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JUNE 2013

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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

Conestoga-Rovers & Associates
2135 South Loop 250 West
Midland, Texas 79703

June 2013 • #039124 (10)

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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:

Analyte	*NMWQCC Standard for Groundwater (mg/L)*
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) [1]NMWQCC HUMAN HEALTH STANDARDS PER NMAC 20.6.2.3103A
2) [2]NMWQCC 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:

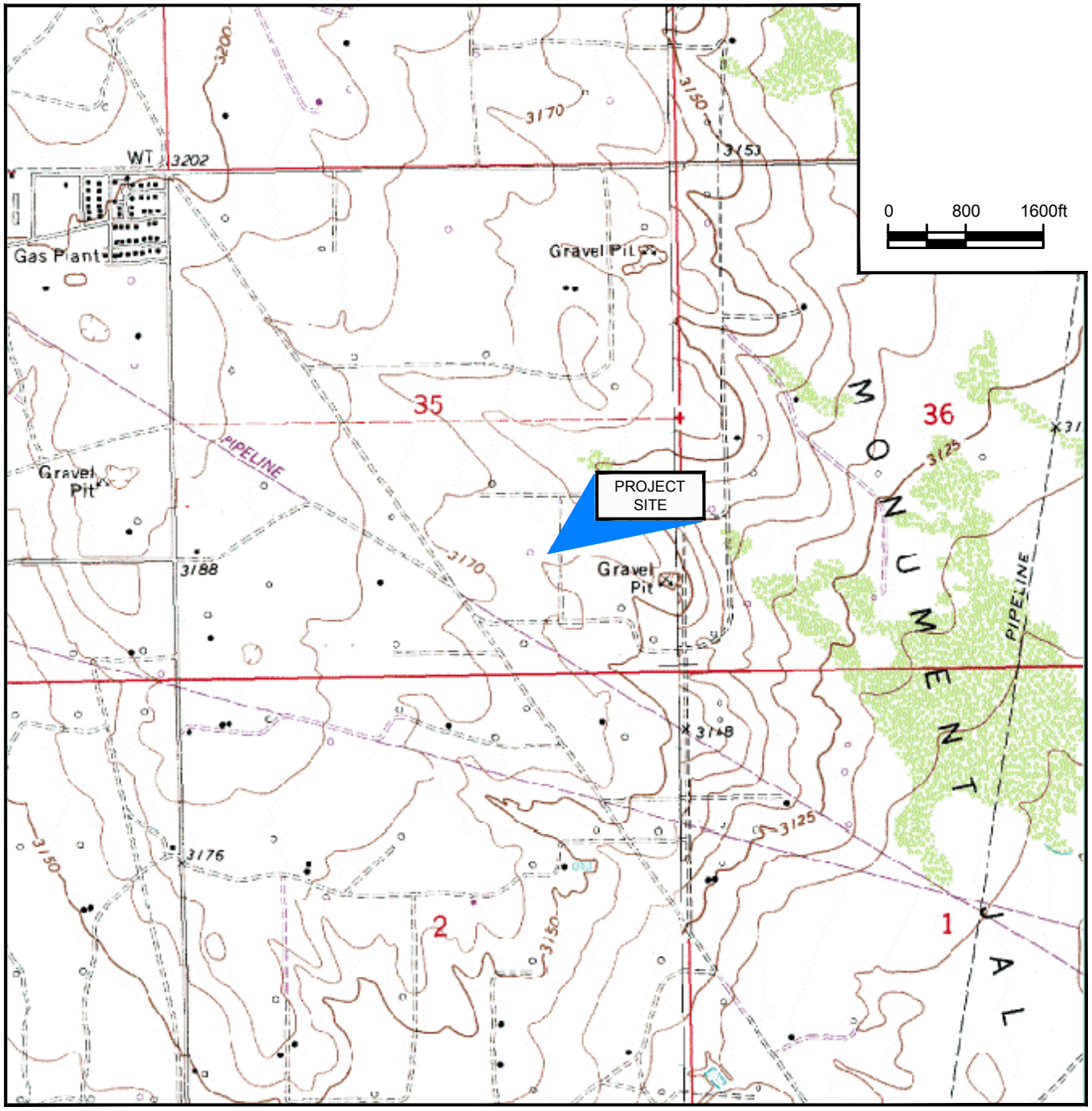
- Continue to perform semi-annual groundwater monitoring and sampling events in February and August 2013.
- Continue groundwater recovery from RW-1 in accordance to permit requirements.
- Submit groundwater pumping record reports for RW-1 quarterly to the NMOSE in accordance to permit requirements.

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

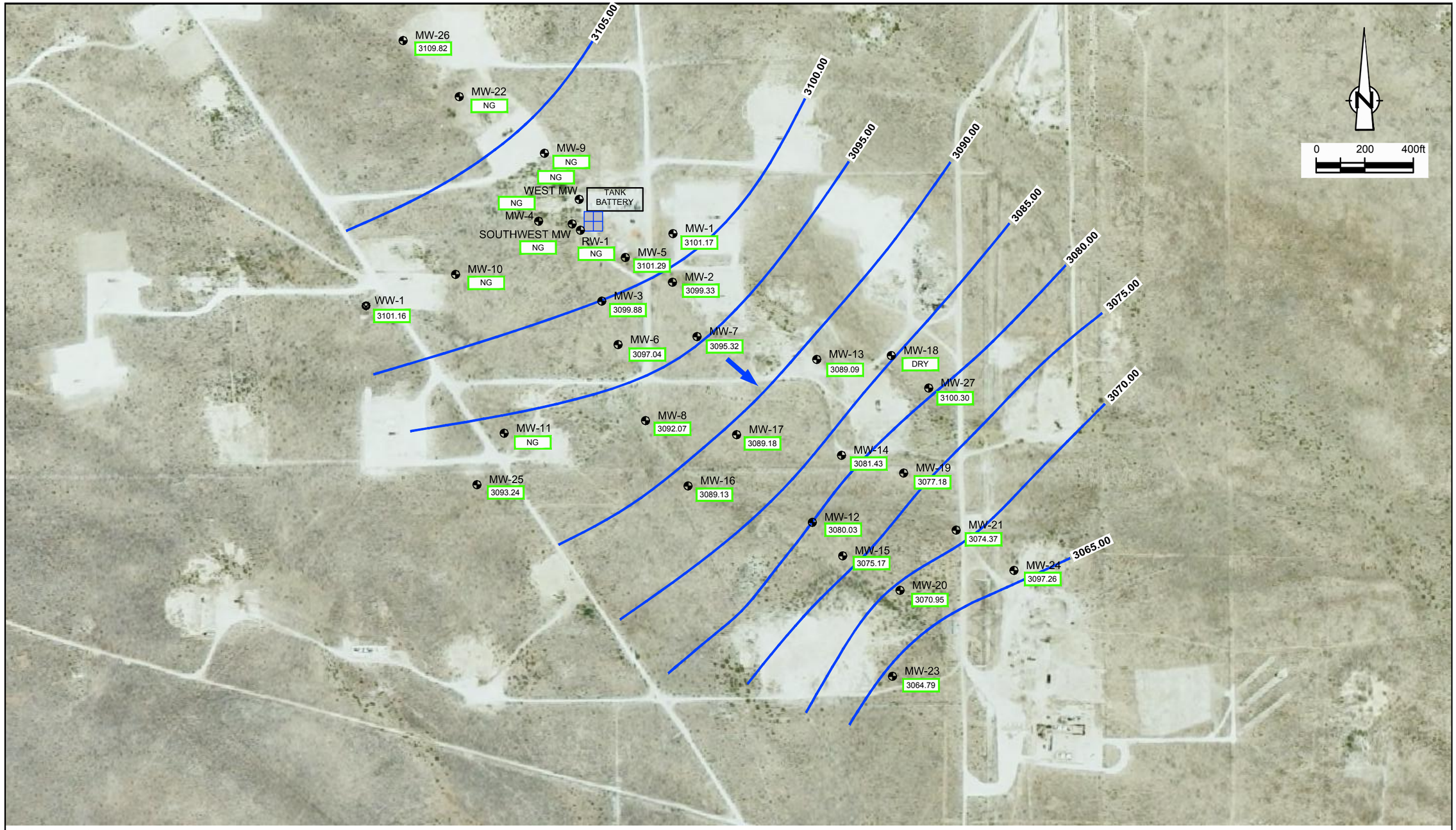
NOTES:

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

039124-2012(010)GN-DL001 FEB 4/2013



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)
- 3093.36 ELEVATION OF GROUNDWATER (FT)
- DIRECTION OF GROUNDWATER FLOW
- NG GROUNDWATER NOT GAUGED

NOTES:

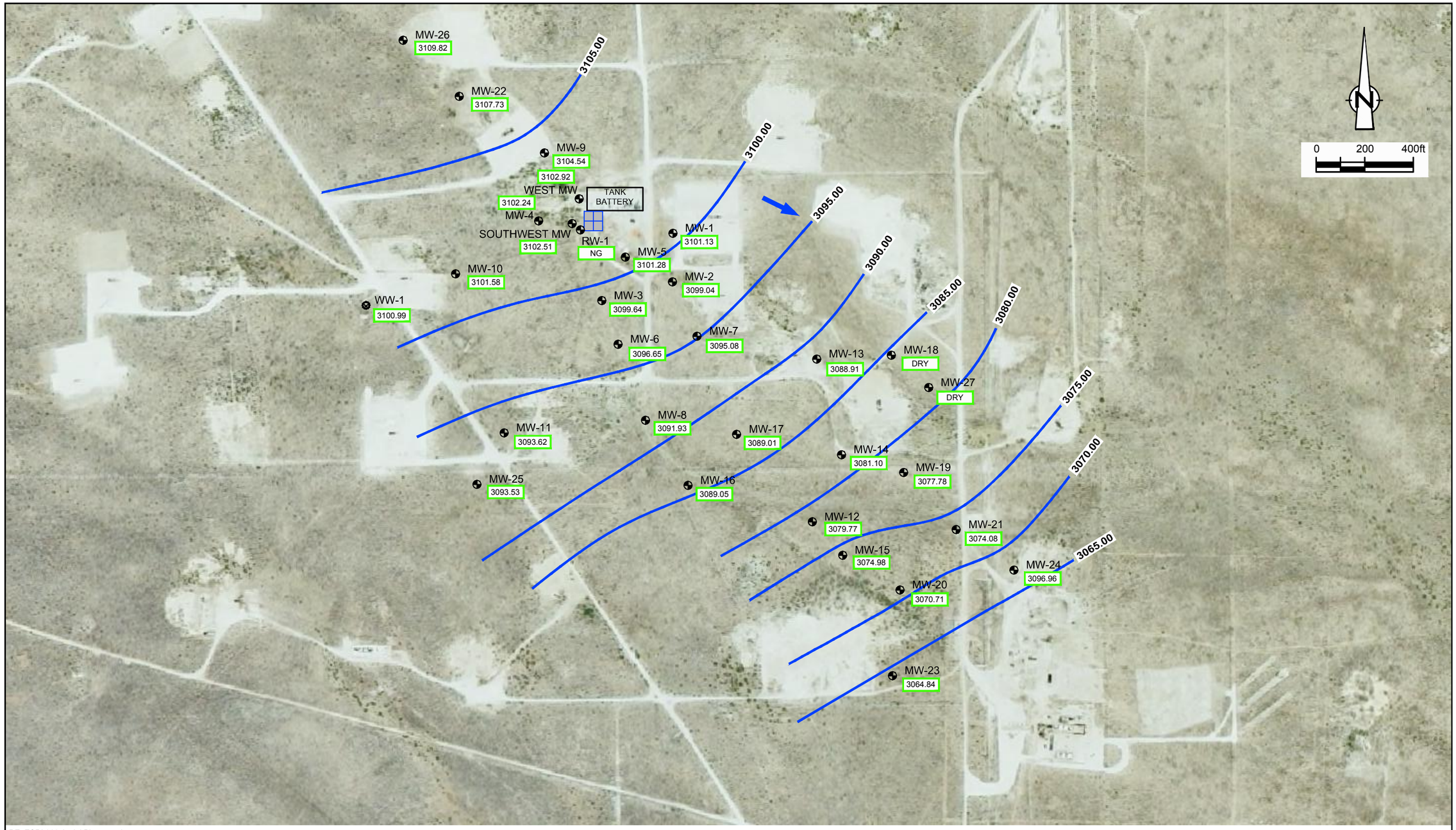
1. GROUNDWATER ELEVATIONS MEASUREMENTS COLLECTED ON FEBRUARY 20, 2012, EXCEPT MONITOR WELLS MW-25, MW-26 AND MW-27 WHICH WERE GAUGED ON APRIL 5, 2012.
2. MONITOR WELLS MW-24 AND MW-27 WERE NOT HONORED IN THE GRADIENT.

figure 3

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

Chevron Environmental Management Company

039124-2012(010)GN-DL001 FEB 4/2013



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)
- 3064.84 ELEVATION OF GROUNDWATER (FT)
- DIRECTION OF GROUNDWATER FLOW
- NG GROUNDWATER NOT GAUGED

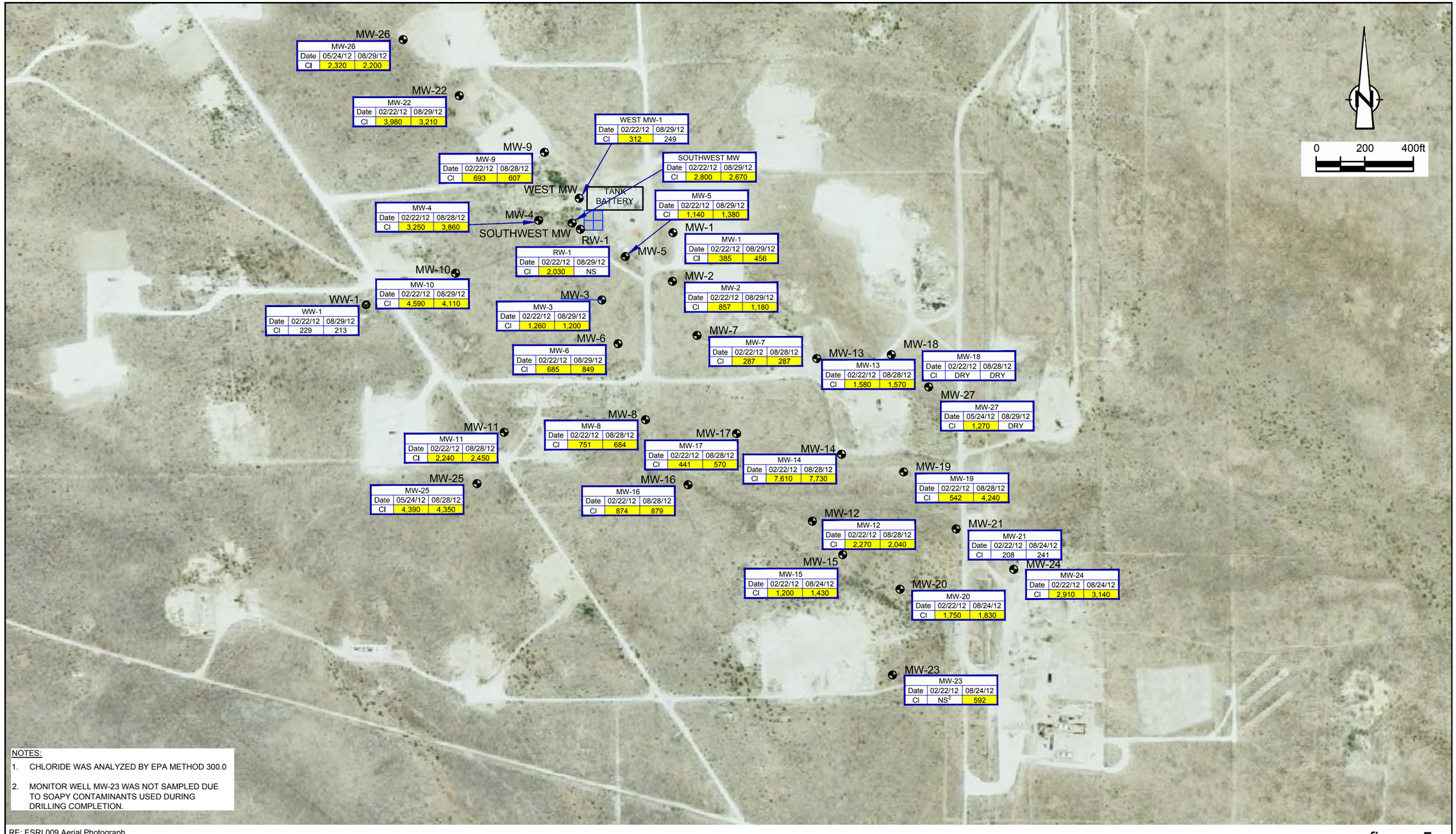
NOTES:

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

039124-2012(010)GN-DL001 DEC 6/2012



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

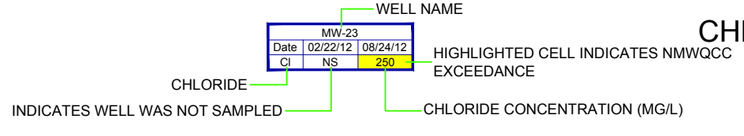


figure 5

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

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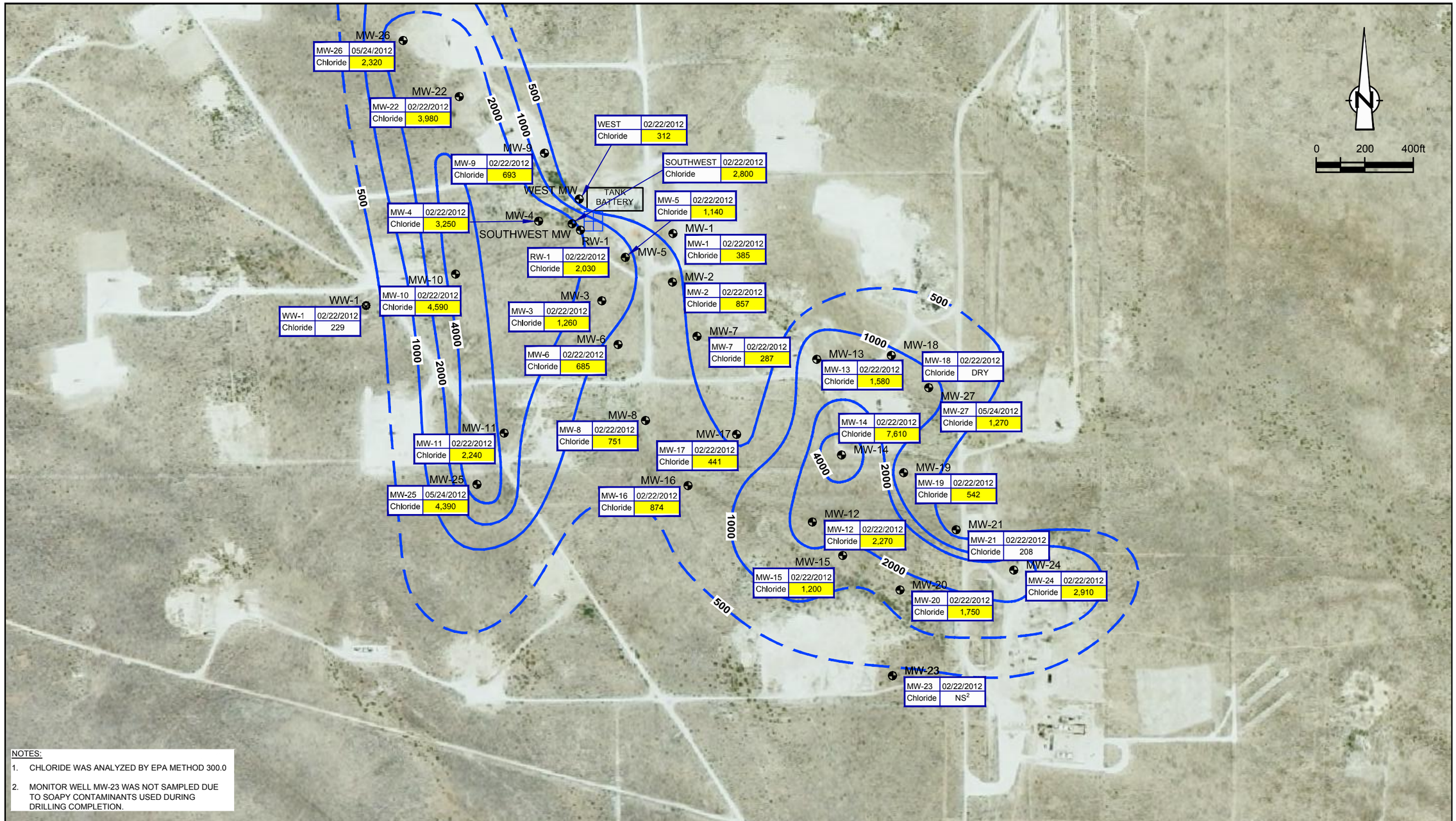


NOTES:

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

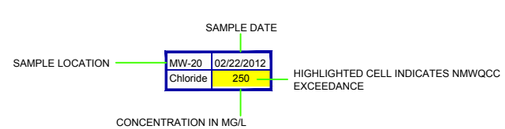
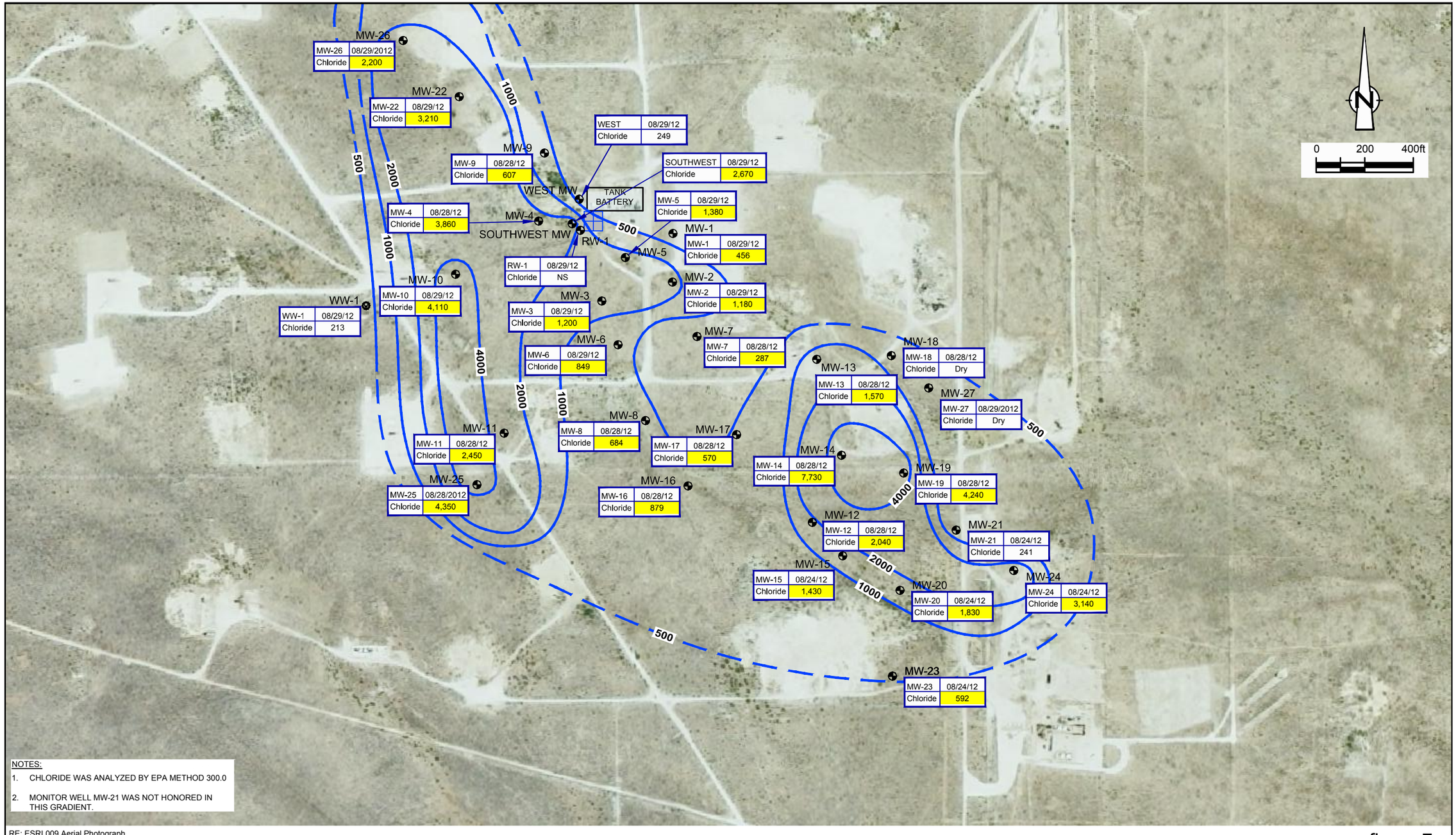


figure 6

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

039124-2012(010)GN-DL001 DEC 12/2012



NOTES:

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

RE: ESRI 009 Aerial Photograph.

LEGEND

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

CHLORIDE CONCENTRATION CONTOUR (MG/L)

NS NOT SAMPLED

SAMPLE DATE

SAMPLE LOCATION — MW-23 08/24/12 / Chloride 250 — HIGHLIGHTED CELL INDICATES NMWQCC EXCEEDANCE

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

039124-2012(010)GN-DL001 FEB 4/2013

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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-01	2/4/98	64.15	---	---	3097.54	87.70	55'-85'
3,161.69	2/7/01	61.40	---	---	3100.29	---	
2	4/30/02	61.43	---	---	3100.26	---	
	10/11/02	61.43	---	---	3100.26	---	
	12/26/02	61.43	---	---	3100.26	---	
	2/17/03	61.42	---	---	3100.27	---	
	5/29/03	61.58	---	---	3100.11	---	
	8/22/03	61.37	---	---	3100.32	---	
	11/5/03	61.35	---	---	3100.34	---	
	2/3/04	61.34	---	---	3100.35	---	
	5/5/04	61.13	---	---	3100.56	---	
	8/2/04	61.08	---	---	3100.61	---	
	11/23/04	60.61	---	---	3101.08	---	
	2/9/05	60.46	---	---	3101.23	---	
	8/4/05	60.62	---	---	3101.07	---	
	2/22/06	60.30	---	---	3101.39	84.60	
	8/24/06	60.46	---	---	3101.23	84.60	
	2/27/07	60.12	---	---	3101.57	---	
	8/23/07	59.88	---	---	3101.81	---	
	2/18/08	59.95	---	---	3101.74	84.59	
	8/11/08	59.99	---	---	3101.70	84.59	
	2/16/09	60.44	---	---	3101.25	---	
	7/27/09	60.57	---	---	3101.12	---	
	2/22/10	60.73	---	---	3100.96	---	
	7/26/10	60.48	---	---	3101.21	---	
	2/15/11	60.42	---	---	3101.27	---	
	8/16/11	60.39	---	---	3101.30	84.60	
	2/20/12	60.52	---	---	3101.17	82.05	
	8/23/12	60.56	---	---	3101.13	81.91	
MW-02	2/4/98	61.33	---	---	3098.56	72.94	50'-70'
3,159.89	2/7/01	61.45	---	---	3098.44	---	
2	4/30/02	61.47	---	---	3098.42	---	
	10/11/02	61.46	---	---	3098.43	---	
	12/26/02	61.52	---	---	3098.37	---	
	2/17/03	61.53	---	---	3098.36	---	
	5/29/03	61.48	---	---	3098.41	---	
	8/22/03	61.41	---	---	3098.48	---	
	11/5/03	61.38	---	---	3098.51	---	
	2/3/04	61.35	---	---	3098.54	---	
	5/5/04	61.20	---	---	3098.69	---	
	8/2/04	61.11	---	---	3098.78	---	
	11/23/04	60.52	---	---	3099.37	---	
	2/9/05	60.45	---	---	3099.44	---	
	8/4/05	66.60	---	---	3093.29	---	
	2/22/06	60.26	---	---	3099.63	72.81	
	8/24/06	60.42	---	---	3099.47	72.81	
	2/27/07	60.04	---	---	3099.85	---	

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

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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-04 (cont)	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	2/4/98	60.33	---	---	3100.42	73.10	50'-70'
3,160.75	10/19/00	60.25	---	---	3100.50	---	
2	2/7/01	60.58	---	---	3100.17	---	
	4/30/02	62.27	---	---	3098.48	---	
	10/11/02	60.29	---	---	3100.46	---	
	12/26/02	60.29	---	---	3100.46	---	
	2/17/03	60.30	---	---	3100.45	---	
	5/29/03	60.33	---	---	3100.42	---	
	8/22/03	60.24	---	---	3100.51	---	
	11/5/03	60.24	---	---	3100.51	---	
	2/3/04	60.20	---	---	3100.55	---	
	5/5/04	60.04	---	---	3100.71	---	
	8/2/04	59.97	---	---	3100.78	---	
	11/23/04	59.51	---	---	3101.24	---	
	2/9/05	59.32	---	---	3101.43	---	
	8/4/05	59.55	---	---	3101.20	---	
	2/22/06	59.22	---	---	3101.53	72.95	
	8/24/06	59.39	---	---	3101.36	72.95	
	2/27/07	59.03	---	---	3101.72	---	
	8/23/07	58.84	---	---	3101.91	---	
	2/18/08	58.83	---	---	3101.92	72.95	
	8/11/08	58.84	---	---	3101.91	72.95	
	2/16/09	59.36	---	---	3101.39	---	

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 [1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-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	2/7/01	68.00	---	---	3096.18	77.24	59'-74'
3,164.18	4/30/02	68.10	---	---	3096.08	---	
2	10/11/02	68.04	---	---	3096.14	---	
	12/26/02	68.03	---	---	3096.15	---	
	2/17/03	68.03	---	---	3096.15	---	
	5/29/03	68.38	---	---	3095.80	---	
	8/22/03	67.99	---	---	3096.19	---	
	11/5/03	67.99	---	---	3096.19	---	
	2/3/04	67.92	---	---	3096.26	---	
	5/5/04	67.88	---	---	3096.30	---	
	8/2/04	67.78	---	---	3096.40	---	
	11/23/04	67.31	---	---	3096.87	---	
	2/9/05	67.17	---	---	3097.01	---	
	8/4/05	63.13	---	---	3101.05	---	
	2/22/06	66.72	---	---	3097.46	77.00	
	8/24/06	66.93	---	---	3097.25	77.00	
	2/27/07	66.58	---	---	3097.60	---	
	8/27/07	66.35	---	---	3097.83	---	
	2/18/08	66.35	---	---	3097.83	77.00	
	8/11/08	66.39	---	---	3097.79	77.00	
	2/16/09	66.94	---	---	3097.24	---	
	7/27/09	67.04	---	---	3097.14	---	
	2/22/10	67.10	---	---	3097.08	---	
	7/26/10	67.32	---	---	3096.86	---	
	2/15/11	67.15	---	---	3097.03	77.05	
	8/16/11	67.09	---	---	3097.09	77.00	
	2/20/12	67.14	---	---	3097.04	76.95	
	8/24/12	67.53	---	---	3096.65	76.87	
MW-07	2/7/01	67.25	---	---	3094.81	73.45	55'-70'
3,162.06	4/30/02	67.50	---	---	3094.56	---	
2	10/11/02	67.53	---	---	3094.53	---	
	12/26/02	67.53	---	---	3094.53	---	
	2/17/03	67.53	---	---	3094.53	---	
	5/29/03	67.61	---	---	3094.45	---	
	8/22/03	67.49	---	---	3094.57	---	
	11/5/03	67.47	---	---	3094.59	---	
	2/3/04	67.46	---	---	3094.60	---	
	5/5/04	67.44	---	---	3094.62	---	
	8/2/04	67.34	---	---	3094.72	---	

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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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-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	2/3/99	68.21	---	---	3091.45	70.66	50'-70'
3,159.66	2/7/01	68.30	---	---	3091.36	---	
2	4/30/02	68.42	---	---	3091.24	---	
	10/11/02	68.30	---	---	3091.36	---	
	12/26/02	68.30	---	---	3091.36	---	
	2/17/03	68.30	---	---	3091.36	---	
	5/29/03	68.36	---	---	3091.30	---	
	8/22/03	68.26	---	---	3091.40	---	
	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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-09	4/30/02	63.65	---	---	3103.42	70.39	55'-70'
3,167.07	10/11/02	63.59	---	---	3103.48	---	
2	12/26/02	63.59	---	---	3103.48	---	
	2/17/03	63.60	---	---	3103.47	---	
	5/29/03	63.73	---	---	3103.34	---	
	8/22/03	63.56	---	---	3103.51	---	
	11/5/03	63.55	---	---	3103.52	---	
	2/3/04	63.47	---	---	3103.60	---	
	5/5/04	63.27	---	---	3103.80	---	
	8/2/04	63.24	---	---	3103.83	---	
	11/23/04	62.40	---	---	3104.67	---	
	2/9/05	62.50	---	---	3104.57	---	
	8/4/05	62.89	---	---	3104.18	---	
	2/23/06	62.48	---	---	3104.59	69.60	
	8/25/06	62.68	---	---	3104.39	69.60	
	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	4/30/02	70.35	---	---	3100.64	69.16	54'-69'
3,170.99	10/11/02	70.49	---	---	3100.50	---	
2	12/26/02	70.50	---	---	3100.49	---	
	2/17/03	70.50	---	---	3100.49	---	
	5/29/03	70.37	---	---	3100.62	---	
	8/22/03	70.47	---	---	3100.52	---	
	11/5/03	70.49	---	---	3100.50	---	
	2/3/04	70.43	---	---	3100.56	---	
	5/5/04	70.38	---	---	3100.61	---	
	8/2/04	70.26	---	---	3100.73	---	
	11/23/04	69.78	---	---	3101.21	---	
	2/9/05			NG		---	
	8/4/05	69.89	---	---	3101.10	---	
	2/22/06	69.59	---	---	3101.40	71.95	
	8/25/06	69.65	---	---	3101.34	71.95	
	2/27/07	69.29	---	---	3101.70	---	
	8/23/07	69.06	---	---	3101.93	---	
	2/18/08	69.06	---	---	3101.93	71.94	
	8/11/08	69.05	---	---	3101.94	71.94	
	2/16/09	69.74	---	---	3101.25	---	

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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-10 (cont)	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	4/30/02			DRY		72.78	58'-73'
3,168.24	10/11/02			DRY		---	
2	12/26/02			DRY		---	
	2/17/03			DRY		---	
	5/29/03			DRY		---	
	8/22/03			DRY		---	
	11/5/03			DRY		---	
	2/3/04			DRY		---	
	5/5/04			DRY		---	
	8/2/04			DRY		---	
	11/23/04			DRY		---	
	2/9/05			DRY		---	
	8/4/05	61.91	---	---	3106.33	---	
	2/22/06	74.71	---	---	3093.53	75.45	
	8/24/06	74.71	---	---	3093.53	75.45	
	2/27/07	74.51	---	---	3093.73	---	
	8/23/07	74.38	---	---	3093.86	---	
	2/18/08	74.21	---	---	3094.03	75.45	
	8/11/08	74.38	---	---	3093.86	75.44	
	2/16/09	74.46	---	---	3093.78	---	
	7/27/09	74.45	---	---	3093.79	---	
	2/22/10	74.52	---	---	3093.72	---	
	7/26/10	74.61	---	---	3093.63	---	
	2/15/11	74.56	---	---	3093.68	75.50	
	8/16/11	74.63	---	---	3093.61	75.50	
	2/20/12			NG		---	
	8/23/12	74.62	---	---	3093.62	75.55	
MW-12	4/30/02	72.80	---	---	3079.68	74.37	59'-74'
3,152.48	10/11/02	72.81	---	---	3079.67	---	
2	12/26/02	72.82	---	---	3079.66	---	
	2/17/03	72.82	---	---	3079.66	---	
	5/29/03	72.77	---	---	3079.71	---	
	8/22/03	72.81	---	---	3079.67	---	
	11/5/03	72.81	---	---	3079.67	---	
	2/3/04	72.83	---	---	3079.65	---	
	5/5/04	72.78	---	---	3079.70	---	
	8/2/04	72.81	---	---	3079.67	---	
	11/23/04	72.69	---	---	3079.79	---	
	2/9/05	72.83	---	---	3079.65	---	

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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-12 (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	4/30/02	66.97	---	---	3087.95	67.90	53'-68'
3,154.92	10/11/02	66.38	---	---	3088.54	---	
2	12/26/02	66.37	---	---	3088.55	---	
	2/17/03	66.37	---	---	3088.55	---	
	5/29/03	66.68	---	---	3088.24	---	
	8/22/03	67.06	---	---	3087.86	---	
	11/5/03	67.36	---	---	3087.56	---	
	2/3/04	67.11	---	---	3087.81	---	
	5/5/04	67.05	---	---	3087.87	---	
	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	11/5/03	71.60	---	---	3080.31	92.43	79.5'-89.5'
3,151.91	2/3/04	71.62	---	---	3080.29	---	
2	5/5/04	71.67	---	---	3080.24	---	
	8/2/04	71.69	---	---	3080.22	---	

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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-14 (cont)	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	11/5/03			DRY		87.45	64.5'-84.5'
3,152.48	2/3/04			DRY		---	
2	5/5/04			DRY		---	
	8/2/04			DRY		---	
	11/23/04			DRY		---	
	2/9/05			DRY		---	
	8/4/05	86.91	---	---	3065.57	---	
	2/22/06	86.54	---	---	3065.94	87.40	
	8/24/06	86.34	---	---	3066.14	87.40	
	2/27/07	85.73	---	---	3066.75	---	
	8/23/07	85.26	---	---	3067.22	---	
	2/18/08	81.90	---	---	3070.58	87.40	
	8/11/08	81.99	---	---	3070.49	87.42	
	2/16/09	77.83	---	---	3074.65	---	
	7/27/09	77.19	---	---	3075.29	---	
	2/22/10	77.06	---	---	3075.42	---	
	7/26/10	77.05	---	---	3075.43	---	
	2/15/11	77.08	---	---	3075.40	87.50	
	8/16/11	77.23	---	---	3075.25	84.50	
	2/20/12	77.31	---	---	3075.17	87.38	
	8/22/12	77.50	---	---	3074.98	87.28	
MW-16	11/5/03	65.68	---	---	3091.57	77.22	59.5'-74.5'
3,157.25	2/3/04	68.67	---	---	3088.58	---	
2	5/5/04	68.69	---	---	3088.56	---	
	8/2/04	68.65	---	---	3088.60	---	
	11/23/04	68.10	---	---	3089.15	---	
	2/9/05	67.53	---	---	3089.72	---	
	8/4/05	67.77	---	---	3089.48	---	
	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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-16 (cont)	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	11/5/03	69.51	---	---	3088.86	79.37	57'-77'
3,158.37	2/3/04	69.53	---	---	3088.84	---	
2	5/5/04	69.52	---	---	3088.85	---	
	8/2/04	70.12	---	---	3088.25	---	
	11/23/04	69.31	---	---	3089.06	---	
	2/9/05	69.04	---	---	3089.33	---	
	8/4/05	68.90	---	---	3089.47	---	
	2/22/06	68.72	---	---	3089.65	80.10	
	8/24/06	68.78	---	---	3089.59	80.10	
	2/27/07	68.55	---	---	3089.82	---	
	8/23/07	68.50	---	---	3089.87	---	
	2/18/08	68.41	---	---	3089.96	80.10	
	8/11/08	68.43	---	---	3089.94	80.10	
	2/16/09	68.87	---	---	3089.50	---	
	7/27/09	68.99	---	---	3089.38	---	
	2/22/10	69.14	---	---	3089.23	---	
	7/26/10	69.22	---	---	3089.15	---	
	2/15/11	69.23	---	---	3089.14	79.82	
	8/16/11	69.23	---	---	3089.14	79.96	
	2/20/12	69.19	---	---	3089.18	76.95	
	8/23/12	69.36	---	---	3089.01	77.02	
MW-18	11/23/04			DRY		76.98	54.5'-74.5
3,151.08	2/9/05			DRY		---	
2	8/4/05			DRY		---	
	2/22/06			DRY		78.43	
	8/24/06			DRY		78.43	
	2/27/07			DRY		---	
	8/23/07			DRY		---	
	2/18/08			DRY		78.44	
	8/11/08			DRY		78.44	
	2/16/09			DRY		---	
	7/27/09			DRY		---	
	2/22/10			DRY		---	
	7/26/10			DRY		---	

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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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-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	11/23/04	72.63	---	---	3075.16	104.41	82.5'-102.5'
3,147.79	2/9/05	72.36	---	---	3075.43	---	
2	8/4/05	72.18	---	---	3075.61	---	
	2/22/06	71.83	---	---	3075.96	105.55	
	8/24/06	71.57	---	---	3076.22	105.55	
	2/27/07	71.28	---	---	3076.51	---	
	8/23/07	70.75	---	---	3077.04	---	
	2/18/08	70.29	---	---	3077.50	105.53	
	8/11/08	70.33	---	---	3077.46	105.50	
	2/16/09	71.54	---	---	3076.25	---	
	7/27/09	70.71	---	---	3077.08	---	
	2/22/10	69.91	---	---	3077.88	---	
	7/26/10	70.15	---	---	3077.64	---	
	2/15/11	70.26	---	---	3077.53	105.60	
	8/16/11	70.50	---	---	3077.29	102.50	
	2/20/12	70.61	---	---	3077.18	105.52	
	8/23/12	70.01	---	---	3077.78	105.61	
MW-20	11/23/04	81.81	---	---	3069.75	94.94	72.5'-92.5'
3,151.56	2/9/05	81.85	---	---	3069.71	---	
2	8/4/05	81.81	---	---	3069.75	---	
	2/22/06	81.71	---	---	3069.85	92.23	
	8/24/06	81.66	---	---	3069.90	92.23	
	2/27/07	81.39	---	---	3,070.17	---	
	8/23/07	81.20	---	---	3,070.36	---	
	2/18/08	80.93	---	---	3,070.63	92.21	
	8/11/08	80.96	---	---	3070.60	92.20	
	2/16/09	80.58	---	---	3070.98	---	
	7/27/09	80.42	---	---	3071.14	---	
	2/22/10	80.35	---	---	3071.21	---	
	7/26/10	80.39	---	---	3071.17	---	
	2/15/11	80.38	---	---	3071.18	90.40	
	8/16/11	80.52	---	---	3071.04	92.50	
	2/20/12	80.61	---	---	3070.95	89.66	
	8/22/12	80.85	---	---	3070.71	89.34	
MW-21	11/20/07	71.05	---	---	3074.82	99.00	67'-97'
3,145.87	2/18/08	70.96	---	---	3074.91	98.60	
2	8/11/08	71.01	---	---	3074.86	98.60	
	2/16/09	70.78	---	---	3075.09	---	
	7/27/09	70.71	---	---	3075.16	---	
	2/22/10	70.83	---	---	3075.04	---	
	7/26/10	71.03	---	---	3074.84	---	

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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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
MW-21 (cont)	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	11/20/07	62.35	---	---	3108.29	68.95	46.5'-66.5'
3,170.64	2/18/08	62.59	---	---	3108.05	68.60	
2	8/11/08	62.62	---	---	3108.02	68.60	
	2/16/09	62.68	---	---	3107.96	---	
	7/27/09	62.90	---	---	3107.74	---	
	2/22/10	62.74	---	---	3107.90	---	
	7/26/10	62.80	---	---	3107.84	---	
	2/15/11	62.59	---	---	3108.05	---	
	8/16/11	62.71	---	---	3107.93	68.60	
	2/21/12			NG		---	
	8/24/12	62.91	---	---	3107.73	68.21	
MW-23	2/20/12	89.59	---	---	3064.79	103.52	70-100'
3,154.38	8/22/12	89.54	---	---	3064.84	102.01	
2							
MW-24	2/20/12	48.81	---	---	3097.26	59.86	30-60'
3,146.07	8/22/12	49.11	---	---	3096.96	62.90	
2							
MW-25	4/5/12	78.08	---	---	3093.24	97.00	65-95'
3,171.32	5/24/12	77.96	---	---	3093.36		
2	8/23/12	77.79	---	---	3093.53	96.18	
MW-26	4/5/12	63.02	---	---	3109.82	76.58	55-75'
3,172.84	5/24/12	63.02	---	---	3109.82		
2	8/24/12	63.02	---	---	3109.82	76.61	
MW-27	4/5/12	46.30	---	---	3100.30	48.80	25-45'
3,146.60	8/23/12			DRY		48.79	
2							
WW-1	4/30/02	70.21	---	---	3100.00	---	--
3,170.21	10/11/02	69.71	---	---	3100.50	---	
4	12/26/02	69.70	---	---	3100.51	---	
	2/17/03	69.70	---	---	3100.51	---	
	5/29/03	67.37	---	---	3102.84	---	
	8/22/03	70.27	---	---	3099.94	---	
	11/5/03	70.23	---	---	3099.98	---	
	2/3/04	70.31	---	---	3099.90	---	
	5/5/04	70.23	---	---	3099.98	---	
	8/2/04	69.47	---	---	3100.74	---	
	11/23/04	69.92	---	---	3100.29	---	
	2/9/05	69.75	---	---	3100.46	---	
	8/4/05	69.89	---	---	3100.32	---	
	2/22/06	69.51	---	---	3100.70	---	
	8/25/06	69.50	---	---	3100.71	192.00	

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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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
WW-1 (cont)	2/27/07	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	8/22/97	62.58	---	---	3101.86	70.43	--
3,164.44	2/4/98	62.50	---	---	3101.94	---	
2	10/19/00	62.37	---	---	3102.07	---	
	2/7/01	62.43	---	---	3102.01	---	
	4/30/02	62.37	---	---	3102.07	---	
	10/11/02	62.35	---	---	3102.09	---	
	12/26/02	62.34	---	---	3102.10	---	
	2/17/03	62.34	---	---	3102.10	---	
	5/29/03	62.22	---	---	3102.22	---	
	8/22/03	62.35	---	---	3102.09	---	
	11/5/03	62.31	---	---	3102.13	---	
	2/3/04	62.27	---	---	3102.17	---	
	5/5/04	62.11	---	---	3102.33	---	
	8/2/04	62.01	---	---	3102.43	---	
	11/23/04	61.40	---	---	3103.04	---	
	2/9/05	61.30	---	---	3103.14	---	
	8/4/05	61.61	---	---	3102.83	---	
	2/23/06	61.24	---	---	3103.20	67.28	
	8/25/06	61.43	---	---	3103.01	67.28	
	2/27/07	61.03	---	---	3103.41	---	
	8/23/07	60.74	---	---	3103.70	---	
	2/18/08	60.97	---	---	3103.47	67.28	
	8/11/08	61.06	---	---	3103.38	67.28	
	2/16/09	61.27	---	---	3103.17	---	
	7/27/09	61.42	---	---	3103.02	---	
	2/22/10	61.26	---	---	3103.18	---	
	7/26/10	61.62	---	---	3102.82	---	
	2/15/11	61.20	---	---	3103.24	---	
	8/16/11	61.21	---	---	3103.23	67.28	
	2/21/12			NG		---	
	8/24/12	61.52	---	---	3102.92	67.24	
Southwest MW	8/22/97	63.25	---	---	3101.29	70.45	--
3,164.54	2/4/98	63.21	---	---	3101.33	---	
2	10/19/00	63.06	---	---	3101.48	---	

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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 [1] elevation* *Diameter (in)*	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
Southwest MW	2/7/01	63.10	---	---	3101.44	---	
(cont)	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	1/14/99	50.85	---	---	3112.67	76.30	53'-73'
3,163.52	10/19/00	62.33	---	---	3101.19	---	
4	4/30/02	62.28	---	---	3101.24	---	
	10/11/02	62.27	---	---	3101.25	---	
	12/26/02	62.26	---	---	3101.26	---	
	2/17/03	62.26	---	---	3101.26	---	
	5/29/03	62.34	---	---	3101.18	---	
	8/22/03	62.25	---	---	3101.27	---	
	11/5/03	62.25	---	---	3101.27	---	
	2/3/04	62.20	---	---	3101.32	---	
	5/5/04	62.12	---	---	3101.40	---	
	8/2/04	61.96	---	---	3101.56	---	
	11/23/04	61.46	---	---	3102.06	---	
	2/9/05	61.30	---	---	3102.22	---	
	8/4/05	61.51	---	---	3102.01	---	
	2/23/06	61.20	---	---	3102.32	75.45	
	8/25/06	61.36	---	---	3102.16	75.45	
	2/27/07	62.44	---	---	3101.08	---	
	8/23/07			NG		---	

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 [1] elevation Diameter (in)	*DATE*	*Depth to Water (ft)*	*Depth to LNAPL (ft)*	*LNAPL Thickness (ft)*	*Corrected Groundwater Elevation (ft above MSL [2])*	*Total Depth (ft)*	*Screen Interval (bgs [3])*
RW-1 (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
	02/22/06	<10.0	160	180	1.6	3.5	83	55.9	18.7	5.19	104	707	---	<10.0
Dup	02/22/06	<10.0	170	160	1.6	3.5	85	57.9	20	5.23	102	840	---	<10.0
	08/24/06	<10.0	300	180	<2.5	3.11	81	57.4	19.3	4.36	107	660	---	<10.0
	02/28/07	<10	170	170	1.8	3.6	81	54.6	18.2	<5.0	103	650	---	<10
	08/23/07	<10	138	420	1.40	2.80	76.0	102	34.8	5.37	101	1,810	--	138
	2/20/08	<5.0	166	300	1.9	2.92	82.1	111	39.7	7.34	104	860	---	<5.0
	8/12/08	<1.53	212.0	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 1	02/16/11	<2.0	145	155	1.74	3.25	81.9	55.3	17.9	4.02	91.9	604	---	<2.0
	8/18/11	<5.0	167	127	1.76	3.34	83.3	50.7	17.2	2.80	91.4	490	---	<5.0
	02/22/12	<5.00	153	385	1.61	2.70	67.7	96.3	33.5	5.12	96.5	1,280	---	<5.0
	08/29/12	<10.0	149	456	1.60	1.48	67.4	130	44.3	5.61	90.5	1,340	---	<10.0
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
	8/18/11	<5.0	251	259	1.52	5.56	158	24.6	6.98	3.48	263	1,090	---	<5.0
Dup 2	8/18/11	<5.0	272	255	1.38	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	11/06/03	<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
Dup 2	02/22/12	<5.00	230	1,470	1.53	8.75	224	132	39.2	13.4	770	2,940	---	<5.00
	08/29/12	<10.0	283	1,200	1.72	6.42	271	56.3	16.4	13.1	745	2,600	---	<10.0
MW-4	02/17/98	<2.0	510	372	--	--	136	--	--	--	--	1,268	---	--
	02/07/01	<1.0	286	1,200	1.7	4.7	100	248	84.7	24	506	2,600	--	--
	05/03/02	<1.0	250	868	1	4.72	163	137	48.4	40.7	441	--	--	<1.00
	10/14/02	<0.1	342	381	--	--	124	9.39	2.48	38.4	405	1,220	--	<0.10
Dup	10/14/02	<0.1	358	372	--	--	116	8.82	2.38	37.4	409	1,260	--	<0.10
	12/27/02	<0.1	288	505	---	---	114	21.2	4.42	50.6	461	1,450	---	<0.10
Dup	12/27/02	<0.1	158	115	--	--	139	55.5	23	4.94	94.4	594	--	<0.10
	02/18/03	<0.1	264	691	---	---	118	32.2	7.5	59	474	1,610	---	<0.10
	05/30/03	<1.0	236	1,020	<2.00	5.53	79.6	113	29.7	59.8	664	2,670	---	<1.00
	08/25/03	<1.0	192	1,170	<2.00	5.43	72.9	143	35	82.1	616	2,935	---	<1.00
	11/07/03	<1.0	194	1,620	<2.00	5.48	76.6	228	61.4	83.6	629	3,035	---	<1.00
	02/05/04	<1.0	170	1,730	<2.00	5.93	79	277	75.9	108	630	3,380	---	<1.00
	05/06/04	<1.00	158	2,150	<3.00	5.94	88.2	407	99.9	99.7	593	4,090	---	<1.00
	08/03/04	<0.1	150	2,730	---	---	125	632	191	124	832	6,810	---	<0.10
	02/11/05	<1.00	136	4,520	<1.00	5.19	127	1,060	289	156	983	9,030	---	<1.00
	08/04/05	<1.00	132	6,580	<1.00	5.34	166	1,650	375	142	1,440	13,200	---	<1.00

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
Dup 1	08/04/05	<1.00	242	394	1.82	6.74	200	49.2	14.8	21.5	341	1,220	---	<1.00
	02/22/06	<10.0	220	800	1.3	6.6	160	222	69.4	14	274	2,670	---	<10.0
	08/24/06	<10.0	190	930	<5	5.09	140	145	47.6	13.1	295	1,280	---	<10.1
	02/28/07	<10	300	730	3.5	5.2	340	36.9	10.6	18.4	301	1,310	---	<10.2
	08/23/07	<10	115	360	1.80	5.20	170.0	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
	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
	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 - Insufficent Water Column												
	02/22/06	NS - Insufficent Water Column												
	02/28/07	NS - Insufficent Water Column												
	08/22/07	NS - Insufficent Water Column												
	02/20/08	NS - Insufficent Water Column												
	08/12/08	NS - Insufficent Water Column												
	02/19/09	<5	**370.0**	**1,700**	**0.80**	**3.00**	**100.0**	**430.0**	**150.0**	**17.0**	**380.0**	**4,500**	---	**5**
	07/29/09	<5	**490.0**	**1,800**	**0.72**	**3.80**	**120.0**	**420.0**	**140.0**	**19.0**	**340.0**	**5,000**	---	<5
	02/16/11	<2.0	**115**	**1,720**	**0.607**	**3.40**	**760**	**365**	**116**	**9.65**	**336**	**3,420**	---	<2.0
	08/18/11	NS - Insufficent Water Column												
	02/22/12	<5.00	**131**	**2,240**	**0.654**	**3.64**	**145**	**588**	**176**	**12.2**	**456**	**6,470**	---	<5.00
	08/28/12	<5.00	**146**	**2,450**	**0.668**	**2.14**	**128**	**563**	**169**	**12.6**	**460**	**7,980**	---	<5.00
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
Dup	02/22/06	<10.0	**82**	**5,000**	<0.50	<40	**690**	**916**	**253**	**34**	**884**	**11,600**	---	<10.0
	08/24/06	<10.0	**85**	**5,600**	<5	**3.74**	**690**	**942**	**266**	**27.8**	**1,370**	**11,300**	---	<10.0
	02/28/07	<10	**95**	**5,200**	<0.5	**4.3**	**620**	**758**	**193**	**36.9**	**1,060**	**12,400**	---	<10
	08/22/07	<10	**92.2**	**4,700**	**0.30**	**3.90**	**610.0**	**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
Dup	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 - Insufficent 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 - Insufficent Water Column												
	02/28/07	<10	170	90	2.2	2.2	71	57.3	19.8	6.03	52.9	575	---	<10
	08/22/07	<10	146	150	1.80	2.10	65.0	66.4	24.1	5.98	60.2	652	---	146
	2/20/08	<5	117	487	1.68	2.19	61.1	161	62.2	10.5	88.1	1,500	---	<5
	8/12/08	<1.53	101.0	792	1.81	2.38	68.3	238.0	92.0	13.3	120.0	2,370	---	<1.53
	02/19/09	<5	100.0	840	1.30	2.20	74.0	290.0	110.0	14.0	110.0	2,000	---	<5
	7/29/09	<5	83.0	1,000	1.30	2.70	85.0	270.0	110.0	15.0	130.0	3,300	---	<5
	2/25/10	<5	99.2	1,120	0.97	2.84	74.0	301.0	116.0	12.5	135.0	2,450	---	<5
	7/28/10	<5	91.1	801	1.16	2.02	152.0	337.0	110.0	11.1	128.0	3,350	---	<5
	02/16/11	<2.0	96.4	1,230	1.05	2.73	84.1	293	110	11.4	124	2,810	---	<2.0
	8/18/11	<5.0	97.0	1,110	1.20	2.84	83.4	293	103	9.52	115	3,720	---	<5.0
	2/22/12	<5.00	98.4	1,200	1.21	2.93	85.8	325	106	10.9	124	3,390	--	<5.00
	08/24/12	<10.0	108	1,430	1.13	2.43	84.4	357	133	13.4	147	3,640	---	<10.0
Dup	08/24/12	<5.00	107	1,420	1.11	2.42	84.6	361	131	13.2	148	4,160	---	<5.00
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	11/23/04	<1.00	86	7,000	<10.0	17.3	582	2,020	678	52.4	1,590	12,900	---	<1.00
	02/11/05	<1.00	92	5,200	1.3	5.12	502	1,340	522	61.3	974	22,000	---	<1.00
	08/05/05	<1.00	82	4,850	1.76	4.7	450	1,200	422	50.6	793	9,750	---	<1.00
Dup 3	08/05/05	<1.00	80	5,170	1.87	4.83	462	1,270	463	51	814	15,800	---	<1.00
	02/22/06	<10.0	75	3,900	<0.50	8.9	400	870	271	32.6	464	8,830	---	<10.0
	08/24/06	<10.0	250	3,900	<5	3.01	390	902	293	28.8	582	10,900	-	<10.0
	02/28/07	<10	92	5,500	<0.5	4.4	600	901	247	37	658	12,700	---	<10
	08/22/07	<10	82.6	4,500	0.30	3.10	440.0	1,040	367	<50	686	11,600	---	82.6
	2/20/08	<5	80.1	4,800	1.72	3.62	476	1,130	437	31.2	684	10,300	---	<5
	8/12/08	<1.53	79.8	4,240	2.94	3.27	429.0	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	05/24/12	<5.00	158	4,390	0.121	3.56	307	890	272	19.2	1,150	10,200	---	<5.00
Dup 1	05/24/12	<5.00	165	4,460	0.142	3.46	316	880	270	19.1	1,170	11,000	---	<5.00
	08/28/12	<10.0	294	4,350	0.618	2.32	290	877	255	18.4	1,150	11,400		<10.0
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	DRY												
West	08/22/97	--	--	250	--	--	--	--	--	--	--	--	--	--
	02/17/98	<2.0	370	237	--	--	134	--	--	--	--	975	96	--
	02/07/01	<1.0	236	340	2	4.5	120	39.7	12.5	33.2	264	1,000	--	--
	05/03/02	<1.0	214	329	1.39	4.36	116	41.9	11.9	40.9	234	--	---	<1.00
	10/14/02	<0.1	210	337	--	--	127	39.3	9.37	35.6	290	986	--	<0.10
	12/27/02	<0.1	198	337	---	---	134	43.1	12.5	33.2	263	997	--	<0.10
	02/18/03	<0.1	190	354	---	---	141	33.6	9.78	23.9	152	1,010	---	<0.10
	05/30/03	<1.0	202	353	1.54	4.16	116	48.4	13.3	35.1	283	1,050	---	<1.00
	08/25/03	<1.0	194	351	1.5	4.08	112	49.4	13.2	38.4	265	1,066	---	<1.00
	11/07/03	<1.0	204	327	1.65	3.98	115	51.3	13.8	38.8	235	1,100	---	<1.00
	02/05/04	<1.0	196	345	1.66	4.09	112	51.6	14.6	41.4	235	1,074	---	<1.00
	05/06/04	<1.00	200	339	1.44	3.83	115	53.6	14	37.3	241	1,040	---	<1.00
	08/03/04	<0.1	186	337	---	---	147	41.7	20.1	49.1	297	717	---	<0.10
	02/11/05	<1.00	186	417	2.44	4.47	117	75.9	21.4	43.9	241	1,128	---	<1.00
	08/04/05	<1.00	150	526	1.54	4.16	129	87	23.6	42.2	280	1,104	---	<1.00
	02/23/06	<10.0	150	800	0.76	4	110	149	44.3	47.1	257	2,390	---	<10.0
	08/25/06	<10.0	150	1,500	<2.5	2.78	97	315	87.6	67.7	400	4,840	---	<10.0
	02/28/07	<10	120	2,500	0.86	6.6	120	515	130	98.7	410	7,600	---	<10
	08/21/07	<10	99.8	3,700	0.20	4.31	180.0	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 detectin limit
3. - -: No data available
4. NS: Not Sampled
5. RW: Recovery well
6. WW: Water well
7. Highlight: Result exceeds NMWQCC standard
8. **Bold** indicates laboratory detection
9. B: This Qualifier indicates that the analyte is an estimated value between the RL and the MDL
10. All analyses prior to 10/14/02 conducted by TraceAnalysis, Inc., Lubbock, TX
11. Analyses from 10/14/02 conducted by Environmental Lab of Texas, Odessa, TX
12. Analyses from 5/30/03 through 08/2005 conducted by Trace Analysis Inc., Lubbock, TX
13. Analyses from 02/2006 through 08/2007, conducted by Pace Analytical, St. Rose, LA and Greenbay, WI Laboratories
14. Analyses from 02/2008 through 08/2009, conducted by Test America, Houston, TX
15. Analyses from 02/2010 and following, conducted by ALS Environmental, Houston, TX

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,

Patricia L. Lynch

Electronically approved by: Yvan K. Ty

Patricia L. Lynch
Project Manager

Certificate No: TX: T104704231-11-5

ALS Environmental

Date: 09-Mar-12

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

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
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
Work Order: 1202828
Sample ID: MW-1 022212
Lab ID: 1202828-01
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	**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 CaCO3)	**292**		**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)	**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
Work Order: 1202828
Sample ID: MW-7 022212
Lab ID: 1202828-07
Collection Date: 2/22/2012 03:10 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			**SW6020**		Prep Date: **2/28/2012**	Analyst: **ALR**
Calcium	**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
Work Order: 1202828
Sample ID: MW-8 022212
Lab ID: 1202828-08
Collection Date: 2/22/2012 02:15 PM
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
Work Order: 1202828
Sample ID: MW-10 022212
Lab ID: 1202828-11
Collection Date: 2/22/2012 03:45 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			**SW6020**		Prep Date: **2/28/2012**	Analyst: **ALR**
Calcium	**1,050**		**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 CaCO3)	**122**		**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)	**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
Work Order: 1202828
Sample ID: MW-11 022212
Lab ID: 1202828-12
Collection Date: 2/22/2012 01:25 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			**SW6020**		Prep Date: **2/28/2012**	Analyst: **ALR**
Calcium	**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 CaCO3)	**108**		**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)	**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
Work Order: 1202828
Sample ID: MW-15 022212
Lab ID: 1202828-16
Collection Date: 2/22/2012 01:50 PM
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
Work Order: 1202828
Sample ID: MW-17 022212
Lab ID: 1202828-18
Collection Date: 2/22/2012 02:20 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			**SW6020**		Prep Date: **2/28/2012**	Analyst: **ALR**
Calcium	**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
Work Order: 1202828
Sample ID: MW-20 022212
Lab ID: 1202828-21
Collection Date: 2/22/2012 01:40 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			**SW6020**		Prep Date: **2/28/2012**	Analyst: **ALR**
Calcium	**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
Work Order: 1202828
Sample ID: MW-21 022212
Lab ID: 1202828-22
Collection Date: 2/22/2012 01:30 PM
Matrix: WATER

Analyses	Result	Qual	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED METALS			**SW6020**		Prep Date: **2/28/2012**	Analyst: **ALR**
Calcium	**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
Work Order: 1202828
Sample ID: MW-22 022212
Lab ID: 1202828-23
Collection Date: 2/22/2012 03:10 PM
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	**Work Order:**	1202828
Sample ID:	MW-24 022212	**Lab ID:**	1202828-24
Collection Date:	2/22/2012 02:35 PM	**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	**Work Order:**	1202828
Sample ID:	MW-West 022212	**Lab ID:**	1202828-25
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: **2/27/2012**	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
Work Order: 1202828
Sample ID: SW-MW 022212
Lab ID: 1202828-26
Collection Date: 2/22/2012 04:15 PM
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
Work Order: 1202828
Sample ID: RW-1 022212
Lab ID: 1202828-28
Collection Date: 2/22/2012 04:00 PM
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
Work Order: 1202828
Sample ID: Dup-1 022212
Lab ID: 1202828-31
Collection Date: 2/22/2012
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
Work Order: 1202828
Sample ID: Dup-2 022212
Lab ID: 1202828-32
Collection Date: 2/22/2012
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.

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
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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

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

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

Units Reported	Description
mg/L	Milligrams per Liter

ALS Environmental

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 Gamboa (eSignature) 24-Feb-12 (Date) Reviewed by: Mary K. 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):	2.9c, 3.2c, 2.1c, 2.6c	002	
Cooler(s)/Kit(s):	4014, 4602, 4700, 2593		
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: 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:

SRC Page 1 of 1

Chain of Custody Form

ALS Environmental

Page ____ of ____

COC ID: 50968

1202828

CRA-HOU: Conestoga-Rovers & Associates

Project: G.L. Erwin

ALS Project Manager:

Customer Information		Project Information			
Purchase Order	~~4046~~ 4046114	Project Name	G.L. Erwin	A	Dissolved Metals (6020/7000) Ca,Mg,K,Na
Work Order		Project Number	039124039124	B	Anions (300) Cl, F, SO4, NO3
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	
				F	
City/State/Zip	Midland, TX 79703	City/State/Zip	Midland, TX 79703	G	
Phone	(432) 686-0086	Phone	(432) 686-0086	H	
Fax	(432) 686-0186	Fax	(432) 686-0186	I	
e-Mail Address	TWells@CRAworld.com	e-Mail Address		J	

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	1610														
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						X	X	X	X							

Sampler(s) Please Print & Sign: Brittany Ford / Brittany Ford

Shipment Method: FedEx

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

Results Due Date:

Relinquished by: Brittany Ford Date: 2.23.12 Time: 1400

Relinquished by: Date: Time:

Received by: Received by (Laboratory): 2/24/12 09:12

Notes: 10 Day TAT.

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

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)

☑ Level II Std QC ☐ TRRP CheckList

☐ Level III Std QC/Raw Data ☐ TRRP Level IV

☐ Level IV SW846/CLP

☐ Other / EDD ____

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

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

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Page ____ of ____

COC ID: 50973

☐ Cincinnati, OH +1 513 733 5336 ☐ Holland, MI +1 616 399 6070 ☐ Salt Lake City, UT +1 801 266 7700
☐ Everett, WA +1 425 356 2600 ☐ Houston, TX +1 281 530 5656 ☐ Spring City, PA +1 610 948 4903
☐ Fort Collins, CO +1 970 490 1511 ☐ Middletown, PA +1 717 944 5541 ☐ York, PA +1 717 505 5280

ALS Project Manager: | ALS Work Order #: 1028828

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	4046114	Project Name	G.L. Erwin	A	Dissolved Metals (6020/7000) Ca,Mg,K,Na
Work Order		Project Number	039124039124	B	Anions (300) Cl, F, SO4, NO3
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	
				F	
City/State/Zip	Midland, TX 79703	City/State/Zip	Midland, TX 79703	G	
Phone	(432) 686-0086	Phone	(432) 686-0086	H	
Fax	(432) 686-0186	Fax	(432) 686-0186	I	
e-Mail Address		e-Mail Address	TWells@CRAworld.com		

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 ☐ Other

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Brittany Ford	2.23.11	1400	
Relinquished by:	Date:	Time:	Received by (Laboratory): 2/24/12 09:12
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

Notes: 10 Day TAT.

Cooler ID	Cooler Temp.

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

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

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Chain of Custody Form

ALS Environmental

Page _____ of _____

COC ID: 50971

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☐ Everett, WA +1 425 356 2600	☐ Houston, TX +1 281 530 5656	☐ Spring City, PA +1 610 948 4903
☐ Fort Collins, CO +1 970 490 1511	☐ Middletown, PA +1 717 944 5541	☐ York, PA +1 717 505 5280

ALS Project Manager: | ALS Work Order #: 1202828

Customer Information		Project Information		Parameter/Method Request for Analysis	
Purchase Order	4034611/4	Project Name	G.L. Erwin	A	Dissolved Metals (6020/7000) Ca,Mg,K,Na
Work Order		Project Number	039124039124	B	Anions (300) Cl, F, SO4, NO3
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	
				F	
City/State/Zip	Midland, TX 79703	City/State/Zip	Midland, TX 79703	G	
Phone	(432) 686-0086	Phone	(432) 686-0086	H	
Fax	(432) 686-0186	Fax	(432) 686-0186	I	
e-Mail Address		e-Mail Address	TWells@CRAworld.com		

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-20 022212	2.22.12	1340	GW	8	3	X	X	X	X							
2	MW-21 022212		1330														
3	MW-22 022212		1510														
4	MW-24 022212		1435														
5	MW-West 022212		1535														
6	SW-MW 022212		1615														
7	WW-1 022212		1245														
8	RW-1 022212		1600														
9	Trip Blank																
10	Temp Blank																

55 of 57

Sampler(s) Please Print & Sign: Brittany Ford

Shipment Method:

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

Results Due Date:

Relinquished by: Brittany Ford	Date: 2.23.12	Time: 1400	Received by:	
Relinquished by:	Date:	Time:	Received by (Laboratory):	2/24/12 09:12
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Notes: 10 Day TAT.

Cooler ID	Cooler Temp.

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

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

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W.O.# 1202828

FRI - 24 FEB A2
PRIORITY OVERNIGHT
DSR
77099
TX-US
IAH

S# 7955 4354 6413

43 SGRA

4014

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
2.23.12 Time: 1401
Brittany Ford
y: CRA

Seal Broken By:
Date: 2/24/12

This portion can be removed for Recipient's records.

FedEx Tracking Number 875882544152

2.23.12

der's ne Brittany Ford Phone 432 686-0086

Company CRA-Midland

Address 2135 South Loop 250 west Dept/Floor/Suite/Room

Midland State TX ZIP 79703

r Internal Billing Reference 4662

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

Date:
Name:
Compa

CUSTODY SEAL
2.23.12 Time: 1401
Brittany Ford 4662
y: CRA

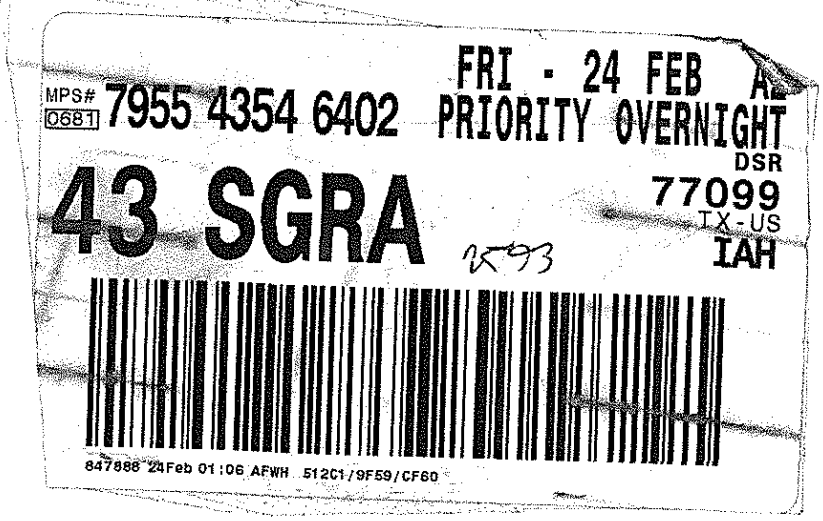
Seal Broken By:
Date 2/24/12

W.O.# 120282

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

Date: 2.23
Name: Ba
Company: C

CUSTODY SEAL 4700
Time: 1400
Bethany Ford
CRA
Seal Broken By: RNG
Date: 2/24/12



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

CUSTODY SEAL 2593
Time: 1400
Bethany Ford
CRA
Seal Broken By: RNG
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,

Patricia L. Lynch

Electronically approved by: Makenzie L. Henderson

Patricia L. Lynch
Project Manager

Certificate No: T104704231-09A-TX

ALS Environmental

Date: 11-Jun-12

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

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
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	☐

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 CaCO3)	**138**		**5.0**	**5.00**	**mg/L**	1	6/6/2012 13:23
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:23
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:23
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**165**		**5.0**	**5.00**	**mg/L**	1	6/6/2012 13:28
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:28
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	6/6/2012 13:28
Alkalinity, Total (As CaCO3)	**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.

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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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.

ALS Environmental

Date: 11-Jun-12

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

QUALIFIERS, ACRONYMS, UNITS

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

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

Units Reported	Description
mg/L	Milligrams per Liter

ALS Environmental

Sample Receipt Checklist

Client Name: **CRA-MID** Date/Time Received: **26-May-12 09:25**

Work Order: **12051182** Received by: **RDH**

Checklist completed by Rachel 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:

ALS Environmental

Cincinnati, OH +1 513 733 5336
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 1

COC ID: 61134

ALS Project Manager:

12051182

CRA-HOU: Conestoga-Rovers & Associates

Project: G.L. Erwin - 039124

Customer Information		Project Information			
Purchase Order	4046114	Project Name	G.L. Erwin	A	[illegible]
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 (353)
				F	Temp.
City/State/Zip	Midland, TX 79703	City/State/Zip	Midland, TX 79703	G	
Phone	(432) 686-0086	Phone	(432) 686-0086	H	
Fax	(432) 686-0186	Fax	(432) 686-0186	I	
e-Mail Address		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			
2	MW-26-052412	5/24/12	1350	W	2,3,8	3	X	X	X	X	X			
3	MW-27-052412	5/24/12	1415	W	2,3,8	3	X	X	X	X	X			
4	DUP-1	5/24/12	—	W	2,3,8	3	X	X	X	X	X			
5	Temperature Blank	—	—	W	8	1						X		
6														
7														
8														
9														
10														

Sampler(s) Please Print & Sign: Todd Wells [signature]

Shipment Method: FedEx

Required Turnaround Time: (Check Box)

Results Due Date:

Relinquished by:	Date:	Time:	Received by:
Todd Wells [signature]	5/25/12	1500	
Relinquished by:	Date:	Time:	Received by (Laboratory): [signature] 5/26/12
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):

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

Cooler ID | Cooler Temp. | QC Package: (Check One Box Below)

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

Fed. Ex. airbill missing!

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.

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,

Patricia L. Lynch

Electronically approved by: Sonia West

Patricia L. Lynch
Project Manager

Certificate No: T104704231-09A-TX

ALS Environmental

Date: 10-Sep-12

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

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
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.

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								
Surr: Selenate (surr)	*4.701*	0.10	*5*	0	*94*	*85-115*	0			

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			
Surr: Selenate (surr)	*4.434*	0.10	*5*	0	*88.7*	*85-115*	0			

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			
Surr: Selenate (surr)	*44.67*	1.0	*50*	0	*89.3*	*85-115*	0			

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	
Surr: Selenate (surr)	*44.63*	1.0	*50*	0	*89.3*	*85-115*	44.67	*0.0918*	*20*	

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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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
Surr: Selenate (surr)	*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
Surr: Selenate (surr)	*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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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

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

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

Units Reported	Description
mg/L	Milligrams per Liter

ALS Environmental

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 (eSignature) 28-Aug-12 (Date) Reviewed by: Patricia L. Lynch (eSignature) 30-Aug-12 (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):	0.8c c/u	004	
Cooler(s)/Kit(s):	1854		
Date/Time sample(s) sent to storage:	8/28/12 21:13		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:	-		

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Environmental

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600 | 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

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	G.L. Erwin
Work Order		Project Number	039124
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		e-Mail Address	

A	Dissolved Metals (6020/7000) Ca, Mg, Na, K
B	Anions (300) Cl, SO4, F
C	Alkalinity
D	TDS
E	Nitrate (300)
F	Temp
G	
H	
I	
J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-23082412	8-24-12	1320	GW	2,3	3	X	X	X	X	X						
2	MW-2408 2412	8-24-12	1345	W	2,3	3	X	X	X	X	X						
3	MW-21 08 2412	8-24-12	1415	W	2,3	3	X	X	X	X	X						
4	MW-20 08 2412	8-24-12	1440	W	2,3	3	X	X	X	X	X						
5	MW-15 08 2412	8-24-12	1500	W	2,3	3	X	X	X	X	X						
6	DUP-1 08 2412	8-24-12		W	2,3	3	X	X	X	X	X						
7	Temperature Blank	—	—	W								X					
8																	
9																	
10																	

21 of 22

Sampler(s) Please Print & Sign: Glenn Quinn / Glenn Quinn

Shipment Method: FedEx

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

Results Due Date:

Relinquished by: Todd Wells	Date: 8/27/12	Time: 1700	Received by:	Notes: 10 Day TAT. Diss Metals to be field filtered.
Relinquished by:	Date:	Time:	Received by (Laboratory):	
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	

Cooler ID	Cooler Temp.

QC Package: (Check One Box Below)

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

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

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

1208117C

This portion can be removed for recipient's records.

8/27/12 FedEx Tracking Number 8996701685 36

Name Todd Wells Phone 432 686-0086

Company CRA

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

Midland State TX ZIP 79703

Your Internal Billing Reference 039124-2012-01

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 Express

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151969 REV 7/08 RRD

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,

Patricia L. Lynch

Electronically approved by: Jumoke M. Lawal

Patricia L. Lynch
Project Manager

Certificate No: T104704231-09A-TX

ALS Environmental

Date: 14-Sep-12

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

Work Order Sample Summary

Lab Samp ID	Client Sample ID	Matrix	Tag Number	Collection Date	Date Received	Hold
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 CaCO3)	**164**		**10**	**10.0**	**mg/L**	1	9/10/2012 16:15
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:15
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:15
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**107**		**10**	**10.0**	**mg/L**	1	9/10/2012 16:41
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:41
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:41
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**113**		**10**	**10.0**	**mg/L**	1	9/10/2012 16:46
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:46
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:46
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**275**		**10**	**10.0**	**mg/L**	1	9/10/2012 16:56
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:56
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 16:56
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**149**		**10**	**10.0**	**mg/L**	1	9/10/2012 17:07
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:07
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:07
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**315**		**10**	**10.0**	**mg/L**	1	9/10/2012 17:12
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:12
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:12
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**283**		**10**	**10.0**	**mg/L**	1	9/10/2012 17:16
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:16
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:16
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**186**		**10**	**10.0**	**mg/L**	1	9/10/2012 17:21
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:21
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:21
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**171**		**10**	**10.0**	**mg/L**	1	9/10/2012 17:26
Alkalinity, Carbonate (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:26
Alkalinity, Hydroxide (As CaCO3)	U		10	10.0	mg/L	1	9/10/2012 17:26
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**127**		**5.0**	**5.00**	**mg/L**	1	9/10/2012 17:47
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 17:47
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 17:47
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**146**		**5.0**	**5.00**	**mg/L**	1	9/10/2012 17:57
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 17:57
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 17:57
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**205**		**5.0**	**5.00**	**mg/L**	1	9/10/2012 18:08
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:08
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:08
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**323**		**5.0**	**5.00**	**mg/L**	1	9/10/2012 18:18
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:18
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:18
Alkalinity, Total (As CaCO3)	**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 CaCO3)	**227**		**5.0**	**5.00**	**mg/L**	1	9/10/2012 18:23
Alkalinity, Carbonate (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:23
Alkalinity, Hydroxide (As CaCO3)	U		5.0	5.00	mg/L	1	9/10/2012 18:23
Alkalinity, Total (As CaCO3)	**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.

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

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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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	
Surr: Selenate (surr)	*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								
Surr: Selenate (surr)	*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			
Surr: Selenate (surr)	*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
Surr: Selenate (surr)	*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
Surr: Selenate (surr)	*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.

ALS Environmental

Date: 14-Sep-12

Client: Conestoga-Rovers & Associates
Project: 039124 G.L. Erwin
WorkOrder: **12081363**

QUALIFIERS, ACRONYMS, UNITS

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

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

Units Reported	Description
mg/L	Milligrams per Liter

ALS Environmental

Sample Receipt Checklist

Client Name: **CRA-MID** Date/Time Received: **31-Aug-12 07:15**

Work Order: **12081363** Received by: **JBA**

Checklist completed by Paresh M. Giga (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):	2.3c,1.8c,2.5c C/U	004	
Cooler(s)/Kit(s):	3893,2780,7100		
Date/Time sample(s) sent to storage:	8/31/12 17:10		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	N/A ☐
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction:

ALS Environmental

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070

Chain of Custody Fo

Page 1 of 3

COC ID: 64826

12081363

CRA-MID: Conestoga-Rovers & Associates

Project: 039124 G.L. Erwin

ALS Project Manager:

Customer Information		Project Information	
Purchase Order		Project Name	G.L. Erwin
Work Order		Project Number	039124
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		e-Mail Address	

A: Dissolved Metals (6020/7000) Ca, Mg, Na, K
B: Anions (300) Cl, SO4, F
C: Alkalinity
D: TDS
E: Nitrate (300)
F:
G:
H:
I:
J:

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	GW/SW	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	1245	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						

Sampler(s) Please Print & Sign: Glenn Binney

Shipment Method:

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

Results Due Date:

Relinquished by: Date: 8/30/12 Time: 1800 Received by: Date: 8/31/12 Time: 0715

Notes: 10 Day TAT. Diss Metals to be field filtered.

Relinquished by: Date: Time: Received by (Laboratory): Date: Time:

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

Cooler ID | Cooler Temp.

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

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

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

Cincinnati, OH +1 513 733 5336
Fort Collins, CO +1 970 490 1511
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Holland, MI +1 616 399 6070
Houston, TX +1 281 530 5656
Spring City, PA +1 610 948 4903
South Charleston, WV +1 304 356 3168
Middletown, PA +1 717 944 5541
Salt Lake City, UT +1 801 266 7700
York, PA +1 717 505 5280

ALS Environmental

Chain of Custody Form

COC ID: 64825

ALS Project Manager:

ALS Work Order #: 1208136 3.

Customer Information		Project Information		Parameter/Method Request for Analysis	
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)
				F	
City/State/Zip	Midland, TX 79703	City/State/Zip	Midland, TX 79703	G	
Phone	(432) 686-0086	Phone	(432) 686-0086	H	
Fax	(432) 686-0186	Fax	(432) 686-0186	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	MW-2 082912	8-29-12	815	W	2,3	3	X	X	X	X	X						
2	MW-1 082912	8-29-12	835	W	2,3	3	X	X	X	X	X						
3	MW-6 082912	8-29-12	930	W	2,3	3	X	X	X	X	X						
4	MW-3 082912	8-29-12	950	W	2,3	3	X	X	X	X	X						
5	MW-5 082912	8-29-12	910	W	2,3	3	X	X	X	X	X						
6	MW-22 082912	8-29-12	1100	W	2,3	3	X	X	X	X	X						
7	MW-10 082912	8-29-12	1040	W	2,3	3	X	X	X	X	X						
8	MW-11 082912	8-29-12	730	W	2,3	3	X	X	X	X	X						
9	MW-1 082912	8-29-12	1015	W	2,3	3	X	X	X	X	X						
10	MW-26 082912	8-29-12	1115	W	2,3	3	X	X	X	X	X						

46 of 49

Sampler(s) Please Print & Sign: Glenn Quinney Glenn Quinney

Shipment Method:

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

Results Due Date:

Relinquished by: Todd Wells Date: 8/30/12 Time: 1800 Received by: [signature] Date: 8/31/12 Time: 815

Notes: 10 Day TAT. Diss Metals to be field filtered.

Relinquished by: Date: Time: Received by (Laboratory): Cooler ID: Cooler Temp:

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

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

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

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

ALS Environmental

Cincinnati, OH +1 513 733 5336 | Fort Collins, CO +1 970 490 1511 | Houston, TX +1 281 530 5656 | Spring City, PA +1 610 948 4903 | South Charleston, WV +1 304 356 3168
Everett, WA +1 425 356 2600 | Holland, MI +1 616 399 6070 | Middletown, PA +1 717 944 5541 | Salt Lake City, UT +1 801 266 7700 | York, PA +1 717 505 5280

Chain of Custody Form

Page 3 of 3

COC ID: 64828

ALS Project Manager: | ALS Work Order #: 1208363.

Customer Information		Project Information		Parameter/Method Request for Analysis	
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, SO_4, 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)
				F	Temp
City/State/Zip	Midland, TX 79703	City/State/Zip	Midland, TX 79703	G	
Phone	(432) 686-0086	Phone	(432) 686-0086	H	
Fax	(432) 686-0186	Fax	(432) 686-0186	I	
e-Mail Address		e-Mail Address		J	

No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	G	H	I	J	Hold
1	47 of 49 NWMW 082912	8-29-12	1140	W	2,3	3	X	X	X	X	X						
2	SWMW 082912	8-29-12	1235	W	2,3	3	X	X	X	X	X						
3	MW-4 082912	8-29-12	1220	W	2,3	3	X	X	X	X	X						
4	Temp. Blank	—	—	W		3						X					
5																	
6																	
7																	
8																	
9																	
10																	

Sampler(s) Please Print & Sign: Glenn Quinney

Shipment Method:

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

Results Due Date:

Relinquished by: Todd Wells | Date: 8/30/12 | Time: 1800 | Received by: | Date: 8/31/12 | Time: 0815

Notes: 10 Day TAT. Diss Metals to be field filtered.

Relinquished by: | Date: | Time: | Received by (Laboratory):

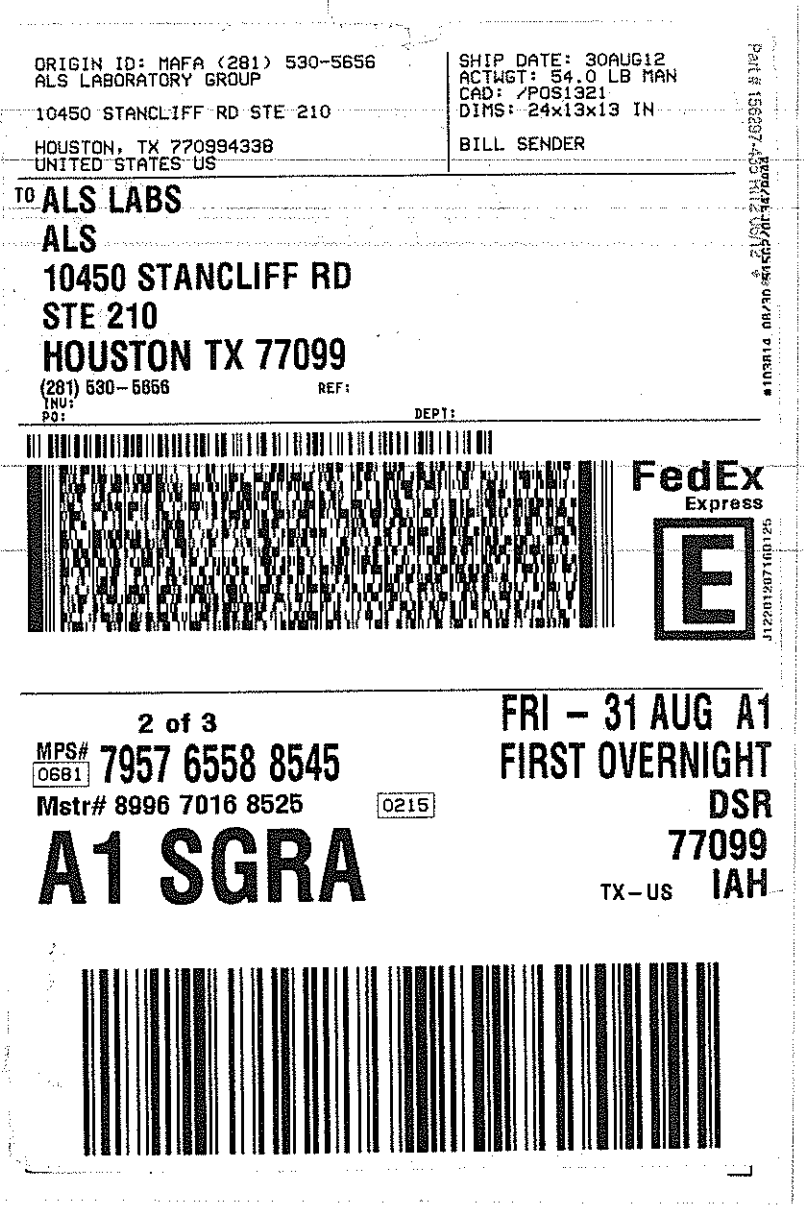
Logged by (Laboratory): | Date: | Time: | Checked by (Laboratory):

Cooler ID	Cooler Temp.

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

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

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



ORIGIN ID: MAFA (281) 530-5656
ALS LABORATORY GROUP

10450 STANCLIFF RD STE 210

HOUSTON, TX 770994338
UNITED STATES US

SHIP DATE: 30AUG12
ACTWGT: 54.0 LB MAN
CAD: /POS1321
DIMS: 24x13x13 IN

BILL SENDER

TO ALS LABS
ALS
10450 STANCLIFF RD
STE 210
HOUSTON TX 77099
(281) 530-5656 REF:
INV:
PO: DEPT:

FedEx Express

2 of 3
MPS# 0681 7957 6558 8545
Mstr# 8996 7016 8525 0215

A1 SGRA

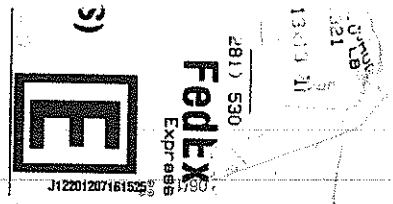
FRI - 31 AUG A1
FIRST OVERNIGHT
DSR
77099
TX-US IAH

FedEx Express

F0

FedEx First Overnight®

151969 REV 7/08 RRD



Company CRA

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

Midland State TX ZIP 79703

Ir Internal Billing Reference 039124

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

380

CUSTODY SEAL

Date: 8/30/12 Time: 1800

Name: Todd Wells

Company: CRA

8/31/12

ALS Environmental
10450 Stancliff Rd., Suite 210
Houston, Texas 77099
Tel. +1 281 530 5656
Fax. +1 281 530 58

270

CUSTODY SE

Date: 8/30/12 Time:

Name: Todd Wells

Company: CRA

710

CUSTODY SEAL

Date: 8/30/12 Time: 1800

Name: Todd Wells

Company: CRA

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)	OSE FILE NUMBER(S)
MW-25	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
Chevron Environmental Management Co.	713-372-9207
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
1400 Smith St., Room 07076	Houston / TX / 77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	0.90	N
	LONGITUDE	103	7	53.70	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

GL Erwin "A & B" Federal NCT-2 Tank Battery

2. OPTIONAL

(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼	35	24 ☐ NORTH ☑ SOUTH	37 ☑ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
4/03/12	4/03/12	95.0	97.0	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) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
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) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)
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) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	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) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
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
				☐ 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:

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 — DATE: 5/10/2012

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
MW-26	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
Chevron Environmental Management Co.	713-372-9207
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
1400 Smith St., Room 07076	Houston / TX / 77002

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	10	19.00	N
	LONGITUDE	103	7	57.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS
GL Erwin "A & B" Federal NCT-2 Tank Battery

2. OPTIONAL

(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼	35	24 ☐ NORTH ☑ SOUTH	37 ☑ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
4/02/12	4/03/12	75.0	80.0	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) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
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) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)
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) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	80.0	50.0	6	8/16 Sand.	12 sacks	Hand Mix
	50.0	10.0	6	Bentonite Pellets	25 sacks	Hand Mix
	10.0	0.0	6	Cement	1.997	Hand Mix

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
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
				☐ 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:

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 — DATE: 5/10/2012

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

RECEIVED
MAY 19 2012
Midland

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
MW-27	
WELL OWNER NAME(S)	PHONE (OPTIONAL)
Chevron Environmental Management Co.	713-372-9207
WELL OWNER MAILING ADDRESS	CITY / STATE / ZIP
1400 Smith St., Room 07076	Houston / TX / 77002

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	10	4.80	N
LONGITUDE	103	7	32.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS
GL Erwin "A & B" Federal NCT-2 Tank Battery

2. OPTIONAL

(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP	RANGE
¼	¼	¼	¼	35	24 ☐ NORTH ☑ SOUTH	37 ☑ EAST ☐ WEST

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD-1456	John W. White	White Drilling Company, Inc.

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
4/03/12	4/03/12	45.0	100.0	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) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
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) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

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) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	46.0	24.0	6	8/16 Sand.	9 sacks	Hand Mix
	24.0	10.0	6	Bentonite Pellets	6 sacks	Hand Mix
	10.0	0.0	6	Cement	1.997	Hand Mix

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
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
				☐ 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

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

APPENDIX C

SOIL BORING LOG

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

No. MW-25

Client: CHEVRON ENVIROMENTAL MANAGEMENT COMPANY

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 (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: 9:30 Finish Time: 11:49
										Brown sand
							5			
							10			
										Caliche - white to light pink
							15			
										Brown sand/sandstone
							20			
							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 (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: Finish Time:
							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 (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	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
										TD = 97.0'
							100			
							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

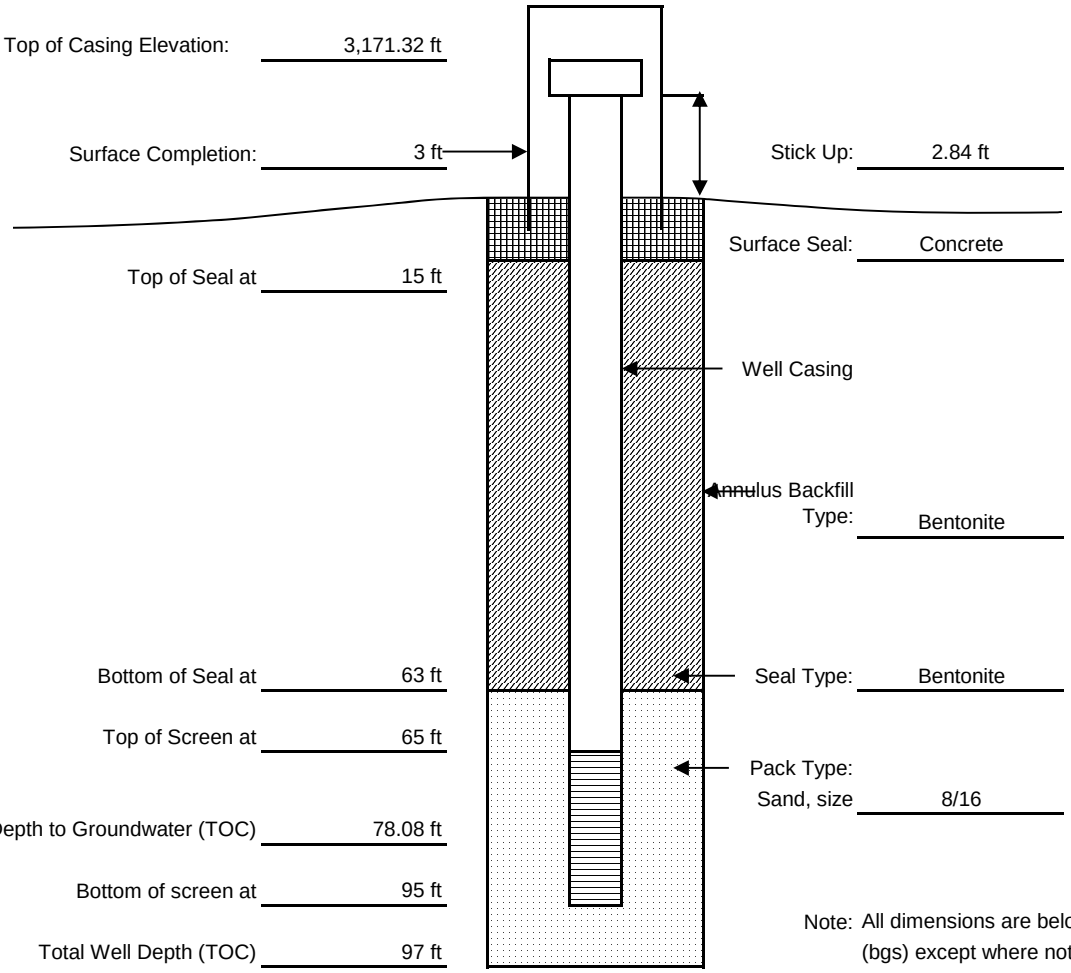
MONITORING WELL CONSTRUCTION DETAIL

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIROMENTAL 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

No. MW-26

Client: CHEVRON ENVIROMENTAL MANAGEMENT COMPANY

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 (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: 13:30 Finish Time: 16:56
										Caliche: White - Pink
										Tan limestone
							5			
							10			
							15			Tan sand w/limestone gravel "caliche"
							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

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

No. MW-26
CONT'D

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 (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: Finish Time: 16:56
							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'

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

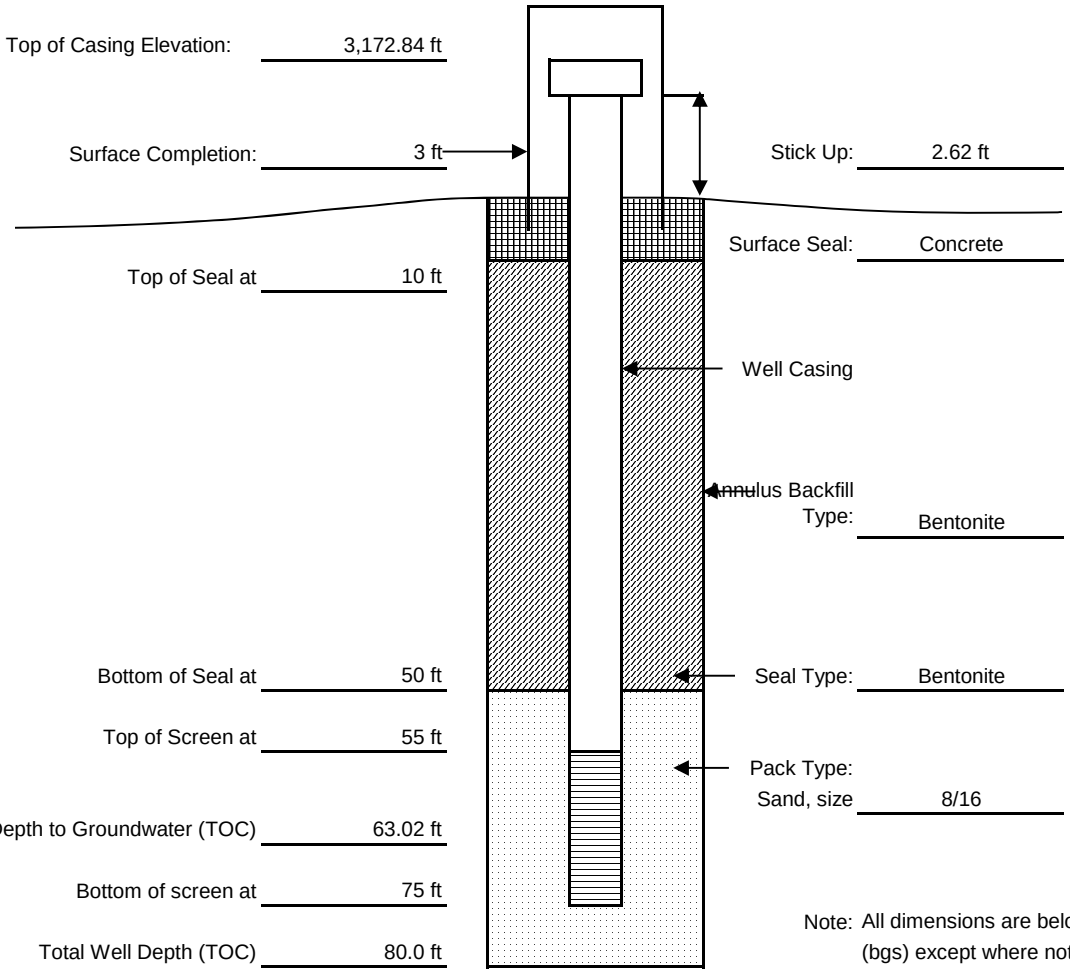
MONITORING WELL CONSTRUCTION DETAIL

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON ENVIROMENTAL
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

Client: CHEVRON ENVIROMENTAL
MANAGEMENT COMPANY

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

LABORATORY TEST DATA (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: 12:01 Finish Time: 14:26
										Caliche & limestone
							5			
							10			
							15			
										Caliche
							20			
							25			
							30			
										Light brown & pinkish sand
										Pinkish brown limestone
							35			Light brown sand
										Brownish sandy shale
							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-27
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 (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: Finish Time:
							45			
							50			Molded reddish blue gray & yellowish silty shale
							55			
							60			
							65			
							70			
							75			
							80			Reddish 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

SOIL BORING LOG

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: 04/03/12
Drilling Co.: WHITE DRILLING
Supervisor: JARRELL WHITE
Type Rig: AIR ROTARY
Logged by: KEN HORTON

LABORATORY TEST DATA (Results Reported in mg/kg)					FIELD DATA				BORING DATA	
Benzene	Toluene	Ethyl-benzene	Xylenes	Total TPH (C6-C35)	Photo-Ionization Detection Reading (ppm)	Sampling	Depth (feet)	Water Level	Screen Interval	Start Time: Finish Time: 14:26
							85			
							90			
							95			
							100			Reddish Shale
										TD = 100'
							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

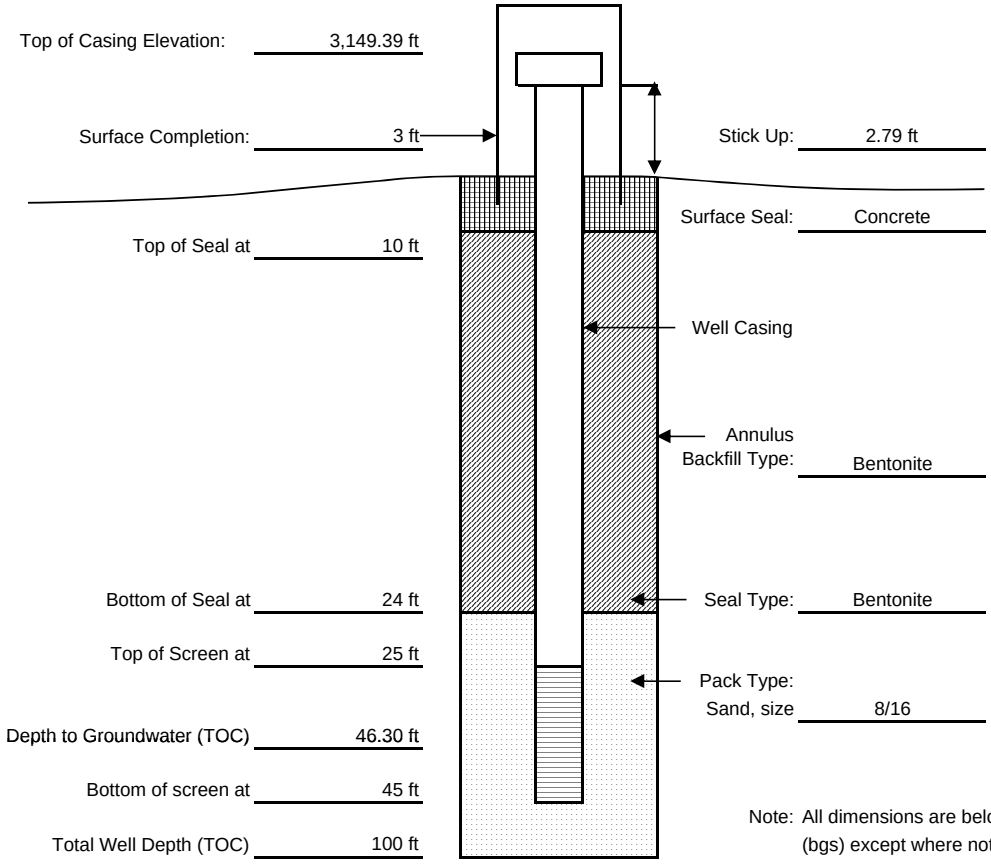
MONITORING WELL CONSTRUCTION DETAIL

Project: G.L. ERWIN TANK BATTERY A & B
LEA COUNTY, NEW MEXICO

Client: CHEVRON 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



Note: All dimensions are below ground surface (bgs) except where noted.

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"

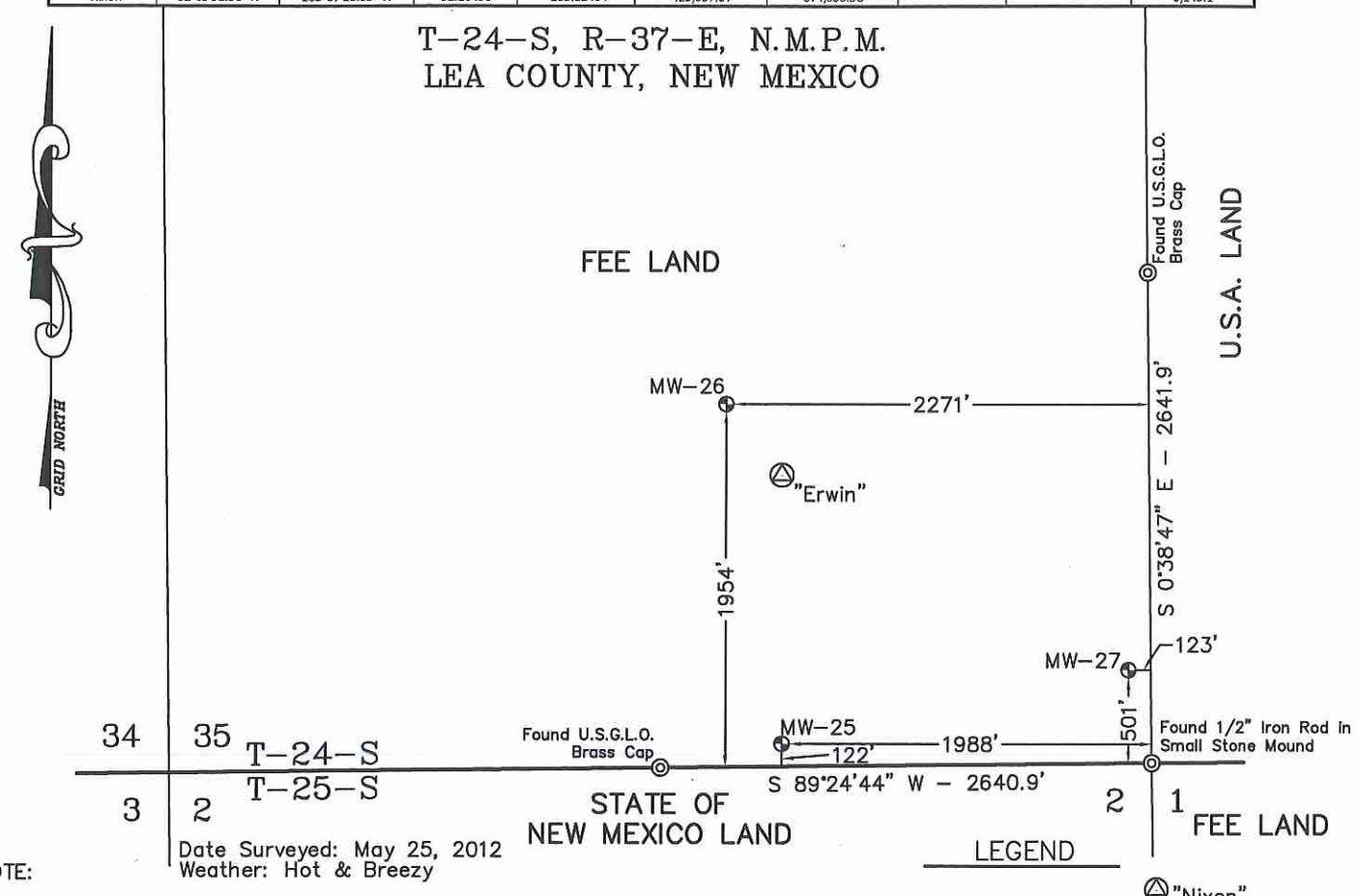
Duration/Volume:

APPENDIX D

L-2012-1019

27	26	26	25
34	35	35	36

DESCRIPTION	GEODETIC POSITIONS NORTH AMERICAN DATUM OF 1927				STATE PLANE COORDINATES NAD '27 - New Mexico East Zone (US Ft.)		ELEVATION NGVD '29 (US Ft.)		
	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



Date Surveyed: May 25, 2012
Weather: Hot & Breezy

NOTE:

1) 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.

2) Elevations shown hereon reference the National Geodetic Vertical Datum of 1929.

3) 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).

LEGEND

- ⊕ – Denotes Monitor Well
- △ – Denotes Static GPS Control Station
- ◎ – Denotes Found Monument (As Described)

1000 0 1000 2000

Graphic Scale in Feet

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

CONESTOGA-ROVERS & ASSOCIATES

Topographic Survey of

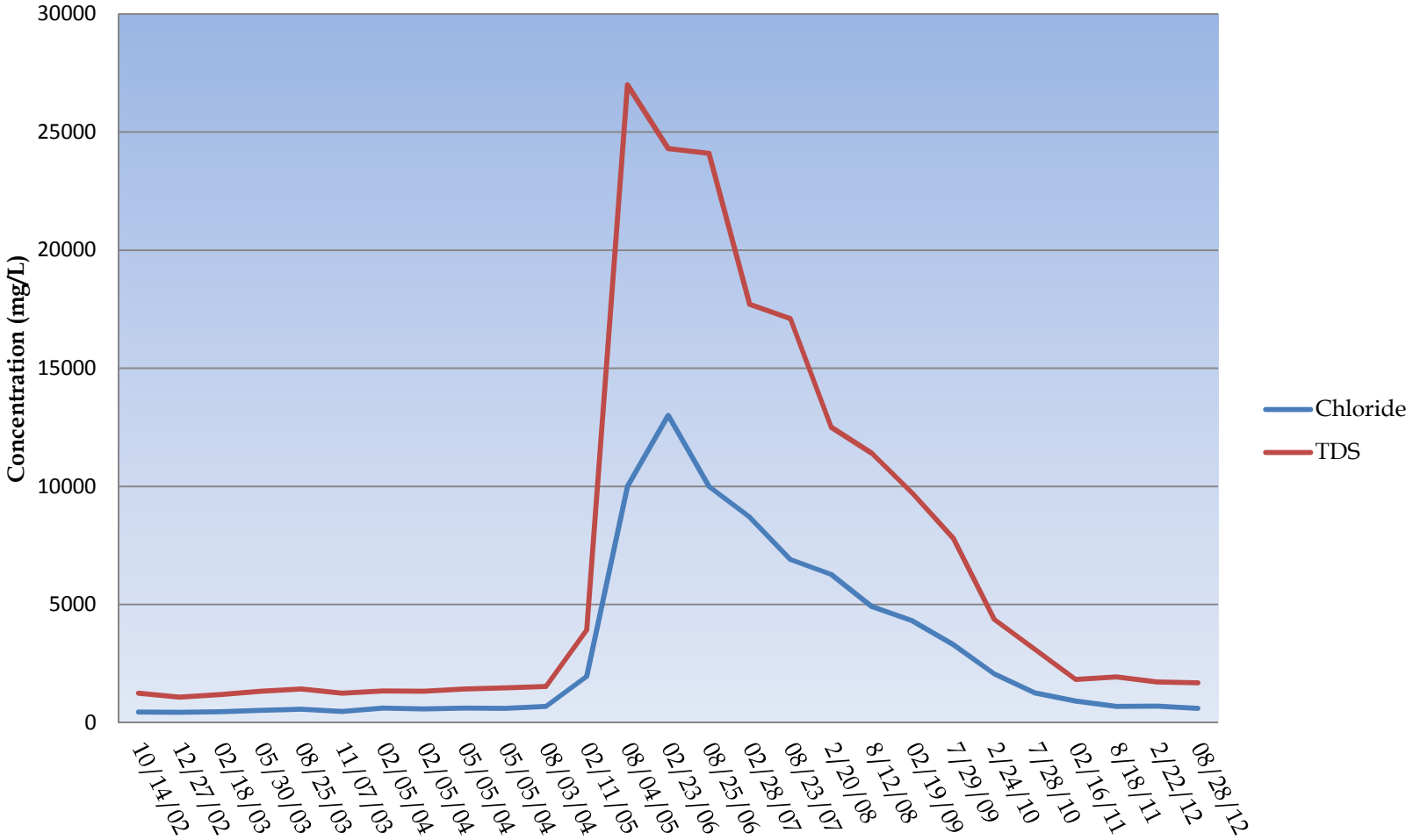
MONITOR WELLS

Located in Section 35
Township 24 South, Range 37 East, N.M.P.M.
Lea County, New Mexico

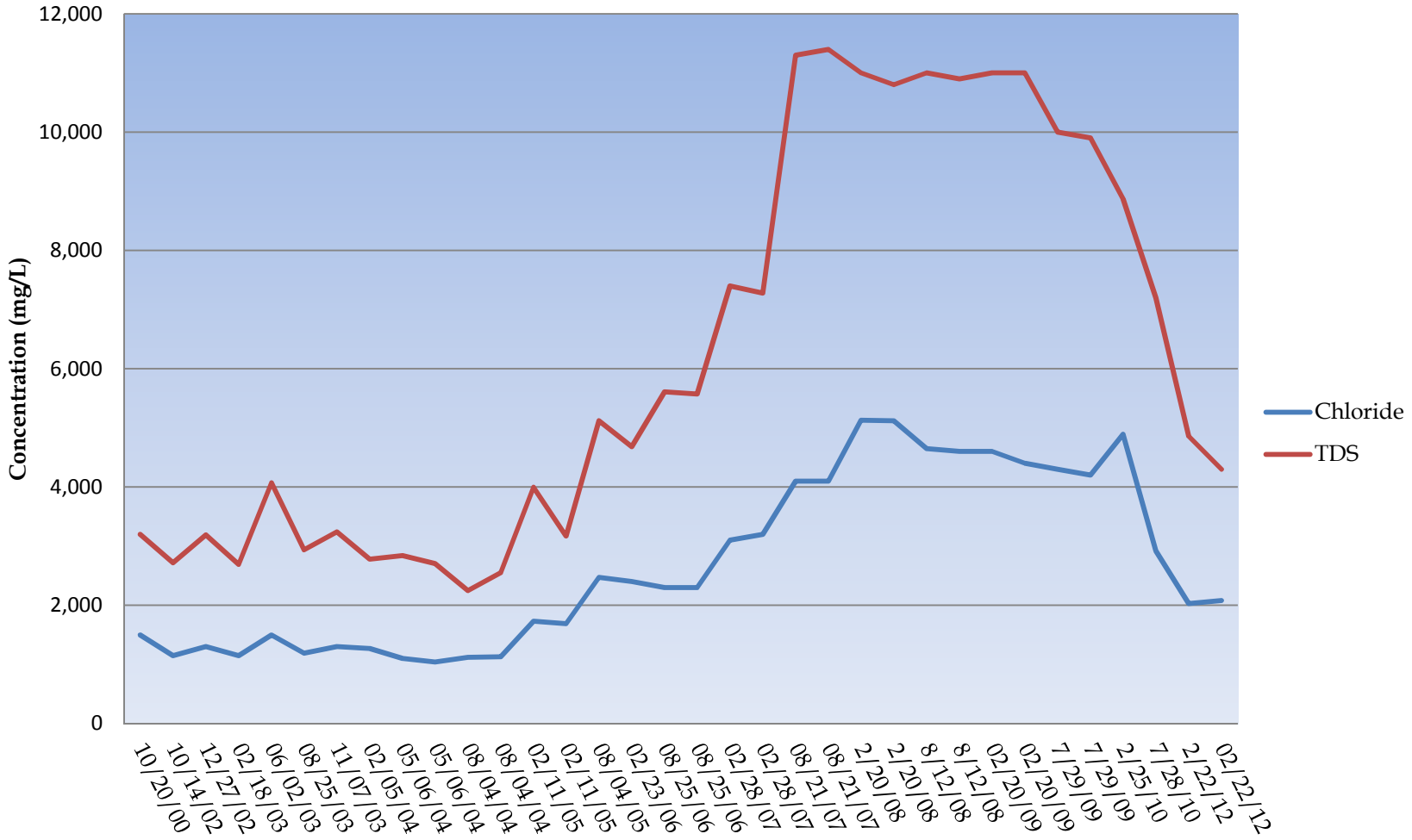
Drawn By: LVA	Date: June 7, 2012
Scale: 1" = 1000'	Field Book: 518 / 68-72
Revision Date:	Quadrangles: Jal NW
W.O. No: 2012-1019	Dwg. No.: L-2012-1019

APPENDIX E

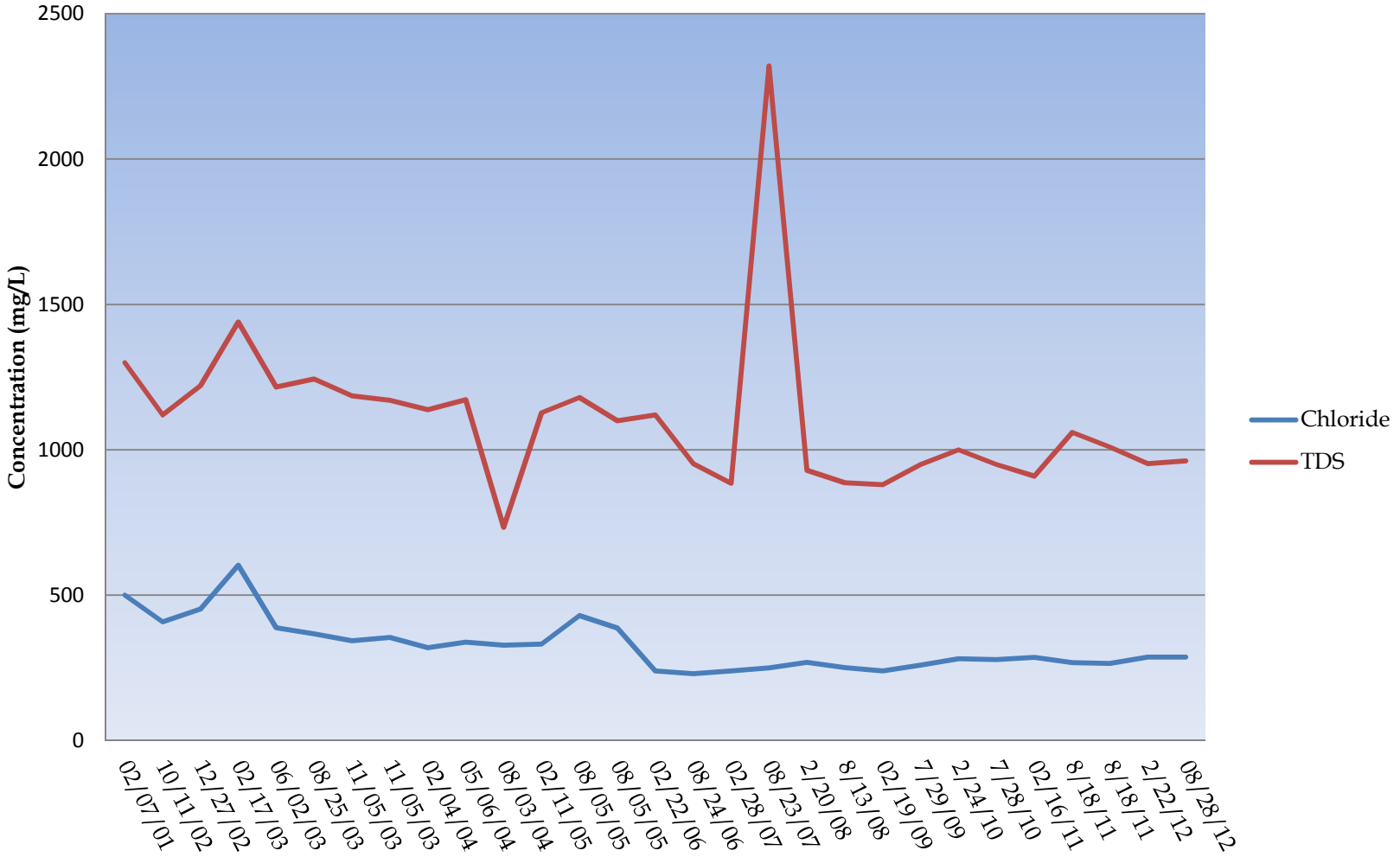
G.L. ERWIN "A & B" FEDERAL NCT 2 TANK BATTERY
SW/4, SE/4, SECTION 35, T 24 S, R 37 E
LEA COUNTY, NEW MEXICO
UPGRADIENT WELL (MW-9)



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