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**2006 ANNUAL GROUNDWATER MONITORING
REPORT**

COOPER-JAL UNIT SOUTH INJECTION STATION

OGRID NO. 4323

NW/4, NW/4, SE/4, SECTION 24, T-24-S, R-36-E

LATITUDE: N 32° 12' 7.3" LONGITUDE: W 103° 12' 59.9"

LEA COUNTY, NEW MEXICO



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LEA COUNTY, NEW MEXICO

Prepared For:

Mr. Matt Hudson

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**MARCH 2, 2007
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1.0 INTRODUCTION

This Annual Groundwater Monitoring Report presents groundwater data collected during the 2006 reporting period by Conestoga-Rovers & Associates (CRA) on behalf of Chevron Environmental Management Company (CEMC) at the Cooper-Jal Unit South Injection Station (hereafter referred to as the "Site"). Groundwater sampling events were performed on May 9, 2006 and on November 14-16, 2006.

The Site is located on Lea County Road J7, approximately 5.5 miles northwest of Jal, New Mexico and situated in Unit Letter J, northwest quarter (NW/4) of the northwest quarter (NW/4) of the southeast quarter (SE/4), Section 24, Township 24 South, Range 36 East, Lea County, New Mexico. The Site is relatively flat and improved with bermed above-ground storage tanks (ASTs), hardened caliche roadways, and oil and gas production equipment that includes four production wells. Land use in the vicinity of the Site is undeveloped rangeland vegetated with indigenous grass, livestock ranching and oil and gas production. The topography slopes southeast toward Monument Draw located approximately 7.5 miles southeast of the Site. A Site Location Map is presented as FIGURE 1.

Site assessment activities were initiated in 1993 when Environmental Spill Control, Inc. (ESCI) of Hobbs, New Mexico performed a subsurface assessment of an unlined earthen emergency produced water overflow pit that was located adjacent to the west edge of the Site. During the investigation, five boreholes were installed to depths ranging from 15 feet to 100 feet below ground surface (bgs). The investigation revealed the presence of hydrocarbon-affected soil. In 1996, Texaco Exploration and Production, Inc. filed a notice of intent to close the pit with the New Mexico Oil Conservation Division (NMOCD). Approximately 1,248 cubic yards of hydrocarbon-affected material were removed from the pit. During the closure activities, the excavation was lined with approximately 1,091 cubic yards of imported clay and backfilled with 3,360 cubic yards of imported caliche. Texaco submitted the pit closure report to the NMOCD in December 1996.

In 1997, the NMOCD requested additional assessment activities to define the vertical extent of affected soil beneath the pit. Assessment activities performed by Highlander Environmental Corporation revealed elevated soil chloride concentrations. In October 1997, monitor well MW-1 was installed near the former pit. Groundwater samples collected from the well contained chloride concentrations above the New Mexico Water Quality Control Commission (NMWQCC) Human Health Standards for Groundwater. Subsequent assessment activities through May 1998 included the installation of 14 monitor wells. In 1998, electromagnetic (EM-34) terrain conductivity surveys were performed to identify areas of elevated soil chloride concentrations.

In June 1998, Texaco prepared a groundwater corrective action plan to mitigate chloride concentrations and to provide plume containment by extracting groundwater from the affected groundwater-bearing unit. Subsequent assessment activities performed in 1999 included the installation of wells MW-11, RW-1 and RW-2. Wells MW-12 and MW-13 were installed in 2001. Semi-annual groundwater monitoring activities have been performed by CRA since 2005 along with annual reporting to the NMOCD for this Site.

2.0 REGULATORY FRAMEWORK

The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the NMWQCC regulations. In addition, the NMWQCC regulations present the Human Health Standards for Groundwater. The constituent of concern in affected groundwater at the Site is chloride. In this report, groundwater analytical results for chloride and four additional analytes are compared to the NMWQCC standards as shown in the following table:

Analyte	NMWQCC Standard for Groundwater (mg/L)
Chloride	250
Fluoride	1.6
Nitrate (NO ₃ as N)	10
Sulfate (SO ₄)	600
Total Dissolved Solids (TDS)	1,000

3.0 GROUNDWATER SAMPLING AND ANALYSIS

Groundwater at the Site is monitored with a network of 17 monitor wells and two recovery wells in accordance with the *Work Plan for Plume Delineation and Modification to Proposed Groundwater Monitoring Schedule* (LA, November 18, 1998). Wells MW-8, MW-9, MW-9A, MW-10 and MW-11 are the only wells sampled during the first semi-annual monitoring event. The remaining 14 wells are sampled annually during the second semi-annual monitoring event. A Site Details Map is presented as FIGURE 2. Groundwater sampling events were performed on May 9, 2006 and on November 14-16, 2006.

The stratification of chloride-impacted groundwater is monitored with selectively screened wells in the affected groundwater-bearing unit. Wells MW-1 through MW-5 and MW-7 through MW-13 are screened across the basal 10 feet to 20 feet of the groundwater-bearing unit. These wells were drilled and completed to the Chinle Formation "Red Beds" underlying the Ogallala Aquifer and are referred to as the "deep wells" in this report. Wells MW-2A, MW-4A, MW-5A and MW-9A are screened across the water table interface with approximately five feet of screen above the water table and 15 feet of screen below the water table. These wells are referenced as the "shallow wells." Wells MW-6, MW-11, RW-1 and RW-2 are screened across the entire saturated zone of the groundwater-bearing unit and are referred to as "fully penetrating" wells.

Prior to purging the monitor wells, static fluid levels were measured with an electric interface probe to the nearest hundredth of a foot and recorded. Purging was considered complete when three well volumes had been removed or the well was purged dry. Geochemical field parameters including pH, temperature and conductivity were collected during the purging/sampling process. 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 to minimize potential cross-contamination between each monitor well. Subsequent to the purging process, groundwater samples were collected using clean, disposable PVC bailers. Laboratory-supplied sample containers were then filled directly from the disposable PVC bailers.

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 the laboratory (Pace Analytical Services, Inc. located in St. Rose, Louisiana) for analysis of major cations, anions and TDS by Environmental Protection Agency (EPA) Methods 6010, 310.1, 325.2, 375.4, 352.1, 9214 and 160.1. The fluids recovered and generated during the sampling event were containerized in a dedicated Polyethylene tank located onsite and subsequently managed at an NMOCD-permitted salt water disposal (SWD) facility by Nabors Well Services LTD. (Nabors).

3.1 POTENTIOMETRIC SURFACE AND GRADIENT

Groundwater elevation data are presented in TABLE I. Groundwater gradient maps for May 2006 and November 2006 are presented on FIGURES 3 and 4, respectively. Depth to groundwater ranged from 130.41 feet to 144.29 feet below top of casing on May 8,

2006 and from 130.42 feet to 144.38 feet below top of casing on November 13, 2006. Although the Site's network of wells is completed at various intervals (shallow, deep and fully penetrating), the groundwater elevations appear to be consistent with historical levels with groundwater flow to the southeast. The maximum gradient observed in 2006 was 0.003 feet/foot.

3.2 ANALYTICAL RESULTS

Analytical results are summarized in TABLE II. An isoconcentration map of the chloride concentration for the May 2006 groundwater monitoring event is presented as FIGURE 5. Chloride isoconcentrations maps for the shallow and deep wells for the November 2006 are presented as FIGURES 6 and 7, respectively.

The analytical results generally fall within historical ranges. During the May 2006 sampling event, one monitor well (MW-9A) exceeded the NMWQCC groundwater standards for chloride. In addition, two monitor wells (MW-9 and MW-11) exceeded the NMWQCC groundwater standard for fluoride. In November 2006, nine wells (MW-2, MW-4, MW-4A, MW-5, MW-7, MW-9A, MW-13, RW-1 and RW-2) exceeded the NMWQCC groundwater standards for chloride and TDS. In addition, two wells (MW-1 and MW-11) exceeded the NMWQCC groundwater standard for fluoride. Two wells (MW-4 and RW-1) also exceeded the NMWQCC groundwater standard for sulfate. Nitrate concentrations were below NMWQCC groundwater standards during the 2006 sampling events. Copies of the certified analytical reports and chain-of-custody documentation are attached in APPENDIX A.

4.0 PLANNED ACTIVITIES

The first semi-annual 2007 groundwater monitoring event is scheduled for May 2007. On October 1, 1999, Texaco Exploration and Production, Inc. filed applications with the New Mexico Office of the State Engineer (NMOSE) to Divert Underground Waters for proposed recovery wells RW-1 (CP-884) and RW-2 (CP-885). The objective for the application to divert underground water was to remove chloride-impacted groundwater as a corrective action. However, LA reported that the NMOSE denied the appropriation permits on concerns that NMOSE's internal 40-year aquifer drawdown projections exceeded NMOSE criteria.

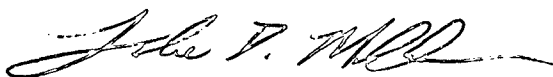
CRA understands that the Capitan Underground Water Basin underlying the Site has been declared a "Critical" underground water basin and closed to new appropriations. CRA and CEMC will coordinate with the NMOCD and NMOSE to further evaluate the diversion of underground water as a corrective action. Subsequently, the proposed groundwater remediation method may be modified, as appropriate, to achieve the NMWQCC cleanup standards and/or meet regulatory obligations.

5.0 SUMMARY OF FINDINGS

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

- Groundwater at the Site is monitored with a network of 19 monitor wells. Wells MW-8, MW-9, MW-9A, MW-10 and MW-11 are sampled semi-annually. The remaining 14 wells are sampled annually during the second semi-annual sampling event.
- Depth to groundwater ranged from 130.41 feet to 144.29 feet below top of casing on May 8, 2006 and from 130.42 feet to 144.38 feet below top of casing on November 13, 2006. Groundwater flow at the Site is to the southeast at a gradient of 0.003 feet/foot.
- The analytical results generally fall within historical ranges with higher chloride concentrations in the basal portion of the Ogallala aquifer. During the May 2006 sampling event, one monitor well (MW-9A) exceeded the NMWQCC groundwater standards for chloride. In addition, two monitor wells (MW-9 and MW-11) exceeded the NMWQCC groundwater standard for fluoride. In November 2006, nine wells (MW-2, MW-4, MW-4A, MW-5, MW-7, MW-9A, MW-13, RW-1 and RW-2) exceeded the NMWQCC groundwater standards for chloride and TDS. In addition, two wells (MW-1 and MW-11) exceeded the NMWQCC groundwater standard for fluoride. Two wells (MW-4 and RW-1) also exceeded the NMWQCC groundwater standard for sulfate. Nitrate concentrations were below NMWQCC groundwater standards during the 2006 sampling events.
- The first semi-annual 2007 groundwater monitoring event is scheduled for May 2007. CRA and CEMC will coordinate with the NMOCD and NMOSE to further evaluate the diversion of underground water as a corrective action. Subsequently, the proposed groundwater remediation method may be modified, as appropriate, to achieve the NMWQCC cleanup standards and/or meet regulatory obligations.

All of Which is Respectfully Submitted,
CONESTOGA-ROVERS & ASSOCIATES



Luke D. Markham
Project Manager



Thomas C. Larson
Senior Project Manager

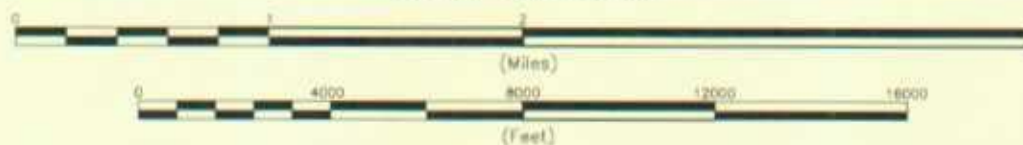
FIGURES

LAT= 32° 12' 07.3" N
LONG= 103° 12' 59.9" W

PHOTOREVISED 1977



USGS MAP SERIES 1:24,000



CONTOUR INTERVAL 10 FEET



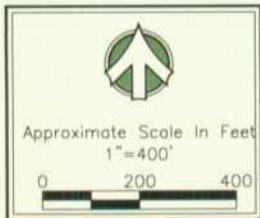
NORTH



CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

JOB No.
039123

FIGURE 1



MW-13

MW-12



LEGEND

- Monitor Well Location (Deep)
- Monitor Well Location (Shallow)
- Cooper-Jal Oil Well Location
- Recovery Well Location (Fully Penetrating)
- Monitor Well Location (Fully Penetrating)

Basemap adapted from Larson & Associates, Inc. (August 18, 2005).

031923 SLR 021406

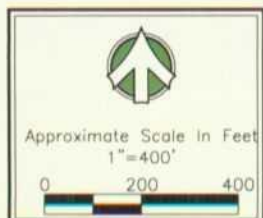


SITE DETAILS MAP

CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

JOB No.
039123

FIGURE
2



LEGEND

- Monitor Well Location (Deep)
- Monitor Well Location (Shallow)
- Cooper-Jal Oil Well Location
- Recovery Well Location (Fully Penetrating)
- Monitor Well Location (Fully Penetrating)
- Groundwater Level Elevation
- Groundwater Level Elevation Contour (Interval = 1 ft)
- Direction of Groundwater Flow

1. Groundwater level elevations were measured by Larson & Associates on May 8, 2006.

2. Contours are feet above MSL.

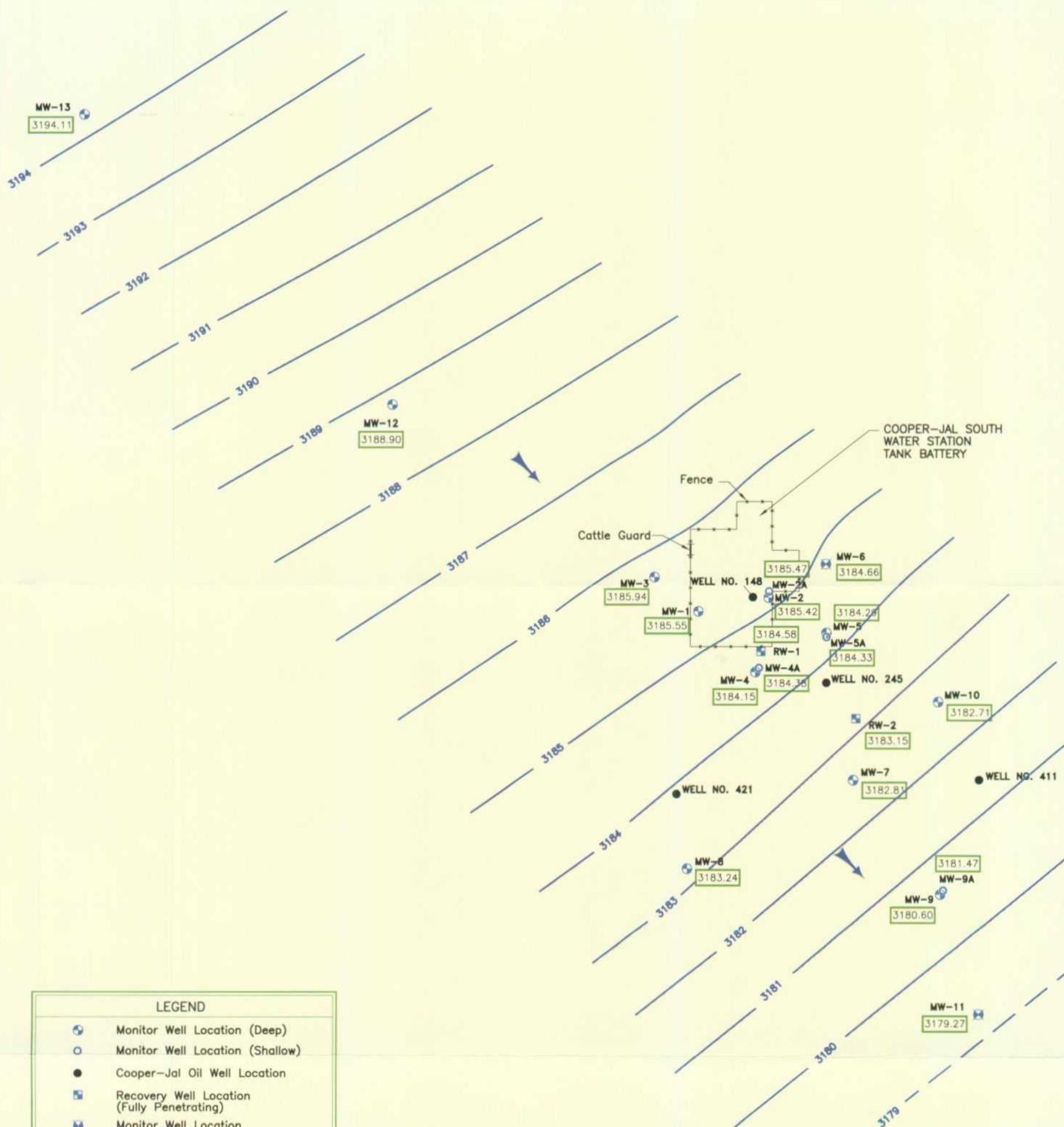
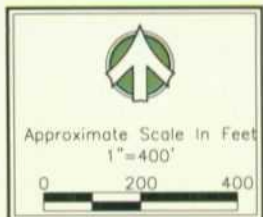
3. Basemap adapted from Larson & Associates, Inc. (August 18, 2005).

031923 2006 SLR 022707



GROUNDWATER GRADIENT MAP - MAY 2006
 CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
 COOPER-JAL UNIT SOUTH INJECTION STATION
 LEA COUNTY, NEW MEXICO

JOB No.
 039123
 FIGURE
 3



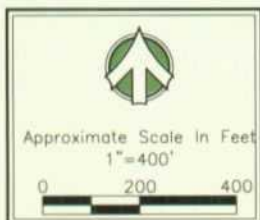
LEGEND	
	Monitor Well Location (Deep)
	Monitor Well Location (Shallow)
	Cooper-Jal Oil Well Location
	Recovery Well Location (Fully Penetrating)
	Monitor Well Location (Fully Penetrating)
	Groundwater Level Elevation
	Groundwater Level Elevation Contour (Interval = 1 ft)
	Direction of Groundwater Flow
1. Groundwater level elevations were measured by Conestoga-Rovers & Associates on November 13, 2006. 2. Contours are feet above MSL. 3. Basemap adapted from Larson & Associates, Inc. (August 18, 2005).	

031923 2006 SLR 022707



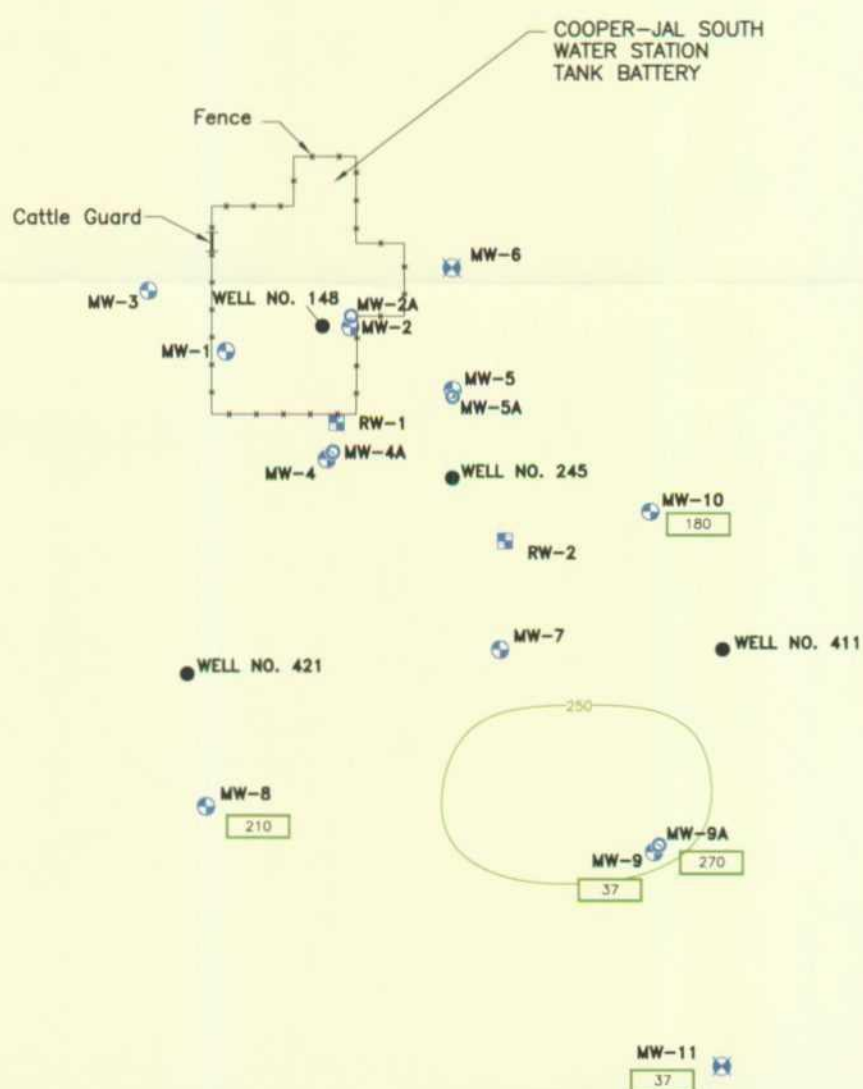
GROUNDWATER GRADIENT MAP - NOVEMBER 2006
 CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
 COOPER-JAL UNIT SOUTH INJECTION STATION
 LEA COUNTY, NEW MEXICO

JOB No.
 039123
 FIGURE
 4



MW-13

MW-12



LEGEND

- Monitor Well Location (Deep)
- Monitor Well Location (Shallow)
- Cooper-Jal Oil Well Location
- Recovery Well Location (Fully Penetrating)
- Monitor Well Location (Fully Penetrating)
- Chloride Concentration (mg/L)

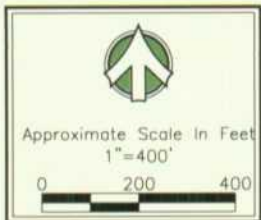
1. Groundwater samples were collected on May 9, 2006.
2. Chloride analysis by EPA Method 300.0
3. Includes shallow, deep, and fully penetrating/screened wells (5 total).
4. Basemap adapted from Larson & Associates, Inc. (August 18, 2005).

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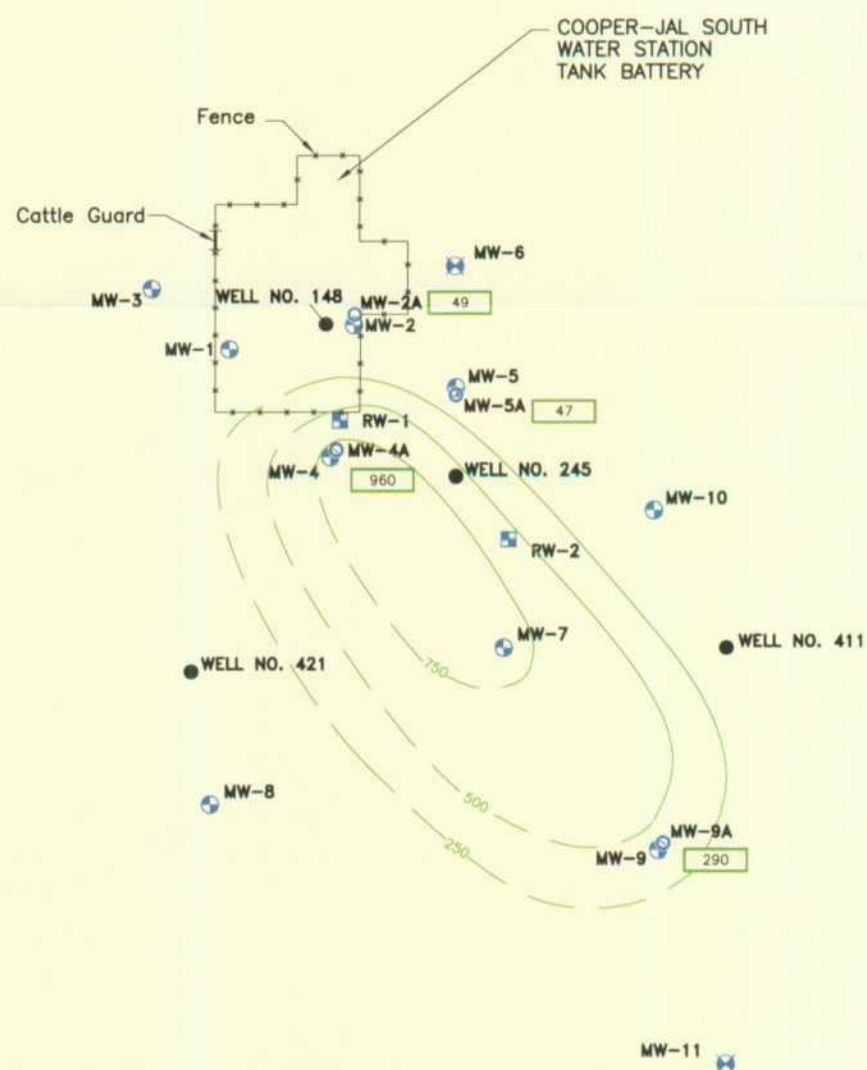
CHLORIDE ISOCONCENTRATION MAP — MAY 2006
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

JOB No.
039123
FIGURE
5



MW-13

MW-12



LEGEND

- Monitor Well Location (Deep)
- Monitor Well Location (Shallow)
- Cooper-Jal Oil Well Location
- Recovery Well Location (Fully Penetrating)
- Monitor Well Location (Fully Penetrating)
- Chloride Concentration (mg/L)
- Chloride Concentration Contour (Interval = 250 mg/L)

1. Groundwater samples were collected on November 14-16, 2006.
2. Chloride analysis by EPA Method 300.0
3. Includes four wells completed in the upper portion of the Ogallala Aquifer.
4. Basemap adapted from Larson & Associates, Inc. (August 18, 2005).

031923 2006 SLR 022707



SHALLOW GROUNDWATER CHLORIDE ISOCONCENTRATION MAP - NOVEMBER 2006

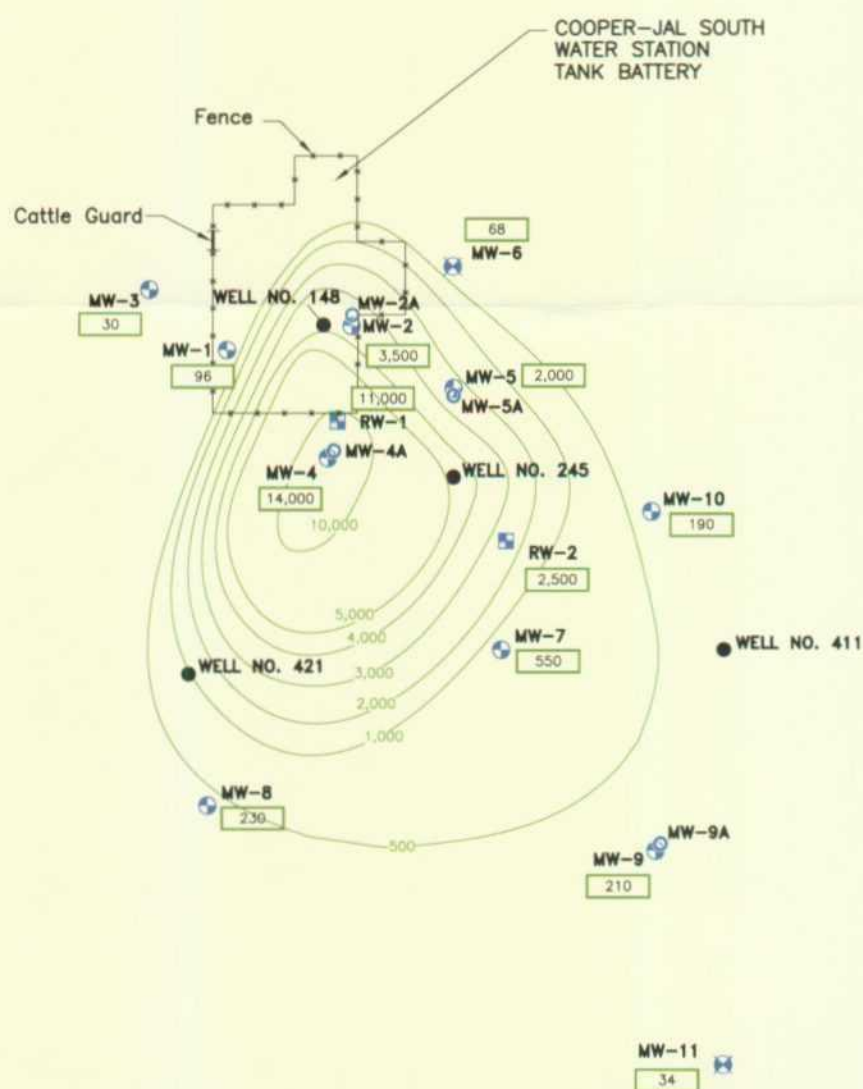
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

JOB No.
039123

FIGURE
6



MW-12
120



LEGEND

- Monitor Well Location (Deep)
- Monitor Well Location (Shallow)
- Cooper-Jal Oil Well Location
- Recovery Well Location (Fully Penetrating)
- Monitor Well Location (Fully Penetrating)
- Chloride Concentration (mg/L)
- Chloride Concentration Contour (Interval Variable Range = 250-10,000 mg/L)

1. Groundwater samples were collected on November 14-16, 2006.
2. Chloride analysis by EPA Method 300.0
3. Includes deep and fully penetrating/screened wells.
4. Basemap adapted from Larson & Associates, Inc. (August 18, 2005).

031923 2006 SLR 022707



TABLES

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Well ID TOC Elevation	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
Shallow Screened Wells						
MW-2A 3319.86	05/18/98	134.80	2	3185.06	142.30	130-145
	05/25/99	134.73	---	3185.13	---	---
	02/08/01	134.58	---	3185.28	---	---
	05/10/02	134.50	---	3185.36	---	---
	10/22/02	134.66	---	3185.20	---	---
	05/20/03	135.80	---	3184.06	---	---
	11/24/03	134.60	---	3185.26	---	---
	05/11/04	134.53	---	3185.33	---	---
	11/15/04	134.58	---	3185.28	---	---
	05/17/05	134.47	---	3185.39	---	---
	11/15/05	134.74	---	3185.12	---	---
	05/08/06	134.46	---	3185.40	---	---
	11/13/06	134.39	---	3185.47	---	---
MW-4A 3319.58	05/18/98	135.68	2	3183.90	146.00	128-143
	05/21/99	135.65	---	3183.93	---	---
	05/25/99	135.90	---	3183.68	---	---
	02/08/01	135.34	---	3184.24	---	---
	05/10/02	135.30	---	3184.28	---	---
	10/22/02	135.51	---	3184.07	---	---
	05/20/03	135.55	---	3184.03	---	---
	11/24/03	135.31	---	3184.27	---	---
	05/11/04	135.72	---	3183.86	---	---
	11/15/04	135.38	---	3184.20	---	---
	05/17/05	135.32	---	3184.26	---	---
	11/15/05	135.52	---	3184.06	---	---
	05/08/06	135.26	---	3184.32	---	---
	11/13/06	135.20	---	3184.38	---	---
MW-5A 3321.07	05/18/98	137.20	2	3183.87	143.85	126-141
	05/25/99	137.11	---	3183.96	---	---
	02/08/01	136.99	---	3184.08	---	---
	05/10/02	136.90	---	3184.17	---	---
	10/22/02	137.17	---	3183.90	---	---
	05/20/03	137.24	---	3183.83	---	---
	11/24/03	136.91	---	3184.16	---	---
	05/11/04	136.88	---	3184.19	---	---
	11/15/04	136.92	---	3184.15	---	---
	05/17/05	136.83	---	3184.24	---	---
	11/15/05	137.06	---	3184.01	---	---
	05/08/06	136.80	---	3184.27	---	---
	11/13/06	136.74	---	3184.33	---	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Well ID TOC Elevation	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
MW-9A 3312.56	05/18/98	132.65	2	3179.91	144.15	127-142
	05/25/99	132.43	---	3180.13	---	---
	02/08/01	132.37	---	3180.19	---	---
	05/10/02	137.20	---	3175.36	---	---
	10/22/02	132.35	---	3180.21	---	---
	05/20/03	132.55	---	3180.01	---	---
	11/24/03	132.10	---	3180.46	---	---
	05/11/04	132.14	---	3180.42	---	---
	11/15/04	132.19	---	3180.37	---	---
	05/17/05	132.06	---	3180.50	---	---
	11/15/05	132.35	---	3180.21	---	---
	05/08/06	132.02	---	3180.54	---	---
	11/13/06	131.09	---	3181.47	---	---
Deep Screened Wells						
MW-1 3320.17	05/18/98	135.05	2	3185.12	172.38	153-173
	05/25/99	134.93	---	3185.24	---	---
	02/08/01	134.80	---	3185.37	---	---
	05/10/02	134.77	---	3185.40	---	---
	10/22/02	134.89	---	3185.28	---	---
	05/20/03	135.17	---	3185.00	---	---
	11/24/03	134.70	---	3185.47	---	---
	05/11/04	134.75	---	3185.42	---	---
	11/15/04	134.76	---	3185.41	---	---
	05/17/05	134.29	---	3185.88	---	---
	11/15/05	134.93	---	3185.24	---	---
	05/08/06	134.68	---	3185.49	---	---
	11/13/06	134.62	---	3185.55	---	---
MW-2 3319.86	05/18/98	135.00	2	3184.86	170.60	163-173
	05/25/99	134.79	---	3185.07	---	---
	02/08/01	134.63	---	3185.23	---	---
	05/10/02	134.65	---	3185.21	---	---
	10/22/02	134.72	---	3185.14	---	---
	05/20/03	134.95	---	3184.91	---	---
	11/24/03	134.56	---	3185.30	---	---
	05/11/04	134.55	---	3185.31	---	---
	11/15/04	134.53	---	3185.33	---	---
	05/17/05	134.39	---	3185.47	---	---
	11/15/05	134.77	---	3185.09	---	---
	05/08/06	134.52	---	3185.34	---	---
	11/13/06	134.44	---	3185.42	---	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Well ID TOC Elevation	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
MW-3 3318.21	05/18/98	132.65	2	3185.56	171.93	161-171
	05/25/99	132.52	---	3185.69	---	---
	02/08/01	132.40	---	3185.81	---	---
	05/10/02	132.40	---	3185.81	---	---
	10/22/02	132.49	---	3185.72	---	---
	05/20/03	132.75	---	3185.46	---	---
	11/24/03	132.29	---	3185.92	---	---
	05/11/04	132.38	---	3185.83	---	---
	11/15/04	132.46	---	3185.75	---	---
	05/17/05	132.32	---	3185.89	---	---
	11/15/05	132.55	---	3185.66	---	---
	05/08/06	132.32	---	3185.89	---	---
	11/13/06	132.27	---	3185.94	---	---
MW-4 3319.74	05/18/98	136.01	2	3183.73	171.41	161-171
	05/25/99	135.57	---	3184.17	---	---
	02/08/01	135.87	---	3183.87	---	---
	05/10/02	135.67	---	3184.07	---	---
	10/22/02	135.90	---	3183.84	---	---
	05/20/03	136.00	---	3183.74	---	---
	11/24/03	135.70	---	3184.04	---	---
	05/11/04	135.34	---	3184.40	---	---
	11/15/04	135.76	---	3183.98	---	---
	05/17/05	135.69	---	3184.05	---	---
	11/15/05	135.85	---	3183.89	---	---
	05/08/06	135.60	---	3184.14	---	---
	11/13/06	135.59	---	3184.15	---	---
MW-5 3321.10	05/18/98	137.42	2	3183.68	173.65	161-171
	05/25/99	137.28	---	3183.82	---	---
	02/08/01	137.18	---	3183.92	---	---
	05/10/02	137.10	---	3184.00	---	---
	10/22/02	137.04	---	3184.06	---	---
	05/20/03	137.45	---	3183.65	---	---
	11/24/03	137.01	---	3184.09	---	---
	05/11/04	137.01	---	3184.09	---	---
	11/15/04	137.08	---	3184.02	---	---
	05/17/05	137.00	---	3184.10	---	---
	11/15/05	137.18	---	3183.92	---	---
	05/08/06	136.90	---	3184.20	---	---
	11/13/06	136.81	---	3184.29	---	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Well ID TOC Elevation	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
MW-7 3318.39	05/18/98	136.19	2	3182.20	166.15	151-166
	05/25/99	135.98	---	3182.41	---	---
	02/08/01	135.87	---	3182.52	---	---
	05/10/02	135.67	---	3182.72	---	---
	10/22/02	135.89	---	3182.50	---	---
	05/20/03	136.12	---	3182.27	---	---
	11/24/03	135.71	---	3182.68	---	---
	05/11/04	135.74	---	3182.65	---	---
	11/15/04	135.78	---	3182.61	---	---
	05/17/05	135.68	---	3182.71	---	---
	11/15/05	135.90	---	3182.49	---	---
	05/08/06	135.64	---	3182.75	---	---
	11/13/06	135.58	---	3182.81	---	---
MW-8 3317.14	05/18/98	134.36	2	3182.78	171.92	155-170
	05/25/99	134.21	---	3182.93	---	---
	02/08/01	134.08	---	3183.06	---	---
	05/10/02	133.95	---	3183.19	---	---
	10/22/02	134.18	---	3182.96	---	---
	05/20/03	134.38	---	3182.76	---	---
	11/24/03	133.99	---	3183.15	---	---
	05/11/04	134.02	---	3183.12	---	---
	11/15/04	134.11	---	3183.03	---	---
	05/17/05	133.97	---	3183.17	---	---
	11/15/05	134.21	---	3182.93	---	---
	05/08/06	133.94	---	3183.20	---	---
	11/13/06	133.90	---	3183.24	---	---
MW-9 3312.79	05/18/98	132.89	2	3179.90	161.40	149-164
	05/25/99	132.68	---	3180.11	---	---
	02/08/01	132.52	---	3180.27	---	---
	05/10/02	137.20	---	3175.59	---	---
	10/22/02	132.56	---	3180.23	---	---
	05/20/03	132.75	---	3180.04	---	---
	11/24/03	132.35	---	3180.44	---	---
	05/11/04	132.39	---	3180.40	---	---
	11/15/04	132.43	---	3180.36	---	---
	05/17/05	132.26	---	3180.53	---	---
	11/15/05	132.60	---	3180.19	---	---
	05/08/06	132.26	---	3180.53	---	---
	11/13/06	132.19	---	3180.60	---	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Well ID TOC Elevation	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
MW-10 3319.30	05/18/98	137.18	2	3182.12	164.15	151-166
	05/25/99	137.04	---	3182.26	---	---
	02/08/01	136.88	---	3182.42	---	---
	05/10/02	136.80	---	3182.50	---	---
	10/22/02	136.91	---	3182.39	---	---
	05/20/03	137.13	---	3182.17	---	---
	11/24/03	136.71	---	3182.59	---	---
	05/11/04	136.77	---	3182.53	---	---
	11/15/04	136.82	---	3182.48	---	---
	05/17/05	136.34	---	3182.96	---	---
	11/15/05	136.95	---	3182.35	---	---
	05/08/06	136.65	---	3182.65	---	---
	11/13/06	136.59	---	3182.71	---	---
MW-12 3328.43	05/10/02	139.57	2	3188.86	165.50	156.68-171.65
	10/22/02	139.73	---	3188.70	---	---
	05/20/03	139.72	---	3188.71	---	---
	11/24/03	139.69	---	3188.74	---	---
	05/11/04	139.64	---	3188.79	---	---
	11/15/04	139.68	---	3188.75	---	---
	05/17/05	139.58	---	3188.85	---	---
	11/15/05	139.83	---	3188.60	---	---
	05/08/06	139.55	---	3188.88	---	---
	11/13/06	139.53	---	3188.90	---	---
MW-13 3338.49	05/10/02	144.45	2	3194.04	167.40	156.68-171.65
	10/22/02	144.49	---	3194.00	---	---
	05/20/03	144.9	---	3193.59	---	---
	11/24/03	144.37	---	3194.12	---	---
	05/11/04	144.47	---	3194.02	---	---
	11/15/04	144.56	---	3193.93	---	---
	05/17/05	144.36	---	3194.13	---	---
	11/15/05	144.60	---	3193.89	---	---
	05/08/06	144.29	---	3194.20	---	---
	11/13/06	144.38	---	3194.11	---	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Well ID TOC Elevation	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
Fully Penetrating Screened Wells						
MW-6 3321.15	05/18/98	136.73	2	3184.42	169.25	120-170
	05/25/99	136.61	---	3184.54	---	---
	02/08/01	136.50	---	3184.65	---	---
	05/10/02	136.40	---	3184.75	---	---
	10/22/02	136.57	---	3184.58	---	---
	05/20/03	136.85	---	3184.30	---	---
	11/24/03	136.38	---	3184.77	---	---
	05/11/04	136.41	---	3184.74	---	---
	11/15/04	136.08	---	3185.07	---	---
	05/17/05	136.58	---	3184.57	---	---
	11/15/05	136.82	---	3184.33	---	---
	05/08/06	136.58	---	3184.57	---	---
	11/13/06	136.49	---	3184.66	---	---
MW-11 3309.69	03/23/99	131.12	4	3178.57	165.71	125-165
	05/25/99	130.91	---	3178.78	---	---
	02/08/01	130.11	---	3179.58	---	---
	05/10/02	135.60	---	3174.09	---	---
	10/22/02	130.76	---	3178.93	---	---
	05/20/03	131.03	---	3178.66	---	---
	11/24/03	130.57	---	3179.12	---	---
	05/11/04	130.61	---	3179.08	---	---
	11/15/04	130.65	---	3179.04	---	---
	05/17/05	131.56	---	3178.13	---	---
	11/15/05	130.70	---	3178.99	---	---
	05/08/06	130.41	---	3179.28	---	---
	11/13/06	130.42	---	3179.27	---	---
RW-1 3318.50	05/21/99	134.32	5	3184.18	171.25	130.41-174.37
	05/25/99	134.24	---	3184.26	---	---
	02/08/01	134.15	---	3184.35	---	---
	05/10/02	134.00	---	3184.50	---	---
	10/22/02	134.17	---	3184.33	---	---
	05/20/03	134.40	---	3184.10	---	---
	11/24/03	134.02	---	3184.48	---	---
	05/11/04	134.01	---	3184.49	---	---
	11/15/04	134.06	---	3184.44	---	---
	05/17/05	133.97	---	3184.53	---	---
	11/15/05	134.20	---	3184.30	---	---
	05/08/06	133.93	---	3184.57	---	---
	11/13/06	133.92	---	3184.58	---	---

TABLE I
GROUNDWATER GAUGING SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT SOUTH INJECTION STATION
LEA COUNTY, NEW MEXICO

Well ID TOC Elevation	Collection Date	Depth to Groundwater (ft TOC)	Casing Diameter (in)	Groundwater Elevation (ft)	Well Depth (ft TOC)	Well Screen Interval (ft bgs)
RW-2 3318.62	02/08/01	135.58	5	3183.04	154.63	134.22-172.73
	05/10/02	135.55	---	3183.07	---	---
	10/22/02	135.55	---	3183.07	---	---
	05/20/03	135.58	---	3183.04	---	---
	11/24/03	135.54	---	3183.08	---	---
	05/11/04	135.48	---	3183.14	---	---
	11/15/04	135.43	---	3183.19	---	---
	05/17/05	135.46	---	3183.16	---	---
	11/15/05	135.65	---	3182.97	---	---
	05/08/06	135.42	---	3183.20	---	---
	11/13/06	135.47	---	3183.15	---	---

Notes:

1. TOC - Top of Casing.
2. bgs - below ground surface.

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride	Fluoride	Nitrate - N	Sulfate	Calcium	Magnesium	Potassium	Sodium	TDS
New Mexico Water Quality Control Commission Groundwater Standard													
250 160 10 600 1,000													
Shallow Screened Wells													
MW-2A	2/26/98	—	—	190	280	—	—	330	144.0	36.0	9.70	215.0	1,200
	2/14/01	<1.0	162	162	44	1.30	2.30	76	64.4	16.7	7.02	45.5	390
	5/15/02	<1.0	176	176	36.6	<1.00	2.34	79.1	37.6	13.9	4.35	43.8	435
	10/23/02	—	—	—	44.3	—	—	97	—	—	—	—	425
	5/22/03	<1.0	168	168	40.5	<1.00	2.18	75.5	67.2	14.5	3.76	47.9	418
	11/23/03	<1.0	166	166	43.1	1.00	2.23	77.4	31.7	14.4	3.98	43.8	452
	5/12/04	<1.00	176	176	44.8	<1.00	2.24	76.5	62.9	15.0	3.66	43.6	440
	11/16/04	<1.00	164	164	52.5	1.22	2.78	75.4	68.8	15.3	3.98	49.1	428
	11/16/05	<10.0	151	151	56.8	0.60	2.3	75.1 DI	157.000	18.000	4.200	49.800	630 N
	11/14/06	<10	180	180	49	0.55	1.6	76	69.800	15.600	3.470	49.900	488
MW-4A	2/27/98	—	—	180	1,600	—	—	410	470.0	130.0	11.00	620.0	3,300
	2/14/01	<1.0	154	154	1,600	1.40	2.80	210	—	—	—	—	4,000
	5/15/02	<1.0	156	156	577	<1.00	2.23	121	200.0	49.5	10.30	125.0	1,610
	10/23/02	—	—	—	478	—	—	114	—	—	—	—	1,430
	5/22/03	<1.0	154	154	844	<1.00	2.43	160	279.0	58.9	10.10	248.0	2,200
	11/26/03	<1.0	158	158	1,060	<4.00	5.82	182	337.0	79.3	15.20	329.0	2,585
	5/11/04	<1.00	156	156	964	<2.00	3.30	179	287.0	66.5	11.50	279.0	2,300
	11/17/04	<1.00	164	164	1,110	<2.00	4.62	186	369.0	75.4	14.90	413.0	2,235
	11/16/05	<10.0	181	181	827 DI	<0.5	2.2	160 DI	335.000	64.400	9.230	382.000	2,340 N
	11/15/06	<10	620	620	960	<0.50	2.6	170	227.000	53.500	8.100	406.000	2,870
MW-5A	2/26/98	—	—	170	190	—	—	180	107.0	23.0	3.50	117.0	740
	2/15/01	<1.0	164	164	140	1.20	2.10	130	90.2	27.9	8.70	74.6	670
	5/15/02	<1.0	182	182	53.5	<1.00	2.23	64.4	63.2	16.1	4.69	43.6	475
	10/23/02	—	—	—	50	—	—	616	—	—	—	—	8,670
	5/22/03	<1.0	158	158	32.5	<1.00	2.10	69.9	55.5	13.8	3.41	41.5	416
	11/25/03	<1.0	332	332	34.1	1.05	2.20	75.5	60.9	14.6	4.08	45.0	422
	5/11/04	<1.00	164	164	38.8	<1.00	2.25	75.8	60.9	15.0	3.40	43.2	484
	11/17/04	<1.00	152	152	39.6	1.37	2.66	74.3	58.1	13.6	3.83	48.5	430
11/16/05	<10.0	191	191	40.2	0.82	2.1	75.2 DI	176.000	17.800	4.220	45.300	570 N	
11/14/06	<10	240	240	47	0.64	1.5	79	90.400	16.100	3.580	51.400	588	

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride	Fluoride	Nitrate - N	Sulfate	Calcium	Magnesium	Potassium	Sodium	TDS	
New Mexico Water Quality Control Commission Groundwater Standard														
		250	1.60	10	600									1,000
MW-1A	5/14/96	-	-	280	600	-	-	770	338.0	96.0	12.00	334.0	2,200	
	2/15/01	<1.0	142	142	85	1.40	2.20	71	71.6	19.2	6.94	46.0	400	
	5/15/02	<1.0	136	136	148	<1.00	2.16	65.3	62.9	16.1	4.62	46.8	445	
	10/23/02	-	-	-	168	-	-	75.5	-	-	-	-	651	
	5/22/03	<1.0	126	126	207	<1.00	2.09	62.1	102.0	25.2	4.80	55.7	672	
	11/26/03	<1.0	118	118	216	1.14	2.26	62.7	107.0	25.1	5.31	53.2	648	
	5/12/04	<1.00	122	122	242	<1.00	2.10	64.7	105.0	26.2	5.11	26.2	950	
	11/16/04	<1.00	114	114	296	1.24	2.74	67.5	130.0	33.1	6.24	70.5	826	
	5/17/05	<1.00	112	112	354	1.04	2.85	77.1	131.0	31.7	6.39	60.5	828	
	11/17/05	<10.0	121	121	310 DI	0.82	0.51	74.7 DI	357.000	41.400	8.080	74.300	1,520 N	
	5/9/06	<1.0	670	670	270	0.67	1.6	78	111.000	27.100	3.880	56.700	992	
	11/15/06	<1.0	1,600	1,600	290	0.62	1.6	72	126.000	33.400	4.740	68.400	1,280	
Deep Screened Wells														
MW-1	9/16/97	-	-	280	8,900	-	-	1,100	520.0	630.0	30.00	4,300.0	15,000	
	2/25/98	-	-	280	5,600	-	-	570	285.0	520.0	116.00	2,900.0	9,300	
	2/14/01	<1.0	306	306	11,000	4.40	7.70	1,000	374.0	780.0	256.00	5,236.0	20,000	
	5/17/02	<1.0	208	208	237	5.83	3.28	86.9	45.7	20.1	11.90	184.0	764	
	10/25/02	-	-	-	168	-	-	96.8	-	-	-	-	696	
	5/21/03	<1.0	290	290	6,600	<8.00	10.90	875	258.0	475.0	96.50	3,410.0	13,200	
	11/25/03	<1.0	250	250	402	7.03	2.72	125	19.2	22.0	18.50	294.0	1,156	
	5/12/04	<1.00	264	264	504	2.31	2.70	136	17.2	23.1	22.40	355.0	1,328	
	11/16/04	<1.00	232	232	384	4.94	3.30	103	29.2	22.7	25.40	373.0	932	
	11/16/05	<10.0	262	262	1,210 DI	3.0	2.4	215 DI	85.400	92.600	23.000	847.000	2,640 N	
	11/14/06	<1.0	200	200	96	4.2	2.0	76	13.200	6.490	15.600	172.000	624	
	MW-2	2/25/98	-	-	210	5,900	-	-	760	840.0	380.0	30.00	2,650.0	9,400
4/9/98		-	-	290	8,200	-	-	960	1,100.0	490.0	29.00	3,430.0	15,000	
2/14/01		<1.0	184	184	7,400	2.30	4.10	870	1,025.0	486.0	48.50	5,189.0	15,000	
5/17/02		<1.0	160	160	3,200	1.72	3.18	483	587.0	239.0	35.60	1,160.0	6,040	
10/25/02		-	-	-	2,920	-	-	451	-	-	-	-	6,770	
5/22/03		<1.0	158	158	2,550	2.04	3.87	386	448.0	176.0	20.00	1,020.0	5,560	
11/25/03		<1.0	160	160	3,330	<4.00	5.63	446	555.0	227.0	32.00	1,120.0	6,760	
5/12/04		<1.00	146	146	1,750	<2.00	2.78	246	308.0	112.0	29.70	949.0	3,965	
11/16/04		<1.00	120	120	450	<1.00	2.13	56.9	104.0	29.4	22.40	158.0	832	
11/16/05	<10.0	171	171	4,720 DI	0.72	2.6	643 DI	394.000	209.000	20.800	3,290.000	10,000 N		
11/14/06	<1.0	160	160	3,500	0.78 N	2.1	470	535.000	212.000	21.000	1,540.000	6,260		

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride	Fluoride	Nitrate - N	Sulfate	Calcium	Magnesium	Potassium	Sodium	TDS	
New Mexico Water Quality Control Commission Groundwater Standard														
		250		1.60		10		600						1,000
MW-3	2/27/98	-	-	190	452	-	-	406	200.0	50.0	11.00	237.0	1,500	
	2/14/01	<1.0	158	158	34	1.60	2.40	100	54.5	19.0	7.61	48.6	440	
	5/17/02	<1.0	158	158	30.6	1.56	2.35	102	55.6	18.4	5.04	50.0	433	
	10/23/02	-	-	-	35.4	-	-	104	-	-	-	-	419	
	5/22/03	<1.0	156	156	30.6	1.17	2.25	96.3	53.2	17.8	5.39	54.6	435	
	11/25/03	<1.0	160	160	31.4	1.35	2.30	103	46.5	16.0	5.19	51.7	440	
	5/12/04	<1.00	164	164	32.3	1.20	2.38	101	52.2	16.8	4.77	47.5	448	
	11/16/04	<1.00	166	166	35.1	1.53	2.77	95.4	56.3	23.6	12.70	58.9	424	
	11/17/05	<10.0	171	171	96.3	0.97	2.2	108 D1	89.200	22.100	6.870	93.400	840 N	
11/15/06	<10	170	170	30	0.92 N	1.7	96	51.300	17.300	4.200	87.200	505		
MW-4	2/27/98	-	-	230	12,000	-	-	1,300	1,700.0	880.0	48.00	5,300.0	22,000	
	4/9/98	-	-	240	13,000	-	-	1,500	1,740.0	940.0	42.00	5,400.0	23,000	
	2/14/01	<1.0	232	232	15,000	1.80	6.80	1,500	-	-	-	-	29,000	
	5/17/02	<1.0	232	232	11,300	2.01	6.09	1,360	1,010.0	814.0	60.90	4,310.0	22,600	
	10/23/02	-	-	-	11,300	-	-	1,320	-	-	-	-	23,200	
	5/22/03	<1.0	220	220	11,300	<10.00	12.50	1,370	1,450.0	659.0	47.30	4,140.0	62,500	
	11/26/03	<1.0	218	218	12,100	<8.00	12.50	1,400	1,830.0	899.0	62.00	4,620.0	54,450	
	5/11/04	<1.00	214	214	14,200	<8.00	8.97	1,560	1,800.0	829.0	60.70	4,850.0	65,450	
	11/17/04	<1.00	222	222	13,600	<20.00	31.50	1,410	2020.0	972.0	73.60	5,900.0	25,200	
11/17/05	<10.0	181	181	9,440 D1	0.82	0.20	45.8 D1	849.000	367.000	28.100	3,880.000	24,300 N		
11/15/06	<10	260	260	14,000	<5.0 C	5.2	1,400	1,760.000	897.000	58.800	6,150.000	28,700		
MW-5	2/26/98	-	-	180	6,600	-	-	910	1,400.0	470.0	31.00	2,490.0	12,000	
	2/14/01	<1.0	166	166	7,700	1.80	4.10	910	-	-	-	-	16,000	
	5/17/02	<1.0	156	156	4,040	1.53	4.56	566	757.0	319.0	60.90	1,260.0	8,340	
	10/23/02	-	-	-	3,900	-	-	94.8	-	-	-	-	422	
	5/22/03	<1.0	158	158	3,170	<4.00	6.52	550	644.0	215.0	49.90	1,240.0	7,860	
	11/25/03	<1.0	168	168	5,120	<4.00	6.77	739	978.0	365.0	54.90	1,680.0	11,940	
	5/11/04	<1.00	160	160	6,760	<3.00	4.65	1,030	1,180.0	417.0	40.30	2,120.0	20,360	
	11/17/04	<1.00	172	172	6,750	<10	16.60	786	1,210.0	456.0	40.60	2,300.0	11,980	
	11/17/05	<10.0	161	161	2,140 D1	0.79	0.16	334 D1	339.000	126.000	10.800	791.000	7,120 N	
11/14/06	<10	160	160	2,000	0.60	1.5	300	437.000	175.000	14.200	918.000	4,420		

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride	Fluoride	Nitrate - N	Sulfate	Calcium	Magnesium	Potassium	Sodium	TDS
New Mexico Water Quality Control Commission Groundwater Standard													
250 1.40 10 600 1,000													
MW-7	5/14/98	-	-	230	430	-	-	340	214.0	66.0	13.00	165.0	1,200
	2/14/01	<1.0	150	150	510	1.20	2.40	130	-	-	-	-	1,500
	5/16/02	<1.0	150	150	75.7	1.59	2.27	97.4	65.6	23.2	6.63	34.3	505
	10/22/02	-	-	-	88.6	-	-	108	-	-	-	-	490
	5/22/03	<1.0	140	140	173	1.17	2.14	88.9	85.5	28.2	6.18	64.6	631
	11/26/03	<1.0	156	156	189	1.29	2.23	93.5	95.7	51.0	7.91	63.6	704
	5/13/04	<1.00	130	130	267	1.11	2.16	94.7	107.0	34.7	6.59	62.9	914
	11/16/04	<1.00	130	130	367	1.49	2.72	97.3	142.0	49.3	8.61	87.9	870
	11/17/05	<10.0	121	121	456 (D)	0.53	0.26	106 (D)	412.000	64.700	12.100	100.000	1,440 N
	11/15/06	<10	240	240	350	0.63	1.5	110	202.000	70.300	7.400	102.000	2,100
MW-8	5/13/98	-	-	230	270	-	-	360	190.0	60.0	12.00	170.0	1,200
	2/14/01	<1.0	156	156	49	1.80	2.50	100	89.9	21.5	7.64	52.9	400
	5/16/02	<1.0	158	158	32.9	1.57	2.35	101	56.6	19.2	3.20	49.5	432
	10/22/02	-	-	-	40.6	-	-	104	-	-	-	-	392
	5/22/03	8	160	168	33.2	1.40	2.32	98.3	53.9	18.3	9.31	46.4	410
	11/26/03	<1.0	142	142	31.7	1.59	2.38	95.6	53.3	18.2	3.31	50.2	443
	5/12/04	<1.00	154	154	36.3	1.39	2.38	101	53.0	17.3	4.56	48.1	435
	11/16/04	<1.00	170	170	39.8	1.84	2.94	103	87.8	18.6	3.63	56.4	435
	5/17/05	4	152	156	41	1.64	2.94	105	61.0	16.6	3.78	47.3	434
	11/17/05	<10.0	171	171	113	1.1	<0.05	115 (D)	83.400	21.700	5.740	102.000	750 N
5/9/06	<10	160	160	210	0.89	1.4	200	72.700	33.300	7.120	125.000	896	
11/14/06	<10	150	150	239	1.1	1.2	200	74.200	38.300	9.610	162.000	912	
MW-9	5/14/98	-	-	190	350	-	-	470	207.0	61.0	12.00	200.0	1,300
	2/15/01	<1.0	156	156	35	2.60	2.40	110	60.4	19.8	7.47	47.0	430
	5/16/02	<1.0	160	160	31.7	2.22	2.28	99.4	60.8	17.6	3.32	50.1	440
	10/22/02	-	-	-	39	-	-	102	-	-	-	-	436
	5/22/03	<1.0	160	160	31	1.75	2.19	93.3	52.2	15.8	4.75	50.2	455
	11/26/03	<1.0	180	180	31.6	1.99	2.34	98.6	57.7	16.6	4.69	46.3	452
	5/12/04	<1.00	164	164	33.6	1.79	2.29	99.2	54.8	16.0	4.27	43.5	467
	11/16/04	8	154	162	36.7	1.49	2.72	97.3	63.2	17.8	5.39	55.5	433
	5/17/05	4	154	154	44.2	2.43	3.05	117	58.8	16.7	5.94	44.1	434
	11/17/05	<10.0	161	161	83.5	1.3	0.14	111 (D)	149.000	26.200	7.430	60.400	750 N
5/9/06	<10	170	170	37	1.8	1.6	99	52.700	15.000	3.210	45.800	428	
11/15/06	<10	150	150	210	1.1	1.2	190	70.500	35.800	8.640	152.000	905	

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride	Fluoride	Nitrate - N	Sulfate	Calcium	Magnesium	Potassium	Sodium	TDS
New Mexico Water Quality Control Commission Groundwater Standard													
					250	1.60	10	600					1,000
MW-10	5/14/98	-	-	240	360	-	-	450	211.0	62.0	11.00	190.0	1,400
	2/15/01	<1.0	140	140	190	2.00	2.30	97	105.0	32.3	8.20	61.0	660
	5/17/02	<1.0	152	152	204	1.93	2.19	99.1	109.0	31.7	7.60	62.4	713
	10/22/02	-	-	-	213	-	-	108	-	-	-	-	758
	5/22/03	<1.0	152	152	213	1.45	2.17	96.6	109.0	29.9	8.65	74.2	764
	11/26/03	<1.0	152	152	220	1.54	2.26	103	120.0	35.7	6.96	64.0	752
	5/13/04	<1.00	158	156	232	1.39	2.23	102	114.0	31.6	5.95	57.2	802
	11/17/04	<1.00	170	170	245	1.73	2.78	104	121.0	35.7	7.07	70.3	764
	5/17/05	<1.00	150	150	253	1.77	2.80	106	113.0	32.3	6.83	60.2	776
	11/17/05	<10.0	151	151	205 D1	1.2	0.26	111 D1	482.000	47.400	13.100	82.400	970 N
	5/9/06	<10	190	190	180	1.4	1.6	96	93.300	27.100	4.310	60.400	724
MW-12	11/16/06	<10	320	320	190	1.2	1.6	92	101.000	30.000	4.750	64.100	900
	5/15/02	<1.0	160	160	58.3	1.09	2.44	91.3	53.5	15.9	5.52	50.3	462
	10/23/02	-	-	-	65	-	-	102	-	-	-	-	477
	5/22/03	<1.0	148	146	91.1	1.04	2.30	87.7	74.2	21.0	4.99	57.6	516
	11/25/03	<1.0	142	142	93.1	1.18	2.36	90.9	74.7	20.9	5.41	52.5	548
	5/12/04	<1.00	458	458	72.9	1.04	2.35	86.7	58.1	19.0	5.92	51.8	489
	11/15/04	<1.00	184	184	79.8	1.39	2.83	88.8	59.7	21.5	16.50	77.4	512
	11/17/05	<10.0	151	151	109	0.93	0.12	94.6 D1	193.000	26.600	13.400	87.500	700 N
	11/16/06	<10	270	270	120	0.71	1.7	84	82.300	27.000	4.820	62.200	620
	5/13/02	<1.0	100	100	517	<1.00	1.61	437	116.0	76.0	19.40	269.0	1,596
	10/23/02	-	-	-	549	-	-	370	-	-	-	-	1,740
MW-13	5/22/03	<1.0	186	186	944	<2.00	2.33	361	289.0	101.0	15.30	458.0	3,060
	11/25/03	<1.0	226	226	1,460	<2.00	2.22	372	569.0	117.0	20.00	478.0	3,445
	5/12/04	<1.00	234	234	1,550	<4.00	4.58	369	384.0	114.0	18.60	485.0	4,240
	11/15/04	<1.00	226	226	1,870	<2.00	4.92	364	510.0	164.0	16.50	627.0	3,600
	11/17/05	<10.0	201	201	722 D1	1.0	2.5	206 D1	786.000	91.600	19.700	276.000	2,350 N
	11/16/06	<10	1,500	1,500	2,000	<0.50 N	2.7	500 N	529.000	176.000	14.200	493.000	5,060

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride	Fluoride	Nitrate - N	Sulfate	Calcium	Magnesium	Potassium	Sodium	TDS
New Mexico Water Quality Control Commission Groundwater Standard													
Fully Penetrating Screened Wells													
2501.60106001,000													
MW-6	2/26/08	-	-	230	260	-	-	400	180.0	44.0	6.20	205.0	1,200
	2/14/01	<1.0	136	136	39	1.70	2.20	99	62.5	22.1	7.67	32.3	470
	5/17/02	<1.0	162	162	37.6	1.62	2.14	99.3	63.1	19.6	5.12	46.6	427
	10/23/02	-	-	-	46.1	-	-	109	-	-	-	-	333
	5/22/03	<1.0	162	162	40.3	1.24	2.13	94.4	61.7	17.4	4.23	31.9	464
	11/25/03	<1.0	154	154	33.6	1.40	2.16	96	53.6	18.7	4.97	31.7	482
	5/11/04	<1.00	156	156	34.4	1.23	2.19	97	59.0	18.1	4.22	47.8	506
	11/16/04	<1.00	162	162	37.9	1.64	2.66	99.8	66.6	19.6	5.16	57.0	464
	11/17/05	<10.0	201	201	101	0.97	0.35	97.6 D1	103.000	20.200	4.100	59.100	730 N
	11/15/06	<10	750	750	66	0.99	1.5	93	64.600	20.400	4.250	57.100	507
MW-11	1/22/09	30	<1.0	30	46	2.30	4.20	94	33.0	7.0	9.10	36.0	370
	2/15/01	<1.0	156	156	37	2.40	2.40	120	64.0	19.1	7.83	30.1	360
	5/16/02	<1.0	160	160	31.9	2.13	2.33	96.8	63.5	17.2	4.83	47.0	444
	10/23/02	-	-	-	37.2	-	-	102	-	-	-	-	447
	5/22/03	12	154	166	32.3	1.74	2.28	96.7	62.3	0.0	4.63	47.6	437
	11/26/03	<1.0	160	160	32.4	1.83	2.23	96.4	59.2	16.6	4.67	46.6	446
	5/12/04	<1.00	164	164	34.6	1.71	2.38	97.7	54.8	15.7	4.28	46.2	457
	11/16/04	<1.00	160	160	39	2.17	2.81	100	63.2	16.8	5.14	54.3	454
	5/17/05	4	158	162	43.1	1.87	2.82	94.6	66.4	16.9	6.45	44.0	429
	11/17/05	<10.0	161	161	36.1	1.5	2.1	91.3 D1	75.000	17.700	4.550	64.700	700 N
5/9/06	<10	180	180	37	1.8	1.7	100	54.100	16.200	3.260	46.900	456	
11/14/06	<10	170	170	34	1.8	1.6	110	58.000	16.200	4.150	53.400	332	
RW-3	5/27/09	0	224	224	8,700	2.70	7.00	540	679.0	321.0	34.00	3.290	14,000
	5/22/03	<1.0	190	190	2,410	2.46	4.23	345	162.0	143.0	25.40	1,190.0	5,260
	11/26/03	<1.0	184	184	1,990	<4.00	20.00	324	199.0	147.0	36.60	1,090.0	5,050
	5/11/04	<1.00	148	148	491	1.32	2.65	109	66.3	23.4	11.20	252.0	1,224
	11/17/04	<1.00	160	160	633	1.65	3.23	121	89.7	43.5	18.00	362.0	1,314
	11/17/05	<10.0	221	221	695 D1	1.0	1.4	166 D1	122.000	70.900	6.400	493.000	2,390 N
	11/16/06	<10	300	300	11,000	<0.30	<20.16	1,100	339.000	694.000	43.300	5,380.000	22,000

TABLE II
GROUNDWATER ANALYTICAL SUMMARY
CHEVRON ENVIRONMENTAL MANAGEMENT COMPANY
COOPER-JAL UNIT INJECTION STATION
LEA COUNTY, NEW MEXICO

Sample ID	Sample Date	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Chloride	Fluoride	Nitrate - N	Sulfate	Calcium	Magnesium	Potassium	Sodium	TDS
New Mexico Water Quality Control Commission Groundwater Standard													
1,000													
250 1.60 10 600													
RW-2	5/22/03	324	<4.00	790	1,380	<2.00	2.43	23.9	1,060.0	<0.500	20.20	256.0	4,310
	11/26/03	64	<4.00	704	1,480	<5.00	5.81	38.3	968.0	<0.500	23.80	240.0	3,535
	5/15/04	36.0	<4.00	576	1,770	<3.00	3.19	67	898.0	<0.500	21.60	260.0	4,175
	11/17/04	104.0	<4.00	692	2,280	<10.0	<10.0	116	1180.0	<0.500	18.50	415.0	3,915
	11/17/05	281	<10.0	422	1,770 DI	0.89	0.60	175 DI	861.000	16.600	15.100	361.000	7,350 N
	11/16/06	40	150	199	2,500	0.57	1.9	370	978.000	48.800	18.000	437.000	5,270

Notes:

1. Shaded cells indicate New Mexico Water Quality Control Commission (NMWQCC) exceedance.
2. Results shown in mg/L.
3. N - See narrative in laboratory report for a detailed explanation.
4. DI - The analysis was performed at a dilution due to the high analyte concentration.
5. H - The analysis was performed post holding time.
6. C - Elevated detection limit due to matrix effect.

APPENDIX A
CERTIFIED LABORATORY REPORTS



Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

Saint Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

May 18, 2006

Luke Markham
CRA
2135 S. Loop 250 West
Midland, TX 79701

RE: Project: 2059553
RE: Project ID: CEMC-COOPER-JAL

Dear Luke Markham:

Enclosed are the analytical results for sample(s) received by the laboratory on May 10, 2006. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Olavesen



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006



Report of Laboratory Analysis
Project Number: 2059553



Sample Cross Reference Report

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client: CRA

Project: CEMC-COOPER-JAL

Project No.: 2059553

Sample ID	Lab ID	Matrix	Collection Date/Time		Received Date/Time	
MW-8	20446587	Water	05/09/2006	12:10	05/10/2006	10:50
MW-9	20446588	Water	05/09/2006	11:17	05/10/2006	10:50
MW-9A	20446589	Water	05/09/2006	11:38	05/10/2006	10:50
MW-10	20446590	Water	05/09/2006	12:45	05/10/2006	10:50
MW-11	20446591	Water	05/09/2006	10:50	05/10/2006	10:50
DUP	20446592	Water	05/09/2006		05/10/2006	10:50

5/18/2006 12:20:29

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - LA050004
Louisiana Dept. of Health and Hospitals / Drinking Water - LA050004
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-8

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446587

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	72435	1	72700		ug/L	500.	10-May-06	17-May-06 09:52	KJR (1)
Magnesium, Dissolved	EPA 6010	72435	1	33300		ug/L	500.	10-May-06	17-May-06 09:52	KJR (1)
Potassium, Dissolved	EPA 6010	72435	1	7120		ug/L	500.	10-May-06	17-May-06 09:52	KJR (1)
Sodium, Dissolved	EPA 6010	72435	1	125000		ug/L	500.	10-May-06	17-May-06 09:52	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitibility.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications

Louisiana Dept. of Environmental Quality (LELAP) - 02006

Arkansas Dept. of Environmental Quality - LA050004

Louisiana Dept. of Health and Hospitals / Drinking Water - LA050004

Florida Dept. of Health (NELAC) - E87595

Kansas Dept. of Health Environment - E-10266

U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

5/18/2006 12:20:29

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-9

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446588

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	72435	1	52700		ug/L	500.	10-May-06	17-May-06 10:08	KJR (1)
Magnesium, Dissolved	EPA 6010	72435	1	15000		ug/L	500.	10-May-06	17-May-06 10:08	KJR (1)
Potassium, Dissolved	EPA 6010	72435	1	3210		ug/L	500.	10-May-06	17-May-06 10:08	KJR (1)
Sodium, Dissolved	EPA 6010	72435	1	45500		ug/L	500.	10-May-06	17-May-06 10:08	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-9A

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446589

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	72435	1	111000		ug/L	500.	10-May-06	17-May-06 10:12	KJR (1)
Magnesium, Dissolved	EPA 6010	72435	1	27100		ug/L	500.	10-May-06	17-May-06 10:12	KJR (1)
Potassium, Dissolved	EPA 6010	72435	1	3880		ug/L	500.	10-May-06	17-May-06 10:12	KJR (1)
Sodium, Dissolved	EPA 6010	72435	1	58700		ug/L	500.	10-May-06	17-May-06 10:12	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-10

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446590

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	72435	1	93300		ug/L	500.	10-May-06	17-May-06 10:18	KJR (1)
Magnesium, Dissolved	EPA 6010	72435	1	27100		ug/L	500.	10-May-06	17-May-06 10:18	KJR (1)
Potassium, Dissolved	EPA 6010	72435	1	4310		ug/L	500.	10-May-06	17-May-06 10:18	KJR (1)
Sodium, Dissolved	EPA 6010	72435	1	60400		ug/L	500.	10-May-06	17-May-06 10:18	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

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(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-11

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446591

Project No.: 2059553

Description: None

Matrix: Water

%Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	72435	1	54100		ug/L	500.	10-May-06	17-May-06 10:22	KJR (1)
Magnesium, Dissolved	EPA 6010	72435	1	16200		ug/L	500.	10-May-06	17-May-06 10:22	KJR (1)
Potassium, Dissolved	EPA 6010	72435	1	3260		ug/L	500.	10-May-06	17-May-06 10:22	KJR (1)
Sodium, Dissolved	EPA 6010	72435	1	46900		ug/L	500.	10-May-06	17-May-06 10:22	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Report of Laboratory Analysis

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Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: DUP

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446592

Project No.: 2059553

Description: None

Matrix: Water

%Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	72435	1	68000		ug/L	500.	10-May-06	17-May-06 10:34	KJR (1)
Magnesium, Dissolved	EPA 6010	72435	1	28700		ug/L	500.	10-May-06	17-May-06 10:34	KJR (1)
Potassium, Dissolved	EPA 6010	72435	1	6020		ug/L	500.	10-May-06	17-May-06 10:34	KJR (1)
Sodium, Dissolved	EPA 6010	72435	1	102000		ug/L	500.	10-May-06	17-May-06 10:34	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitibility.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-8

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446587

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	72488	1	896.		mg/L	10.0	12-May-06	12-May-06 09:30	SMS2 (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-9

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446588

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	72488	1	428.		mg/L	10.0	12-May-06	12-May-06 09:30	SMS2 (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

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Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

5/18/2006 12:20:30

New Orleans Laboratory Certifications

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Report of Laboratory Analysis

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St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW-9A

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446589

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	72488	1	992.		mg/L	10.0	12-May-06	12-May-06 09:30	SMS2 (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

5/18/2006 12:20:30

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW-10

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446590

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	72488	1	724.		mg/L	10.0	12-May-06	12-May-06 09:30	SMS2 (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

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5/18/2006 12:30:30

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW-11

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446591

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	72488	1	456.		mg/L	10.0	12-May-06	12-May-06 09:30	SMS2 (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: DUP

Client: CRA

Project: CEMC-COOPER-JAL

Site: None

Lab ID: 20446592

Project No.: 2059553

Description: None

Matrix: Water

% Moisture: n/a

Collected: 05/09/06

Received: 05/10/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	72488	1	652.		mg/L	10.0	12-May-06	12-May-06 09:30	SMS2 (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

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(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Report of Quality Control

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Project No.: 2059553

Parameter	Batch	Blank	ARL	Units	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MSD %Rec	(1)MS RPD	DUP RPD	QC Limits		RPD	Qu
														LCS	MS/MSD	Max	
Calcium, Diss	72435	ND	500.	ug/L	10000	97			10000	59 *	49 *	1		73 - 115	75 - 125	20	Q3
Magnesium, D	72435	ND	500.	ug/L	10000	97			10000	78	80	0		73 - 116	75 - 125	20	
Potassium, Dis	72435	ND	500.	ug/L	10000	96			10000	93	91	2		73 - 114	75 - 125	20	
Sodium, Disso	72435	ND	500.	ug/L	10000	97			10000	31 *	21 *	1		64 - 122	75 - 125	20	Q3

5/18/2006 12:20:30

ARL denotes Adjusted Reporting Limit, corrected for sample size, dilution and moisture content as applicable.

* denotes recovery outside of QC limits.

(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

New Orleans Laboratory Certifications

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Report of Quality Control

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Wet Chemistry Quality Control Results

Project No.: 2059553

Parameter	Batch	Blank	ARL	Units	LCS Spike	LCS %Rec	LCSD %Rec	LCS RPD	MS Spike	MS %Rec	MS MSD %Rec	(1)MS RPD	DUP RPD	QC Limits LCS	MS/MSD	RPD Max	Qu
Total Dissolve	72488	ND	10.0	mg/L		100	102						2	80 - 120	-		20

ARL denotes Adjusted Reporting Limit, corrected for sample size, dilution and moisture content as applicable.

* denotes recovery outside of QC limits.

(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

5/18/2006 12:20:31

New Orleans Laboratory Certifications

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Florida Dept. of Health (NELAC) - E87595

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U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

Report Qualifiers

Pace Analytical Services, Inc.

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Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Project No.: **2059553**

QC Qualifiers

Qualifier	Qualifier Description
-----------	-----------------------

Q3	The matrix spike recoveries are poor due to the presence of this analyte in the sample at a concentration greater than 4 times the spiked amount. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.
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5/18/2006 12:20:31

New Orleans Laboratory Certifications
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U.S. Dept. of Agriculture Foreign Soil Permit - S-47270



1241 Bellevue Street, Suite 9
Green Bay, WI 54302
920-469-2436, Fax: 920-469-8827

Analytical Report Number: 871771

Client: PACE ANALYTICAL SERVICES, INC.


Lab Contact: Brian Basten

Project Name: CEMC - COOPER - JAL

Project Number: 039123

Lab Sample Number	Field ID	Matrix	Collection Date
871771-001	MW-8	WATER	05/09/06 12:10
871771-002	MW-9	WATER	05/09/06 11:17
871771-003	MW-9A	WATER	05/09/06 11:38
871771-004	MW-10	WATER	05/09/06 12:45
871771-005	MW-11	WATER	05/09/06 10:50
871771-006	DUP	WATER	05/09/06

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc. The sample results relate only to the analytes of interest tested.


Approval Signature

5-19-06
Date

**Pace Analytical
Services, Inc.**

Analytical Report Number: 871771

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CEMC - COOPER - JAL

Project Number : 039123

Field ID : MW-8

Matrix Type : WATER

Collection Date : 05/09/06

Report Date : 05/19/06

Lab Sample Number : 871771-001

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	160	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Chloride	210	25	5	mg/L		05/10/06	EPA 300.0	EPA 300.0
Fluoride	0.89	0.50	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.4	0.40	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Sulfate	200	20	5	mg/L		05/10/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 871771

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CEMC - COOPER - JAL

Project Number : 039123

Field ID : MW-9

Matrix Type : WATER

Collection Date : 05/09/06

Report Date : 05/19/06

Lab Sample Number : 871771-002

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	170	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Chloride	37	5.0	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Fluoride	1.8	0.50	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.8	0.40	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Sulfate	99	20	5	mg/L		05/10/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 871771

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CEMC - COOPER - JAL

Project Number : 039123

Field ID : MW-9A

Matrix Type : WATER

Collection Date : 05/09/06

Report Date : 05/19/06

Lab Sample Number : 871771-003

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	670	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Chloride	270	25	5	mg/L		05/10/06	EPA 300.0	EPA 300.0
Fluoride	0.67	0.50	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.6	0.40	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Sulfate	78	4.0	1	mg/L		05/10/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 871771

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CEMC - COOPER - JAL

Project Number : 039123

Field ID : MW-10

Matrix Type : WATER

Collection Date : 05/09/06

Report Date : 05/19/06

Lab Sample Number : 871771-004

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	190	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Chloride	180	25	5	mg/L		05/11/06	EPA 300.0	EPA 300.0
Fluoride	1.4	0.50	1	mg/L		05/11/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.6	0.40	1	mg/L		05/11/06	EPA 300.0	EPA 300.0
Sulfate	98	20	5	mg/L		05/11/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 871771

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CEMC - COOPER - JAL

Project Number : 039123

Field ID : MW-11

Matrix Type : WATER

Collection Date : 05/09/06

Report Date : 05/19/06

Lab Sample Number : 871771-005

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	180	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Chloride	37	5.0	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Fluoride	1.8	0.50	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.7	0.40	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Sulfate	100	20	5	mg/L		05/10/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 871771

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CEMC - COOPER - JAL

Project Number : 039123

Field ID : DUP

Matrix Type : WATER

Collection Date : 05/09/06

Report Date : 05/19/06

Lab Sample Number : 871771-006

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	160	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		05/15/06	SM 2320B	SM 2320B
Chloride	150	25	5	mg/L		05/10/06	EPA 300.0	EPA 300.0
Fluoride	1.1	0.50	1	mg/L	N	05/10/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.5	0.40	1	mg/L		05/10/06	EPA 300.0	EPA 300.0
Sulfate	170	20	5	mg/L		05/10/06	EPA 300.0	EPA 300.0

Qualifier Codes

Flag Applies To Explanation

A	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
B	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
B	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
G	All	The result is estimated because the concentration is less than the lowest calibration standard concentration utilized in the initial calibration. The method detection limit is less than the reporting limit specified for this project.
H	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	All	Concentration detected equal to or greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
M	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
O	Organic	Sample received overweight.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
Z	Organics	This compound was separated in the check standard but it did not meet the resolution criteria as set forth in SW846.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
+	Inorganic	The sample result is greater than four times the spike level; therefore, the percent recovery is not evaluated.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

**Pace Analytical
Services, Inc.**

Analysis Summary by Laboratory

1241 Bellevue Street
Green Bay, WI 54302

Test Group Name	871771-001	871771-002	871771-003	871771-004	871771-005	871771-006
ALKALINITY AS CaCO ₃	B	B	B	B	B	B
ALKALINITY, BICARB/CARB	B	B	B	B	B	B
CHLORIDE	B	B	B	B	B	B
FLUORIDE	B	B	B	B	B	B
NITROGEN, NITRATE	B	B	B	B	B	B
SULFATE	B	B	B	B	B	B

Code	Facility	Address	TX Certification
B	Green Bay Lab (Bellevue St)	1241 Bellevue Street, Suite 9 Green Bay, WI 54302	Not Certified

Sample Condition Upon Receipt



Client Name: CRA Project # 871771

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date
Proj. Name

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____

Thermometer Used JB Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 0°C Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: CS 5/10/06
VCS

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>NO3</u> <u>emailed</u> ✓
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	8. <u>sample per MW-10 to be shipped to GB 5-11-06 per CO 5-9-06</u>
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 5-10-06

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

Saint Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

December 02, 2006

Luke Markham
CRA
2135 S. Loop 250 West
Midland, TX 79701

RE: Project: 2064369
RE: Project ID: COOPER-JAL/039123

Dear Luke Markham:

Enclosed are the analytical results for sample(s) received by the laboratory on November 15, 2006. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Cindy Olavesen



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the
written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006



Report of Laboratory Analysis

Project Number: 2064369



Sample Cross Reference Report

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client: CRA

Project: COOPER-JAL/039123

Project No.: 2064369

Sample ID	Lab ID	Matrix	Collection Date/Time		Received Date/Time	
MW2 111406	20484827	Water	11/14/2006	11:55	11/15/2006	10:00
MW1 111406	20484828	Water	11/14/2006	12:41	11/15/2006	10:00
MW2A 111406	20484830	Water	11/14/2006	12:20	11/15/2006	10:00
MW5 111406	20484832	Water	11/14/2006	13:03	11/15/2006	10:00
MW5A 111406	20484833	Water	11/14/2006	13:31	11/15/2006	10:00
MW8 111406	20484834	Water	11/14/2006	14:25	11/15/2006	10:00
MW11 111406	20484835	Water	11/14/2006	13:58	11/15/2006	10:00
MW3 111506	20485168	Water	11/15/2006	14:40	11/16/2006	10:20
MW4 111506	20485169	Water	11/15/2006	13:25	11/16/2006	10:20
MW4A 111506	20485170	Water	11/15/2006	12:55	11/16/2006	10:20
MW6 111506	20485171	Water	11/15/2006	14:00	11/16/2006	10:20
MW7 111506	20485172	Water	11/15/2006	11:15	11/16/2006	10:20
MW9 111506	20485173	Water	11/15/2006	10:45	11/16/2006	10:20
MW9A 111506	20485175	Water	11/15/2006	10:55	11/16/2006	10:20
MW3 111506	20485669	Water	11/15/2006	14:40	11/17/2006	10:15
MW4 111506	20485670	Water	11/15/2006	13:25	11/17/2006	10:15
MW4A 111506	20485673	Water	11/15/2006	12:55	11/17/2006	10:15
MW6 111506	20485674	Water	11/15/2006	14:00	11/17/2006	10:15
MW7 111506	20485675	Water	11/15/2006	11:15	11/17/2006	10:15
MW9 111506	20485676	Water	11/15/2006	10:45	11/17/2006	10:15
MW9A 111506	20485677	Water	11/15/2006	10:55	11/17/2006	10:15
MW10 111606	20485678	Water	11/16/2006	11:00	11/17/2006	10:15
MW12 111606	20485679	Water	11/16/2006	13:40	11/17/2006	10:15
MW13 111606	20485684	Water	11/16/2006	14:20	11/17/2006	10:15
RW1 111606	20485685	Water	11/16/2006	12:50	11/17/2006	10:15
RW2 111606	20485689	Water	11/16/2006	11:15	11/17/2006	10:15
DUP 111606	20485690	Water	11/16/2006		11/17/2006	10:15

12/2/2006 09:25:55

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - 88-0681
Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health, Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW2 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484827

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	535000		ug/L	500.	16-Nov-06	22-Nov-06 10:47	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	212000		ug/L	500.	16-Nov-06	22-Nov-06 10:47	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	21000		ug/L	500.	16-Nov-06	22-Nov-06 10:47	KJR (1)
Sodium, Dissolved	EPA 6010	78968	10	1540000	D1	ug/L	5000	16-Nov-06	27-Nov-06 10:39	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis is performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications

Louisiana Dept. of Environmental Quality (LELAP) - 02006

Arkansas Dept. of Environmental Quality - 88-0681

Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023

Florida Dept. of Health (NELAC) - E87595

Kansas Dept. of Health Environment - E-10266

U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

12/2/2006 09:25:56

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW1 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484828

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	13200		ug/L	500.	16-Nov-06	22-Nov-06 11:07	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	6490		ug/L	500.	16-Nov-06	22-Nov-06 11:07	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	15600		ug/L	500.	16-Nov-06	22-Nov-06 11:07	KJR (1)
Sodium, Dissolved	EPA 6010	78968	1	172000		ug/L	500.	16-Nov-06	22-Nov-06 11:07	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis is performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - 88-0681
Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

12/2/2006 09:25:57

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW2A 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484830

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	69800		ug/L	500.	16-Nov-06	22-Nov-06 11:12	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	15600		ug/L	500.	16-Nov-06	22-Nov-06 11:12	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	3470		ug/L	500.	16-Nov-06	22-Nov-06 11:12	KJR (1)
Sodium, Dissolved	EPA 6010	78968	1	49900		ug/L	500.	16-Nov-06	22-Nov-06 11:12	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis is performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications
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Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023
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Kansas Dept. of Health Environment - E-10266
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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW5 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484832

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	437000		ug/L	500.	16-Nov-06	22-Nov-06 11:17	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	173000		ug/L	500.	16-Nov-06	22-Nov-06 11:17	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	14200		ug/L	500.	16-Nov-06	22-Nov-06 11:17	KJR (1)
Sodium, Dissolved	EPA 6010	78968	1	918000		ug/L	500.	16-Nov-06	22-Nov-06 11:17	KJR (1)

4 parameter(s) reported

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 DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
 Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW5A 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484833

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	90400		ug/L	500.	16-Nov-06	22-Nov-06 11:22	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	16100		ug/L	500.	16-Nov-06	22-Nov-06 11:22	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	3580		ug/L	500.	16-Nov-06	22-Nov-06 11:22	KJR (1)
Sodium, Dissolved	EPA 6010	78968	1	51400		ug/L	500.	16-Nov-06	22-Nov-06 11:22	KJR (1)

4 parameter(s) reported

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Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW8 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484834

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	74200		ug/L	500.	16-Nov-06	22-Nov-06 14:28	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	38300		ug/L	500.	16-Nov-06	22-Nov-06 14:28	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	9610		ug/L	500.	16-Nov-06	22-Nov-06 14:28	KJR (1)
Sodium, Dissolved	EPA 6010	78968	1	162000		ug/L	500.	16-Nov-06	22-Nov-06 14:28	KJR (1)

4 parameter(s) reported

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DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW11 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484835

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	58000		ug/L	500.	16-Nov-06	22-Nov-06 14:33	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	18200		ug/L	500.	16-Nov-06	22-Nov-06 14:33	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	4130		ug/L	500.	16-Nov-06	22-Nov-06 14:33	KJR (1)
Sodium, Dissolved	EPA 6010	78968	1	53400		ug/L	500.	16-Nov-06	22-Nov-06 14:33	KJR (1)

4 parameter(s) reported

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW3 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485669

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting	Prep.	Analysis	Reg. Limit
							Limit			
Calcium, Dissolved	EPA 6010	79113	1	51300		ug/L	500.	21-Nov-06	22-Nov-06 14:51	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	17300		ug/L	500.	21-Nov-06	22-Nov-06 14:51	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	4300		ug/L	500.	21-Nov-06	22-Nov-06 14:51	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	57200		ug/L	500.	21-Nov-06	22-Nov-06 14:51	KJR (1)

4 parameter(s) reported

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(1b) Flash point less than 140 degrees F is hazardous for ignitibility.

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New Orleans Laboratory Certifications

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Phone: 504.469.0333

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW4 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485670

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Reporting		Prep.	Analysis	Reg. Limit
						Units	Limit			
Calcium, Dissolved	EPA 6010	79113	10	1760000	D1	ug/L	5000	21-Nov-06	27-Nov-06 10:58	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	897000		ug/L	500.	21-Nov-06	22-Nov-06 14:56	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	58800		ug/L	500.	21-Nov-06	22-Nov-06 14:56	KJR (1)
Sodium, Dissolved	EPA 6010	79113	10	6150000	D1	ug/L	5000	21-Nov-06	27-Nov-06 10:58	KJR (1)

4 parameter(s) reported

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW4A 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485673

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	227000		ug/L	500.	21-Nov-06	22-Nov-06 15:01	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	53500		ug/L	500.	21-Nov-06	22-Nov-06 15:01	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	8100		ug/L	500.	21-Nov-06	22-Nov-06 15:01	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	406000		ug/L	500.	21-Nov-06	22-Nov-06 15:01	KJR (1)

4 parameter(s) reported

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW6 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485674

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	64600		ug/L	500.	21-Nov-06	22-Nov-06 15:06	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	20400		ug/L	500.	21-Nov-06	22-Nov-06 15:06	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	4230		ug/L	500.	21-Nov-06	22-Nov-06 15:06	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	57100		ug/L	500.	21-Nov-06	22-Nov-06 15:06	KJR (1)

4 parameter(s) reported

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW7 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485675

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	202000		ug/L	500.	21-Nov-06	22-Nov-06 15:11	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	70300		ug/L	500.	21-Nov-06	22-Nov-06 15:11	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	7400		ug/L	500.	21-Nov-06	22-Nov-06 15:11	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	102000		ug/L	500.	21-Nov-06	22-Nov-06 15:11	KJR (1)

4 parameter(s) reported

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Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW9 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485676

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	70500		ug/L	500.	21-Nov-06	22-Nov-06 15:16	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	35800		ug/L	500.	21-Nov-06	22-Nov-06 15:16	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	8640		ug/L	500.	21-Nov-06	22-Nov-06 15:16	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	152000		ug/L	500.	21-Nov-06	22-Nov-06 15:16	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
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(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW9A 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485677

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	126000		ug/L	500.	21-Nov-06	22-Nov-06 15:30	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	33400		ug/L	500.	21-Nov-06	22-Nov-06 15:30	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	4740		ug/L	500.	21-Nov-06	22-Nov-06 15:30	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	68400		ug/L	500.	21-Nov-06	22-Nov-06 15:30	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications

Louisiana Dept. of Environmental Quality (LELAP) - 02006

Arkansas Dept. of Environmental Quality - 88-0681

Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023

Florida Dept. of Health (NELAC) - E87595

Kansas Dept. of Health Environment - E-10266

U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

12/2/2006 09:25:57

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW10 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485678

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	101000		ug/L	500.	21-Nov-06	22-Nov-06 15:35	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	30000		ug/L	500.	21-Nov-06	22-Nov-06 15:35	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	4750		ug/L	500.	21-Nov-06	22-Nov-06 15:35	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	64100		ug/L	500.	21-Nov-06	22-Nov-06 15:35	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis is performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Phone: 504.469.0333

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW12 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485679

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	82300		ug/L	500.	21-Nov-06	22-Nov-06 15:40	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	27000		ug/L	500.	21-Nov-06	22-Nov-06 15:40	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	4820		ug/L	500.	21-Nov-06	22-Nov-06 15:40	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	62200		ug/L	500.	21-Nov-06	22-Nov-06 15:40	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW13 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485684

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	529000		ug/L	500.	21-Nov-06	22-Nov-06 15:47	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	176000		ug/L	500.	21-Nov-06	22-Nov-06 15:47	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	14200		ug/L	500.	21-Nov-06	22-Nov-06 15:47	KJR (1)
Sodium, Dissolved	EPA 6010	79113	1	493000		ug/L	500.	21-Nov-06	22-Nov-06 15:47	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: RW1 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485685

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	79113	1	539000		ug/L	500.	21-Nov-06	22-Nov-06 15:52	KJR (1)
Magnesium, Dissolved	EPA 6010	79113	1	694000		ug/L	500.	21-Nov-06	22-Nov-06 15:52	KJR (1)
Potassium, Dissolved	EPA 6010	79113	1	43300		ug/L	500.	21-Nov-06	22-Nov-06 15:52	KJR (1)
Sodium, Dissolved	EPA 6010	79113	10	5580000	DI	ug/L	5000	21-Nov-06	27-Nov-06 11:03	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
 DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
 Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
 Qu is is qualifiers. Specific qualifiers are defined at the end of the report.
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 Florida Dept. of Health (NELAC) - E87595
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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: RW2 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485689

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	978000		ug/L	500.	17-Nov-06	22-Nov-06 14:40	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	48800		ug/L	500.	17-Nov-06	22-Nov-06 14:40	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	18000		ug/L	500.	17-Nov-06	22-Nov-06 14:40	KJR (1)
Sodium, Dissolved	EPA 6010	78968	1	437000		ug/L	500.	17-Nov-06	22-Nov-06 14:40	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: DUP 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485690

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Calcium, Dissolved	EPA 6010	78968	1	563000		ug/L	500.	17-Nov-06	22-Nov-06 14:46	KJR (1)
Magnesium, Dissolved	EPA 6010	78968	1	644000		ug/L	500.	17-Nov-06	22-Nov-06 14:46	KJR (1)
Potassium, Dissolved	EPA 6010	78968	1	46400		ug/L	500.	17-Nov-06	22-Nov-06 14:46	KJR (1)
Sodium, Dissolved	EPA 6010	78968	10	5410000	DI	ug/L	5000	17-Nov-06	27-Nov-06 10:53	KJR (1)

4 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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Florida Dept. of Health (NELAC) - E87595

Kansas Dept. of Health Environment - E-10266

U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

12/2/2006 09:25:57

Report of Laboratory Analysis

Pace Analytical Services, Inc.

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St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW2 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484827

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	78949	1	8260		mg/L	10.0	20-Nov-06	20-Nov-06 14:40	MHM (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
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Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - 88-0681
Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

12/2/2006 09:25:58

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW1 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484828

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	78949	1	624.		mg/L	10.0	16-Nov-06	16-Nov-06 14:40	MHM (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
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New Orleans Laboratory Certifications
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12/2/2006 09:25:58

Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW2A 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484830

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	78949	1	488.		mg/L	10.0	16-Nov-06	16-Nov-06 14:40	MHM (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
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Analysis is performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW5 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484832

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	78949	1	4420		mg/L	10.0	20-Nov-06	20-Nov-06 14:40	MHM (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW5A 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484833

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	78949	1	588.		mg/L	10.0	16-Nov-06	16-Nov-06 14:40	MMH (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW8 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484834

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	78949	1	912.		mg/L	10.0	16-Nov-06	16-Nov-06 14:40	MHM (1)
1 parameter(s) reported										

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

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(1b) Flash point less than 140 degrees F is hazardous for ignitibility.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

12/2/2006 09:25:59

New Orleans Laboratory Certifications

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW11 111406

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20484835

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/14/06

Received: 11/15/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	SM 2540C	78949	1	532.		mg/L	10.0	16-Nov-06	16-Nov-06 14:40	MHM (1)

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications

Louisiana Dept. of Environmental Quality (LELAP) - 02006

Arkansas Dept. of Environmental Quality - 88-0681

Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023

Florida Dept. of Health (NELAC) - E87595

Kansas Dept. of Health Environment - E-10266

U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

12/2/2006 09:25:59

Report of Laboratory Analysis

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW3 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485669

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	505.		mg/L	10.0	27-Nov-06	27-Nov-06 10:06 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Client ID: MW4 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485670

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	28700		mg/L	10.0	27-Nov-06	27-Nov-06 09:59	XXXX (0)
1 parameter(s) reported										

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW4A 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485673

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	2870		mg/L	10.0	27-Nov-06	27-Nov-06 09:50 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW6 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485674

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	507.		mg/L	10.0	28-Nov-06	28-Nov-06 09:20 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Kansas Dept. of Health Environment - E-10266

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW7 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485675

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	2100		mg/L	10.0	28-Nov-06	28-Nov-06 08:55 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis is performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW9 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485676

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	905.		mg/L	10.0	27-Nov-06	27-Nov-06 09:41 XXXX (0)	
1 parameter(s) reported										

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW9A 111506

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485677

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/15/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	1280		mg/L	10.0	27-Nov-06	27-Nov-06 10:13 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
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Kansas Dept. of Health Environment - E-10266
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Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW10 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485678

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	900.		mg/L	10.0	21-Nov-06	21-Nov-06 16:50 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
Analysis is performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - 88-0681
Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

12/2/2006 09:25:59

Report of Laboratory Analysis

Pace Analytical Services, Inc.

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Phone: 504.469.0333

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW12 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485679

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	620.		mg/L	10.0	21-Nov-06	21-Nov-06 16:39 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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(1b) Flash point less than 140 degrees F is hazardous for ignitability.

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Arkansas Dept. of Environmental Quality - 88-0681

Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023

Florida Dept. of Health (NELAC) - E87595

Kansas Dept. of Health Environment - E-10266

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12/2/2006 09:25:59

Report of Laboratory Analysis

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: MW13 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485684

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	5060		mg/L	10.0	21-Nov-06	21-Nov-06 16:36 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.
(1b) Flash point less than 140 degrees F is hazardous for ignitability.
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LELAP # 02006

Pace Analytical®

New Orleans Laboratory

Client ID: RW1 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485685

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	22000		mg/L	10.0	21-Nov-06	21-Nov-06 16:45 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

(1a) pH less than 2.0 or greater than 12.5 is hazardous for corrosivity.

(1b) Flash point less than 140 degrees F is hazardous for ignitability.

Analysis performed in (1) New Orleans, (2) Baton Rouge, (3) Bossier City, (4) Houston, or (0) subcontract or field.

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Phone: 504.469.0333

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: RW2 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485689

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	5270		mg/L	10.0	21-Nov-06	21-Nov-06 16:35 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.

DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.

Reporting Limit is corrected for sample size, dilution and moisture content if applicable.

Qu lists qualifiers. Specific qualifiers are defined at the end of the report.

For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.

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(1b) Flash point less than 140 degrees F is hazardous for ignitibility.

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LELAP # 02006

Pace Analytical*

New Orleans Laboratory

Client ID: DUP 111606

Client: CRA

Project: COOPER-JAL/039123

Site: None

Lab ID: 20485690

Project No.: 2064369

Description: None

Matrix: Water

% Moisture: n/a

Collected: 11/16/06

Received: 11/17/06

ParameterName	Method	Batch	DF	Result	Qu	Units	Reporting Limit	Prep.	Analysis	Reg. Limit
Total Dissolved Solids	EPA 160.1	79504	1	22400		mg/L	10.0	21-Nov-06	21-Nov-06 15:20 XXXX (0)	

1 parameter(s) reported

ND denotes Not Detected at or above the adjusted reporting limit.
DF denotes Dilution Factor of final sample. PF denotes sample Prep Factor which accounts for a non-routine sample size.
Reporting Limit is corrected for sample size, dilution and moisture content if applicable.
Qu lists qualifiers. Specific qualifiers are defined at the end of the report.
For moisture results, wet denotes result is not corrected for moisture and n/a denotes not applicable.
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Report of Quality Control

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Phone: 504.469.0333

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LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Project No.: 2064369

Parameter	Batch	Blank	ARL	Units	LCS	LCS	LCS D	LCS	MS	MS	MS D	(1)MS	DUP	QC Limits	RPD	Qu
					Spike	%Rec	%Rec	RPD	Spike	%Rec	%Rec	RPD	RPD	LCS	MS/MSD	Max
Calcium, Diss	78968	ND	500.	ug/L	10000	103			10000	271 *	333 *	1		73 - 115	75 - 125	20 Q3
Calcium, Diss	78968			ug/L					10000	271 *	333 *	1		-	75 - 125	20 Q3
Magnesium, D	78968	ND	500.	ug/L	10000	102			10000	228 *	210 *	1		73 - 116	75 - 125	20 Q3
Magnesium, D	78968			ug/L					10000	228 *	210 *	1		-	75 - 125	20 Q3
Potassium, Dis	78968	ND	500.	ug/L	10000	105			10000	126 *	112	4		73 - 114	75 - 125	20 Q1
Potassium, Dis	78968			ug/L					10000	126 *	112	4		-	75 - 125	20 Q1
Sodium, Disso	78968	ND	500.	ug/L	10000	107			10000	0 *	190 *	3		64 - 122	75 - 125	20 D1
Sodium, Disso	78968			ug/L					10000	0 *	190 *	3		-	75 - 125	20 D1
Calcium, Diss	79113	ND	500.	ug/L	10000	93			10000	89	99	5		73 - 115	75 - 125	20
Magnesium, D	79113	ND	500.	ug/L	10000	96			10000	86	99	4		73 - 116	75 - 125	20
Potassium, Dis	79113	ND	500.	ug/L	10000	96			10000	90	104	5		73 - 114	75 - 125	20
Sodium, Disso	79113	ND	500.	ug/L	10000	95			10000	114	218 *	2		64 - 122	75 - 125	20

12/2/2006 09:26:01

ARL denotes Adjusted Reporting Limit, corrected for sample size, dilution and moisture content as applicable.

* denotes recovery outside of QC limits.

(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

New Orleans Laboratory Certifications

Louisiana Dept. of Environmental Quality (LELAP) - 02006

Arkansas Dept. of Environmental Quality - 88-0681

Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023

Florida Dept. of Health (NELAC) - E87595

Kansas Dept. of Health, Environment - E-10266

U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

Report of Quality Control

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F

St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Pace Analytical*
New Orleans Laboratory

Wet Chemistry Quality Control Results

Project No.: 2064369

Parameter	Batch	Blank	ARL	Units	LCS	LCS	LCS	LCS	MS	MS	MS	(1)MS	DUP	QC Limits	RPD	Qu
					Spike	%Rec	%Rec	RPD	Spike	%Rec	%Rec	RPD	RPD	LCS	MS/MSD	Max
Total Dissolve	78949	ND	10.0	mg/L									0	-	-	20
Total Dissolve	78949	ND	10.0	mg/L		100	112							80 - 120	-	

12/2/2006 09:26:04

ARL denotes Adjusted Reporting Limit, corrected for sample size, dilution and moisture content as applicable.

* denotes recovery outside of QC limits.

(1) MS RPD is calculated via SW-846 rules: on the basis of spiked sample concentrations rather than spike recoveries.

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - 88-0881
Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270



Report Qualifiers

Pace Analytical Services, Inc.

1000 Riverbend Blvd. Suite F
St. Rose, LA 70087

Phone: 504.469.0333

Fax: 504.469.0555

LELAP # 02006

Project No.: **2064369**

General Qualifiers

Qualifier	Qualifier Description
-----------	-----------------------

D1	The analysis was performed at a dilution due to the high analyte concentration.
----	---

QC Qualifiers

Qualifier	Qualifier Description
-----------	-----------------------

Q1	The matrix spike recoveries are poor. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample recovery.
----	---

Q3	The matrix spike recoveries are poor due to the presence of this analyte in the sample at a concentration greater than 4 times the spiked amount. Acceptable method performance for this analyte has been demonstrated by the laboratory control sample.
----	--

12/2/2006 09:26:06

New Orleans Laboratory Certifications
Louisiana Dept. of Environmental Quality (LELAP) - 02006
Arkansas Dept. of Environmental Quality - 88-0681
Louisiana Dept. of Health and Hospitals / Drinking Water - LA060023
Florida Dept. of Health (NELAC) - E87595
Kansas Dept. of Health Environment - E-10266
U.S. Dept. of Agriculture Foreign Soil Permit - S-47270

Section A

Required Client Information:

Company CRA

Address 2135 S. Loop 250 W.

Midland, Tx. 79703

Email To:

Phone 432-686-0086 Fax 432-686-0886

Requested Due Date/TAT:

Section B

Required Project Information:

Report To: Luke Markham / CRA

Copy To:

Address:

Purchase Order No.:	Pace Quote Reference:
---------------------	-----------------------

Project Name: C-200-71	Pace Project Manager:
------------------------	-----------------------

Project Number: 039123	Pace Profile #:
------------------------	-----------------

Section C

Invoice Information:

Attention:

Company Name:

Address:

Pace Quote Reference:

Pace Project Manager:

Pace Profile #:

Section D

Section D

SAMPLED

One Character per box.

Samples ID's MUST BE UNIQUE
(A-Z, 0-9 / -)

Samples IDs MUST BE UNIQUE

1	MW3	1	1	1	5	0	6
2	MW4	1	1	1	5	0	6
3	MW4A	1	1	1	5	0	6
4	MW6	1	1	1	5	0	6
5	MW7	1	1	1	5	0	6
6	MW9	1	1	1	5	0	6
7	MW9A	1	1	1	5	0	6
8	MW10	1	1	1	6	0	6
9	MW12	1	1	1	6	0	6
10	MW13	1	1	1	6	0	6
11	MW1	1	1	1	6	0	6
12	MW2	1	1	1	6	0	6

Additional Comments:

Matrix Codes	CODE
DRINKING WATER	DW
WASTEWATER	WT
WASTEWATER	WW
SOLID	P
SOLID	SL
SOLID	OL
SOLID	WP
SOLID	AR
SOLID	OT
SOLID	TS

[illegible]

COLLECTED			COMPOSITE END/GRAB
START TIME	DATE	TIME	
	11-15	1440	
	11-15	1325	
	11-15	1255	
	11-15	1400	
	11-15	1115	
	11-15	1045	
	11-15	1055	
	11-16	1100	
	11-16	1340	
	11-16	1420	
	11-16	1250	
	11-16	1115	

SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives
20	2	Unpreserved
20	2	H ₂ SO ₄
18	2	HNO ₃
19	2	HCl
20	2	NaOH
20	2	Na ₂ S ₂ O ₃
17	2	Methanol
20	2	Other

Pace Project Number	Lab ID	Residual Chlorine (Y/N)
20485669		
670		
673		
674		
675		
676		
677		
678		
679		
684		
685		
689		

SAMPLE CONDITION

Temp in °C	Received on Ice	Custody Sealed Cooler	Samples Intact
0-7	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N
	Y/N	Y/N	Y/N

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

Volume 4 Number 1 Spring 2002

DATE Signed (MM / DD / YY)

SEE REVERSE SIDE FOR INSTRUCTIONS

14:30:00



CHAIN-OF-CUSTODY Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A

Required Client Information:

Company: **CRA**
Address: **2135 S. Loop 250 W.**
Midland, TX 79703
Email To:

Section B

Required Project Information:

Report To: **Luke Marcham / CRA**
Copy To:
Purchase Order No.:
Project Name: **Cooper - Jal**
Project Number: **039123**

Section C

Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

Page: **2 of 2**
0947076

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA
SITE LOCATION
☐ GA ☐ IL ☐ IN ☐ MI ☐ MN ☐ NC
☐ OH ☐ SC ☐ WI ☐ OTHER

ITEM #	Valid Matrix Codes MATRIX DRINKING WATER WASTE WATER PRODUCT SOIL/SOLID OIL WIPE AIR OTHER TISSUE	CODE DW WT WM P SL OL WP AR OT TS	Section D Required Client Information				SAMPLE ID One Character per box. (A-Z, 0-9 / -)	Samples IDs MUST BE UNIQUE	MATRIX CODE	SAMPLE TYPE O=GRAB C=COMP	COLLECTED			SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Ice	Filtered (Y/N)	Requested Analysis: Temp 2540 C (Dissolved)	Pace Project Number Lab I.D. 20485690
			DATE	TIME	COMPOSITE START	COMPOSITE END/GRAB													
											DATE	TIME							
1	D	U	P	1	1	1	6	0	6	WT	G	11-16	-	-	2	X			
2	T	E	M	P						WT	G	-	-	-	1	X			
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITION
Cory Coleman / CRA	11-16	1300	7-22-16	11-16	1615	Temp in °C Received on Ice Custody Sealed Cooler Samples Intact

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

Cory Coleman

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY)
11-16-16

SEE REVERSE SIDE FOR INSTRUCTIONS

CONFIDENTIAL



1241 Bellevue Street, Suite 9
Green Bay, WI 54302
920-469-2436, Fax: 920-469-8827

Analytical Report Number: 878471

Client: PACE ANALYTICAL SERVICES, INC.

Lab Contact: Brian Basten

Project Name: CRA

Project Number: 2064369

Lab Sample Number	Field ID	Matrix	Collection Date
878471-001	MW2 111406 20484827	WATER	11/14/06 11:55
878471-002	MW2A 111406 20484830	WATER	11/14/06 12:20
878471-003	MW1 111406 20484828	WATER	11/14/06 12:41
878471-004	MW5 111406 20484832	WATER	11/14/06 13:03
878471-005	MW5A 111406 20484833	WATER	11/14/06 13:31
878471-006	MW8 111406 20484834	WATER	11/14/06 14:25
878471-007	MW11 111406 20484835	WATER	11/14/06 13:58
878534-001	MW3 111506 20485168	WATER	11/15/06 14:40
878534-002	MW4 111506 20485169	WATER	11/15/06 13:25
878534-003	MW4A 111506 20485170	WATER	11/15/06 12:55
878534-004	MW6 111506 20485171	WATER	11/15/06 14:00
878534-005	MW7 111506 20485172	WATER	11/15/06 11:15
878534-006	MW9 111506 20485173	WATER	11/15/06 10:45
878534-007	MW9A 111506 20485175	WATER	11/15/06 10:55
878566-001	MW11 111606 20485678	WATER	11/16/06 11:00
878566-002	MW12 111606 20485679	WATER	11/16/06 13:40
878566-003	MW13 111606 20485684	WATER	11/16/06 14:20
878566-004	RW1 111606 20485685	WATER	11/16/06 12:50
878566-005	RW2 111606 20485689	WATER	11/16/06 11:15
878566-006	DUP 111606 20485690	WATER	11/16/06

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc. The sample results relate only to the analytes of interest tested.

Approval Signature

Date

11-29-06

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW2 111406 20484827

Matrix Type : WATER

Collection Date : 11/14/06

Report Date : 11/29/06

Lab Sample Number : 878471-001

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	160	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	3500	250	50	mg/L		11/16/06	EPA 300.0	EPA 300.0
Fluoride	0.78	0.50	1	mg/L	N	11/15/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	2.1	0.40	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Sulfate	470	40	10	mg/L		11/16/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW2A 111406 20484830

Matrix Type : WATER

Collection Date : 11/14/06

Report Date : 11/29/06

Lab Sample Number : 878471-002

INORGANICS

Test		Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	<	10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity		180	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	<	10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride		49	5.0	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Fluoride		0.55	0.50	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate		1.6	0.40	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Sulfate		76	8.0	2	mg/L		11/16/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW1 111406 20484828

Matrix Type : WATER

Collection Date : 11/14/06

Report Date : 11/29/06

Lab Sample Number : 878471-003

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	200	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	96	5.0	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Fluoride	4.2	0.50	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	2.0	0.40	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Sulfate	76	8.0	2	mg/L		11/16/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW5 111406 20484832

Matrix Type : WATER

Collection Date : 11/14/06

Report Date : 11/29/06

Lab Sample Number : 878471-004

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	160	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	2000	250	50	mg/L		11/16/06	EPA 300.0	EPA 300.0
Fluoride	0.60	0.50	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.5	0.40	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Sulfate	300	40	10	mg/L		11/16/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW5A 111406 20484833

Matrix Type : WATER

Collection Date : 11/14/06

Report Date : 11/29/06

Lab Sample Number : 878471-005

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	240	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	47	5.0	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Fluoride	0.64	0.50	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.5	0.40	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Sulfate	79	4.0	1	mg/L		11/15/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW8 111406 20484834

Matrix Type : WATER

Collection Date : 11/14/06

Report Date : 11/29/06

Lab Sample Number : 878471-006

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	150	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	230	50	10	mg/L		11/16/06	EPA 300.0	EPA 300.0
Fluoride	1.1	0.50	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.2	0.40	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Sulfate	200	40	10	mg/L		11/16/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW11 111406 20484835

Matrix Type : WATER

Collection Date : 11/14/06

Report Date : 11/29/06

Lab Sample Number : 878471-007

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	170	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	34	5.0	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Fluoride	1.8	0.50	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.8	0.40	1	mg/L		11/15/06	EPA 300.0	EPA 300.0
Sulfate	110	20	5	mg/L		11/16/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW3 111506 20485168

Matrix Type : WATER

Collection Date : 11/15/06

Report Date : 11/29/06

Lab Sample Number : 878534-001

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	170	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	30	5.0	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Fluoride	0.92	0.50	1	mg/L	N	11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.7	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	96	8.0	2	mg/L		11/17/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW4 111506 20485169

Matrix Type : WATER

Collection Date : 11/15/06

Report Date : 11/29/06

Lab Sample Number : 878534-002

INORGANICS

Test		Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	<	10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity		260	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	<	10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride		14000	2500	500	mg/L		11/20/06	EPA 300.0	EPA 300.0
Fluoride	<	5.0	5.0	10	mg/L	C	11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate		5.2	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate		1400	400	100	mg/L		11/17/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW4A 111506 20485170

Matrix Type : WATER

Collection Date : 11/15/06

Report Date : 11/29/06

Lab Sample Number : 878534-003

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	620	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	960	100	20	mg/L		11/20/06	EPA 300.0	EPA 300.0
Fluoride	< 0.50	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	2.6	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	170	40	10	mg/L		11/17/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW6 111506 20485171

Matrix Type : WATER

Collection Date : 11/15/06

Report Date : 11/29/06

Lab Sample Number : 878534-004

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	750	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	68	5.0	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Fluoride	0.99	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.5	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	93	8.0	2	mg/L		11/17/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW7 111506 20485172

Matrix Type : WATER

Collection Date : 11/15/06

Report Date : 11/29/06

Lab Sample Number : 878534-005

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	240	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	550	50	10	mg/L		11/17/06	EPA 300.0	EPA 300.0
Fluoride	0.63	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.5	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	110	40	10	mg/L		11/17/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW9 111506 20485173

Matrix Type : WATER

Collection Date : 11/15/06

Report Date : 11/29/06

Lab Sample Number : 878534-006

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	150	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	210	50	10	mg/L		11/17/06	EPA 300.0	EPA 300.0
Fluoride	1.1	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.2	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	190	40	10	mg/L		11/17/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW9A 111506 20485175

Matrix Type : WATER

Collection Date : 11/15/06

Report Date : 11/29/06

Lab Sample Number : 878534-007

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	1600	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/17/06	SM 2320B	SM 2320B
Chloride	290	50	10	mg/L		11/20/06	EPA 300.0	EPA 300.0
Fluoride	0.62	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.6	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	72	8.0	2	mg/L		11/17/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW11 111606 20485678

Matrix Type : WATER

Collection Date : 11/16/06

Report Date : 11/29/06

Lab Sample Number : 878566-001

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	320	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Chloride	190	25	5	mg/L		11/19/06	EPA 300.0	EPA 300.0
Fluoride	1.2	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.6	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	92	20	5	mg/L		11/19/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW12 111606 20485679

Matrix Type : WATER

Collection Date : 11/16/06

Report Date : 11/29/06

Lab Sample Number : 878566-002

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	270	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Chloride	120	25	5	mg/L		11/19/06	EPA 300.0	EPA 300.0
Fluoride	0.71	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.7	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	84	20	5	mg/L		11/19/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : MW13 111606 20485684

Matrix Type : WATER

Collection Date : 11/16/06

Report Date : 11/29/06

Lab Sample Number : 878566-003

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	1500	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Chloride	2000	500	100	mg/L		11/19/06	EPA 300.0	EPA 300.0
Fluoride	< 0.50	0.50	1	mg/L	N	11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	2.7	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	500	400	100	mg/L	N	11/19/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : RW1 111606 20485685

Matrix Type : WATER

Collection Date : 11/16/06

Report Date : 11/29/06

Lab Sample Number : 878566-004

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	380	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Chloride	11000	2500	500	mg/L		11/20/06	EPA 300.0	EPA 300.0
Fluoride	< 0.50	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	< 20	20	50	mg/L	HC	11/20/06	EPA 300.0	EPA 300.0
Sulfate	1100	200	50	mg/L		11/20/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : RW2 111606 20485689

Matrix Type : WATER

Collection Date : 11/16/06

Report Date : 11/29/06

Lab Sample Number : 878566-005

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	150	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Carbonate Alkalinity	49	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Chloride	2500	250	50	mg/L		11/19/06	EPA 300.0	EPA 300.0
Fluoride	0.57	0.50	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	1.9	0.40	1	mg/L		11/17/06	EPA 300.0	EPA 300.0
Sulfate	370	200	50	mg/L		11/19/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

Analytical Report Number: 878471

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Client : PACE ANALYTICAL SERVICES, INC.

Project Name : CRA

Project Number : 2064369

Field ID : DUP 111606 20485690

Matrix Type : WATER

Collection Date : 11/16/06

Report Date : 11/29/06

Lab Sample Number : 878566-006

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Hydroxide Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Bicarbonate Alkalinity	390	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Carbonate Alkalinity	< 10	10	1	mg/L		11/22/06	SM 2320B	SM 2320B
Chloride	11000	2500	500	mg/L		11/20/06	EPA 300.0	EPA 300.0
Fluoride	< 0.50	0.50	1	mg/L	N	11/17/06	EPA 300.0	EPA 300.0
Nitrogen, Nitrate	< 20	20	50	mg/L	NHC	11/20/06	EPA 300.0	EPA 300.0
Sulfate	1100	200	50	mg/L		11/20/06	EPA 300.0	EPA 300.0

**Pace Analytical
Services, Inc.**

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436
Fax: 920-469-8827

Lab Number	TestGroupID	Field ID	Comment
878534-002	W-F-W	MW4 111506	C - Elevated detection limit due to matrix effect.
878566-004	W-NO3-W	RW1 111606	H - Analysis performed "4" days past holding time.
878566-004	W-NO3-W	RW1 111606	C - Elevated detection limit due to matrix effect.
878566-006	W-NO3-W	DUP 111606	H - Analysis performed "4" days past holding time.
878566-006	W-NO3-W	DUP 111606	C - Elevated detection limit due to matrix effect.

Qualifier Codes

Flag Applies To Explanation

A	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
B	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
B	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
G	All	The result is estimated because the concentration is less than the lowest calibration standard concentration utilized in the initial calibration. The method detection limit is less than the reporting limit specified for this project.
H	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	All	Concentration detected equal to or greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
M	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
O	Organic	Sample received overweight.
P	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
Z	Organics	This compound was separated in the check standard but it did not meet the resolution criteria as set forth in SW846.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
+	Inorganic	The sample result is greater than four times the spike level; therefore, the percent recovery is not evaluated.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

QC Reports for Batch

Batch	QC Report	QC Level	State
878471	QCLevel2-DupNo(MS)MS	QC-2	TX
878534	QCLevel2-DupNo(MS)MS	QC-2	TX
878566	QCLevel2-DupNo(MS)MS	QC-2	TX

Sample Condition Upon Receipt



Client Name: CRA

Project # 818471

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐ no

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Thermometer Used JB

Type of Ice: Wet Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature 10

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents LB 11-15-06

Temp should be above freezing to 6°C

Comments: 60 11-15-06

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>NITRATE S</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]

Date: 11-15-06

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Sample Condition Upon Receipt

Pace Analytical

Client Name: ORAProject # 878334

878534

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ noPacking Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____Thermometer Used JBType of Ice: Wet Blue None☒ Samples on ice, cooling process has begunCooler Temperature 1.0

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 11-16-06

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>NITRATE</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 11-16-06

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Sample Condition Upon Receipt

Client Name: CRAProject # 878566Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☒ yes ☒ no Seals intact: ☒ yes ☐ noPacking Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____Thermometer Used JBType of Ice: Wet Blue None☒ Samples on ice, cooling process has begunCooler Temperature 20

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: JB 11/17/06
11/17/06

Temp should be above freezing to 6°C

Comments: _____

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Short Hold Time Analysis (<72hr):	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6. <u>NITRATE</u>
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	7.
Sufficient Volume:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	8.
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
All containers needing preservation have been checked.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	14.
Headspace in VOA Vials (>6mm):	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	15.
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	16.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____

Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 11-17-06

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

