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FINAL REPORT

2012 ANNUAL GROUNDWATER MONITORING REPORT

G.L. Erwin "A&B" Federal Tank Battery
Case No. 1R254/ Ogrid No. 4323
SW/4, SE/4, Section 35, T-24-S, R-37-E
Lea County, New Mexico

Prepared for: Chevron Environmental
Management Company

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ORIGINAL

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1.0 INTRODUCTION

This Annual Groundwater Monitoring Report presents groundwater data collected during the 2012 reporting period at the G.L. Erwin "A & B" Federal NCT-2 Tank Battery (hereafter referred to as the "Site"). On February 20-22 and 24, and August 22-24 and 28-29, 2012 Conestoga-Rovers & Associates (CRA) conducted the semi-annual groundwater monitoring events on behalf of Chevron Environmental Management Company (CEMC), as successor to Texaco Exploration and Production, Inc. (Texaco).

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.

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 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 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. 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. Currently, the Site is monitored semi-annually by CRA.

2.0 REGULATORY FRAMEWORK

The NMOCD guidelines require groundwater to be analyzed for constituents of concern (COC) as defined by the NMWQCC standards. The NMWQCC regulations provide Human Health Standards for Groundwater. The COCs in affected groundwater at the Site are chlorides, fluorides, nitrates, sulfates and total dissolved solids (TDS). Groundwater analytical results for COC analytes were compared to the NMWQCC standards shown in the following table:

<i>Analyte</i>	<i>NMWQCC Standard for Groundwater (mg/L)</i>
Fluoride ¹	1.6
Nitrate (NO ₃ as N) ¹	10.0
Chloride ²	250.0
Sulfate (SO ₄) ²	600.0
Total Dissolved Solids (TDS) ²	1,000.0

Notes:

- 1) ¹NMWQCC HUMAN HEALTH STANDARDS PER NMAC 20.6.2.3103A
- 2) ²NMWQCC OTHER STANDARDS FOR DOMESTIC WATER SUPPLY PER NMAC 20.6.2.3103B

3.0 2012 GROUNDWATER MONITORING

Currently, groundwater at the Site is monitored semi-annually with a network of 31 wells (Figure 2). CRA performed ground water sampling events on February 20-22 and 24, August 22-24 and 28-29, 2012 at the Site.

Prior to purging the monitor wells, static fluid levels were measured with an electric interface probe to the nearest hundredth of a foot. After recording fluid levels, the wells were hand-bailed and purged of three casing volumes of groundwater. Geochemical field parameters (pH, temperature and conductivity) were recorded during purging. All non-disposable groundwater sampling equipment was decontaminated with a soap (Liquinox®) and potable water wash, a potable water rinse and a final deionized water rinse. Subsequent to the purging, groundwater samples were collected with new disposable PVC bailers. Laboratory supplied sample containers were filled directly from the bailers.

The 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 samples to ALS Laboratory Group (ALS) in Houston, Texas for analysis of dissolved metals (SW 6020), anions (EPA E300.0), alkalinity (SM 2320B) and TDS (M2540C). Certified laboratory reports and chain of custody documentation are attached as Appendix A. The 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.

3.1 POTENTIOMETRIC SURFACE AND GRADIENT

Groundwater elevation data are presented in Table I and generally fall within historical ranges. Groundwater gradient maps for February and August 2012 are presented as Figures 3 and 4. Groundwater elevations ranged from 3,064.79 feet (MW-23) to 3,109.82 feet (MW-26) in February and from 3,064.84 feet (MW-23) to 3,109.82 feet (MW-26) in August. Groundwater flow at the Site is to the southeast at a gradient of 0.013 feet/foot.

3.2 ANALYTICAL RESULTS

The 2012 analytical results generally fall within historical ranges and are summarized in Table II. All wells were sampled during both events except for

monitor wells, MW-18 (Dry) and MW-23 (surfactant from drilling completion) in February and monitor wells, MW-18 (Dry), MW-27 (Dry) and RW-1 in the August event. Monitor wells MW-25, MW-26 and MW-27 were initially sampled on May 24, 2012 and the data was included with the February figures. A chloride concentration map for February and August 2012 ground water monitoring events is presented collectively as Figure 5. Isopleths maps of Chloride isoconcentration maps for February and August are presented as Figures 6 and 7 respectively. All wells sampled during the February and August 2012 monitoring events had at least one COC (chloride, fluoride, nitrate, sulfate or TDS) that exceeded NMWQCC standards except WW-1 which did not exceed any standards in the February or August events.

Groundwater COCs detected above the NMWQCC standards are highlighted in Table II and are listed below:

- Chloride was detected at concentrations above the NMWQCC standard (250.0 mg/L) in twenty-seven wells sampled during the February 2012 event and in twenty-five wells during the August 2012 sampling event.
- Fluoride was detected at concentrations above the NMWQCC standard (1.6 mg/L) in eight wells sampled during the February 2012 event and in eight wells during the August 2012 sampling event.
- Nitrate was not detected at concentrations above the NMWQCC standard (10.0 mg/L) in any wells during the February or the August 2012 events.
- Sulfate was detected at concentrations above the NMWQCC standard (600.0 mg/L) in one well sampled during the February and August 2012 sampling events.
- Total Dissolved Solids were detected at concentrations above the NMWQCC standard (1,000.0 mg/L) in twenty-six wells sampled during the February 2012 event and in twenty-four wells during the August 2012 sampling event.

4.0 GROUNDWATER INVESTIGATION ACTIVITIES

On April 2-3, 2012, three groundwater monitoring wells (MW-25, MW-26 and MW-27) were installed at the Site. The wells were installed to further evaluate the horizontal extent of affected groundwater at the Site. The respective well locations are presented on Figure 2.

4.1 FIELD METHODOLOGIES

Prior to mobilizing the drilling equipment to the Site, the boring location areas were marked and a utility notification was made at least 48-hours prior to the drilling activities. A post hole digger was utilized to clear each boring location to a depth of approximately 5-feet bgs and 10-inches in diameter. An air-rotary rig was operated by a licensed State of New Mexico water well driller White Drilling Company Inc. of Clyde, Texas (license #WD-1456).

The three boring locations were converted into two-inch groundwater monitoring wells (MW-25, MW-26 and MW-27) at each location utilizing 20-30 feet of 0.020-inch screen and PVC casing to three feet above the ground surface. In the three monitoring wells, MW-25, MW-26 and MW-27, casing was installed to depths of 95-feet, 75-feet and 45-feet below ground surface (bgs) respectively. General well specifications included: two-inch diameter PVC casing/screens with gravel-packed screened intervals, 30-feet of 0.020-inch screen on MW-25 and 20-feet of 0.020-inch screen on MW-26 and MW-27, bentonite seals above the gravel pack, and above ground surface completions with concrete pads. NMOSE Monitor Well Records are provided in Appendix B. CRA Soil Boring Logs and Monitor Well Details are in Appendix C.

4.2 GROUNDWATER ASSESSMENT RESULTS

Following the development process and well recharge, static fluid levels were measured with an electric interface probe to the nearest hundredth of a foot to obtain groundwater elevation data. Depth to groundwater and related measurements and information pertaining to the monitoring wells are presented in Table I – Groundwater Gauging Summary. All well locations were professionally surveyed by a Texas licensed surveyor, West Company of Midland, Inc. on May 25, 2012, to provide horizontal and vertical control for each well location at the Site. The survey is provided in Appendix D.

Groundwater samples were collected after three casing volumes were removed from each well. Samples from each monitor well were collected and shipped to ALS Laboratory Group (ALS) in Houston, Texas for analysis of dissolved metals (SW 6020), anions (EPA E300.0), alkalinity (SM 2320B) and TDS (M2540C). Certified laboratory reports and chain of custody documentation are attached as Appendix A. The fluids recovered during the sampling event were containerized and subsequently disposed of at a CEMC-approved and OCD-permitted salt water disposal (SWD) facility by a third party contractor.

5.0 QUALITY ASSURANCE

Two duplicate samples were collected during the February event and one duplicate sample was collected during the August 2012 sampling event. Duplicate concentrations did not exhibit significant deviations for constituents analyzed. Copies of the certified analytical reports and chain-of-custody documentation are attached in Appendix A.

6.0 CORRECTIVE ACTION

Excluding brief periods of routine maintenance, the groundwater recovery system in RW-1 operated continuously from January to December 2012. Operation and Maintenance (O&M) activities were performed on a biweekly basis.

In 2012, approximately 2,200 barrels (bbls) of water was recovered from RW-1 and approximately 14,094 bbls of water have been recovered from RW-1 since the system was installed in September 2006. A graph for RW-1 chloride and TDS concentration versus time is presented in Appendix E.

Groundwater pumping record reports for RW-1 were submitted quarterly to the NMOSE in accordance to permit requirements.

7.0 SUMMARY

Based on historical data review and groundwater monitoring activities performed at the Site, CRA presents the following summary:

- Groundwater at the Site is monitored semi-annually with a network of 31 wells.
- Groundwater elevation data are presented in Table I and generally fall within historical ranges. Groundwater gradient maps for February and August 2012 are presented as Figures 3 and 4. Groundwater elevations ranged from 3,064.79 feet (MW-23) to 3,109.82 feet (MW-26) in February and from 3,064.84 feet (MW-23) to 3,109.82 feet (MW-26) in August. Groundwater flow at the Site is to the southeast at a gradient of 0.013 feet/foot.
- The 2012 analytical results generally fall within historical ranges, and are summarized in Table II. All wells were sampled during both events except monitor wells MW-18 (Dry) and MW-23 (surfactant from drilling completion) in February and MW-18 (Dry), MW-27 (Dry) and RW-1 in the August event. Monitor wells MW-25, MW-26 and MW-27 were initially sampled on May 24, 2012 and the analytical data was included with the February event data.
- All wells sampled during the February and August 2012 monitoring events had at least one COC (chloride, fluoride, nitrate, sulfate or TDS) that exceeded NMWQCC standards except WW-1 which did not exceed any standards in the February or August events.
- On April 2-3, 2012, three groundwater monitoring wells (MW-25, MW-26 and MW-27) were installed at the Site. The wells were installed to further evaluate the horizontal extent of affected groundwater at the Site.
- Excluding brief periods of routine maintenance, the groundwater recovery system in RW-1 operated continuously from January to December 2012. Operation and Maintenance (O&M) activities were performed on a biweekly basis.
- In 2012, approximately 2,200 barrels (bbls) of water was recovered from RW-1 and approximately 14,094 bbls of water have been recovered from RW-1 since the system was installed in September 2006.
- Groundwater pumping record reports for RW-1 were submitted quarterly to the NMOSE in accordance to permit requirements.

8.0 PLANNED ACTIVITIES

Planned activities at the G.L. Erwin "A & B" Federal NCT-2 Tank Battery include:

- Continue to perform semi-annual groundwater monitoring and sampling events in February and August 2013.
- Continue groundwater recovery from RW-1 in accordance to permit requirements.
- Submit groundwater pumping record reports for RW-1 quarterly to the NMOSE in accordance to permit requirements.

All of Which is Respectfully Submitted,
Conestoga-Rovers & Associates

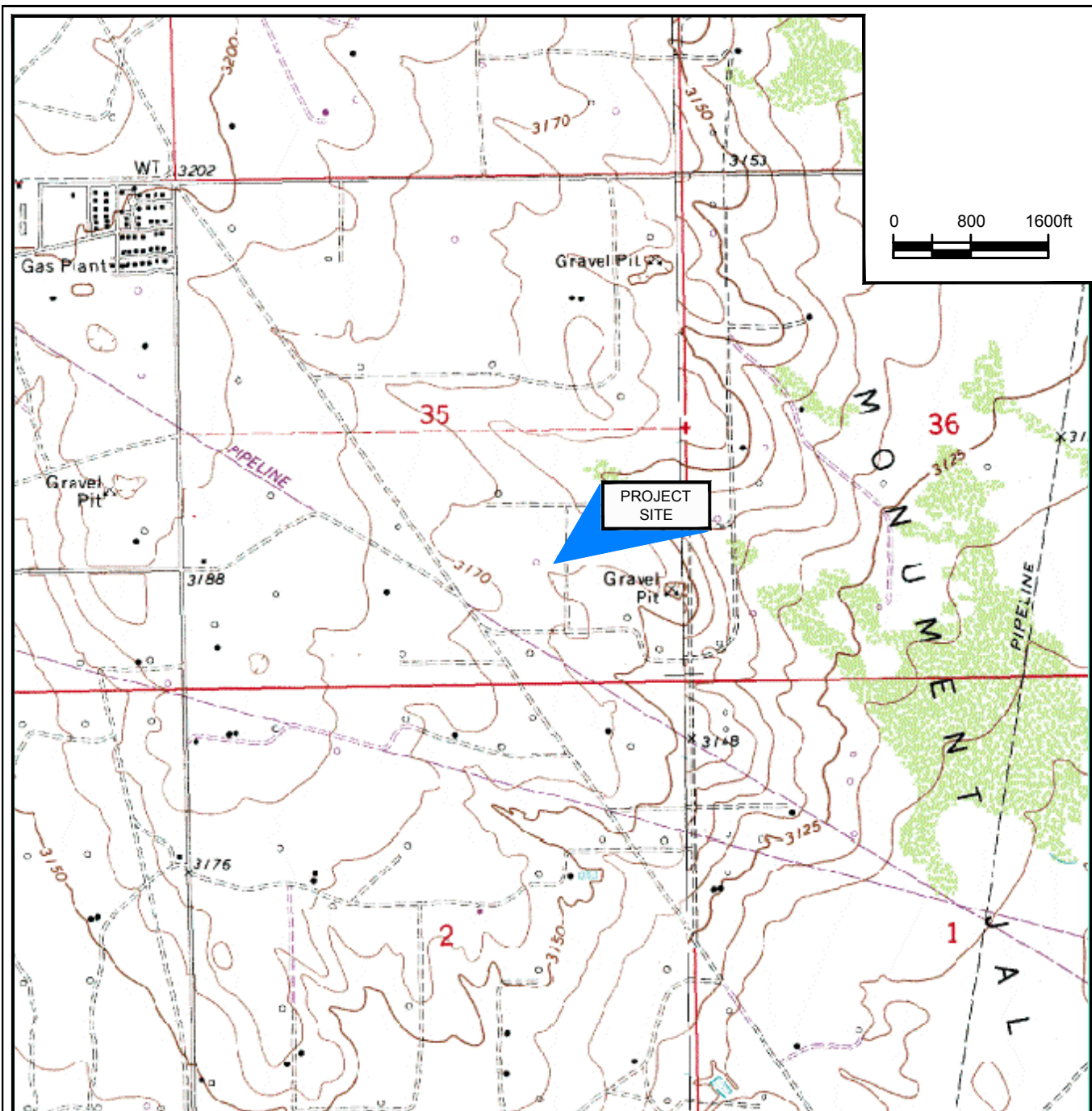


Todd Wells
Senior Project Manager



Thomas C. Larson
Midland Office Manager

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





RE: ESRI 009 Aerial Photograph.



LEGEND

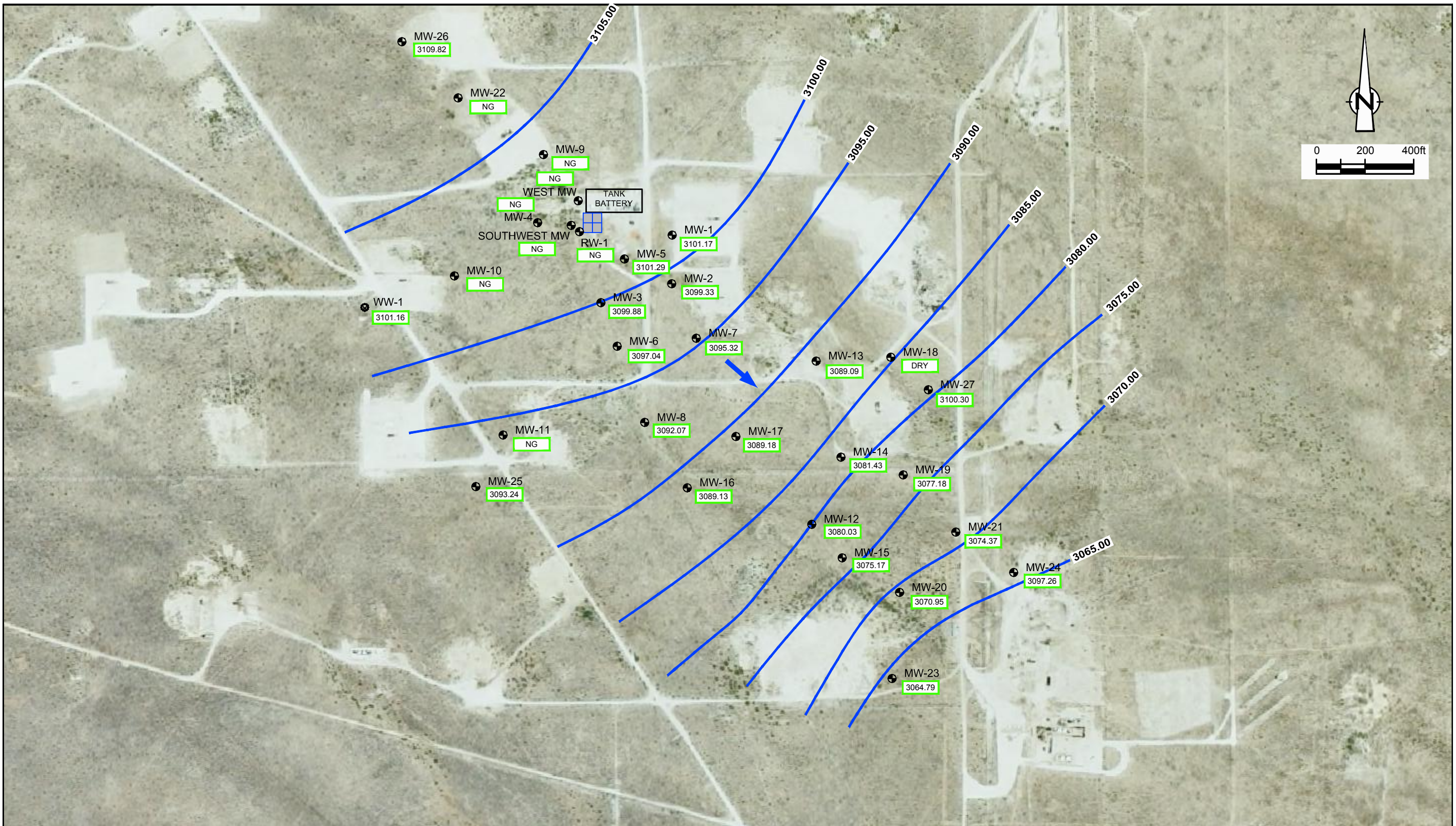
-  MONITOR WELL LOCATION
-  RECOVERY WELL LOCATION
-  WATER WELL LOCATION
-  GROUNDWATER RECOVERY SYSTEM

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



RE: ESRI 009 Aerial Photograph.

LEGEND

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

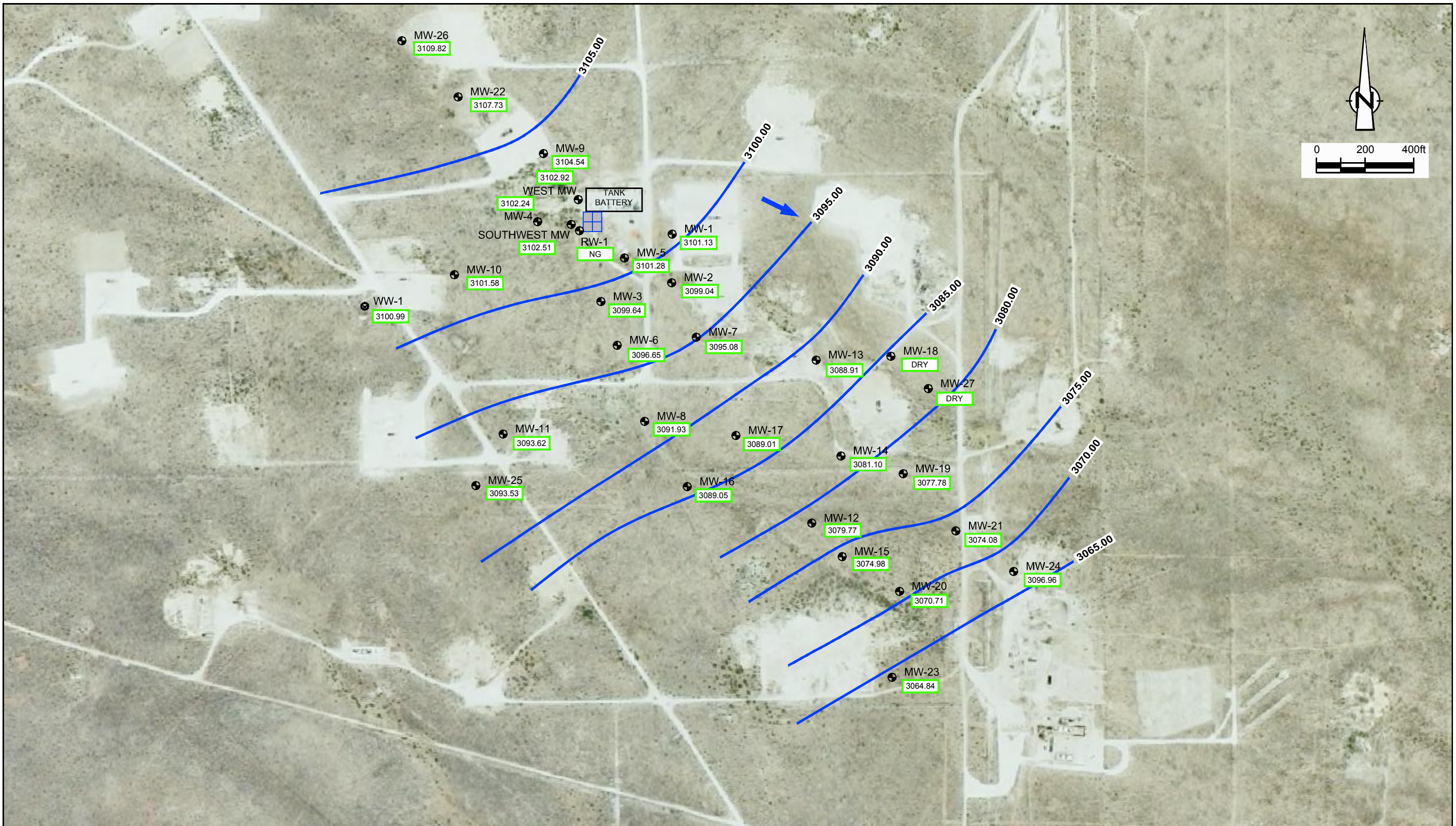
- GROUNDWATER ELEVATION CONTOUR (INTERVAL = 5.00 FT)
- ELEVATION OF GROUNDWATER (FT)
- DIRECTION OF GROUNDWATER FLOW
- GROUNDWATER NOT GAUGED

NOTES:

1. GROUNDWATER ELEVATIONS MEASUREMENTS COLLECTED ON FEBRUARY 20, 2012, EXCEPT MONITOR WELLS MW-25, MW-26 AND MW-27 WHICH WERE GAUGED ON APRIL 5, 2012.
2. MONITOR WELLS MW-24 AND MW-27 WERE NOT HONORED IN THE GRADIENT.

GROUNDWATER GRADIENT MAP - FEBRUARY 2012
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company

figure 3



RE: ESRI 009 Aerial Photograph.

LEGEND

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

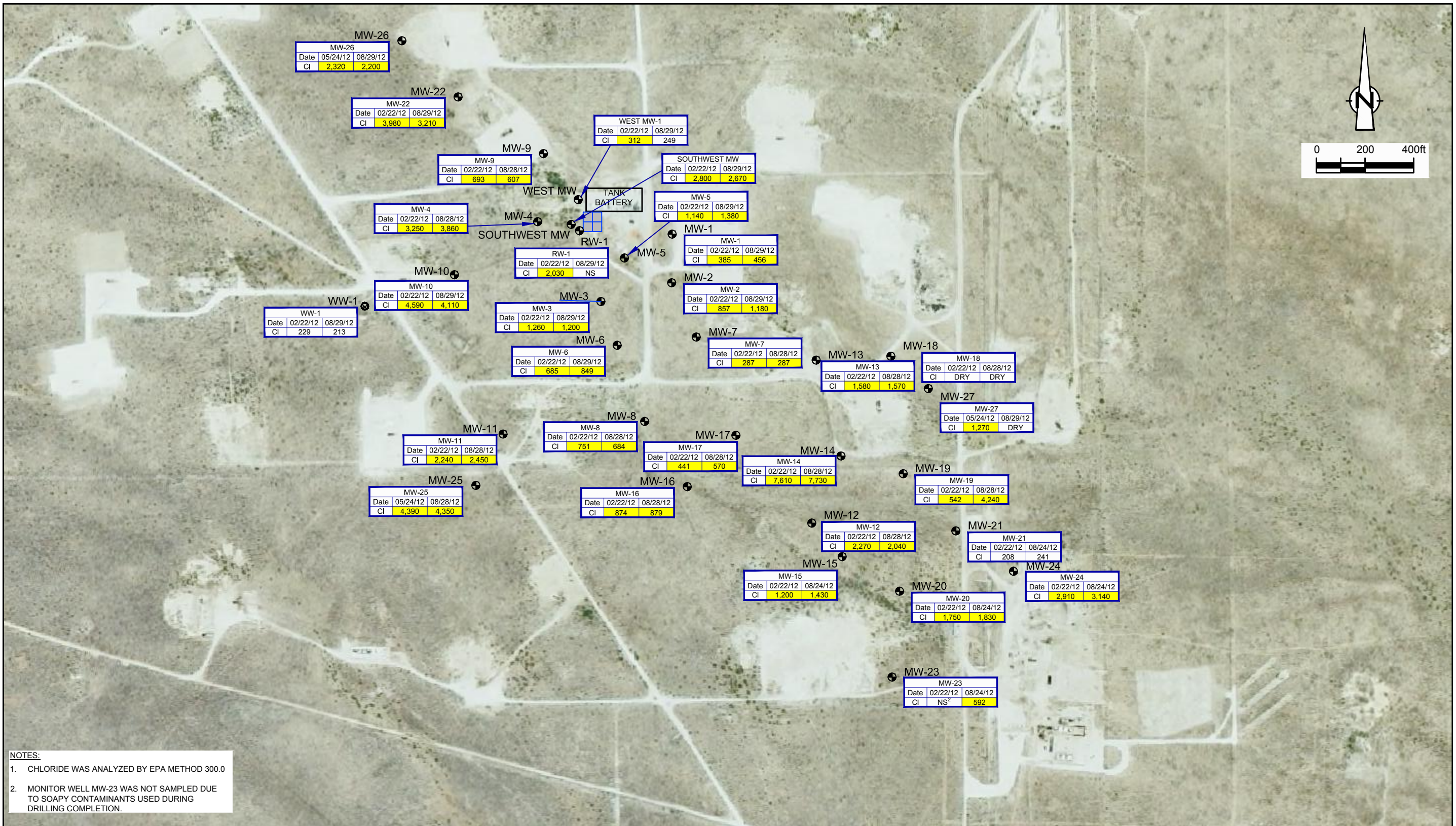
-  GROUNDWATER ELEVATION CONTOUR
(INTERVAL = 5.00 FT)
-  ELEVATION OF GROUNDWATER (FT)
-  DIRECTION OF GROUNDWATER FLOW
-  NG GROUNDWATER NOT GAUGED

NOTES:

1. GROUNDWATER ELEVATIONS MEASUREMENTS COLLECTED ON AUGUST 23, 2012.
2. GROUNDWATER ELEVATION DATA FOR MONITORING WELL MW-24 WAS NOT USED IN CALCULATING CONTOURS.

figure 4

GROUNDWATER GRADIENT MAP - AUGUST 2012
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company



RE: ESRI 009 Aerial Photograph.

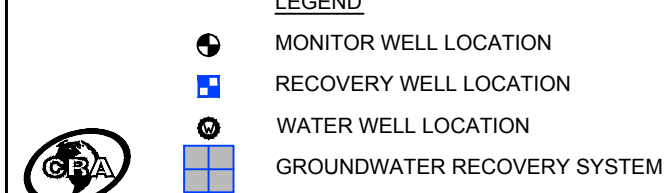
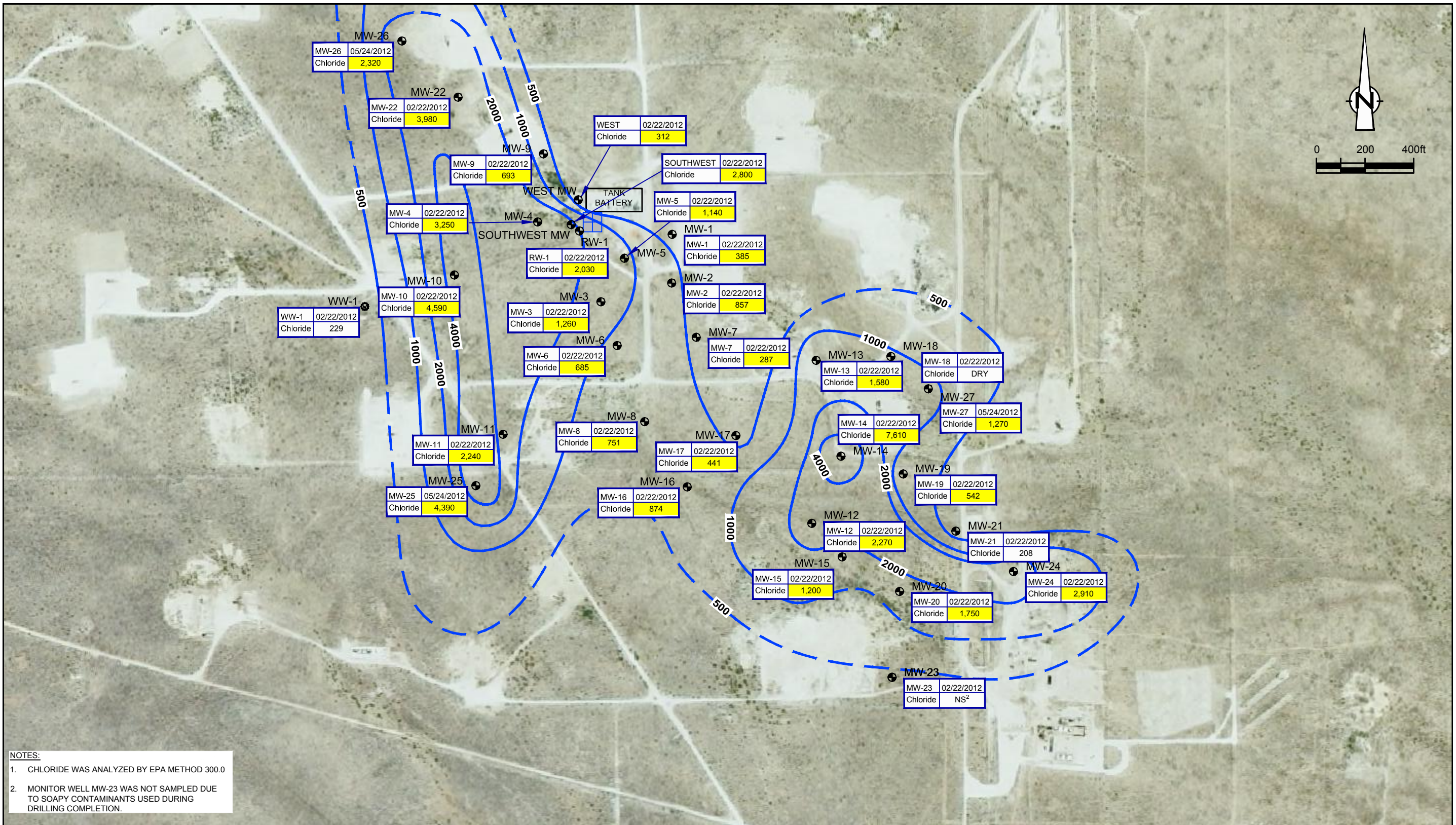


figure 5
CHLORIDE CONCENTRATION MAP - FEBRUARY AND AUGUST 2012
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO
Chevron Environmental Management Company



NOTES:

1. CHLORIDE WAS ANALYZED BY EPA METHOD 300.0
2. MONITOR WELL MW-23 WAS NOT SAMPLED DUE TO SOAPY CONTAMINANTS USED DURING DRILLING COMPLETION.

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

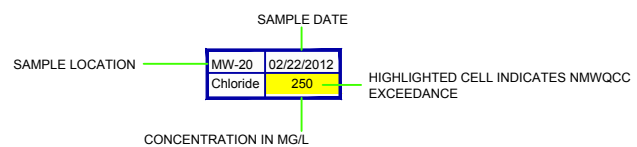
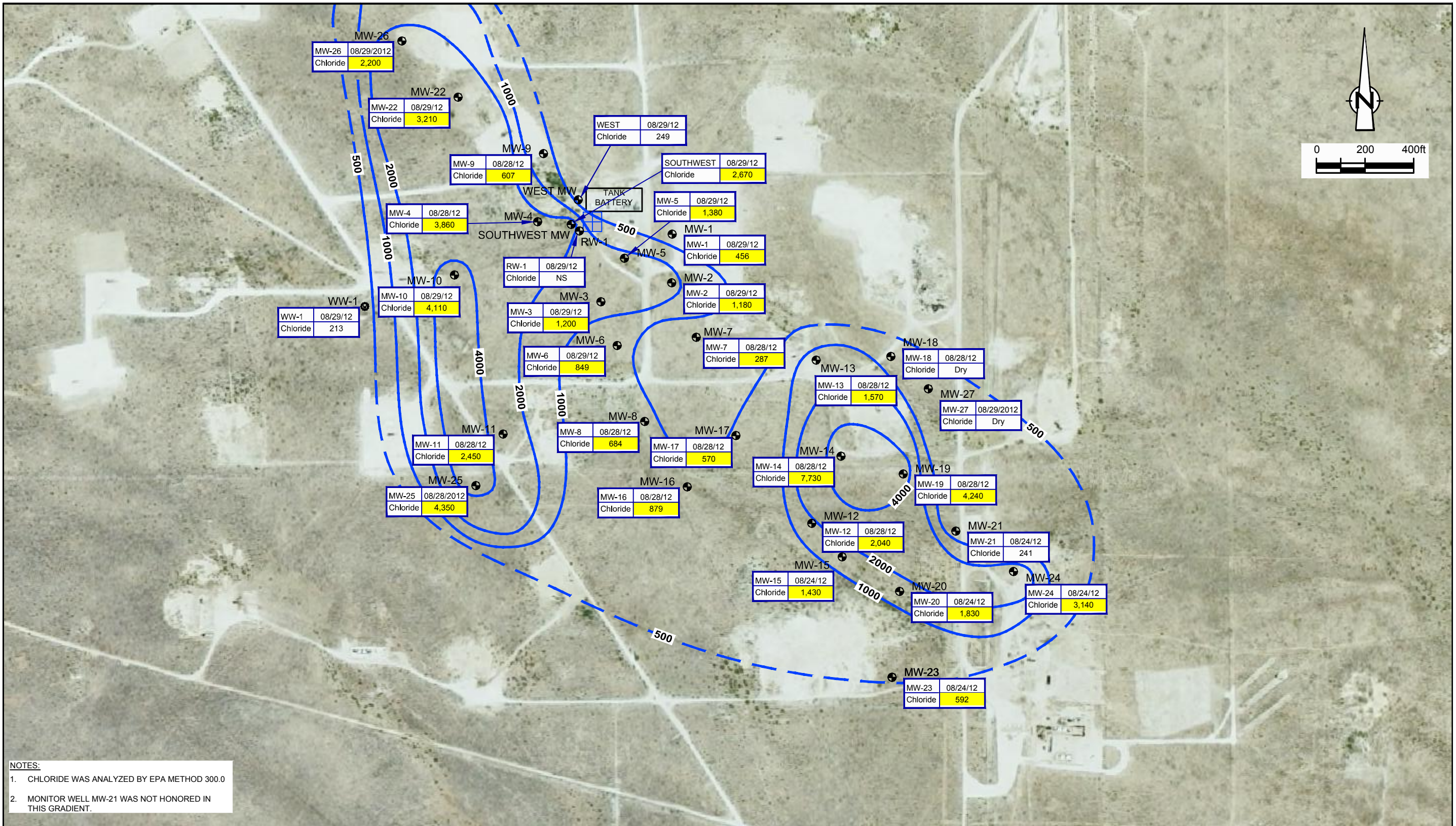


figure 6

CHLORIDE ISOCONCENTRATION MAP - FEBRUARY 2012
G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
LEA COUNTY, NEW MEXICO

Chevron Environmental Management Company



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 LOCATION	SAMPLE DATE	HIGHLIGHTED CELL INDICATES NMWQCE EXCEEDANCE
MW-23	08/24/12	
Chloride	250	
CONCENTRATION IN MG/L		

figure 7
 CHLORIDE ISOCONCENTRATION MAP - AUGUST 2012
 G.L. ERWIN "A&B" FEDERAL NCT-2 TANK BATTERY
 LEA COUNTY, NEW MEXICO
 Chevron Environmental Management Company

TABLES

TABLE I

GROUNDWATER GAUGING SUMMARY
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 ' 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 3,161.69 2	2/4/98	64.15	---	---	3097.54	87.70	55'-85'
	2/7/01	61.40	---	---	3100.29	---	
	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	
MW-02 3,159.89 2	2/4/98	61.33	---	---	3098.56	72.94	50'-70'
	2/7/01	61.45	---	---	3098.44	---	
	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	---	

TABLE I

GROUNDWATER GAUGING SUMMARY
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 ' 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 (cont)	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	
MW-03 3,164.08 2	2/4/98	65.18	---	---	3098.90	73.26	50'-70'
	2/7/01	65.22	---	---	3098.86	---	
	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	
MW-04 3,165.65 2	2/4/98	63.94	---	---	3101.71	73.31	50'-70'
	10/19/00	63.80	---	---	3101.85	---	
	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	---	

TABLE I

GROUNDWATER GAUGING SUMMARY
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 ' 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)	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	---	
	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	
MW-05 3,160.75 2	2/4/98	60.33	---	---	3100.42	73.10	50'-70'
	10/19/00	60.25	---	---	3100.50	---	
	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	---	

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GROUNDWATER GAUGING SUMMARY
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 ' 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-5 (cont)	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		---	
	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	
MW-06 3,164.18 2	2/7/01	68.00	---	---	3096.18	77.24	59'-74'
	4/30/02	68.10	---	---	3096.08	---	
	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	
MW-07 3,162.06 2	2/7/01	67.25	---	---	3094.81	73.45	55'-70'
	4/30/02	67.50	---	---	3094.56	---	
	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	---	

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GROUNDWATER GAUGING SUMMARY
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 ' 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-7 (cont)	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	
MW-08 3,159.66 2	2/3/99	68.21	---	---	3091.45	70.66	50'-70'
	2/7/01	68.30	---	---	3091.36	---	
	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	---	
	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	

TABLE I

GROUNDWATER GAUGING SUMMARY
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 ' 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 3,167.07 2	4/30/02	63.65	---	---	3103.42	70.39	55'-70'
	10/11/02	63.59	---	---	3103.48	---	
	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	
	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	
MW-10 3,170.99 2	4/30/02	70.35	---	---	3100.64	69.16	54'-69'
	10/11/02	70.49	---	---	3100.50	---	
	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	---	

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GROUNDWATER GAUGING SUMMARY
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 ' 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)	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		---	
	8/16/11	69.28	---	---	3101.71	71.95	
	2/20/12			NG		---	
	8/24/12	69.41	---	---	3101.58	71.97	
MW-11 3,168.24 2	4/30/02			DRY		72.78	58'-73'
	10/11/02			DRY		---	
	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	
MW-12 3,152.48 2	4/30/02	72.80	---	---	3079.68	74.37	59'-74'
	10/11/02	72.81	---	---	3079.67	---	
	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	---	

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GROUNDWATER GAUGING SUMMARY
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 ' 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 (cont)	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	
MW-13 3,154.92 2	4/30/02	66.97	---	---	3087.95	67.90	53'-68'
	10/11/02	66.38	---	---	3088.54	---	
	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	---	
	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	
MW-14 3,151.91 2	11/5/03	71.60	---	---	3080.31	92.43	79.5'-89.5'
	2/3/04	71.62	---	---	3080.29	---	
	5/5/04	71.67	---	---	3080.24	---	
	8/2/04	71.69	---	---	3080.22	---	

TABLE I

GROUNDWATER GAUGING SUMMARY
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 ' 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)	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	
	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	
MW-15 3,152.48 2	11/5/03			DRY		87.45	64.5'-84.5'
	2/3/04			DRY		---	
	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	
MW-16 3,157.25 2	11/5/03	65.68	---	---	3091.57	77.22	59.5'-74.5'
	2/3/04	68.67	---	---	3088.58	---	
	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	---	
	2/22/06	67.24	---	---	3090.01	74.42	

TABLE I

GROUNDWATER GAUGING SUMMARY
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 ' 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)	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	
MW-17 3,158.37 2	11/5/03	69.51	---	---	3088.86	79.37	57'-77'
	2/3/04	69.53	---	---	3088.84	---	
	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	
MW-18 3,151.08 2	11/23/04			DRY		76.98	54.5'-74.5
	2/9/05			DRY		---	
	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		---	

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GROUNDWATER GAUGING SUMMARY
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 ' 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-18 (cont)	2/15/11	DRY				---	
	8/16/11	DRY				74.50	
	2/20/12	DRY				78.40	
	8/23/12	DRY				78.41	
MW-19 3,147.79 2	11/23/04	72.63	---	---	3075.16	104.41	82.5'-102.5'
	2/9/05	72.36	---	---	3075.43	---	
	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	
	2/20/12	70.61	---	---	3077.18	105.52	
	8/23/12	70.01	---	---	3077.78	105.61	
MW-20 3,151.56 2	11/23/04	81.81	---	---	3069.75	94.94	72.5'-92.5'
	2/9/05	81.85	---	---	3069.71	---	
	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	
MW-21 3,145.87 2	11/20/07	71.05	---	---	3074.82	99.00	67'-97'
	2/18/08	70.96	---	---	3074.91	98.60	
	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	---	

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GROUNDWATER GAUGING SUMMARY
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 ' 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)	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	
MW-22 3,170.64 2	11/20/07	62.35	---	---	3108.29	68.95	46.5'-66.5'
	2/18/08	62.59	---	---	3108.05	68.60	
	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	
MW-23 3,154.38 2	2/20/12	89.59	---	---	3064.79	103.52	70-100'
	8/22/12	89.54	---	---	3064.84	102.01	
MW-24 3,146.07 2	2/20/12	48.81	---	---	3097.26	59.86	30-60'
	8/22/12	49.11	---	---	3096.96	62.90	
MW-25 3,171.32 2	4/5/12	78.08	---	---	3093.24	97.00	65-95'
	5/24/12	77.96	---	---	3093.36		
	8/23/12	77.79	---	---	3093.53	96.18	
MW-26 3,172.84 2	4/5/12	63.02	---	---	3109.82	76.58	55-75'
	5/24/12	63.02	---	---	3109.82		
	8/24/12	63.02	---	---	3109.82	76.61	
MW-27 3,146.60 2	4/5/12	46.30	---	---	3100.30	48.80	25-45'
	8/23/12			DRY		48.79	
WW-1 3,170.21 4	4/30/02	70.21	---	---	3100.00	---	--
	10/11/02	69.71	---	---	3100.50	---	
	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	

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GROUNDWATER GAUGING SUMMARY
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 ' 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)	2/27/07	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		---	
	2/20/12	69.05	---	---	3101.16	195.00	
	8/23/12	69.22	---	---	3100.99	180.04	
West MW 3,164.44 2	8/22/97	62.58	---	---	3101.86	70.43	--
	2/4/98	62.50	---	---	3101.94	---	
	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	
Southwest MW 3,164.54 2	8/22/97	63.25	---	---	3101.29	70.45	--
	2/4/98	63.21	---	---	3101.33	---	
	10/19/00	63.06	---	---	3101.48	---	

TABLE I

GROUNDWATER GAUGING SUMMARY
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 ' 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 (cont)	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	
RW-1 3,163.52 4	1/14/99	50.85	---	---	3112.67	76.30	53'-73'
	10/19/00	62.33	---	---	3101.19	---	
	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		---	

TABLE I

GROUNDWATER GAUGING SUMMARY
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

<i>WELL ID</i> <i>TOC ' elevation</i> <i>Diameter (in)</i>	<i>DATE</i>	<i>Depth to</i> <i>Water</i> <i>(ft)</i>	<i>Depth to</i> <i>LNAPL</i> <i>(ft)</i>	<i>LNAPL</i> <i>Thickness</i> <i>(ft)</i>	<i>Corrected</i> <i>Groundwater Elevation</i> <i>(ft above MSL ²)</i>	<i>Total Depth</i> <i>(ft)</i>	<i>Screen</i> <i>Interval</i> <i>(bgs ³)</i>
RW-1 (cont)	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		---	

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 II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
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
Dup	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
Dup	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	212.0	217	1.48	3.06	79.6	57.8	19.5	5.2	114.0	692	---	<1.53
	02/19/09	<5.0	160.0	150	2.00	3.00	84.0	55.0	19.0	5.3	120.0	610	---	<5.0
	7/29/09	<5.0	79.0	150	0.95	1.40	41.0	67.0	24.0	5.9	110.0	500	---	<5.0
	2/25/10	<5	172.0	167	1.79	3.23	83.1	57.5	21.2	4.3	105.0	684	---	<5.0
	Dup 2/25/10	<5	192.0	157	1.68	<0.100	83.9	52.6	17.6	4.3	103.0	544	---	<5.1
	7/28/10	<5	168.0	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 02/16/11	<2.0	145	155	1.74	3.25	81.9	55.3	17.9	4.02	91.9	604	---	<2.0
Dup 1	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
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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-2 (cont)	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	140.0	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	287.0	331	1.54	5.39	144.0	20.6	5.8	6.5	308.0	1,080	---	<1.53
	2/19/09	<5	240.0	310	1.80	5.30	160.0	21.0	6.1	7.2	350.0	1,100	---	<5
	7/29/09	<5	200.0	730	1.50	4.60	130.0	16.0	4.6	3.1	160.0	1,900	---	<5
	2/25/10	<5	255.0	380	1.39	5.78	157.0	27.4	8.5	4.7	333.0	1,130	---	<5
	7/28/10	<5	275.0	273	1.58	4.68	167.0	20.8	5.6	4.3	354.0	1,010	---	<5
	02/16/11	<2.0	250	305	1.26	5.30	154	47.6	13.9	5.08	276.0	1,050	---	<2.0
Dup 2	8/18/11	<5.0	251	259	1.52	5.56	158	24.6	6.98	3.48	263	1,090	---	<5.0
	8/18/11	<5.0	272	255	1.38	5.76	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
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	<1.0	132	521	1.85	2.92	98.1	120	39.5	9.15	200	1,392	---	<1.00

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-3 (cont)	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	190.0	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	222.0	1,180	2.59	8.27	210.0	46.8	14.3	17.5	896.0	2,700	---	<5
	02/19/09	<5	220.0	1,300	2.00	7.80	220.0	50.0	16.0	20.0	920.0	2,800	---	<5
	7/29/09	<5	190.0	1,600	1.60	7.60	210.0	140.0	47.0	26.0	770.0	3,400	---	<5
	2/24/10	<5	237.0	1,380	1.49	8.81	248.0	65.0	17.5	15.1	938.0	2,670	---	<5
	7/28/10	<5	221.0	1,230	1.68	7.12	259.0	84.8	24.6	14.1	857.0	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
	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
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
	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
	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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-4 (cont)	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	490.0	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	263.0	6,270	<1.5	6.64	607.0	770.0	209.0	97.3	2,510	15,100	---	<5
	02/19/09	<5	300.0	4,900	<0.50	5.60	620.0	580.0	160.0	72.0	2,200	11,000	---	<5
	7/29/09	<5	320.0	3,700	<0.50	6.40	580.0	380.0	110.0	63.0	1,800	8,400	---	<5
	2/25/10	<5	338.0	3,590	0.23	5.94	478.0	378.0	107.0	40.0	1,830	7,940	---	<5
	7/28/10	<5	283.0	3,840	0.45	4.00	419.0	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
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
	08/04/05	<1.00	242	394	1.82	6.74	200	49.2	14.8	21.5	341	1,220	---	<1.00
	Dup 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	170.0	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	220.0	438	1.77	6.20	191.0	62.8	19.3	23.9	362.0	1,300	---	<10.5

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-5 (cont)	02/19/09	<5	220.0	390	1.60	6.20	200.0	63.0	19.0	25.0	310.0	1,200	---	<10.6
	7/29/09	<5	210.0	490	1.40	6.20	200.0	110.0	35.0	23.0	280.0	1,500	---	<10.7
	2/25/10	<5	223.0	326	1.02	6.27	195.0	58.0	19.0	16.5	232.0	1,120	---	<10.8
	7/28/10	<5	235.0	272	1.15	4.61	189.0	51.3	14.6	13.8	257.0	1,130	---	<10.9
Dup 2	7/28/10	<5	233.0	283	1.11	5.17	192.0	60.9	19.2	16.7	269.0	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	319.0	102	7.45	246	3,640	---	<10.0
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	150.0	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	238.0	563	2.56	7.83	176.0	22.6	6.6	14.4	558.0	1,640	---	<5
	02/19/09	<5	370.0	1,200	2.00	6.10	150.0	140.0	47.0	16.0	590.0	3,200	---	<6
	7/29/09	<5	210.0	1,200	2.10	7.00	160.0	37.0	11.0	16.0	550.0	2,700	---	<5
	2/24/10	<5	243.0	780	2.07	7.89	193.0	39.7	10.6	9.0	558.0	1,910	---	<5
	7/28/10	<5	247.0	702	2.23	8.99	204.0	30.7	8.9	10.3	591.0	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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
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
Dup	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	110.0	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
Dup 1	8/13/08	<5	274.0	251	2.41	3.21	121.0	25.0	7.6	4.9	273.0	887	---	<5
	02/19/09	<5	250.0	240	2.90	3.30	100.0	26.0	8.3	5.1	260.0	880	---	<5
	7/29/09	<5	260.0	260	2.90	3.90	110.0	40.0	13.0	5.8	250.0	950	---	<5
	2/24/10	<5	263.0	282	2.54	4.08	106.0	34.3	9.1	3.6	310.0	1,000	---	<5
	7/28/10	<5	259.0	279	2.61	3.39	113.0	28.5	9.0	3.6	265.0	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
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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-8 (cont)	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	170.0	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	357.0	668	2.99	6.74	171.0	64.1	19.7	8.5	541.0	1,750	---	<1.53
	02/19/09	<5	230.0	700	3.60	6.40	170.0	64.0	21.0	8.8	500.0	1,700	---	<5
	7/29/09	<5	290.0	740	3.50	6.80	170.0	60.0	19.0	9.5	490.0	1,800	---	<5
	2/24/10	<5	255.0	754	3.16	6.58	160.0	56.4	16.1	5.1	510.0	1,760	---	<5
	7/28/10	<5	263.0	711	3.43	5.67	164.0	54.2	17.0	4.8	533.0	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
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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-9 (cont)	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	400.0	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	257.0	4,910	1.19	3.74	443.0	720.0	236.0	36.2	1,760.0	11,400	---	<1.53
	02/19/09	<5	310.0	4,300	0.75	3.00	490.0	600.0	190.0	25.0	1,900.0	9,700	---	<5
	7/29/09	<5	250.0	3,300	0.91	3.40	500.0	420.0	150.0	32.0	1,400.0	7,800	---	<5
	2/24/10	<5	304.0	2,070	1.00	3.56	452.0	249.0	65.5	9.2	1,220.0	4,370	---	<5
	7/28/10	<5	312.0	1,260	1.41	2.38	413.0	136.0	46.7	7.7	848.0	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
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	110.0	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	800.0	1,700	1.75	3.16	108.0	430.0	154.0	15.4	271.0	4,540	---	<1.53
	02/20/09	<5	370.0	1,600	0.76	2.70	130.0	410.0	150.0	15.0	300.0	4,300	---	<5
	7/29/09	<5	250.0	2,000	0.67	3.10	140.0	470.0	170.0	19.0	300.0	5,800	---	<5
	2/24/10	<5	126.0	2,840	0.46	3.26	126.0	670.0	228.0	12.7	399.0	5,720	---	<6
	7/28/10	<5	89.1	2,260	0.82	2.48	85.5	842.0	292.0	12.1	501.0	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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-10 (cont)	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
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 - Insufficient Water Column												
	02/22/06	NS - Insufficient Water Column												
	02/28/07	NS - Insufficient Water Column												
	08/22/07	NS - Insufficient Water Column												
	02/20/08	NS - Insufficient Water Column												
	08/12/08	NS - Insufficient 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 - Insufficient 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
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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-12 (cont)	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	77.0	2,140	1.68	3.84	86.1	647.0	221.0	17.9	212.0	5,160	---	<1.53
	02/19/09	<5	120.0	2,600	0.97	3.20	120.0	810.0	280.0	23.0	340.0	5,400	---	<5
	7/29/09	<5	94.0	2,700	1.20	3.80	120.0	700.0	270.0	28.0	330.0	7,000	---	<5
	2/24/10	<5	89.1	2,120	0.61	3.74	69.4	626.0	218.0	12.9	214.0	4,290	---	<5
	7/28/10	<5	83.0	1,560	1.47	2.84	164.0	681.0	240.0	14.2	279.0	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
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	4.00	130.0	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	141.0	1,410	2.33	1.53	154.0	389.0	155.0	20.1	176.0	4,940	---	<5
	02/19/09	5	130.0	1,800	1.50	3.10	180.0	580.0	200.0	24.0	240.0	4,700	---	5
	7/29/09	<5	120.0	1,800	1.40	4.10	400.0	540.0	220.0	27.0	210.0	5,900	---	<5

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-13 (cont)	2/24/10	<5	91.1	1,570	1.05	3.53	150.0	452.0	139.0	13.0	160.0	3,400	---	<5
	7/28/10	<5	89.1	4,340	1.08	3.01	921.0	468.0	136.0	12.1	156.0	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
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
	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	610.0	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	101.0	4,400	1.32	3.50	668.0	781.0	237.0	38.2	1,650.0	10,300	---	<1.53
	02/19/09	<5	100.0	4,200	1.20	2.50	760.0	780.0	230.0	38.0	1,600.0	9,000	---	<5
	2/19/09	<5	100.0	4,200	1.20	2.40	760.0	700.0	220.0	24.0	1,700.0	8,800	---	<5
	7/29/09	<5	110.0	4,100	1.40	2.90	830.0	690.0	200.0	39.0	1,500.0	11,000	---	<5
	2/24/10	<5	107.0	4,280	1.04	3.36	844.0	752.0	218.0	18.9	1,480.0	9,530	---	<5
	7/28/10	<5	107.0	4,290	1.18	2.17	83.8	844.0	256.0	15.1	1,660.0	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
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 - Insufficient Water Column												

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-15 (cont)	02/22/06	NS - Insufficient 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
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	87.0	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	220.0	536	1.36	3.34	86.2	112.0	37.4	6.8	221.0	1,660	---	<1.53
	02/19/09	<5	190.0	710	1.30	4.10	110.0	130.0	42.0	8.7	340.0	1,900	---	<5
	7/29/09	<5	170.0	810	1.30	4.90	140.0	140.0	46.0	9.9	330.0	2,200	---	<5
	2/24/10	<5	194.0	866	1.05	4.75	132.0	173.0	46.9	5.7	318.0	1,980	---	<5
	7/28/10	<5	197.0	369	2.38	4.43	159.0	157.0	50.5	6.6	404.0	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
MW-17	11/05/03	<1.0	154	587	2.06	3.85	104	177	58.2	12.5	184	1,556	---	<1.00

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-17 (cont)	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	130.0	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	173.0	519	1.86	3.37	125.0	124.0	43.0	7.9	222.0	1,660	---	<1.53
	02/19/09	<5	180.0	460	2.40	3.60	170.0	70.0	21.0	7.5	320.0	1,300	---	<5
	7/29/09	<5	190.0	440	2.40	4.00	180.0	76.0	24.0	7.4	270.0	1,300	---	<5
	2/24/10	<5	182.0	512	1.85	3.60	148.0	90.6	30.9	5.4	265.0	1,380	---	<5
	7/28/10	<5	217.0	4,840	0.80	3.09	513.0	87.7	28.8	4.9	245.0	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	<0.0300	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
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						

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-19 Dup 3	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
	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	429.0	1,080	399.0	26.7	739.0	9,600	---	<1.53
	02/19/09	<5	89.0	5,300	0.90	3.20	540.0	1,200	450.0	37.0	1,200.0	10,000	---	<5
	7/29/09	<5	94.0	5,300	1.10	4.00	580.0	1,200	400.0	37.0	1,100.0	13,000	---	<5
	2/24/10	<5	91.1	4,720	0.44	3.73	457.0	1,110	427.0	28.2	809.0	9,080	---	<5
	7/28/10	<5	104.0	4,760	1.08	3.30	130.0	1,160	407.0	27.2	1,110.0	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
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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
MW-21	11/28/07	1.14	415.0	482	---	---	128.0	173.0	64.4	18.3	115.0	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	126.0	544	2.00	4.68	147.0	193.0	64.7	12.5	116.0	2,060	---	<1.53
	02/19/09	<5	190.0	400	2.10	4.30	140.0	150.0	46.0	11.0	120.0	1,200	---	<5
	7/29/09	<5	210.0	330	2.20	4.40	150.0	120.0	38.0	10.0	96.0	1,200	---	<5
	2/24/10	<5	184.0	280	1.79	4.04	143.0	123.0	37.8	7.9	100.0	1,030	---	<5
	7/28/10	<5	168.0	2,970	0.61	3.41	150.0	109.0	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
MW-22	11/28/07	1.14	2950.0	1,020	---	---	169.0	286.0	96.7	12.1	229.0	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	143.0	1,370	1.70	2.73	167.0	359.0	129.0	12.9	272.0	3,670	---	<1.53
	02/20/09	<5	270.0	2,000	0.74	2.40	180.0	570.0	190.0	17.0	380.0	5,300	---	<5
	7/29/09	<5	310.0	3,000	0.85	2.60	200.0	730.0	260.0	25.0	570.0	6,700	---	<5
	2/25/10	<5	142.0	3,630	0.27	2.92	166.0	802.0	251.0	15.4	590.0	7,060	---	<5
	7/28/10	<5	136.0	3,640	0.64	2.17	204.0	982.0	309.0	15.9	865.0	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
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
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
MW-25 Dup 1	05/24/12	<5.00	158	4,390	0.121	3.56	307	890	272	19.2	1,150	10,200	---	<5.00
	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
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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
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													
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	180.0	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	175.0	1,940	1.57	3.89	227.0	387.0	119.0	61.8	588.0	5,570	---	<5
	02/19/09	<5	180.0	1,700	0.67	2.80	230.0	330.0	100.0	51.0	550.0	4,300	---	<5
	7/29/09	<5	190.0	1,200	0.81	3.40	240.0	230.0	74.0	37.0	400.0	3,200	---	<5
	7/28/10	<5	238.0	541	0.99	2.69	224.0	128.0	36.6	26.0	345.0	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
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

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
SW (cont)	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	860.0	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	268.0	5,670	4.18	8.14	775.0	934.0	237.0	112.0	2,110.0	13,700	---	<5
	02/19/09	<5	280.0	5,200	0.78	5.40	870.0	920.0	240.0	120.0	2,300.0	13,000	---	<5
	7/29/09	<5	260.0	5,300	0.96	6.10	810.0	790.0	240.0	110.0	2,200.0	12,000	---	<5
	7/28/10	<5	254.0	3,890	0.96	5.17	565.0	758.0	190.0	67.6	1,770.0	8,850	---	<5
Dup 1	7/28/10	<5	274.0	4,050	0.89	3.98	591.0	667.0	184.0	67.9	1,730.0	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
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

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
RW-1 (cont)	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	255.0	4,650	1.06	6.43	628.0	816.0	232.0	107.0	1,770.0	11,000	---	<1.53
Dup	8/12/08	<1.53	229.0	4,600	1.05	6.37	612.0	778.0	222.0	105.0	1,740.0	10,900	---	<1.53
	02/20/09	<5	260.0	4,600	0.69	1.40	690.0	680.0	200.0	84.0	1,700.0	11,000	---	<5
Dup	02/20/09	<5	240.0	4,400	0.65	4.20	630.0	660.0	190.0	83.0	1,600.0	11,000	---	<5
	7/29/09	<5	240.0	4,300	0.73	3.30	620.0	650.0	220.0	94.0	1,700.0	10,000	---	<5
Dup	7/29/09	<5	240.0	4,200	0.72	3.70	600.0	640.0	220.0	95.0	1,700.0	9,900	---	<5
	2/25/10	<5	263.0	4,890	0.34	4.28	650.0	680.0	180.0	75.6	1,650.0	8,870	---	<5
	7/28/10	<5	254.0	2,920	0.77	4.98	455.0	442.0	132.0	59.5	1,310.0	7,200	---	<5
	2/22/12	<5.00	314	2,030	1.03	6.05	449	256.0	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						
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						

TABLE II

GROUNDWATER ANALYTICAL SUMMARY
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)			250.0	1.6	10.0	600.0	---	---	---	---	1,000.0	---	---
WW-1 (cont)	02/23/06							NS						
	03/01/07	<10	130.0	360	1.50	3.20	77.0	101.0	30.7	5.9	103.0	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	150.0	320	1.30	2.80	100.0	97.0	33.0	6.4	110.0	1,100	---	<5
	7/29/09							NS						
	2/24/10	<5	128.0	246	1.23	2.89	115.0	80.10	27.20	4.93	107.0	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

Notes

1. mg/L: Milligrams per liter
2. <: Concentration below test method detection 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

APPENDICES

APPENDIX A



09-Mar-2012

Todd Wells
Conestoga-Rovers & Associates
2135 S Loop 250 West
Midland, TX 79703

Tel: (432) 686-0086
Fax: (432) 686-0186

Re: G.L. Erwin

Work Order: **1202828**

Dear Todd,

ALS Environmental received 32 samples on 24-Feb-2012 09:12 AM for the analyses 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.

The total number of pages in this report is 57.

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

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Yvan K. Ty

Patricia L. Lynch
Project Manager



Certificate No: TX: T104704231-11-5

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

DOV#T UR X S#K VD /#P R US##Sdu#r i#kh#D OV#Derudwru| #T urxs##D #Fdp seha#Burkhu#Op l#hg#F rp sdq |

Environmental

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Work Order: 1202828

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1202828-01	MW-1 022212	Water		2/22/2012 15:25	2/24/2012 09:12	☐
1202828-02	MW-2 022212	Water		2/22/2012 15:20	2/24/2012 09:12	☐
1202828-03	MW-3 022212	Water		2/22/2012 15:40	2/24/2012 09:12	☐
1202828-04	MW-4 022212	Water		2/22/2012 16:10	2/24/2012 09:12	☐
1202828-05	MW-5 022212	Water		2/22/2012 15:35	2/24/2012 09:12	☐
1202828-06	MW-6 022212	Water		2/22/2012 15:55	2/24/2012 09:12	☐
1202828-07	MW-7 022212	Water		2/22/2012 15:10	2/24/2012 09:12	☐
1202828-08	MW-8 022212	Water		2/22/2012 14:15	2/24/2012 09:12	☐
1202828-09	MW-9 022212	Water		2/22/2012 15:25	2/24/2012 09:12	☐
1202828-10	Trip Blank 4014	Water		2/22/2012	2/24/2012 09:12	☐
1202828-11	MW-10 022212	Water		2/22/2012 15:45	2/24/2012 09:12	☐
1202828-12	MW-11 022212	Water		2/22/2012 13:25	2/24/2012 09:12	☐
1202828-13	MW-12 022212	Water		2/22/2012 14:00	2/24/2012 09:12	☐
1202828-14	MW-13 022212	Water		2/22/2012 15:00	2/24/2012 09:12	☐
1202828-15	MW-14 022212	Water		2/22/2012 14:30	2/24/2012 09:12	☐
1202828-16	MW-15 022212	Water		2/22/2012 13:50	2/24/2012 09:12	☐
1202828-17	MW-16 022212	Water		2/22/2012 14:05	2/24/2012 09:12	☐
1202828-18	MW-17 022212	Water		2/22/2012 14:20	2/24/2012 09:12	☐
1202828-19	MW-19 022212	Water		2/22/2012 14:40	2/24/2012 09:12	☐
1202828-20	Trip Blank 4602	Water		2/22/2012	2/24/2012 09:12	☐
1202828-21	MW-20 022212	Water		2/22/2012 13:40	2/24/2012 09:12	☐
1202828-22	MW-21 022212	Water		2/22/2012 13:30	2/24/2012 09:12	☐
1202828-23	MW-22 022212	Water		2/22/2012 15:10	2/24/2012 09:12	☐
1202828-24	MW-24 022212	Water		2/22/2012 14:35	2/24/2012 09:12	☐
1202828-25	MW-West 022212	Water		2/22/2012 15:35	2/24/2012 09:12	☐
1202828-26	SW-MW 022212	Water		2/22/2012 16:15	2/24/2012 09:12	☐
1202828-27	WW-1 022212	Water		2/22/2012 12:45	2/24/2012 09:12	☐
1202828-28	RW-1 022212	Water		2/22/2012 16:00	2/24/2012 09:12	☐
1202828-29	Trip Blank 4700	Water		2/22/2012	2/24/2012 09:12	☐
1202828-30	Trip Blank 2593	Water		2/22/2012	2/24/2012 09:12	☐
1202828-31	Dup-1 022212	Water		2/22/2012	2/24/2012 09:12	☐
1202828-32	Dup-2 022212	Water		2/22/2012	2/24/2012 09:12	☐

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Work Order: 1202828

Case Narrative

Samples Dup-1 and Dup-2 were not listed on the chain-of-custody, but were logged in and analyzed based on the bottles that were received. The results for nitrate are flagged with H, but these samples were analyzed on day 2 as measured from the data of collection. The time of collection was not available to determine if the 48 hour holding time was met.

Batch 59169 Cations, Sample 1202582-07C: MS/MSD is for an unrelated sample.

Batch 59199, Cations, Sample MW-2 022212: Sodium was not recovered in the matrix spike due to the sample matrix. The result is flagged with E and O based on the high concentration in the background sample.

Batch R123943, Anions, Sample Dup-2 022212: The recoveries for sulfate were below the control limits due to matrix interference. The results are flagged with E and O based on the high concentration in the background sample.

Batch R124190, Anions, Sample 1202879-01A: MS/ MSD is for an unrelated sample.

Batch R124311, Anions, Sample 1202849-01D: MS/ MSD is for an unrelated sample.

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: MW-1 022212
 Collection Date: 2/22/2012 03:25 PM

Work Order: 1202828
 Lab ID: 1202828-01
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	96.3		0.500	mg/L	1	3/1/2012 03:21 AM
Magnesium	33.5		0.200	mg/L	1	3/1/2012 03:21 AM
Potassium	5.12		0.200	mg/L	1	3/1/2012 03:21 AM
Sodium	96.5		0.200	mg/L	1	3/1/2012 03:21 AM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	385		5.00	mg/L	10	3/1/2012 06:05 PM
Fluoride	1.61		0.100	mg/L	1	2/24/2012 03:04 PM
Nitrogen, Nitrate (As N)	2.70		0.100	mg/L	1	2/24/2012 03:04 PM
Sulfate	67.7		0.500	mg/L	1	2/24/2012 03:04 PM
Surr: Selenate (surr)	109		85-115	%REC	1	2/24/2012 03:04 PM
Surr: Selenate (surr)	108		85-115	%REC	10	3/1/2012 06:05 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	153		5.00	mg/L	1	3/1/2012 05:18 PM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/1/2012 05:18 PM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/1/2012 05:18 PM
Alkalinity, Total (As CaCO3)	153		5.00	mg/L	1	3/1/2012 05:18 PM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	1,280		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-2 022212

Lab ID: 1202828-02

Collection Date: 2/22/2012 03:20 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	22.9		0.500	mg/L	1	3/1/2012 02:31 AM
Magnesium	5.96		0.200	mg/L	1	2/28/2012 06:51 PM
Potassium	4.42		0.200	mg/L	1	2/28/2012 06:51 PM
Sodium	251		10.0	mg/L	50	2/29/2012 06:59 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	857		5.00	mg/L	10	3/1/2012 06:43 PM
Fluoride	1.30		0.100	mg/L	1	2/24/2012 02:43 PM
Nitrogen, Nitrate (As N)	4.61		0.100	mg/L	1	2/24/2012 02:43 PM
Sulfate	111		5.00	mg/L	10	3/1/2012 06:43 PM
Surr: Selenate (surr)	108		85-115	%REC	1	2/24/2012 02:43 PM
Surr: Selenate (surr)	112		85-115	%REC	10	3/1/2012 06:43 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	203		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	203		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	2,340		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-3 022212

Lab ID: 1202828-03

Collection Date: 2/22/2012 03:40 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	104		0.500	mg/L	1	3/1/2012 03:27 AM
Magnesium	32.6		0.200	mg/L	1	3/1/2012 03:27 AM
Potassium	13.2		0.200	mg/L	1	3/1/2012 03:27 AM
Sodium	809		20.0	mg/L	100	3/1/2012 04:06 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	1,260		25.0	mg/L	50	3/2/2012 05:19 PM
Fluoride	1.40		0.100	mg/L	1	2/24/2012 03:17 PM
Nitrogen, Nitrate (As N)	7.39		0.100	mg/L	1	2/24/2012 03:17 PM
Sulfate	252		25.0	mg/L	50	3/2/2012 05:19 PM
Surr: Selenate (surr)	108		85-115	%REC	50	3/2/2012 05:19 PM
Surr: Selenate (surr)	109		85-115	%REC	1	2/24/2012 03:17 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	235		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	235		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	2,800		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-4 022212

Lab ID: 1202828-04

Collection Date: 2/22/2012 04:10 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	656		50.0	mg/L	100	3/1/2012 04:12 PM
Magnesium	204		20.0	mg/L	100	3/1/2012 04:12 PM
Potassium	27.8		0.200	mg/L	1	3/1/2012 03:33 AM
Sodium	1,180		20.0	mg/L	100	3/1/2012 04:12 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	3,250		50.0	mg/L	100	3/1/2012 07:25 PM
Fluoride	0.718		0.500	mg/L	5	3/9/2012 07:09 AM
Nitrogen, Nitrate (As N)	5.30		0.100	mg/L	1	2/24/2012 03:29 PM
Sulfate	220		50.0	mg/L	100	3/1/2012 07:25 PM
Surr: Selenate (surr)	110		85-115	%REC	5	3/9/2012 07:09 AM
Surr: Selenate (surr)	113		85-115	%REC	1	2/24/2012 03:29 PM
Surr: Selenate (surr)	104		85-115	%REC	100	3/1/2012 07:25 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO ₃)	292		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO ₃)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO ₃)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO ₃)	292		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	8,100		10.0	mg/L	1	2/29/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-5 022212

Lab ID: 1202828-05

Collection Date: 2/22/2012 03:35 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	55.4		0.500	mg/L	1	3/1/2012 03:39 AM
Magnesium	16.0		0.200	mg/L	1	3/1/2012 03:39 AM
Potassium	14.9		0.200	mg/L	1	3/1/2012 03:39 AM
Sodium	272		10.0	mg/L	50	3/1/2012 05:41 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	1,140		50.0	mg/L	100	3/1/2012 07:46 PM
Fluoride	0.860		0.100	mg/L	1	2/24/2012 02:35 PM
Nitrogen, Nitrate (As N)	4.06		0.100	mg/L	1	2/24/2012 02:35 PM
Sulfate	94.6		50.0	mg/L	100	3/1/2012 07:46 PM
Surr: Selenate (surr)	108		85-115	%REC	1	2/24/2012 02:35 PM
Surr: Selenate (surr)	91.5		85-115	%REC	100	3/1/2012 07:46 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	174		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	174		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	3,330		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-6 022212

Lab ID: 1202828-06

Collection Date: 2/22/2012 03:55 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	85.5		0.500	mg/L	1	3/1/2012 03:46 AM
Magnesium	27.7		0.200	mg/L	1	3/1/2012 03:46 AM
Potassium	8.62		0.200	mg/L	1	3/1/2012 03:46 AM
Sodium	504		10.0	mg/L	50	3/1/2012 05:47 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	685		5.00	mg/L	10	3/1/2012 08:49 PM
Fluoride	2.28		0.100	mg/L	1	3/9/2012 07:31 AM
Nitrogen, Nitrate (As N)	9.03		0.100	mg/L	1	2/24/2012 02:45 PM
Sulfate	228		5.00	mg/L	10	3/1/2012 08:49 PM
Surr: Selenate (surr)	107		85-115	%REC	1	3/9/2012 07:31 AM
Surr: Selenate (surr)	106		85-115	%REC	1	2/24/2012 02:45 PM
Surr: Selenate (surr)	110		85-115	%REC	10	3/1/2012 08:49 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	273		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	273		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	1,810		10.0	mg/L	1	2/29/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: MW-7 022212
 Collection Date: 2/22/2012 03:10 PM

Work Order: 1202828
 Lab ID: 1202828-07
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	32.8		0.500	mg/L	1	3/1/2012 03:52 AM
Magnesium	9.87		0.200	mg/L	1	3/1/2012 03:52 AM
Potassium	3.45		0.200	mg/L	1	3/1/2012 03:52 AM
Sodium	266		10.0	mg/L	50	3/1/2012 05:53 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	287		5.00	mg/L	10	3/1/2012 09:11 PM
Fluoride	2.80		0.100	mg/L	1	2/24/2012 01:59 PM
Nitrogen, Nitrate (As N)	4.50		0.100	mg/L	1	2/24/2012 01:59 PM
Sulfate	107		5.00	mg/L	10	3/1/2012 09:11 PM
Surr: Selenate (surr)	107		85-115	%REC	1	2/24/2012 01:59 PM
Surr: Selenate (surr)	108		85-115	%REC	10	3/1/2012 09:11 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	262		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	262		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	952		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: MW-8 022212
 Collection Date: 2/22/2012 02:15 PM

Work Order: 1202828
 Lab ID: 1202828-08
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	62.4		2.50	mg/L	5	3/1/2012 05:59 PM
Magnesium	19.5		1.00	mg/L	5	3/1/2012 05:59 PM
Potassium	5.24		1.00	mg/L	5	3/1/2012 05:59 PM
Sodium	512		1.00	mg/L	5	3/1/2012 05:59 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	751		5.00	mg/L	10	3/1/2012 09:32 PM
Fluoride	3.27		0.100	mg/L	1	2/24/2012 01:10 PM
Nitrogen, Nitrate (As N)	6.46		0.100	mg/L	1	2/24/2012 01:10 PM
Sulfate	167		5.00	mg/L	10	3/1/2012 09:32 PM
Surr: Selenate (surr)	113		85-115	%REC	1	2/24/2012 01:10 PM
Surr: Selenate (surr)	110		85-115	%REC	10	3/1/2012 09:32 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	264		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	264		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	1,720		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-9 022212

Lab ID: 1202828-09

Collection Date: 2/22/2012 03:25 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	51.4		2.50	mg/L	5	3/1/2012 06:06 PM
Magnesium	17.9		1.00	mg/L	5	3/1/2012 06:06 PM
Potassium	5.23		1.00	mg/L	5	3/1/2012 06:06 PM
Sodium	508		1.00	mg/L	5	3/1/2012 06:06 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	693		5.00	mg/L	10	3/1/2012 09:53 PM
Fluoride	2.39		0.100	mg/L	1	3/9/2012 07:52 AM
Nitrogen, Nitrate (As N)	3.19		0.100	mg/L	1	2/24/2012 03:14 PM
Sulfate	236		5.00	mg/L	10	3/1/2012 09:53 PM
Surr: Selenate (surr)	110		85-115	%REC	1	3/9/2012 07:52 AM
Surr: Selenate (surr)	111		85-115	%REC	1	2/24/2012 03:14 PM
Surr: Selenate (surr)	110		85-115	%REC	10	3/1/2012 09:53 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	269		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	269		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	1,720		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Sample ID: MW-10 022212
Collection Date: 2/22/2012 03:45 PM

Work Order: 1202828
Lab ID: 1202828-11
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	1,050		5.00	mg/L	10	3/1/2012 06:13 PM
Magnesium	330		2.00	mg/L	10	3/1/2012 06:13 PM
Potassium	19.0		2.00	mg/L	10	3/1/2012 06:13 PM
Sodium	857		2.00	mg/L	10	3/1/2012 06:13 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	4,590		50.0	mg/L	100	3/1/2012 10:14 PM
Fluoride	0.703		0.500	mg/L	5	3/9/2012 08:14 AM
Nitrogen, Nitrate (As N)	4.89		0.100	mg/L	1	2/24/2012 02:31 PM
Sulfate	185		50.0	mg/L	100	3/1/2012 10:14 PM
Surr: Selenate (surr)	111		85-115	%REC	5	3/9/2012 08:14 AM
Surr: Selenate (surr)	105		85-115	%REC	1	2/24/2012 02:31 PM
Surr: Selenate (surr)	95.5		85-115	%REC	100	3/1/2012 10:14 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO ₃)	122		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO ₃)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO ₃)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO ₃)	122		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	14,000		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Sample ID: MW-11 022212
Collection Date: 2/22/2012 01:25 PM

Work Order: 1202828
Lab ID: 1202828-12
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	588		5.00	mg/L	10	3/1/2012 06:19 PM
Magnesium	176		2.00	mg/L	10	3/1/2012 06:19 PM
Potassium	12.2		2.00	mg/L	10	3/1/2012 06:19 PM
Sodium	456		2.00	mg/L	10	3/1/2012 06:19 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	2,240		50.0	mg/L	100	3/1/2012 10:35 PM
Fluoride	0.654		0.500	mg/L	5	3/9/2012 08:36 AM
Nitrogen, Nitrate (As N)	3.64		0.100	mg/L	1	2/24/2012 12:34 PM
Sulfate	145		50.0	mg/L	100	3/1/2012 10:35 PM
Surr: Selenate (surr)	111		85-115	%REC	5	3/9/2012 08:36 AM
Surr: Selenate (surr)	114		85-115	%REC	1	2/24/2012 12:34 PM
Surr: Selenate (surr)	90.4		85-115	%REC	100	3/1/2012 10:35 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	131		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	131		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	6,470		10.0	mg/L	1	2/27/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-12 022212

Lab ID: 1202828-13

Collection Date: 2/22/2012 02:00 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	650		5.00	mg/L	10	3/1/2012 06:37 PM
Magnesium	217		2.00	mg/L	10	3/1/2012 06:37 PM
Potassium	13.4		2.00	mg/L	10	3/1/2012 06:37 PM
Sodium	209		2.00	mg/L	10	3/1/2012 06:37 PM
ANIONS - EPA 300.0 (1993)			E300			Analyst: JKP
Chloride	2,270		50.0	mg/L	100	3/1/2012 10:56 PM
Fluoride	0.990		0.500	mg/L	5	3/9/2012 08:58 AM
Nitrogen, Nitrate (As N)	4.36		0.100	mg/L	1	2/24/2012 01:33 PM
Sulfate	67.3		0.500	mg/L	1	2/24/2012 01:33 PM
Surr: Selenate (surr)	111		85-115	%REC	5	3/9/2012 08:58 AM
Surr: Selenate (surr)	112		85-115	%REC	1	2/24/2012 01:33 PM
Surr: Selenate (surr)	85.9		85-115	%REC	100	3/1/2012 10:56 PM
ALKALINITY			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	91.2		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	91.2		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	4,110		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-13 022212

Lab ID: 1202828-14

Collection Date: 2/22/2012 03:00 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	478		5.00	mg/L	10	3/1/2012 06:43 PM
Magnesium	154		2.00	mg/L	10	3/1/2012 06:43 PM
Potassium	14.1		2.00	mg/L	10	3/1/2012 06:43 PM
Sodium	174		2.00	mg/L	10	3/1/2012 06:43 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	1,580		50.0	mg/L	100	3/1/2012 11:17 PM
Fluoride	1.46		0.100	mg/L	1	2/24/2012 01:37 PM
Nitrogen, Nitrate (As N)	4.21		0.100	mg/L	1	2/24/2012 01:37 PM
Sulfate	120		50.0	mg/L	100	3/1/2012 11:17 PM
Surr: Selenate (surr)	107		85-115	%REC	1	2/24/2012 01:37 PM
Surr: Selenate (surr)	90.8		85-115	%REC	100	3/1/2012 11:17 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	88.9		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	88.9		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	3,930		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-14 022212

Lab ID: 1202828-15

Collection Date: 2/22/2012 02:30 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	1,480		50.0	mg/L	100	3/1/2012 06:50 PM
Magnesium	423		20.0	mg/L	100	3/1/2012 06:50 PM
Potassium	26.2		0.200	mg/L	1	3/1/2012 06:35 AM
Sodium	2,540		20.0	mg/L	100	3/1/2012 06:50 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	7,610		50.0	mg/L	100	3/1/2012 11:38 PM
Fluoride	0.464		0.100	mg/L	1	2/24/2012 01:53 PM
Nitrogen, Nitrate (As N)	4.17		0.100	mg/L	1	2/24/2012 01:53 PM
Sulfate	597		50.0	mg/L	100	3/1/2012 11:38 PM
Surr: Selenate (surr)	102		85-115	%REC	1	2/24/2012 01:53 PM
Surr: Selenate (surr)	108		85-115	%REC	100	3/1/2012 11:38 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO ₃)	108		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO ₃)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO ₃)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO ₃)	108		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	18,000		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: MW-15 022212
 Collection Date: 2/22/2012 01:50 PM

Work Order: 1202828
 Lab ID: 1202828-16
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	325		25.0	mg/L	50	3/1/2012 06:56 PM
Magnesium	106		0.200	mg/L	1	3/1/2012 06:41 AM
Potassium	10.9		0.200	mg/L	1	3/1/2012 06:41 AM
Sodium	124		0.200	mg/L	1	3/1/2012 06:41 AM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	1,200		50.0	mg/L	100	3/1/2012 11:59 PM
Fluoride	1.21		0.100	mg/L	1	3/9/2012 09:19 AM
Nitrogen, Nitrate (As N)	2.93		0.100	mg/L	1	2/24/2012 01:18 PM
Sulfate	85.8		0.500	mg/L	1	2/24/2012 01:18 PM
Surr: Selenate (surr)	108		85-115	%REC	1	3/9/2012 09:19 AM
Surr: Selenate (surr)	111		85-115	%REC	1	2/24/2012 01:18 PM
Surr: Selenate (surr)	86.5		85-115	%REC	100	3/1/2012 11:59 PM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	98.4		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	98.4		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	3,390		10.0	mg/L	1	2/27/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-16 022212

Lab ID: 1202828-17

Collection Date: 2/22/2012 02:05 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	158		0.500	mg/L	1	3/1/2012 06:48 AM
Magnesium	45.0		0.200	mg/L	1	3/1/2012 06:48 AM
Potassium	5.64		0.200	mg/L	1	3/1/2012 06:48 AM
Sodium	396		10.0	mg/L	50	3/1/2012 07:02 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	874		5.00	mg/L	10	3/2/2012 01:03 AM
Fluoride	1.34		0.100	mg/L	1	3/9/2012 10:24 AM
Nitrogen, Nitrate (As N)	6.12		0.100	mg/L	1	2/24/2012 01:47 PM
Sulfate	139		5.00	mg/L	10	3/2/2012 01:03 AM
Surr: Selenate (surr)	106		85-115	%REC	1	3/9/2012 10:24 AM
Surr: Selenate (surr)	109		85-115	%REC	1	2/24/2012 01:47 PM
Surr: Selenate (surr)	110		85-115	%REC	10	3/2/2012 01:03 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	211		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	211		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	2,090		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: MW-17 022212
 Collection Date: 2/22/2012 02:20 PM

Work Order: 1202828
 Lab ID: 1202828-18
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	98.8		0.500	mg/L	1	3/1/2012 06:54 AM
Magnesium	29.7		0.200	mg/L	1	3/1/2012 06:54 AM
Potassium	4.90		0.200	mg/L	1	3/1/2012 06:54 AM
Sodium	220		10.0	mg/L	50	3/1/2012 07:08 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	441		5.00	mg/L	10	3/2/2012 01:24 AM
Fluoride	2.08		0.100	mg/L	1	2/24/2012 01:31 PM
Nitrogen, Nitrate (As N)	3.33		0.100	mg/L	1	2/24/2012 01:31 PM
Sulfate	109		5.00	mg/L	10	3/2/2012 01:24 AM
Surr: Selenate (surr)	114		85-115	%REC	1	2/24/2012 01:31 PM
Surr: Selenate (surr)	108		85-115	%REC	10	3/2/2012 01:24 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	207		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	207		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	1,140		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: MW-19 022212

Lab ID: 1202828-19

Collection Date: 2/22/2012 02:40 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	1,300		25.0	mg/L	50	3/1/2012 07:14 PM
Magnesium	425		10.0	mg/L	50	3/1/2012 07:14 PM
Potassium	29.2		0.200	mg/L	1	3/1/2012 07:00 AM
Sodium	1,040		10.0	mg/L	50	3/1/2012 07:14 PM
ANIONS - EPA 300.0 (1993)			E300			Analyst: JKP
Chloride	542		5.00	mg/L	10	3/2/2012 01:45 AM
Fluoride	0.913		0.100	mg/L	1	2/24/2012 01:16 PM
Nitrogen, Nitrate (As N)	4.38		0.100	mg/L	1	2/24/2012 01:16 PM
Sulfate	30.3		5.00	mg/L	10	3/2/2012 01:45 AM
Surr: Selenate (surr)	104		85-115	%REC	1	2/24/2012 01:16 PM
Surr: Selenate (surr)	105		85-115	%REC	10	3/2/2012 01:45 AM
ALKALINITY			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	101		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	101		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	14,800		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Sample ID: MW-20 022212
Collection Date: 2/22/2012 01:40 PM

Work Order: 1202828
Lab ID: 1202828-21
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	434		25.0	mg/L	50	3/1/2012 07:21 PM
Magnesium	126		0.200	mg/L	1	3/1/2012 07:06 AM
Potassium	12.5		0.200	mg/L	1	3/1/2012 07:06 AM
Sodium	303		10.0	mg/L	50	3/1/2012 07:21 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	1,750		50.0	mg/L	100	3/2/2012 04:34 AM
Fluoride	1.10		0.100	mg/L	1	3/9/2012 10:46 AM
Nitrogen, Nitrate (As N)	4.30		0.100	mg/L	1	2/24/2012 01:04 PM
Sulfate	122		50.0	mg/L	100	3/2/2012 04:34 AM
Surr: Selenate (surr)	109		85-115	%REC	1	3/9/2012 10:46 AM
Surr: Selenate (surr)	112		85-115	%REC	1	2/24/2012 01:04 PM
Surr: Selenate (surr)	90.0		85-115	%REC	100	3/2/2012 04:34 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	107		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	107		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	4,790		10.0	mg/L	1	2/27/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: MW-21 022212
 Collection Date: 2/22/2012 01:30 PM

Work Order: 1202828
 Lab ID: 1202828-22
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/28/2012	Analyst: ALR
Calcium	89.2		0.500	mg/L	1	3/1/2012 07:13 AM
Magnesium	24.8		0.200	mg/L	1	3/1/2012 07:13 AM
Potassium	6.82		0.200	mg/L	1	3/1/2012 07:13 AM
Sodium	74.3		0.200	mg/L	1	3/1/2012 07:13 AM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	208		5.00	mg/L	10	3/2/2012 04:55 AM
Fluoride	2.16		0.100	mg/L	1	3/9/2012 11:08 AM
Nitrogen, Nitrate (As N)	5.50		0.100	mg/L	1	2/24/2012 12:49 PM
Sulfate	118		5.00	mg/L	10	3/2/2012 04:55 AM
Surr: Selenate (surr)	101		85-115	%REC	1	3/9/2012 11:08 AM
Surr: Selenate (surr)	112		85-115	%REC	1	2/24/2012 12:49 PM
Surr: Selenate (surr)	110		85-115	%REC	10	3/2/2012 04:55 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	192		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	192		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	894		10.0	mg/L	1	2/27/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Sample ID: MW-22 022212
Collection Date: 2/22/2012 03:10 PM

Work Order: 1202828
Lab ID: 1202828-23
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	732		50.0	mg/L	100	2/28/2012 04:36 PM
Magnesium	233		20.0	mg/L	100	2/28/2012 04:36 PM
Potassium	15.8		0.200	mg/L	1	2/28/2012 12:21 AM
Sodium	1,060		20.0	mg/L	100	2/28/2012 04:36 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	3,980		50.0	mg/L	100	3/2/2012 05:16 AM
Fluoride	0.730		0.100	mg/L	1	2/24/2012 02:21 PM
Nitrogen, Nitrate (As N)	2.93		0.100	mg/L	1	2/24/2012 02:21 PM
Sulfate	236		50.0	mg/L	100	3/2/2012 05:16 AM
Surr: Selenate (surr)	108		85-115	%REC	1	2/24/2012 02:21 PM
Surr: Selenate (surr)	95.8		85-115	%REC	100	3/2/2012 05:16 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	152		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 08:45 AM
Alkalinity, Total (As CaCO3)	152		5.00	mg/L	1	3/2/2012 08:45 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	11,100		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: MW-24 022212
 Collection Date: 2/22/2012 02:35 PM

Work Order: 1202828
 Lab ID: 1202828-24
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	806		50.0	mg/L	100	2/28/2012 04:42 PM
Magnesium	254		20.0	mg/L	100	2/28/2012 04:42 PM
Potassium	24.4		0.200	mg/L	1	2/28/2012 12:25 AM
Sodium	263		20.0	mg/L	100	2/28/2012 04:42 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	2,910		50.0	mg/L	100	3/2/2012 05:37 AM
Fluoride	1.71		0.100	mg/L	1	2/24/2012 02:14 PM
Nitrogen, Nitrate (As N)	3.11		0.100	mg/L	1	2/24/2012 02:14 PM
Sulfate	309		50.0	mg/L	100	3/2/2012 05:37 AM
Surr: Selenate (surr)	113		85-115	%REC	1	2/24/2012 02:14 PM
Surr: Selenate (surr)	98.3		85-115	%REC	100	3/2/2012 05:37 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	101		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Total (As CaCO3)	101		5.00	mg/L	1	3/2/2012 11:58 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	9,240		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Sample ID: MW-West 022212
Collection Date: 2/22/2012 03:35 PM

Work Order: 1202828
Lab ID: 1202828-25
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	68.0		0.500	mg/L	1	2/28/2012 12:30 AM
Magnesium	18.5		0.200	mg/L	1	2/28/2012 12:30 AM
Potassium	15.4		0.200	mg/L	1	2/28/2012 12:30 AM
Sodium	221		10.0	mg/L	50	2/28/2012 04:47 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	312		5.00	mg/L	10	3/2/2012 05:58 AM
Fluoride	1.34		0.100	mg/L	1	2/24/2012 02:56 PM
Nitrogen, Nitrate (As N)	3.28		0.100	mg/L	1	2/24/2012 02:56 PM
Sulfate	183		5.00	mg/L	10	3/2/2012 05:58 AM
Surr: Selenate (surr)	111		85-115	%REC	1	2/24/2012 02:56 PM
Surr: Selenate (surr)	112		85-115	%REC	10	3/2/2012 05:58 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	246		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Total (As CaCO3)	246		5.00	mg/L	1	3/2/2012 11:58 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	1,080		10.0	mg/L	1	2/28/2012 01:00 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
Sample ID: SW-MW 022212
Collection Date: 2/22/2012 04:15 PM

Work Order: 1202828
Lab ID: 1202828-26
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	365		50.0	mg/L	100	2/28/2012 04:52 PM
Magnesium	99.8		0.200	mg/L	1	2/28/2012 12:44 AM
Potassium	48.6		0.200	mg/L	1	2/28/2012 12:44 AM
Sodium	1,280		20.0	mg/L	100	2/28/2012 04:52 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	2,800		50.0	mg/L	100	3/2/2012 06:19 AM
Fluoride	1.19		0.500	mg/L	5	3/9/2012 11:29 AM
Nitrogen, Nitrate (As N)	5.63		0.100	mg/L	1	2/24/2012 03:44 PM
Sulfate	502		50.0	mg/L	100	3/2/2012 06:19 AM
Surr: Selenate (surr)	111		85-115	%REC	5	3/9/2012 11:29 AM
Surr: Selenate (surr)	110		85-115	%REC	1	2/24/2012 03:44 PM
Surr: Selenate (surr)	106		85-115	%REC	100	3/2/2012 06:19 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	324		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Total (As CaCO3)	324		5.00	mg/L	1	3/2/2012 11:58 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	6,860		10.0	mg/L	1	2/29/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates

Project: G.L. Erwin

Work Order: 1202828

Sample ID: WW-1 022212

Lab ID: 1202828-27

Collection Date: 2/22/2012 12:45 PM

Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	81.0		0.500	mg/L	1	2/28/2012 12:48 AM
Magnesium	27.0		0.200	mg/L	1	2/28/2012 12:48 AM
Potassium	5.51		0.200	mg/L	1	2/28/2012 12:48 AM
Sodium	102		0.200	mg/L	1	2/28/2012 12:48 AM
ANIONS - EPA 300.0 (1993)			E300			Analyst: JKP
Chloride	229		5.00	mg/L	10	3/2/2012 06:40 AM
Fluoride	1.40		0.100	mg/L	1	3/9/2012 11:51 AM
Nitrogen, Nitrate (As N)	2.92		0.100	mg/L	1	2/24/2012 12:20 PM
Sulfate	103		5.00	mg/L	10	3/2/2012 06:40 AM
Surr: Selenate (surr)	109		85-115	%REC	1	3/9/2012 11:51 AM
Surr: Selenate (surr)	114		85-115	%REC	1	2/24/2012 12:20 PM
Surr: Selenate (surr)	109		85-115	%REC	10	3/2/2012 06:40 AM
ALKALINITY			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	163		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Total (As CaCO3)	163		5.00	mg/L	1	3/2/2012 11:58 AM
TOTAL DISSOLVED SOLIDS			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	834		10.0	mg/L	1	2/27/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: RW-1 022212
 Collection Date: 2/22/2012 04:00 PM

Work Order: 1202828
 Lab ID: 1202828-28
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	256		50.0	mg/L	100	2/28/2012 04:56 PM
Magnesium	69.0		0.200	mg/L	1	2/28/2012 12:53 AM
Potassium	43.8		0.200	mg/L	1	2/28/2012 12:53 AM
Sodium	1,020		20.0	mg/L	100	2/28/2012 04:56 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	2,030		50.0	mg/L	100	3/2/2012 07:44 AM
Fluoride	1.03		0.100	mg/L	1	3/9/2012 12:13 PM
Nitrogen, Nitrate (As N)	6.05		0.100	mg/L	1	2/24/2012 03:00 PM
Sulfate	449		50.0	mg/L	100	3/2/2012 07:44 AM
Surr: Selenate (surr)	107		85-115	%REC	1	3/9/2012 12:13 PM
Surr: Selenate (surr)	115		85-115	%REC	1	2/24/2012 03:00 PM
Surr: Selenate (surr)	103		85-115	%REC	100	3/2/2012 07:44 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	314		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Total (As CaCO3)	314		5.00	mg/L	1	3/2/2012 11:58 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	4,860		10.0	mg/L	1	2/29/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: Dup-1 022212
 Collection Date: 2/22/2012

Work Order: 1202828
 Lab ID: 1202828-31
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	239		50.0	mg/L	100	2/28/2012 05:01 PM
Magnesium	69.2		0.200	mg/L	1	2/28/2012 12:57 AM
Potassium	43.7		0.200	mg/L	1	2/28/2012 12:57 AM
Sodium	943		20.0	mg/L	100	2/28/2012 05:01 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	2,080		50.0	mg/L	100	3/2/2012 08:05 AM
Fluoride	0.956		0.100	mg/L	1	2/24/2012 05:28 PM
Nitrogen, Nitrate (As N)	5.39	H	0.100	mg/L	1	2/24/2012 05:28 PM
Sulfate	400		50.0	mg/L	100	3/2/2012 08:05 AM
Surr: Selenate (surr)	104		85-115	%REC	1	2/24/2012 05:28 PM
Surr: Selenate (surr)	104		85-115	%REC	100	3/2/2012 08:05 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	317		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Total (As CaCO3)	317		5.00	mg/L	1	3/2/2012 11:58 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	4,300		10.0	mg/L	1	2/27/2012 04:30 PM

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

ALS Environmental

Date: 09-Mar-12

Client: Conestoga-Rovers & Associates
 Project: G.L. Erwin
 Sample ID: Dup-2 022212
 Collection Date: 2/22/2012

Work Order: 1202828
 Lab ID: 1202828-32
 Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS						
			SW6020		Prep Date: 2/27/2012	Analyst: ALR
Calcium	132		0.500	mg/L	1	2/28/2012 01:02 AM
Magnesium	39.2		0.200	mg/L	1	2/28/2012 01:02 AM
Potassium	13.4		0.200	mg/L	1	2/28/2012 01:02 AM
Sodium	770		20.0	mg/L	100	2/28/2012 05:05 PM
ANIONS - EPA 300.0 (1993)						
			E300			Analyst: JKP
Chloride	1,470		50.0	mg/L	100	3/2/2012 08:26 AM
Fluoride	1.53		0.100	mg/L	1	2/24/2012 05:50 PM
Nitrogen, Nitrate (As N)	8.75	H	0.100	mg/L	1	2/24/2012 05:50 PM
Sulfate	224		50.0	mg/L	100	3/2/2012 08:26 AM
Surr: Selenate (surr)	110		85-115	%REC	1	2/24/2012 05:50 PM
Surr: Selenate (surr)	95.7		85-115	%REC	100	3/2/2012 08:26 AM
ALKALINITY						
			SM2320B			Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	230		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Carbonate (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Hydroxide (As CaCO3)	U		5.00	mg/L	1	3/2/2012 11:58 AM
Alkalinity, Total (As CaCO3)	230		5.00	mg/L	1	3/2/2012 11:58 AM
TOTAL DISSOLVED SOLIDS						
			M2540C			Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	2,940		10.0	mg/L	1	2/27/2012 04:30 PM

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **59169** Instrument ID **ICPMS03** Method: **SW6020** (Dissolve)

MBLK	Sample ID: MBLKW5-022712-59169				Units: mg/L		Analysis Date: 2/27/2012 09:19 PM			
Client ID:	Run ID: ICPMS03_120227A				SeqNo: 2701210		Prep Date: 2/27/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	U	0.50								
Magnesium	U	0.20								
Potassium	U	0.20								
Sodium	U	0.20								

LCS	Sample ID: MLCSW5-022712-59169				Units: mg/L		Analysis Date: 2/27/2012 09:24 PM			
Client ID:	Run ID: ICPMS03_120227A				SeqNo: 2701211		Prep Date: 2/27/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	4.584	0.50	5	0	91.7	80-120	0			
Magnesium	4.963	0.20	5	0	99.3	80-120	0			
Potassium	4.958	0.20	5	0	99.2	80-120	0			
Sodium	4.961	0.20	5	0	99.2	80-120	0			

MS	Sample ID: 1202582-07CMS				Units: mg/L		Analysis Date: 2/27/2012 09:42 PM			
Client ID:	Run ID: ICPMS03_120227A				SeqNo: 2701215		Prep Date: 2/27/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	76.52	0.50	5	71.75	95.4	75-125	0			O
Magnesium	20.34	0.20	5	15.04	106	75-125	0			
Potassium	6.447	0.20	5	1.513	98.7	75-125	0			
Sodium	164.3	0.20	5	154.8	190	75-125	0			SO

MSD	Sample ID: 1202582-07CMSD				Units: mg/L		Analysis Date: 2/27/2012 09:47 PM			
Client ID:	Run ID: ICPMS03_120227A				SeqNo: 2701216		Prep Date: 2/27/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	78.97	0.50	5	71.75	144	75-125	76.52	3.15	25	SO
Magnesium	20.62	0.20	5	15.04	112	75-125	20.34	1.37	25	
Potassium	6.553	0.20	5	1.513	101	75-125	6.447	1.63	25	
Sodium	167.3	0.20	5	154.8	250	75-125	164.3	1.81	25	SO

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **59169** Instrument ID **ICPMS03** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **1202582-07CDUP** Units: **mg/L** Analysis Date: **2/27/2012 09:33 PM**
Client ID: Run ID: **ICPMS03_120227A** SeqNo: **2701213** Prep Date: **2/27/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	73.62	0.50	0	0	0	0-0	71.75	2.57	25	
Magnesium	15.11	0.20	0	0	0	0-0	15.04	0.464	25	
Potassium	1.537	0.20	0	0	0	0-0	1.513	1.57	25	
Sodium	154.9	0.20	0	0	0	0-0	154.8	0.0646	25	

The following samples were analyzed in this batch:

1202828-23A	1202828-24A	1202828-25A
1202828-26A	1202828-27A	1202828-28A
1202828-31A	1202828-32A	

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **59199** Instrument ID **ICPMS03** Method: **SW6020** (Dissolve)

MBLK	Sample ID: MBLKW4-022812-59199				Units: mg/L		Analysis Date: 2/28/2012 06:42 PM			
Client ID:	Run ID: ICPMS03_120228A				SeqNo: 2702883		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	U	0.20								
Potassium	U	0.20								
Sodium	U	0.20								

MBLK	Sample ID: MBLKW4-022812-59199				Units: mg/L		Analysis Date: 2/29/2012 06:47 PM			
Client ID:	Run ID: ICP7500_120229A				SeqNo: 2704114		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	0.09554	0.50								J

LCS	Sample ID: MLCSW4-022812-59199				Units: mg/L		Analysis Date: 2/28/2012 06:46 PM			
Client ID:	Run ID: ICPMS03_120228A				SeqNo: 2702884		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	4.35	0.20	5	0	87	80-120	0			
Potassium	4.415	0.20	5	0	88.3	80-120	0			
Sodium	4.411	0.20	5	0	88.2	80-120	0			

LCS	Sample ID: MLCSW4-022812-59199				Units: mg/L		Analysis Date: 2/29/2012 06:53 PM			
Client ID:	Run ID: ICP7500_120229A				SeqNo: 2704115		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	4.226	0.50	5	0	84.5	80-120	0			

MS	Sample ID: 1202828-02AMS				Units: mg/L		Analysis Date: 2/28/2012 07:04 PM			
Client ID: MW-2 022212	Run ID: ICPMS03_120228A				SeqNo: 2702888		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	10	0.20	5	5.958	80.8	75-125	0			
Potassium	8.594	0.20	5	4.415	83.6	75-125	0			
Sodium	259.3	0.20	5	261.1	-36	75-125	0			SEO

MS	Sample ID: 1202828-02AMS				Units: mg/L		Analysis Date: 3/1/2012 02:50 AM			
Client ID: MW-2 022212	Run ID: ICP7500_120229A				SeqNo: 2704350		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	26.7	0.50	5	22.92	75.6	75-125	0			O

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **59199** Instrument ID **ICPMS03** Method: **SW6020** (Dissolve)

MSD	Sample ID: 1202828-02AMSD				Units: mg/L		Analysis Date: 2/28/2012 07:09 PM			
Client ID: MW-2 022212	Run ID: ICPMS03_120228A				SeqNo: 2702889		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	10.22	0.20	5	5.958	85.2	75-125	10	2.18	25	
Potassium	8.754	0.20	5	4.415	86.8	75-125	8.594	1.84	25	
Sodium	267.3	0.20	5	261.1	124	75-125	259.3	3.04	25	EO

MSD	Sample ID: 1202828-02AMSD				Units: mg/L		Analysis Date: 3/1/2012 02:56 AM			
Client ID: MW-2 022212	Run ID: ICP7500_120229A				SeqNo: 2704351		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	28.28	0.50	5	22.92	107	75-125	26.7	5.75	25	O

DUP	Sample ID: 1202828-02ADUP				Units: mg/L		Analysis Date: 2/28/2012 06:55 PM			
Client ID: MW-2 022212	Run ID: ICPMS03_120228A				SeqNo: 2702886		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	5.989	0.20	0	0	0	0-0	5.958	0.519	25	
Potassium	4.387	0.20	0	0	0	0-0	4.415	0.636	25	

DUP	Sample ID: 1202828-02ADUP				Units: mg/L		Analysis Date: 2/29/2012 07:05 PM			
Client ID: MW-2 022212	Run ID: ICP7500_120229A				SeqNo: 2704117		Prep Date: 2/28/2012		DF: 50	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	243.7	10	0	0	0	0-0	251.2	3.05	25	

DUP	Sample ID: 1202828-02ADUP				Units: mg/L		Analysis Date: 3/1/2012 02:38 AM			
Client ID: MW-2 022212	Run ID: ICP7500_120229A				SeqNo: 2704348		Prep Date: 2/28/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	23.97	0.50	0	0	0	0-0	22.92	4.48	25	

The following samples were analyzed in this batch:

1202828-01A	1202828-02A	1202828-03A
1202828-04A	1202828-05A	1202828-06A
1202828-07A	1202828-08A	1202828-09A
1202828-11A	1202828-12A	1202828-13A
1202828-14A	1202828-15A	1202828-16A
1202828-17A	1202828-18A	1202828-19A
1202828-21A	1202828-22A	

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R123943** Instrument ID **ICS3K2** Method: **E300**

MBLK	Sample ID: WBLKW1-022412-R123943				Units: mg/L			Analysis Date: 2/24/2012 11:55 AM		
Client ID:	Run ID: ICS3K2_120224A				SeqNo: 2700051			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.10								
Nitrogen, Nitrate (As N)	U	0.10								
Sulfate	U	0.50								
Surr: Selenate (surr)	5.448	0.10	5	0	109	85-115	0			

LCS	Sample ID: WLCSW1-022412-R123943				Units: mg/L			Analysis Date: 2/24/2012 12:17 PM		
Client ID:	Run ID: ICS3K2_120224A				SeqNo: 2700052			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.098	0.10	4	0	102	90-110	0			
Nitrogen, Nitrate (As N)	4.154	0.10	4	0	104	90-110	0			
Sulfate	18.86	0.50	20	0	94.3	90-110	0			
Surr: Selenate (surr)	5.492	0.10	5	0	110	85-115	0			

LCSD	Sample ID: WLCSDW1-022412-R123943				Units: mg/L			Analysis Date: 2/24/2012 12:54 PM		
Client ID:	Run ID: ICS3K2_120224A				SeqNo: 2700053			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.068	0.10	4	0	102	90-110	4.098	0.735	20	
Nitrogen, Nitrate (As N)	4.153	0.10	4	0	104	90-110	4.154	0.0241	20	
Sulfate	18.82	0.50	20	0	94.1	90-110	18.86	0.228	20	
Surr: Selenate (surr)	5.551	0.10	5	0	111	85-115	5.492	1.07	20	

MS	Sample ID: 1202828-32BMS				Units: mg/L			Analysis Date: 2/24/2012 06:40 PM		
Client ID: Dup-2 022212	Run ID: ICS3K2_120224A				SeqNo: 2700075			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.623	0.10	2	1.531	105	80-120	0			
Nitrogen, Nitrate (As N)	10.74	0.10	2	8.747	99.9	80-120	0			OH
Sulfate	244.9	0.50	10	239.2	56.8	80-120	0			SEO
Surr: Selenate (surr)	5.497	0.10	5	0	110	85-115	0			

MSD	Sample ID: 1202828-32BMSD				Units: mg/L			Analysis Date: 2/24/2012 07:02 PM		
Client ID: Dup-2 022212	Run ID: ICS3K2_120224A				SeqNo: 2700077			Prep Date: DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.615	0.10	2	1.531	104	80-120	3.623	0.221	20	
Nitrogen, Nitrate (As N)	10.73	0.10	2	8.747	99.2	80-120	10.74	0.14	20	OH
Sulfate	244.1	0.50	10	239.2	49	80-120	244.9	0.319	20	SEO
Surr: Selenate (surr)	5.481	0.10	5	0	110	85-115	5.497	0.291	20	

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R123943** Instrument ID **ICS3K2** Method: **E300**

The following samples were analyzed in this batch:

1202828-01B	1202828-02B	1202828-07B
1202828-14B	1202828-19B	1202828-23B
1202828-31B	1202828-32B	

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124029** Instrument ID: **Balance1** Method: **M2540C**

MBLK	Sample ID: WBLK-022712-R124029				Units: mg/L		Analysis Date: 2/27/2012 04:30 PM			
Client ID:	Run ID: BALANCE1_120227E				SeqNo: 2702052		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	U	10								

LCS	Sample ID: WLCS-022712-R124029				Units: mg/L		Analysis Date: 2/27/2012 04:30 PM			
Client ID:	Run ID: BALANCE1_120227E				SeqNo: 2702064		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	1016	10	1000		0	102	85-115	0		

DUP	Sample ID: 1202741-01GDUP				Units: mg/L		Analysis Date: 2/27/2012 04:30 PM			
Client ID:	Run ID: BALANCE1_120227E				SeqNo: 2702031		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	280	10	0		0	0	0-0	298	6.23	20

DUP	Sample ID: 1202883-01EDUP				Units: mg/L		Analysis Date: 2/27/2012 04:30 PM			
Client ID:	Run ID: BALANCE1_120227E				SeqNo: 2702050		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	618	10	0		0	0	0-0	618	0	20

The following samples were analyzed in this batch:

1202828-12B	1202828-16B	1202828-21B
1202828-22B	1202828-27B	1202828-31B
1202828-32B		

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124090** Instrument ID **BALANCE1** Method: **M2540C**

MBLK	Sample ID: WBLK-022812-R124090				Units: mg/L		Analysis Date: 2/28/2012 01:00 PM			
Client ID:	Run ID: BALANCE1_120228C				SeqNo: 2703467		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	U	10								

LCS	Sample ID: WLCS-022812-R124090				Units: mg/L		Analysis Date: 2/28/2012 01:00 PM			
Client ID:	Run ID: BALANCE1_120228C				SeqNo: 2703468		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	1018	10	1000	0	102	85-115	0			

DUP	Sample ID: 1202828-11BDUP				Units: mg/L		Analysis Date: 2/28/2012 01:00 PM			
Client ID: MW-10 022212	Run ID: BALANCE1_120228C				SeqNo: 2703455		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	13940	10	0	0	0	0-0	13970	0.215	20	

DUP	Sample ID: 1202920-01ADUP				Units: mg/L		Analysis Date: 2/28/2012 01:00 PM			
Client ID:	Run ID: BALANCE1_120228C				SeqNo: 2703466		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	84	10	0	0	0	0-0	80	4.88	20	

The following samples were analyzed in this batch:

1202828-01B	1202828-02B	1202828-03B
1202828-05B	1202828-07B	1202828-08B
1202828-09B	1202828-11B	1202828-13B
1202828-14B	1202828-15B	1202828-17B
1202828-18B	1202828-19B	1202828-23B
1202828-24B	1202828-25B	

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124156** Instrument ID: **Balance1** Method: **M2540C**

MBLK Sample ID: **WBLK-022912-R124156** Units: **mg/L** Analysis Date: **2/29/2012 04:30 PM**

Client ID: Run ID: **BALANCE1_120229D** SeqNo: **2704767** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	U	10								

LCS Sample ID: **WLCS-022912-R124156** Units: **mg/L** Analysis Date: **2/29/2012 04:30 PM**

Client ID: Run ID: **BALANCE1_120229D** SeqNo: **2704768** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	1054	10	1000	0	105	85-115	0			

DUP Sample ID: **1202823-02FDUP** Units: **mg/L** Analysis Date: **2/29/2012 04:30 PM**

Client ID: Run ID: **BALANCE1_120229D** SeqNo: **2704752** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	2030	10	0	0	0	0-0	2150	5.74	20	

DUP Sample ID: **1202852-10EDUP** Units: **mg/L** Analysis Date: **2/29/2012 04:30 PM**

Client ID: Run ID: **BALANCE1_120229D** SeqNo: **2704794** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	490	10	0	0	0	0-0	450	8.51	20	

The following samples were analyzed in this batch:

1202828-04B	1202828-06B	1202828-26B
1202828-28B		

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124187** Instrument ID **WetChem** Method: **SM2320B**

MBLK Sample ID: **WBLKW1-030112-R124187** Units: **mg/L** Analysis Date: **3/1/2012 05:18 PM**

Client ID: Run ID: **WETCHEM_120301F** SeqNo: **2705564** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.0								
Alkalinity, Carbonate (As CaCO3)	U	5.0								
Alkalinity, Hydroxide (As CaCO3)	U	5.0								
Alkalinity, Total (As CaCO3)	U	5.0								

LCS Sample ID: **WLCSW1-030112-R124187** Units: **mg/L** Analysis Date: **3/1/2012 05:18 PM**

Client ID: Run ID: **WETCHEM_120301F** SeqNo: **2705565** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1048	5.0	1000		0	105	80-120	0		

DUP Sample ID: **1202828-01BDUP** Units: **mg/L** Analysis Date: **3/1/2012 05:18 PM**

Client ID: **MW-1 022212** Run ID: **WETCHEM_120301F** SeqNo: **2705588** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	152.9	5.0	0	0	0	0-0	153	0.0196	20	
Alkalinity, Carbonate (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	152.9	5.0	0	0	0	0-0	153	0.0196	20	

The following samples were analyzed in this batch:

1202828-01B

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124190** Instrument ID **ICS3K2** Method: **E300**

MBLK	Sample ID: WBLKW1-030112-R124190				Units: mg/L		Analysis Date: 3/1/2012 07:13 PM			
Client ID:	Run ID: ICS3K2_120301A				SeqNo: 2705640		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.4137	0.50								J
Sulfate	0.2527	0.50								J
Surr: Selenate (surr)	5.45	0.10								

LCS	Sample ID: WLCSW1-030112-R124190				Units: mg/L		Analysis Date: 3/1/2012 03:21 PM			
Client ID:	Run ID: ICS3K2_120301A				SeqNo: 2705638		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.01	0.50	20	0	90.1	90-110	0			
Sulfate	18.35	0.50	20	0	91.8	90-110	0			
Surr: Selenate (surr)	5.231	0.10	5	0	105	85-115	0			

LCSD	Sample ID: WLCSDW1-030112-R124190				Units: mg/L		Analysis Date: 3/1/2012 03:48 PM			
Client ID:	Run ID: ICS3K2_120301A				SeqNo: 2705639		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	18.24	0.50	20	0	91.2	90-110	18.01	1.24	20	
Sulfate	18.51	0.50	20	0	92.5	90-110	18.35	0.825	20	
Surr: Selenate (surr)	5.237	0.10	5	0	105	85-115	5.231	0.115	20	

MS	Sample ID: 1202879-01AMS				Units: mg/L		Analysis Date: 3/2/2012 01:31 AM			
Client ID:	Run ID: ICS3K2_120301A				SeqNo: 2705651		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	463.6	0.50	10	462.2	14.4	80-120	0			SEO
Sulfate	2439	0.50	10	2469	-301	80-120	0			SEO
Surr: Selenate (surr)	4.905	0.10	5	0	98.1	85-115	0			

MSD	Sample ID: 1202879-01AMSD				Units: mg/L		Analysis Date: 3/2/2012 01:52 AM			
Client ID:	Run ID: ICS3K2_120301A				SeqNo: 2705652		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	466.3	0.50	10	462.2	41.3	80-120	463.6	0.58	20	SEO
Sulfate	2453	0.50	10	2469	-158	80-120	2439	0.583	20	SEO
Surr: Selenate (surr)	4.908	0.10	5	0	98.2	85-115	4.905	0.0611	20	

The following samples were analyzed in this batch:

1202828-03B

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124191** Instrument ID **WetChem** Method: **SM2320B**

MBLK	Sample ID: WBLKW1-030212-R124191				Units: mg/L		Analysis Date: 3/2/2012 08:45 AM			
Client ID:	Run ID: WETCHEM_120302C				SeqNo: 2705659		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.0								
Alkalinity, Carbonate (As CaCO3)	U	5.0								
Alkalinity, Hydroxide (As CaCO3)	U	5.0								
Alkalinity, Total (As CaCO3)	U	5.0								

LCS	Sample ID: WLCSW1-030212-R124191				Units: mg/L		Analysis Date: 3/2/2012 08:45 AM			
Client ID:	Run ID: WETCHEM_120302C				SeqNo: 2705660		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1046	5.0	1000	0	105	80-120	0			

DUP	Sample ID: 1202828-23BDUP				Units: mg/L		Analysis Date: 3/2/2012 08:45 AM			
Client ID: MW-22 022212	Run ID: WETCHEM_120302C				SeqNo: 2705681		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	151.4	5.0	0	0	0	0-0	152.3	0.593	20	
Alkalinity, Carbonate (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	151.4	5.0	0	0	0	0-0	152.3	0.593	20	

The following samples were analyzed in this batch:

1202828-02B	1202828-03B	1202828-04B
1202828-05B	1202828-06B	1202828-07B
1202828-08B	1202828-09B	1202828-11B
1202828-12B	1202828-13B	1202828-14B
1202828-15B	1202828-16B	1202828-17B
1202828-18B	1202828-19B	1202828-21B
1202828-22B	1202828-23B	

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124192** Instrument ID **ICS2100** Method: **E300**

MBLK	Sample ID: WBLKS1-022412-R124192				Units: mg/L		Analysis Date: 2/24/2012 11:17 AM			
Client ID:	Run ID: ICS2100_120224C				SeqNo: 2705717		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	U	0.10								
Sulfate	0.277	0.50								J
<i>Surr: Selenate (surr)</i>	5.393	0.10	5	0	108	85-115	0			

LCS	Sample ID: WLCSS1-022412-R124192				Units: mg/L		Analysis Date: 2/24/2012 11:32 AM			
Client ID:	Run ID: ICS2100_120224C				SeqNo: 2705687		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	4.152	0.10	4	0	104	90-110	0			
Sulfate	19.74	0.50	20	0	98.7	90-110	0			
<i>Surr: Selenate (surr)</i>	5.638	0.10	5	0	113	85-115	0			

LCSD	Sample ID: WLCSDS1-022412-R124192				Units: mg/L		Analysis Date: 2/24/2012 11:46 AM			
Client ID:	Run ID: ICS2100_120224C				SeqNo: 2705688		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	4.128	0.10	4	0	103	90-110	4.152	0.58	20	
Sulfate	19.52	0.50	20	0	97.6	90-110	19.74	1.11	20	
<i>Surr: Selenate (surr)</i>	5.582	0.10	5	0	112	85-115	5.638	0.998	20	

MS	Sample ID: 1202622-01BMSZ				Units: mg/L		Analysis Date: 2/24/2012 07:45 PM			
Client ID:	Run ID: ICS2100_120224C				SeqNo: 2709970		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	20.31	1.0	20	0	102	80-120	0			H
Sulfate	106.4	5.0	100	7.734	98.6	80-120	0			
<i>Surr: Selenate (surr)</i>	55.36	1.0	50	0	111	85-115	0			

MSD	Sample ID: 1202622-01BMSDZ				Units: mg/L		Analysis Date: 2/24/2012 08:00 PM			
Client ID:	Run ID: ICS2100_120224C				SeqNo: 2709971		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	20.67	1.0	20	0	103	80-120	20.31	1.75	20	H
Sulfate	108.3	5.0	100	7.734	101	80-120	106.4	1.75	20	
<i>Surr: Selenate (surr)</i>	56.24	1.0	50	0	112	85-115	55.36	1.58	20	

The following samples were analyzed in this batch:

1202828-04B	1202828-06B	1202828-09B
1202828-11B	1202828-12B	1202828-13B
1202828-16B	1202828-17B	1202828-21B
1202828-22B	1202828-26B	1202828-27B
1202828-28B		

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124197** Instrument ID **WetChem** Method: **SM2320B**

MBLK	Sample ID: WBLKW1-030212-R124197				Units: mg/L		Analysis Date: 3/2/2012 11:58 AM			
Client ID:	Run ID: WETCHEM_120302D				SeqNo: 2705750		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.0								
Alkalinity, Carbonate (As CaCO3)	U	5.0								
Alkalinity, Hydroxide (As CaCO3)	U	5.0								
Alkalinity, Total (As CaCO3)	U	5.0								

LCS	Sample ID: WLCSW1-030212-R124197				Units: mg/L		Analysis Date: 3/2/2012 11:58 AM			
Client ID:	Run ID: WETCHEM_120302D				SeqNo: 2705751		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1041	5.0	1000		0	104	80-120	0		

DUP	Sample ID: 1202828-24BDUP				Units: mg/L		Analysis Date: 3/2/2012 11:58 AM			
Client ID: MW-24 022212	Run ID: WETCHEM_120302D				SeqNo: 2705763		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	101.2	5.0	0	0	0	0-0	101.3	0.148	20	
Alkalinity, Carbonate (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	101.2	5.0	0	0	0	0-0	101.3	0.148	20	

The following samples were analyzed in this batch:

1202828-24B	1202828-25B	1202828-26B
1202828-27B	1202828-28B	1202828-31B
1202828-32B		

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124201** Instrument ID **ICS3000** Method: **E300**

MBLK	Sample ID: WBLKS1-030112-R124201				Units: mg/L		Analysis Date: 3/1/2012 04:03 PM			
Client ID:	Run ID: ICS3000_120301A				SeqNo: 2705805		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.353	0.50								J
Sulfate	U	0.50								
<i>Surr: Selenate (surr)</i>	4.323	0.10	5	0	86.5	85-115	0			

LCS	Sample ID: WLCSS1-030112-R124201				Units: mg/L		Analysis Date: 3/1/2012 04:24 PM			
Client ID:	Run ID: ICS3000_120301A				SeqNo: 2705806		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.65	0.50	20	0	103	90-110	0			
Sulfate	18.6	0.50	20	0	93	90-110	0			
<i>Surr: Selenate (surr)</i>	5.686	0.10	5	0	114	85-115	0			

LCSD	Sample ID: WLCSDS1-030112-R124201				Units: mg/L		Analysis Date: 3/1/2012 04:45 PM			
Client ID:	Run ID: ICS3000_120301A				SeqNo: 2705807		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.28	0.50	20	0	101	90-110	20.65	1.79	20	
Sulfate	18.68	0.50	20	0	93.4	90-110	18.6	0.429	20	
<i>Surr: Selenate (surr)</i>	5.591	0.10	5	0	112	85-115	5.686	1.68	20	

MS	Sample ID: 1202828-19BMS				Units: mg/L		Analysis Date: 3/2/2012 02:06 AM			
Client ID: MW-19 022212	Run ID: ICS3000_120301A				SeqNo: 2705849		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	650.7	5.0	100	542.5	108	80-120	0			O
Sulfate	136.4	5.0	100	30.26	106	80-120	0			
<i>Surr: Selenate (surr)</i>	55.61	1.0	50	0	111	85-115	0			

MSD	Sample ID: 1202828-19BMSD				Units: mg/L		Analysis Date: 3/2/2012 02:27 AM			
Client ID: MW-19 022212	Run ID: ICS3000_120301A				SeqNo: 2705852		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	650.2	5.0	100	542.5	108	80-120	650.7	0.0736	20	O
Sulfate	138.1	5.0	100	30.26	108	80-120	136.4	1.27	20	
<i>Surr: Selenate (surr)</i>	55.79	1.0	50	0	112	85-115	55.61	0.327	20	

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124201** Instrument ID **ICS3000** Method: **E300**

The following samples were analyzed in this batch:

1202828-01B	1202828-02B	1202828-03B
1202828-04B	1202828-05B	1202828-06B
1202828-07B	1202828-08B	1202828-09B
1202828-11B	1202828-12B	1202828-13B
1202828-14B	1202828-15B	1202828-16B
1202828-17B	1202828-18B	1202828-19B

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124211** Instrument ID **ICS3000** Method: **E300**

MBLK Sample ID: **WBLKW2-030112-R124211** Units: **mg/L** Analysis Date: **3/2/2012 03:30 AM**

Client ID: Run ID: **ICS3000_120301B** SeqNo: **2705960** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.50								
Sulfate	U	0.50								
<i>Surr: Selenate (surr)</i>	3.754	0.10	4	0	93.8	85-115	0			

LCS Sample ID: **WLCSW2-030112-R124211** Units: **mg/L** Analysis Date: **3/2/2012 03:51 AM**

Client ID: Run ID: **ICS3000_120301B** SeqNo: **2705962** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.54	0.50	20	0	103	90-110	0			
Sulfate	18.27	0.50	20	0	91.4	90-110	0			
<i>Surr: Selenate (surr)</i>	5.703	0.10	5	0	114	85-115	0			

LCSD Sample ID: **WLCSDW2-030112-R124211** Units: **mg/L** Analysis Date: **3/2/2012 04:13 AM**

Client ID: Run ID: **ICS3000_120301B** SeqNo: **2705964** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.05	0.50	20	0	100	90-110	20.54	2.41	20	
Sulfate	18.37	0.50	20	0	91.9	90-110	18.27	0.551	20	
<i>Surr: Selenate (surr)</i>	5.729	0.10	5	0	115	85-115	5.703	0.455	20	

MS Sample ID: **1202828-32BMS** Units: **mg/L** Analysis Date: **3/2/2012 08:47 AM**

Client ID: **Dup-2 022212** Run ID: **ICS3000_120301B** SeqNo: **2705988** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2517	50	1000	1473	104	80-120	1259	0	0	
Sulfate	1243	50	1000	224.3	102	80-120	244.9	0	0	
<i>Surr: Selenate (surr)</i>	553	10	500	0	111	85-115	5.497	0		

MSD Sample ID: **1202828-32BMSD** Units: **mg/L** Analysis Date: **3/2/2012 09:08 AM**

Client ID: **Dup-2 022212** Run ID: **ICS3000_120301B** SeqNo: **2705989** Prep Date: DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2509	50	1000	1473	104	80-120	2517	0.316	20	
Sulfate	1233	50	1000	224.3	101	80-120	1243	0.783	20	
<i>Surr: Selenate (surr)</i>	554.7	10	500	0	111	85-115	553	0.309	20	

The following samples were analyzed in this batch:

1202828-21B	1202828-22B	1202828-23B
1202828-24B	1202828-25B	1202828-26B
1202828-27B	1202828-28B	1202828-31B
1202828-32B		

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124311** Instrument ID **ICS3000** Method: **E300**

MBLK	Sample ID: WBLKW1-022412-R124311				Units: mg/L		Analysis Date: 2/26/2012 11:46 AM			
Client ID:	Run ID: ICS3000_120224B				SeqNo: 2707252		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.10								
Nitrogen, Nitrate (As N)	U	0.10								
Surr: Selenate (surr)	4.202	0.10	4	0	105	85-115	0			

LCS	Sample ID: WLCSW1-022412-R124311				Units: mg/L		Analysis Date: 2/26/2012 12:07 PM			
Client ID:	Run ID: ICS3000_120224B				SeqNo: 2707253		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.953	0.10	4	0	98.8	90-110	0			
Nitrogen, Nitrate (As N)	3.698	0.10	4	0	92.4	90-110	0			
Surr: Selenate (surr)	5.68	0.10	5	0	114	85-115	0			

LCSD	Sample ID: WLCSDW1-022412-R124311				Units: mg/L		Analysis Date: 2/26/2012 12:28 PM			
Client ID:	Run ID: ICS3000_120224B				SeqNo: 2707254		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.98	0.10	4	0	99.5	90-110	3.953	0.681	20	
Nitrogen, Nitrate (As N)	3.661	0.10	4	0	91.5	90-110	3.698	1.01	20	
Surr: Selenate (surr)	5.718	0.10	5	0	114	85-115	5.68	0.667	20	

MS	Sample ID: 1202849-01DMS				Units: mg/L		Analysis Date: 2/24/2012 08:48 PM			
Client ID:	Run ID: ICS3000_120224B				SeqNo: 2707599		Prep Date:		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	9.33	0.50	10	0.576	87.5	80-120	0			
Nitrogen, Nitrate (As N)	8.958	0.50	10	0.985	79.7	80-120	0			S
Surr: Selenate (surr)	27.77	0.50	25	0	111	85-115	0			

MSD	Sample ID: 1202849-01DMSD				Units: mg/L		Analysis Date: 2/24/2012 09:09 PM			
Client ID:	Run ID: ICS3000_120224B				SeqNo: 2707600		Prep Date:		DF: 5	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	9.324	0.50	10	0.576	87.5	80-120	9.33	0.0643	20	
Nitrogen, Nitrate (As N)	8.965	0.50	10	0.985	79.8	80-120	8.958	0.0725	20	S
Surr: Selenate (surr)	28	0.50	25	0	112	85-115	27.77	0.853	20	

The following samples were analyzed in this batch:

1202828-03B	1202828-05B	1202828-08B
1202828-15B	1202828-18B	1202828-24B
1202828-25B		

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

Client: Conestoga-Rovers & Associates
Work Order: 1202828
Project: G.L. Erwin

QC BATCH REPORT

Batch ID: **R124568** Instrument ID **ICS3K2** Method: **E300**

MBLK	Sample ID: WBLKW1-030912-R124568				Units: mg/L		Analysis Date: 3/9/2012 06:04 AM			
Client ID:	Run ID: ICS3K2_120309A				SeqNo: 2713174		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.10								
Surr: Selenate (surr)	5.389	0.10	5	0	108	85-115	0			

LCS	Sample ID: WLCSW-030912-R124568				Units: mg/L		Analysis Date: 3/9/2012 06:26 AM			
Client ID:	Run ID: ICS3K2_120309A				SeqNo: 2713175		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.112	0.10	4	0	103	90-110	0			
Surr: Selenate (surr)	5.364	0.10	5	0	107	85-115	0			

LCSD	Sample ID: WLCSDW-030912-R124568				Units: mg/L		Analysis Date: 3/9/2012 06:47 AM			
Client ID:	Run ID: ICS3K2_120309A				SeqNo: 2713176		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.095	0.10	4	0	102	90-110	4.112	0.414	20	
Surr: Selenate (surr)	5.36	0.10	5	0	107	85-115	5.364	0.0746	20	

MS	Sample ID: 1202828-28BMS				Units: mg/L		Analysis Date: 3/9/2012 12:35 PM			
Client ID: RW-1 022212	Run ID: ICS3K2_120309A				SeqNo: 2713193		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.113	0.10	2	1.033	104	80-120	0			
Surr: Selenate (surr)	5.465	0.10	5	0	109	85-115	0			

MSD	Sample ID: 1202828-28BMSD				Units: mg/L		Analysis Date: 3/9/2012 12:56 PM			
Client ID: RW-1 022212	Run ID: ICS3K2_120309A				SeqNo: 2713194		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.075	0.10	2	1.033	102	80-120	3.113	1.23	20	
Surr: Selenate (surr)	5.51	0.10	5	0	110	85-115	5.465	0.82	20	

The following samples were analyzed in this batch:

1202828-04B	1202828-06B	1202828-09B
1202828-11B	1202828-12B	1202828-13B
1202828-16B	1202828-17B	1202828-21B
1202828-22B	1202828-26B	1202828-27B
1202828-28B		

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

Client: Conestoga-Rovers & Associates
Project: G.L. Erwin
WorkOrder: 1202828

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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

<u>Acronym</u>	<u>Description</u>
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 Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **CRA-MID**

Date/Time Received: **24-Feb-12 09:12**

Work Order: **1202828**

Received by: **RNG**

Checklist completed by Raymond N Gambia
eSignature

24-Feb-12
Date

Reviewed by: Mary L. Knowles
eSignature

24-Feb-12
Date

Matrices: **Groundwater**

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):	<u>2.9c, 3.2c, 2.1c, 2.6c</u>		<u>002</u>
Cooler(s)/Kit(s):	<u>4014, 4602, 4700, 2593</u>		
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:	<u>-</u>		

Login Notes: Three trip blanks not ALS provided. Logged in without analysis. Received two samples "Dup-1 022212" and "Dup-2 022212" not on COC; logged in with analysis.

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Chain of Custody Form

Environmental

1202828

CRA-HOU: Conestoga-Rovers & Associates

Project: G.L. Erwin

Page 1 of 1

COC ID: 50968

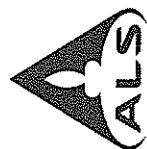


ALS Project Manager:

Customer Information				Project Information													
Purchase Order	404614			Project Name	G.L. Erwin												
Work Order				Project Number	039124039124												
Company Name	Conestoga-Rovers & Associates			Bill To Company	Conestoga-Rovers & Associates												
Send Report To	Todd Wells			Invoice Attn	Todd Wells												
Address	2135 S Loop 250 West			Address	2135 S Loop 250 West												
City/State/Zip	Midland, TX 79703			City/State/Zip	Midland, TX 79703												
Phone	(432) 686-0086			Phone	(432) 686-0086												
Fax	(432) 686-0186			Fax	(432) 686-0186												
e-Mail Address	Twells@CRAworld.com			e-Mail Address													
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-1 022212	2-22-12	1525	GW	8	3	X	X	X	X							
2	MW-2 022212	2-22-12	1520														
3	MW-3 022212	2-22-12	1540														
4	MW-4 022212	2-22-12	1616														
5	MW-5 022212	2-22-12	1535														
6	MW-6 022212	2-22-12	1555														
7	MW-7 022212	2-22-12	1510														
8	MW-8 022212	2-22-12	1415														
9	MW-9 022212	2-22-12	1525														
10	Trip Blank + Temp																
Samples(s) Please Print & Sign				Shipment Method				Required Turnaround Time: (Check Box)				Results Due Date:					
Brittany Ford / Brittany Ford				FedEx				☒ Std 10 WK Days ☐ 5 WK Days ☐ 2 WK Days ☐ 24 Hour									
Relinquished by:				Received by:				Notes:				10 Day TAT.					
Brittany Ford				Carroll				2/24/12 09:12									
Logged by (Laboratory):				Date:				Cooler ID				Cooler Temp.					
Preservative Key: 1-HCl 2-HNO ₃ 3-H ₂ SO ₄ 4-NaOH 5-Na ₂ S ₂ O ₃ 6-NaHSO ₄ 7-Other 8-4°C 9-5035																	
QC Package: (Check One Box Below)																	
☒ Level II Std QC																	
☐ Level III Std QC/Raw Data																	
☐ Level IV SW846/CLP																	
☐ Other / EDD																	

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

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☐ Spring City, PA +1 610 948 4903
☐ York, PA +1 717 505 5280

Page of

COC ID: 50973

ALS Project Manager: ALS Work Order #: 202808

Customer Information				Project Information				Parameter/Method Request for Analysis											
Purchase Order	4046114			Project Name	G.L. Envin			Dissolved Metals (8020/7000) Ca, Mg, K, Na											
Work Order				Project Number	039124039124			Anions (300) Cl, F, SO4, NO3											
Company Name	Conestoga-Rovers & Associates			Bill To Company	Conestoga-Rovers & Associates			Alkalinity											
Send Report To	Todd Wells			Invoice Attn	Todd Wells			TDS											
Address	2135 S Loop 250 West			Address	2135 S Loop 250 West														
City/State/Zip	Midland, TX 79703			City/State/Zip	Midland, TX 79703														
Phone	(432) 686-0086			Phone	(432) 686-0086														
Fax	(432) 686-0186			Fax	(432) 686-0186														
e-Mail Address				e-Mail Address															

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	mw-10 022212	2-22-12	1545	GW	8	3	X	X	X	X							
2	mw-11 022212		1325														
3	mw-12 022212		1400														
4	mw-13 022212		1500														
5	mw-14 022212		1430														
6	mw-15 022212		1350														
7	mw-16 022212		1405														
8	mw-17 022212		1420														
9	mw-19 022212		1440														
10	Trip Blank / Temp blank																

Sampler(s) Please Print & Sign	Brittany Ford		Shipment Method	FedEx		Required Turnaround Time: (Check Box)	☒ Std 10 Wk Days ☐ 5 Wk Days ☐ 2 Wk Days ☐ 24 Hour		Results Due Date:		
Relinquished by:	Brittany Ford		Date:	2-23-11		Time:	1400		Notes:	10 Day TAT.	
Relinquished by:	Brittany Ford		Date:	2-23-11		Time:	1400		QC Package: (Check One Box Below)	☒ Level II Std QC ☐ Level III Std QC/Raw Data ☐ Level IV SW946/CLP ☐ Other / EDD	
Logged by (Laboratory):			Date:			Time:			Cooler ID		
Preservative Key:	1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other		8-4°C		9-5035				Cooler Temp.		

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.

W.O.# 1202828

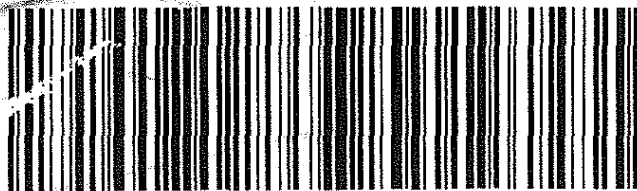
PS# 7955 4354 6413

FRI - 24 FEB A2
PRIORITY OVERNIGHT

43 SGRA

4014

DSR
77099
TX-US
IAH



848476 24Feb 01:09 AFWH 512C1/9F59/CF60



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887

Date:
Name:
Compan

CUSTODY SEAL

4014

Seal Broken By:

2/23/12 Time: 1400
Brittany Ford
CRA

Date:
2/24/12

This portion can be removed for Recipient's records.

2/23/12

FedEx
Tracking Number

875882544152

Sender's Name: Brittany Ford

Phone: 432 686-0086

Company: CRA-Midland

Address: 2135 South Loop West
Midland

Dept./Room/Suite/Room

State: TX ZIP: 79703

Internal Billing Reference

4662

CUSTODY SEAL

Seal Broken By:

2/23/12 Time: 1400
Brittany Ford
CRA

Date:
2/24/12



ALS Environmental

10450 Stancliff Rd., Suite 210
Houston, Texas 77099
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Date:
Name:
Compan

W.O.# 120282

IPS# 7955 4354 6398 FRI - 24 FEB
 0681 PRIORITY OVERNIGHT
 43 SGRA 4700
 77099 TX-IAH
 847888 24Feb 01:02 AFWH 512C1/9F59/CF60

ALS Environmental
 10450 Stanciliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Date: 2-23-12
 Name: Bn
 Company: 7

CUSTODY SEAL 4700

12 Time: 1400
 Name: Harry Ford
 Date: 2/24/12

Seal Broken By: RAG

MPS# 7955 4354 6402 FRI - 24 FEB
 0681 PRIORITY OVERNIGHT
 43 SGRA 1593
 77099 TX-US-IAH
 847888 24Feb 01:06 AFWH 512C1/9F59/CF60

ALS Environmental
 10450 Stanciliff Rd., Suite 210
 Houston, Texas 77099
 Tel. +1 281 530 5656
 Fax. +1 281 530 5887

Date:
 Name:
 Company:

CUSTODY SEAL 1593

Date: 2-23-12 Time: 1400
 Name: Brittany Ford
 Company: CRA

Seal Broken By: RAG

Date: 2/24/12



11-Jun-2012

Todd Wells
Conestoga-Rovers & Associates
2135 S Loop 250 West
Midland, TX 79703

Tel: (432) 686-0086
Fax: (432) 686-0186

Re: 039124 G.L. Erwin

Work Order: **12051182**

Dear Todd,

ALS Environmental received 4 samples on 26-May-2012 09:25 AM for the analyses 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.

The total number of pages in this report is 18.

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

Sincerely,

A handwritten signature in cursive script that reads "Patricia L. Lynch".

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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Environmental 

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Work Order: 12051182

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
12051182-01	MW-25-052412	Water		5/24/2012 12:50	5/26/2012 09:25	☐
12051182-02	MW-26-052412	Water		5/24/2012 13:50	5/26/2012 09:25	☐
12051182-03	MW-27-052412	Water		5/24/2012 14:15	5/26/2012 09:25	☐
12051182-04	DUP-1	Water		5/24/2012	5/26/2012 09:25	☐

ALS Environmental

Date: 13-Jun-12

Client: Conestoga-Rovers & Associates

Project: 039124 G.L. Erwin

Work Order: 12051182

Case Narrative

Batch 61582, Metals, Sample 1206011-01: MS/MSD performed on an unrelated sample.

Batch R129099, Anions, Sample 1206190-01: MS/MSD performed on an unrelated sample.

ALS Environmental

Date: 11-Jun-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-25-052412
Collection Date: 5/24/2012 12:50 PM

Work Order: 12051182
Lab ID: 12051182-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 6/4/12		Analyst: IGF
Calcium	890		8.6	50.0	mg/L	100	6/9/2012 00:58
Magnesium	272		8.2	20.0	mg/L	100	6/9/2012 00:58
Potassium	19.2		0.084	0.200	mg/L	1	6/4/2012 19:12
Sodium	1,150		8.5	20.0	mg/L	100	6/9/2012 00:58
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	4,390		10	25.0	mg/L	50	6/7/2012 15:21
Fluoride	0.121		0.050	0.100	mg/L	1	6/7/2012 02:35
Nitrogen, Nitrate (As N)	3.56		0.30	1.00	mg/L	10	6/7/2012 02:15
Sulfate	307		10	25.0	mg/L	50	6/7/2012 15:21
Surr: Selenate (surr)	106			85-115	%REC	10	6/7/2012 02:15
Surr: Selenate (surr)	106			85-115	%REC	1	6/7/2012 02:35
Surr: Selenate (surr)	106			85-115	%REC	50	6/7/2012 15:21
ALKALINITY							
			Method: SM2320B		Analyst: DM		
Alkalinity, Bicarbonate (As CaCO3)	158		5.0	5.00	mg/L	1	6/6/2012 13:11
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:11
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:11
Alkalinity, Total (As CaCO3)	158		5.0	5.00	mg/L	1	6/6/2012 13:11
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	10,200		5.0	10.0	mg/L	1	5/31/2012 11:00

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

ALS Environmental

Date: 11-Jun-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-26-052412
Collection Date: 5/24/2012 01:50 PM

Work Order: 12051182
Lab ID: 12051182-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 6/4/12		Analyst: IGF
Calcium	241		8.6	50.0	mg/L	100	6/9/2012 01:06
Magnesium	75.3		0.082	0.200	mg/L	1	6/4/2012 19:14
Potassium	11.4		0.084	0.200	mg/L	1	6/4/2012 19:14
Sodium	1,000		8.5	20.0	mg/L	100	6/9/2012 01:06
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	2,320		10	25.0	mg/L	50	6/7/2012 15:43
Fluoride	0.858		0.050	0.100	mg/L	1	6/7/2012 02:56
Nitrogen, Nitrate (As N)	2.45		0.30	1.00	mg/L	10	6/7/2012 02:36
Sulfate	236		10	25.0	mg/L	50	6/7/2012 15:43
Surr: Selenate (surr)	105			85-115	%REC	10	6/7/2012 02:36
Surr: Selenate (surr)	110			85-115	%REC	1	6/7/2012 02:56
Surr: Selenate (surr)	105			85-115	%REC	50	6/7/2012 15:43
ALKALINITY							
			Method: SM2320B		Analyst: DM		
Alkalinity, Bicarbonate (As CaCO3)	200		5.0	5.00	mg/L	1	6/6/2012 13:17
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:17
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:17
Alkalinity, Total (As CaCO3)	200		5.0	5.00	mg/L	1	6/6/2012 13:17
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	5,020		5.0	10.0	mg/L	1	5/31/2012 11:00

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

ALS Environmental

Date: 11-Jun-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-27-052412
Collection Date: 5/24/2012 02:15 PM

Work Order: 12051182
Lab ID: 12051182-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 6/4/12		Analyst: IGF
Calcium	405		8.6	50.0	mg/L	100	6/9/2012 01:13
Magnesium	124		0.082	0.200	mg/L	1	6/4/2012 19:17
Potassium	22.5		0.084	0.200	mg/L	1	6/4/2012 19:17
Sodium	330		8.5	20.0	mg/L	100	6/9/2012 01:13
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	1,270		10	25.0	mg/L	50	6/7/2012 16:05
Fluoride	0.838		0.050	0.100	mg/L	1	6/7/2012 04:02
Nitrogen, Nitrate (As N)	1.02		0.30	1.00	mg/L	10	6/7/2012 02:57
Sulfate	640		10	25.0	mg/L	50	6/7/2012 16:05
Surr: Selenate (surr)	105			85-115	%REC	10	6/7/2012 02:57
Surr: Selenate (surr)	113			85-115	%REC	1	6/7/2012 04:02
Surr: Selenate (surr)	105			85-115	%REC	50	6/7/2012 16:05
ALKALINITY							
			Method: SM2320B		Analyst: DM		
Alkalinity, Bicarbonate (As CaCO ₃)	138		5.0	5.00	mg/L	1	6/6/2012 13:23
Alkalinity, Carbonate (As CaCO ₃)	U		5.0	5.00	mg/L	1	6/6/2012 13:23
Alkalinity, Hydroxide (As CaCO ₃)	U		5.0	5.00	mg/L	1	6/6/2012 13:23
Alkalinity, Total (As CaCO ₃)	138		5.0	5.00	mg/L	1	6/6/2012 13:23
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	3,660		5.0	10.0	mg/L	1	5/31/2012 11:00

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

ALS Environmental

Date: 11-Jun-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: DUP-1
Collection Date: 5/24/2012

Work Order: 12051182
Lab ID: 12051182-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 6/4/12		Analyst: IGF	
Calcium	880		8.6	50.0	mg/L	100	6/9/2012 01:19
Magnesium	270		8.2	20.0	mg/L	100	6/9/2012 01:19
Potassium	19.1		0.084	0.200	mg/L	1	6/4/2012 19:20
Sodium	1,170		8.5	20.0	mg/L	100	6/9/2012 01:19
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	4,460		10	25.0	mg/L	50	6/7/2012 16:27
Fluoride	0.142		0.050	0.100	mg/L	1	6/7/2012 04:23
Nitrogen, Nitrate (As N)	3.46		0.30	1.00	mg/L	10	6/7/2012 03:19
Sulfate	316		10	25.0	mg/L	50	6/7/2012 16:27
Surr: Selenate (surr)	0			85-115	%REC	10	6/7/2012 03:19
Surr: Selenate (surr)	110			85-115	%REC	1	6/7/2012 04:23
Surr: Selenate (surr)	107			85-115	%REC	50	6/7/2012 16:27
ALKALINITY	Method: SM2320B					Analyst: DM	
Alkalinity, Bicarbonate (As CaCO ₃)	165		5.0	5.00	mg/L	1	6/6/2012 13:28
Alkalinity, Carbonate (As CaCO ₃)	U		5.0	5.00	mg/L	1	6/6/2012 13:28
Alkalinity, Hydroxide (As CaCO ₃)	U		5.0	5.00	mg/L	1	6/6/2012 13:28
Alkalinity, Total (As CaCO ₃)	165		5.0	5.00	mg/L	1	6/6/2012 13:28
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	11,000		5.0	10.0	mg/L	1	5/30/2012 12:00

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

ALS Environmental

Date: 11-Jun-12

Client: Conestoga-Rovers & Associates
Work Order: 12051182
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **61582** Instrument ID **ICPMS05** Method: **SW6020** (Dissolve)

MBLK	Sample ID: MBLKW4-060412-61582					Units: mg/L	Analysis Date: 6/4/2012 07:02 PM			
Client ID:	Run ID: ICPMS05_120604A					SeqNo: 2807063	Prep Date: 6/4/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	U	0.50								
Magnesium	U	0.20								
Potassium	U	0.20								
Sodium	U	0.20								

LCS	Sample ID: MLCSW4-060412-61582					Units: mg/L	Analysis Date: 6/4/2012 07:04 PM			
Client ID:	Run ID: ICPMS05_120604A					SeqNo: 2807064	Prep Date: 6/4/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	4.769	0.50	5	0	95.4	80-120	0			
Magnesium	4.876	0.20	5	0	97.5	80-120	0			
Potassium	4.747	0.20	5	0	94.9	80-120	0			
Sodium	4.701	0.20	5	0	94	80-120	0			

MS	Sample ID: 1206011-01CMS					Units: mg/L	Analysis Date: 6/4/2012 07:43 PM			
Client ID:	Run ID: ICPMS05_120604A					SeqNo: 2807079	Prep Date: 6/4/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	20.06	0.50	5	16.8	65.1	75-125	0			S
Magnesium	8.498	0.20	5	4.07	88.6	75-125	0			
Potassium	7.229	0.20	5	2.778	89	75-125	0			

MS	Sample ID: 1206011-01CMS					Units: mg/L	Analysis Date: 6/5/2012 04:46 PM			
Client ID:	Run ID: ICPMS05_120605A					SeqNo: 2808963	Prep Date: 6/4/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	174.6	0.20	5	166.1	171	75-125	0			SO

MSD	Sample ID: 1206011-01CMSD					Units: mg/L	Analysis Date: 6/4/2012 07:45 PM			
Client ID:	Run ID: ICPMS05_120604A					SeqNo: 2807080	Prep Date: 6/4/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	20.15	0.50	5	16.8	67	75-125	20.06	0.475	25	S
Magnesium	8.31	0.20	5	4.07	84.8	75-125	8.498	2.24	25	
Potassium	7.062	0.20	5	2.778	85.7	75-125	7.229	2.33	25	

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

Client: Conestoga-Rovers & Associates
Work Order: 12051182
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **61582** Instrument ID **ICPMS05** Method: **SW6020** **(Dissolve)**

MSD		Sample ID: 1206011-01CMSD				Units: mg/L		Analysis Date: 6/5/2012 04:49 PM		
Client ID:		Run ID: ICPMS05_120605A				SeqNo: 2808965		Prep Date: 6/4/2012		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	162.5	0.20	5	166.1	-70.5	75-125	174.6	7.17	25	SO

DUP		Sample ID: 1206011-01CDUP				Units: mg/L		Analysis Date: 6/4/2012 07:35 PM		
Client ID:		Run ID: ICPMS05_120604A				SeqNo: 2807076		Prep Date: 6/4/2012		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	15.86	0.50	0	0	0	0-0	16.8	5.77	25	
Magnesium	3.932	0.20	0	0	0	0-0	4.07	3.47	25	
Potassium	2.694	0.20	0	0	0	0-0	2.778	3.09	25	

DUP		Sample ID: 1206011-01CDUP				Units: mg/L		Analysis Date: 6/5/2012 04:43 PM		
Client ID:		Run ID: ICPMS05_120605A				SeqNo: 2808960		Prep Date: 6/4/2012		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Sodium	161.6	0.20	0	0	0	0-0	166.1	2.76	25	

The following samples were analyzed in this batch:

12051182-01B	12051182-02B	12051182-03B
12051182-04B		

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

Client: Conestoga-Rovers & Associates

Work Order: 12051182

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R128744** Instrument ID **BALANCE1** Method: **M2540C** **(Dissolve)**

MBLK Sample ID: **WBLK-053012-R128744** Units: **mg/L** Analysis Date: **5/30/2012 12:00 PM**

Client ID: Run ID: **BALANCE1_120530D** SeqNo: **2802582** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	U	10								

LCS Sample ID: **WLCS-053012-R128744** Units: **mg/L** Analysis Date: **5/30/2012 12:00 PM**

Client ID: Run ID: **BALANCE1_120530D** SeqNo: **2802583** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	1028	10	1000		0	103	85-115	0		

DUP Sample ID: **12051021-01GDUP** Units: **mg/L** Analysis Date: **5/30/2012 12:00 PM**

Client ID: Run ID: **BALANCE1_120530D** SeqNo: **2802569** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	338	10	0		0	0	0-0	326	3.61	20

DUP Sample ID: **12051088-01GDUP** Units: **mg/L** Analysis Date: **5/30/2012 12:00 PM**

Client ID: Run ID: **BALANCE1_120530D** SeqNo: **2802574** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	174	10	0		0	0	0-0	174	0	20

The following samples were analyzed in this batch:

12051182-04C

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

Client: Conestoga-Rovers & Associates

Work Order: 12051182

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R128819** Instrument ID **BALANCE1** Method: **M2540C** **(Dissolve)**

MBLK Sample ID: **WBLK-053112-R128819** Units: **mg/L** Analysis Date: **5/31/2012 11:00 AM**

Client ID: Run ID: **BALANCE1_120531D** SeqNo: **2804446** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	U	10								

LCS Sample ID: **WLCS-053112-R128819** Units: **mg/L** Analysis Date: **5/31/2012 11:00 AM**

Client ID: Run ID: **BALANCE1_120531D** SeqNo: **2804447** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	1070	10	1000	0	107	85-115	0			

DUP Sample ID: **12051094-01FDUP** Units: **mg/L** Analysis Date: **5/31/2012 11:00 AM**

Client ID: Run ID: **BALANCE1_120531D** SeqNo: **2804433** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	310	10	0	0	0	0-0	312	0.643	20	

The following samples were analyzed in this batch:

12051182-01C	12051182-02C	12051182-03C
--------------	--------------	--------------

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

Client: Conestoga-Rovers & Associates

Work Order: 12051182

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R129051** Instrument ID **ManTech01** Method: **SM2320B (Dissolve)**

MBLK Sample ID: **WBLKW2-R129051** Units: **mg/L** Analysis Date: **6/6/2012 11:50 AM**

Client ID: Run ID: **MANTECH01_120606B** SeqNo: **2809747** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.0								
Alkalinity, Carbonate (As CaCO3)	U	5.0								
Alkalinity, Hydroxide (As CaCO3)	U	5.0								
Alkalinity, Total (As CaCO3)	U	5.0								

LCS Sample ID: **WLCSW1-1-R129051** Units: **mg/L** Analysis Date: **6/6/2012 11:57 AM**

Client ID: Run ID: **MANTECH01_120606B** SeqNo: **2809748** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1029	5.0	1000		0	103	80-120	0		

DUP Sample ID: **12051226-01GDUP** Units: **mg/L** Analysis Date: **6/6/2012 12:09 PM**

Client ID: Run ID: **MANTECH01_120606B** SeqNo: **2809750** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	340	5.0	0	0	0	0-0	340	0.0206	20	
Alkalinity, Carbonate (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Hydroxide (As CaCO3)	U	5.0	0	0	0	0-0	0	0	20	
Alkalinity, Total (As CaCO3)	340	5.0	0	0	0	0-0	340	0.0206	20	

The following samples were analyzed in this batch:

12051182-01C	12051182-02C	12051182-03C
12051182-04C		

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

Client: Conestoga-Rovers & Associates
Work Order: 12051182
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R129096** Instrument ID **ICS3000** Method: **E300** **(Dissolve)**

MBLK	Sample ID: WBLKW1-060612-R129096				Units: mg/L		Analysis Date: 6/7/2012 01:11 AM			
Client ID:	Run ID: ICS3000_120607A				SeqNo: 2811113		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	U	0.10								
<i>Surr: Selenate (surr)</i>	5.24	0.10	5	0	105	85-115	0			

LCS	Sample ID: WLCSW1-060612-R129096				Units: mg/L		Analysis Date: 6/7/2012 01:32 AM			
Client ID:	Run ID: ICS3000_120607A				SeqNo: 2811114		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	4.189	0.10	4	0	105	90-110	0			
<i>Surr: Selenate (surr)</i>	5.032	0.10	5	0	101	85-115	0			

LCSD	Sample ID: WLCSW1-060612-R129096				Units: mg/L		Analysis Date: 6/7/2012 01:53 AM			
Client ID:	Run ID: ICS3000_120607A				SeqNo: 2811115		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	4.242	0.10	4	0	106	90-110	4.189	1.26	20	
<i>Surr: Selenate (surr)</i>	5.109	0.10	5	0	102	85-115	5.032	1.52	20	

MS	Sample ID: 12051182-04AMS				Units: mg/L		Analysis Date: 6/7/2012 03:40 AM			
Client ID: DUP-1	Run ID: ICS3000_120607A				SeqNo: 2811120		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	24.73	1.0	20	3.465	106	80-120	0			
<i>Surr: Selenate (surr)</i>	51.89	1.0	50	0	104	85-115	0			

MSD	Sample ID: 12051182-04AMSD				Units: mg/L		Analysis Date: 6/7/2012 04:01 AM			
Client ID: DUP-1	Run ID: ICS3000_120607A				SeqNo: 2811121		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	24.57	1.0	20	3.465	106	80-120	24.73	0.637	20	
<i>Surr: Selenate (surr)</i>	51.58	1.0	50	0	103	85-115	51.89	0.599	20	

The following samples were analyzed in this batch:

12051182-01A	12051182-02A	12051182-03A
12051182-04A		

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

Client: Conestoga-Rovers & Associates
Work Order: 12051182
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R129099** Instrument ID: **ICS3K2** Method: **E300** **(Dissolve)**

MBLK Sample ID: **WBLKW1-060512-R129099** Units: **mg/L** Analysis Date: **6/5/2012 07:10 PM**

Client ID: Run ID: **ICS3K2_120607A** SeqNo: **2811196** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.50								
Fluoride	U	0.10								
Sulfate	U	0.50								
<i>Surr: Selenate (surr)</i>	5.69	0.10	5	0	114	85-115	0			

LCS Sample ID: **WLCSW1-060512-R129099** Units: **mg/L** Analysis Date: **6/5/2012 07:32 PM**

Client ID: Run ID: **ICS3K2_120607A** SeqNo: **2811198** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.42	0.50	20	0	102	90-110	0			
Fluoride	4.166	0.10	4	0	104	90-110	0			
Sulfate	21	0.50	20	0	105	90-110	0			
<i>Surr: Selenate (surr)</i>	5.851	0.10	6	0	97.5	85-115	0			

LCSD Sample ID: **WLCSW1-060512-R129099** Units: **mg/L** Analysis Date: **6/5/2012 07:53 PM**

Client ID: Run ID: **ICS3K2_120607A** SeqNo: **2811199** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	20.45	0.50	20	0	102	90-110	20.42	0.122	20	
Fluoride	4.172	0.10	4	0	104	90-110	4.166	0.144	20	
Sulfate	21.03	0.50	20	0	105	90-110	21	0.147	20	
<i>Surr: Selenate (surr)</i>	5.859	0.10	5	0	117	85-115	5.851	0.137	20	S

MS Sample ID: **1206190-01GMS** Units: **mg/L** Analysis Date: **6/7/2012 08:22 AM**

Client ID: Run ID: **ICS3K2_120607A** SeqNo: **2811221** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	750.8	0.50	10	754	-31.6	80-120	0			SEO
Fluoride	7.28	0.10	2	5.551	86.4	80-120	0			
Sulfate	8.584	0.50	10	-0.009	85.9	80-120	0			
<i>Surr: Selenate (surr)</i>	5.009	0.10	5	0	100	85-115	0			

MSD Sample ID: **1206190-01GMSD** Units: **mg/L** Analysis Date: **6/7/2012 08:44 AM**

Client ID: Run ID: **ICS3K2_120607A** SeqNo: **2811222** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	755.5	0.50	10	754	14.7	80-120	750.8	0.616	20	SEO
Fluoride	7.327	0.10	2	5.551	88.8	80-120	7.28	0.644	20	
Sulfate	8.56	0.50	10	-0.009	85.7	80-120	8.584	0.28	20	
<i>Surr: Selenate (surr)</i>	5.031	0.10	5	0	101	85-115	5.009	0.438	20	

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

Client: Conestoga-Rovers & Associates
Work Order: 12051182
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R129099** Instrument ID **ICS3K2** Method: **E300** **(Dissolve)**

The following samples were analyzed in this batch:

12051182-01C	12051182-02C	12051182-03C
12051182-04C		

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

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: 12051182

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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

<u>Acronym</u>	<u>Description</u>
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 Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **CRA-MID**

Date/Time Received: **26-May-12 09:25**

Work Order: **12051182**

Received by: **RDH**

Checklist completed by Rishel D. Naran
eSignature

29-May-12
Date

Reviewed by:

eSignature

Date

Matrices: **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): 2.6 003

Cooler(s)/Kit(s): N/A

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: **ONLY ONE BOTTLE SENT FOR TDS ANIONS AND ALK**

Client Contacted:

Date Contacted:

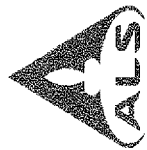
Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



Environmental

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Fort Collins, CO
+1 970 490 1511

Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 61134

12051182

CRA-HOU: Conestoga-Rovers & Associates

Project: G.L. Erwin - 039124



Customer Information

Purchase Order	4046114
Work Order	
Company Name	Conestoga-Rovers & Associates
Send Report To	Todd Wells
Address	2035 S Loop SW, West
City/State/Zip	Millers, TX 76704
Phone	(407) 686-1936
Fax	(407) 686-0196
e-Mail Address	

Project Information

Project Name	G.L. Erwin
Project Number	000124
Bill To Company	Conestoga-Rovers & Associates
Invoice Attn	Todd Wells
Address	2035 S Loop SW, West
City/State/Zip	Millers, TX 76704
Phone	(407) 686-1936
Fax	(407) 686-0196
e-Mail Address	

ALS Project Manager

A	Project Name	G.L. Erwin
B	Project Number	000124
C	Bill To Company	Conestoga-Rovers & Associates
D	Invoice Attn	Todd Wells
E	Address	2035 S Loop SW, West
F	City/State/Zip	Millers, TX 76704
G	Phone	(407) 686-1936
H	Fax	(407) 686-0196
I	e-Mail Address	
J		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H
1	MW-25-052412	5/24/12	12:50	W	2,3,8	3	X	X	X	X	X	X	X	X
2	MW-26-052412	5/24/12	13:50	W	2,3,8	3	X	X	X	X	X	X	X	X
3	MW-27-052412	5/24/12	14:15	W	2,3,8	3	X	X	X	X	X	X	X	X
4	DUP-1	5/24/12	—	W	2,3,8	3	X	X	X	X	X	X	X	X
5	Temperature Blank	—	—	W	2,3,8	1	X	X	X	X	X	X	X	X
6														
7														
8														
9														
10														

Field Ex.
anbell
missing!

Temp.

Sampler(s) Please Print & Sign

Relinquished by:	Todd Wells
Relinquished by:	Todd Wells
Logged by (Laboratory):	

Shipment Method

Received by:	FedEx
Received by (Laboratory):	
Checked by (Laboratory):	

Required Turnaround Time: (Check Box)

1-3 Business Days	4-7 Business Days	8-14 Business Days	15-30 Business Days
-------------------	-------------------	--------------------	---------------------

Results Due Date:

1-3 Business Days	4-7 Business Days	8-14 Business Days	15-30 Business Days
-------------------	-------------------	--------------------	---------------------

Notes: MW-27 metals are unrepresented & need to be filtered in the lab

Relinquished by:	Todd Wells	Date:	5/24/12	Time:	15:00				
Relinquished by:	Todd Wells	Date:	5/24/12	Time:					
Logged by (Laboratory):		Date:		Time:					
Preservative Key:	1-HCl	2-HNO ₃	3-H ₂ SO ₄	4-NaOH	5-Na ₂ S ₂ O ₃	6-NaHSO ₄	7-Other	8-4°C	9-5036

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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10-Sep-2012

Todd Wells
Conestoga-Rovers & Associates
2135 S Loop 250 West
Midland, TX 79703

Tel: (432) 686-0086
Fax: (432) 686-0186

Re: 039124 G.L. Erwin

Work Order: **12081170**

Dear Todd,

ALS Environmental received 6 samples on 28-Aug-2012 09:10 AM for the analyses presented in the following report.

This is a REVISED REPORT. Please see the Case Narrative for discussion concerning this revision.

The total number of pages in this revised report is 22.

Regards,

A handwritten signature in black ink that reads "Patricia L. Lynch".

Electronically approved by: Sonia West

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE (281) 530-5656 | FAX (281) 530-5887

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Work Order: 12081170

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
12081170-01	MW-23 082412	Water		8/24/2012 13:20	8/28/2012 09:10	☐
12081170-02	MW-24 082412	Water		8/24/2012 13:45	8/28/2012 09:10	☐
12081170-03	MW-21 082412	Water		8/24/2012 14:15	8/28/2012 09:10	☐
12081170-04	MW-20 082412	Water		8/24/2012 14:40	8/28/2012 09:10	☐
12081170-05	MW-15 082412	Water		8/24/2012 15:00	8/28/2012 09:10	☐
12081170-06	Dup-1 082412	Water		8/24/2012	8/28/2012 09:10	☐

Client: Conestoga-Rovers & Associates**Project:** 039124 G.L. Erwin**Work Order:** 12081170**Case Narrative**

This report has been revised to correct the sample receipt date.

Batch 63813, Metals, Sample 12081188-011: MS/MSD performed on an unrelated sample.

Batch R134383, Anions, Sample 12081315-01: MS/MSD performed on an unrelated sample.

Batch R134387, Anions, Sample Dup-1 082412: MSD recovery was above the control limits chloride due to sample matrix interference. The associated LCS recoveries and MS/MSD RPD were within the control limits.

ALS Environmental

Date: 10-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-23 082412
Collection Date: 8/24/2012 01:20 PM

Work Order: 12081170
Lab ID: 12081170-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 8/30/12		Analyst: SKS	
Calcium	155		0.086	0.500	mg/L	1	8/30/2012 19:23
Magnesium	55.0		0.082	0.200	mg/L	1	8/30/2012 19:23
Potassium	8.44		0.084	0.200	mg/L	1	8/30/2012 19:23
Sodium	114		0.085	0.200	mg/L	1	8/30/2012 19:23
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	592		2.0	5.00	mg/L	10	9/4/2012 12:54
Fluoride	1.19		0.050	0.100	mg/L	1	9/5/2012 19:15
Nitrogen, Nitrate (As N)	U		0.30	1.00	mg/L	10	8/31/2012 18:07
Sulfate	91.2		0.20	0.500	mg/L	1	9/5/2012 19:15
Nitrate/Nitrite (as N)	U		0.30	2.00	mg/L	10	8/31/2012 18:07
Surr: Selenate (surr)	90.4			85-115	%REC	10	8/31/2012 18:07
Surr: Selenate (surr)	98.9			85-115	%REC	10	9/4/2012 12:54
Surr: Selenate (surr)	94.7			85-115	%REC	1	9/5/2012 19:15
ALKALINITY-SM2320B	Method: SM2320B					Analyst: DM	
Alkalinity, Bicarbonate (As CaCO3)	152		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Total (As CaCO3)	152		5.0	5.00	mg/L	1	9/3/2012 10:00
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,460		5.0	10.0	mg/L	1	8/31/2012 08:30

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

ALS Environmental

Date: 10-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-24 082412
Collection Date: 8/24/2012 01:45 PM

Work Order: 12081170
Lab ID: 12081170-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 8/30/12		Analyst: SKS
Calcium	866		0.86	5.00	mg/L	10	8/31/2012 11:54
Magnesium	263		0.82	2.00	mg/L	10	8/31/2012 11:54
Potassium	25.1		0.84	2.00	mg/L	10	8/31/2012 11:54
Sodium	291		0.85	2.00	mg/L	10	8/31/2012 11:54
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	3,140		20	50.0	mg/L	100	9/4/2012 13:09
Fluoride	1.05		0.050	0.100	mg/L	1	9/5/2012 19:36
Nitrogen, Nitrate (As N)	3.18		0.30	1.00	mg/L	10	8/31/2012 18:29
Sulfate	309		20	50.0	mg/L	100	9/4/2012 13:09
Nitrate/Nitrite (as N)	3.18		0.30	2.00	mg/L	10	8/31/2012 18:29
Surr: Selenate (surr)	89.5			85-115	%REC	10	8/31/2012 18:29
Surr: Selenate (surr)	99.7			85-115	%REC	100	9/4/2012 13:09
Surr: Selenate (surr)	95.5			85-115	%REC	1	9/5/2012 19:36
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: DM		
Alkalinity, Bicarbonate (As CaCO3)	118		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Total (As CaCO3)	118		5.0	5.00	mg/L	1	9/3/2012 10:00
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	9,160		5.0	10.0	mg/L	1	8/31/2012 08:30

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

ALS Environmental

Date: 10-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-21 082412
Collection Date: 8/24/2012 02:15 PM

Work Order: 12081170
Lab ID: 12081170-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 8/30/12		Analyst: SKS	
Calcium	99.9		0.086	0.500	mg/L	1	8/30/2012 19:28
Magnesium	35.0		0.082	0.200	mg/L	1	8/30/2012 19:28
Potassium	9.71		0.084	0.200	mg/L	1	8/30/2012 19:28
Sodium	80.5		0.085	0.200	mg/L	1	8/30/2012 19:28
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	241		2.0	5.00	mg/L	10	9/4/2012 13:23
Fluoride	1.95		0.050	0.100	mg/L	1	9/5/2012 19:57
Nitrogen, Nitrate (As N)	4.10		0.30	1.00	mg/L	10	8/31/2012 18:50
Sulfate	137		2.0	5.00	mg/L	10	9/4/2012 13:23
Nitrate/Nitrite (as N)	4.10		0.30	2.00	mg/L	10	8/31/2012 18:50
Surr: Selenate (surr)	89.3			85-115	%REC	10	8/31/2012 18:50
Surr: Selenate (surr)	99.8			85-115	%REC	10	9/4/2012 13:23
Surr: Selenate (surr)	96.1			85-115	%REC	1	9/5/2012 19:57
ALKALINITY-SM2320B	Method: SM2320B					Analyst: DM	
Alkalinity, Bicarbonate (As CaCO3)	196		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Total (As CaCO3)	196		5.0	5.00	mg/L	1	9/3/2012 10:00
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	750		5.0	10.0	mg/L	1	8/31/2012 08:30

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

ALS Environmental

Date: 10-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-20 082412
Collection Date: 8/24/2012 02:40 PM

Work Order: 12081170
Lab ID: 12081170-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 8/30/12		Analyst: SKS	
Calcium	440		0.86	5.00	mg/L	10	8/31/2012 11:57
Magnesium	152		0.82	2.00	mg/L	10	8/31/2012 11:57
Potassium	14.2		0.84	2.00	mg/L	10	8/31/2012 11:57
Sodium	295		0.85	2.00	mg/L	10	8/31/2012 11:57
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	1,830		20	50.0	mg/L	100	9/4/2012 13:38
Fluoride	1.03		0.050	0.100	mg/L	1	9/5/2012 21:22
Nitrogen, Nitrate (As N)	3.46		0.30	1.00	mg/L	10	8/31/2012 19:12
Sulfate	134		20	50.0	mg/L	100	9/4/2012 13:38
Nitrate/Nitrite (as N)	3.46		0.30	2.00	mg/L	10	8/31/2012 19:12
Surr: Selenate (surr)	89.6			85-115	%REC	10	8/31/2012 19:12
Surr: Selenate (surr)	95.9			85-115	%REC	100	9/4/2012 13:38
Surr: Selenate (surr)	96.0			85-115	%REC	1	9/5/2012 21:22
ALKALINITY-SM2320B	Method: SM2320B					Analyst: DM	
Alkalinity, Bicarbonate (As CaCO3)	123		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Total (As CaCO3)	123		5.0	5.00	mg/L	1	9/3/2012 10:00
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	4,510		5.0	10.0	mg/L	1	8/31/2012 08:30

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

ALS Environmental

Date: 10-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-15 082412
Collection Date: 8/24/2012 03:00 PM

Work Order: 12081170
Lab ID: 12081170-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 8/30/12		Analyst: SKS
Calcium	357		0.86	5.00	mg/L	10	8/31/2012 11:59
Magnesium	133		0.82	2.00	mg/L	10	8/31/2012 11:59
Potassium	13.4		0.84	2.00	mg/L	10	8/31/2012 11:59
Sodium	147		0.85	2.00	mg/L	10	8/31/2012 11:59
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	1,430		20	50.0	mg/L	100	9/4/2012 14:36
Fluoride	1.13		0.050	0.100	mg/L	1	9/5/2012 21:44
Nitrogen, Nitrate (As N)	2.43		0.30	1.00	mg/L	10	8/31/2012 19:34
Sulfate	84.4		0.20	0.500	mg/L	1	9/5/2012 21:44
Nitrate/Nitrite (as N)	2.43		0.30	2.00	mg/L	10	8/31/2012 19:34
Surr: Selenate (surr)	89.2			85-115	%REC	10	8/31/2012 19:34
Surr: Selenate (surr)	98.1			85-115	%REC	100	9/4/2012 14:36
Surr: Selenate (surr)	97.0			85-115	%REC	1	9/5/2012 21:44
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO3)	108		10	10.0	mg/L	1	9/6/2012 12:13
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/6/2012 12:13
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/6/2012 12:13
Alkalinity, Total (As CaCO3)	108		10	10.0	mg/L	1	9/6/2012 12:13
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	3,640		5.0	10.0	mg/L	1	8/31/2012 08:30

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

ALS Environmental

Date: 10-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: Dup-1 082412
Collection Date: 8/24/2012

Work Order: 12081170
Lab ID: 12081170-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 8/30/12		Analyst: SKS	
Calcium	361		0.86	5.00	mg/L	10	8/31/2012 12:02
Magnesium	131		0.82	2.00	mg/L	10	8/31/2012 12:02
Potassium	13.2		0.84	2.00	mg/L	10	8/31/2012 12:02
Sodium	148		0.85	2.00	mg/L	10	8/31/2012 12:02
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	1,420		20	50.0	mg/L	100	9/4/2012 14:51
Fluoride	1.11		0.050	0.100	mg/L	1	9/5/2012 22:05
Nitrogen, Nitrate (As N)	2.42		0.30	1.00	mg/L	10	8/31/2012 19:56
Sulfate	84.6		0.20	0.500	mg/L	1	9/5/2012 22:05
Nitrate/Nitrite (as N)	2.42		0.30	2.00	mg/L	10	8/31/2012 19:56
Surr: Selenate (surr)	89.5			85-115	%REC	10	8/31/2012 19:56
Surr: Selenate (surr)	97.7			85-115	%REC	100	9/4/2012 14:51
Surr: Selenate (surr)	95.8			85-115	%REC	1	9/5/2012 22:05
ALKALINITY-SM2320B	Method: SM2320B					Analyst: DM	
Alkalinity, Bicarbonate (As CaCO3)	107		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/3/2012 10:00
Alkalinity, Total (As CaCO3)	107		5.0	5.00	mg/L	1	9/3/2012 10:00
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	4,160		5.0	10.0	mg/L	1	8/30/2012 08:40

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

ALS Environmental

Date: 10-Sep-12

Client: Conestoga-Rovers & Associates
Work Order: 12081170
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **63813** Instrument ID **ICPMS05** Method: **SW6020** (Dissolve)

MBLK	Sample ID: MBLKW6-083012-63813					Units: mg/L	Analysis Date: 8/30/2012 06:42 PM			
Client ID:	Run ID: ICPMS05_120830A					SeqNo: 2923896	Prep Date: 8/30/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	U	0.50								
Magnesium	U	0.20								
Potassium	U	0.20								
Sodium	U	0.20								

LCS	Sample ID: MLCSW6-083012-63813					Units: mg/L	Analysis Date: 8/30/2012 06:45 PM			
Client ID:	Run ID: ICPMS05_120830A					SeqNo: 2923897	Prep Date: 8/30/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	4.797	0.50	5	0	95.9	80-120	0			
Magnesium	4.829	0.20	5	0	96.6	80-120	0			
Potassium	4.745	0.20	5	0	94.9	80-120	0			
Sodium	4.853	0.20	5	0	97.1	80-120	0			

MS	Sample ID: 12081188-01CMS					Units: mg/L	Analysis Date: 8/31/2012 12:10 PM			
Client ID:	Run ID: ICPMS05_120831A					SeqNo: 2924588	Prep Date: 8/30/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	14.89	0.50	5	10.17	94.2	75-125	0			
Magnesium	8.01	0.20	5	3.021	99.8	75-125	0			
Potassium	6.916	0.20	5	1.885	101	75-125	0			
Sodium	204.3	0.20	5	198.5	115	75-125	0			EO

MSD	Sample ID: 12081188-01CMSD					Units: mg/L	Analysis Date: 8/31/2012 12:13 PM			
Client ID:	Run ID: ICPMS05_120831A					SeqNo: 2924589	Prep Date: 8/30/2012	DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	14.63	0.50	5	10.17	89.1	75-125	14.89	1.73	25	
Magnesium	7.941	0.20	5	3.021	98.4	75-125	8.01	0.872	25	
Potassium	6.831	0.20	5	1.885	98.9	75-125	6.916	1.24	25	
Sodium	206.7	0.20	5	198.5	163	75-125	204.3	1.16	25	SEO

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

Client: Conestoga-Rovers & Associates
Work Order: 12081170
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **63813** Instrument ID **ICPMS05** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **12081188-01CDUP** Units: **mg/L** Analysis Date: **8/31/2012 12:07 PM**

Client ID: Run ID: **ICPMS05_120831A** SeqNo: **2924587** Prep Date: **8/30/2012** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	10.29	0.50	0	0	0	0-0	10.17	1.09	25	
Magnesium	3.038	0.20	0	0	0	0-0	3.021	0.564	25	
Potassium	1.824	0.20	0	0	0	0-0	1.885	3.3	25	
Sodium	205.6	0.20	0	0	0	0-0	198.5	3.51	25	E

The following samples were analyzed in this batch:

12081170-01B	12081170-02B	12081170-03B
12081170-04B	12081170-05B	12081170-06B

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

Client: Conestoga-Rovers & Associates

Work Order: 12081170

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134105** Instrument ID **BALANCE1** Method: **M2540C** **(Dissolve)**

MBLK Sample ID: **WBLK-083012-R134105** Units: **mg/L** Analysis Date: **8/30/2012 08:40 AM**

Client ID: Run ID: **BALANCE1_120830D** SeqNo: **2924441** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	U	10								

LCS Sample ID: **WLCS-083012-R134105** Units: **mg/L** Analysis Date: **8/30/2012 08:40 AM**

Client ID: Run ID: **BALANCE1_120830D** SeqNo: **2924442** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	990	10	1000	0	99	85-115	0			

DUP Sample ID: **12081001-01GDUP** Units: **mg/L** Analysis Date: **8/30/2012 08:40 AM**

Client ID: Run ID: **BALANCE1_120830D** SeqNo: **2924420** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	682	10	0	0	0	0-0	696	2.03	20	

DUP Sample ID: **12081170-06CDUP** Units: **mg/L** Analysis Date: **8/30/2012 08:40 AM**

Client ID: **Dup-1 082412** Run ID: **BALANCE1_120830D** SeqNo: **2924438** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	4212	10	0	0	0	0-0	4164	1.15	20	

The following samples were analyzed in this batch:

12081170-06C

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

Client: Conestoga-Rovers & Associates

Work Order: 12081170

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134163** Instrument ID **ICS3K2** Method: **E300** **(Dissolve)**

MBLK	Sample ID: WBLKW1-083112-R134163				Units: mg/L		Analysis Date: 8/31/2012 05:24 PM			
Client ID:	Run ID: ICS3K2_120831A				SeqNo: 2925623		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	U	0.10								
Nitrate/Nitrite (as N)	U	0.20								
<i>Surr: Selenate (surr)</i>	<i>4.701</i>	<i>0.10</i>	<i>5</i>	<i>0</i>	<i>94</i>	<i>85-115</i>	<i>0</i>			

LCS	Sample ID: WLCSW1-083112-R134163				Units: mg/L		Analysis Date: 8/31/2012 05:45 PM			
Client ID:	Run ID: ICS3K2_120831A				SeqNo: 2925624		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	3.816	0.10	4	0	95.4	90-110	0			
Nitrate/Nitrite (as N)	7.327	0.20	8	0	91.6	90-110	0			
<i>Surr: Selenate (surr)</i>	<i>4.434</i>	<i>0.10</i>	<i>5</i>	<i>0</i>	<i>88.7</i>	<i>85-115</i>	<i>0</i>			

MS	Sample ID: 12081170-06AMS				Units: mg/L		Analysis Date: 8/31/2012 08:17 PM			
Client ID: Dup-1 082412	Run ID: ICS3K2_120831A				SeqNo: 2925631		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	21.73	1.0	20	2.415	96.6	80-120	0			
Nitrate/Nitrite (as N)	36.28	2.0	40	2.415	84.7	80-120	0			
<i>Surr: Selenate (surr)</i>	<i>44.67</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>89.3</i>	<i>85-115</i>	<i>0</i>			

MSD	Sample ID: 12081170-06AMSD				Units: mg/L		Analysis Date: 8/31/2012 08:39 PM			
Client ID: Dup-1 082412	Run ID: ICS3K2_120831A				SeqNo: 2925632		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	21.77	1.0	20	2.415	96.8	80-120	21.73	0.202	20	
Nitrate/Nitrite (as N)	35.98	2.0	40	2.415	83.9	80-120	36.28	0.825	20	
<i>Surr: Selenate (surr)</i>	<i>44.63</i>	<i>1.0</i>	<i>50</i>	<i>0</i>	<i>89.3</i>	<i>85-115</i>	<i>44.67</i>	<i>0.0918</i>	<i>20</i>	

The following samples were analyzed in this batch:

12081170-01A	12081170-02A	12081170-03A
12081170-04A	12081170-05A	12081170-06A

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

Client: Conestoga-Rovers & Associates

Work Order: 12081170

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134218** Instrument ID **WetChem** Method: **SM2320B (Dissolve)**

MBLK Sample ID: **WBLKW1-090312-R134218** Units: **mg/L** Analysis Date: **9/3/2012 10:00 AM**

Client ID: Run ID: **WETCHEM_120903F** SeqNo: **2926798** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.0								
Alkalinity, Carbonate (As CaCO3)	U	5.0								
Alkalinity, Hydroxide (As CaCO3)	U	5.0								
Alkalinity, Total (As CaCO3)	U	5.0								

LCS Sample ID: **WLCSW1-090312-R134218** Units: **mg/L** Analysis Date: **9/3/2012 10:00 AM**

Client ID: Run ID: **WETCHEM_120903F** SeqNo: **2926799** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1007	5.0	1000	0	101	80-120	0			

DUP Sample ID: **12081170-04CDUP** Units: **mg/L** Analysis Date: **9/3/2012 10:00 AM**

Client ID: **MW-20 082412** Run ID: **WETCHEM_120903F** SeqNo: **2926819** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	116.4	5.0	0	0	0	0-0	123.3	5.71	0	
Alkalinity, Carbonate (As CaCO3)	U	5.0	0	0	0	0-0	0	0	0	
Alkalinity, Hydroxide (As CaCO3)	U	5.0	0	0	0	0-0	0	0	0	
Alkalinity, Total (As CaCO3)	116.4	5.0	0	0	0	0-0	123.3	5.71	20	

The following samples were analyzed in this batch:

12081170-01C	12081170-02C	12081170-03C
12081170-04C	12081170-06C	

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

Client: Conestoga-Rovers & Associates

Work Order: 12081170

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134231** Instrument ID **BALANCE1** Method: **M2540C** **(Dissolve)**

MBLK Sample ID: **WBLK-083112-R134231** Units: **mg/L** Analysis Date: **8/31/2012 08:30 AM**

Client ID: Run ID: **BALANCE1_120831E** SeqNo: **2927097** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	U	10								

LCS Sample ID: **WLCS-083112-R134231** Units: **mg/L** Analysis Date: **8/31/2012 08:30 AM**

Client ID: Run ID: **BALANCE1_120831E** SeqNo: **2927098** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	974	10	1000	0	97.4	85-115	0			

DUP Sample ID: **12081060-01GDUP** Units: **mg/L** Analysis Date: **8/31/2012 08:30 AM**

Client ID: Run ID: **BALANCE1_120831E** SeqNo: **2927076** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	262	10	0	0	0	0-0	272	3.75	20	

DUP Sample ID: **12081136-01GDUP** Units: **mg/L** Analysis Date: **8/31/2012 08:30 AM**

Client ID: Run ID: **BALANCE1_120831E** SeqNo: **2927087** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Fil	416	10	0	0	0	0-0	410	1.45	20	

The following samples were analyzed in this batch:

12081170-01C	12081170-02C	12081170-03C
12081170-04C	12081170-05C	

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

Client: Conestoga-Rovers & Associates
Work Order: 12081170
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134383** Instrument ID **ICS3000** Method: **E300** **(Dissolve)**

MBLK	Sample ID: WBLKW1-R134383			Units: mg/L			Analysis Date: 9/5/2012 05:28 PM			
Client ID:	Run ID: ICS3000_120905A			SeqNo: 2929528			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.10								
Sulfate	U	0.50								
<i>Surr: Selenate (surr)</i>	4.931	0.10	5	0	98.6	85-115	0			

LCS	Sample ID: WLCSW1-R134383			Units: mg/L			Analysis Date: 9/5/2012 05:50 PM			
Client ID:	Run ID: ICS3000_120905A			SeqNo: 2929530			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	4.031	0.10	4	0	101	90-110	0			
Sulfate	19.14	0.50	20	0	95.7	90-110	0			
<i>Surr: Selenate (surr)</i>	4.836	0.10	5	0	96.7	85-115	0			

MS	Sample ID: 12081315-01EMS			Units: mg/L			Analysis Date: 9/6/2012 02:20 AM			
Client ID:	Run ID: ICS3000_120905A			SeqNo: 2929573			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.296	0.10	2	0.348	97.4	80-120	0			
Sulfate	427	0.50	10	426.1	8.91	80-120	0			SEO
<i>Surr: Selenate (surr)</i>	4.527	0.10	5	0	90.5	85-115	0			

MSD	Sample ID: 12081315-01EMSD			Units: mg/L			Analysis Date: 9/6/2012 02:42 AM			
Client ID:	Run ID: ICS3000_120905A			SeqNo: 2929574			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.322	0.10	2	0.348	98.7	80-120	2.296	1.13	20	
Sulfate	428	0.50	10	426.1	18.2	80-120	427	0.217	20	SEO
<i>Surr: Selenate (surr)</i>	4.542	0.10	5	0	90.8	85-115	4.527	0.331	20	

The following samples were analyzed in this batch:

12081170-01C	12081170-02C	12081170-03C
12081170-04C	12081170-05C	12081170-06C

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

Client: Conestoga-Rovers & Associates
Work Order: 12081170
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134387** Instrument ID **ICS2100** Method: **E300** **(Dissolve)**

MBLK	Sample ID: WBLKW1-R134387				Units: mg/L		Analysis Date: 9/4/2012 12:25 PM			
Client ID:	Run ID: ICS2100_120831A				SeqNo: 2929596		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	0.49	0.50								J
Sulfate	U	0.50								
<i>Surr: Selenate (surr)</i>	5.203	0.10	5	0	104	85-115	0			

LCS	Sample ID: WLCSW1-R134387				Units: mg/L		Analysis Date: 9/4/2012 12:40 PM			
Client ID:	Run ID: ICS2100_120831A				SeqNo: 2929597		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	21.69	0.50	20	0	108	90-110	0			
Sulfate	19.4	0.50	20	0	97	90-110	0			
<i>Surr: Selenate (surr)</i>	5.138	0.10	5	0	103	85-115	0			

MS	Sample ID: 12081170-06CMS				Units: mg/L		Analysis Date: 9/4/2012 03:05 PM			
Client ID: Dup-1 082412	Run ID: ICS2100_120831A				SeqNo: 2929610		Prep Date:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2593	50	1000	1419	117	80-120	0			
Sulfate	1158	50	1000	86.02	107	80-120	0			
<i>Surr: Selenate (surr)</i>	561.6	10	600	0	93.6	85-115	0			

MSD	Sample ID: 12081170-06CMSD				Units: mg/L		Analysis Date: 9/4/2012 03:20 PM			
Client ID: Dup-1 082412	Run ID: ICS2100_120831A				SeqNo: 2929611		Prep Date:		DF: 100	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	2689	50	1000	1419	127	80-120	2593	3.65	20	S
Sulfate	1213	50	1000	86.02	113	80-120	1158	4.7	20	
<i>Surr: Selenate (surr)</i>	579.8	10	600	0	96.6	85-115	561.6	3.18	20	

The following samples were analyzed in this batch:

12081170-01C	12081170-02C	12081170-03C
12081170-04C	12081170-05C	12081170-06C

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

Client: Conestoga-Rovers & Associates

Work Order: 12081170

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134409** Instrument ID **ManTech01** Method: **SM2320B (Dissolve)**

MBLK Sample ID: **WBLKW1-090612-R134409** Units: **mg/L** Analysis Date: **9/6/2012 11:38 AM**

Client ID: Run ID: **MANTECH01_120906A** SeqNo: **2930012** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	10								
Alkalinity, Carbonate (As CaCO3)	U	10								
Alkalinity, Hydroxide (As CaCO3)	U	10								
Alkalinity, Total (As CaCO3)	U	10								

LCS Sample ID: **WLCSW1-090612-R134409** Units: **mg/L** Analysis Date: **9/6/2012 11:50 AM**

Client ID: Run ID: **MANTECH01_120906A** SeqNo: **2930014** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1008	10	1000		0	101	80-120	0		

DUP Sample ID: **12081117-06HDUP** Units: **mg/L** Analysis Date: **9/6/2012 12:02 PM**

Client ID: Run ID: **MANTECH01_120906A** SeqNo: **2930016** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	677.4	10	0	0	0	0-0	676.9	0.0857	0	
Alkalinity, Carbonate (As CaCO3)	U	10	0	0	0	0-0	0	0	0	
Alkalinity, Hydroxide (As CaCO3)	U	10	0	0	0	0-0	0	0	0	
Alkalinity, Total (As CaCO3)	677.4	10	0	0	0	0-0	676.9	0.0857	20	

The following samples were analyzed in this batch:

12081170-05C

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

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: 12081170

QUALIFIERS, ACRONYMS, UNITS

<u>Qualifier</u>	<u>Description</u>
*	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

<u>Acronym</u>	<u>Description</u>
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 Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **CRA-MID**

Date/Time Received: **28-Aug-12 09:10**

Work Order: **12081170**

Received by: **JEM**

Checklist completed by Robert D. Harris 28-Aug-12
eSignature Date

Reviewed by: Patricia L. Lynch 30-Aug-12
eSignature Date

Matrices: **waters**

Carrier name: **FedEx**

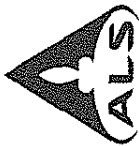
Shipping container/cooler in good condition?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☒	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☒
Chain of custody present?	Yes ☒	No ☐	
Chain of custody signed when relinquished and received?	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):	<u>0.8c c/u</u> <u>004</u>		
Cooler(s)/Kit(s):	<u>1854</u>		
Date/Time sample(s) sent to storage:	<u>8/28/12 21:13</u>		
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:	<u>-</u>		
Login Notes:			

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:



Cincinnati, OH
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Everett, WA
+1 425 356 2600

Fort Collins, CO
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Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 1

COC ID: 64829

12081170

CRA-MID: Conestoga-Rovers & Associates

Project: 039124 G.L. Erwin

Environmental

ALS Project Manager:

Customer Information				Project Information			
Purchase Order		Project Name	G.L. Erwin	A	Dissolved Metals (6020/7000) Ca, Mg, Na, K		
Work Order		Project Number	039124	B	Anions (300) Cl, SO4, F		
Company Name	Conestoga-Rovers & Associates	Bill To Company	Conestoga-Rovers & Associates	C	Alkalinity		
Send Report To	Todd Wells	Invoice Attn	Todd Wells	D	TDS		
Address	2135 S Loop 250 West	Address	2135 S Loop 250 West	E	Nitrate (300)		
City/State/Zip	Midland, TX 79703	City/State/Zip	Midland, TX 79703	F	Temp		
Phone	(432) 686-0086	Phone	(432) 686-0086	G			
Fax	(432) 686-0186	Fax	(432) 686-0186	H			
e-Mail Address		e-Mail Address		I			
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A B C D E F G H I J
1	MW-23082412	8-24-12	1320	W	2,3	3	X X X X X X X X X X X X
2	MW-24082412	8-24-12	1345	W	2,3	3	X X X X X X X X X X X X
3	MW-21082412	8-24-12	1415	W	2,3	3	X X X X X X X X X X X X
4	MW-20082412	8-24-12	1440	W	2,3	3	X X X X X X X X X X X X
5	MW-15082412	8-24-12	1500	W	2,3	3	X X X X X X X X X X X X
6	Dup-1082412	8-24-12		W	2,3	3	X X X X X X X X X X X X
7	Temperature Blank			W			X
8							
9							
10							
Sampler's Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Kenny Lyons		FedEx		Std 10 WK Days 5 WK Days 2 WK Days 24 Hour			
Relinquished by: [Signature]		Date: 8/27/12		Time: 1700		Note: Day TAT. Diss Metals to be field filtered.	
Relinquished by:		Date:		Time:		QC Package: (Check One Box Below)	
Logged by (Laboratory):		Date:		Time:		☒ Level II Std QC ☐ TRFP Checklist	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035		Checked by (Laboratory):		Cooler ID		☐ Level III Std QC Raw Data ☐ TRFP Level IV	
				Cooler Temp.		☐ Level IV SW846/CLP ☐ Other/EDD	

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.

This portion can be removed for recipient's records.

8/27/12 FedEx Tracking Number 899670168536

8/27/12 Todd Wells Phone 432 686-0086

Company CRA

Address 2135 S. Loop 250 W. Dept./Floor/Suite/Room

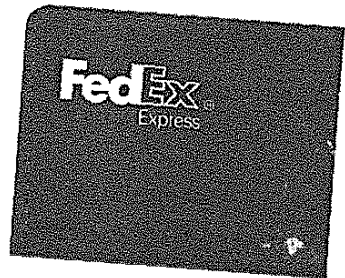
Midland State TX ZIP 79703

Internal Billing Reference 039124-2012-01

1208117C

CUSTODY SEAL		Seal Broken By:
Date: 8/27/12	Time: 1700	Date:
Name: Todd Wells		
Company: CRA		

 ALS Environmental 10450 Stancliff Rd., Suite 210 Houston, Texas 77099 Tel. +1 281 530 5656 Fax. +1 281 530 5887
--



FedEx First Overnight®

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151969 REV 7/08 HRD

17-Sep-2012

Todd Wells
Conestoga-Rovers & Associates
2135 S Loop 250 West
Midland, TX 79703

Tel: (432) 686-0086
Fax: (432) 686-0186

Re: 039124 G.L. Erwin

Work Order: **12081363**

Dear Todd,

received 23 samples on 31-Aug-2012 07:15 AM for the analyses 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.

The total number of pages in this report is 49.

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

Sincerely,



Electronically approved by: Jumoke M. Lawal

Patricia L. Lynch
Project Manager



Certificate No: T104704231-09A-TX

ADDRESS 10450 Stancliff Rd, Suite 210 Houston, Texas 77099-4338 | PHONE 2815305656 | FAX 2815305887

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RIGHT SOLUTIONS RIGHT PARTNER

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Work Order: 12081363

Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
12081363-01	MW-12 082812	Water		8/28/2012 13:40	8/31/2012 07:15	☐
12081363-02	MW-17 082812	Water		8/28/2012 15:30	8/31/2012 07:15	☐
12081363-03	MW-16 082812	Water		8/28/2012 15:50	8/31/2012 07:15	☐
12081363-04	MW-8 082812	Water		8/28/2012 16:15	8/31/2012 07:15	☐
12081363-05	MW-25 082812	Water		8/28/2012 18:55	8/31/2012 07:15	☐
12081363-06	MW-13 082812	Water		8/28/2012 19:30	8/31/2012 07:15	☐
12081363-07	MW-19 082812	Water		8/28/2012 12:45	8/31/2012 07:15	☐
12081363-08	MW-14 082812	Water		8/28/2012 13:15	8/31/2012 07:15	☐
12081363-09	MW-9 082812	Water		8/28/2012 16:45	8/31/2012 07:15	☐
12081363-10	MW-7 082812	Water		8/28/2012 20:15	8/31/2012 07:15	☐
12081363-11	MW-2 082812	Water		8/29/2012 08:15	8/31/2012 07:15	☐
12081363-12	MW-1 082812	Water		8/29/2012 08:35	8/31/2012 07:15	☐
12081363-13	MW-6 082812	Water		8/29/2012 09:30	8/31/2012 07:15	☐
12081363-14	MW-3 082812	Water		8/29/2012 09:50	8/31/2012 07:15	☐
12081363-15	MW-5 082812	Water		8/29/2012 09:10	8/31/2012 07:15	☐
12081363-16	MW-22 082812	Water		8/29/2012 11:00	8/31/2012 07:15	☐
12081363-17	MW-10 082812	Water		8/29/2012 10:40	8/31/2012 07:15	☐
12081363-18	MW-11 082812	Water		8/29/2012 07:30	8/31/2012 07:15	☐
12081363-19	WW-1 082812	Water		8/29/2012 10:15	8/31/2012 07:15	☐
12081363-20	MW-26 082812	Water		8/29/2012 11:15	8/31/2012 07:15	☐
12081363-21	WMW- 082812	Water		8/29/2012 11:40	8/31/2012 07:15	☐
12081363-22	SWMW- 082812	Water		8/29/2012 12:35	8/31/2012 07:15	☐
12081363-23	MW-4 082812	Water		8/29/2012 12:20	8/31/2012 07:15	☐

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Work Order: 12081363

Case Narrative

Batch 63997, Metals, Sample MW-14 082812: MS/MSD recoveries were above the control limits for Calcium, Magnesium and Sodium due to high concentration to the background sample. Results are flagged with O. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Batch 64078, Metals, Sample MW-26 082812: MS/MSD recoveries were above the control limits for Calcium, due to high concentration to the background sample. Results are flagged with O. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Batch R134803 Anions, Sample MW-22 082812: MS/MSD recoveries were above the control limits, due to high concentration to the background sample. Results are flagged with O. The associated LCS recoveries and MS/MSD RPD were within the control limits

Batch R134871 Anions, Sample MW-4 082812: MS/MSD recoveries were below the control limits. The associated LCS recoveries and MS/MSD RPD were within the control limits.

Batch R134875, Anions, Sample 1209350-01: MS/MSD is for an unrelated sample.

Batch R134919, Anions, Nitrogen, Nitrate (As N) : LCS recovery was below the control limits. The associated results are Non Detect.

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-12 082812
Collection Date: 8/28/2012 01:40 PM

Work Order: 12081363
Lab ID: 12081363-01
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	589		0.43	2.50	mg/L	5	9/6/2012 20:00
Magnesium	190		0.41	1.00	mg/L	5	9/6/2012 20:00
Potassium	12.2		0.42	1.00	mg/L	5	9/6/2012 20:00
Sodium	173		0.42	1.00	mg/L	5	9/6/2012 20:00
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	2,040		20	50.0	mg/L	100	9/13/2012 02:38
Fluoride	0.840		0.050	0.100	mg/L	1	9/12/2012 02:04
Nitrogen, Nitrate (As N)	2.52		0.30	1.00	mg/L	10	9/11/2012 18:22
Sulfate	57.6		0.20	0.500	mg/L	1	9/12/2012 02:04
Surr: Selenate (surr)	90.9			85-115	%REC	10	9/11/2012 18:22
Surr: Selenate (surr)	97.1			85-115	%REC	1	9/12/2012 02:04
Surr: Selenate (surr)	99.9			85-115	%REC	100	9/13/2012 02:38
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO3)	98.0		10	10.0	mg/L	1	9/10/2012 16:04
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:04
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:04
Alkalinity, Total (As CaCO3)	98.0		10	10.0	mg/L	1	9/10/2012 16:04
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	5,690		5.0	10.0	mg/L	1	9/4/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-17 082812
Collection Date: 8/28/2012 03:30 PM

Work Order: 12081363
Lab ID: 12081363-02
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	182		0.43	2.50	mg/L	5	9/6/2012 20:05
Magnesium	58.4		0.41	1.00	mg/L	5	9/6/2012 20:05
Potassium	6.76		0.42	1.00	mg/L	5	9/6/2012 20:05
Sodium	132		0.42	1.00	mg/L	5	9/6/2012 20:05
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	570		2.0	5.00	mg/L	10	9/13/2012 02:59
Fluoride	1.59		0.050	0.100	mg/L	1	9/12/2012 02:26
Nitrogen, Nitrate (As N)	1.99		0.30	1.00	mg/L	10	9/11/2012 19:05
Sulfate	103		2.0	5.00	mg/L	10	9/13/2012 02:59
Surr: Selenate (surr)	93.7			85-115	%REC	10	9/11/2012 19:05
Surr: Selenate (surr)	97.3			85-115	%REC	1	9/12/2012 02:26
Surr: Selenate (surr)	96.0			85-115	%REC	10	9/13/2012 02:59
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO ₃)	164		10	10.0	mg/L	1	9/10/2012 16:15
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:15
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:15
Alkalinity, Total (As CaCO ₃)	164		10	10.0	mg/L	1	9/10/2012 16:15
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	2,070		5.0	10.0	mg/L	1	9/4/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-16 082812
Collection Date: 8/28/2012 03:50 PM

Work Order: 12081363
Lab ID: 12081363-03
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	237		0.43	2.50	mg/L	5	9/6/2012 20:14
Magnesium	70.4		0.41	1.00	mg/L	5	9/6/2012 20:14
Potassium	7.14		0.42	1.00	mg/L	5	9/6/2012 20:14
Sodium	254		0.42	1.00	mg/L	5	9/6/2012 20:14
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	879		2.0	5.00	mg/L	10	9/13/2012 03:20
Fluoride	1.21		0.050	0.100	mg/L	1	9/12/2012 02:47
Nitrogen, Nitrate (As N)	3.14		0.30	1.00	mg/L	10	9/11/2012 19:20
Sulfate	127		2.0	5.00	mg/L	10	9/13/2012 03:20
Surr: Selenate (surr)	93.3			85-115	%REC	10	9/11/2012 19:20
Surr: Selenate (surr)	101			85-115	%REC	1	9/12/2012 02:47
Surr: Selenate (surr)	100			85-115	%REC	10	9/13/2012 03:20
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO3)	294		10	10.0	mg/L	1	9/10/2012 16:20
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:20
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:20
Alkalinity, Total (As CaCO3)	294		10	10.0	mg/L	1	9/10/2012 16:20
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	2,850		5.0	10.0	mg/L	1	9/4/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-8 082812
Collection Date: 8/28/2012 04:15 PM

Work Order: 12081363
Lab ID: 12081363-04
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	83.1		0.43	2.50	mg/L	5	9/6/2012 20:18
Magnesium	25.4		0.41	1.00	mg/L	5	9/6/2012 20:18
Potassium	5.70		0.42	1.00	mg/L	5	9/6/2012 20:18
Sodium	483		0.42	1.00	mg/L	5	9/6/2012 20:18
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	684		2.0	5.00	mg/L	10	9/13/2012 03:42
Fluoride	3.49		0.050	0.100	mg/L	1	9/12/2012 03:08
Nitrogen, Nitrate (As N)	5.06		0.30	1.00	mg/L	10	9/11/2012 19:34
Sulfate	176		2.0	5.00	mg/L	10	9/13/2012 03:42
Surr: Selenate (surr)	94.7			85-115	%REC	10	9/11/2012 19:34
Surr: Selenate (surr)	98.7			85-115	%REC	1	9/12/2012 03:08
Surr: Selenate (surr)	99.2			85-115	%REC	10	9/13/2012 03:42
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO3)	268		10	10.0	mg/L	1	9/10/2012 16:26
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:26
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:26
Alkalinity, Total (As CaCO3)	268		10	10.0	mg/L	1	9/10/2012 16:26
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	1,670		5.0	10.0	mg/L	1	9/4/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-25 082812
Collection Date: 8/28/2012 06:55 PM

Work Order: 12081363
Lab ID: 12081363-05
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	877		0.43	2.50	mg/L	5	9/6/2012 20:23
Magnesium	255		0.41	1.00	mg/L	5	9/6/2012 20:23
Potassium	18.4		0.42	1.00	mg/L	5	9/6/2012 20:23
Sodium	1,150		4.2	10.0	mg/L	50	9/7/2012 12:03
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	4,350		10	25.0	mg/L	50	9/13/2012 04:03
Fluoride	0.618		0.050	0.100	mg/L	1	9/12/2012 04:12
Nitrogen, Nitrate (As N)	2.32		0.30	1.00	mg/L	10	9/11/2012 19:49
Sulfate	290		10	25.0	mg/L	50	9/13/2012 04:03
Surr: Selenate (surr)	93.0			85-115	%REC	10	9/11/2012 19:49
Surr: Selenate (surr)	92.7			85-115	%REC	1	9/12/2012 04:12
Surr: Selenate (surr)	99.9			85-115	%REC	50	9/13/2012 04:03
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO3)	294		10	10.0	mg/L	1	9/10/2012 16:31
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:31
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:31
Alkalinity, Total (As CaCO3)	294		10	10.0	mg/L	1	9/10/2012 16:31
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	11,400		5.0	10.0	mg/L	1	9/4/2012 17:30

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-13 082812
Collection Date: 8/28/2012 07:30 PM

Work Order: 12081363
Lab ID: 12081363-06
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	455		0.43	2.50	mg/L	5	9/6/2012 20:28
Magnesium	154		0.41	1.00	mg/L	5	9/6/2012 20:28
Potassium	14.4		0.42	1.00	mg/L	5	9/6/2012 20:28
Sodium	179		0.42	1.00	mg/L	5	9/6/2012 20:28
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	1,570		10	25.0	mg/L	50	9/13/2012 05:07
Fluoride	1.49		0.050	0.100	mg/L	1	9/12/2012 04:33
Nitrogen, Nitrate (As N)	2.50		0.30	1.00	mg/L	10	9/11/2012 20:03
Sulfate	155		10	25.0	mg/L	50	9/13/2012 05:07
Surr: Selenate (surr)	94.2			85-115	%REC	10	9/11/2012 20:03
Surr: Selenate (surr)	102			85-115	%REC	1	9/12/2012 04:33
Surr: Selenate (surr)	100			85-115	%REC	50	9/13/2012 05:07
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO3)	119		10	10.0	mg/L	1	9/10/2012 16:36
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:36
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:36
Alkalinity, Total (As CaCO3)	119		10	10.0	mg/L	1	9/10/2012 16:36
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	4,130		5.0	10.0	mg/L	1	9/4/2012 17:30

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-19 082812
Collection Date: 8/28/2012 12:45 PM

Work Order: 12081363
Lab ID: 12081363-07
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 9/6/12		Analyst: IGF	
Calcium	1,020		4.3	25.0	mg/L	50	9/7/2012 12:07
Magnesium	348		0.41	1.00	mg/L	5	9/6/2012 20:46
Potassium	24.8		0.42	1.00	mg/L	5	9/6/2012 20:46
Sodium	682		0.42	1.00	mg/L	5	9/6/2012 20:46
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	4,240		10	25.0	mg/L	50	9/13/2012 05:28
Fluoride	0.788		0.050	0.100	mg/L	1	9/12/2012 04:55
Nitrogen, Nitrate (As N)	2.64		0.30	1.00	mg/L	10	9/11/2012 20:47
Sulfate	416		10	25.0	mg/L	50	9/13/2012 05:28
Surr: Selenate (surr)	93.3			85-115	%REC	10	9/11/2012 20:47
Surr: Selenate (surr)	95.8			85-115	%REC	1	9/12/2012 04:55
Surr: Selenate (surr)	115			85-115	%REC	50	9/13/2012 05:28
ALKALINITY-SM2320B	Method: SM2320B					Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO ₃)	107		10	10.0	mg/L	1	9/10/2012 16:41
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:41
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:41
Alkalinity, Total (As CaCO ₃)	107		10	10.0	mg/L	1	9/10/2012 16:41
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	13,300		5.0	10.0	mg/L	1	9/4/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-14 082812
Collection Date: 8/28/2012 01:15 PM

Work Order: 12081363
Lab ID: 12081363-08
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	1,390		8.6	50.0	mg/L	100	9/7/2012 16:22
Magnesium	389		8.2	20.0	mg/L	100	9/7/2012 16:22
Potassium	23.0		0.084	0.200	mg/L	1	9/6/2012 20:50
Sodium	2,330		8.5	20.0	mg/L	100	9/7/2012 16:22
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	7,730		20	50.0	mg/L	100	9/13/2012 05:49
Fluoride	0.698		0.050	0.100	mg/L	1	9/12/2012 05:16
Nitrogen, Nitrate (As N)	2.48		0.30	1.00	mg/L	10	9/11/2012 21:02
Sulfate	816		20	50.0	mg/L	100	9/13/2012 05:49
Surr: Selenate (surr)	94.5			85-115	%REC	10	9/11/2012 21:02
Surr: Selenate (surr)	86.8			85-115	%REC	1	9/12/2012 05:16
Surr: Selenate (surr)	100			85-115	%REC	100	9/13/2012 05:49
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO ₃)	113		10	10.0	mg/L	1	9/10/2012 16:46
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:46
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:46
Alkalinity, Total (As CaCO ₃)	113		10	10.0	mg/L	1	9/10/2012 16:46
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	22,100		5.0	10.0	mg/L	1	9/4/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-9 082812
Collection Date: 8/28/2012 04:45 PM

Work Order: 12081363
Lab ID: 12081363-09
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 9/6/12		Analyst: IGF	
Calcium	62.3		0.43	2.50	mg/L	5	9/6/2012 21:23
Magnesium	15.9		0.41	1.00	mg/L	5	9/6/2012 21:23
Potassium	4.50		0.42	1.00	mg/L	5	9/6/2012 21:23
Sodium	433		0.42	1.00	mg/L	5	9/6/2012 21:23
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	607		2.0	5.00	mg/L	10	9/13/2012 06:10
Fluoride	2.67		0.050	0.100	mg/L	1	9/12/2012 05:37
Nitrogen, Nitrate (As N)	1.72		0.30	1.00	mg/L	10	9/11/2012 21:16
Sulfate	206		2.0	5.00	mg/L	10	9/13/2012 06:10
Surr: Selenate (surr)	97.6			85-115	%REC	10	9/11/2012 21:16
Surr: Selenate (surr)	100			85-115	%REC	1	9/12/2012 05:37
Surr: Selenate (surr)	100			85-115	%REC	10	9/13/2012 06:10
ALKALINITY-SM2320B	Method: SM2320B					Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO3)	366		10	10.0	mg/L	1	9/10/2012 16:51
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:51
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:51
Alkalinity, Total (As CaCO3)	366		10	10.0	mg/L	1	9/10/2012 16:51
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	1,680		5.0	10.0	mg/L	1	9/4/2012 17:30

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-7 082812
Collection Date: 8/28/2012 08:15 PM

Work Order: 12081363
Lab ID: 12081363-10
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF	
Calcium	27.2		0.43	2.50	mg/L	5	9/6/2012 22:50
Magnesium	8.41		0.41	1.00	mg/L	5	9/6/2012 22:50
Potassium	3.20		0.42	1.00	mg/L	5	9/6/2012 22:50
Sodium	252		0.42	1.00	mg/L	5	9/6/2012 22:50
ANIONS - EPA 300.0 (1993)		Method: E300				Analyst: JKP	
Chloride	287		2.0	5.00	mg/L	10	9/13/2012 06:32
Fluoride	2.90		0.050	0.100	mg/L	1	9/12/2012 05:58
Nitrogen, Nitrate (As N)	2.88		0.30	1.00	mg/L	10	9/11/2012 21:31
Sulfate	123		2.0	5.00	mg/L	10	9/13/2012 06:32
Surr: Selenate (surr)	90.7			85-115	%REC	10	9/11/2012 21:31
Surr: Selenate (surr)	98.4			85-115	%REC	1	9/12/2012 05:58
Surr: Selenate (surr)	101			85-115	%REC	10	9/13/2012 06:32
ALKALINITY-SM2320B		Method: SM2320B				Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO ₃)	275		10	10.0	mg/L	1	9/10/2012 16:56
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:56
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 16:56
Alkalinity, Total (As CaCO ₃)	275		10	10.0	mg/L	1	9/10/2012 16:56
TOTAL DISSOLVED SOLIDS		Method: M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	962		5.0	10.0	mg/L	1	9/4/2012 17:30

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-2 082812
Collection Date: 8/29/2012 08:15 AM

Work Order: 12081363
Lab ID: 12081363-11
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 9/6/12		Analyst: IGF	
Calcium	335		0.43	2.50	mg/L	5	9/6/2012 22:54
Magnesium	105		0.41	1.00	mg/L	5	9/6/2012 22:54
Potassium	8.09		0.42	1.00	mg/L	5	9/6/2012 22:54
Sodium	236		0.42	1.00	mg/L	5	9/6/2012 22:54
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	1,180		20	50.0	mg/L	100	9/13/2012 06:53
Fluoride	1.29		0.050	0.100	mg/L	1	9/12/2012 06:20
Nitrogen, Nitrate (As N)	2.19		0.30	1.00	mg/L	10	9/11/2012 21:45
Sulfate	83.9		0.20	0.500	mg/L	1	9/12/2012 06:20
Surr: Selenate (surr)	94.3			85-115	%REC	10	9/11/2012 21:45
Surr: Selenate (surr)	97.1			85-115	%REC	1	9/12/2012 06:20
Surr: Selenate (surr)	100			85-115	%REC	100	9/13/2012 06:53
ALKALINITY-SM2320B	Method: SM2320B					Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO3)	165		10	10.0	mg/L	1	9/10/2012 17:02
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:02
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:02
Alkalinity, Total (As CaCO3)	165		10	10.0	mg/L	1	9/10/2012 17:02
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	3,360		5.0	10.0	mg/L	1	9/4/2012 17:30

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-1 082812
Collection Date: 8/29/2012 08:35 AM

Work Order: 12081363
Lab ID: 12081363-12
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	130		0.43	2.50	mg/L	5	9/6/2012 22:59
Magnesium	44.3		0.41	1.00	mg/L	5	9/6/2012 22:59
Potassium	5.61		0.42	1.00	mg/L	5	9/6/2012 22:59
Sodium	90.5		0.42	1.00	mg/L	5	9/6/2012 22:59
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	456		2.0	5.00	mg/L	10	9/13/2012 07:14
Fluoride	1.60		0.050	0.100	mg/L	1	9/12/2012 06:41
Nitrogen, Nitrate (As N)	1.48		0.30	1.00	mg/L	10	9/11/2012 22:00
Sulfate	67.4		0.20	0.500	mg/L	1	9/12/2012 06:41
Surr: Selenate (surr)	93.6			85-115	%REC	10	9/11/2012 22:00
Surr: Selenate (surr)	101			85-115	%REC	1	9/12/2012 06:41
Surr: Selenate (surr)	101			85-115	%REC	10	9/13/2012 07:14
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO ₃)	149		10	10.0	mg/L	1	9/10/2012 17:07
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:07
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:07
Alkalinity, Total (As CaCO ₃)	149		10	10.0	mg/L	1	9/10/2012 17:07
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	1,340		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-6 082812
Collection Date: 8/29/2012 09:30 AM

Work Order: 12081363
Lab ID: 12081363-13
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	91.4		0.43	2.50	mg/L	5	9/6/2012 23:04
Magnesium	27.3		0.41	1.00	mg/L	5	9/6/2012 23:04
Potassium	7.54		0.42	1.00	mg/L	5	9/6/2012 23:04
Sodium	498		0.42	1.00	mg/L	5	9/6/2012 23:04
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	849		2.0	5.00	mg/L	10	9/13/2012 07:36
Fluoride	2.20		0.050	0.100	mg/L	1	9/12/2012 07:02
Nitrogen, Nitrate (As N)	5.30		0.30	1.00	mg/L	10	9/11/2012 22:14
Sulfate	207		2.0	5.00	mg/L	10	9/13/2012 07:36
Surr: Selenate (surr)	96.2			85-115	%REC	10	9/11/2012 22:14
Surr: Selenate (surr)	99.8			85-115	%REC	1	9/12/2012 07:02
Surr: Selenate (surr)	102			85-115	%REC	10	9/13/2012 07:36
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO ₃)	315		10	10.0	mg/L	1	9/10/2012 17:12
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:12
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:12
Alkalinity, Total (As CaCO ₃)	315		10	10.0	mg/L	1	9/10/2012 17:12
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	1,930		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-3 082812
Collection Date: 8/29/2012 09:50 AM

Work Order: 12081363
Lab ID: 12081363-14
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS	Method: SW6020			Prep: SW3010A / 9/6/12		Analyst: IGF	
Calcium	56.3		0.43	2.50	mg/L	5	9/6/2012 23:08
Magnesium	16.4		0.41	1.00	mg/L	5	9/6/2012 23:08
Potassium	13.1		0.42	1.00	mg/L	5	9/6/2012 23:08
Sodium	745		0.42	1.00	mg/L	5	9/6/2012 23:08
ANIONS - EPA 300.0 (1993)	Method: E300					Analyst: JKP	
Chloride	1,200		10	25.0	mg/L	50	9/13/2012 07:57
Fluoride	1.72		0.050	0.100	mg/L	1	9/12/2012 07:23
Nitrogen, Nitrate (As N)	6.42		0.30	1.00	mg/L	10	9/11/2012 22:29
Sulfate	271		10	25.0	mg/L	50	9/13/2012 07:57
Surr: Selenate (surr)	91.9			85-115	%REC	10	9/11/2012 22:29
Surr: Selenate (surr)	99.3			85-115	%REC	1	9/12/2012 07:23
Surr: Selenate (surr)	101			85-115	%REC	50	9/13/2012 07:57
ALKALINITY-SM2320B	Method: SM2320B					Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO ₃)	283		10	10.0	mg/L	1	9/10/2012 17:16
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:16
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:16
Alkalinity, Total (As CaCO ₃)	283		10	10.0	mg/L	1	9/10/2012 17:16
TOTAL DISSOLVED SOLIDS	Method: M2540C					Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	2,600		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-5 082812
Collection Date: 8/29/2012 09:10 AM

Work Order: 12081363
Lab ID: 12081363-15
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/6/12		Analyst: IGF
Calcium	319		0.43	2.50	mg/L	5	9/6/2012 23:13
Magnesium	102		0.41	1.00	mg/L	5	9/6/2012 23:13
Potassium	7.45		0.42	1.00	mg/L	5	9/6/2012 23:13
Sodium	246		0.42	1.00	mg/L	5	9/6/2012 23:13
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	1,380		10	25.0	mg/L	50	9/13/2012 08:18
Fluoride	1.04		0.050	0.100	mg/L	1	9/12/2012 08:27
Nitrogen, Nitrate (As N)	2.92		0.30	1.00	mg/L	10	9/11/2012 22:43
Sulfate	93.7		0.20	0.500	mg/L	1	9/12/2012 08:27
Surr: Selenate (surr)	99.5			85-115	%REC	10	9/11/2012 22:43
Surr: Selenate (surr)	99.8			85-115	%REC	1	9/12/2012 08:27
Surr: Selenate (surr)	101			85-115	%REC	50	9/13/2012 08:18
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO ₃)	186		10	10.0	mg/L	1	9/10/2012 17:21
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:21
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:21
Alkalinity, Total (As CaCO ₃)	186		10	10.0	mg/L	1	9/10/2012 17:21
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	3,640		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-22 082812
Collection Date: 8/29/2012 11:00 AM

Work Order: 12081363
Lab ID: 12081363-16
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: SW6020		Prep: SW3010A / 9/10/12		Analyst: SKS	
Calcium	603		0.43	2.50	mg/L	5	9/10/2012 19:41
Magnesium	195		0.41	1.00	mg/L	5	9/10/2012 19:41
Potassium	15.0		0.42	1.00	mg/L	5	9/10/2012 19:41
Sodium	1,080		8.5	20.0	mg/L	100	9/11/2012 17:32
ANIONS - EPA 300.0 (1993)		Method: E300				Analyst: JKP	
Chloride	3,210		10	25.0	mg/L	50	9/13/2012 11:50
Fluoride	0.791		0.050	0.100	mg/L	1	9/12/2012 08:49
Nitrogen, Nitrate (As N)	1.79		0.30	1.00	mg/L	10	9/11/2012 22:58
Sulfate	258		10	25.0	mg/L	50	9/13/2012 11:50
Surr: Selenate (surr)	93.5			85-115	%REC	10	9/11/2012 22:58
Surr: Selenate (surr)	101			85-115	%REC	1	9/12/2012 08:49
Surr: Selenate (surr)	98.3			85-115	%REC	50	9/13/2012 11:50
ALKALINITY-SM2320B		Method: SM2320B				Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO ₃)	171		10	10.0	mg/L	1	9/10/2012 17:26
Alkalinity, Carbonate (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:26
Alkalinity, Hydroxide (As CaCO ₃)	U		10	10.0	mg/L	1	9/10/2012 17:26
Alkalinity, Total (As CaCO ₃)	171		10	10.0	mg/L	1	9/10/2012 17:26
TOTAL DISSOLVED SOLIDS		Method: M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	9,460		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-10 082812
Collection Date: 8/29/2012 10:40 AM

Work Order: 12081363
Lab ID: 12081363-17
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: SW6020		Prep: SW3010A / 9/10/12		Analyst: SKS	
Calcium	1,010		8.6	50.0	mg/L	100	9/11/2012 17:34
Magnesium	322		0.41	1.00	mg/L	5	9/10/2012 19:43
Potassium	19.3		0.42	1.00	mg/L	5	9/10/2012 19:43
Sodium	897		0.42	1.00	mg/L	5	9/10/2012 19:43
ANIONS - EPA 300.0 (1993)		Method: E300				Analyst: JKP	
Chloride	4,110		10	25.0	mg/L	50	9/13/2012 11:29
Fluoride	0.566		0.050	0.100	mg/L	1	9/12/2012 11:18
Nitrogen, Nitrate (As N)	4.00		0.30	1.00	mg/L	10	9/12/2012 00:11
Sulfate	176		10	25.0	mg/L	50	9/13/2012 11:29
Surr: Selenate (surr)	94.3			85-115	%REC	10	9/12/2012 00:11
Surr: Selenate (surr)	99.8			85-115	%REC	1	9/12/2012 11:18
Surr: Selenate (surr)	99.0			85-115	%REC	50	9/13/2012 11:29
ALKALINITY-SM2320B		Method: SM2320B				Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO ₃)	127		5.0	5.00	mg/L	1	9/10/2012 17:47
Alkalinity, Carbonate (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 17:47
Alkalinity, Hydroxide (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 17:47
Alkalinity, Total (As CaCO ₃)	127		5.0	5.00	mg/L	1	9/10/2012 17:47
TOTAL DISSOLVED SOLIDS		Method: M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	12,400		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-11 082812
Collection Date: 8/29/2012 07:30 AM

Work Order: 12081363
Lab ID: 12081363-18
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: SW6020		Prep: SW3010A / 9/10/12		Analyst: SKS	
Calcium	563		0.43	2.50	mg/L	5	9/10/2012 19:45
Magnesium	169		0.41	1.00	mg/L	5	9/10/2012 19:45
Potassium	12.6		0.42	1.00	mg/L	5	9/10/2012 19:45
Sodium	460		0.42	1.00	mg/L	5	9/10/2012 19:45
ANIONS - EPA 300.0 (1993)		Method: E300				Analyst: JKP	
Chloride	2,450		10	25.0	mg/L	50	9/13/2012 12:11
Fluoride	0.668		0.050	0.100	mg/L	1	9/12/2012 11:39
Nitrogen, Nitrate (As N)	2.14		0.30	1.00	mg/L	10	9/12/2012 00:25
Sulfate	128		10	25.0	mg/L	50	9/13/2012 12:11
Surr: Selenate (surr)	99.8			85-115	%REC	10	9/12/2012 00:25
Surr: Selenate (surr)	103			85-115	%REC	1	9/12/2012 11:39
Surr: Selenate (surr)	98.3			85-115	%REC	50	9/13/2012 12:11
ALKALINITY-SM2320B		Method: SM2320B				Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO ₃)	146		5.0	5.00	mg/L	1	9/10/2012 17:57
Alkalinity, Carbonate (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 17:57
Alkalinity, Hydroxide (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 17:57
Alkalinity, Total (As CaCO ₃)	146		5.0	5.00	mg/L	1	9/10/2012 17:57
TOTAL DISSOLVED SOLIDS		Method: M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	7,980		5.0	10.0	mg/L	1	9/4/2012 17:30

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: WW-1 082812
Collection Date: 8/29/2012 10:15 AM

Work Order: 12081363
Lab ID: 12081363-19
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: SW6020			Prep: SW3010A / 9/10/12		Analyst: SKS
Calcium	87.6		0.43	2.50	mg/L	5	9/10/2012 19:48
Magnesium	28.3		0.41	1.00	mg/L	5	9/10/2012 19:48
Potassium	5.34		0.42	1.00	mg/L	5	9/10/2012 19:48
Sodium	118		0.42	1.00	mg/L	5	9/10/2012 19:48
ANIONS - EPA 300.0 (1993)		Method: E300					Analyst: JKP
Chloride	213		2.0	5.00	mg/L	10	9/13/2012 12:32
Fluoride	1.42		0.050	0.100	mg/L	1	9/12/2012 12:00
Nitrogen, Nitrate (As N)	1.63		0.30	1.00	mg/L	10	9/12/2012 00:40
Sulfate	119		2.0	5.00	mg/L	10	9/13/2012 12:32
Surr: Selenate (surr)	97.0			85-115	%REC	10	9/12/2012 00:40
Surr: Selenate (surr)	104			85-115	%REC	1	9/12/2012 12:00
Surr: Selenate (surr)	98.8			85-115	%REC	10	9/13/2012 12:32
ALKALINITY-SM2320B		Method: SM2320B					Analyst: RPM
Alkalinity, Bicarbonate (As CaCO3)	166		5.0	5.00	mg/L	1	9/10/2012 18:02
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:02
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:02
Alkalinity, Total (As CaCO3)	166		5.0	5.00	mg/L	1	9/10/2012 18:02
TOTAL DISSOLVED SOLIDS		Method: M2540C					Analyst: KAH
Total Dissolved Solids (Residue, Filterable)	756		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-26 082812
Collection Date: 8/29/2012 11:15 AM

Work Order: 12081363
Lab ID: 12081363-20
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS		Method: SW6020		Prep: SW3010A / 9/10/12		Analyst: SKS	
Calcium	267		8.6	50.0	mg/L	100	9/11/2012 17:41
Magnesium	72.9		0.082	0.200	mg/L	1	9/10/2012 19:50
Potassium	11.3		0.084	0.200	mg/L	1	9/10/2012 19:50
Sodium	1,140		8.5	20.0	mg/L	100	9/11/2012 17:41
ANIONS - EPA 300.0 (1993)		Method: E300				Analyst: JKP	
Chloride	2,200		10	25.0	mg/L	50	9/13/2012 12:54
Fluoride	0.929		0.050	0.100	mg/L	1	9/12/2012 12:21
Nitrogen, Nitrate (As N)	1.57		0.30	1.00	mg/L	10	9/12/2012 00:54
Sulfate	225		10	25.0	mg/L	50	9/13/2012 12:54
Surr: Selenate (surr)	99.5			85-115	%REC	10	9/12/2012 00:54
Surr: Selenate (surr)	103			85-115	%REC	1	9/12/2012 12:21
Surr: Selenate (surr)	99.0			85-115	%REC	50	9/13/2012 12:54
ALKALINITY-SM2320B		Method: SM2320B				Analyst: RPM	
Alkalinity, Bicarbonate (As CaCO ₃)	205		5.0	5.00	mg/L	1	9/10/2012 18:08
Alkalinity, Carbonate (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 18:08
Alkalinity, Hydroxide (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 18:08
Alkalinity, Total (As CaCO ₃)	205		5.0	5.00	mg/L	1	9/10/2012 18:08
TOTAL DISSOLVED SOLIDS		Method: M2540C				Analyst: KAH	
Total Dissolved Solids (Residue, Filterable)	4,940		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: WMW- 082812
Collection Date: 8/29/2012 11:40 AM

Work Order: 12081363
Lab ID: 12081363-21
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
	Method: SW6020			Prep: SW3010A / 9/10/12		Analyst: SKS	
Calcium	64.1		0.43	2.50	mg/L	5	9/10/2012 20:08
Magnesium	18.6		0.41	1.00	mg/L	5	9/10/2012 20:08
Potassium	16.2		0.42	1.00	mg/L	5	9/10/2012 20:08
Sodium	225		0.42	1.00	mg/L	5	9/11/2012 17:50
ANIONS - EPA 300.0 (1993)							
	Method: E300			Analyst: JKP			
Chloride	249		2.0	5.00	mg/L	10	9/13/2012 13:15
Fluoride	1.78		0.050	0.100	mg/L	1	9/12/2012 12:43
Nitrogen, Nitrate (As N)	2.46		0.30	1.00	mg/L	10	9/12/2012 01:09
Sulfate	169		2.0	5.00	mg/L	10	9/13/2012 13:15
Surr: Selenate (surr)	98.3			85-115	%REC	10	9/12/2012 01:09
Surr: Selenate (surr)	102			85-115	%REC	1	9/12/2012 12:43
Surr: Selenate (surr)	99.0			85-115	%REC	10	9/13/2012 13:15
ALKALINITY-SM2320B							
	Method: SM2320B			Analyst: RPM			
Alkalinity, Bicarbonate (As CaCO3)	241		5.0	5.00	mg/L	1	9/10/2012 18:13
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:13
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:13
Alkalinity, Total (As CaCO3)	241		5.0	5.00	mg/L	1	9/10/2012 18:13
TOTAL DISSOLVED SOLIDS							
	Method: M2540C			Analyst: KAH			
Total Dissolved Solids (Residue, Filterable)	988		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: SWMW- 082812
Collection Date: 8/29/2012 12:35 PM

Work Order: 12081363
Lab ID: 12081363-22
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/10/12		Analyst: SKS
Calcium	304		0.43	2.50	mg/L	5	9/10/2012 20:11
Magnesium	90.8		0.41	1.00	mg/L	5	9/10/2012 20:11
Potassium	44.3		0.42	1.00	mg/L	5	9/10/2012 20:11
Sodium	1,270		8.5	20.0	mg/L	100	9/11/2012 17:52
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	2,670		10	25.0	mg/L	50	9/13/2012 13:36
Fluoride	1.14		0.050	0.100	mg/L	1	9/12/2012 13:04
Nitrogen, Nitrate (As N)	2.96		0.30	1.00	mg/L	10	9/12/2012 01:23
Sulfate	524		10	25.0	mg/L	50	9/13/2012 13:36
Surr: Selenate (surr)	99.3			85-115	%REC	10	9/12/2012 01:23
Surr: Selenate (surr)	101			85-115	%REC	1	9/12/2012 13:04
Surr: Selenate (surr)	99.1			85-115	%REC	50	9/13/2012 13:36
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO ₃)	323		5.0	5.00	mg/L	1	9/10/2012 18:18
Alkalinity, Carbonate (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 18:18
Alkalinity, Hydroxide (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 18:18
Alkalinity, Total (As CaCO ₃)	323		5.0	5.00	mg/L	1	9/10/2012 18:18
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	5,940		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
Sample ID: MW-4 082812
Collection Date: 8/29/2012 12:20 PM

Work Order: 12081363
Lab ID: 12081363-23
Matrix: WATER

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS							
			Method: SW6020		Prep: SW3010A / 9/10/12		Analyst: SKS
Calcium	880		0.43	2.50	mg/L	5	9/10/2012 20:13
Magnesium	263		0.41	1.00	mg/L	5	9/10/2012 20:13
Potassium	27.8		0.42	1.00	mg/L	5	9/10/2012 20:13
Sodium	1,050		8.5	20.0	mg/L	100	9/11/2012 17:55
ANIONS - EPA 300.0 (1993)							
			Method: E300		Analyst: JKP		
Chloride	3,860		10	25.0	mg/L	50	9/13/2012 13:57
Fluoride	0.538		0.050	0.100	mg/L	1	9/12/2012 13:25
Nitrogen, Nitrate (As N)	3.06		0.30	1.00	mg/L	10	9/12/2012 01:38
Sulfate	315		10	25.0	mg/L	50	9/13/2012 13:57
Surr: Selenate (surr)	98.1			85-115	%REC	10	9/12/2012 01:38
Surr: Selenate (surr)	100			85-115	%REC	1	9/12/2012 13:25
Surr: Selenate (surr)	99.1			85-115	%REC	50	9/13/2012 13:57
ALKALINITY-SM2320B							
			Method: SM2320B		Analyst: RPM		
Alkalinity, Bicarbonate (As CaCO ₃)	227		5.0	5.00	mg/L	1	9/10/2012 18:23
Alkalinity, Carbonate (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 18:23
Alkalinity, Hydroxide (As CaCO ₃)	U		5.0	5.00	mg/L	1	9/10/2012 18:23
Alkalinity, Total (As CaCO ₃)	227		5.0	5.00	mg/L	1	9/10/2012 18:23
TOTAL DISSOLVED SOLIDS							
			Method: M2540C		Analyst: KAH		
Total Dissolved Solids (Residue, Filterable)	9,420		5.0	10.0	mg/L	1	9/5/2012 09:00

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

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **63997** Instrument ID **ICPMS04** Method: **SW6020** (Dissolve)

MBLK	Sample ID: MBLKW5-090612-63997				Units: mg/L		Analysis Date: 9/6/2012 07:14 PM			
Client ID:	Run ID: ICPMS04_120906A				SeqNo: 2931102		Prep Date: 9/6/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	U	0.50								
Magnesium	U	0.20								
Potassium	0.1474	0.20								J
Sodium	U	0.20								

LCS	Sample ID: MLCSW5-090612-63997				Units: mg/L		Analysis Date: 9/6/2012 07:19 PM			
Client ID:	Run ID: ICPMS04_120906A				SeqNo: 2931104		Prep Date: 9/6/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5.219	0.50	5	0	104	80-120	0			
Magnesium	4.885	0.20	5	0	97.7	80-120	0			
Potassium	5.142	0.20	5	0	103	80-120	0			
Sodium	4.839	0.20	5	0	96.8	80-120	0			

MS	Sample ID: 12081363-08BMS				Units: mg/L		Analysis Date: 9/6/2012 09:00 PM			
Client ID: MW-14 082812	Run ID: ICPMS04_120906A				SeqNo: 2931141		Prep Date: 9/6/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	1370	0.50	5	1371	-17.1	75-125	0			SEO
Magnesium	361	0.20	5	370.1	-182	75-125	0			SEO
Potassium	27.3	0.20	5	23	86	75-125	0			O
Sodium	2140	0.20	5	2200	-1200	75-125	0			SEO

MSD	Sample ID: 12081363-08BMSD				Units: mg/L		Analysis Date: 9/6/2012 09:04 PM			
Client ID: MW-14 082812	Run ID: ICPMS04_120906A				SeqNo: 2931142		Prep Date: 9/6/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	1362	0.50	5	1371	-176	75-125	1370	0.581	25	SEO
Magnesium	363.4	0.20	5	370.1	-133	75-125	361	0.674	25	SEO
Potassium	26.91	0.20	5	23	78.3	75-125	27.3	1.43	25	O
Sodium	2152	0.20	5	2200	-958	75-125	2140	0.563	25	SEO

DUP	Sample ID: 12081363-08BDUP				Units: mg/L		Analysis Date: 9/6/2012 08:55 PM			
Client ID: MW-14 082812	Run ID: ICPMS04_120906A				SeqNo: 2931140		Prep Date: 9/6/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Potassium	22.9	0.20	0	0	0	0-0	23	0.413	25	

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **63997** Instrument ID **ICPMS04** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **12081363-08BDUP** Units: **mg/L** Analysis Date: **9/7/2012 04:26 PM**
Client ID: **MW-14 082812** Run ID: **ICPMS04_120907A** SeqNo: **2932569** Prep Date: **9/6/2012** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	1473	50	0	0	0	0-0	1393	5.51	25	
Magnesium	405.6	20	0	0	0	0-0	388.5	4.29	25	
Sodium	2423	20	0	0	0	0-0	2335	3.72	25	

The following samples were analyzed in this batch:

12081363-01B	12081363-02B	12081363-03B
12081363-04B	12081363-05B	12081363-06B
12081363-07B	12081363-08B	12081363-09B
12081363-10B	12081363-11B	12081363-12B
12081363-13B	12081363-14B	12081363-15B

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **64078** Instrument ID **ICPMS05** Method: **SW6020** (Dissolve)

MBLK	Sample ID: MBLKW6-091012-64078				Units: mg/L		Analysis Date: 9/10/2012 07:36 PM			
Client ID:	Run ID: ICPMS05_120910A				SeqNo: 2935181		Prep Date: 9/10/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	U	0.50								
Magnesium	U	0.20								
Potassium	U	0.20								
Sodium	U	0.20								

LCS	Sample ID: MLCSW6-091012-64078				Units: mg/L		Analysis Date: 9/10/2012 07:38 PM			
Client ID:	Run ID: ICPMS05_120910A				SeqNo: 2935182		Prep Date: 9/10/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	5.162	0.50	5	0	103	80-120	0			
Magnesium	5.244	0.20	5	0	105	80-120	0			
Potassium	5.118	0.20	5	0	102	80-120	0			
Sodium	4.977	0.20	5	0	99.5	80-120	0			

MS	Sample ID: 12081363-20BMS				Units: mg/L		Analysis Date: 9/10/2012 07:59 PM			
Client ID: MW-26 082812	Run ID: ICPMS05_120910A				SeqNo: 2935191		Prep Date: 9/10/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	260.1	0.50	5	257.1	60.1	75-125	0			SEO
Magnesium	77.48	0.20	5	72.88	91.9	75-125	0			O
Potassium	17.22	0.20	5	11.29	119	75-125	0			
Sodium	U	0.20	5	1157	-23100	75-125	0			SOX

MSD	Sample ID: 12081363-20BMSD				Units: mg/L		Analysis Date: 9/10/2012 08:01 PM			
Client ID: MW-26 082812	Run ID: ICPMS05_120910A				SeqNo: 2935192		Prep Date: 9/10/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	261	0.50	5	257.1	78.5	75-125	260.1	0.352	25	EO
Magnesium	78.42	0.20	5	72.88	111	75-125	77.48	1.21	25	O
Potassium	17.5	0.20	5	11.29	124	75-125	17.22	1.63	25	
Sodium	U	0.20	5	1157	-23100	75-125	0	0	25	SOX

DUP	Sample ID: 12081363-20BDUP				Units: mg/L		Analysis Date: 9/10/2012 07:57 PM			
Client ID: MW-26 082812	Run ID: ICPMS05_120910A				SeqNo: 2935190		Prep Date: 9/10/2012		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Magnesium	74.46	0.20	0	0	0	0-0	72.88	2.15	25	
Potassium	11.7	0.20	0	0	0	0-0	11.29	3.62	25	

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **64078** Instrument ID **ICPMS05** Method: **SW6020** **(Dissolve)**

DUP Sample ID: **12081363-20BDUP** Units: **mg/L** Analysis Date: **9/11/2012 05:43 PM**
Client ID: **MW-26 082812** Run ID: **ICPMS05_120911A** SeqNo: **2936947** Prep Date: **9/10/2012** DF: **100**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Calcium	262.2	50	0	0	0	0-0	266.8	1.75	25	
Sodium	1110	20	0	0	0	0-0	1143	2.97	25	

The following samples were analyzed in this batch:

12081363-16B	12081363-17B	12081363-18B
12081363-19B	12081363-20B	12081363-21B
12081363-22B	12081363-23B	

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134299** Instrument ID **BALANCE1** Method: **M2540C** **(Dissolve)**

MBLK	Sample ID: WBLK-090412-R134299				Units: mg/L		Analysis Date: 9/4/2012 05:30 PM			
Client ID:	Run ID: BALANCE1_120904B				SeqNo: 2928256		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	U	10								

LCS	Sample ID: WLCS-090412-R134299				Units: mg/L		Analysis Date: 9/4/2012 05:30 PM			
Client ID:	Run ID: BALANCE1_120904B				SeqNo: 2928257		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1020	10	1000	0	102	85-115	0			

DUP	Sample ID: 12081363-09CDUP				Units: mg/L		Analysis Date: 9/4/2012 05:30 PM			
Client ID: MW-9 082812	Run ID: BALANCE1_120904B				SeqNo: 2928252		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1658	10	0	0	0	0-0	1678	1.2	20	

The following samples were analyzed in this batch:

12081363-05C	12081363-06C	12081363-09C
12081363-10C	12081363-11C	12081363-18C

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134315** Instrument ID **Balance1** Method: **M2540C** **(Dissolve)**

MBLK Sample ID: **WBLK-090412-R134315** Units: **mg/L** Analysis Date: **9/4/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120904D** SeqNo: **2928778** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	U	10								

LCS Sample ID: **WLCS-090412-R134315** Units: **mg/L** Analysis Date: **9/4/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120904D** SeqNo: **2928779** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1018	10	1000	0	102	85-115	0			

DUP Sample ID: **12081231-02CDUP** Units: **mg/L** Analysis Date: **9/4/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120904D** SeqNo: **2928765** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	7356	10	0	0	0	0-0	7456	1.35	20	

DUP Sample ID: **12081363-04CDUP** Units: **mg/L** Analysis Date: **9/4/2012 09:00 AM**

Client ID: **MW-8 082812** Run ID: **BALANCE1_120904D** SeqNo: **2928775** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	1712	10	0	0	0	0-0	1668	2.6	20	

The following samples were analyzed in this batch:

12081363-01C	12081363-02C	12081363-03C
12081363-04C	12081363-07C	12081363-08C

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134413** Instrument ID **Balance1** Method: **M2540C** **(Dissolve)**

MBLK Sample ID: **WBLK-090512-R134413** Units: **mg/L** Analysis Date: **9/5/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120905C** SeqNo: **2930157** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	U	10								

LCS Sample ID: **WLCS-090512-R134413** Units: **mg/L** Analysis Date: **9/5/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120905C** SeqNo: **2930158** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	972	10	1000	0	97.2	85-115	0			

DUP Sample ID: **12081270-01GDUP** Units: **mg/L** Analysis Date: **9/5/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120905C** SeqNo: **2930142** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	646	10	0	0	0	0-0	662	2.45	20	

DUP Sample ID: **12081272-01HDUP** Units: **mg/L** Analysis Date: **9/5/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120905C** SeqNo: **2930144** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	516	10	0	0	0	0-0	502	2.75	20	

The following samples were analyzed in this batch:

12081363-12C	12081363-13C	12081363-14C
12081363-15C	12081363-16C	12081363-17C
12081363-19C	12081363-20C	12081363-21C

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134421** Instrument ID **Balance1** Method: **M2540C** **(Dissolve)**

MBLK Sample ID: **WBLK-090512-R134421** Units: **mg/L** Analysis Date: **9/5/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120905D** SeqNo: **2930367** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	U	10								

LCS Sample ID: **WLCS-090512-R134421** Units: **mg/L** Analysis Date: **9/5/2012 09:00 AM**

Client ID: Run ID: **BALANCE1_120905D** SeqNo: **2930369** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	958	10	1000	0	95.8	85-115	0			

DUP Sample ID: **12081363-23CDUP** Units: **mg/L** Analysis Date: **9/5/2012 09:00 AM**

Client ID: **MW-4 082812** Run ID: **BALANCE1_120905D** SeqNo: **2930365** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Total Dissolved Solids (Residue, Filt	9440	10	0	0	0	0-0	9420	0.212	20	

The following samples were analyzed in this batch:

12081363-22C	12081363-23C
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Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134677** Instrument ID **ManTech01** Method: **SM2320B (Dissolve)**

MBLK	Sample ID: WBLKW1-091012-R134677				Units: mg/L		Analysis Date: 9/10/2012 03:18 PM			
Client ID:	Run ID: MANTECH01_120910A				SeqNo: 2934849		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	10								
Alkalinity, Carbonate (As CaCO3)	U	10								
Alkalinity, Hydroxide (As CaCO3)	U	10								
Alkalinity, Total (As CaCO3)	U	10								

LCS	Sample ID: WLCSW1-091012-R134677				Units: mg/L		Analysis Date: 9/10/2012 03:58 PM			
Client ID:	Run ID: MANTECH01_120910A				SeqNo: 2934855		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	1003	10	1000		0	100	80-120	0		

DUP	Sample ID: 12081363-01CDUP				Units: mg/L		Analysis Date: 9/10/2012 04:09 PM			
Client ID: MW-12 082812	Run ID: MANTECH01_120910A				SeqNo: 2934857		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	98.55	10	0	0	0	0-0	98.04	0.519	0	
Alkalinity, Carbonate (As CaCO3)	U	10	0	0	0	0-0	0	0	0	
Alkalinity, Hydroxide (As CaCO3)	U	10	0	0	0	0-0	0	0	0	
Alkalinity, Total (As CaCO3)	98.55	10	0	0	0	0-0	98.04	0.519	20	

The following samples were analyzed in this batch:

12081363-01C	12081363-02C	12081363-03C
12081363-04C	12081363-05C	12081363-06C
12081363-07C	12081363-08C	12081363-09C
12081363-10C	12081363-11C	12081363-12C
12081363-13C	12081363-14C	12081363-15C
12081363-16C		

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

Client: Conestoga-Rovers & Associates

Work Order: 12081363

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134677A** Instrument ID **ManTech01** Method: **SM2320B** (Dissolve)

MBLK Sample ID: **WBLKW2-091012-R134677A** Units: **mg/L** Analysis Date: **9/10/2012 05:36 PM**

Client ID: Run ID: **MANTECH01_120910A** SeqNo: **2934874** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	U	5.0								
Alkalinity, Carbonate (As CaCO3)	U	5.0								
Alkalinity, Hydroxide (As CaCO3)	U	5.0								
Alkalinity, Total (As CaCO3)	U	5.0								

LCS Sample ID: **WLCSW2-091012-R134677A** Units: **mg/L** Analysis Date: **9/10/2012 05:42 PM**

Client ID: Run ID: **MANTECH01_120910A** SeqNo: **2934875** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Total (As CaCO3)	993.1	5.0	1000		0	99.3	80-120	0		

DUP Sample ID: **12081363-17CDUP** Units: **mg/L** Analysis Date: **9/10/2012 05:52 PM**

Client ID: **MW-10 082812** Run ID: **MANTECH01_120910A** SeqNo: **2934877** Prep Date: DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Alkalinity, Bicarbonate (As CaCO3)	127.5	5.0	0	0	0	0-0	127.1	0.283	0	
Alkalinity, Carbonate (As CaCO3)	U	5.0	0	0	0	0-0	0	0	0	
Alkalinity, Hydroxide (As CaCO3)	U	5.0	0	0	0	0-0	0	0	0	
Alkalinity, Total (As CaCO3)	127.5	5.0	0	0	0	0-0	127.1	0.283	20	

The following samples were analyzed in this batch:

12081363-17C	12081363-18C	12081363-19C
12081363-20C	12081363-21C	12081363-22C
12081363-23C		

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134784** Instrument ID **ICS2100** Method: **E300** (Dissolve)

MBLK	Sample ID: WBLKW1-R134784				Units: mg/L		Analysis Date: 9/11/2012 06:07 PM			
Client ID:	Run ID: ICS2100_120911A				SeqNo: 2937305		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	U	0.10								
<i>Surr: Selenate (surr)</i>	4.707	0.10	5	0	94.1	85-115	0			

LCS	Sample ID: WLCSW1-R134784				Units: mg/L		Analysis Date: 9/11/2012 05:53 PM			
Client ID:	Run ID: ICS2100_120911A				SeqNo: 2937303		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	4.028	0.10	4	0	101	90-110	0			
<i>Surr: Selenate (surr)</i>	4.615	0.10	5	0	92.3	85-115	0			

MS	Sample ID: 12081363-01AMS				Units: mg/L		Analysis Date: 9/11/2012 06:36 PM			
Client ID: MW-12 082812	Run ID: ICS2100_120911A				SeqNo: 2937309		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	22.1	1.0	20	2.516	97.9	80-120	0			
<i>Surr: Selenate (surr)</i>	45.2	1.0	50	0	90.4	85-115	0			

MSD	Sample ID: 12081363-01AMSD				Units: mg/L		Analysis Date: 9/11/2012 06:51 PM			
Client ID: MW-12 082812	Run ID: ICS2100_120911A				SeqNo: 2937312		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	21.56	1.0	20	2.516	95.2	80-120	22.1	2.43	20	
<i>Surr: Selenate (surr)</i>	43.97	1.0	50	0	87.9	85-115	45.2	2.76	20	

The following samples were analyzed in this batch:

12081363-01A	12081363-02A	12081363-03A
12081363-04A	12081363-05A	12081363-06A
12081363-07A	12081363-08A	12081363-09A
12081363-10A	12081363-11A	12081363-12A
12081363-13A	12081363-14A	12081363-15A
12081363-16A		

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

Client: Conestoga-Rovers & Associates
Work Order: 12081363
Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134803** Instrument ID **ICS3000** Method: **E300** **(Dissolve)**

MBLK	Sample ID: WBLKW1-R134803				Units: mg/L		Analysis Date: 9/11/2012 11:57 PM			
Client ID:	Run ID: ICS3000_120911A				SeqNo: 2937873		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.10								
Sulfate	U	0.50								
Surr: Selenate (surr)	4.947	0.10	5	0	98.9	85-115	0			

LCS	Sample ID: WLCSW1-R134803				Units: mg/L		Analysis Date: 9/12/2012 12:18 AM			
Client ID:	Run ID: ICS3000_120911A				SeqNo: 2937874		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.866	0.10	4	0	96.6	90-110	0			
Sulfate	18.39	0.50	20	0	91.9	90-110	0			
Surr: Selenate (surr)	4.811	0.10	5	0	96.2	85-115	0			

MS	Sample ID: 12081363-16CMS				Units: mg/L		Analysis Date: 9/12/2012 09:10 AM			
Client ID: MW-22 082812	Run ID: ICS3000_120911A				SeqNo: 2937908		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.355	0.10	2	0.791	78.2	80-120	0			S
Sulfate	284.5	0.50	10	278	65.3	80-120	0			SEO
Surr: Selenate (surr)	4.662	0.10	5	0	93.2	85-115	0			

MSD	Sample ID: 12081363-16CMSD				Units: mg/L		Analysis Date: 9/12/2012 09:31 AM			
Client ID: MW-22 082812	Run ID: ICS3000_120911A				SeqNo: 2937911		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	2.349	0.10	2	0.791	77.9	80-120	2.355	0.255	20	S
Sulfate	283.5	0.50	10	278	55.1	80-120	284.5	0.359	20	SEO
Surr: Selenate (surr)	4.649	0.10	5	0	93	85-115	4.662	0.279	20	

The following samples were analyzed in this batch:

12081363-01C	12081363-02C	12081363-03C
12081363-04C	12081363-05C	12081363-06C
12081363-07C	12081363-08C	12081363-09C
12081363-10C	12081363-11C	12081363-12C
12081363-13C	12081363-14C	12081363-15C
12081363-16C		

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

Client: Conestoga-Rovers & Associates

Work Order: 12081363

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134871** Instrument ID **ICS3K2** Method: **E300** **(Dissolve)**

MBLK	Sample ID: WBLKW2-R134871				Units: mg/L		Analysis Date: 9/12/2012 10:35 AM			
Client ID:	Run ID: ICS3K2_120912B				SeqNo: 2939475		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	U	0.10								
<i>Surr: Selenate (surr)</i>	4.963	0.10	5	0	99.3	85-115	0			

LCS	Sample ID: WLCSW2-R134871				Units: mg/L		Analysis Date: 9/12/2012 10:56 AM			
Client ID:	Run ID: ICS3K2_120912B				SeqNo: 2939476		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	3.855	0.10	4	0	96.4	90-110	0			
<i>Surr: Selenate (surr)</i>	4.845	0.10	5	0	96.9	85-115	0			

MS	Sample ID: 12081363-23CMS				Units: mg/L		Analysis Date: 9/12/2012 02:29 PM			
Client ID: MW-4 082812	Run ID: ICS3K2_120912B				SeqNo: 2939488		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	1.935	0.10	2	0.538	69.8	80-120	0			S
<i>Surr: Selenate (surr)</i>	4.701	0.10	5	0	94	85-115	0			

MSD	Sample ID: 12081363-23CMSD				Units: mg/L		Analysis Date: 9/12/2012 02:50 PM			
Client ID: MW-4 082812	Run ID: ICS3K2_120912B				SeqNo: 2939489		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Fluoride	1.953	0.10	2	0.538	70.8	80-120	1.935	0.926	20	S
<i>Surr: Selenate (surr)</i>	4.726	0.10	5	0	94.5	85-115	4.701	0.53	20	

The following samples were analyzed in this batch:

12081363-17C	12081363-18C	12081363-19C
12081363-20C	12081363-21C	12081363-22C
12081363-23C		

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

Client: Conestoga-Rovers & Associates

Work Order: 12081363

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134875** Instrument ID **ICS3000** Method: **E300** **(Dissolve)**

MBLK	Sample ID: WBLKW1-R134875			Units: mg/L			Analysis Date: 9/13/2012 12:51 AM			
Client ID:	Run ID: ICS3000_120913A			SeqNo: 2939527			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.50								
Sulfate	U	0.50								
Surr: Selenate (surr)	4.937	0.10	5	0	98.7	85-115	0			

LCS	Sample ID: WLCSW1-R134875			Units: mg/L			Analysis Date: 9/13/2012 01:13 AM			
Client ID:	Run ID: ICS3000_120913A			SeqNo: 2939528			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.19	0.50	20	0	95.9	90-110	0			
Sulfate	18.35	0.50	20	0	91.7	90-110	0			
Surr: Selenate (surr)	4.801	0.10	5	0	96	85-115	0			

MS	Sample ID: 1209350-01FMS			Units: mg/L			Analysis Date: 9/13/2012 01:55 AM			
Client ID:	Run ID: ICS3000_120913A			SeqNo: 2939530			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	350.3	0.50	10	347.4	29.2	80-120	0			SEO
Sulfate	627.5	0.50	10	630.6	-30.6	80-120	0			SEO
Surr: Selenate (surr)	4.547	0.10	5	0	90.9	85-115	0			

MSD	Sample ID: 1209350-01FMSD			Units: mg/L			Analysis Date: 9/13/2012 02:16 AM			
Client ID:	Run ID: ICS3000_120913A			SeqNo: 2939531			Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	352.5	0.50	10	347.4	51.2	80-120	350.3	0.627	20	SEO
Sulfate	631.8	0.50	10	630.6	11.7	80-120	627.5	0.671	20	SEO
Surr: Selenate (surr)	4.575	0.10	5	0	91.5	85-115	4.547	0.614	20	

The following samples were analyzed in this batch:

12081363-01C	12081363-02C	12081363-03C
12081363-04C	12081363-05C	12081363-06C
12081363-07C	12081363-08C	12081363-09C
12081363-10C	12081363-11C	12081363-12C
12081363-13C	12081363-14C	12081363-15C

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

Client: Conestoga-Rovers & Associates

Work Order: 12081363

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134918** Instrument ID **ICS3000** Method: **E300** (Dissolve)

MBLK	Sample ID: WBLKW2-R134918		Units: mg/L		Analysis Date: 9/13/2012 10:35 AM					
Client ID:	Run ID: ICS3000_120913B		SeqNo: 2939964		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	U	0.50								
Sulfate	U	0.50								
Surr: Selenate (surr)	4.947	0.10	5	0	98.9	85-115	0			

LCS	Sample ID: WLCSW2-R134918		Units: mg/L		Analysis Date: 9/13/2012 10:56 AM					
Client ID:	Run ID: ICS3000_120913B		SeqNo: 2939965		Prep Date:		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	19.25	0.50	20	0	96.3	90-110	0			
Sulfate	18.43	0.50	20	0	92.1	90-110	0			
Surr: Selenate (surr)	4.803	0.10	5	0	96.1	85-115	0			

MS	Sample ID: 12081363-23CMS		Units: mg/L		Analysis Date: 9/13/2012 03:01 PM					
Client ID: MW-4 082812	Run ID: ICS3000_120913B		SeqNo: 2939977		Prep Date:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4313	25	500	3862	90	80-120	3896	0	0	O
Sulfate	800.1	25	500	314.6	97.1	80-120	337	0	0	
Surr: Selenate (surr)	243.2	5.0	250	0	97.3	85-115	4.701	0		

MSD	Sample ID: 12081363-23CMSD		Units: mg/L		Analysis Date: 9/13/2012 03:23 PM					
Client ID: MW-4 082812	Run ID: ICS3000_120913B		SeqNo: 2939978		Prep Date:		DF: 50			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chloride	4291	25	500	3862	85.8	80-120	4313	0.497	20	O
Sulfate	796.4	25	500	314.6	96.3	80-120	800.1	0.466	20	
Surr: Selenate (surr)	242.2	5.0	250	0	96.9	85-115	243.2	0.424	20	

The following samples were analyzed in this batch:

12081363-16C	12081363-17C	12081363-18C
12081363-19C	12081363-20C	12081363-21C
12081363-22C	12081363-23C	

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

Client: Conestoga-Rovers & Associates

Work Order: 12081363

Project: 039124 G.L. Erwin

QC BATCH REPORT

Batch ID: **R134919** Instrument ID **ICS2100** Method: **E300** (Dissolve)

MBLK	Sample ID: WBLKW2-R134919				Units: mg/L		Analysis Date: 9/11/2012 11:56 PM			
Client ID:	Run ID: ICS2100_120912B				SeqNo: 2940064		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	U	0.10								
Surr: Selenate (surr)	4.894	0.10	5	0	97.9	85-115	0			

LCS	Sample ID: WLCSW2-R134919				Units: mg/L		Analysis Date: 9/11/2012 11:42 PM			
Client ID:	Run ID: ICS2100_120912B				SeqNo: 2940063		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	4.594	0.10	4	0	115	90-110	0			S
Surr: Selenate (surr)	4.639	0.10	5	0	92.8	85-115	0			

MSD	Sample ID: 12081363-23AMS				Units: mg/L		Analysis Date: 9/12/2012 02:22 AM			
Client ID: MW-4 082812	Run ID: ICS2100_120912B				SeqNo: 2940074		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	24.5	1.0	20	3.061	107	80-120	0			
Surr: Selenate (surr)	46.74	1.0	50	0	93.5	85-115	0			

MSD	Sample ID: 12081363-23AMSD				Units: mg/L		Analysis Date: 9/12/2012 02:36 AM			
Client ID: MW-4 082812	Run ID: ICS2100_120912B				SeqNo: 2940075		Prep Date:		DF: 10	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Nitrogen, Nitrate (As N)	25.5	1.0	20	3.061	112	80-120	24.5	4	20	
Surr: Selenate (surr)	48.55	1.0	50	0	97.1	85-115	46.74	3.81	20	

The following samples were analyzed in this batch:

12081363-17A	12081363-18A	12081363-19A
12081363-20A	12081363-21A	12081363-22A
12081363-23A		

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

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: 12081363

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	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

<u>Acronym</u>	<u>Description</u>
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 Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<u>Units Reported</u>	<u>Description</u>
mg/L	Milligrams per Liter

Sample Receipt Checklist

Client Name: **CRA-MID**

Date/Time Received: **31-Aug-12 07:15**

Work Order: **12081363**

Received by: **JBA**

Checklist completed by *Parash M. Ciga*
eSignature

31-Aug-12
Date

Reviewed by:

eSignature

Date

Matrices: **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):	<u>2.3c,1.8c,2.5c C/U</u>		<u>004</u>
Cooler(s)/Kit(s):	<u>3893,2780,7100</u>		
Date/Time sample(s) sent to storage:	<u>8/31/12 17:10</u>		
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:	<u>-</u>		
Login Notes:			

Client Contacted:

Date Contacted:

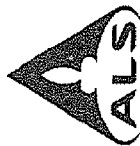
Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction:



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Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

Page 1 of 3
COC ID: **64826**

12081363

CRA-MID: Conestoga-Rovers & Associates

Project: 039124 G.L. Erwin

Station, WV
1168

1280

Environmental

ALS Project Manager:

Customer Information				Project Information													
Purchase Order	Project Name	G.L. Erwin	A														
Work Order	Project Number	039124	B														
Company Name	Bill To Company	Conestoga-Rovers & Associates	C														
Send Report To	Invoice Attn	Todd Wells	D														
Address	Address	2135 S Loop 250 West	E														
City/State/Zip	City/State/Zip	Midland, TX 79703	F														
Phone	Phone	(432) 686-0086	G														
Fax	Fax	(432) 686-0186	H														
e-Mail Address	e-Mail Address		I														
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-12 082812	8-28-12	1540	W	2,3	3	X	X	X	X	X						
2	MW-17 082812	8-28-12	1530	W	2,3	3	X	X	X	X	X						
3	MW-16 082812	8-28-12	1550	W	2,3	3	X	X	X	X	X						
4	MW-8 082812	8-28-12	1615	W	2,3	3	X	X	X	X	X						
5	MW-25 082812	8-28-12	1855	W	2,3	3	X	X	X	X	X						
6	MW-13 082812	8-28-12	1930	W	2,3	3	X	X	X	X	X						
7	MW-19 082812	8-28-12	1845	W	2,3	3	X	X	X	X	X						
8	MW-14 082812	8-28-12	1315	W	2,3	3	X	X	X	X	X						
9	MW-9 082812	8-28-12	1645	W	2,3	3	X	X	X	X	X						
10	MW-7 082812	8-28-12	2015	W	2,3	3	X	X	X	X	X						

Sample(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Date	Signature	Date	Signature	5 WK Days	10 Day TAT Diss Metals to be field filtered	24 Hour	
8/29/12	[Signature]	8/29/12	[Signature]	☒	☐	☐	

Reinforced by (Laboratory):		Reinforced by (Laboratory):		Reinforced by (Laboratory):	
Date	Signature	Date	Signature	Date	Signature
8/29/12	[Signature]	8/29/12	[Signature]	8/29/12	[Signature]

Preservative Key:		QC Package: (Check One Box Below)	
1-HCl	2-HNO ₃	Level II Std QC	Level III Std QC/Raw Data
3-H ₂ SO ₄	4-NaOH	☒	☐
5-Na ₂ S ₂ O ₃	6-NaHSO ₄	Level IV SW846/CLP	Other / EDD

ote: 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.



Cincinnati, OH
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Everett, WA
+1 425 356 2600

Fort Collins, CO
+1 970 490 1511
Holland, MI
+1 616 399 6070

Chain of Custody Form

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Middletown, PA
+1 717 944 5541

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Salt Lake City, UT
+1 801 266 7700

South Charleston, WV
+1 304 356 3168
York, PA
+1 717 505 5280

Page 2 of 3

COC ID: 64825

Environmental

Customer Information				Project Information				ALS Project Manager: <u>ALS Work Order #: 12581363</u>											
Purchase Order	Project Name	G.L. Erwin	Parameter/Method Request for Analysis																
Work Order	Project Number	039124	Dissolved Metals (6020/7000) Ca, Mg, Na, K																
Company Name	Bill To Company	Conestoga-Rovers & Associates	Anions (300) Cl, SO4, F																
Send Report To	Invoice Attn	Todd Wells	Alkalinity																
Address	Address	2135 S Loop 250 West	TDS																
City/State/Zip	City/State/Zip	Midland, TX 79703	Nitrate (300)																
Phone	Phone	(432) 686-0086																	
Fax	Fax	(432) 686-0186																	
e-Mail Address	e-Mail Address																		
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold		
1	MW-2082912	8-29-12	8:15	W	2,3	3	X	X	X	X	X								
2	MW-1082912	8-29-12	8:35	W	2,3	3	X	X	X	X	X								
3	MW-6082912	8-29-12	9:30	W	2,3	3	X	X	X	X	X								
4	MW-3082912	8-29-12	9:50	W	2,3	3	X	X	X	X	X								
5	MW-5082912	8-29-12	9:10	W	2,3	3	X	X	X	X	X								
6	MW-22082912	8-29-12	11:00	W	2,3	3	X	X	X	X	X								
7	MW-10082912	8-29-12	10:40	W	2,3	3	X	X	X	X	X								
8	MW-11082912	8-29-12	7:30	W	2,3	3	X	X	X	X	X								
9	MW-1082912	8-29-12	10:15	W	2,3	3	X	X	X	X	X								
10	MW-26082912	8-29-12	11:15	W	2,3	3	X	X	X	X	X								

Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Date	Time	5 WK Days	10 WK Days	24 Hour	Other
8-29-12	1800	☒	☐	☐	☐

Relinquished by: Chen Quinex Date: 8/29/12 Time: 1800

Relinquished by: Todd Wells Date: 8/29/12 Time: 1800

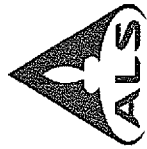
Logged by (Laboratory): Todd Wells Date: 8/29/12 Time: 1800

Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035

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

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

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+1 304 356 3168
York, PA
+1 717 505 5280

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COC ID: 64828

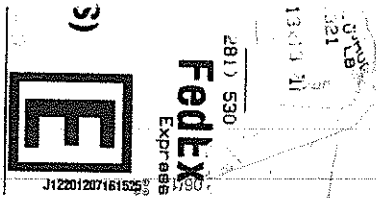
Customer Information				Project Information				ALS Project Manager: ALS Work Order #: 12081363															
Purchase Order				Project Name				G.L. Envin				Parameter/Method Request for Analysis											
Work Order				Project Number				039124				Dissolved Metals (6020/7000) Ca, Mg, Na, K											
Company Name				Bill To Company				Conestoga-Rovers & Associates				Anions (300) Cl, SO4, F											
Send Report To				Invoice Attn				Todd Wells				Alkalinity											
Address				2135 S Loop 250 West				2135 S Loop 250 West				TDS											
City/State/Zip				Midland, TX 79703				Midland, TX 79703				Nitrate (300)											
Phone				(412) 686-0086				(432) 686-0086				Temp											
Fax				(412) 686-0186				(432) 686-0186															
e-Mail Address				e-Mail Address																			
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold						
1	AW-MW 082912	8-29-12	1140	W	2.3	3	X	X	X	X	X	X											
2	SW-MW 082912	8-29-12	1235	W	2.3	3	X	X	X	X	X	X											
3	MW-4 082912	8-29-12	1200	W	2.3	3	X	X	X	X	X	X											
4	Temp. Blank	—	—	W		3							X										
5																							
6																							
7																							
8																							
9																							
10																							

Sampler(s) Please Print & Sign		Shipment Method		Required Turnaround Time: (Check Box)		Results Due Date:	
Clean Energy, Inc. (Camp)		Received by: [Signature]		5 WK Days		10 Day TAT. Diss Metals to be field filtered.	
Relinquished by: [Signature]		Date: 8/30/12		Time: 1800		Cooler ID	
Relinquished by: [Signature]		Date: 8/30/12		Time: 1800		Cooler Temp.	
Logged by (Laboratory):		Date:		Time:		Cooler ID	
Preservative Key: 1-HCl 2-HNO3 3-H2SO4 4-NaOH 5-Na2S2O3 6-NaHSO4 7-Other 8-4°C 9-5035		Date:		Time:		Cooler ID	

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

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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Company CRA
Address 2135 S. Loop 250 W. Dept./Floor/Suite/Room
Midland State TX ZIP 79703
or Internal Billing Reference 039124

 **ALS Environmental**
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887 **388B**

CUSTODY SEAL
Date: 8/30/12 Time: 1800
Name: Todd Wells
Company: CRA
JWA 8/31/12

 **ALS Environmental**
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 5887 **2780**

CUSTODY SEAL
Date: 8/30/12 Time: 1800
Name: Todd Wells
Company: CRA
JWA 8/31/12

7100
EXPRESS

CUSTODY SEAL
Date: 8/30/12 Time: 1800
Name: Todd Wells
Company: CRA
JWA 8/31/12

APPENDIX B



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) MW-25				OSE FILE NUMBER(S)			
	WELL OWNER NAME(S) Chevron Environmental Management Co.				PHONE (OPTIONAL) 713-372-9207			
	WELL OWNER MAILING ADDRESS 1400 Smith St., Room 07076				CITY Houston		STATE TX	ZIP 77002
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 10	SECONDS 0.90 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84			
		LONGITUDE 103		7		53.70 W		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS GL Erwin "A & B" Federal NCT-2 Tank Battery								
2. OPTIONAL	(2.5 ACRE) 1/4	(10 ACRE) 1/4	(40 ACRE) 1/4	(160 ACRE) 1/4	SECTION 35	TOWNSHIP 24	☐ NORTH ☒ SOUTH	RANGE 37 ☒ EAST ☐ WEST
	SUBDIVISION NAME				LOT NUMBER	BLOCK NUMBER	UNIT/TRACT	
	HYDROGRAPHIC SURVEY				MAP NUMBER		TRACT NUMBER	
3. DRILLING INFORMATION	LICENSE NUMBER WD-1456		NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.		
	DRILLING STARTED 4/03/12		DRILLING ENDED 4/03/12		DEPTH OF COMPLETED WELL (FT) 95.0	BORE HOLE DEPTH (FT) 97.0		DEPTH WATER FIRST ENCOUNTERED (FT) 75.0
	COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☒ SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) 78.11		
	DRILLING FLUID: ☒ AIR ☐ MUD ☐ ADDITIVES - SPECIFY:							
	DRILLING METHOD: ☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER - SPECIFY:							
	DEPTH (FT)		BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
	FROM	TO						
	0.0 65.0		6	Sch. 40 PVC	Threads	2.0	1/4"	
	65.0 95.0		6	Sch. 40 PVC	Threads	2.0	1/4"	.020
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)				YIELD (GPM)
	FROM	TO						
	64.5	82.0	17.5	Brown sand w/small gravel.				
	82.0	84.0	2.0	Blue gray & light tan clayey sand.				
	84.0	92.0	8.0	Reddish brown sand.				
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA						TOTAL ESTIMATED WELL YIELD (GPM)		

FOR OSE INTERNAL USE

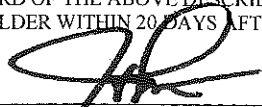
WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION	PAGE 1 OF 2	

5. SEAL AND PUMP	TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED ☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		97.0	63.0	6	8/16 Sand.	13 sacks	Hand Mix
		63.0	15.0	6	Bentonite Pellets	23 sacks	Hand Mix
	15.0	0.0	6	Cement	2.9955	Hand Mix	

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO				
	0.0	1.0	1.0	Brown sand.	☐ YES ☒ NO	
	1.0	14.0	13.0	Caliche.	☐ YES ☒ NO	
	14.0	20.0	6.0	Brown sand/sandstone.	☐ YES ☒ NO	
	20.0	54.5	34.5	Loose brown sand.	☐ YES ☒ NO	
	54.5	64.5	10.0	Brown limestone hard.	☐ YES ☒ NO	
	64.5	82.0	17.5	Brown sand w/small gravel. damp @ 75'	☒ YES ☐ NO	
	82.0	84.0	2.0	Blue gray & light tan clayey sand.	☒ YES ☐ NO	
	84.0	92.0	8.0	Reddish brown sand.	☒ YES ☐ NO	
	92.0	97.0	5.0	Reddish brown shale.	☐ YES ☒ NO	
					☐ YES ☐ NO	
					☐ YES ☐ NO	
					☐ YES ☐ NO	
	ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL					

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: ☐ BAULER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:	
		TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.	
	ADDITIONAL STATEMENTS OR EXPLANATIONS:		

8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 _____ SIGNATURE OF DRILLER	5/10/2012 _____ DATE



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) MW-26				OSE FILE NUMBER(S)			
	WELL OWNER NAME(S) Chevron Environmental Management Co.				PHONE (OPTIONAL) 713-372-9207			
	WELL OWNER MAILING ADDRESS 1400 Smith St., Room 07076				CITY Houston		STATE TX	ZIP 77002
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE 32	MINUTES 10	SECONDS 19.00 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84			
		LONGITUDE 103		7		57.00 W		
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS GL Erwin "A & B" Federal NCT-2 Tank Battery								
2. OPTIONAL	(2.5 ACRE) 1/4	(10 ACRE) 1/4	(40 ACRE) 1/4	(160 ACRE) 1/4	SECTION 35	TOWNSHIP 24	☐ NORTH ☒ SOUTH	RANGE 37 ☒ EAST ☐ WEST
	SUBDIVISION NAME				LOT NUMBER	BLOCK NUMBER	UNIT/TRACT	
	HYDROGRAPHIC SURVEY				MAP NUMBER		TRACT NUMBER	
3. DRILLING INFORMATION	LICENSE NUMBER WD-1456		NAME OF LICENSED DRILLER John W. White			NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.		
	DRILLING STARTED 4/02/12		DRILLING ENDED 4/03/12		DEPTH OF COMPLETED WELL (FT) 75.0	BORE HOLE DEPTH (FT) 80.0		DEPTH WATER FIRST ENCOUNTERED (FT) 64.0
	COMPLETED WELL IS: ☐ ARTESIAN ☐ DRY HOLE ☒ SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) 63.55		
	DRILLING FLUID: ☒ AIR ☐ MUD ☐ ADDITIVES - SPECIFY:							
	DRILLING METHOD: ☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER - SPECIFY:							
	DEPTH (FT)		BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
	FROM	TO						
	0.0 55.0		6	Sch. 40 PVC	Threads	2.0	1/4"	
	55.0 75.0		6	Sch. 40 PVC	Threads	2.0	1/4"	.020
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)				YIELD (GPM)
	FROM	TO						
	64.0	72.0	8.0	Brown sand.				
	72.0	75.0	3.0	Blue gray & light tan silty clayey sand.				
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA						TOTAL ESTIMATED WELL YIELD (GPM)		

FOR OSE INTERNAL USE

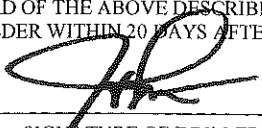
WELL RECORD & LOG (Version 6/9/08)

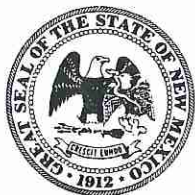
FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION	PAGE 1 OF 2	

5. SEAL AND PUMP	TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED ☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		80.0	50.0				
		50.0	10.0				
	10.0	0.0	6	Cement	1.997	Hand Mix	

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO				
	0.0	1.0	1.0	Caliche.	☐ YES ☒ NO	
	1.0	4.0	3.0	Tan limestone.	☐ YES ☒ NO	
	4.0	15.0	11.0	Tan sand w/limestone gravel "caliche".	☐ YES ☒ NO	
	15.0	19.0	4.0	Light brown sand w/small gravel.	☐ YES ☒ NO	
	19.0	46.0	27.0	Light brown sand.	☐ YES ☒ NO	
	46.0	50.0	4.0	Brown sandstone hard.	☐ YES ☒ NO	
	50.0	52.0	2.0	Brown sand.	☐ YES ☒ NO	
	52.0	54.5	2.5	Brown sandstone hard.	☐ YES ☒ NO	
	54.5	72.0	17.5	Brown sand.	☒ YES ☐ NO	
	72.0	75.0	3.0	Blue gray & light tan silty clayey sand.	☒ YES ☐ NO	
	75.0	80.0	5.0	Reddish shale.	☐ YES ☒ NO	
					☐ YES ☐ NO	
	ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL					

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:				
		TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.				
	ADDITIONAL STATEMENTS OR EXPLANATIONS:					

8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 _____ SIGNATURE OF DRILLER	5/10/2012 _____ DATE



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

RECEIVED

MAY 19 2012

Midland

1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) MW-27				OSE FILE NUMBER(S)													
	WELL OWNER NAME(S) Chevron Environmental Management Co.				PHONE (OPTIONAL) 713-372-9207													
	WELL OWNER MAILING ADDRESS 1400 Smith St., Room 07076				CITY Houston		STATE TX		ZIP 77002									
	WELL LOCATION (FROM GPS)		DEGREES LATITUDE 32		MINUTES 10		SECONDS 4.80 N		* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84									
		LONGITUDE 103		7		32.00 W												
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS GL Erwin "A & B" Federal NCT-2 Tank Battery																		
2. OPTIONAL	(2.5 ACRE) 1/4		(10 ACRE) 1/4		(40 ACRE) 1/4		(160 ACRE) 1/4		SECTION 35		TOWNSHIP 24		☐ NORTH ☒ SOUTH		RANGE 37		☒ EAST ☐ WEST	
	SUBDIVISION NAME								LOT NUMBER		BLOCK NUMBER		UNIT/TRACT					
	HYDROGRAPHIC SURVEY										MAP NUMBER		TRACT NUMBER					
3. DRILLING INFORMATION	LICENSE NUMBER WD-1456				NAME OF LICENSED DRILLER John W. White				NAME OF WELL DRILLING COMPANY White Drilling Company, Inc.									
	DRILLING STARTED 4/03/12		DRILLING ENDED 4/03/12		DEPTH OF COMPLETED WELL (FT) 45.0		BORE HOLE DEPTH (FT) 100.0		DEPTH WATER FIRST ENCOUNTERED (FT) Dry									
	COMPLETED WELL IS: ☐ ARTESIAN ☒ DRY HOLE ☐ SHALLOW (UNCONFINED)								STATIC WATER LEVEL IN COMPLETED WELL (FT) Dry									
	DRILLING FLUID: ☒ AIR ☐ MUD ☐ ADDITIVES - SPECIFY:																	
	DRILLING METHOD: ☒ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER - SPECIFY:																	
	DEPTH (FT)		BORE HOLE DIA. (IN)		CASING MATERIAL		CONNECTION TYPE (CASING)		INSIDE DIA. CASING (IN)		CASING WALL THICKNESS (IN)		SLOT SIZE (IN)					
	FROM TO																	
	0.0 25.0		6		Sch. 40 PVC		Threads		2.0		1/4"							
	25.0 45.0		6		Sch. 40 PVC		Threads		2.0		1/4"		.020					
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)		FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)							YIELD (GPM)						
	FROM TO																	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA										TOTAL ESTIMATED WELL YIELD (GPM)								

FOR OSE INTERNAL USE

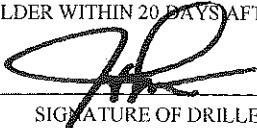
WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER		POD NUMBER		TRN NUMBER	
LOCATION				PAGE 1 OF 2	

5. SEAL AND PUMP	TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED ☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		46.0	24.0				
		24.0	10.0				
	10.0	0.0	6	Cement	1.997	Hand Mix	

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
	FROM	TO			
	0.0	4.0	4.0	Caliche & limestone.	☐ YES ☒ NO
	4.0	18.0	14.0	Caliche.	☐ YES ☒ NO
	18.0	32.0	14.0	Light brown & pinkish sand.	☐ YES ☒ NO
	32.0	33.0	1.0	Pinkish brown limestone.	☐ YES ☒ NO
	33.0	35.0	2.0	Light brown sand.	☐ YES ☒ NO
	35.0	40.0	5.0	Brownish sandy shale.	☐ YES ☒ NO
	40.0	52.0	12.0	Molded reddish blue gray & yellowish silty shale.	☐ YES ☒ NO
	52.0	100.0	48.0	Reddish shale.	☐ YES ☒ NO
					☐ YES ☐ NO
					☐ YES ☐ NO
					☐ YES ☐ NO
					☐ YES ☐ NO
	ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL				

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:	
		TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.	
	ADDITIONAL STATEMENTS OR EXPLANATIONS: Hole plugged back from 100.0 to 46.0 with Bentonite Pellets 15 sacks.		

8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 _____ SIGNATURE OF DRILLER	5/10/2012 _____ DATE

APPENDIX C

SOIL BORING LOG

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

No. MW-25

File No.: 039124

Date: 4/03/12

Drilling Co.: WHITE DRILLING

Supervisor: JARRELL WHITE

Type Rig: AIR ROTARY

Logged by: KEN HORTON

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

LABORATORY TEST DATA					FIELD DATA				BORING DATA	
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)						
										Start Time: 9:30 Finish Time: 11:49
										Brown sand
							5			
							10			
							15			Caliche - white to light pink
							20			Brown sand/sandstone
							25			
							30			
							35			
							40			



Split Spoon Sampler

Cuttings

No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted



Level after ____ min



Analyzed Sample

SOIL BORING LOG

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

No. MW-25
CONT'D

File No.: 039124
Date: 4/03/12
Drilling Co.: WHITE DRILLING
Supervisor: JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON

LABORATORY TEST DATA					FIELD DATA				BORING DATA	
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: Finish Time:
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)						
							45			
							50			
							55			Loose brown sand
							60			
							65			Brown limestone hard
							70			
							75			
							80			



Split Spoon Sampler

Cuttings

No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted

Level after ___ min

Analyzed Sample

SOIL BORING LOG

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

No. MW-25
CONT'D

File No.: 039124
Date: 04/03/12
Drilling Co.: WHITE DRILLING
Supervisor: JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON

LABORATORY TEST DATA					FIELD DATA				BORING DATA	
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)						
										Start Time: Finish Time: 11:49
										Brown sand w/small gravel. Damp at 75 ft.
							85			Blue gray & light tan clayey sand
							90			Reddish brown sand
							95			Reddish brown shale
							100			TD = 97.0'
							105			
							110			
							115			
							120			



Split Spoon Sampler

Cuttings

No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted

Level after ___ min

Analyzed Sample

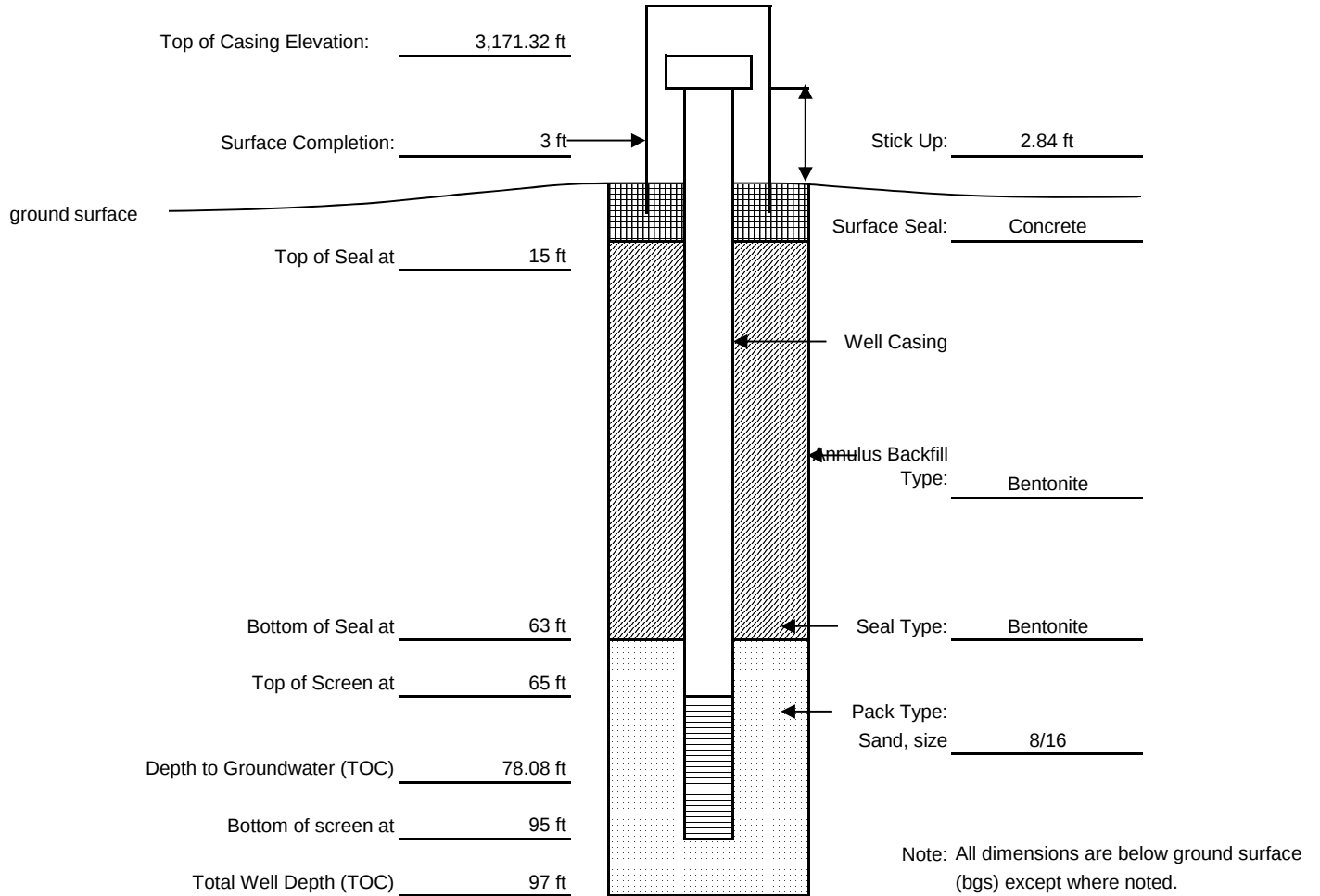
MONITORING WELL CONSTRUCTION DETAIL

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIRONMENTAL
MANAGEMENT COMPANY

No. MW-25
CONT'D

File No.: 039124
Date: 4/3/2012
Drilling Co.: WHITE DRILLING
JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON



Screen Type: ☒ slotted ☐ perforated other: _____

Screen Material: ☐ stainless steel ☒ PVC other: _____

Screen Length: 30' Screen Diameter: 2" Screen Slot Size: 0.020'

Well Casing Material: PVC Well Casing Diameter: 2"

Development - Method: Hand Bailed Hole Diameter: 6"

Duration/Volume: 12+ gal



SOIL BORING LOG

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

No. MW-26

File No.: 039124
Date: 04/02/12-04/03/12
Drilling Co.: WHITE DRILLING
Supervisor: JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON

LABORATORY TEST DATA					FIELD DATA				BORING DATA	
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)						
										Start Time: 13:30
										Finish Time: 16:56
										Caliche: White - Pink
										Tan limestone
							5			
							10			
										Tan sand w/limestone gravel "caliche"
							15			
							20			Light brown sand w/small gravel
							25			
							30			
							35			
							40			



Split Spoon Sampler

Cuttings

No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted

Level after ___ min

Analyzed Sample

SOIL BORING LOG		
Project:	G.L. ERWIN TANK BATTERY A & B LEA COUNTY, NEW MEXICO	File No.: 039124 Date: 04/02/12-04/03/12
	No. MW-26	Drilling Co.: WHITE DRILLING
	CONT'D	Supervisor: JARRELL WHITE
Client:	CHEVRON ENVIROMENTAL MANAGEMENT COMPANY	Type Rig: AIR ROTARY Logged by: KEN HORTON

File No.: 039124
Date: 04/02/12-04/03/12
Drilling Co.: WHITE DRILLING
Supervisor: JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON

Date: 04/02/12-04/03/12

Supervisor: JARRELL WHITE

Type Rig: AIR ROTARY

Logged by: KEN HORTON

LABORATORY TEST DATA					FIELD DATA				BORING DATA	
Results Reported in mg/kg					Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: Finish Time: 16:56
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)						
							45			Light brown sand
							50			Brown sandstone hard
										Brown sand
							55			Brown sandstone hard
							60			
							65			
							70			
										Brown sand
							75			Blue gray & light tan silty clayey sand
							80			Reddish shale TD = 80.00'

No Recovery



Analyzed Sample



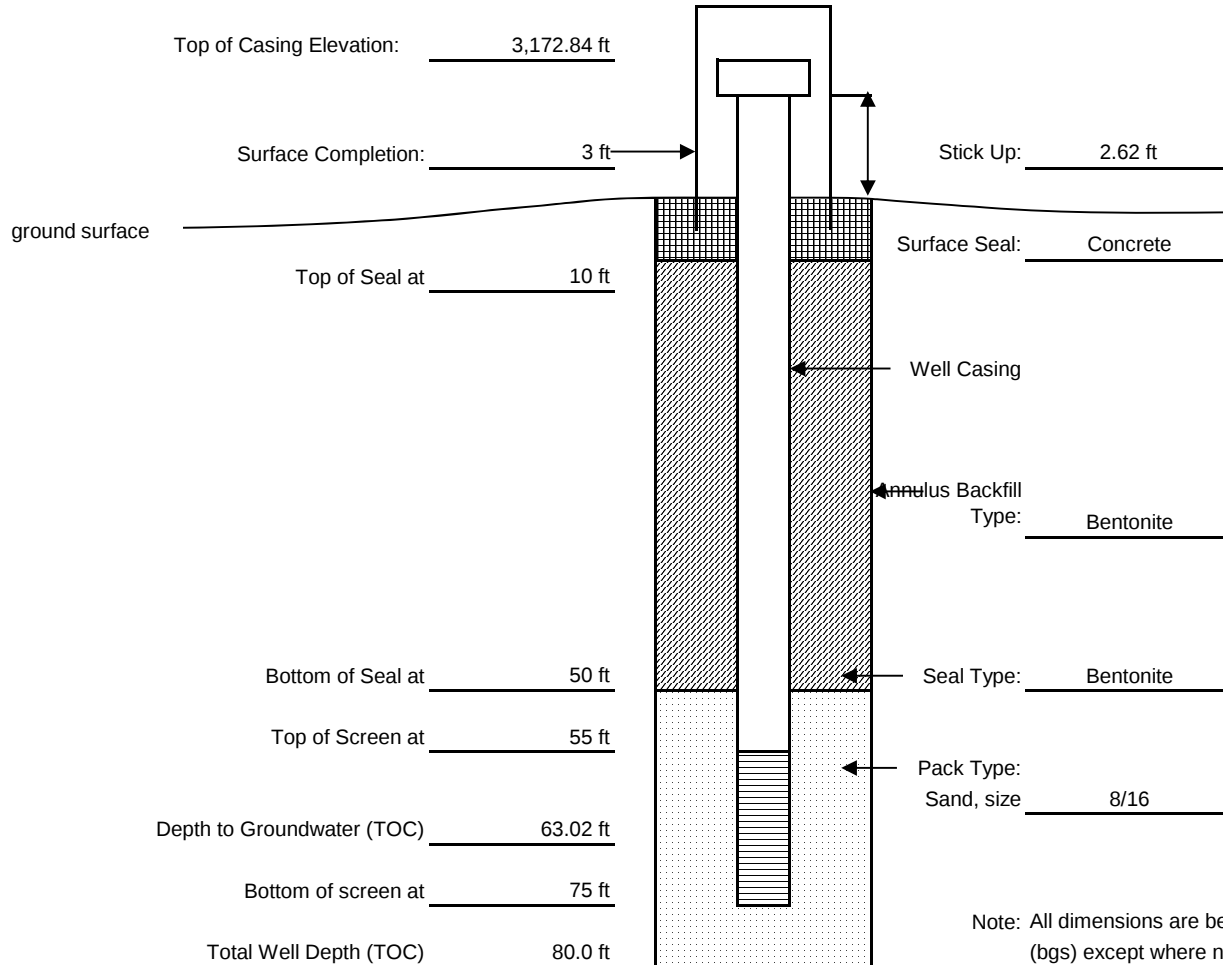
MONITORING WELL CONSTRUCTION DETAIL

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIRONMENTAL
MANAGEMENT COMPANY

No. MW-26
CONT'D

File No.: 039124
Date: 04/02/12-04/03/12
Drilling Co.: WHITE DRILLING
JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON



Screen Type: ☒ slotted ☐ perforated other: _____

Screen Material: ☐ stainless steel ☒ PVC other: _____

Screen Length: 20' Screen Diameter: 2" Screen Slot Size: 0.020'

Well Casing Material: PVC Well Casing Diameter: 2"

Development - Method: Hand Bailed Hole Diameter: 6"

Duration/Volume: 25 gal



SOIL BORING LOG

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

No. MW-27

File No.: 039124

Date: 4/03/12

Drilling Co.: WHITE DRILLING

Supervisor: JARRELL WHITE

Type Rig: AIR ROTARY

Logged by: KEN HORTON

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

LABORATORY TEST DATA					FIELD DATA			BORING DATA	
Results Reported in mg/kg					Photo- ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval
Benzene	Toluene	Ethyl- benzene	Xylenes	Total TPH (C6-C35)					
									Start Time: 12:01 Finish Time: 14:26
									Caliche & limestone
							5		
							10		
							15		
							20		Caliche
							25		
							30		
							35		Light brown & pinkish sand
									Pinkish brown limestone
									Light brown sand
							40		Brownish sandy shale



Split Spoon Sampler



Cuttings



No Recovery

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure



Water First Noted

Level after ____ min



Analyzed Sample

Project:		G.L. ERWIN TANK BATTERY A & B LEA COUNTY, NEW MEXICO	No.	MW-27 CONT'D	File No.: 039124
Client:		CHEVRON ENVIROMENTAL MANAGEMENT COMPANY			Date: 4/03/12
					Drilling Co.: WHITE DRILLING
					Supervisor: JARRELL WHITE
					Type Rig: AIR ROTARY
					Logged by: KEN HORTON

[illegible]

No Recovery



Analyzed Sample

Project:		G.L. ERWIN TANK BATTERY A & B LEA COUNTY, NEW MEXICO	No. MW-27 CONT'D	File No.: 039124
Client:		CHEVRON ENVIROMENTAL MANAGEMENT COMPANY		Date: 04/03/12 Drilling Co.: WHITE DRILLING Supervisor: JARRELL WHITE Type Rig: AIR ROTARY Logged by: KEN HORTON

[illegible]

120

Stratification is Inferred And May Not be Exact.
Soil Classification Based on Visual-Manual Procedure

Water First Noted

Split Spoon Sampler

Cuttings

No Recovery

Level after ____ min

Analyzed Sample



page 3 of 3

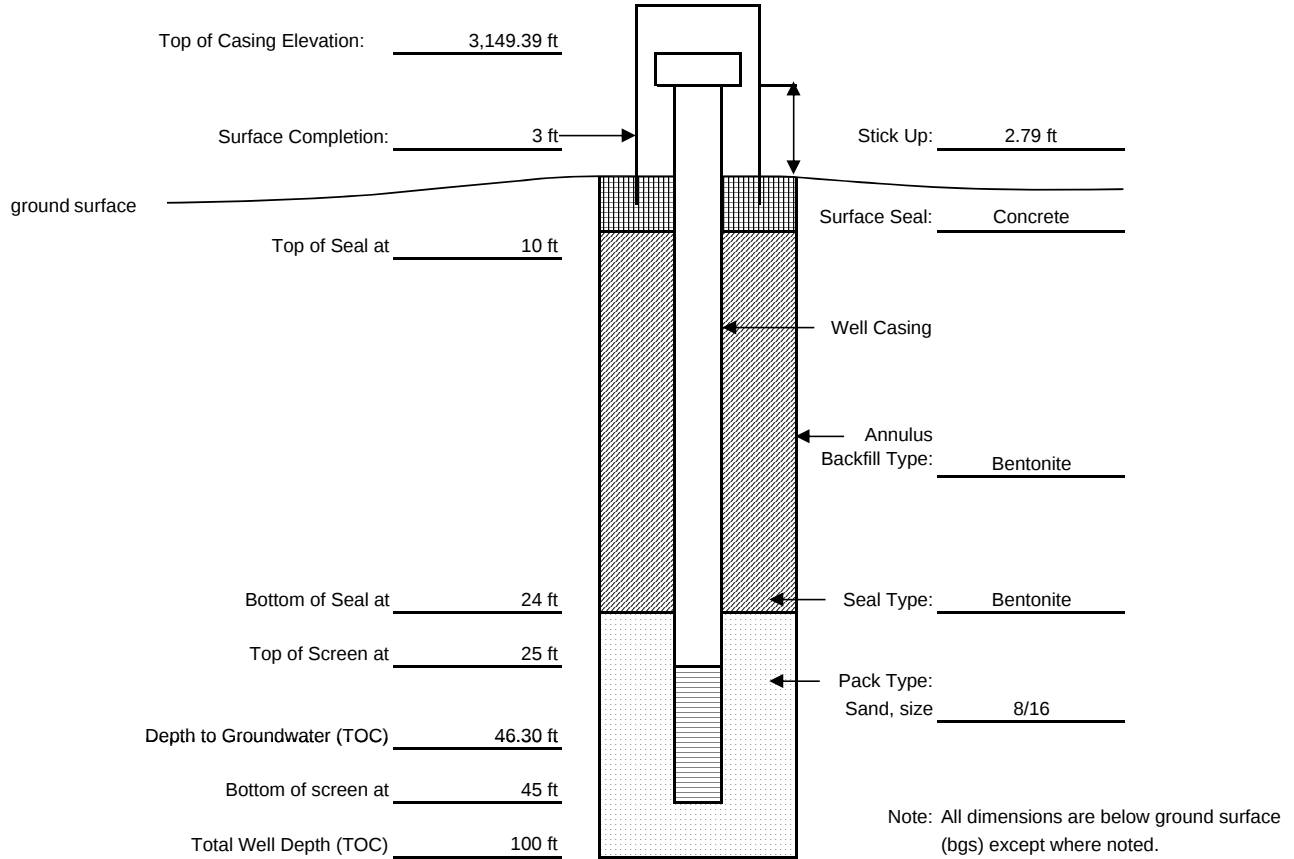
MONITORING WELL CONSTRUCTION DETAIL

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

No. MW-27
CONT'D

File No.: 039124
Date: 4/3/2012
Drilling Co.: WHITE DRILLING
JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON



Screen Type: ☒ slotted ☐ perforated other: _____

Screen Material: stainless steel ☒ PVC other: _____

Screen Length: 20' Screen Diameter: 2" Screen Slot Size: 0.020'

Well Casing Material: PVC Well Casing Diameter: 2"

Development - Method: Dry - upon completion Hole Diameter: 6"

Duration/Volume: _____

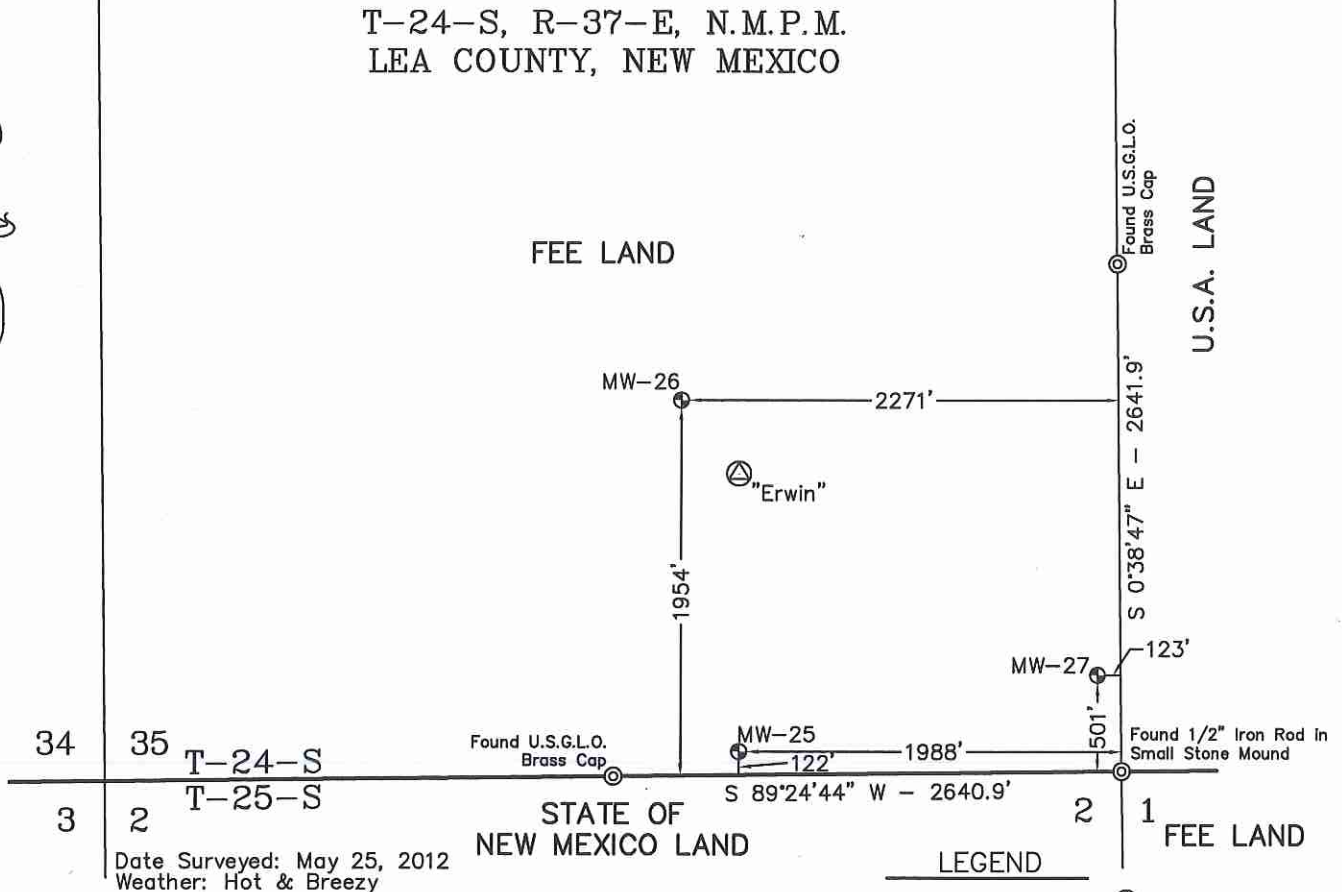


APPENDIX D

27	26	26	25
34	35	35	36

DESCRIPTION	GEODETIC POSITIONS				STATE PLANE COORDINATES		ELEVATION		
	NORTH AMERICAN DATUM OF 1927				NAD '27 - New Mexico East Zone (US FL)		NGVD '29 (US FL)		
	Latitude (D.M.S.)	Longitude (D.M.S.)	Latitude (D.D.)	Longitude (D.D.)	Northing (Y)	Easting (X)	Top of Casing	Concrete Pad	Natural Ground
MW-25	32°10'00.51" N	103°07'52.05" W	32.16681	-103.13112	426,483.73	872,013.88	3,171.32	3,168.48	3,168.1
MW-26	32°10'18.63" N	103°07'55.35" W	32.17184	-103.13204	428,312.33	871,709.96	3,172.84	3,170.22	3,170.0
MW-27	32°10'04.24" N	103°07'30.36" W	32.16785	-103.12510	426,882.09	873,873.88	3,149.39	3,146.60	3,146.3
"Erwin"	32°10'14.79" N	103°07'51.89" W	32.17078	-103.13108	427,927.46	872,011.53			3,166.8
"Nixon"	32°09'52.50" N	103°07'28.69" W	32.16458	-103.12464	425,697.37	874,030.58			3,149.1

T-24-S, R-37-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



NOTE:

- Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927.
- Elevations shown hereon reference the National Geodetic Vertical Datum of 1929.
- Geodetic Coordinates shown hereon references the North American Datum of 1927, (Clarke Spheroid of 1866). Reference Stations - "ODESSA RRP2" - CORS (DF5393), "McDONALD VLBI" - CORS (AF9514) and "ROSWELL" - CORS (DG6517).

I HEREBY CERTIFY THAT THIS PLAT WAS MADE FROM NOTES TAKEN IN THE FIELD IN A BONA FIDE SURVEY MADE UNDER MY SUPERVISION.

MACON McDONALD NEW MEXICO P.L.S. No. 12185

WEST COMPANY
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

LEGEND

- ⊕ - Denotes Monitor Well
- ⊙ - Denotes Static GPS Control Station
- ⊗ - Denotes Found Monument (As Described)



CONESTOGA-ROVERS & ASSOCIATES

Topographic Survey of MONITOR WELLS

Located in Section 35
Township 24 South, Range 37 East, N.M.P.M.
Lea County, New Mexico

Drawn By: LVA

Date: June 7, 2012

Scale: 1" = 1000'

Field Book: 518 / 68-72

Revision Date:

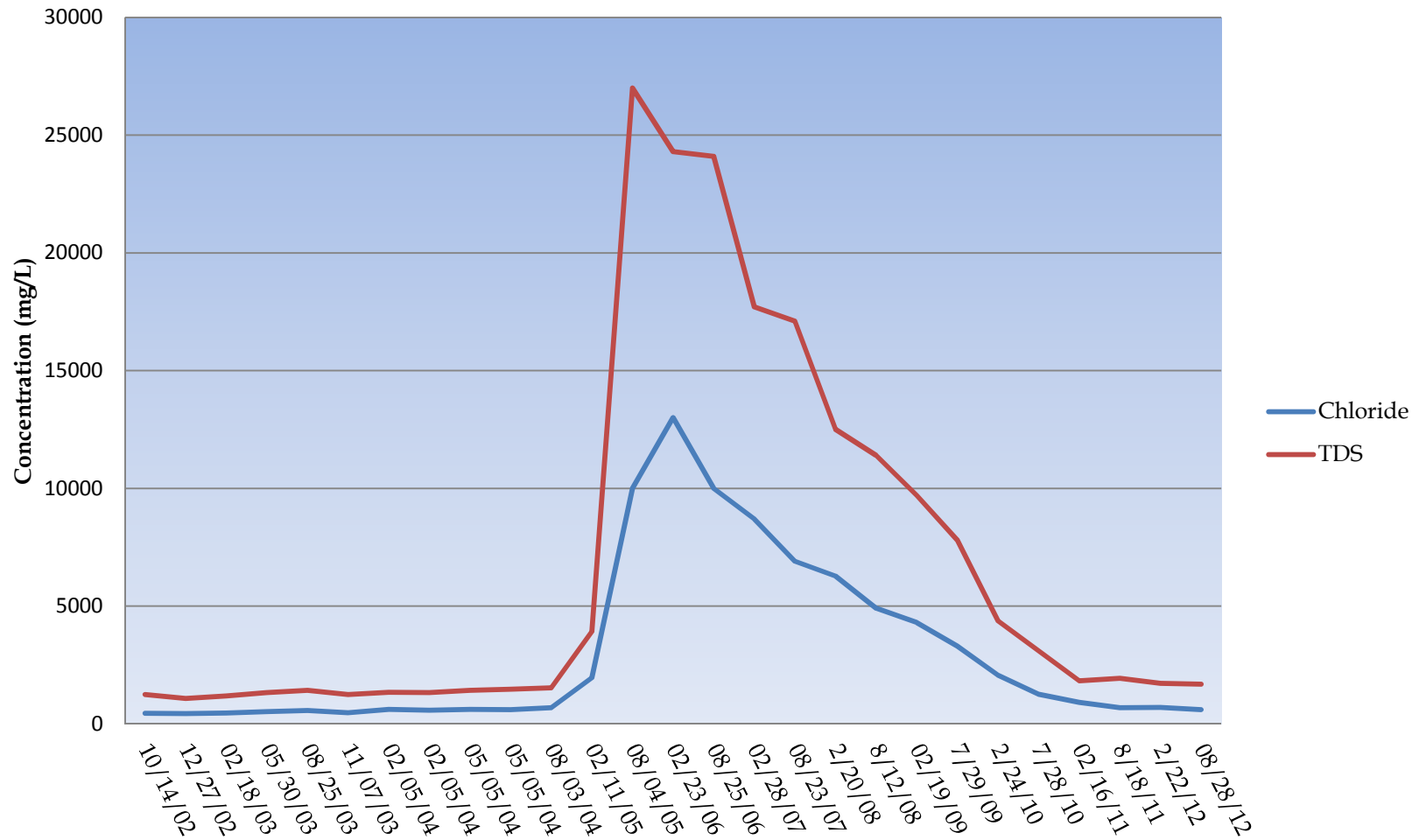
Quadrangles: Jal NW

W.O. No: 2012-1019

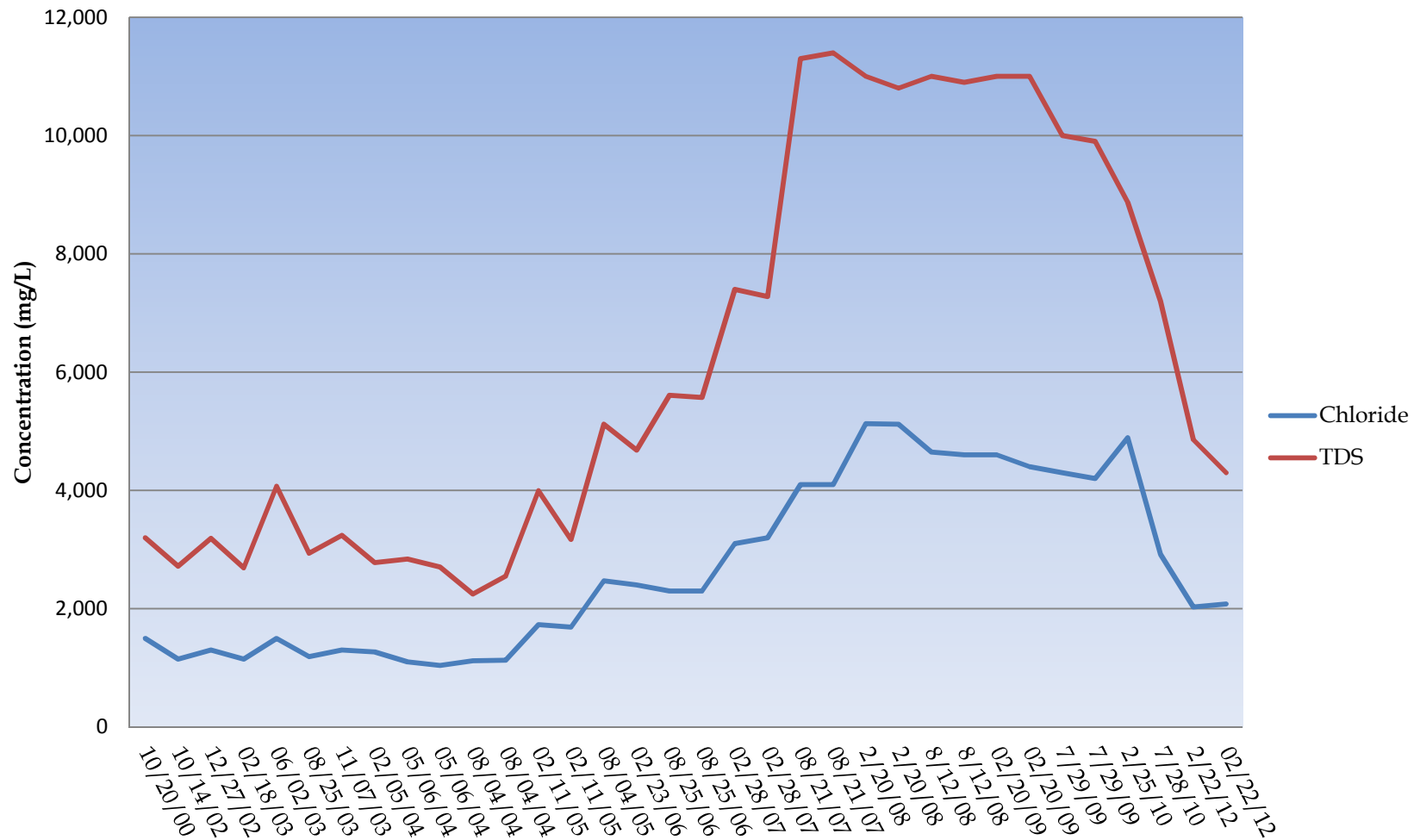
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APPENDIX E

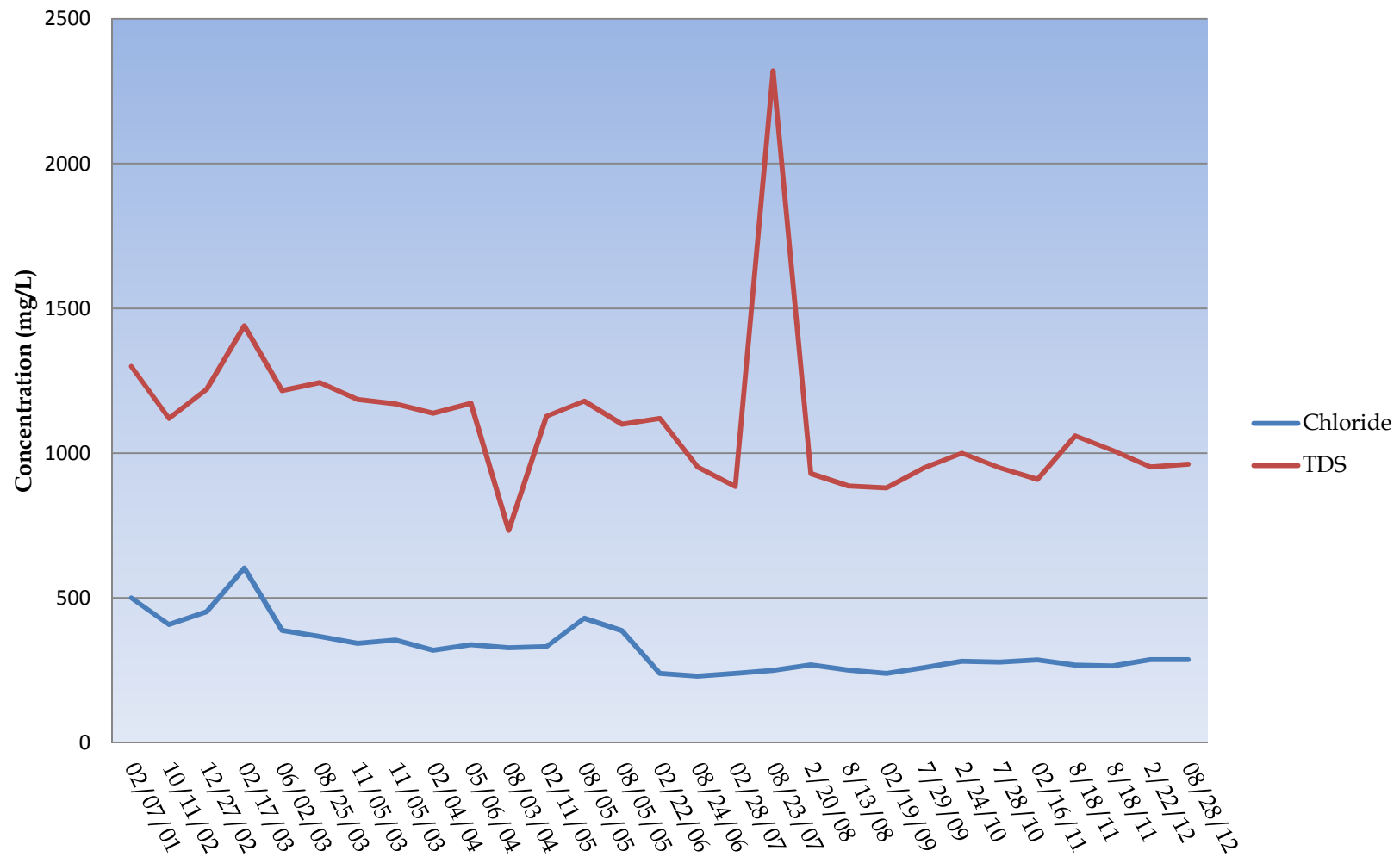
G.I. ERWIN "A & B" FEDERAL NCT 2 TANK BATTERY
SW/4, SE/4, SECTION 35, T 24 S, R 37 E
LEA COUNTY, NEW MEXICO
UPGRADIENT WELL (MW-9)



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
RECOVERY WELL (RW-1)



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
DOWNGRADIENT WELL (MW-14)

