 11:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-09
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 15-Apr-2014		Analyst: ALR
Calcium	**650**		**2.50**	**mg/L**	5	16-Apr-2014 21:32
Magnesium	**194**		**1.00**	**mg/L**	5	16-Apr-2014 21:32
Potassium	**13.0**		**1.00**	**mg/L**	5	16-Apr-2014 21:32
Sodium	**177**		**1.00**	**mg/L**	5	16-Apr-2014 21:32
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,300**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**2,130**		**25.0**	**mg/L**	50	18-Apr-2014 02:35
Fluoride	**1.18**		**0.500**	**mg/L**	5	05-Apr-2014 00:19
Nitrogen, Nitrate (As N)	**4.21**		**0.500**	**mg/L**	5	05-Apr-2014 00:19
Sulfate	**59.6**		**2.50**	**mg/L**	5	05-Apr-2014 00:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-15-040314
Collection Date: 03-Apr-2014 11:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-10
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**128**		**10.0**	**mg/L**	1	07-Apr-2014 14:07
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:07
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:07
Alkalinity, Total (As CaCO3)	**128**		**10.0**	**mg/L**	1	07-Apr-2014 14:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-15-040314
Collection Date: 03-Apr-2014 11:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-10
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**289**		**2.50**	**mg/L**	5	17-Apr-2014 14:00
Magnesium	**104**		**1.00**	**mg/L**	5	17-Apr-2014 14:00
Potassium	**11.0**		**1.00**	**mg/L**	5	17-Apr-2014 14:00
Sodium	**127**		**1.00**	**mg/L**	5	17-Apr-2014 14:00
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**3,620**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,790**		**25.0**	**mg/L**	50	18-Apr-2014 02:59
Fluoride	**1.43**		**0.500**	**mg/L**	5	05-Apr-2014 00:45
Nitrogen, Nitrate (As N)	**2.76**		**0.500**	**mg/L**	5	05-Apr-2014 00:45
Sulfate	**84.6**		**2.50**	**mg/L**	5	05-Apr-2014 00:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-20-040314
Collection Date: 03-Apr-2014 12:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-11
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**134**		**10.0**	**mg/L**	1	07-Apr-2014 14:22
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:22
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:22
Alkalinity, Total (As CaCO3)	**134**		**10.0**	**mg/L**	1	07-Apr-2014 14:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-20-040314
Collection Date: 03-Apr-2014 12:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-11
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**407**		**2.50**	**mg/L**	5	17-Apr-2014 14:03
Magnesium	**137**		**1.00**	**mg/L**	5	17-Apr-2014 14:03
Potassium	**13.0**		**1.00**	**mg/L**	5	17-Apr-2014 14:03
Sodium	**243**		**1.00**	**mg/L**	5	17-Apr-2014 14:03
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**5,140**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,500**		**25.0**	**mg/L**	50	18-Apr-2014 03:23
Fluoride	**1.22**		**0.500**	**mg/L**	5	05-Apr-2014 01:10
Nitrogen, Nitrate (As N)	**4.16**		**0.500**	**mg/L**	5	05-Apr-2014 01:10
Sulfate	**134**		**2.50**	**mg/L**	5	05-Apr-2014 01:10

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-23-040314
Collection Date: 03-Apr-2014 12:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-12
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**146**		**10.0**	**mg/L**	1	07-Apr-2014 14:28
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:28
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:28
Alkalinity, Total (As CaCO3)	**146**		**10.0**	**mg/L**	1	07-Apr-2014 14:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-23-040314
Collection Date: 03-Apr-2014 12:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-12
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**138**		**2.50**	**mg/L**	5	17-Apr-2014 14:05
Magnesium	**48.6**		**1.00**	**mg/L**	5	17-Apr-2014 14:05
Potassium	**7.85**		**1.00**	**mg/L**	5	17-Apr-2014 14:05
Sodium	**103**		**1.00**	**mg/L**	5	17-Apr-2014 14:05
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,500**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**489**		**2.50**	**mg/L**	5	05-Apr-2014 01:36
Fluoride	**1.51**		**0.500**	**mg/L**	5	05-Apr-2014 01:36
Nitrogen, Nitrate (As N)	**0.669**		**0.500**	**mg/L**	5	05-Apr-2014 01:36
Sulfate	**96.4**		**2.50**	**mg/L**	5	05-Apr-2014 01:36

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-24-040314
Collection Date: 03-Apr-2014 12:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-13
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**125**		**10.0**	**mg/L**	1	07-Apr-2014 14:34
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:34
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:34
Alkalinity, Total (As CaCO3)	**125**		**10.0**	**mg/L**	1	07-Apr-2014 14:34

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-24-040314
Collection Date: 03-Apr-2014 12:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-13
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**3,410**		**125**	**mg/L**	250	18-Apr-2014 13:12
Magnesium	**1,020**		**50.0**	**mg/L**	250	18-Apr-2014 13:12
Potassium	**108**		**1.00**	**mg/L**	5	17-Apr-2014 14:07
Sodium	**1,150**		**50.0**	**mg/L**	250	18-Apr-2014 13:12
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**7,300**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,930**		**25.0**	**mg/L**	50	18-Apr-2014 03:47
Fluoride	**1.34**		**0.500**	**mg/L**	5	05-Apr-2014 02:02
Nitrogen, Nitrate (As N)	**3.71**		**0.500**	**mg/L**	5	05-Apr-2014 02:02
Sulfate	**286**		**2.50**	**mg/L**	5	05-Apr-2014 02:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-21-040314
Collection Date: 03-Apr-2014 12:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-14
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**222**		**10.0**	**mg/L**	1	07-Apr-2014 14:39
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:39
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:39
Alkalinity, Total (As CaCO3)	**222**		**10.0**	**mg/L**	1	07-Apr-2014 14:39

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-21-040314
Collection Date: 03-Apr-2014 12:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-14
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**117**		**2.50**	**mg/L**	5	17-Apr-2014 14:29
Magnesium	**37.4**		**1.00**	**mg/L**	5	17-Apr-2014 14:29
Potassium	**8.98**		**1.00**	**mg/L**	5	17-Apr-2014 14:29
Sodium	**108**		**1.00**	**mg/L**	5	17-Apr-2014 14:29
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,010**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**236**		**2.50**	**mg/L**	5	05-Apr-2014 02:28
Fluoride	**2.72**		**0.500**	**mg/L**	5	05-Apr-2014 02:28
Nitrogen, Nitrate (As N)	**5.98**		**0.500**	**mg/L**	5	05-Apr-2014 02:28
Sulfate	**230**		**2.50**	**mg/L**	5	05-Apr-2014 02:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-19-040314
Collection Date: 03-Apr-2014 13:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-15
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**122**		**10.0**	**mg/L**	1	07-Apr-2014 14:45
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:45
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:45
Alkalinity, Total (As CaCO3)	**122**		**10.0**	**mg/L**	1	07-Apr-2014 14:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-19-040314
Collection Date: 03-Apr-2014 13:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-15
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**1,050**		**25.0**	**mg/L**	50	18-Apr-2014 13:27
Magnesium	**362**		**1.00**	**mg/L**	5	17-Apr-2014 14:31
Potassium	**26.3**		**1.00**	**mg/L**	5	17-Apr-2014 14:31
Sodium	**680**		**1.00**	**mg/L**	5	17-Apr-2014 14:31
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**13,100**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**3,740**		**25.0**	**mg/L**	50	18-Apr-2014 04:11
Fluoride	**1.07**		**0.500**	**mg/L**	5	05-Apr-2014 02:54
Nitrogen, Nitrate (As N)	**4.22**		**0.500**	**mg/L**	5	05-Apr-2014 02:54
Sulfate	**439**		**2.50**	**mg/L**	5	05-Apr-2014 02:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-13-040314
Collection Date: 03-Apr-2014 13:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-16
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**130**		**10.0**	**mg/L**	1	07-Apr-2014 14:51
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:51
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:51
Alkalinity, Total (As CaCO3)	**130**		**10.0**	**mg/L**	1	07-Apr-2014 14:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-13-040314
Collection Date: 03-Apr-2014 13:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-16
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**370**		**2.50**	**mg/L**	5	17-Apr-2014 14:34
Magnesium	**125**		**1.00**	**mg/L**	5	17-Apr-2014 14:34
Potassium	**13.1**		**1.00**	**mg/L**	5	17-Apr-2014 14:34
Sodium	**154**		**1.00**	**mg/L**	5	17-Apr-2014 14:34
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**4,360**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,160**		**25.0**	**mg/L**	50	18-Apr-2014 04:36
Fluoride	**1.92**		**0.500**	**mg/L**	5	05-Apr-2014 03:20
Nitrogen, Nitrate (As N)	**3.98**		**0.500**	**mg/L**	5	05-Apr-2014 03:20
Sulfate	**156**		**2.50**	**mg/L**	5	05-Apr-2014 03:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-7-040314
Collection Date: 03-Apr-2014 13:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-17
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**307**		**10.0**	**mg/L**	1	07-Apr-2014 14:56
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:56
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 14:56
Alkalinity, Total (As CaCO3)	**307**		**10.0**	**mg/L**	1	07-Apr-2014 14:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-7-040314
Collection Date: 03-Apr-2014 13:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-17
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**30.7**		**2.50**	**mg/L**	5	17-Apr-2014 14:37
Magnesium	**8.89**		**1.00**	**mg/L**	5	17-Apr-2014 14:37
Potassium	**3.80**		**1.00**	**mg/L**	5	17-Apr-2014 14:37
Sodium	**305**		**1.00**	**mg/L**	5	17-Apr-2014 14:37
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,020**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**303**		**2.50**	**mg/L**	5	05-Apr-2014 03:45
Fluoride	**3.08**		**0.500**	**mg/L**	5	05-Apr-2014 03:45
Nitrogen, Nitrate (As N)	**5.48**		**0.500**	**mg/L**	5	05-Apr-2014 03:45
Sulfate	**149**		**2.50**	**mg/L**	5	05-Apr-2014 03:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-6-040314
Collection Date: 03-Apr-2014 13:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-18
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**329**		**10.0**	**mg/L**	1	07-Apr-2014 15:11
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 15:11
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 15:11
Alkalinity, Total (As CaCO3)	**329**		**10.0**	**mg/L**	1	07-Apr-2014 15:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-6-040314
Collection Date: 03-Apr-2014 13:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-18
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**41.1**		**2.50**	**mg/L**	5	17-Apr-2014 14:39
Magnesium	**12.2**		**1.00**	**mg/L**	5	17-Apr-2014 14:39
Potassium	**9.04**		**1.00**	**mg/L**	5	17-Apr-2014 14:39
Sodium	**517**		**1.00**	**mg/L**	5	17-Apr-2014 14:39
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,880**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**607**		**5.00**	**mg/L**	10	18-Apr-2014 05:00
Fluoride	**2.35**		**0.500**	**mg/L**	5	05-Apr-2014 04:11
Nitrogen, Nitrate (As N)	**9.32**		**0.500**	**mg/L**	5	05-Apr-2014 04:11
Sulfate	**265**		**2.50**	**mg/L**	5	05-Apr-2014 04:11

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-3-040314
Collection Date: 03-Apr-2014 14:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-19
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**356**		**10.0**	**mg/L**	1	07-Apr-2014 15:17
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 15:17
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 15:17
Alkalinity, Total (As CaCO3)	**356**		**10.0**	**mg/L**	1	07-Apr-2014 15:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-3-040314
Collection Date: 03-Apr-2014 14:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-19
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**44.6**		**2.50**	**mg/L**	5	17-Apr-2014 14:42
Magnesium	**12.7**		**1.00**	**mg/L**	5	17-Apr-2014 14:42
Potassium	**15.3**		**1.00**	**mg/L**	5	17-Apr-2014 14:42
Sodium	**665**		**1.00**	**mg/L**	5	17-Apr-2014 14:42
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,280**		**10.0**	**mg/L**	1	10-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**839**		**5.00**	**mg/L**	10	18-Apr-2014 05:24
Fluoride	**1.52**		**0.500**	**mg/L**	5	05-Apr-2014 05:29
Nitrogen, Nitrate (As N)	**9.26**		**0.500**	**mg/L**	5	05-Apr-2014 05:29
Sulfate	**346**		**2.50**	**mg/L**	5	05-Apr-2014 05:29

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-5-040314
Collection Date: 03-Apr-2014 14:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-20
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**263**		**10.0**	**mg/L**	1	07-Apr-2014 15:23
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 15:23
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 15:23
Alkalinity, Total (As CaCO3)	**263**		**10.0**	**mg/L**	1	07-Apr-2014 15:23

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-5-040314
Collection Date: 03-Apr-2014 14:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-20
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**172**		**2.50**	**mg/L**	5	17-Apr-2014 14:49
Magnesium	**56.6**		**1.00**	**mg/L**	5	17-Apr-2014 14:49
Potassium	**11.7**		**1.00**	**mg/L**	5	17-Apr-2014 14:49
Sodium	**296**		**1.00**	**mg/L**	5	17-Apr-2014 14:49
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,460**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**627**		**5.00**	**mg/L**	10	18-Apr-2014 07:24
Fluoride	**1.33**		**0.500**	**mg/L**	5	05-Apr-2014 05:54
Nitrogen, Nitrate (As N)	**5.91**		**0.500**	**mg/L**	5	05-Apr-2014 05:54
Sulfate	**165**		**2.50**	**mg/L**	5	05-Apr-2014 05:54

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-2-040314
Collection Date: 03-Apr-2014 15:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-21
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**277**		**10.0**	**mg/L**	1	07-Apr-2014 17:24
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:24
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:24
Alkalinity, Total (As CaCO3)	**277**		**10.0**	**mg/L**	1	07-Apr-2014 17:24

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-2-040314
Collection Date: 03-Apr-2014 15:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-21
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**57.2**		**2.50**	**mg/L**	5	17-Apr-2014 14:51
Magnesium	**18.6**		**1.00**	**mg/L**	5	17-Apr-2014 14:51
Potassium	**5.42**		**1.00**	**mg/L**	5	17-Apr-2014 14:51
Sodium	**297**		**1.00**	**mg/L**	5	17-Apr-2014 14:51
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**132**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**548**		**5.00**	**mg/L**	10	18-Apr-2014 07:49
Fluoride	**1.18**		**0.500**	**mg/L**	5	04-Apr-2014 20:08
Nitrogen, Nitrate (As N)	**4.77**		**0.500**	**mg/L**	5	04-Apr-2014 20:08
Sulfate	**148**		**2.50**	**mg/L**	5	04-Apr-2014 20:08

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-1-040314
Collection Date: 03-Apr-2014 15:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-22
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**182**		**10.0**	**mg/L**	1	07-Apr-2014 17:35
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:35
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:35
Alkalinity, Total (As CaCO3)	**182**		**10.0**	**mg/L**	1	07-Apr-2014 17:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-1-040314
Collection Date: 03-Apr-2014 15:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-22
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**139**		**2.50**	**mg/L**	5	17-Apr-2014 14:54
Magnesium	**48.2**		**1.00**	**mg/L**	5	17-Apr-2014 14:54
Potassium	**6.33**		**1.00**	**mg/L**	5	17-Apr-2014 14:54
Sodium	**103**		**1.00**	**mg/L**	5	17-Apr-2014 14:54
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,160**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**498**		**2.50**	**mg/L**	5	04-Apr-2014 20:22
Fluoride	**1.30**		**0.500**	**mg/L**	5	04-Apr-2014 20:22
Nitrogen, Nitrate (As N)	**1.73**		**0.500**	**mg/L**	5	04-Apr-2014 20:22
Sulfate	**66.5**		**2.50**	**mg/L**	5	04-Apr-2014 20:22

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-9-040314
Collection Date: 03-Apr-2014 16:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-23
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**265**		**10.0**	**mg/L**	1	07-Apr-2014 17:50
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:50
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:50
Alkalinity, Total (As CaCO3)	**265**		**10.0**	**mg/L**	1	07-Apr-2014 17:50

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-9-040314
Collection Date: 03-Apr-2014 16:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-23
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**37.6**		**2.50**	**mg/L**	5	17-Apr-2014 14:56
Magnesium	**11.9**		**1.00**	**mg/L**	5	17-Apr-2014 14:56
Potassium	**4.47**		**1.00**	**mg/L**	5	17-Apr-2014 14:56
Sodium	**429**		**1.00**	**mg/L**	5	17-Apr-2014 14:56
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,560**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**628**		**5.00**	**mg/L**	10	18-Apr-2014 08:13
Fluoride	**1.97**		**0.500**	**mg/L**	5	04-Apr-2014 20:37
Nitrogen, Nitrate (As N)	**2.25**		**0.500**	**mg/L**	5	04-Apr-2014 20:37
Sulfate	**157**		**2.50**	**mg/L**	5	04-Apr-2014 20:37

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: W-MW-040314
Collection Date: 03-Apr-2014 14:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-24
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**281**		**10.0**	**mg/L**	1	07-Apr-2014 17:56
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:56
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 17:56
Alkalinity, Total (As CaCO3)	**281**		**10.0**	**mg/L**	1	07-Apr-2014 17:56

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: W-MW-040314
Collection Date: 03-Apr-2014 14:45

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-24
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**48.9**		**2.50**	**mg/L**	5	17-Apr-2014 14:59
Magnesium	**15.3**		**1.00**	**mg/L**	5	17-Apr-2014 14:59
Potassium	**14.2**		**1.00**	**mg/L**	5	17-Apr-2014 14:59
Sodium	**201**		**1.00**	**mg/L**	5	17-Apr-2014 14:59
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**680**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**235**		**2.50**	**mg/L**	5	04-Apr-2014 20:51
Fluoride	**1.41**		**0.500**	**mg/L**	5	04-Apr-2014 20:51
Nitrogen, Nitrate (As N)	**3.07**		**0.500**	**mg/L**	5	04-Apr-2014 20:51
Sulfate	**159**		**2.50**	**mg/L**	5	04-Apr-2014 20:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: SW-MW-040314
Collection Date: 03-Apr-2014 15:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-25
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**417**		**10.0**	**mg/L**	1	07-Apr-2014 18:01
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:01
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:01
Alkalinity, Total (As CaCO3)	**417**		**10.0**	**mg/L**	1	07-Apr-2014 18:01

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: SW-MW-040314
Collection Date: 03-Apr-2014 15:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-25
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**139**		**2.50**	**mg/L**	5	17-Apr-2014 15:01
Magnesium	**39.8**		**1.00**	**mg/L**	5	17-Apr-2014 15:01
Potassium	**32.4**		**1.00**	**mg/L**	5	17-Apr-2014 15:01
Sodium	**845**		**1.00**	**mg/L**	5	17-Apr-2014 15:01
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,760**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,430**		**25.0**	**mg/L**	50	18-Apr-2014 08:37
Fluoride	**1.27**		**0.500**	**mg/L**	5	04-Apr-2014 21:06
Nitrogen, Nitrate (As N)	**3.40**		**0.500**	**mg/L**	5	04-Apr-2014 21:06
Sulfate	**405**		**2.50**	**mg/L**	5	04-Apr-2014 21:06

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-4-040314
Collection Date: 03-Apr-2014 15:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-26
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**380**		**10.0**	**mg/L**	1	07-Apr-2014 18:07
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:07
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:07
Alkalinity, Total (As CaCO3)	**380**		**10.0**	**mg/L**	1	07-Apr-2014 18:07

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-4-040314
Collection Date: 03-Apr-2014 15:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-26
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**185**		**2.50**	**mg/L**	5	17-Apr-2014 15:04
Magnesium	**52.0**		**1.00**	**mg/L**	5	17-Apr-2014 15:04
Potassium	**23.3**		**1.00**	**mg/L**	5	17-Apr-2014 15:04
Sodium	**1,140**		**10.0**	**mg/L**	50	18-Apr-2014 13:30
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**3,360**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**2,010**		**25.0**	**mg/L**	50	17-Apr-2014 21:29
Fluoride	ND		0.500	mg/L	5	04-Apr-2014 21:20
Nitrogen, Nitrate (As N)	**3.83**		**0.500**	**mg/L**	5	04-Apr-2014 21:20
Sulfate	**353**		**2.50**	**mg/L**	5	04-Apr-2014 21:20

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-22-040314
Collection Date: 03-Apr-2014 16:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-27
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**238**		**10.0**	**mg/L**	1	07-Apr-2014 18:13
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:13
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:13
Alkalinity, Total (As CaCO3)	**238**		**10.0**	**mg/L**	1	07-Apr-2014 18:13

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-22-040314
Collection Date: 03-Apr-2014 16:15

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-27
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**316**		**2.50**	**mg/L**	5	17-Apr-2014 15:06
Magnesium	**96.4**		**1.00**	**mg/L**	5	17-Apr-2014 15:06
Potassium	**10.6**		**1.00**	**mg/L**	5	17-Apr-2014 15:06
Sodium	**841**		**1.00**	**mg/L**	5	17-Apr-2014 15:06
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**4,660**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**2,420**		**25.0**	**mg/L**	50	17-Apr-2014 21:44
Fluoride	**0.758**		**0.500**	**mg/L**	5	04-Apr-2014 21:35
Nitrogen, Nitrate (As N)	**2.40**		**0.500**	**mg/L**	5	04-Apr-2014 21:35
Sulfate	**320**		**2.50**	**mg/L**	5	04-Apr-2014 21:35

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-26-040314
Collection Date: 03-Apr-2014 16:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-28
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**270**		**10.0**	**mg/L**	1	07-Apr-2014 18:19
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:19
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:19
Alkalinity, Total (As CaCO3)	**270**		**10.0**	**mg/L**	1	07-Apr-2014 18:19

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-26-040314
Collection Date: 03-Apr-2014 16:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-28
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**173**		**2.50**	**mg/L**	5	17-Apr-2014 15:09
Magnesium	**51.0**		**1.00**	**mg/L**	5	17-Apr-2014 15:09
Potassium	**8.78**		**1.00**	**mg/L**	5	17-Apr-2014 15:09
Sodium	**838**		**1.00**	**mg/L**	5	17-Apr-2014 15:09
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**3,300**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,380**		**25.0**	**mg/L**	50	17-Apr-2014 21:58
Fluoride	**1.02**		**0.500**	**mg/L**	5	04-Apr-2014 21:49
Nitrogen, Nitrate (As N)	**2.31**		**0.500**	**mg/L**	5	04-Apr-2014 21:49
Sulfate	**273**		**2.50**	**mg/L**	5	04-Apr-2014 21:49

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: RW-1-040314
Collection Date: 03-Apr-2014 14:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-29
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**382**		**10.0**	**mg/L**	1	07-Apr-2014 18:25
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:25
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:25
Alkalinity, Total (As CaCO3)	**382**		**10.0**	**mg/L**	1	07-Apr-2014 18:25

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: RW-1-040314
Collection Date: 03-Apr-2014 14:30

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-29
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: SKS
Calcium	**111**		**2.50**	**mg/L**	5	17-Apr-2014 15:11
Magnesium	**30.5**		**1.00**	**mg/L**	5	17-Apr-2014 15:11
Potassium	**28.4**		**1.00**	**mg/L**	5	17-Apr-2014 15:11
Sodium	**667**		**1.00**	**mg/L**	5	17-Apr-2014 15:11
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**2,300**		**10.0**	**mg/L**	1	10-Apr-2014 13:45
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,120**		**25.0**	**mg/L**	50	17-Apr-2014 22:13
Fluoride	**1.25**		**0.500**	**mg/L**	5	04-Apr-2014 22:33
Nitrogen, Nitrate (As N)	**4.12**		**0.500**	**mg/L**	5	04-Apr-2014 22:33
Sulfate	**345**		**2.50**	**mg/L**	5	04-Apr-2014 22:33

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: DUP-1-040314
Collection Date: 03-Apr-2014 00:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-30
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**133**		**10.0**	**mg/L**	1	07-Apr-2014 18:31
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:31
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:31
Alkalinity, Total (As CaCO3)	**133**		**10.0**	**mg/L**	1	07-Apr-2014 18:31

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: DUP-1-040314
Collection Date: 03-Apr-2014 00:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-30
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: ALR
Calcium	**1,520**		**25.0**	**mg/L**	50	17-Apr-2014 15:33
Magnesium	**394**		**1.00**	**mg/L**	5	16-Apr-2014 22:51
Potassium	**28.7**		**1.00**	**mg/L**	5	16-Apr-2014 22:51
Sodium	**2,940**		**10.0**	**mg/L**	50	17-Apr-2014 15:33
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**19,900**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**9,430**		**50.0**	**mg/L**	100	17-Apr-2014 22:28
Fluoride	**0.732**		**0.500**	**mg/L**	5	04-Apr-2014 22:48
Nitrogen, Nitrate (As N)	**3.63**		**0.500**	**mg/L**	5	04-Apr-2014 22:48
Sulfate	**668**		**50.0**	**mg/L**	100	17-Apr-2014 22:28

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: DUP-2-040314
Collection Date: 03-Apr-2014 00:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-31
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**127**		**10.0**	**mg/L**	1	07-Apr-2014 18:45
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:45
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:45
Alkalinity, Total (As CaCO3)	**127**		**10.0**	**mg/L**	1	07-Apr-2014 18:45

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: DUP-2-040314
Collection Date: 03-Apr-2014 00:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-31
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: ALR
Calcium	**293**		**2.50**	**mg/L**	5	16-Apr-2014 22:56
Magnesium	**99.8**		**1.00**	**mg/L**	5	16-Apr-2014 22:56
Potassium	**11.8**		**1.00**	**mg/L**	5	16-Apr-2014 22:56
Sodium	**123**		**1.00**	**mg/L**	5	16-Apr-2014 22:56
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**3,560**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,030**		**25.0**	**mg/L**	50	17-Apr-2014 23:11
Fluoride	**0.932**		**0.500**	**mg/L**	5	04-Apr-2014 23:02
Nitrogen, Nitrate (As N)	**2.01**		**0.500**	**mg/L**	5	04-Apr-2014 23:02
Sulfate	**79.4**		**2.50**	**mg/L**	5	04-Apr-2014 23:02

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: DUP-3-040314
Collection Date: 03-Apr-2014 00:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:14040178-32
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
ALKALINITY-SM2320B		**Method:SM2320B**				Analyst: PPM
Alkalinity, Bicarbonate (As CaCO3)	**427**		**10.0**	**mg/L**	1	07-Apr-2014 18:51
Alkalinity, Carbonate (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:51
Alkalinity, Hydroxide (As CaCO3)	ND		10.0	mg/L	1	07-Apr-2014 18:51
Alkalinity, Total (As CaCO3)	**427**		**10.0**	**mg/L**	1	07-Apr-2014 18:51

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: DUP-3-040314
Collection Date: 03-Apr-2014 00:00

ANALYTICAL REPORT
WorkOrder:HS14040178
Lab ID:HS14040178-32
Matrix:Groundwater

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
DISSOLVED METALS		**Method:SW6020**		Prep:SW3010A / 16-Apr-2014		Analyst: ALR
Calcium	**114**		**2.50**	**mg/L**	5	16-Apr-2014 23:01
Magnesium	**30.1**		**1.00**	**mg/L**	5	16-Apr-2014 23:01
Potassium	**29.9**		**1.00**	**mg/L**	5	16-Apr-2014 23:01
Sodium	**652**		**1.00**	**mg/L**	5	16-Apr-2014 23:01
TOTAL DISSOLVED SOLIDS		**Method:M2540C**				Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	**1,840**		**10.0**	**mg/L**	1	09-Apr-2014 09:55
ANIONS - EPA 300.0 (1993)		**Method:E300**				Analyst: JKP
Chloride	**1,280**		**25.0**	**mg/L**	50	17-Apr-2014 23:26
Fluoride	**1.23**		**0.500**	**mg/L**	5	04-Apr-2014 23:17
Nitrogen, Nitrate (As N)	**0.582**		**0.500**	**mg/L**	5	04-Apr-2014 23:17
Sulfate	**375**		**2.50**	**mg/L**	5	04-Apr-2014 23:17

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: HS14040178

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 80720	**Test Name :** DISSOLVED METALS			**Matrix:** Groundwater		
HS14040178-01A	WW-1-040314	03 Apr 2014 09:30		15 Apr 2014 09:00	16 Apr 2014 07:56	1
HS14040178-02A	MW-10-040314	03 Apr 2014 09:45		15 Apr 2014 09:00	16 Apr 2014 21:42	50
HS14040178-02A	MW-10-040314	03 Apr 2014 09:45		15 Apr 2014 09:00	16 Apr 2014 08:01	1
HS14040178-03A	MW-11-040314	03 Apr 2014 10:00		15 Apr 2014 09:00	16 Apr 2014 21:47	50
HS14040178-03A	MW-11-040314	03 Apr 2014 10:00		15 Apr 2014 09:00	16 Apr 2014 08:06	1
HS14040178-04A	MW-25-040314	03 Apr 2014 10:15		15 Apr 2014 09:00	17 Apr 2014 14:30	50
HS14040178-04A	MW-25-040314	03 Apr 2014 10:15		15 Apr 2014 09:00	16 Apr 2014 21:07	5
HS14040178-05A	MW-8-040314	03 Apr 2014 10:30		15 Apr 2014 09:00	16 Apr 2014 21:12	5
HS14040178-06A	MW-16-040314	03 Apr 2014 10:45		15 Apr 2014 09:00	16 Apr 2014 21:17	5
HS14040178-07A	MW-17-040314	03 Apr 2014 11:00		15 Apr 2014 09:00	16 Apr 2014 21:22	5
HS14040178-08A	MW-14-040314	03 Apr 2014 11:15		15 Apr 2014 09:00	17 Apr 2014 14:35	50
HS14040178-08A	MW-14-040314	03 Apr 2014 11:15		15 Apr 2014 09:00	16 Apr 2014 21:27	5
HS14040178-09A	MW-12-040314	03 Apr 2014 11:30		15 Apr 2014 09:00	16 Apr 2014 21:32	5
Batch ID 80772	**Test Name :** DISSOLVED METALS			**Matrix:** Water		
HS14040178-29A	RW-1-040314	03 Apr 2014 14:30		16 Apr 2014 08:00	17 Apr 2014 15:11	5
Batch ID 80772	**Test Name :** DISSOLVED METALS			**Matrix:** Groundwater		
HS14040178-10A	MW-15-040314	03 Apr 2014 11:45		16 Apr 2014 08:00	17 Apr 2014 14:00	5
HS14040178-11A	MW-20-040314	03 Apr 2014 12:00		16 Apr 2014 08:00	17 Apr 2014 14:03	5
HS14040178-12A	MW-23-040314	03 Apr 2014 12:15		16 Apr 2014 08:00	17 Apr 2014 14:05	5
HS14040178-13A	MW-24-040314	03 Apr 2014 12:30		16 Apr 2014 08:00	18 Apr 2014 13:12	250
HS14040178-13A	MW-24-040314	03 Apr 2014 12:30		16 Apr 2014 08:00	17 Apr 2014 14:07	5
HS14040178-14A	MW-21-040314	03 Apr 2014 12:45		16 Apr 2014 08:00	17 Apr 2014 14:29	5
HS14040178-15A	MW-19-040314	03 Apr 2014 13:00		16 Apr 2014 08:00	18 Apr 2014 13:27	50
HS14040178-15A	MW-19-040314	03 Apr 2014 13:00		16 Apr 2014 08:00	17 Apr 2014 14:31	5
HS14040178-16A	MW-13-040314	03 Apr 2014 13:15		16 Apr 2014 08:00	17 Apr 2014 14:34	5
HS14040178-17A	MW-7-040314	03 Apr 2014 13:30		16 Apr 2014 08:00	17 Apr 2014 14:37	5
HS14040178-18A	MW-6-040314	03 Apr 2014 13:45		16 Apr 2014 08:00	17 Apr 2014 14:39	5
HS14040178-19A	MW-3-040314	03 Apr 2014 14:00		16 Apr 2014 08:00	17 Apr 2014 14:42	5
HS14040178-20A	MW-5-040314	03 Apr 2014 14:15		16 Apr 2014 08:00	17 Apr 2014 14:49	5
HS14040178-21A	MW-2-040314	03 Apr 2014 15:30		16 Apr 2014 08:00	17 Apr 2014 14:51	5
HS14040178-22A	MW-1-040314	03 Apr 2014 15:45		16 Apr 2014 08:00	17 Apr 2014 14:54	5
HS14040178-23A	MW-9-040314	03 Apr 2014 16:00		16 Apr 2014 08:00	17 Apr 2014 14:56	5
HS14040178-24A	W-MW-040314	03 Apr 2014 14:45		16 Apr 2014 08:00	17 Apr 2014 14:59	5
HS14040178-25A	SW-MW-040314	03 Apr 2014 15:00		16 Apr 2014 08:00	17 Apr 2014 15:01	5
HS14040178-26A	MW-4-040314	03 Apr 2014 15:15		16 Apr 2014 08:00	18 Apr 2014 13:30	50
HS14040178-26A	MW-4-040314	03 Apr 2014 15:15		16 Apr 2014 08:00	17 Apr 2014 15:04	5
HS14040178-27A	MW-22-040314	03 Apr 2014 16:15		16 Apr 2014 08:00	17 Apr 2014 15:06	5
HS14040178-28A	MW-26-040314	03 Apr 2014 16:30		16 Apr 2014 08:00	17 Apr 2014 15:09	5

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: HS14040178

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID 80780	**Test Name :** DISSOLVED METALS			**Matrix:** Groundwater		
HS14040178-30A	DUP-1-040314	03 Apr 2014 00:00		16 Apr 2014 09:00	17 Apr 2014 15:33	50
HS14040178-30A	DUP-1-040314	03 Apr 2014 00:00		16 Apr 2014 09:00	16 Apr 2014 22:51	5
HS14040178-31A	DUP-2-040314	03 Apr 2014 00:00		16 Apr 2014 09:00	16 Apr 2014 22:56	5
HS14040178-32A	DUP-3-040314	03 Apr 2014 00:00		16 Apr 2014 09:00	16 Apr 2014 23:01	5
Batch ID R231334	**Test Name :** ALKALINITY-SM2320B			**Matrix:** Groundwater		
HS14040178-01B	WW-1-040314	03 Apr 2014 09:30			07 Apr 2014 13:01	1
HS14040178-02B	MW-10-040314	03 Apr 2014 09:45			07 Apr 2014 13:12	1
HS14040178-03B	MW-11-040314	03 Apr 2014 10:00			07 Apr 2014 13:27	1
HS14040178-04B	MW-25-040314	03 Apr 2014 10:15			07 Apr 2014 13:32	1
HS14040178-05B	MW-8-040314	03 Apr 2014 10:30			07 Apr 2014 13:38	1
HS14040178-06B	MW-16-040314	03 Apr 2014 10:45			07 Apr 2014 13:44	1
HS14040178-07B	MW-17-040314	03 Apr 2014 11:00			07 Apr 2014 13:50	1
HS14040178-08B	MW-14-040314	03 Apr 2014 11:15			07 Apr 2014 13:56	1
HS14040178-09B	MW-12-040314	03 Apr 2014 11:30			07 Apr 2014 14:01	1
HS14040178-10B	MW-15-040314	03 Apr 2014 11:45			07 Apr 2014 14:07	1
HS14040178-11B	MW-20-040314	03 Apr 2014 12:00			07 Apr 2014 14:22	1
HS14040178-12B	MW-23-040314	03 Apr 2014 12:15			07 Apr 2014 14:28	1
HS14040178-13B	MW-24-040314	03 Apr 2014 12:30			07 Apr 2014 14:34	1
HS14040178-14B	MW-21-040314	03 Apr 2014 12:45			07 Apr 2014 14:39	1
HS14040178-15B	MW-19-040314	03 Apr 2014 13:00			07 Apr 2014 14:45	1
HS14040178-16B	MW-13-040314	03 Apr 2014 13:15			07 Apr 2014 14:51	1
HS14040178-17B	MW-7-040314	03 Apr 2014 13:30			07 Apr 2014 14:56	1
HS14040178-18B	MW-6-040314	03 Apr 2014 13:45			07 Apr 2014 15:11	1
HS14040178-19B	MW-3-040314	03 Apr 2014 14:00			07 Apr 2014 15:17	1
HS14040178-20B	MW-5-040314	03 Apr 2014 14:15			07 Apr 2014 15:23	1
Batch ID R231387	**Test Name :** ALKALINITY-SM2320B			**Matrix:** Water		
HS14040178-29B	RW-1-040314	03 Apr 2014 14:30			07 Apr 2014 18:25	1

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: HS14040178

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R231387	**Test Name :** ALKALINITY-SM2320B			**Matrix:** Groundwater		
HS14040178-21B	MW-2-040314	03 Apr 2014 15:30			07 Apr 2014 17:24	1
HS14040178-22B	MW-1-040314	03 Apr 2014 15:45			07 Apr 2014 17:35	1
HS14040178-23B	MW-9-040314	03 Apr 2014 16:00			07 Apr 2014 17:50	1
HS14040178-24B	W-MW-040314	03 Apr 2014 14:45			07 Apr 2014 17:56	1
HS14040178-25B	SW-MW-040314	03 Apr 2014 15:00			07 Apr 2014 18:01	1
HS14040178-26B	MW-4-040314	03 Apr 2014 15:15			07 Apr 2014 18:07	1
HS14040178-27B	MW-22-040314	03 Apr 2014 16:15			07 Apr 2014 18:13	1
HS14040178-28B	MW-26-040314	03 Apr 2014 16:30			07 Apr 2014 18:19	1
HS14040178-30B	DUP-1-040314	03 Apr 2014 00:00			07 Apr 2014 18:31	1
HS14040178-31B	DUP-2-040314	03 Apr 2014 00:00			07 Apr 2014 18:45	1
HS14040178-32B	DUP-3-040314	03 Apr 2014 00:00			07 Apr 2014 18:51	1
Batch ID R231649	**Test Name :** TOTAL DISSOLVED SOLIDS			**Matrix:** Groundwater		
HS14040178-01B	WW-1-040314	03 Apr 2014 09:30			09 Apr 2014 09:55	1
HS14040178-02B	MW-10-040314	03 Apr 2014 09:45			09 Apr 2014 09:55	1
HS14040178-03B	MW-11-040314	03 Apr 2014 10:00			09 Apr 2014 09:55	1
HS14040178-04B	MW-25-040314	03 Apr 2014 10:15			09 Apr 2014 09:55	1
HS14040178-05B	MW-8-040314	03 Apr 2014 10:30			09 Apr 2014 09:55	1
HS14040178-30B	DUP-1-040314	03 Apr 2014 00:00			09 Apr 2014 09:55	1
HS14040178-31B	DUP-2-040314	03 Apr 2014 00:00			09 Apr 2014 09:55	1
HS14040178-32B	DUP-3-040314	03 Apr 2014 00:00			09 Apr 2014 09:55	1
Batch ID R231708	**Test Name :** TOTAL DISSOLVED SOLIDS			**Matrix:** Groundwater		
HS14040178-06B	MW-16-040314	03 Apr 2014 10:45			10 Apr 2014 09:55	1
HS14040178-07B	MW-17-040314	03 Apr 2014 11:00			10 Apr 2014 09:55	1
HS14040178-08B	MW-14-040314	03 Apr 2014 11:15			10 Apr 2014 09:55	1
HS14040178-09B	MW-12-040314	03 Apr 2014 11:30			10 Apr 2014 09:55	1
HS14040178-10B	MW-15-040314	03 Apr 2014 11:45			10 Apr 2014 09:55	1
HS14040178-11B	MW-20-040314	03 Apr 2014 12:00			10 Apr 2014 09:55	1
HS14040178-12B	MW-23-040314	03 Apr 2014 12:15			10 Apr 2014 09:55	1
HS14040178-13B	MW-24-040314	03 Apr 2014 12:30			10 Apr 2014 09:55	1
HS14040178-14B	MW-21-040314	03 Apr 2014 12:45			10 Apr 2014 09:55	1
HS14040178-15B	MW-19-040314	03 Apr 2014 13:00			10 Apr 2014 09:55	1
HS14040178-16B	MW-13-040314	03 Apr 2014 13:15			10 Apr 2014 09:55	1
HS14040178-17B	MW-7-040314	03 Apr 2014 13:30			10 Apr 2014 09:55	1
HS14040178-18B	MW-6-040314	03 Apr 2014 13:45			10 Apr 2014 09:55	1
HS14040178-19B	MW-3-040314	03 Apr 2014 14:00			10 Apr 2014 09:55	1
Batch ID R231727	**Test Name :** TOTAL DISSOLVED SOLIDS			**Matrix:** Water		
HS14040178-29B	RW-1-040314	03 Apr 2014 14:30			10 Apr 2014 13:45	1

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: HS14040178

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R231727	**Test Name :** TOTAL DISSOLVED SOLIDS			**Matrix:** Groundwater		
HS14040178-20B	MW-5-040314	03 Apr 2014 14:15			10 Apr 2014 13:45	1
HS14040178-21B	MW-2-040314	03 Apr 2014 15:30			10 Apr 2014 13:45	1
HS14040178-22B	MW-1-040314	03 Apr 2014 15:45			10 Apr 2014 13:45	1
HS14040178-23B	MW-9-040314	03 Apr 2014 16:00			10 Apr 2014 13:45	1
HS14040178-24B	W-MW-040314	03 Apr 2014 14:45			10 Apr 2014 13:45	1
HS14040178-25B	SW-MW-040314	03 Apr 2014 15:00			10 Apr 2014 13:45	1
HS14040178-26B	MW-4-040314	03 Apr 2014 15:15			10 Apr 2014 13:45	1
HS14040178-27B	MW-22-040314	03 Apr 2014 16:15			10 Apr 2014 13:45	1
HS14040178-28B	MW-26-040314	03 Apr 2014 16:30			10 Apr 2014 13:45	1
Batch ID R231805	**Test Name :** ANIONS - EPA 300.0 (1993)			**Matrix:** Water		
HS14040178-29B	RW-1-040314	03 Apr 2014 14:30			04 Apr 2014 22:33	5
Batch ID R231805	**Test Name :** ANIONS - EPA 300.0 (1993)			**Matrix:** Groundwater		
HS14040178-21B	MW-2-040314	03 Apr 2014 15:30			04 Apr 2014 20:08	5
HS14040178-22B	MW-1-040314	03 Apr 2014 15:45			04 Apr 2014 20:22	5
HS14040178-23B	MW-9-040314	03 Apr 2014 16:00			04 Apr 2014 20:37	5
HS14040178-24B	W-MW-040314	03 Apr 2014 14:45			04 Apr 2014 20:51	5
HS14040178-25B	SW-MW-040314	03 Apr 2014 15:00			04 Apr 2014 21:06	5
HS14040178-26B	MW-4-040314	03 Apr 2014 15:15			04 Apr 2014 21:20	5
HS14040178-27B	MW-22-040314	03 Apr 2014 16:15			04 Apr 2014 21:35	5
HS14040178-28B	MW-26-040314	03 Apr 2014 16:30			04 Apr 2014 21:49	5
HS14040178-30B	DUP-1-040314	03 Apr 2014 00:00			04 Apr 2014 22:48	5
HS14040178-31B	DUP-2-040314	03 Apr 2014 00:00			04 Apr 2014 23:02	5
HS14040178-32B	DUP-3-040314	03 Apr 2014 00:00			04 Apr 2014 23:17	5

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: HS14040178

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R231927	**Test Name :** ANIONS - EPA 300.0 (1993)			**Matrix:** Groundwater		
HS14040178-01B	WW-1-040314	03 Apr 2014 09:30			04 Apr 2014 20:01	5
HS14040178-02B	MW-10-040314	03 Apr 2014 09:45			04 Apr 2014 20:26	5
HS14040178-03B	MW-11-040314	03 Apr 2014 10:00			04 Apr 2014 20:52	5
HS14040178-04B	MW-25-040314	03 Apr 2014 10:15			04 Apr 2014 21:18	5
HS14040178-05B	MW-8-040314	03 Apr 2014 10:30			04 Apr 2014 21:44	5
HS14040178-06B	MW-16-040314	03 Apr 2014 10:45			04 Apr 2014 22:10	5
HS14040178-07B	MW-17-040314	03 Apr 2014 11:00			04 Apr 2014 22:36	5
HS14040178-08B	MW-14-040314	03 Apr 2014 11:15			04 Apr 2014 23:01	5
HS14040178-09B	MW-12-040314	03 Apr 2014 11:30			05 Apr 2014 00:19	5
HS14040178-10B	MW-15-040314	03 Apr 2014 11:45			05 Apr 2014 00:45	5
HS14040178-11B	MW-20-040314	03 Apr 2014 12:00			05 Apr 2014 01:10	5
HS14040178-12B	MW-23-040314	03 Apr 2014 12:15			05 Apr 2014 01:36	5
HS14040178-13B	MW-24-040314	03 Apr 2014 12:30			05 Apr 2014 02:02	5
HS14040178-14B	MW-21-040314	03 Apr 2014 12:45			05 Apr 2014 02:28	5
HS14040178-15B	MW-19-040314	03 Apr 2014 13:00			05 Apr 2014 02:54	5
HS14040178-16B	MW-13-040314	03 Apr 2014 13:15			05 Apr 2014 03:20	5
HS14040178-17B	MW-7-040314	03 Apr 2014 13:30			05 Apr 2014 03:45	5
HS14040178-18B	MW-6-040314	03 Apr 2014 13:45			05 Apr 2014 04:11	5
HS14040178-19B	MW-3-040314	03 Apr 2014 14:00			05 Apr 2014 05:29	5
HS14040178-20B	MW-5-040314	03 Apr 2014 14:15			05 Apr 2014 05:54	5
Batch ID R232100	**Test Name :** ANIONS - EPA 300.0 (1993)			**Matrix:** Water		
HS14040178-29B	RW-1-040314	03 Apr 2014 14:30			17 Apr 2014 22:13	50
Batch ID R232100	**Test Name :** ANIONS - EPA 300.0 (1993)			**Matrix:** Groundwater		
HS14040178-26B	MW-4-040314	03 Apr 2014 15:15			17 Apr 2014 21:29	50
HS14040178-27B	MW-22-040314	03 Apr 2014 16:15			17 Apr 2014 21:44	50
HS14040178-28B	MW-26-040314	03 Apr 2014 16:30			17 Apr 2014 21:58	50
HS14040178-30B	DUP-1-040314	03 Apr 2014 00:00			17 Apr 2014 22:28	100
HS14040178-31B	DUP-2-040314	03 Apr 2014 00:00			17 Apr 2014 23:11	50
HS14040178-32B	DUP-3-040314	03 Apr 2014 00:00			17 Apr 2014 23:26	50

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: HS14040178

DATES REPORT

Sample ID	Client Samp ID	Collection Date	TCLP Date	Prep Date	Analysis Date	DF
Batch ID R232113	**Test Name :** ANIONS - EPA 300.0 (1993)			**Matrix:** Groundwater		
HS14040178-02B	MW-10-040314	03 Apr 2014 09:45			17 Apr 2014 23:22	50
HS14040178-03B	MW-11-040314	03 Apr 2014 10:00			17 Apr 2014 23:46	50
HS14040178-04B	MW-25-040314	03 Apr 2014 10:15			18 Apr 2014 00:10	100
HS14040178-05B	MW-8-040314	03 Apr 2014 10:30			18 Apr 2014 00:34	10
HS14040178-06B	MW-16-040314	03 Apr 2014 10:45			18 Apr 2014 00:58	10
HS14040178-08B	MW-14-040314	03 Apr 2014 11:15			18 Apr 2014 01:22	100
HS14040178-09B	MW-12-040314	03 Apr 2014 11:30			18 Apr 2014 02:35	50
HS14040178-10B	MW-15-040314	03 Apr 2014 11:45			18 Apr 2014 02:59	50
HS14040178-11B	MW-20-040314	03 Apr 2014 12:00			18 Apr 2014 03:23	50
HS14040178-13B	MW-24-040314	03 Apr 2014 12:30			18 Apr 2014 03:47	50
HS14040178-15B	MW-19-040314	03 Apr 2014 13:00			18 Apr 2014 04:11	50
HS14040178-16B	MW-13-040314	03 Apr 2014 13:15			18 Apr 2014 04:36	50
HS14040178-18B	MW-6-040314	03 Apr 2014 13:45			18 Apr 2014 05:00	10
HS14040178-19B	MW-3-040314	03 Apr 2014 14:00			18 Apr 2014 05:24	10
HS14040178-20B	MW-5-040314	03 Apr 2014 14:15			18 Apr 2014 07:24	10
HS14040178-21B	MW-2-040314	03 Apr 2014 15:30			18 Apr 2014 07:49	10
HS14040178-23B	MW-9-040314	03 Apr 2014 16:00			18 Apr 2014 08:13	10
HS14040178-25B	SW-MW-040314	03 Apr 2014 15:00			18 Apr 2014 08:37	50

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80720 **Instrument: ICP7500** **Method: SW6020**

MBLK Sample ID: **MBLKW4-041514** Units: **mg/L** Analysis Date: **16-Apr-2014 06:01**
Client ID: Run ID: **ICP7500_231893** SeqNo: **2794938** PrepDate: **15-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	ND	0.500								
Magnesium	ND	0.200								
Potassium	ND	0.200								
Sodium	ND	0.200								

LCS Sample ID: **MLCSW4-041514** Units: **mg/L** Analysis Date: **16-Apr-2014 06:06**
Client ID: Run ID: **ICP7500_231893** SeqNo: **2794939** PrepDate: **15-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5.23	0.500	5	0	105	80 - 120				
Magnesium	5.123	0.200	5	0	102	80 - 120				
Potassium	5.076	0.200	5	0	102	80 - 120				
Sodium	5.081	0.200	5	0	102	80 - 120				

MS Sample ID: **HS14040176-01GMS** Units: **mg/L** Analysis Date: **16-Apr-2014 06:26**
Client ID: Run ID: **ICP7500_231893** SeqNo: **2794943** PrepDate: **15-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	101.2	0.500	5	92.9	166	75 - 125				SO
Magnesium	45.54	0.200	5	41.69	77.0	75 - 125				O
Potassium	13.25	0.200	5	8.192	101	75 - 125				
Sodium	137.9	0.200	5	134.2	74.0	75 - 125				SO

MSD Sample ID: **HS14040176-01GMSD** Units: **mg/L** Analysis Date: **16-Apr-2014 06:31**
Client ID: Run ID: **ICP7500_231893** SeqNo: **2794945** PrepDate: **15-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	102	0.500	5	92.9	182	75 - 125	101.2	0.787	25	SO
Magnesium	46.65	0.200	5	41.69	99.2	75 - 125	45.54	2.41	25	O
Potassium	13.57	0.200	5	8.192	108	75 - 125	13.25	2.39	25	
Sodium	140.2	0.200	5	134.2	120	75 - 125	137.9	1.65	25	O

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80720 **Instrument: ICP7500** **Method: SW6020**

DUP Sample ID: **HS14040176-01GDUP** Units: **mg/L** Analysis Date: **16-Apr-2014 06:16**
Client ID: Run ID: **ICP7500_231893** SeqNo: **2794941** PrepDate: **15-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	93.01	0.500					92.9	0.118	25	
Magnesium	41.59	0.200					41.69	0.24	25	
Potassium	8.175	0.200					8.192	0.208	25	
Sodium	134.7	0.200					134.2	0.372	25	

PDS Sample ID: **HS14040176-01GBS** Units: **mg/L** Analysis Date: **16-Apr-2014 06:36**
Client ID: Run ID: **ICP7500_231893** SeqNo: **2794946** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	101.7	0.500	10	92.9	88.0	75 - 125				O
Magnesium	49.75	0.200	10	41.69	80.6	75 - 125				O
Potassium	17.44	0.200	10	8.192	92.5	75 - 125				
Sodium	140.3	0.200	10	134.2	61.0	75 - 125				SO

SD Sample ID: **HS14040176-01G DIL SX** Units: **mg/L** Analysis Date: **16-Apr-2014 06:21**
Client ID: Run ID: **ICP7500_231893** SeqNo: **2794942** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	89.25	2.50		0	0		92.9	3.93	10	
Magnesium	40.84	1.00		0	0		41.69	2.04	10	
Potassium	8.195	1.00		0	0		8.192	0.0366	10	
Sodium	130.6	1.00		0	0		134.2	2.72	10	

The following samples were anayzed in this batch:

HS14040178-01A	HS14040178-02A	HS14040178-03A	HS14040178-04A
HS14040178-05A	HS14040178-06A	HS14040178-07A	HS14040178-08A
HS14040178-09A			

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80772 **Instrument: ICPMS05** **Method: SW6020**

MBLK Sample ID: **MBLKW2-041614** Units: **mg/L** Analysis Date: **17-Apr-2014 13:55**
Client ID: Run ID: **ICPMS05_232095** SeqNo: **2797517** PrepDate: **16-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	ND	0.500								
Magnesium	ND	0.200								
Potassium	ND	0.200								
Sodium	ND	0.200								

LCS Sample ID: **MLCSW2-041614** Units: **mg/L** Analysis Date: **17-Apr-2014 13:58**
Client ID: Run ID: **ICPMS05_232095** SeqNo: **2797518** PrepDate: **16-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5.129	0.500	5	0	103	80 - 120				
Magnesium	5.078	0.200	5	0	102	80 - 120				
Potassium	5.004	0.200	5	0	100	80 - 120				
Sodium	5.065	0.200	5	0	101	80 - 120				

MS Sample ID: **HS14040178-13AMS** Units: **mg/L** Analysis Date: **17-Apr-2014 14:18**
Client ID: **MW-24-040314** Run ID: **ICPMS05_232095** SeqNo: **2797526** PrepDate: **16-Apr-2014** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	3389	2.50	5	3351	746	75 - 125				SEO
Magnesium	1079	1.00	5	1035	876	75 - 125				SEO
Potassium	135.4	1.00	5	107.7	553	75 - 125				SO
Sodium	1204	1.00	5	1166	749	75 - 125				SEO

MSD Sample ID: **HS14040178-13AMSD** Units: **mg/L** Analysis Date: **17-Apr-2014 14:21**
Client ID: **MW-24-040314** Run ID: **ICPMS05_232095** SeqNo: **2797527** PrepDate: **16-Apr-2014** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	3409	2.50	5	3351	1150	75 - 125	3389	0.595	25	SEO
Magnesium	1049	1.00	5	1035	287	75 - 125	1079	2.77	25	SEO
Potassium	135.1	1.00	5	107.7	547	75 - 125	135.4	0.22	25	SO
Sodium	1177	1.00	5	1166	223	75 - 125	1204	2.21	25	SEO

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80772 **Instrument: ICPMS05** **Method: SW6020**

DUP Sample ID: **HS14040178-13ADUP** Units: **mg/L** Analysis Date: **18-Apr-2014 13:15**
Client ID: **MW-24-040314** Run ID: **ICPMS05_232133** SeqNo: **2798786** PrepDate: **16-Apr-2014** DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	3454	125					3407	1.36	25	
Magnesium	998.9	50.0					1019	1.97	25	
Sodium	1123	50.0					1151	2.52	25	

DUP Sample ID: **HS14040178-13ADUP** Units: **mg/L** Analysis Date: **17-Apr-2014 14:10**
Client ID: **MW-24-040314** Run ID: **ICPMS05_232095** SeqNo: **2797523** PrepDate: **16-Apr-2014** DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	107.6	1.00					107.7	0.115	25	

PDS Sample ID: **HS14040178-13ABS** Units: **mg/L** Analysis Date: **18-Apr-2014 13:17**
Client ID: **MW-24-040314** Run ID: **ICPMS05_232133** SeqNo: **2798787** PrepDate: DF: **250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5975	125	2500	3407	103	75 - 125				
Magnesium	3522	50.0	2500	1019	100	75 - 125				
Sodium	3692	50.0	2500	1151	102	75 - 125				

PDS Sample ID: **HS14040178-13ABS** Units: **mg/L** Analysis Date: **17-Apr-2014 14:24**
Client ID: **MW-24-040314** Run ID: **ICPMS05_232095** SeqNo: **2797528** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	156	1.00	10	107.7	482	75 - 125				SO

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80772 **Instrument: ICPMS05** **Method: SW6020**

SD Sample ID: **HS14040178-13A DIL SX** Units: **mg/L** Analysis Date: **18-Apr-2014 13:25**
Client ID: Run ID: **ICPMS05_232133** SeqNo: **2798790** PrepDate: DF: **1250**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	3530	625		0	0		3407	3.59	10	
Magnesium	1011	250		0	0		1019	0.764	10	
Sodium	1108	250		0	0		1151	3.79	10	

SD Sample ID: **HS14040178-13A DIL SX** Units: **mg/L** Analysis Date: **17-Apr-2014 14:26**
Client ID: Run ID: **ICPMS05_232095** SeqNo: **2797529** PrepDate: DF: **25**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	114	5.00		0	0		107.7	5.85	10	

The following samples were anayzed in this batch:

HS14040178-10A	HS14040178-11A	HS14040178-12A	HS14040178-13A
HS14040178-14A	HS14040178-15A	HS14040178-16A	HS14040178-17A
HS14040178-18A	HS14040178-19A	HS14040178-20A	HS14040178-21A
HS14040178-22A	HS14040178-23A	HS14040178-24A	HS14040178-25A
HS14040178-26A	HS14040178-27A	HS14040178-28A	HS14040178-29A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80780 **Instrument: ICP7500** **Method: SW6020**

MBLK Sample ID: **MBLKW3-041614** Units: **mg/L** Analysis Date: **17-Apr-2014 14:50**
Client ID: Run ID: **ICP7500_232094** SeqNo: **2797481** PrepDate: **16-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	ND	0.500								
Magnesium	ND	0.200								
Potassium	ND	0.200								
Sodium	ND	0.200								

LCS Sample ID: **MLCSW3-041614** Units: **mg/L** Analysis Date: **17-Apr-2014 14:55**
Client ID: Run ID: **ICP7500_232094** SeqNo: **2797482** PrepDate: **16-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5.284	0.500	5	0	106	80 - 120				
Magnesium	4.964	0.200	5	0	99.3	80 - 120				
Potassium	5.217	0.200	5	0	104	80 - 120				
Sodium	4.978	0.200	5	0	99.6	80 - 120				

MS Sample ID: **HS14040179-01GMS** Units: **mg/L** Analysis Date: **16-Apr-2014 22:26**
Client ID: Run ID: **ICP7500_231990** SeqNo: **2796396** PrepDate: **16-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	428.1	0.500	5	402.7	508	75 - 125				SEO
Magnesium	229.4	0.200	5	218.1	226	75 - 125				SEO
Potassium	17.88	0.200	5	12.03	117	75 - 125				
Sodium	230.9	0.200	5	217.9	260	75 - 125				SEO

MSD Sample ID: **HS14040179-01GMSD** Units: **mg/L** Analysis Date: **16-Apr-2014 22:31**
Client ID: Run ID: **ICP7500_231990** SeqNo: **2796397** PrepDate: **16-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	419.3	0.500	5	402.7	332	75 - 125	428.1	2.08	25	SEO
Magnesium	229.8	0.200	5	218.1	234	75 - 125	229.4	0.174	25	SEO
Potassium	18.09	0.200	5	12.03	121	75 - 125	17.88	1.17	25	
Sodium	226.4	0.200	5	217.9	170	75 - 125	230.9	1.97	25	SEO

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80780 **Instrument: ICP7500** **Method: SW6020**

DUP Sample ID: **HS14040179-01GDUP** Units: **mg/L** Analysis Date: **17-Apr-2014 15:07**
Client ID: Run ID: **ICP7500_232094** SeqNo: **2797484** PrepDate: **16-Apr-2014** DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	375.1	5.00					375.1	0	25	
Magnesium	215.6	2.00					215.6	0	25	
Sodium	210.4	2.00					210.4	0	25	

DUP Sample ID: **HS14040179-01GDUP** Units: **mg/L** Analysis Date: **16-Apr-2014 22:16**
Client ID: Run ID: **ICP7500_231990** SeqNo: **2796394** PrepDate: **16-Apr-2014** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	12.42	0.200					12.03	3.19	25	

PDS Sample ID: **HS14040179-01GBS** Units: **mg/L** Analysis Date: **17-Apr-2014 15:18**
Client ID: Run ID: **ICP7500_232094** SeqNo: **2797486** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	473.9	5.00	100	375.1	98.8	75 - 125				
Magnesium	309.5	2.00	100	215.6	93.9	75 - 125				
Sodium	308.9	2.00	100	210.4	98.5	75 - 125				

PDS Sample ID: **HS14040179-01GBS** Units: **mg/L** Analysis Date: **16-Apr-2014 22:36**
Client ID: Run ID: **ICP7500_231990** SeqNo: **2796398** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	21.63	0.200	10	12.03	96.0	75 - 125				

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: 80780 **Instrument: ICP7500** **Method: SW6020**

SD Sample ID: **HS14040179-01G DIL SX** Units: **mg/L** Analysis Date: **17-Apr-2014 15:13**
Client ID: Run ID: **ICP7500_232094** SeqNo: **2797485** PrepDate: DF: **50**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	382.8	25.0		0	0		375.1	2.07	10	
Magnesium	218.9	10.0		0	0		215.6	1.53	10	
Sodium	217.5	10.0		0	0		210.4	3.37	10	

SD Sample ID: **HS14040179-01G DIL SX** Units: **mg/L** Analysis Date: **16-Apr-2014 22:21**
Client ID: Run ID: **ICP7500_231990** SeqNo: **2796395** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	11.61	1.00		0	0		12.03	3.49	10	

The following samples were anayzed in this batch: HS14040178-30A HS14040178-31A HS14040178-32A

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231334 **Instrument: ManTech01** **Method: SM2320B**

MBLK Sample ID: **WBLKW1-140407** Units: **mg/L** Analysis Date: **07-Apr-2014 12:46**
Client ID: Run ID: **ManTech01_231334** SeqNo: **2778720** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	10.0								
Alkalinity, Carbonate (As CaCO3)	ND	10.0								
Alkalinity, Hydroxide (As CaCO3)	ND	10.0								
Alkalinity, Total (As CaCO3)	ND	10.0								

LCS Sample ID: **LCS-ALK-140407** Units: **mg/L** Analysis Date: **07-Apr-2014 12:51**
Client ID: Run ID: **ManTech01_231334** SeqNo: **2778721** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1069	10.0	1000	0	107	80 - 120				

DUP Sample ID: **HS14040178-01BDUP** Units: **mg/L** Analysis Date: **07-Apr-2014 13:06**
Client ID: **WW-1-040314** Run ID: **ManTech01_231334** SeqNo: **2778725** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	201.4	10.0					206.8	2.65		
Alkalinity, Carbonate (As CaCO3)	ND	10.0					0	0		
Alkalinity, Hydroxide (As CaCO3)	ND	10.0					0	0		
Alkalinity, Total (As CaCO3)	201.4	10.0					206.8	2.65	20	

The following samples were anayzed in this batch:

HS14040178-01B	HS14040178-02B	HS14040178-03B	HS14040178-04B
HS14040178-05B	HS14040178-06B	HS14040178-07B	HS14040178-08B
HS14040178-09B	HS14040178-10B	HS14040178-11B	HS14040178-12B
HS14040178-13B	HS14040178-14B	HS14040178-15B	HS14040178-16B
HS14040178-17B	HS14040178-18B	HS14040178-19B	HS14040178-20B

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231387 **Instrument: ManTech01** **Method: SM2320B**

MBLK Sample ID: **WBLKW1-140407** Units: **mg/L** Analysis Date: **07-Apr-2014 17:08**
Client ID: Run ID: **ManTech01_231387** SeqNo: **2780159** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	ND	10.0								
Alkalinity, Carbonate (As CaCO3)	ND	10.0								
Alkalinity, Hydroxide (As CaCO3)	ND	10.0								
Alkalinity, Total (As CaCO3)	ND	10.0								

LCS Sample ID: **LCS-ALK-140407** Units: **mg/L** Analysis Date: **07-Apr-2014 17:14**
Client ID: Run ID: **ManTech01_231387** SeqNo: **2780160** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1074	10.0	1000	0	107	80 - 120				

DUP Sample ID: **HS14040178-21BDUP** Units: **mg/L** Analysis Date: **07-Apr-2014 17:29**
Client ID: **MW-2-040314** Run ID: **ManTech01_231387** SeqNo: **2780164** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	269.6	10.0					277.5	2.88		
Alkalinity, Carbonate (As CaCO3)	ND	10.0					0	0		
Alkalinity, Hydroxide (As CaCO3)	ND	10.0					0	0		
Alkalinity, Total (As CaCO3)	269.6	10.0					277.5	2.88	20	

The following samples were anayzed in this batch:

HS14040178-21B	HS14040178-22B	HS14040178-23B	HS14040178-24B
HS14040178-25B	HS14040178-26B	HS14040178-27B	HS14040178-28B
HS14040178-29B	HS14040178-30B	HS14040178-31B	HS14040178-32B

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231649 **Instrument: Balance1** **Method: M2540C**

MBLK Sample ID: **WBLK-040914** Units: **mg/L** Analysis Date: **09-Apr-2014 09:55**
Client ID: Run ID: **Balance1_231649** SeqNo: **2786499** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	ND	10.0								

LCS Sample ID: **WLCS-040914** Units: **mg/L** Analysis Date: **09-Apr-2014 09:55**
Client ID: Run ID: **Balance1_231649** SeqNo: **2786500** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	970	10.0	1000	0	97.0	85 - 115				

DUP Sample ID: **HS14040178-05BDUP** Units: **mg/L** Analysis Date: **09-Apr-2014 09:55**
Client ID: **MW-8-040314** Run ID: **Balance1_231649** SeqNo: **2786488** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1460	10.0					1560	6.62	10	

DUP Sample ID: **HS14040122-35EDUP** Units: **mg/L** Analysis Date: **09-Apr-2014 09:55**
Client ID: Run ID: **Balance1_231649** SeqNo: **2786480** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	5120	10.0					5740	11.4	10	R

The following samples were anayzed in this batch:

HS14040178-01B	HS14040178-02B	HS14040178-03B	HS14040178-04B
HS14040178-05B	HS14040178-30B	HS14040178-31B	HS14040178-32B

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231708 **Instrument: Balance1** **Method: M2540C**

MBLK Sample ID: **WBLK-041014** Units: **mg/L** Analysis Date: **10-Apr-2014 09:55**
Client ID: Run ID: **Balance1_231708** SeqNo: **2788263** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	ND	10.0								

LCS Sample ID: **WLCS-041014** Units: **mg/L** Analysis Date: **10-Apr-2014 09:55**
Client ID: Run ID: **Balance1_231708** SeqNo: **2788264** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1012	10.0	1000	0	101	85 - 115				

DUP Sample ID: **HS14040311-19DUP** Units: **mg/L** Analysis Date: **10-Apr-2014 09:55**
Client ID: Run ID: **Balance1_231708** SeqNo: **2788261** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	5060	10.0					5160	1.96	10	

DUP Sample ID: **HS14040178-06B DUP** Units: **mg/L** Analysis Date: **10-Apr-2014 09:55**
Client ID: **MW-16-040314** Run ID: **Balance1_231708** SeqNo: **2788242** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	2120	10.0					2180	2.79	10	

The following samples were anayzed in this batch:

HS14040178-06B	HS14040178-07B	HS14040178-08B	HS14040178-09B
HS14040178-10B	HS14040178-11B	HS14040178-12B	HS14040178-13B
HS14040178-14B	HS14040178-15B	HS14040178-16B	HS14040178-17B
HS14040178-18B	HS14040178-19B		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231727 **Instrument: Balance1** **Method: M2540C**

MBLK Sample ID: **WBLK-040814** Units: **mg/L** Analysis Date: **10-Apr-2014 13:45**
Client ID: Run ID: **Balance1_231727** SeqNo: **2788628** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	ND	10.0								

LCS Sample ID: **WLCS-040814** Units: **mg/L** Analysis Date: **10-Apr-2014 13:45**
Client ID: Run ID: **Balance1_231727** SeqNo: **2788629** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	976	10.0	1000	0	97.6	85 - 115				

DUP Sample ID: **HS14040376-01DUP** Units: **mg/L** Analysis Date: **10-Apr-2014 13:45**
Client ID: Run ID: **Balance1_231727** SeqNo: **2788627** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	2040	10.0					2020	0.985	10	

DUP Sample ID: **HS14040178-20B DUP** Units: **mg/L** Analysis Date: **10-Apr-2014 13:45**
Client ID: **MW-5-040314** Run ID: **Balance1_231727** SeqNo: **2788607** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filterable)	1480	10.0					1460	1.36	10	

The following samples were anayzed in this batch:

HS14040178-20B	HS14040178-21B	HS14040178-22B	HS14040178-23B
HS14040178-24B	HS14040178-25B	HS14040178-26B	HS14040178-27B
HS14040178-28B	HS14040178-29B		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231805 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **WBLKW2** Units: **mg/L** Analysis Date: **04-Apr-2014 19:38**
Client ID: Run ID: **ICS2100_231805** SeqNo: **2790567** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.500								
Fluoride	ND	0.100								
Nitrogen, Nitrate (As N)	ND	0.100								
Sulfate	ND	0.500								

LCS Sample ID: **WLCSW2** Units: **mg/L** Analysis Date: **04-Apr-2014 19:53**
Client ID: Run ID: **ICS2100_231805** SeqNo: **2790568** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.25	0.500	20	0	101	90 - 110				
Fluoride	3.619	0.100	4	0	90.5	90 - 110				
Nitrogen, Nitrate (As N)	3.984	0.100	4	0	99.6	90 - 110				
Sulfate	19.76	0.500	20	0	98.8	90 - 110				

MS Sample ID: **HS14040181-03DMS** Units: **mg/L** Analysis Date: **05-Apr-2014 00:15**
Client ID: Run ID: **ICS2100_231805** SeqNo: **2790586** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	197	0.500	10	193.1	38.7	80 - 120				SEO
Fluoride	2.102	0.100	2	0.534	78.4	80 - 120				S
Nitrogen, Nitrate (As N)	4.075	0.100	2	1.887	109	80 - 120				
Sulfate	1814	0.500	10	1871	-574	80 - 120				SEO

MSD Sample ID: **HS14040181-03DMSD** Units: **mg/L** Analysis Date: **05-Apr-2014 00:29**
Client ID: Run ID: **ICS2100_231805** SeqNo: **2790587** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	195.1	0.500	10	193.1	19.3	80 - 120	197	0.989	20	SEO
Fluoride	2.116	0.100	2	0.534	79.1	80 - 120	2.102	0.664	20	S
Nitrogen, Nitrate (As N)	3.971	0.100	2	1.887	104	80 - 120	4.075	2.59	20	
Sulfate	1795	0.500	10	1871	-765	80 - 120	1814	1.05	20	SEO

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231805 **Instrument: ICS2100** **Method: E300**

The following samples were anayzed in this batch:

HS14040178-21B	HS14040178-22B	HS14040178-23B	HS14040178-24B
HS14040178-25B	HS14040178-26B	HS14040178-27B	HS14040178-28B
HS14040178-29B	HS14040178-30B	HS14040178-31B	HS14040178-32B

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231927 **Instrument: ICS3000** **Method: E300**

MBLK Sample ID: **WBLKW2** Units: **mg/L** Analysis Date: **04-Apr-2014 19:09**
Client ID: Run ID: **ICS3000_231927** SeqNo: **2795537** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.500								
Fluoride	ND	0.100								
Nitrogen, Nitrate (As N)	ND	0.100								
Sulfate	ND	0.500								

LCS Sample ID: **WLCSW2** Units: **mg/L** Analysis Date: **04-Apr-2014 19:35**
Client ID: Run ID: **ICS3000_231927** SeqNo: **2795538** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.69	0.500	20	0	98.4	90 - 110				
Fluoride	4.2	0.100	4	0	105	90 - 110				
Nitrogen, Nitrate (As N)	4.131	0.100	4	0	103	90 - 110				
Sulfate	19.54	0.500	20	0	97.7	90 - 110				

MS Sample ID: **HS14040178-20BMS** Units: **mg/L** Analysis Date: **05-Apr-2014 06:20**
Client ID: **MW-5-040314** Run ID: **ICS3000_231927** SeqNo: **2795563** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	701.8	2.50	50	658.8	86.0	80 - 120				EO
Fluoride	12.98	0.500	10	1.33	117	80 - 120				
Nitrogen, Nitrate (As N)	16.85	0.500	10	5.911	109	80 - 120				
Sulfate	213.6	2.50	50	165.1	97.0	80 - 120				

MSD Sample ID: **HS14040178-20BMSD** Units: **mg/L** Analysis Date: **05-Apr-2014 06:46**
Client ID: **MW-5-040314** Run ID: **ICS3000_231927** SeqNo: **2795564** PrepDate: DF: **5**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	699.5	2.50	50	658.8	81.3	80 - 120	701.8	0.329	20	EO
Fluoride	12.9	0.500	10	1.33	116	80 - 120	12.98	0.634	20	
Nitrogen, Nitrate (As N)	16.8	0.500	10	5.911	109	80 - 120	16.85	0.321	20	
Sulfate	213.4	2.50	50	165.1	96.5	80 - 120	213.6	0.128	20	

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R231927 **Instrument: ICS3000** **Method: E300**

The following samples were anayzed in this batch:

HS14040178-01B	HS14040178-02B	HS14040178-03B	HS14040178-04B
HS14040178-05B	HS14040178-06B	HS14040178-07B	HS14040178-08B
HS14040178-09B	HS14040178-10B	HS14040178-11B	HS14040178-12B
HS14040178-13B	HS14040178-14B	HS14040178-15B	HS14040178-16B
HS14040178-17B	HS14040178-18B	HS14040178-19B	HS14040178-20B

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R232100 **Instrument: ICS2100** **Method: E300**

MBLK Sample ID: **WBLKW2** Units: **mg/L** Analysis Date: **17-Apr-2014 20:17**
Client ID: Run ID: **ICS2100_232100** SeqNo: **2797797** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.500								
Sulfate	ND	0.500								

LCS Sample ID: **WLCSW2** Units: **mg/L** Analysis Date: **17-Apr-2014 20:31**
Client ID: Run ID: **ICS2100_232100** SeqNo: **2797798** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.8	0.500	20	0	109	90 - 110				
Sulfate	21.49	0.500	20	0	107	90 - 110				

MS Sample ID: **HS14040444-03MS** Units: **mg/L** Analysis Date: **18-Apr-2014 10:21**
Client ID: Run ID: **ICS2100_232100** SeqNo: **2799268** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11770	50.0	1000	10470	130	80 - 120				SEO
Sulfate	6366	50.0	1000	5360	101	80 - 120				O

MSD Sample ID: **HS14040444-03MSD** Units: **mg/L** Analysis Date: **18-Apr-2014 10:35**
Client ID: Run ID: **ICS2100_232100** SeqNo: **2799269** PrepDate: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	11980	50.0	1000	10470	151	80 - 120	11770	1.76	20	SEO
Sulfate	6487	50.0	1000	5360	113	80 - 120	6366	1.89	20	O

The following samples were anayzed in this batch: HS14040178-26B HS14040178-27B HS14040178-28B HS14040178-29B HS14040178-30B HS14040178-31B HS14040178-32B

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
WorkOrder: HS14040178
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: R232113 **Instrument: ICS3000** **Method: E300**

MBLK Sample ID: **WBLKW1** Units: **mg/L** Analysis Date: **17-Apr-2014 21:45**
Client ID: Run ID: **ICS3000_232113** SeqNo: **2798240** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	ND	0.500								
Sulfate	ND	0.500								

LCS Sample ID: **WLCSW1** Units: **mg/L** Analysis Date: **17-Apr-2014 22:09**
Client ID: Run ID: **ICS3000_232113** SeqNo: **2798241** PrepDate: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.33	0.500	20	0	102	90 - 110				
Sulfate	20.15	0.500	20	0	101	90 - 110				

MS Sample ID: **HS14040178-19BMS** Units: **mg/L** Analysis Date: **18-Apr-2014 05:48**
Client ID: **MW-3-040314** Run ID: **ICS3000_232113** SeqNo: **2798260** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	930	5.00	100	838.6	91.4	80 - 120				O
Sulfate	440.2	5.00	100	334.1	106	80 - 120				

MSD Sample ID: **HS14040178-19BMSD** Units: **mg/L** Analysis Date: **18-Apr-2014 06:12**
Client ID: **MW-3-040314** Run ID: **ICS3000_232113** SeqNo: **2798261** PrepDate: DF: **10**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	929.4	5.00	100	838.6	90.8	80 - 120	930	0.0638	20	O
Sulfate	443	5.00	100	334.1	109	80 - 120	440.2	0.638	20	

The following samples were anayzed in this batch:

HS14040178-02B	HS14040178-03B	HS14040178-04B	HS14040178-05B
HS14040178-06B	HS14040178-08B	HS14040178-09B	HS14040178-10B
HS14040178-11B	HS14040178-13B	HS14040178-15B	HS14040178-16B
HS14040178-18B	HS14040178-19B	HS14040178-20B	HS14040178-21B
HS14040178-23B	HS14040178-25B		

Note: See Qualifiers Page for a list of qualifiers and their explanation.

Client: Conestoga Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: **HS14040178**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution

Unit Reported	Description
Date	
mg/L	Milligrams per Liter

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	AR - 2014	27-Mar-2015
California	06248CA 2013-2014	31-Jul-2014
Dept of Defense	L2231 Rev 3-20-2014	22-Dec-2015
Illinois	003180	09-May-2014
Kansas	E-10352 8/15/2013-2014	31-Jul-2014
Louisiana	03087 2013/2014	30-Jun-2014
North Carolina	624 - 2014	31-Dec-2014
Oklahoma	2013-024	31-Aug-2014
Texas	TX104704231-14-13	30-Apr-2015

Sample Receipt Checklist

Client Name: CRA - AUSTIN
Work Order: HS14040178

Date/Time Received: **04-Apr-2014 10:35**
Received by: **DRC**

Checklist completed by: *Paresh M. Giga* eSignature — 4-Apr-2014 Date

Reviewed by: *Dane J. Wacasey* eSignature — Date

Matrices: **Groundwater/Water**

Carrier name: **FedEX**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	2.5c/2.5c,2.3c/2.3c,2.0c/2.0c C/U	IR1	
Cooler(s)/Kit(s):	4415,2612,5183		
Date/Time sample(s) sent to storage:			
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

ALS Environmental

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Chain of Custody Form

Page 1 of 4

COC ID: 93188

14040178

CRA - AUSTIN: Conestoga Rovers & Associates

Project: 039124 G.L. Erwin

ALS Project Manager:

Customer Information		Project Information			
Purchase Order		Project Name	039124 G.L. Erwin	A	Dissolved Metals (6020) - LAB Filter (Ca,Mg,K,Na)
Work Order		Project Number	039124	B	Anions (300) - **NO3**, Cl, F, SO4
Company Name	Conestoga Rovers & Associates	Bill To Company	Conestoga Rovers & Associates	C	Alkalinity (2320) - T,CO3,HCO3, OH
Send Report To	Chris Knight	Invoice Attn	Chris Knight	D	TDS (2540)
Address	13091 Pond Springs Road, Suite A100	Address	13091 Pond Springs Road, Suite A10	E	
				F	
City/State/Zip	Austin, Texas 78729	City/State/Zip	Austin, Texas 78729	G	
Phone	(512) 506-8803	Phone	(512) 506-8803	H	
Fax		Fax		I	
e-Mail Address	cknight@craworld.com	e-Mail Address	cknight@craworld.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	WW-1-0403/14	4-3-14	930	water	ice	2	X	X	X	X							
2	MW-10-0403/14		945														
3	MW-11-0403/14		1000														
4	MW-25-0403/14		1015														
5	MW-8-0403/14		1030														
6	MW-16-0403/14		1045														
7	MW-17-0403/14		1100														
8	MW-14-0403/14		1115														
9	MW-12-0403/14		1130														
10	MW-15-0403/14		1145														

Sampler(s) Please Print & Sign: Justin Nixon

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour ☐ Other

Results Due Date:

Relinquished by: Date: 4-3-14 Time: 1815 Received by:

Relinquished by: Date: 4/4/14 Time: 1035 Received by (Laboratory):

Logged by (Laboratory): Date: Time: Checked by (Laboratory):

Notes: **48Hr Hold Time-SHIP same day sampled** ; 10 day TAT

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)

- ☑ Level II Std QC
- ☐ Level III Std QC/Raw Data
- ☐ Level IV SW846/CLP
- ☐ Other / EDD
- ☐ TRRP CheckList
- ☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

COC ID: 93187

ALS Project Manager: | ALS Work Order #: 1406178

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	039124 G.L. Erwin	A	Dissolved Metals (6020) - LAB Filter (Ca,Mg,K,Na)
Work Order		Project Number	039124	B	Anions (300) - **NO3**, Cl, F, SO4
Company Name	Conestoga Rovers & Associates	Bill To Company	Conestoga Rovers & Associates	C	Alkalinity (2320) - T,CO3,HCO3, OH
Send Report To	Chris Knight	Invoice Attn	Chris Knight	D	TDS (2540)
Address	13091 Pond Springs Road, Suite A100	Address	13091 Pond Springs Road, Suite A10	E	
				F	
City/State/Zip	Austin, Texas 78729	City/State/Zip	Austin, Texas 78729	G	
Phone	(512) 506-8803	Phone	(512) 506-8803	H	
Fax		Fax		I	
e-Mail Address	cknight@craworld.com	e-Mail Address	cknight@craworld.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-20-040314	4/3/14	1200	Ground Water	None	2	X	X	X	X							
2	MW-23-040314		1215														
3	MW-24-040314		1230														
4	MW-21-040314		1245														
5	MW-19-040314		1300														
6	~~MW-17-040314 SKM~~	no samples	—	—	—	—	—	—	—	—							
7	~~MW-18-040314 SKM~~		—	—	—	—	—	—	—	—							
8	MW-13-040314		1315														
9	MW-7-040314		1330														
10	MW-6-040314		1345														

Sampler(s) Please Print & Sign: Stuart Mercer

Shipment Method: Fed-Ex

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by: Stuart Mercer | Date: 4/3/14 | Time: 1815 | Received by:

Relinquished by: | Date: 4/4/14 | Time: 1035 | Received by (Laboratory):

Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Notes: **48Hr Hold Time-SHIP same day sampled** ; 10 day TAT

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other / EDD

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

COC ID: 93184

ALS Project Manager: | ALS Work Order #: 1404178

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	039124 G.L. Erwin	A	Dissolved Metals (6020) - LAB Filter (Ca,Mg,K,Na)
Work Order		Project Number	039124	B	Anions (300) - **NO3**, Cl, F, SO4
Company Name	Conestoga Rovers & Associates	Bill To Company	Conestoga Rovers & Associates	C	Alkalinity (2320) - T,CO3,HCO3, OH
Send Report To	Chris Knight	Invoice Attn	Chris Knight	D	TDS (2540)
Address	13091 Pond Springs Road, Suite A100	Address	13091 Pond Springs Road, Suite A10	E	
				F	
City/State/Zip	Austin, Texas 78729	City/State/Zip	Austin, Texas 78729	G	
Phone	(512) 506-8803	Phone	(512) 506-8803	H	
Fax		Fax		I	
e-Mail Address	cknight@craworld.com	e-Mail Address	cknight@craworld.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-3 -040314	4-3-14	1400	water	Ice	2	X	X	X	X							
2	MW-5- 040314		1415														
3	MW-2 - 040314		1530														
4	MW-1 - 040314		1545														
5	MW-9 - 040314		1600														
6	W- MW- 040314		1445														
7	SW-MW- 040314		1500														
8	MW-4- 040314		1515														
9	MW-22 - 040314		1615														
10	MW-26 040314		1630														

Sampler(s) Please Print & Sign: Justin Nixon

Shipment Method: FedEx

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date: 4-3-14	Time: 1815	Received by:	Notes:	**48Hr Hold Time-SHIP same day sampled** ; 10 day TAT
Relinquished by:	Date: 4/4/14	Time: 1035	Received by (Laboratory):	Cooler ID	Cooler Temp.
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):		

QC Package: (Check One Box Below)
☑ Level II Std QC ☐ TRRP CheckList
☐ Level III Std QC/Raw Data ☐ TRRP Level IV
☐ Level IV SW846/CLP
☐ Other / EDD

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

Note: 1. Any changes must be made in writing once samples and COC Form have been submitted to ALS Environmental.
2. Unless otherwise agreed in a formal contract, services provided by ALS Environmental are expressly limited to the terms and conditions stated on the reverse.
3. The Chain of Custody is a legal document. All information must be completed accurately.

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Chain of Custody Form

COC ID: 93186

ALS Project Manager: | ALS Work Order #: 1404078

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order		Project Name	039124 G.L. Erwin	A	Dissolved Metals (6020) - LAB Filter (Ca,Mg,K,Na)
Work Order		Project Number	039124	B	Anions (300) - **NO3**, Cl, F, SO4
Company Name	Conestoga Rovers & Associates	Bill To Company	Conestoga Rovers & Associates	C	Alkalinity (2320) - T,CO3,HCO3, OH
Send Report To	Chris Knight	Invoice Attn	Chris Knight	D	TDS (2540)
Address	13091 Pond Springs Road, Suite A100	Address	13091 Pond Springs Road, Suite A10	E	
				F	
City/State/Zip	Austin, Texas 78729	City/State/Zip	Austin, Texas 78729	G	
Phone	(512) 506-8803	Phone	(512) 506-8803	H	
Fax		Fax		I	
e-Mail Address	cknight@craworld.com	e-Mail Address	cknight@craworld.com	J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	RW-1-040314	4/3/14	1430	Ground Water	None	2	X	X	X	X							
2	DUP-1-040314	↓		↓	↓	↓	X	X	X	X							
3	DUP-2-040314						X	X	X	X							
4	DUP-3-040314						X	X	X	X							
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Stuart Meurer

Shipment Method: Fed-Ex

Required Turnaround Time: (Check Box) ☑ Std 10 WK Days ☐ 5 WK Days ☐ Other ☐ 2 WK Days ☐ 24 Hour

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
	4-3-14	1815	
Relinquished by:	Date:	Time:	Received by (Laboratory):
	4/4/14	1035	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: **48Hr Hold Time-SHIP same day sampled** ; 10 day TAT

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)
☑ Level II Std QC
☐ Level III Std QC/Raw Data
☐ Level IV SW846/CLP
☐ Other / EDD
☐ TRRP CheckList
☐ TRRP Level IV

Preservative Key: 1-HCl 2-HNO_3 3-H_2SO_4 4-NaOH 5-$Na_2S_2O_3$ 6-$NaHSO_4$ 7-Other 8-4°C 9-5035

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3. The Chain of Custody is a legal document. All information must be completed accurately.

CONESTOGA-ROVERS & ASSOCIATES

6320 Rothway, Suite 100
Houston, TX 77040
Telephone: 713-734-3090 Fax: 713-734-3391
www.CRAworld.com

MEMORANDUM

TO:	Ricardo Banda, Nancy Forster	REF. NO.:	039124
FROM:	Claudia Ramos/eew/4-NF CR	DATE:	December 29, 2014

RE: Analytical Results and Reduced Validation
Semiannual Groundwater Sampling Event
Chevron Environmental Management Company (CEMC) - G.L. Erwin Tank Battery
Lea County, New Mexico
October 2014

1.0 Introduction

The following document details a reduced validation of analytical results for groundwater samples collected at the CEMC – G.L. Erwin Tank Battery site during October 2014. Samples were submitted to Xenco Laboratories, located in Odessa, Texas. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Standard Conestoga-Rovers & Associates (CRA) report deliverables were submitted by the laboratory. The final results and supporting quality assurance/quality control (QA/QC) data were assessed. Evaluation of the data was based on information obtained from the chain of custody forms, finished report forms, method blank data, laboratory control samples (LCS), matrix spikes (MS), and field QC samples.

The QA/QC criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the document entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review", USEPA 540/R-94-013, February 1994

Item i) will subsequently be referred to as the "Guidelines" in this Memorandum.

2.0 Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were analyzed within the required holding times.

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3.0 Laboratory Method Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

Most method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation. Low level concentrations of total dissolved solids (TDS) were detected in the method blanks reflecting potential laboratory contamination. All associated sample results were significantly higher than the method blank concentrations and were reported without qualification.

4.0 Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

5.0 Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the extraction or digestion process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision. If the original sample concentration is significantly greater than the spike concentration, the recovery is not assessed.

MS/MSD analyses were performed as specified in Table 1. For some of the analyses, the laboratory performed additional MS/MSD on non-site samples. The analysis of non-site spike samples cannot be used to assess accuracy and precision for the site samples.

The MS/MSD samples were spiked with the analytes of interest, and the results were evaluated using the "Guidelines". All percent recoveries and RPD values were within the control limits, demonstrating acceptable analytical accuracy and precision with the following exceptions (see Table 4):

i. Low percent recovery values were reported for nitrate (as N). Associated sample results were qualified as estimated.

6.0 Field QA/QC Samples

The field QA/QC consisted of three field duplicate sample sets.

Field Duplicate Sample Analysis

To assess the analytical and sampling protocol precision, three field duplicate samples were collected and submitted "blind" to the laboratory, as specified in Table 1. The RPDs associated with these duplicate samples must be less than 50 percent for water samples. If the reported concentration in either the investigative sample or its duplicate is less than five times the practical quantitation limit (PQL), the evaluation criterion is one time the PQL value for water samples.

Most field duplicate results showed adequate reproducibility; indicating satisfactory sampling and laboratory precision with the following exceptions (see Table 5):

i. Metals and chloride analyses did show some variability in sample MW-1-100914 and its field duplicate. The original and duplicate sample results were qualified as estimated.

7.0 Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

TABLE 1

SAMPLE COLLECTION AND ANALYSIS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

					Analysis/Parameters							
Sample Identification	***Location***	***Matrix***	***Collection Date (mm/dd/yyyy)***	***Collection Time (hr:min)***	***Alkalinity***	***Dissolved Metals***	***Chloride***	***Fluoride***	***Nitrate (as N)***	***Sulfate***	***TDS***	***Comments***
MW-1-100914	MW-1	water	10/09/2014	14:10	X	X	X	X	X	X	X	
DUP-2-100914	MW-1	water	10/09/2014	-	X	X	X	X	X	X	X	Field duplicate of MW-1
MW-2-100914	MW-2	water	10/09/2014	14:20	X	X	X	X	X	X	X	
MW-3-100914	MW-3	water	10/09/2014	13:50	X	X	X	X	X	X	X	
MW-4-100914	MW-4	water	10/09/2014	13:00	X	X	X	X	X	X	X	
MW-5-100914	MW-5	water	10/09/2014	14:40	X	X	X	X	X	X	X	
MW-6-100914	MW-6	water	10/09/2014	13:40	X	X	X	X	X	X	X	
MW-7-100914	MW-7	water	10/09/2014	14:30	X	X	X	X	X	X	X	
MW-8-101014	MW-8	water	10/10/2014	12:50	X	X	X	X	X	X	X	
MW-9-100914	MW-9	water	10/09/2014	12:40	X	X	X	X	X	X	X	
MW-10-100914	MW-10	water	10/09/2014	13:30	X	X	X	X	X	X	X	
MW-12-101014	MW-12	water	10/10/2014	13:20	X	X	X	X	X	X	X	
MW-13-101014	MW-13	water	10/10/2014	14:40	X	X	X	X	X	X	X	
MW-14-101014	MW-14	water	10/10/2014	14:30	X	X	X	X	X	X	X	
MW-15-101014	MW-15	water	10/10/2014	13:30	X	X	X	X	X	X	X	
MW-16-101014	MW-16	water	10/10/2014	13:10	X	X	X	X	X	X	X	
MW-17-101014	MW-17	water	10/10/2014	13:00	X	X	X	X	X	X	X	
Dup-3-101014	MW-17	water	10/10/2014	-	X	X	X	X	X	X	X	Field duplicate of MW-17
MW-19-101014	MW-19	water	10/10/2014	14:20	X	X	X	X	X	X	X	
MW-20-101014	MW-20	water	10/10/2014	13:40	X	X	X	X	X	X	X	
MW-21-101014	MW-21	water	10/10/2014	14:10	X	X	X	X	X	X	X	
MW-22-100914	MW-22	water	10/09/2014	12:30	X	X	X	X	X	X	X	
MW-23-101014	MW-23	water	10/10/2014	13:50	X	X	X	X	X	X	X	
MW-24-101014	MW-24	water	10/10/2014	14:00	X	X	X	X	X	X	X	
MW-25-101014	MW-25	water	10/10/2014	12:30	X	X	X	X	X	X	X	
MW-26-100914	MW-26	water	10/09/2014	12:15	X	X	X	X	X	X	X	
RW-1-100914	RW-1	water	10/09/2014	13:15	X	X	X	X	X	X	X	
Dup-1-100914	RW-1	water	10/09/2014	-	X	X	X	X	X	X	X	Field duplicate of RW-1
MW-SW-100914	Southwest	water	10/09/2014	13:10	X	X	X	X	X	X	X	
MW-W-100914	West MW	water	10/09/2014	12:50	X	X	X	X	X	X	X	
WW-1 100914	WW-1	water	10/09/2014	0:00	X	X	X	X	X	X	X	

Notes:

N - Nitrogen
TDS - Total Dissolved Solids

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

Sample Location:		*MW-1*	*MW-1*	*MW-2*	*MW-3*	*MW-4*	*MW-5*	*MW-6*	*MW-7*	*MW-8*
Sample Identification:		*MW-1-100914*	*DUP-2-100914*	*MW-2-100914*	*MW-3-100914*	*MW-4-100914*	*MW-5-100914*	*MW-6-100914*	*MW-7-100914*	*MW-8-101014*
Sample Date:		*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/10/2014*
Sample Type:			*Duplicate*							
Parameter	***Units***									
Metals										
Calcium (dissolved)	mg/L	85.7 J	148 J	31.5	106	420	263	42.1	28.1	51.2
Magnesium (dissolved)	mg/L	29.2 J	50.1 J	8.90	32.8	130	84.8	12.8	8.31	15.9
Potassium (dissolved)	mg/L	5.18	6.73	5.75	16.0	26.7	11.1	10.0	3.75	5.42
Sodium (dissolved)	mg/L	105	107	274	671	1020	344	532	286	454
General Chemistry										
Alkalinity, bicarbonate	mg/L	168	146	260	291	259	185	286	257	284
Alkalinity, carbonate	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Alkalinity, hydroxide	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloride	mg/L	213 J	427 J	220	961	2330	957	560	252	527
Fluoride	mg/L	1.10	0.922	0.810	0.752	0.292	0.572	1.21	1.74	2.29
Nitrate (as N)	mg/L	2.89 J	2.23 J	5.96 J	7.36 J	3.71 J	3.99 J	8.11 J	4.90 J	7.65
Sulfate	mg/L	80.3	73.4	173	300	312	124	265	146	194
Total dissolved solids (TDS)	mg/L	554	559	939	3400	5870	3750	1730	955	1550

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

Sample Location:		*MW-9*	*MW-10*	*MW-12*	*MW-13*	*MW-14*	*MW-15*	*MW-16*	*MW-17*
Sample Identification:		*MW-9-100914*	*MW-10-100914*	*MW-12-101014*	*MW-13-101014*	*MW-14-101014*	*MW-15-101014*	*MW-16-101014*	*MW-17-101014*
Sample Date:		*10/9/2014*	*10/9/2014*	*10/10/2014*	*10/10/2014*	*10/10/2014*	*10/10/2014*	*10/10/2014*	*10/10/2014*
Sample Type:									
Parameter	***Units***								
Metals									
Calcium (dissolved)	mg/L	35.5	618	595	326	1270	293	242	83.3
Magnesium (dissolved)	mg/L	10.7	200	208	117	384	108	79.4	27.3
Potassium (dissolved)	mg/L	4.91	18.0	13.5	12.6	33.5	11.9	7.99	5.49
Sodium (dissolved)	mg/L	460	963	180	143	2640	129	269	240
General Chemistry									
Alkalinity, bicarbonate	mg/L	211	154	83.6	101	103	98.5	217	211
Alkalinity, carbonate	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Alkalinity, hydroxide	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloride	mg/L	552	2730	1890	1020	7610	896	834	316
Fluoride	mg/L	1.92	0.185	0.269	0.829	1.77	0.607	0.439	1.41
Nitrate (as N)	mg/L	2.67 J	3.96 J	3.92	3.78	4.28	2.58	4.52	3.98
Sulfate	mg/L	159	292	55.2	148	<1.00	80.6	130	107
Total dissolved solids (TDS)	mg/L	2020	7930	6290	3500	19000	1830	1550	1790

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

Sample Location:		*MW-17*	*MW-19*	*MW-20*	*MW-21*	*MW-22*	*MW-23*	*MW-24*
Sample Identification:		*Dup-3-101014*	*MW-19-101014*	*MW-20-101014*	*MW-21-101014*	*MW-22-100914*	*MW-23-101014*	*MW-24-101014*
Sample Date:		*10/10/2014*	*10/10/2014*	*10/10/2014*	*10/10/2014*	*10/9/2014*	*10/10/2014*	*10/10/2014*
Sample Type:		*Duplicate*						
Parameter	***Units***							
Metals								
Calcium (dissolved)	mg/L	62.0	965	387	155	349	140	647
Magnesium (dissolved)	mg/L	20.1	369	139	48.7	108	51.9	208
Potassium (dissolved)	mg/L	5.28	29.2	13.7	9.68	12.7	8.61	22.9
Sodium (dissolved)	mg/L	265	663	233	119	907	107	230
General Chemistry								
Alkalinity, bicarbonate	mg/L	226	95.6	107	185	183	127	96.9
Alkalinity, carbonate	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Alkalinity, hydroxide	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloride	mg/L	313	3440	1320	186	2030	391	1870
Fluoride	mg/L	1.56	0.132	0.496	1.50	0.395	0.716	0.386
Nitrate (as N)	mg/L	4.04	3.86	3.82	5.16	2.72 J	0.717	3.41
Sulfate	mg/L	131	416	121	393	257	85.7	268
Total dissolved solids (TDS)	mg/L	1140	7560	4180	1080	5150	1010	5850

TABLE 2

ANALYTICAL RESULTS SUMMARY
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

Sample Location:		*MW-25*	*MW-26*	*RW-1*	*RW-1*	*Southwest*	*West MW*	*WW-1*
Sample Identification:		*MW-25-101014*	*MW-26-100914*	*RW-1-100914*	*Dup-1-100914*	*MW-SW-100914*	*MW-W-100914*	*WW-1 100914*
Sample Date:		*10/10/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*	*10/9/2014*
Sample Type:					*Duplicate*			
Parameter	***Units***							
Metals								
Calcium (dissolved)	mg/L	870	158	101	101	145	55.2	90.2
Magnesium (dissolved)	mg/L	270	45.3	28.1	27.8	40.2	15.4	31.8
Potassium (dissolved)	mg/L	22.5	9.50	29.9	29.6	33.3	13.9	6.01
Sodium (dissolved)	mg/L	1250	794	645	640	818	201	115
General Chemistry								
Alkalinity, bicarbonate	mg/L	152	223	318	317	346	232	165
Alkalinity, carbonate	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Alkalinity, hydroxide	mg/L	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00
Chloride	mg/L	4280	1390	867	847	1190	200	205
Fluoride	mg/L	<0.100	0.557	0.836	0.733	0.817	0.907	0.731
Nitrate (as N)	mg/L	4.10	2.71 J	4.32 J	4.30 J	3.79 J	0.398 J	2.46 J
Sulfate	mg/L	299	272	293	295	363	158	145
Total dissolved solids (TDS)	mg/L	11400	3920	2190	2290	5210	861	916

Notes:

J - Estimated concentration

TABLE 3

ANALYTICAL METHODS AND HOLDING TIME CRITERIA
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

Parameter	*Method*	*Matrix*	***Holding Time*** ***Collection to Analysis (Days)***
Alkalinity	SM 2320B	Water	14
Dissolved Metals	SW-846 6020	Water	180
Chloride	EPA 300	Water	28
Flouride	EPA 300	Water	28
Nitrate (as N)	EPA 300	Water	2
Sulfate	EPA 300	Water	28
TDS	SM 2540C	Water	7

Notes:

SM -"Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions
SW-846 -"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
EPA -"Methods for Chemical Analysis of Water and Wastes", USEPA-600/4-79-020, March 1983, with subsequent revisions
N -Nitrogen
TDS -Total Dissolved Solids

TABLE 4

QUALIFIED SAMPLE RESULTS DUE TO OUTLYING MS/MSD RESULTS
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

Parameter	*Sample ID*	*Analyte*	*MS % Recovery*	*MSD % Recovery*	*RPD (percent)*	*Control Limits*		*Qualified Result*	*Units*
						% Recovery	*RPD*		
Wet Chemistry	MW-W-100914	Nitrate (as N)	67	68	1	80-120	20	0.398 J	mg/L
	MW-10-100914							3.96 J	mg/L
	MW-1-100914							2.89 J	mg/L
	MW-22-100914							2.72 J	mg/L
	MW-26-100914							2.71 J	mg/L
	MW-3-100914							7.36 J	mg/L
	MW-4-100914							3.71 J	mg/L
	MW-5-100914							3.99 J	mg/L
	MW-6-100914							8.11 J	mg/L
	MW-9-100914							2.67 J	mg/L
	MW-SW-100914							3.79 J	mg/L
	Dup-1-100914							4.30 J	mg/L
	RW-1-100914							4.32 J	mg/L
	MW-2-100914	Nitrate (as N)	44	43	1	80-120	20	5.96 J	mg/L
	MW-7-100914							4.90 J	mg/L
	WW-1 100914							2.46 J	mg/L
	DUP-2-100914							2.23 J	mg/L

Notes:

MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference
N - Nitrogen
J - Estimated concentration

TABLE 5

QUALIFIED SAMPLE DATA DUE TO VARIABILITY IN FIELD DUPLICATE RESULTS
SEMIANNUAL GROUNDWATER SAMPLING EVENT
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY (CEMC) - G.L. ERWIN
LEA COUNTY, NEW MEXICO
OCTOBER 2014

Parameter	*Analyte*	*RPD*	*Sample ID*	*Qualified Result*	*Field Duplicate Sample ID*	*Qualified Result*	*Units*
Metals	Calcium	52.7	MW-1-100914	85.7 J	DUP-2-100914	148 J	mg/kg
	Magnesium	51.1		29.2 J		50.1 J	mg/kg
General Chemistry	Chloride	66.9	MW-1-100914	213 J	DUP-2-100914	427 J	mg/kg

Notes:

RPD - Relative Percent Difference
J - Estimated concentration

Analytical Report 494933

for

Conestoga Rovers & Associates

Project Manager: Nancy Forster

G.L Erwin

039124

15-OCT-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-16-TX), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

15-OCT-14

Project Manager: **Nancy Forster**
Conestoga Rovers & Associates
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **494933**
G.L Erwin
Project Address: NM

Nancy Forster:

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(s) 494933. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 494933 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,

Kelsey Brooks
Project Manager

Sample Cross Reference 494933

Conestoga Rovers & Associates, Midland, TX

G.L Erwin

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Dup-1-100914	W	10-09-14 00:00		494933-001
MW-26-100914	W	10-09-14 12:15		494933-002
MW-22-100914	W	10-09-14 12:30		494933-003
MW-9-100914	W	10-09-14 12:40		494933-004
MW-W-100914	W	10-09-14 12:50		494933-005
MW-SW-100914	W	10-09-14 13:10		494933-006
MW-4-100914	W	10-09-14 13:00		494933-007
RW-1-100914	W	10-09-14 13:15		494933-008
MW-10-100914	W	10-09-14 13:30		494933-009
MW-5-100914	W	10-09-14 14:40		494933-010
MW-6-100914	W	10-09-14 13:40		494933-011
MW-3-100914	W	10-09-14 13:50		494933-012
MW-1-100914	W	10-09-14 14:10		494933-013
MW-2-100914	W	10-09-14 14:20		494933-014
MW-7-100914	W	10-09-14 14:30		494933-015
DUP-2-100914	W	10-09-14 00:00		494933-016
WW-1 100914	W	10-09-14 00:00		494933-017

CASE NARRATIVE

Client Name: Conestoga Rovers & Associates

Project Name: G.L Erwin

Project ID: *039124*
Work Order Number(s): *494933*

Report Date: *15-OCT-14*
Date Received: *10/09/2014*

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-952674 Inorganic Anions by EPA 300/300.1
Nitrate as N recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 494933-001, -002, -007, -011, -005, -012, -004, -009, -010, -013, -003, -006, -008.
The Laboratory Control Sample for Nitrate as N is within laboratory Control Limits

Batch: LBA-952686 Inorganic Anions by EPA 300/300.1
Nitrate as N recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Samples affected are: 494933-016, -014, -015, -017.
The Laboratory Control Sample for Nitrate as N is within laboratory Control Limits

Certificate of Analysis Summary 494933

Conestoga Rovers & Associates, Midland, TX

Project Name: G.L Erwin

Project Id: 039124
Contact: Nancy Forster
Project Location: NM

Date Received in Lab: Thu Oct-09-14 04:45 pm
Report Date: 15-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	494933-001		494933-002		494933-003		494933-004		494933-005		494933-006	
	Field Id:	Dup-1-100914		MW-26-100914		MW-22-100914		MW-9-100914		MW-W-100914		MW-SW-100914	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Oct-09-14 00:00		Oct-09-14 12:15		Oct-09-14 12:30		Oct-09-14 12:40		Oct-09-14 12:50		Oct-09-14 13:10	
Alkalinity by SM2320B SUB: E871002	***Extracted:***												
	Analyzed:	Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Alkalinity, Bicarbonate (as CaCO3)		317	4.00	223	4.00	183	4.00	211	4.00	232	4.00	346	4.00
Alkalinity, Carbonate (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Alkalinity, hydroxide (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Dissolved Metals per ICP by SW846 6010B SUB: E871002	***Extracted:***	Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30	
	Analyzed:	Oct-13-14 20:19		Oct-13-14 20:26		Oct-13-14 20:32		Oct-13-14 20:39		Oct-13-14 20:45		Oct-13-14 20:52	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Calcium		101	0.200	158	0.200	349	0.200	35.5	0.200	55.2	0.200	145	0.200
Magnesium		27.8	0.200	45.3	0.200	108	0.200	10.7	0.200	15.4	0.200	40.2	0.200
Potassium		29.6	0.500	9.50	0.500	12.7	0.500	4.91	0.500	13.9	0.500	33.3	0.500
Sodium		640	0.500	794	0.500	907 E	0.500	460	0.500	201	0.500	818	0.500
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20	
	Analyzed:	Oct-10-14 12:22		Oct-10-14 13:05		Oct-10-14 14:03		Oct-10-14 14:18		Oct-10-14 17:25		Oct-10-14 15:01	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		847 D	100	1390 D	100	2030 D	200	552	100	200	10.0	1190	100
Fluoride		0.733	0.100	0.557	0.100	0.395	0.100	1.92	0.100	0.907	0.100	0.817	0.100
Nitrate as N		4.30	0.0230	2.71	0.0230	2.72	0.0230	2.67	0.0230	0.398	0.0230	3.79	0.0230
Sulfate		295	20.0	272	20.0	257	20.0	159 D	10.0	158 E	1.00	363 D	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		2290	5.00	3920	5.00	5150	5.00	2020	5.00	861	5.00	5210	5.00

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 494933

Conestoga Rovers & Associates, Midland, TX

Project Name: G.L Erwin

Project Id: 039124
Contact: Nancy Forster
Project Location: NM

Date Received in Lab: Thu Oct-09-14 04:45 pm
Report Date: 15-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	494933-007		494933-008		494933-009		494933-010		494933-011		494933-012	
	Field Id:	MW-4-100914		RW-1-100914		MW-10-100914		MW-5-100914		MW-6-100914		MW-3-100914	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Oct-09-14 13:00		Oct-09-14 13:15		Oct-09-14 13:30		Oct-09-14 14:40		Oct-09-14 13:40		Oct-09-14 13:50	
Alkalinity by SM2320B SUB: E871002	***Extracted:***												
	Analyzed:	Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Alkalinity, Bicarbonate (as CaCO3)		259	4.00	318	4.00	154	4.00	185	4.00	286	4.00	291	4.00
Alkalinity, Carbonate (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Alkalinity, hydroxide (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Dissolved Metals per ICP by SW846 6010B SUB: E871002	***Extracted:***	Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30	
	Analyzed:	Oct-13-14 20:59		Oct-13-14 21:05		Oct-13-14 21:31		Oct-13-14 21:38		Oct-13-14 21:44		Oct-13-14 21:51	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Calcium		420	0.200	101	0.200	618	0.200	263	0.200	42.1	0.200	106	0.200
Magnesium		130	0.200	28.1	0.200	200	0.200	84.8	0.200	12.8	0.200	32.8	0.200
Potassium		26.7	0.500	29.9	0.500	18.0	0.500	11.1	0.500	10.0	0.500	16.0	0.500
Sodium		1020 E	0.500	645	0.500	963 E	0.500	344	0.500	532	0.500	671	0.500
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20	
	Analyzed:	Oct-10-14 15:15		Oct-10-14 15:59		Oct-10-14 16:13		Oct-10-14 16:28		Oct-10-14 16:42		Oct-10-14 16:56	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		2330	400	867 D	50.0	2730	400	957	400	560 D	50.0	961 D	50.0
Fluoride		0.292	0.100	0.836	0.100	0.185	0.100	0.572	0.100	1.21	0.100	0.752	0.100
Nitrate as N		3.71	0.0230	4.32	0.0230	3.96	0.0230	3.99	0.0230	8.11	0.0230	7.36	0.0230
Sulfate		312 D	20.0	293 D	50.0	292 D	20.0	124 D	20.0	265 D	50.0	300 D	50.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		5870	5.00	2190	5.00	7930	5.00	3750	5.00	1730	5.00	3400	5.00

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 494933

Conestoga Rovers & Associates, Midland, TX

Project Name: G.L Erwin

Project Id: 039124
Contact: Nancy Forster
Project Location: NM

Date Received in Lab: Thu Oct-09-14 04:45 pm
Report Date: 15-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested											
	Lab Id:	494933-013		494933-014		494933-015		494933-016		494933-017	
	Field Id:	MW-1-100914		MW-2-100914		MW-7-100914		DUP-2-100914		WW-1 100914	
	Depth:										
	Matrix:	WATER		WATER		WATER		WATER		WATER	
	Sampled:	Oct-09-14 14:10		Oct-09-14 14:20		Oct-09-14 14:30		Oct-09-14 00:00		Oct-09-14 00:00	
Alkalinity by SM2320B SUB: E871002	***Extracted:***										
	Analyzed:	Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49		Oct-13-14 17:49	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Alkalinity, Bicarbonate (as CaCO3)		168	4.00	260	4.00	257	4.00	146	4.00	165	4.00
Alkalinity, Carbonate (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Alkalinity, hydroxide (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Dissolved Metals per ICP by SW846 6010B SUB: E871002	***Extracted:***	Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30		Oct-13-14 09:30	
	Analyzed:	Oct-13-14 21:57		Oct-13-14 22:04		Oct-13-14 22:10		Oct-13-14 22:17		Oct-13-14 22:23	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Calcium		85.7	0.200	31.5	0.200	28.1	0.200	148	0.200	90.2	0.200
Magnesium		29.2	0.200	8.90	0.200	8.31	0.200	50.1	0.200	31.8	0.200
Potassium		5.18	0.500	5.75	0.500	3.75	0.500	6.73	0.500	6.01	0.500
Sodium		105	0.500	274	0.500	286	0.500	107	0.500	115	0.500
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20		Oct-10-14 10:20	
	Analyzed:	Oct-10-14 17:11		Oct-10-14 21:59		Oct-10-14 19:21		Oct-10-14 19:35		Oct-10-14 19:49	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		213 D	20.0	220	20.0	252 D	20.0	427	50.0	205 D	20.0
Fluoride		1.10	0.100	0.810	0.100	1.74	0.100	0.922	0.100	0.731	0.100
Nitrate as N		2.89	0.0230	5.96	0.0230	4.90	0.0230	2.23	0.0230	2.46	0.0230
Sulfate		80.3 D	20.0	173	20.0	146 D	20.0	73.4 D	5.00	145 D	20.0
TDS by SM2540C	***Extracted:***										
	Analyzed:	Oct-13-14 15:30		Oct-13-14 15:30		Oct-13-14 15:30		Oct-14-14 17:00		Oct-14-14 17:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		554	5.00	939	5.00	955	5.00	559	5.00	916	5.00

Kelsey Brooks
Project Manager

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 affect the recovery of the spike concentration. This condition could also affect 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 quantitation limit and above the detection limit.

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.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Blank Spike Recovery

Project Name: G.L Erwin

Work Order #: 494933 **Project ID:** 039124

Lab Batch #: 952674 **Sample:** 662768-1-BKS **Matrix:** Water

Date Analyzed: 10/10/2014 **Date Prepared:** 10/10/2014 **Analyst:** DEP

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

Inorganic 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	<1.00	10.0	9.59	96	80-120	
Fluoride	<0.100	10.0	9.90	99	80-120	
Nitrate as N	<0.0230	10.0	9.74	97	90-110	
Sulfate	<1.00	10.0	9.92	99	80-120	

Lab Batch #: 952686 **Sample:** 662770-1-BKS **Matrix:** Water

Date Analyzed: 10/10/2014 **Date Prepared:** 10/10/2014 **Analyst:** DEP

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

Inorganic 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	<1.00	10.0	9.82	98	80-120	
Fluoride	<0.100	10.0	10.1	101	80-120	
Nitrate as N	<0.0230	10.0	9.97	100	90-110	
Sulfate	<1.00	10.0	10.1	101	80-120	

Lab Batch #: 952994 **Sample:** 952994-1-BKS **Matrix:** Water

Date Analyzed: 10/13/2014 **Date Prepared:** 10/13/2014 **Analyst:** MHS

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

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total dissolved solids	16.0	1000	1070	107	80-120	

Lab Batch #: 952997 **Sample:** 952997-1-BKS **Matrix:** Water

Date Analyzed: 10/14/2014 **Date Prepared:** 10/14/2014 **Analyst:** JUM

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

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total dissolved solids	14.5	1000	1010	101	80-120	

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

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: G.L Erwin

Work Order #: 494933 **Project ID:** 039124

Analyst: DAB **Date Prepared:** 10/13/2014 **Date Analyzed:** 10/13/2014

Lab Batch ID: 952857 **Sample:** 662822-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Dissolved Metals per ICP by SW846 6010B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Calcium	<0.200	25.0	26.1	104	25.0	24.8	99	5	80-120	20	
Magnesium	<0.200	25.0	26.2	105	25.0	25.0	100	5	80-120	20	
Potassium	<0.500	10.0	9.87	99	10.0	9.31	93	6	80-120	20	
Sodium	<0.500	25.0	25.7	103	25.0	24.4	98	5	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: G.L Erwin

Work Order # : 494933 **Project ID:** 039124

Lab Batch ID: 952857 **QC- Sample ID:** 494747-021 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/13/2014 **Date Prepared:** 10/13/2014 **Analyst:** DAB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Dissolved Metals per ICP by SW846 6010B 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
Calcium	93.1	25.0	123	120	25.0	120	108	2	75-125	20	
Magnesium	29.3	25.0	55.9	106	25.0	55.0	103	2	75-125	20	
Potassium	5.06	10.0	15.4	103	10.0	15.1	100	2	75-125	20	
Sodium	65.0	25.0	93.6	114	25.0	91.2	105	3	75-125	20	

Lab Batch ID: 952674 **QC- Sample ID:** 494933-005 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/10/2014 **Date Prepared:** 10/10/2014 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	189	100	286	97	100	287	98	0	80-120	20	
Fluoride	<1.00	100	100	100	100	102	102	2	80-120	20	
Nitrate as N	3.31	10.0	10.0	67	10.0	10.1	68	1	80-120	20	X
Sulfate	158	100	252	94	100	253	95	0	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: G.L Erwin

Work Order # : 494933 **Project ID:** 039124

Lab Batch ID: 952674 **QC- Sample ID:** 494959-005 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/10/2014 **Date Prepared:** 10/10/2014 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	12.7	100	109	96	100	108	95	1	80-120	20	
Fluoride	<1.00	100	97.6	98	100	98.7	99	1	80-120	20	
Nitrate as N	4.14	10.0	10.2	61	10.0	10.1	60	1	80-120	20	X
Sulfate	140	100	235	95	100	234	94	0	80-120	20	

Lab Batch ID: 952686 **QC- Sample ID:** 494933-014 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/10/2014 **Date Prepared:** 10/10/2014 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	218	200	423	103	200	421	102	0	80-120	20	
Fluoride	<2.00	200	205	103	200	206	103	0	80-120	20	
Nitrate as N	5.96	10.0	10.4	44	10.0	10.3	43	1	80-120	20	X
Sulfate	178	200	379	101	200	378	100	0	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: G.L Erwin

Work Order #: 494933

Lab Batch #: 952837 **Project ID:** 039124
Date Analyzed: 10/13/2014 17:49 **Date Prepared:** 10/13/2014 **Analyst:** DHE
QC- Sample ID: 494933-010 D **Batch #:** 2 **Matrix:** Water
Reporting Units: mg/L

Alkalinity by SM2320B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Alkalinity, Bicarbonate (as CaCO3)	185	182	2	20	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	U
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	25	U

Lab Batch #: 952994
Date Analyzed: 10/13/2014 15:30 **Date Prepared:** 10/13/2014 **Analyst:** MHS
QC- Sample ID: 494933-001 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	2290	2220	3	10	

Lab Batch #: 952994
Date Analyzed: 10/13/2014 15:30 **Date Prepared:** 10/13/2014 **Analyst:** MHS
QC- Sample ID: 494933-011 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	1730	1610	7	10	

Lab Batch #: 952997
Date Analyzed: 10/14/2014 17:00 **Date Prepared:** 10/14/2014 **Analyst:** JUM
QC- Sample ID: 494933-016 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	559	541	3	10	

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

Sample Duplicate Recovery

Project Name: G.L Erwin

Work Order #: 494933

Lab Batch #: 952997 **Project ID:** 039124

Date Analyzed: 10/14/2014 17:00 **Date Prepared:** 10/14/2014 **Analyst:** JUM

QC- Sample ID: 495007-009 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	1010	1130	11	10	F

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

BRL - Below Reporting Limit

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories — Xenco Odessa

Acct. # _____ Group # _____ Sample # _____

For Eurofins Lancaster Laboratories use only

Instructions on reverse side correspond with circled numbers.

COC #321273

For Lab Use Only 491733

FSC: _____

SCR#: _____

1 Client Information

Client: ERA Midland	Acct. #:
Project Name/#: 039124 G.L. Erwin	PWSID #:
Project Manager: Nancy Forster	P.O. #:
Sampler: Justin Nixon	Quote #:

Name of state where samples were collected: New Mexico

2 Sample Identification / 3 Collected / 4 Matrix / 5 Analysis Requested

Preservation Codes: H=HCl, N=HNO_3, S=H_2SO_4, T=Thiosulfate, B=NaOH, O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Matrix: Soil	Sediment	Water: Ground	Potable	Surface	NPDES	Other:	Total # of Containers	carb, bicarb, hydroxide, alkalinity SM 2320B	Cl, F, Sulfate, Nitrate 300	Dissolved metals (Ca, Mg, K, Na) 6020	TDS 2540C	6 Remarks
Dup-1-100914	10-9-14		X				X					2	X	X	X	X	Lab filtered
mw-26-100914		1215															
mw-22-100914		1230															
mw-9-100914		1240															
mw-W-100914		1250															
mw-SW-100914		1310															
mw-4-100914		1300															
Rw-1-100914		1315															
mw-1-100914		1330															
mw-5-100914		1440															

7 Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed: _____

E-mail address: _____

8 Data Package Options (circle if required)

Type I (Validation/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) TX TRRP-13

Type IV (CLP SOW) MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10/9/14	16:45	[signature]	10/9/14	1645
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time

EDD Required? Yes No

If yes, format: _____

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS _____ FedEx _____ Other _____

Temperature upon receipt 0 °C

CHAIN OF CUSTODY

Page 2 Of 2

XENCO LABORATORIES
Setting the Standard since 1990

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Service Center - San Antonio, Texas (210-509-3334)
Odessa, Texas (432-563-1800)
Norcross, Georgia (770-449-8800)
Lakeland, Florida (863-646-8526)
Tampa, Florida (813-620-2000)
www.xenco.com

Xenco Quote #:
Xenco Job #: 494933

Client / Reporting Information
Company Name / Branch: CRA Midland
Company Address: 2135 S Loop 250 W, Midland TX
Email: jnixon@craworld.com
Phone No:
Project Contact: Nancy Forster
Samplers's Name: Justin Nixon

Project Information
Project Name/Number: G. L. Erwin 039124
Project Location: Jal, NM
Invoice To: CRA/Chris G. Knight, 13091 Pond Springs Rd. Ste. A100, Austin, TX 78729
PO Number:

Analytical Information
- Carb, Bicarb, Hyd Oxide, & Tot Alk SM2320B
- Cl, F, Sulfate, Nitrate 300
- Diss Metals (Ca, Mg, K, Na) 6020
- TDS 2540C

Matrix Codes
A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil
WW= Waste Water

No.	Field ID / Point of Collection	Sample Depth	Date	Time	Matrix	# of bottles	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Carb, Bicarb, Hyd Oxide, & Tot Alk SM2320B	Cl, F, Sulfate, Nitrate 300	Diss Metals (Ca, Mg, K, Na) 6020	TDS 2540C	Field Comments
1	MW-6-100914		10/9	13:40	Grnd	2									X	X	X	X	Lab Filtered
2	MW-3-100914		↓	13:50	↓	↓									↓	↓	↓	↓	↓
3	MW-1-100914		↓	1410	↓	↓									↓	↓	↓	↓	↓
4	MW-2-100914		↓	1420	↓	↓									↓	↓	↓	↓	↓
5	MW-7-100914		↓	1430	↓	↓									↓	↓	↓	↓	↓
6	DUP-2-100914		↓	—	↓	↓									↓	↓	↓	↓	↓
7																			
8																			
9																			
10																			

Turnaround Time (Business days)
- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information
- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by	Date Time	Received By		Relinquished By	Date Time	Received By
1	Relinquished by Sampler: [signature]	10/9/14 1645	1 [signature]	2		10/9/14 1645	2
3	Relinquished by:	Date Time:	3 Received By:	4	Relinquished By:	Date Time:	4 Received By:
5	Relinquished by:	Date Time:	5 Received By:		Custody Seal #	Preserved where applicable ☐	On Ice ☒ Cooler Temp. Thermo. Corr. Factor

pg 1 of 2

Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories — Xenco Odessa

For Eurofins Lancaster Laboratories use only
Acct. # ______ Group # ______ Sample # ______
Instructions on reverse side correspond with circled numbers.

COC #321273

For Lab Use Only 494933
FSC: ______
SCR#: ______

1 Client Information

Client: ERA Midland	Acct. #:
Project Name/#: 039124 G.L. Erwin	PWSID #:
Project Manager: Nancy Forster	P.O. #:
Sampler: Justin Nixon	Quote #:
Name of state where samples were collected: New Mexico	

4 Matrix: Soil ☐ Sediment ☐ Water: Potable ☐ NPDES ☐ Ground ☒ Surface ☐ Other: ______

5 Analysis Requested / Preservation Codes

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, O=Other

2 Sample Identification

Sample Identification	Collected Date	Collected Time	3 Grab	Composite	Water	Total # of Containers	carb, bicarb, hydroxide, total alk SM 2320B	Cl, F, Sulfate, Nitrate 300	Diss metals (Ca, Mg, K, Na) 6020	TDS 2540C	6 Remarks
Dup-1-100914	10-9-14		X		X	2	X	X	X	X	Lab filtered
mw-26-100914	↓	1215	↓		↓	↓	↓	↓	↓	↓	↓
mw-22-100914	↓	1230	↓		↓	↓	↓	↓	↓	↓	↓
mw-9-100914	↓	1240	↓		↓	↓	↓	↓	↓	↓	↓
mw-W-100914	↓	1250	↓		↓	↓	↓	↓	↓	↓	↓
mw-SW-100914	↓	1310	↓		↓	↓	↓	↓	↓	↓	↓
mw-4-100914	↓	1300	↓		↓	↓	↓	↓	↓	↓	↓
Rw-1-100914	↓	1315	↓		↓	↓	↓	↓	↓	↓	↓
mw-10-100914	↓	1330	↓		↓	↓	↓	↓	↓	↓	↓
mw-5-100914	↓	1440	↓		↓	↓	↓	↓	↓	↓	↓

7 Turnaround Time (TAT) Requested (please circle)

Standard   Rush

(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)

Date results are needed: ______

E-mail address: ______

8 Data Package Options (circle if required)

Type I (Validation/non-CLP)   Type VI (Raw Data Only)

Type III (Reduced non-CLP)   TX TRRP-13

Type IV (CLP SOW)   MA MCP   CT RCP

9

Relinquished by	Date	Time	Received by	Date	Time
[signature]	10/9/14	16:45	[signature]	10/9/14	1645

EDD Required? Yes No
If yes, format: ______

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx ____ Other ______

Temperature upon receipt 0 °C

CHAIN OF CUSTODY

Page 2 Of 2

XENCO LABORATORIES

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Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

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Xenco Quote #

Xenco Job # 4094933

Client / Reporting Information

Company Name / Branch: CRA Midland

Company Address: 2135 S Loop 250 W, Midland TX

Email: jnixon@craworld.com

Phone No:

Project Contact: Nancy Forster

Samplers's Name: Justin Nixon

Project Information

Project Name/Number: G. L. Erwin 039/24

Project Location: Jal, NM

Invoice To: CRA/Chris G. Knight
13091 Pond Springs Rd. Ste. A100
Austin, TX 78729

PO Number:

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Tot Alk, Hyd Oxide, SM2320B	Cl, F, Sulfate, Nitrate 300	Diss Metals (Ca, Mg, K, Na) 6020	TDS 2540C
1	MW-6-100914		10/9	13:40	Ground	2									X	X	X	X
2	MW-3-100914			13:50														
3	MW-1-100914			1410														
4	MW-2-100914			1420														
5	MW-7-100914			1430														
6	DUP-2-100914																	
7	WW-1-100914			13:45														
8																		
9																		
10																		

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

Field Comments: Lab Filtered

Turnaround Time (Business days)

- ☐ Same Day TAT
- ☐ 5 Day TAT
- ☐ Next Day EMERGENCY
- ☐ 7 Day TAT
- ☐ 2 Day EMERGENCY
- ☐ Contract TAT
- ☐ 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- ☐ Level II Std QC
- ☐ Level IV (Full Data Pkg /raw data)
- ☐ Level III Std QC+ Forms
- ☐ TRRP Level IV
- ☐ Level 3 (CLP Forms)
- ☐ UST / RG -411
- ☐ TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		10/9/14 1645		2	10/9/14 1645	2
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
			3	4		4
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Preserved where applicable	On Ice: X — Cooler Temp. — Therm. Corr. Factor: 0
			5			

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Conestoga Rovers & Associates

Date/ Time Received: 10/09/2014 04:45:00 PM

Work Order #: 494933

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	0
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**N/A**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**N/A**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**N/A**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 10/09/2014

Checklist reviewed by: Kelsey Brooks Date: 10/10/2014

Analytical Report 495007

for

Conestoga Rovers & Associates

Project Manager: Nancy Forster

G.L Erwin

039124

17-OCT-14

Collected By: Client

12600 West I-20 East Odessa, Texas 79765

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-14-18), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
New Jersey (TX007), North Carolina(681), Oklahoma (9218), Pennsylvania (68-03610)

Xenco-Atlanta (EPA Lab Code: GA00046):
Florida (E87429), North Carolina (483), South Carolina (98015), Kentucky (85), DoD (L10-135)
Texas (T104704477), Louisiana (04176), USDA (P330-07-00105)

Xenco-Lakeland: Florida (E84098)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-TX)
Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295-TX)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona(AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)
Xenco Tucson (EPA Lab code:AZ000989): Arizona (AZ0758)

17-OCT-14

Project Manager: **Nancy Forster**
Conestoga Rovers & Associates
2135 S Loop 250 W
Midland, TX 79703

Reference: XENCO Report No(s): **495007**
G.L Erwin
Project Address: NM

Nancy Forster:

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(s) 495007. 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. The uncertainty of measurement associated with the results of analysis reported is available upon request. 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. 495007 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,

Kelsey Brooks
Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.
Certified and approved by numerous States and Agencies.
A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Odessa - San Antonio - Tampa - Lakeland - Atlanta - Phoenix - Oklahoma - Latin America

Sample Cross Reference 495007

Conestoga Rovers & Associates, Midland, TX

G.L Erwin

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Dup-3-101014	W	10-10-14 00:00		495007-001
MW-25-101014	W	10-10-14 12:30		495007-002
MW-8-101014	W	10-10-14 12:50		495007-003
MW-17-101014	W	10-10-14 13:00		495007-004
MW-16-101014	W	10-10-14 13:10		495007-005
MW-12-101014	W	10-10-14 13:20		495007-006
MW-15-101014	W	10-10-14 13:30		495007-007
MW-20-101014	W	10-10-14 13:40		495007-008
MW-23-101014	W	10-10-14 13:50		495007-009
MW-24-101014	W	10-10-14 14:00		495007-010
MW-21-101014	W	10-10-14 14:10		495007-011
MW-19-101014	W	10-10-14 14:20		495007-012
MW-14-101014	W	10-10-14 14:30		495007-013
MW-13-101014	W	10-10-14 14:40		495007-014

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Certificate of Analysis Summary 495007

Conestoga Rovers & Associates, Midland, TX

Project Name: G.L Erwin

Project Id: 039124
Contact: Nancy Forster
Project Location: NM

Date Received in Lab: Fri Oct-10-14 04:30 pm
Report Date: 17-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	495007-001		495007-002		495007-003		495007-004		495007-005		495007-006	
	Field Id:	Dup-3-101014		MW-25-101014		MW-8-101014		MW-17-101014		MW-16-101014		MW-12-101014	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Oct-10-14 00:00		Oct-10-14 12:30		Oct-10-14 12:50		Oct-10-14 13:00		Oct-10-14 13:10		Oct-10-14 13:20	
Alkalinity by SM2320B SUB: E871002	***Extracted:***												
	Analyzed:	Oct-15-14 15:03		Oct-15-14 15:03		Oct-15-14 15:03		Oct-15-14 15:03		Oct-15-14 15:03		Oct-15-14 15:03	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Alkalinity, Bicarbonate (as CaCO3)		226	4.00	152	4.00	284	4.00	211	4.00	217	4.00	83.6	4.00
Alkalinity, Carbonate (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Alkalinity, hydroxide (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Dissolved Metals per ICP by SW846 6010B SUB: E871002	***Extracted:***	Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00	
	Analyzed:	Oct-16-14 19:01		Oct-16-14 19:46		Oct-16-14 19:52		Oct-16-14 19:59		Oct-16-14 20:05		Oct-16-14 20:12	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Calcium		62.0	0.200	870	0.200	51.2	0.200	83.3	0.200	242	0.200	595	0.200
Magnesium		20.1	0.200	270	0.200	15.9	0.200	27.3	0.200	79.4	0.200	208	0.200
Potassium		5.28	0.500	22.5	0.500	5.42	0.500	5.49	0.500	7.99	0.500	13.5	0.500
Sodium		265	0.500	1250	0.500	454	0.500	240	0.500	269	0.500	180	0.500
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14	
	Analyzed:	Oct-11-14 12:38		Oct-11-14 12:53		Oct-11-14 13:07		Oct-11-14 13:22		Oct-11-14 13:36		Oct-11-14 14:48	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		313 D	20.0	4280	500	527 D	50.0	316 D	50.0	834	50.0	1890	100
Fluoride		1.56	0.100	ND	0.100	2.29	0.100	1.41	0.100	0.439	0.100	0.269	0.100
Nitrate as N		4.04	0.0230	4.10	0.0230	7.65	0.0230	3.98	0.0230	4.52	0.0230	3.92	0.0230
Sulfate		131 D	20.0	299 D	50.0	194 D	50.0	107 D	50.0	130 D	10.0	55.2 D	20.0
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		1140	5.00	11400	5.00	1550	5.00	1790	5.00	1550	5.00	6290	5.00

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 495007

Conestoga Rovers & Associates, Midland, TX

Project Name: G.L Erwin

Project Id: 039124
Contact: Nancy Forster
Project Location: NM

Date Received in Lab: Fri Oct-10-14 04:30 pm
Report Date: 17-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested													
	Lab Id:	495007-007		495007-008		495007-009		495007-010		495007-011		495007-012	
	Field Id:	MW-15-101014		MW-20-101014		MW-23-101014		MW-24-101014		MW-21-101014		MW-19-101014	
	Depth:												
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	Sampled:	Oct-10-14 13:30		Oct-10-14 13:40		Oct-10-14 13:50		Oct-10-14 14:00		Oct-10-14 14:10		Oct-10-14 14:20	
Alkalinity by SM2320B SUB: E871002	***Extracted:***												
	Analyzed:	Oct-15-14 15:03		Oct-15-14 15:03		Oct-15-14 15:03		Oct-15-14 16:46		Oct-15-14 16:46		Oct-15-14 16:46	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Alkalinity, Bicarbonate (as CaCO3)		98.5	4.00	107	4.00	127	4.00	96.9	4.00	185	4.00	95.6	4.00
Alkalinity, Carbonate (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Alkalinity, hydroxide (as CaCO3)		ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00	ND	4.00
Dissolved Metals per ICP by SW846 6010B SUB: E871002	***Extracted:***	Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00		Oct-16-14 11:00	
	Analyzed:	Oct-16-14 20:18		Oct-16-14 20:25		Oct-16-14 20:31		Oct-16-14 20:38		Oct-16-14 21:03		Oct-16-14 21:10	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Calcium		293	0.200	387	0.200	140	0.200	647	0.200	155	0.200	965	0.200
Magnesium		108	0.200	139	0.200	51.9	0.200	208	0.200	48.7	0.200	369	0.200
Potassium		11.9	0.500	13.7	0.500	8.61	0.500	22.9	0.500	9.68	0.500	29.2	0.500
Sodium		129	0.500	233	0.500	107	0.500	230	0.500	119	0.500	663	0.500
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14		Oct-11-14 12:14	
	Analyzed:	Oct-11-14 15:03		Oct-11-14 15:17		Oct-11-14 15:31		Oct-11-14 15:46		Oct-11-14 16:00		Oct-11-14 17:41	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Chloride		896	100	1320	100	391 D	20.0	1870	100	186 D	20.0	3440	500
Fluoride		0.607	0.100	0.496	0.100	0.716	0.100	0.386	0.100	1.50	0.100	0.132	0.100
Nitrate as N		2.58	0.0230	3.82	0.0230	0.717	0.0230	3.41	0.0230	5.16	0.0230	3.86	0.0230
Sulfate		80.6 D	20.0	121 D	20.0	85.7 D	20.0	268 D	20.0	393 D	20.0	416 D	100
TDS by SM2540C	***Extracted:***												
	Analyzed:	Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00		Oct-14-14 17:00	
	Units/RL:	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL	mg/L	RL
Total dissolved solids		1830	5.00	4180	5.00	1010	5.00	5850	5.00	1080	5.00	7560	5.00

Kelsey Brooks
Project Manager

Certificate of Analysis Summary 495007

Conestoga Rovers & Associates, Midland, TX

Project Name: G.L Erwin

Project Id: 039124
Contact: Nancy Forster
Project Location: NM

Date Received in Lab: Fri Oct-10-14 04:30 pm
Report Date: 17-OCT-14
Project Manager: Kelsey Brooks

Analysis Requested									
	Lab Id:	495007-013		495007-014					
	Field Id:	MW-14-101014		MW-13-101014					
	Depth:								
	Matrix:	WATER		WATER					
	Sampled:	Oct-10-14 14:30		Oct-10-14 14:40					
Alkalinity by SM2320B SUB: E871002	***Extracted:***								
	Analyzed:	Oct-15-14 16:46		Oct-15-14 16:46					
	Units/RL:	mg/L	RL	mg/L	RL				
Alkalinity, Bicarbonate (as CaCO3)		103	4.00	101	4.00				
Alkalinity, Carbonate (as CaCO3)		ND	4.00	ND	4.00				
Alkalinity, hydroxide (as CaCO3)		ND	4.00	ND	4.00				
Dissolved Metals per ICP by SW846 6010B SUB: E871002	***Extracted:***	Oct-16-14 11:00		Oct-16-14 11:00					
	Analyzed:	Oct-16-14 21:16		Oct-16-14 21:23					
	Units/RL:	mg/L	RL	mg/L	RL				
Calcium		1270	0.200	326	0.200				
Magnesium		384	0.200	117	0.200				
Potassium		33.5	0.500	12.6	0.500				
Sodium		2640	0.500	143	0.500				
Inorganic Anions by EPA 300/300.1 SUB: E871002	***Extracted:***	Oct-11-14 12:14		Oct-11-14 12:14					
	Analyzed:	Oct-11-14 17:56		Oct-11-14 18:10					
	Units/RL:	mg/L	RL	mg/L	RL				
Chloride		7610	500	1020	100				
Fluoride		1.77	0.100	0.829	0.100				
Nitrate as N		4.28	0.0230	3.78	0.0230				
Sulfate		ND	1.00	148 D	20.0				
TDS by SM2540C	***Extracted:***								
	Analyzed:	Oct-14-14 17:00		Oct-14-14 17:00					
	Units/RL:	mg/L	RL	mg/L	RL				
Total dissolved solids		19000	5.00	3500	5.00				

Kelsey Brooks
Project Manager

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 affect the recovery of the spike concentration. This condition could also affect 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 quantitation limit and above the detection limit.

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.

JN A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation

Blank Spike Recovery

Project Name: G.L Erwin

Work Order #: 495007 **Project ID:** 039124

Lab Batch #: 952776 **Sample:** 662827-1-BKS **Matrix:** Water

Date Analyzed: 10/11/2014 **Date Prepared:** 10/11/2014 **Analyst:** DEP

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

Inorganic 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	<1.00	10.0	9.92	99	80-120	
Fluoride	<0.100	10.0	10.2	102	80-120	
Nitrate as N	<0.0230	10.0	10.0	100	90-110	
Sulfate	<1.00	10.0	10.2	102	80-120	

Lab Batch #: 952997 **Sample:** 952997-1-BKS **Matrix:** Water

Date Analyzed: 10/14/2014 **Date Prepared:** 10/14/2014 **Analyst:** JUM

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

TDS by SM2540C Analytes	Blank Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Control Limits %R	Flags
Total dissolved solids	14.5	1000	1010	101	80-120	

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

BRL - Below Reporting Limit

BS / BSD Recoveries

Project Name: G.L Erwin

Work Order #: 495007 **Project ID:** 039124

Analyst: DAB **Date Prepared:** 10/16/2014 **Date Analyzed:** 10/16/2014

Lab Batch ID: 953185 **Sample:** 663018-1-BKS **Batch #:** 1 **Matrix:** Water

Units: mg/L

BLANK /BLANK SPIKE / BLANK SPIKE DUPLICATE RECOVERY STUDY

Dissolved Metals per ICP by SW846 6010B Analytes	Blank Sample Result [A]	Spike Added [B]	Blank Spike Result [C]	Blank Spike %R [D]	Spike Added [E]	Blank Spike Duplicate Result [F]	Blk. Spk Dup. %R [G]	RPD %	Control Limits %R	Control Limits %RPD	Flag
Calcium	<0.200	25.0	25.9	104	25.0	26.0	104	0	80-120	20	
Magnesium	<0.200	25.0	26.6	106	25.0	26.5	106	0	80-120	20	
Potassium	<0.500	10.0	10.2	102	10.0	10.2	102	0	80-120	20	
Sodium	<0.500	25.0	26.0	104	25.0	25.7	103	1	80-120	20	

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|
Blank Spike Recovery [D] = 100*(C)/[B]
Blank Spike Duplicate Recovery [G] = 100*(F)/[E]
All results are based on MDL and Validated for QC Purposes

Form 3 - MS / MSD Recoveries

Project Name: G.L Erwin

Work Order # : 495007 **Project ID:** 039124

Lab Batch ID: 953185 **QC- Sample ID:** 495007-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/16/2014 **Date Prepared:** 10/16/2014 **Analyst:** DAB

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Dissolved Metals per ICP by SW846 6010B 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
Calcium	62.0	25.0	86.6	98	25.0	86.7	99	0	75-125	20	
Magnesium	20.1	25.0	45.8	103	25.0	45.8	103	0	75-125	20	
Potassium	5.28	10.0	15.7	104	10.0	15.8	105	1	75-125	20	
Sodium	265	25.0	286	84	25.0	285	80	0	75-125	20	

Lab Batch ID: 952776 **QC- Sample ID:** 494952-001 S **Batch #:** 1 **Matrix:** Water

Date Analyzed: 10/11/2014 **Date Prepared:** 10/11/2014 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	191	200	385	97	200	386	98	0	80-120	20	
Fluoride	<2.00	200	201	101	200	203	102	1	80-120	20	
Nitrate as N	0.160	10.0	9.89	97	10.0	9.91	98	0	80-120	20	
Sulfate	<20.0	200	200	100	200	202	101	1	80-120	20	

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 Applicable
N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Form 3 - MS / MSD Recoveries

Project Name: G.L Erwin

Work Order # : 495007 **Project ID:** 039124

Lab Batch ID: 952776 **QC- Sample ID:** 494992-001 S **Batch #:** 1 **Matrix:** Ground Water

Date Analyzed: 10/11/2014 **Date Prepared:** 10/11/2014 **Analyst:** DEP

Reporting Units: mg/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY STUDY

Inorganic Anions by EPA 300/300.1 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	<1.00	10.0	10.7	107	10.0	10.7	107	0	80-120	20	
Fluoride	0.244	10.0	10.9	107	10.0	11.1	109	2	80-120	20	
Nitrate as N	0.248	10.0	10.1	99	10.0	10.1	99	0	80-120	20	
Sulfate	8.38	10.0	18.7	103	10.0	18.6	102	1	80-120	20	

Matrix Spike Percent Recovery [D] = 100*(C-A)/B

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

Relative Percent Difference RPD = 200*|(C-F)/(C+F)|

ND = Not Detected, J = Present Below Reporting Limit, B = Present in Blank, NR = Not Requested, I = Interference, NA = Not Applicable

N = See Narrative, EQL = Estimated Quantitation Limit, NC = Non Calculable - Sample amount is > 4 times the amount spiked.

Sample Duplicate Recovery

Project Name: G.L Erwin

Work Order #: 495007

Lab Batch #: 953029 **Project ID:** 039124
Date Analyzed: 10/15/2014 15:03 **Date Prepared:** 10/15/2014 **Analyst:** DHE
QC- Sample ID: 494959-007 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Alkalinity by SM2320B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Alkalinity, Bicarbonate (as CaCO3)	177	178	1	20	
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	U
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	25	U

Lab Batch #: 953031
Date Analyzed: 10/15/2014 16:46 **Date Prepared:** 10/15/2014 **Analyst:** DHE
QC- Sample ID: 494905-001 D **Batch #:** 1 **Matrix:** Water
Reporting Units: mg/L

Alkalinity by SM2320B Analyte	SAMPLE / SAMPLE DUPLICATE RECOVERY Parent Sample Result [A]	Sample Duplicate Result [B]	RPD	Control Limits %RPD	Flag
Alkalinity, Bicarbonate (as CaCO3)	<4.00	<4.00	0	20	U
Alkalinity, Carbonate (as CaCO3)	<4.00	<4.00	0	20	U
Alkalinity, hydroxide (as CaCO3)	<4.00	<4.00	0	25	U

Lab Batch #: 952997
Date Analyzed: 10/14/2014 17:00 **Date Prepared:** 10/14/2014 **Analyst:** JUM
QC- Sample ID: 494933-016 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	559	541	3	10	

Lab Batch #: 952997
Date Analyzed: 10/14/2014 17:00 **Date Prepared:** 10/14/2014 **Analyst:** JUM
QC- Sample ID: 495007-009 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	1010	1130	11	10	F

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

CHAIN OF CUSTODY

Page 1 Of 2

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Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

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Xenco Quote #

Xenco Job # 495007

Client / Reporting Information

Company Name / Branch: CRA MIDLAND

Company Address: 2135 S Loop 250 W, MIDLAND, TX 79703

Email: jnixon@CRAWORLD.COM

Phone No:

Project Contact: NANCY FOSTER

Samplers's Name: JUSTIN NIXON

Project Information

Project Name/Number: G.L. ERWIN 039124

Project Location: LEA County, NM

Invoice To: CRA / Chris G. Knight, 13091 Pond Springs Rd., Ste. A100, Austin, TX 78729

PO Number:

Analytical Information

No.	Field ID / Point of Collection	Collection: Sample Depth	Collection: Date	Collection: Time	Matrix	# of bottles	Number of preserved bottles: HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NONE	Cations, Anions, Hyd Oxide, Tot Alk SM 2320B	Cl, F, Sulfate, Nitrate, 300	Diss Metals (Ca, Mg, K, Na)	TDS 2540C
1	DUP-3-101014		10/10	—	G	2									X	X	X	X
2	MW-25-101014			1230														
3	MW-8-101014			1250														
4	MW-17-101014			1300														
5	MW-16-101014			1310														
6	MW-12-101014			1320														
7	MW-15-101014			1330														
8	MW-20-101014			1340														
9	MW-23-101014			1350														
10	MW-24-101014			1400														

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
W = Wipe
O = Oil

WW= Waste Water

Field Comments: LAB FILTERED

Turnaround Time (Business days)

- [ ] Same Day TAT
- [ ] 5 Day TAT
- [ ] Next Day EMERGENCY
- [ ] 7 Day TAT
- [ ] 2 Day EMERGENCY
- [ ] Contract TAT
- [ ] 3 Day EMERGENCY

TAT Starts Day received by Lab, if received by 3:00 pm

Data Deliverable Information

- [ ] Level II Std QC
- [ ] Level IV (Full Data Pkg /raw data)
- [ ] Level III Std QC+ Forms
- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		10/10/14 16:30	1	2	10-10-14 1630	
3	Relinquished by:	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal #	Preserved where applicable	On Ice: X

Cooler Temp. -0+1=0 Thermo Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negotiated under a fully executed client contract.

CHAIN OF CUSTODY

Page 2 Of 2

XENCO LABORATORIES

Setting the Standard since 1990

Stafford,Texas (281-240-4200)

Dallas, Texas (214-902-0300)

Service Center - San Antonio, Texas (210-509-3334)

Odessa, Texas (432-563-1800)

Norcross, Georgia (770-449-8800)

Lakeland, Florida (863-646-8526)

Tampa, Florida (813-620-2000)

www.xenco.com

Xenco Quote #

Xenco Job # 491507-

Client / Reporting Information

Company Name / Branch: CRA MIDLAND

Company Address: 2135 S Loop 250 W, Midland, TX 79703

Email: jnixon@crawrld.com

Phone No:

Project Contact: Nancy Foster

Samplers's Name: Justin Nixon

Project Information

Project Name/Number: G.L. Erwin 039124

Project Location: LEA County, NM

Invoice To: CRA / Chris G. Knight
13911 Pond Springs Rd., Ste. A100
Austin, TX 78729

PO Number:

Analytical Information

Total Alk. Carbs, Bicarbs, Hyd. Oxide & SM 2320

Cl, F, Sulfates, Nitrates, 300

Diss. Metals, (Ca, Mg, K, Na) by 6010

TDS 2540C

Matrix Codes

A= Air
S = Soil/Sed/Solid
GW =Ground Water
DW = Drinking Water
P = Product
SW = Surface water
SL = Sludge
WW= Waste Water
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1	MW-21-101014		10/10	1410	G	2								
2	MW-19-101014			1420										
3	MW-14-101014			1430										
4	MW-13-101014			1440										
5														
6														
7														
8														
9														
10														

Field Comments: LAB FILTERED

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- [ ] TRRP Level IV
- [ ] Level 3 (CLP Forms)
- [ ] UST / RG -411
- [ ] TRRP Checklist

Notes:

FED-EX / UPS: Tracking #

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

	Relinquished by:	Date Time:	Received By:
1	Sampler	10/10/14 16:30	1
2			
3			3
4			
5			5

	Relinquished By:	Date Time:	Received By:
2		10-10-14 1630	
4			4

Custody Seal #

Preserved where applicable

On Ice: X

Cooler Temp. -0 +1 = 0

Thermo. Corr. Factor

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to XENCO Laboratories and its affiliates, subcontractors and assigns XENCO's standard terms and conditions of service unless previously negiotiated under a fully executed client contract.

XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: Conestoga Rovers & Associates

Date/ Time Received: 10/10/2014 04:30:45 PM

Work Order #: 495007

Acceptable Temperature Range: 0 - 6 degC
Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used :

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	0
#2 *Shipping container in good condition?	**Yes**
#3 *Samples received on ice?	**Yes**
#4 *Custody Seals intact on shipping container/ cooler?	**No**
#5 Custody Seals intact on sample bottles?	**No**
#6 *Custody Seals Signed and dated?	**No**
#7 *Chain of Custody present?	**Yes**
#8 Sample instructions complete on Chain of Custody?	**Yes**
#9 Any missing/extra samples?	**No**
#10 Chain of Custody signed when relinquished/ received?	**Yes**
#11 Chain of Custody agrees with sample label(s)?	**Yes**
#12 Container label(s) legible and intact?	**Yes**
#13 Sample matrix/ properties agree with Chain of Custody?	**Yes**
#14 Samples in proper container/ bottle?	**Yes**
#15 Samples properly preserved?	**Yes**
#16 Sample container(s) intact?	**Yes**
#17 Sufficient sample amount for indicated test(s)?	**Yes**
#18 All samples received within hold time?	**Yes**
#19 Subcontract of sample(s)?	**No**
#20 VOC samples have zero headspace (less than 1/4 inch bubble)?	**No**
#21 <2 for all samples preserved with HNO3,HCL, H2SO4?	**No**
#22 >10 for all samples preserved with NaAsO2+NaOH, ZnAc+NaOH?	**No**

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by: Kelsey Brooks Date: 10/10/2014

Checklist reviewed by: Kelsey Brooks Date: 10/10/2014