

ADEQ

ARKANSAS
Department of Environmental Quality

September 1, 2009

John M. Carver
Vice President Safety & Environmental Compliance
El Dorado Chemical Company
P.O. Box 1373
Oklahoma City, Oklahoma 73101

RE: Modification to Groundwater Monitoring Program
CAO LIS 06-153; AFIN: 70-00040

Dear Mr. Carver:

This letter is in response to the El Dorado Chemical Company (EDCC) letter dated June 30, 2009 in which you proposed to modify the groundwater sampling program in accordance with Consent Administrative Order (CAO) LIS 06-153, Order and Agreement Condition 3. According to the letter, EDCC is requesting the elimination of the analysis for vanadium in all 22 groundwater monitoring wells.

Based on a review of the data, the concentrations of vanadium have been below the detection limit or very low in all of the 22 groundwater monitoring wells. Therefore, the request to eliminate the analysis for vanadium from all 22 groundwater monitoring wells is approved. EDCC must continue to analyze for nitrate, ammonia, total dissolved solids (TDS), sulfate, total and dissolved lead, total and dissolved chromium, pH, temperature, and specific conductance in accordance with the conditions and requirements of Consent Administrative Order (CAO) LIS 06-153.

Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Jerry Neill, P.G. at (501) 682-0642 or by e-mail at neill@adeq.state.ar.us.

Sincerely,



Mo Shafii
Assistant Chief
Water Division

MS:jn

cc: Eric Fleming, Inspection Branch Manager
Cindy Garner, Enforcement Branch Manager
David Ramsey, Administrative Analyst
Jamie Ewing, Attorney Specialist
File (AFIN: 73-01055; Permit No.: 5040-W)



CHEMICAL COMPANY

June 30, 2009

Mr. Jerry Neill
Senior Geologist
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118-5317

RE: El Dorado Chemical Company
Groundwater Monitoring Program

Dear Mr. Neill:

El Dorado Chemical Company (EDCC) staff recently reviewed the latest round of semi-annual results for our monitor wells (see attached). The purpose of the review was to determine if any modifications to the sampling of the monitor wells was appropriate based upon the historical results. As specified in Consent Administrative Order LIS 06-153, Order and Agreement Condition 3, EDCC is required to sample 22 monitor wells for nitrate, ammonia, total dissolved solids (TDS), sulfate, total and dissolved lead, total and dissolved chromium, pH, temperature and specific conductance. Condition 3 also allows for modification to the sampling program based upon review of the data and ADEQ approval. A previous modification was approved by Laura Stuart in a letter dated June 8, 2007 (see attached).

EDCC would like to propose a modification to the facility groundwater monitoring program by requesting the elimination of testing for Vanadium in all 22 monitor wells. This modification was anticipated in Laura Stuart's June 8, 2007 letter.

The annual groundwater report will continue to be provided by April 1 of each year. If you would like to discuss the proposed modifications to the monitoring program, please give me a call at (405) 235-4546. EDCC would like to implement the changes for the upcoming November 2009 sampling event so a response at your earliest convenience would certainly be appreciated.

Sincerely,

A handwritten signature in black ink that reads "John M. Carver". The signature is written in a cursive, flowing style.

John M. Carver
Vice President Safety & Environmental Compliance
El Dorado Chemical Company

cc: Greg Withrow, EDCC
Laurie Marcella, EMS

jcg\EDCC Groundwater Monitoring Prg 063009



ARKANSAS
Department of Environmental Quality

June 8, 2007

Mr. John Carver
Vice President Safety & Environmental Compliance
El Dorado Chemical Company
P. O. Box 1373
Oklahoma City, OK 73101

RE: El Dorado Chemical Company
AFIN-70-00040
Ground Water Monitoring Program – Sampling Modification Request
2006 Annual Ground Water Report

Dear Mr. Carver:

The Department has reviewed both the Ground Water Monitoring Program Modification request and the 2006 Annual Ground Water Report. Comments regarding both documents are described in the paragraphs below.

Ground Water Monitoring Program – Sampling Modification Request

The Department received your request dated April 25, 2007 to modify the sampling frequency of parameters during the ground water monitoring events at the El Dorado Chemical Company (EDCC). In accordance with condition no. 3 of the Order and Agreement in the CAO LIS 06-153, modifications can be made to the semi-annual ground water monitoring program based upon data collected at the site. Although we discussed the modifications by phone and e-mail on May 18, 2007 prior to the next scheduled sampling event for the week of May 21st, this letter serves as the formal communication for these modifications.

After a review of your request, the 2006 Annual Ground Water Report and the October 2005 sampling program changes, these modifications to the ground water sampling program are indicated in the table below. This sampling schedule was selected based on background well data, wells with historically low levels since monitoring began in 2001, wells with historically higher levels of nitrates, ammonia, sulfates and/or TDS, and the two recovery wells installed in June 2006. Ground Water monitor wells MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10 and MW-11 are located in the vicinity of the recovery wells and data from the ground water monitoring wells will provide data to determine the effectiveness and operation of the recovery system. Lead and chromium were removed from analysis in 2005 and I recommend that they be added to the 2008 event for confirmation that the levels remain at the previously documented background levels. Vanadium was added in 2004 and I recommend that it remain on the list through semi-annual event in 2007 and 2008 in order to obtain enough data for statistical comparison. At that time, we can re-evaluate and determine whether this parameter should be continued or suspended. Analysis for the remediation parameters, as indicated on Table 26 in the 2006 Annual Ground Water Report, should also be continued according to the schedule listed in the table below.

WATER DIVISION

8001 NATIONAL DRIVE / POST OFFICE BOX 8913 / LITTLE ROCK, ARKANSAS 72219-8913 / TELEPHONE 501-682-2199 / FAX 501-682-0910

www.adeq.state.ar.us

: Parameters for Semi-Annual (May & October) Sampling Frequency each year

■ Parameters for Semi-Annual (May & October) Sampling Frequency every other year (2008, 2010, etc.)

Monitor Well ID	Water level measurements	Temperature	Conductivity	pH	Remediation Parameters (Alkalinity, Nitrite, Phosphorus, TOC)	Remediation Parameters (DO, redox, dissolved Fe, dissolved Mn)	Nitrate	Ammonia	Sulfate	Lead	Chromium	Vanadium
MW-1	:	:	:	:	:	■	■	■	■	■	■	:
MW-2	:	:	:	:	:	■	■	■	■	■	■	:
MW-3	:	:	:	:	:	■	■	■	■	■	■	:
MW-4	:	:	:	:	:	■	:	:	:	■	■	:
MW-5	:	:	:	:	:	■	:	:	:	■	■	:
MW-6	:	:	:	:	:	■	:	:	:	■	■	:
MW-7	:	:	:	:	:	■	:	:	:	■	■	:
MW-8	:	:	:	:	:	■	:	:	:	■	■	:
MW-9	:	:	:	:	:	■	:	:	:	■	■	:
MW-10	:	:	:	:	:	■	:	:	:	■	■	:
MW-11	:	:	:	:	:	■	:	:	:	■	■	:
MW-12	:	:	:	:	:	■	■	■	■	■	■	:
MW-13	:	:	:	:	:	■	■	■	■	■	■	:
MW-14	:	:	:	:	:	■	:	:	:	■	■	:
MW-15	:	:	:	:	:	■	■	■	■	■	■	:
MW-16	:	:	:	:	:	■	:	:	:	■	■	:
MW-17	:	:	:	:	:	■	:	:	:	■	■	:
MW-18	:	:	:	:	:	■	:	■	■	■	■	:
MW-19	:	:	:	:	:	■	■	■	■	■	■	:
MW-20	:	:	:	:	:	■	■	■	■	■	■	:
MW-21	:	:	:	:	:	■	■	■	■	■	■	:
MW-22	:	:	:	:	:	■	■	■	■	■	■	:

Analysis of Total Dissolved Solids (TDS) was suspended in 2005 and conductivity was added. I recommend that we remain with conductivity instead of TDS. Conductivity is a good indicator of TDS and vice versa, so there is a need to duplicate efforts. If the conductivity measurements

indicate something other than background or do not remain historically consistent, TDS may be added.

Should new data become available, we may need to modify this list again and re-evaluate the parameters if site conditions or data suggest changes are necessary.

2006 Annual Ground Water Report

The 2006 Annual Ground Water Report was submitted by e-mail on March 29, 2007. Based upon the review of the annual report, please submit the following items for the 2007 report and included in subsequent reports:

- 1) Indicate recovery wells locations on the site map;
- 2) Include data from the operation of the recovery wells, (i.e., volume, treatment and disposal methods, operational and maintenance (O&M) information, such as replacement of filters, pumps, etc., and any other per);
- 3) Include water level measurements of the recovery wells;
- 4) Provide data on the determination of the statistical trends from Appendix A; and
- 5) Plume maps of nitrate, ammonia and sulfate for the 2008 report.

Thank you for your cooperation with this project. Please do not hesitate to contact me with any questions by phone at (501) 682-0642 or by e-mail at stuart@adeq.state.ar.us.

Sincerely,

Laura Stuart, P.G.
Geologist
Water Division

cc: Brent Parker, EDCC
Mary Leath, Chief Deputy Director, ADEQ
Steve Drown, Assistant Chief, Water Division
Mo Shafii, Manager, Permits, Water Division
Dennis Benson, Manager, Enforcement, Water Division
File

TABLE 4
ECMW-1 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/14/1996	9.7	--	1.7	4.1	--	0.0037	<0.002	<0.005	<0.005	--	--
5/29/2001	5.1	<0.5	1.83	3.67	42	<0.04	--	<0.02	--	--	--
11/1/2001	4.8	<0.5	2.74	3.34	43	<0.04	--	<0.02	--	--	--
6/3/2002	5.5	<0.5	2.01	4.66	83	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	5.6	0.66	1.56	4.63	44	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	6.1	<0.5	1.8	6.73	108	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	4.77	<0.5	2.40	3.79	46	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	7.10	<0.5	2.55	5.05	59	<0.015	<0.015	<0.02	<0.02	--	--
9/24/2003	5.26	<0.5	3.18	6.52	68	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	5.11	<0.5	1.47	5.85	64	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.25	0.56	1.6	6.19	53	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.59	<0.5	2.73	4.22	56	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.51	<0.5	4.79	6.57	35	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	6.16	<0.5	3.68	3.88	80	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	5.65	0.76	4.26	3.48	53	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	5.11	<0.5	3.81	3.9	58	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	5.43	<0.5	2.88	6.69	86	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	5.73	0.55	2.45	4.39	52	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	--	<0.5	2.39	4.43	52	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/18/2005	3.61	--	--	--	--	--	--	--	--	<0.02	<0.02
10/18/2005	--	--	--	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	4.73	--	--	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	4.98	--	--	--	--	--	--	--	--	<0.02	--
5/23/2007	5.24	--	--	--	--	--	--	--	--	<0.02	--
11/6/2007	4.77	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	7.91	<0.5	1.57	4.23	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	4.63	<0.5	0.732	4.34	--	<0.015	--	<0.02	--	<0.02	--
4/22/2009	4.57	--	--	--	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 5
ECMW-2 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

ECMW-2

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/14/1996	9.7	--	<0.2	17	--	0.018	<0.002	0.0342	<0.005	--	--
5/29/2001	5.4	<0.5	<0.5	19.6	340	<0.04	--	0.032	--	--	--
11/1/2001	5.3	<0.5	<0.5	22.9	300	<0.04	--	<0.02	--	--	--
6/3/2002	6.0	<0.5	<0.5	20	396	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	6.1	<0.5	<0.5	25.7	517	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	6.7	<0.5	<0.5	24	305	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	5.31	<0.5	<0.5	22.1	309	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	7.26	<0.5	<0.5	22.9	370	<0.015	<0.015	<0.02	<0.02	--	--
9/24/2003	5.50	<0.5	<0.5	24.9	380	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	5.42	<0.5	<0.5	28.2	360	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.2	<0.5	<0.5	25.3	490	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.47	<0.5	<0.5	20.9	311	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.4	<0.5	<0.5	24	298	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	5.68	<0.5	<0.5	22.4	330	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	5.44	<0.5	<0.5	24.3	340	<0.015	<0.015	<0.02	<0.02	--	--
11/16/2004	6.12	<0.5	<0.5	21.5	320	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	5.38	<0.5	<0.5	20.8	300	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	--	<0.5	<0.5	20.5	300	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	5.87	0.79	<0.5	22.9	290	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/18/2005	5.15	--	<0.5	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	5.56	--	<0.5	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	5.2	--	--	--	--	--	--	--	--	<0.02	--
5/23/2007	5.29	--	--	--	--	--	--	--	--	<0.02	--
11/6/2007	5.17	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	7.04	<0.5	<0.5	20.1	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	5.47	<0.5	<0.5	15.4	--	<0.015	--	<0.02	--	0.02	--
4/22/2009	5.41	--	--	--	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 6
 ECMW-3 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-3

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
	s.u.						mg/L				
3/14/1996	8.0	--	<0.2	10	--	0.0027	<0.002	<0.005	<0.005	--	--
5/29/2001	6.2	<0.5	<0.5	10.6	180	<0.04	--	<0.02	--	--	--
11/1/2001	5.4	<0.5	<0.5	22.5	240	<0.04	--	<0.02	--	--	--
6/3/2002	6.4	<0.5	<0.5	11.4	228	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	6.5	<0.5	<0.5	21.6	295	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	6.0	<0.5	<0.5	16.4	242	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	6.05	<0.5	<0.5	12.5	207	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	6.23	<0.5	<0.5	11.8	210	<0.015	<0.015	<0.02	<0.02	--	--
9/24/2003	5.97	<0.5	<0.5	27.7	250	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	5.81	<0.5	<0.5	23.5	220	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.59	<0.5	<0.5	26.9	270	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.94	<0.5	<0.5	11.2	188	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.86	<0.5	<0.5	9.75	176	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	5.92	<0.5	<0.5	13	260	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	5.74	<0.5	<0.5	18.3	220	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	5.96	<0.5	<0.5	18.8	260	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	6.33	<0.5	<0.5	15.8	240	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	6.05	0.98	<0.5	11.8	200	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/18/2005	6.04	--	<0.5	--	--	--	--	--	--	<0.02	<0.02
4/12/2006	6.39	--	<0.5	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	5.37	--	--	--	--	--	--	--	--	<0.02	--
5/23/2007	5.92	--	--	--	--	--	--	--	--	<0.02	--
11/6/2007	4.85	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	7.96	<0.5	<0.5	10.5	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	4.86	<0.5	<0.5	9.65	--	<0.015	--	<0.02	--	<0.02	--
4/22/2009	5.76	--	--	--	--	--	--	--	--	<0.02	--
4/22/2009		<0.5	<0.5	10.5	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 7
 ECMW-4 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-4

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
	s.u.						mg/L				
3/14/1996	8.1	--	1.3	728	--	0.0025	< 0.002	< 0.005	< 0.005	--	--
8/8/2001	4.1	0.66	< 0.5	925	5100	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.3	< 0.5	< 0.5	936	5200	0.06	--	0.04	--	--	--
6/3/2002	5.2	< 0.5	< 0.5	979	4862	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	4.8	< 0.5	0.62	756	4240	0.02	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	4.4	< 0.5	2.4	976	5360	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/20/2003	4.33	< 0.5	< 0.5	936	4800	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/20/2003	--	< 0.5	< 0.5	1000	5150	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/24/2003	9.08	< 0.5	< 0.5	978	5300	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/24/2003	--	< 0.5	< 0.5	958	5400	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/24/2003	4.78	< 0.5	2.42	989	5200	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/24/2003	--	< 0.5	2.31	952	5200	< 0.015	< 0.015	< 0.02	< 0.02	--	--
11/19/2003	4.13	< 0.5	2.05	848	5300	< 0.015	< 0.015	< 0.02	< 0.02	--	--
1/28/2004	3.88	< 0.5	6.39	1040	5200	< 0.015	< 0.015	< 0.02	< 0.02	--	--
3/16/2004	4.1	< 0.5	< 0.5	919	5204	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/19/2004	4.05	< 0.5	1.45	1040	5300	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/13/2004	4.35	< 0.5	< 0.5	973	5500	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/14/2004	4.44	0.68	< 0.5	943	5200	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
11/16/2004	4.26	< 0.5	< 0.5	874	4600	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
1/25/2005	4.63	0.64	8.5	805	4700	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
5/24/2005	4.77	2.14	0.997	1020	4700	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
10/18/2005	4.06	--	0.517	--	--	--	--	--	--	< 0.02	< 0.02
4/12/2006	4.12	--	< 0.5	--	--	--	--	--	--	< 0.02	< 0.02
11/1/2006	3.69	< 0.5	< 0.5	--	--	< 0.015	--	< 0.02	--	< 0.02	--
5/23/2007	4.13	< 0.5	0.099	779	--	--	--	--	--	< 0.02	--
11/6/2007	3.76	< 0.5	< 0.5	1020	--	--	--	--	--	< 0.02	--
5/21/2008	3.89	< 0.5	< 0.5	896	--	0.017	--	< 0.02	--	< 0.02	--
11/5/2008	3.87	< 0.5	< 0.5	758	--	< 0.015	--	< 0.02	--	< 0.02	--
4/22/2009	4.17	< 0.5	< 0.5	68.3	--	--	--	--	--	--	< 0.02

-- - Parameter not analyzed

TABLE 8
ECMW-5 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

ECMW-5

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
	s.u.						mg/l.				
3/13/1996	5.8	--	4.4	441	--	<0.002	<0.002	<0.005	<0.005	--	--
8/8/2001	4.6	<0.5	3.54	657	1000	<0.04	--	<0.02	--	--	--
10/30/2001	4.7	<0.5	3.27	526	980	<0.04	--	<0.02	--	--	--
6/3/2002	6.3	<0.5	3.35	650	934	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	5.4	<0.5	3.66	582	929	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	5.2	<0.5	3.26	489	901	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	4.75	<0.5	3.60	654	845	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	6.85	<0.5	3.47	546	950	<0.015	<0.015	<0.02	<0.02	--	--
9/24/2003	4.82	<0.5	3.53	560	950	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	4.79	<0.5	2.40	416	780	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.03	<0.5	3.19	476	740	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	--	<0.5	3.07	482	730	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.13	<0.5	3.6	472	780	<0.015	<0.015	<0.02	<0.02	--	--
5/19/2004	5.85	<0.5	3.41	455	860	<0.015	<0.015	<0.02	<0.02	--	--
5/19/2004	--	<0.5	3.3	494	900	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	4.96	<0.5	3.75	511	910	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	6.7	0.59	3.75	515	700	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	5.28	<0.5	3.33	502	850	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	6.36	<0.5	3.18	461	870	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	6.42	3.62	3.21	547	820	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/19/2005	4.96	--	--	--	--	--	--	--	--	<0.02	<0.02
10/19/2005	--	--	--	--	--	--	--	--	--	<0.02	<0.02
4/12/2006	4.39	--	--	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	4.42	--	--	--	--	--	--	--	--	<0.02	<0.02
5/23/2007	5.18	<0.5	3.53	476	--	--	--	--	--	<0.02	--
11/7/2007	4.64	<0.5	3.32	464	--	--	--	--	--	<0.02	--
5/21/2008	6.45	<0.5	4.17	308	--	<0.015	--	<0.02	--	<0.02	--
11/12/2008	2.4	0.55	4.15	163	--	<0.015	--	<0.02	--	<0.02	--
4/22/2009	5.06	<0.5	7.81	133	--	--	--	--	--	<0.02	--
6/3/2009	5.92	--	7.58	--	--	--	--	--	--	--	--

"--" - Parameter not analyzed

TABLE 9
ECMW-6 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

ECMW-6

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	7.7	--	51.1	24	--	0.0026	<0.002	<0.005	<0.005	--	--
8/8/2001	4.3	0.5	298	18.3	2100	<0.04	--	<0.02	--	--	--
10/30/2001	4.3	<0.5	326	15.7	2700	<0.04	--	<0.02	--	--	--
6/3/2002	6.1	<0.5	459	12.1	290	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	5.0	0.51	661	8.13	3840	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	4.6	<0.5	580	7.15	3360	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	--	<0.5	588	6.45	3280	<0.015	<0.015	<0.02	<0.02	--	--
5/21/2003	4.30	0.5	608	17.0	4020	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	7.41	1.09	681	15.0	4600	<0.015	<0.015	<0.02	<0.02	--	--
9/24/2003	4.28	4.88	857	9.35	5100	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	4.53	5.72	865	10.7	4700	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	--	5.60	866	9.21	4900	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	4.36	12.3	835	17.2	5300	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	4.4	13	826	17.2	5106	<0.015	<0.015	<0.02	<0.02	--	--
5/19/2004	5.04	21.4	915	13.4	5800	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	4.74	17.9	995	11.7	6100	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	--	17.5	868	11.7	6200	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	5.51	20	1130	3.84	6300	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	4.59	37.6	1140	4.4	7100	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	5.36	43.1	1130	3.14	6600	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	4.57	68.2	1410	5.19	6700	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/18/2005	4.43	110	1350	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	4.45	154	1680	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	3.94	170	2390	--	--	--	--	--	--	<0.02	<0.02
5/23/2007	6.46	63.3	3550	44.9	--	--	--	--	--	<0.02	<0.02
11/6/2007	5.15	35.7	941	54.1	--	--	--	--	--	<0.02	<0.02
5/21/2008	4.5	59.1	1130	23.7	--	<0.015	--	<0.02	--	<0.02	<0.02
5/21/2008	--	72.5	256	28.3	--	<0.015	--	<0.02	--	<0.02	<0.02
11/5/2008	3.89	103	1060	26.1	--	<0.015	--	<0.02	--	<0.02	<0.02
4/21/2009	4.47	135	1070	148	--	--	--	--	--	<0.02	<0.02

-- - Parameter not analyzed

TABLE 10
 ECMW-7 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-7

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	8.1	--	282	380	--	0.0221	0.0185	0.0078	<0.005	--	--
8/8/2001	9.7	184	336	316	1300	<0.04	--	<0.02	--	--	--
10/30/2001	3.5	<0.5	189	322	1056	<0.04	--	<0.02	--	--	--
10/30/2001	--	<0.5	186	325	1100	<0.04	--	<0.02	<0.02	--	--
6/3/2002	4.4	190	361	363	1324	0.031	<0.015	<0.02	<0.02	--	--
6/3/2002	--	205	358	360	1386	0.027	<0.02	<0.02	<0.02	--	--
10/30/2002	4.2	167	294	345	1080	0.017	<0.015	<0.02	<0.02	--	--
12/10/2002	3.7	180	344	275	1316	<0.015	0.016	<0.02	<0.02	--	--
12/10/2002	--	149	349	276	1350	<0.015	<0.015	<0.02	<0.02	--	--
5/21/2003	3.66	244	563	298	1850	0.02	0.017	<0.02	<0.02	--	--
7/24/2003	7.05	95.1	141	378	1400	<0.015	<0.015	<0.02	<0.02	--	--
9/24/2003	3.84	116	953	341	1700	0.02	0.018	<0.02	<0.02	--	--
11/19/2003	4.03	124	152	476	1500	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	3.99	147	300	644	1300	0.018	<0.015	<0.02	<0.02	--	--
3/16/2004	3.98	190	310	496	1280	0.018	0.017	<0.02	<0.02	--	--
5/19/2004	3.95	204	337	524	1500	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	3.99	73.4	150	498	1600	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	4.45	26.5	75.5	142	1000	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
9/14/2004	--	25.9	76	143	990	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	3.97	219	370	428	1700	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	4.08	281	480	312	1700	0.016	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	4.21	323	595	349	1400	0.022	0.017	<0.02	<0.02	<0.02	<0.02
10/18/2005	3.9	14.3	91.6	--	--	<0.015	<0.015	--	--	<0.02	<0.02
4/11/2006	4.36	267	516	--	--	0.017	<0.015	--	--	<0.02	<0.02
11/1/2006	3.34	57.4	105	--	--	<0.015	--	--	--	<0.02	<0.02
5/23/2007	4.3	96	181	798	--	--	--	--	--	<0.02	<0.02
11/6/2007	3.58	49.9	85.3	906	--	--	--	--	--	<0.02	<0.02
5/21/2008	2.81	55.2	153	936	--	<0.015	--	<0.02	--	<0.02	<0.02
11/5/2008	3.4	115	237	962	--	<0.015	--	<0.02	--	<0.02	<0.02
4/21/2009	4.13	77.8	126	895	--	--	--	--	--	<0.02	<0.02

"--" - Parameter not analyzed

TABLE 11
ECMW-8 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

ECMW-8

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	7.9	--	1010	68.3	--	0.0234	0.0238	< 0.005	< 0.005	--	--
10/30/2001	3.9	0.94	1030	81.1	5000	< 0.04	--	< 0.02	--	--	--
6/3/2002	5.4	551	1070	77.8	4246	< 0.02	< 0.02	< 0.02	< 0.02	--	--
6/3/2002	--	551	1200	70.4	4378	0.031	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	4.4	406	1330	151	4560	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	4.0	220	1080	46.2	5120	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	--	261	1030	47.6	5140	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/21/2003	3.99	214	1250	209	4200	0.019	0.019	< 0.02	< 0.02	--	--
5/21/2003	--	167	1270	162	4010	0.019	0.019	< 0.02	< 0.02	--	--
7/24/2003	6.04	179	472	904	3700	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/24/2003	--	177	478	913	3700	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/23/2003	3.93	157.5	524	870	3400	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/23/2003	--	153	539	899	3400	< 0.015	< 0.015	< 0.02	< 0.02	--	--
11/19/2003	4.99	206	464	738	3200	< 0.015	< 0.015	< 0.02	< 0.02	--	--
1/28/2004	4.29	45.7	142	854	1800	< 0.015	< 0.015	< 0.02	< 0.02	--	--
3/16/2004	4.18	88	203	805	2221	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/19/2004	4.07	120	298	789	2500	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/13/2004	4.48	120	354	767	2600	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/14/2004	3.99	107	392	743	2400	< 0.015	< 0.015	< 0.02	< 0.02	--	--
11/16/2004	4.01	82.1	304	808	2800	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
1/25/2005	4.09	48.9	126	1200	2700	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
5/24/2005	6.12	79.6	225	1220	2700	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
10/18/2005	4.03	84.8	246	--	--	--	--	--	--	< 0.02	< 0.02
4/11/2006	3.78	53.5	194	--	--	--	--	--	--	< 0.02	< 0.02
11/1/2006	3.44	74.5	224	--	--	--	--	--	--	< 0.02	< 0.02
5/23/2007	4.11	122	< 0.5	971	--	--	--	--	--	< 0.02	< 0.02
11/6/2007	3.7	96.2	340	816	--	--	--	--	--	< 0.02	< 0.02
5/21/2008	3.42	56.8	171	1000	--	< 0.015	--	< 0.02	--	< 0.02	< 0.02
11/5/2008	3.61	70	181	719	--	< 0.015	--	< 0.02	--	< 0.02	< 0.02
4/21/2009	4.88	53.6	108	839	--	--	--	--	--	< 0.02	< 0.02

"--" - Parameter not analyzed

TABLE 12
 ECMW-9 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-9

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/14/1996	9	--	37.3	621	--	0.004	<0.002	<0.005	<0.005	--	--
6/27/2001	5.4	<0.5	28.8	520	1600	<0.04	--	<0.02	--	--	--
10/30/2001	5.5	<0.5	26.7	514	2600	<0.04	--	<0.02	--	--	--
6/3/2002	6	<0.5	24.4	639	1597	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	6	18.8	59	655	1630	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	5.2	0.7	28.1	556	1680	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	--	<0.5	31.5	555	1640	<0.015	<0.015	<0.02	<0.02	--	--
5/21/2003	5.33	<0.5	26.3	568	1600	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	7.05	<0.5	28.4	547	1500	<0.015	<0.015	<0.02	<0.02	--	--
9/23/2003	5.24	<0.5	146	531	1500	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	5.72	<0.5	28.0	532	1600	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.53	<0.5	29.2	575	1500	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.88	<0.5	30.6	528	1524	<0.015	<0.015	<0.02	<0.02	--	--
5/19/2004	5.47	<0.5	27.4	517	1600	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	6.87	<0.5	24.6	588	1600	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	5.04	1.14	25.3	548	1500	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	5.67	0.7	24	549	580	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	5.57	<0.5	26.3	518	1600	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/24/2005	5.77	<0.5	27.4	600	1600	0.018	<0.015	<0.02	<0.02	<0.02	<0.02
10/18/2005	5.64	--	29.9	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	5.83	--	29.5	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	5	--	40.2	--	--	--	--	--	--	<0.02	<0.02
5/23/2007	5.57	2.91	32.8	420	--	--	--	--	--	<0.02	<0.02
5/23/2007		1.48	31.2	502	--	--	--	--	--	<0.02	<0.02
11/6/2007	4.94	3.59	30.6	642	--	--	--	--	--	<0.02	<0.02
5/21/2008	6.04	<0.5	31.7	522	--	<0.015	--	<0.02	--	<0.02	<0.02
11/5/2008	4.41	<0.5	23.7	391	--	<0.015	--	<0.02	--	<0.02	<0.02
4/21/2009	5.91	<0.5	28	501	--	--	--	--	--	<0.02	<0.02

"--" - Parameter not analyzed

TABLE 13
 ECMW-10 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-10

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
	s.u.						mg/L				
3/13/1996	7.7	--	257	89	--	0.0052	0.0039	<0.005	<0.005	--	--
6/27/2001	4.4	<0.5	156	100	1300	<0.04	--	0.025	--	--	--
10/30/2001	3.9	<0.5	153	134	1400	<0.04	--	0.04	--	--	--
6/3/2002	5.3	<0.5	138	84.9	1122	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	5.6	1.84	137	140	968	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	4.5	<0.5	70.4	52.2	1120	<0.015	<0.015	<0.02	<0.02	--	--
5/21/2003	4.08	<0.5	148	96.0	1140	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	5.56	<0.5	118	108	1000	<0.015	<0.015	<0.02	<0.02	--	--
9/23/2003	4.18	<0.5	147	127	1000	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	4.38	<0.5	119	104	970	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	4.6	<0.5	126	129	1000	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.01	<0.5	135	128	1078	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.07	<0.5	123	139	1055	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	4.54	<0.5	114	112	920	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	4.7	0.77	123	137	1000	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	4.79	<0.5	94.4	71.1	800	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	4.63	<0.5	115	114	1000	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	4.93	1.45	120	142	990	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/18/2005	4.3	--	97.7	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	4.4	--	97.5	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	--	--	95.5	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	3.83	--	71	--	--	<0.015	--	--	--	<0.02	--
5/23/2007	4.18	0.79	79.9	109	--	--	--	--	--	<0.02	--
11/6/2007	3.97	<0.5	65.9	121	--	--	--	--	--	<0.02	--
5/21/2008	5.11	<0.5	69.2	153	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	4.06	<0.5	40.9	105	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.58	12.7 outlier	48.9	155	--	--	--	--	--	<0.02	--
6/3/2009	6.35	<0.5	--	--	--	--	--	--	--	--	--

"--" - Parameter not analyzed

TABLE 14
 ECMW-II ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-II

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	11.10	--	22.1	578	--	<0.002	<0.002	<0.005	<0.005	--	--
8/8/2001	4.30	4.21	7.99	611	1100	<0.04	--	<0.02	--	--	--
10/30/2001	4.00	<0.5	21.9	334	610	<0.04	--	<0.02	--	--	--
6/3/2002	5.40	<0.5	6.46	565	897	<0.02	<0.02	<0.02	<0.02	--	--
6/3/2002	--	3.9	5.81	586	968	<0.02	<0.015	<0.02	<0.02	--	--
10/30/2002	4.80	18	9.22	362	625	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	4.50	10.73	6.12	414	809	<0.015	<0.015	<0.02	<0.02	--	--
5/21/2003	4.45	7.84	6.02	333	576	<0.015	<0.015	<0.02	<0.02	--	--
7/24/2003	6.66	25.6	6.68	278	540	<0.015	<0.015	<0.02	<0.02	--	--
9/23/2003	4.29	5.25	4.24	397	660	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	4.61	12.0	6.26	289	570	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	--	14.3	6.85	276	340	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.04	19.6	6.72	303	520	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.00	15	9.63	262	511	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	--	18	8.79	278	535	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.17	19.9	13.5	228	452	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	4.53	17.4	13.6	222	480	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	4.61	14.5	9.85	247	480	<0.015	<0.015	<0.02	<0.02	<0.02	--
11/17/2004	4.86	19.1	11.1	209	450	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	4.64	--	--	--	--	--	--	--	--	--	--
5/25/2005	5.05	20.6	1.12	3.58	410	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/18/2005	4.42	10.6	2.02	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	4.63	10.9	6.01	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	4.06	4.88	1.43	--	--	--	--	--	--	<0.02	--
5/23/2007	4.23	25.4	29.2	137	--	--	--	--	--	<0.02	--
5/23/2007		17.4	26.4	242	--	--	--	--	--	<0.02	--
11/6/2007	3.94	8.01	9.75	223	--	--	--	--	--	<0.02	--
5/21/2008	5.26	19.5	18.9	208	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	4.34	18.4	16.9	98.6	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.09	<0.5 outlier	14	119	--	--	--	--	--	<0.02	--
6/3/2009	6.10	17.7	--	--	--	--	--	--	--	--	--

"--" - Parameter not analyzed

TABLE 15
 ECMW-12 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-12

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	6.1	--	< 0.2	9.6	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
6/27/2001	5.9	2.2	< 0.5	13	330	< 0.04	--	< 0.02	--	--	--
6/4/2002	6	0.9	< 0.5	4.85	510	< 0.02	< 0.02	< 0.02	< 0.02	--	--
6/4/2002	--	1.4	< 0.5	6.01	500	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	6.1	4.2	< 0.5	21.6	382	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.8	2.3	< 0.5	12.5	424	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/21/2003	5.71	1.89	< 0.5	5.31	307	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/24/2003	4.76	1.74	< 0.5	18.7	380	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/24/2003	5.45	1.43	< 0.5	26	440	< 0.015	< 0.015	< 0.02	< 0.02	--	--
11/19/2003	5.79	1.83	< 0.5	30.6	460	< 0.015	< 0.015	< 0.02	< 0.02	--	--
1/28/2004	6.44	1.87	< 0.5	6.76	320	< 0.015	< 0.015	< 0.02	< 0.02	--	--
3/16/2004	5.96	2.2	< 0.5	4.04	252	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/19/2004	5.8	1.94	< 0.5	5.11	360	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/13/2004	6.78	1.2	< 0.5	7.18	220	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/15/2004	5.8	2.38	< 0.5	23	440	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	--
11/16/2004	5.73	1.55	< 0.5	18.5	340	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
1/26/2005	5.91	1.98	< 0.5	4.88	360	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
5/25/2005	5.96	1.02	< 0.5	11.2	370	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
10/20/2005	5.3	1.06	--	--	--	--	--	--	--	< 0.02	< 0.02
4/11/2006	6.12	1.58	--	--	--	--	--	--	--	< 0.02	< 0.02
11/1/2006	5.3	1.37	--	--	--	--	--	--	--	< 0.02	--
5/23/2007	5.66	--	--	--	--	--	--	--	--	< 0.02	--
11/6/2007	5.11	--	--	--	--	--	--	--	--	< 0.02	--
5/21/2008	7.53	1.67	< 0.5	7.14	--	< 0.015	--	< 0.02	--	< 0.02	--
11/7/2008	5.75	1.17	< 0.5	8.74	--	< 0.015	--	< 0.02	--	< 0.02	--
4/21/2009	6.52	--	--	--	--	--	--	--	--	< 0.02	--

"--" - Parameter not analyzed

TABLE 16
 ECMW-13 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-13

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
	s.u.										
3/13/1996	5.6	--	0.2	809	--	<0.002	<0.002	<0.005	<0.005	--	--
6/5/2001	5.6	<0.5	<0.5	538	1400	<0.04	--	<0.02	--	--	--
10/30/2001	5.3	<0.5	<0.5	606	1300	<0.04	--	<0.02	--	--	--
6/4/2002	5.7	<0.5	<0.5	372	718	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	6.1	1.28	<0.5	538	1030	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	5.5	<0.5	<0.5	598	1320	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	5.51	<0.5	<0.5	697	1330	<0.015	<0.015	<0.02	<0.02	--	--
7/23/2003	6.05	<0.5	<0.5	358	820	<0.015	<0.015	<0.02	<0.02	--	--
9/24/2003	4.70	0.71	<0.5	458	920	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	4.91	<0.5	0.62	310	680	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.02	<0.5	<0.5	565	1100	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.19	<0.5	<0.5	550	1175	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.27	<0.5	<0.5	296	647	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	6.02	<0.5	<0.5	510	1100	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	5.03	0.5	<0.5	416	940	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
9/14/2004	--	0.51	<0.5	425	960	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	4.83	<0.5	<0.5	250	1500	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/26/2005	4.86	<0.5	0.72	564	1200	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	5.07	0.54	<0.5	302	580	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/19/2005	4.19	--	--	--	--	--	--	--	--	<0.02	<0.02
4/12/2006	4.97	--	--	--	--	--	--	--	--	<0.02	<0.02
11/2/2006	4.71	<0.5	<0.5	--	--	--	<0.015	<0.02	--	<0.02	--
5/23/2007	4.97	--	--	--	--	--	--	--	--	<0.02	--
11/7/2007	4.64	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	5.85	<0.5	<0.5	399	--	<0.015	--	<0.02	--	<0.02	--
5/21/2008	--	<0.5	<0.5	409	--	<0.015	--	<0.02	--	<0.02	--
11/7/2008	5.01	<0.5	<0.5	346	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.77	--	--	--	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 17
 ECMW-14 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-14

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	4.6	--	11.9	139	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
8/8/2001	4.3	< 0.5	75	175	1000	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.5	< 0.5	25.2	211	790	< 0.04	--	< 0.02	--	--	--
6/4/2002	5.6	< 0.5	26.5	187	675	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	6.3	5.32	17	288	669	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.3	< 0.5	23.4	230	709	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/20/2003	4.85	< 0.5	44.9	227	865	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/23/2003	4.62	< 0.5	23.1	221	750	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/23/2003	5.00	< 0.5	20.3	275	700	< 0.015	< 0.015	< 0.02	< 0.02	--	--
11/19/2003	4.92	< 0.5	16.1	227	740	< 0.015	< 0.015	< 0.02	< 0.02	--	--
1/28/2004	5.19	< 0.5	24.5	262	710	0.028	< 0.015	0.022	< 0.02	--	--
3/16/2004	5.34	< 0.5	33.4	211	792	< 0.015	< 0.015	< 0.02	< 0.02	--	--
5/18/2004	5.23	< 0.5	32.6	234	784	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/13/2004	5.05	< 0.5	45.7	226	820	< 0.015	< 0.015	< 0.02	< 0.02	--	--
7/13/2004	--	< 0.5	47.3	234	840	< 0.015	< 0.015	< 0.02	< 0.02	--	--
9/14/2004	4.72	< 0.5	57.7	232	900	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
11/16/2004	4.88	< 0.5	21.7	168	660	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
1/26/2005	4.89	< 0.5	62.4	204	930	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
5/25/2005	5.06	< 0.5	31	204	700	< 0.015	< 0.015	< 0.02	< 0.02	< 0.02	< 0.02
10/19/2005	4.96	--	36	--	--	--	--	--	--	< 0.02	< 0.02
4/12/2006	4.72	--	48.2	--	--	--	--	--	--	< 0.02	< 0.02
4/12/2006	--	--	48.5	--	--	--	--	--	--	< 0.02	< 0.02
11/2/2006	4.15	--	13.6	--	--	--	--	--	--	< 0.02	--
5/23/2007	4.6	< 0.5	25.5	233	--	--	--	--	--	< 0.02	--
11/7/2007	4.24	< 0.5	12.6	229	--	--	--	--	--	< 0.02	--
5/21/2008	5.69	< 0.5	22.5	224	--	< 0.015	--	< 0.02	--	< 0.02	--
11/5/2008	4.35	< 0.5	11.1	137	--	< 0.015	--	< 0.02	--	< 0.02	--
4/21/2009	4.36	0.72	13.2	200	--	--	--	--	--	< 0.02	--

"--" - Parameter not analyzed

TABLE 18
 ECMW-15 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-15

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	6.4	--	34.5	4.4	--	<0.002	<0.002	<0.005	<0.005	--	--
8/8/2001	4.3	<0.5	19.1	7.8	140	<0.04	--	<0.02	--	--	--
10/30/2001	4.3	<0.5	12.6	10.2	110	<0.04	--	<0.02	--	--	--
6/4/2002	5.4	<0.5	10.7	11.1	100	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	5.4	1.16	18.2	9.22	120	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	5.8	0.5	12.2	10.8	120	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	4.75	<0.5	9.45	13	66	<0.015	<0.015	<0.02	<0.02	--	--
7/23/2003	4.77	<0.5	7.63	12.8	100	<0.015	<0.015	<0.02	<0.02	--	--
9/23/2003	4.49	<0.5	9.62	11.8	180	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	4.89	<0.5	9.81	12.6	100	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.56	3.96	4.52	18.6	81	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.68	<0.5	7.66	13.9	97	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.75	<0.5	6.82	15.2	83	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	5.39	<0.5	9.52	11	110	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	4.67	0.61	8.22	13.2	100	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	4.92	<0.5	7.42	11.8	110	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	4.68	<0.5	7.62	11.8	110	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	4.94	<0.5	5.79	16.1	79	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/19/2005	4.77	--	5.63	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	4.95	--	1.6	--	--	--	--	--	--	<0.02	<0.02
11/2/2006	4.17	--	2.54	--	--	--	--	--	--	<0.02	--
5/23/2007	4.43	--	--	--	--	--	--	--	--	<0.02	--
11/7/2007	4.06	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	7.35	<0.5	1.52	15.9	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	5.18	<0.5	2.32	8.79	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.53	--	--	--	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 19
 ECMW-16 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-16

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	5.7	--	137	4.6	--	0.0036	0.0034	<0.005	<0.005	--	--
6/5/2001	4.3	4.61	134	5.09	1100	<0.04	--	<0.02	--	--	--
10/30/2001	3.9	<0.5	58.4	6.44	330	<0.04	--	<0.02	--	--	--
6/4/2002	5.0	6.2	72.5	7.19	396	<0.02	<0.02	<0.02	<0.02	--	--
6/4/2002	--	5.0	72.6	6.82	404	<0.02	<0.015	<0.02	<0.02	--	--
10/30/2002	5.0	11.6	72	9.21	263	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	5.9	2.99	89.4	5.64	595	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	4.42	3.69	90.8	6.55	555	<0.015	<0.015	<0.02	<0.02	--	--
7/23/2003	4.81	6.45	72.3	7.15	430	<0.015	<0.015	<0.02	<0.02	--	--
9/23/2003	4.31	5.97	72.8	7.09	400	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	4.99	8.61	44.3	9.78	230	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	5.61	5.66	59	9.84	280	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	5.83	8.39	34.8	11.2	180	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	5.95	10.4	31.9	13.3	167	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	--	11.5	31.5	13.8	135	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	5.5	9.35	40.2	7.7	160	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	4.49	8.57	47.1	7.83	190	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	5.08	6.49	38.2	8.11	310	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	--	6.87	38.3	8.02	270	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/25/2005	4.54	4.15	43.1	8.13	310	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	4.62	7.62	26.8	10.2	110	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/19/2005	4.66	6.28	17	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	4.79	2.01	17	--	--	--	--	--	--	<0.02	<0.02
11/2/2006	4.27	2.16	24.8	--	--	--	--	--	--	<0.02	--
5/23/2007	4.25	2.21	12.8	14.4	--	--	--	--	--	<0.02	--
11/7/2007	4.3	1.77	19.6	12.6	--	--	--	--	--	<0.02	--
5/21/2008	6.08	3.35	14.8	15.9	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	6.5	1.92	11.4	10.4	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.66	3.25	8.85	14.5	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 20
 ECMW-17 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-17

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/13/1996	4.9	--	45	145	--	<0.002	<0.002	<0.005	<0.005	--	--
6/5/2001	4.4	1.16	54.2	87.7	600	<0.04	--	<0.02	--	--	--
10/30/2001	4.1	<0.5	106	11.5	760	<0.04	--	<0.02	--	--	--
6/4/2002	5.1	<0.5	83.4	8.04	603	<0.02	<0.02	<0.02	<0.02	--	--
10/30/2002	5.1	2.36	92	9.53	540	<0.015	<0.015	<0.02	<0.02	--	--
12/10/2002	5.6	1.22	101	28.2	751	<0.015	<0.015	<0.02	<0.02	--	--
5/20/2003	4.54	<0.5	83.6	17.1	603	<0.015	<0.015	<0.02	<0.02	--	--
7/23/2003	4.74	0.58	74.7	9.31	548	<0.015	<0.015	<0.02	<0.02	--	--
9/23/2003	5.25	<0.5	64.3	6.98	400	<0.015	<0.015	<0.02	<0.02	--	--
11/19/2003	5.28	0.55	77.3	11.8	530	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	6.54	<0.5	81.3	42.8	560	<0.015	<0.015	<0.02	<0.02	--	--
3/16/2004	6.62	8.14	129	64	983	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	6.73	8.05	134	60.1	944	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	6.57	<0.5	67.6	6.54	460	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	4.4	1.42	78.4	3.14	570	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	5.41	9.55	219	54.8	1800	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/26/2005	4.54	1.79	53.3	12.2	360	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	4.86	<0.5	56.4	19.1	390	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	--	<0.5	58.4	4.27	440	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/20/2005	5.74	0.67	48.9	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	3.35	1.15	66.6	--	--	--	--	--	--	<0.02	<0.02
11/2/2006	3.56	4.81	47.6	--	--	--	--	--	--	<0.02	<0.02
5/23/2007	4.19	1.49	58.5	12.7	--	--	--	--	--	<0.02	<0.02
11/7/2007	3.7	0.64	83.3	51.7	--	--	--	--	--	<0.02	<0.02
5/21/2008	4.84	1.63	63.1	63	--	<0.015	--	<0.02	--	<0.02	<0.02
11/5/2008	3.85	1.31	34.6	17.5	--	<0.015	--	<0.02	--	<0.02	<0.02
4/21/2009	4.25	12.2 outlier	27.1	99.9	--	--	--	--	--	<0.02	<0.02
6/3/2009	5.84	3.04	--	--	--	--	--	--	--	--	--

"--" - Parameter not analyzed

TABLE 21
 ECMW-18 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-18

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
3/14/1996	6.6	--	0.4	3.3	--	0.017	<0.002	0.0194	<0.005	--	--
10/30/2001	5.4	<0.5	<0.5	3.74	300	<0.04	--	0.05	--	--	--
6/4/2002	6.2	<0.5	<0.5	8.38	796	0.115	<0.02	0.147	0.137	--	--
10/30/2002	6.3	0.43	<0.5	3.22	258	0.018	<0.015	<0.02	<0.02	--	--
12/10/2002	6.4	<0.5	<0.5	5.01	495	<0.015	<0.015	0.02	<0.02	--	--
5/21/2003	6.01	0.59	<0.5	7.08	786	0.029	<0.015	0.02	<0.02	--	--
7/23/2003	5.38	<0.5	113	115	2000	0.029	<0.015	0.047	<0.02	--	--
9/24/2003	5.54	5.79	<0.5	3.81	590	0.025	<0.015	0.036	0.026	--	--
11/19/2003	5.90	<0.5	<0.5	9.68	300	<0.015	<0.015	<0.02	<0.02	--	--
1/28/2004	6.17	--	--	--	--	--	--	--	--	--	--
3/16/2004	6.4	<0.5	<0.5	7.01	666	0.021	<0.015	0.027	0.021	--	--
5/19/2004	6.43	<0.5	<0.5	5.63	720	0.063	<0.015	0.088	<0.02	--	--
7/13/2004	6.05	<0.5	<0.5	5.68	1100	0.033	<0.015	0.043	<0.02	--	--
9/15/2004	5.89	0.56	<0.5	3.88	1200	0.109	0.038	0.12	0.05	0.213	--
11/17/2004	5.96	<0.5	<0.5	4.61	1100	<0.015	<0.015	0.027	<0.02	0.045	<0.02
11/17/2004	--	<0.5	<0.5	4.85	1100	0.03	<0.015	0.043	<0.02	0.079	<0.02
1/26/2005	5.9	<0.5	<0.5	5.13	1000	0.056	<0.015	0.055	0.022	0.099	0.031
5/25/2005	6.04	<0.5	<0.5	5.18	700	0.018	<0.015	0.032	<0.02	0.048	0.03
10/19/2005	5.82	--	--	--	--	<0.015	<0.015	<0.02	0.052	<0.02	0.081
4/12/2006	1.34	--	--	--	--	<0.015	0.016	<0.02	0.065	<0.02	<0.02
11/2/2006	5.23	--	--	--	--	<0.015	--	<0.02	--	0.02	--
5/23/2007	5.34	--	0.98	--	--	--	--	--	--	<0.02	--
11/7/2007	5.03	--	<0.5	--	--	--	--	--	--	0.05	--
5/21/2008	7.82	<0.5	0.567	6.57	--	0.02	--	0.028	--	0.04	--
11/7/2008	5.05	<0.5	<0.5	1.52	--	0.032	--	0.025	--	0.05	--
4/22/2009	5.42	--	<0.5	--	--	--	--	--	--	0.03	--

"--" - Parameter not analyzed

TABLE 22
 ECMW-19 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-19

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
	s.u.										
1/28/2004	6.73	0.64	<0.5	8.32	1400	0.122	0.045	0.077	0.077	--	--
3/16/2004	6.49	<0.5	<0.5	6.38	238	0.019	<0.015	<0.02	<0.02	--	--
3/16/2004	--	<0.5	<0.5	7.63	164	0.021	<0.015	<0.02	<0.02	--	--
5/19/2004	6.19	<0.5	<0.5	9.05	220	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	6.37	<0.5	<0.5	6.85	180	<0.015	<0.015	<0.02	<0.02	--	--
9/15/2004	6.23	0.54	<0.5	4.11	120	<0.015	<0.015	<0.02	<0.02	<0.02	--
11/17/2004	6.02	<0.5	<0.5	4.63	130	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/26/2005	5.82	<0.5	<0.5	3.67	100	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	5.88	<0.5	<0.5	4.56	120	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/19/2005	6.27	<0.5	<0.5	--	--	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
4/12/2006	6.1	<0.5	<0.5	--	--	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/2/2006	5.51	<0.5	<0.5	--	--	<0.015	--	<0.02	--	<0.02	--
5/23/2007	5.8	--	--	--	--	--	--	--	--	<0.02	--
11/7/2007	5.18	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	8.17	<0.5	<0.5	3.18	--	<0.015	--	<0.02	--	<0.02	--
11/7/2008	5.9	<0.5	<0.5	2.04	--	<0.015	--	<0.02	--	<0.02	--
4/22/2009	5.66	--	--	--	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 23
ECMW-20 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

ECMW-20

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
	s.u.										
1/28/2004	5.93	<0.5	<0.5	11.4	730	0.024	<0.015	0.034	<0.02	--	--
3/16/2004	6.51	<0.5	<0.5	15.9	186	<0.015	<0.015	<0.02	<0.02	--	--
5/19/2004	6.23	<0.5	<0.5	10.6	140	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	5.8	<0.5	<0.5	17.2	130	<0.015	<0.015	<0.02	<0.02	--	--
9/15/2004	5.61	0.86	<0.5	17.2	120	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/17/2004	5.36	<0.5	<0.5	13.5	160	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/26/2005	6.02	<0.5	<0.5	13.8	160	0.017	<0.015	<0.02	<0.02	<0.02	<0.02
5/26/2005	6.03	<0.5	1.86	7.72	85	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/20/2005	--	<0.5	<0.5	--	--	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
4/12/2006	--	3.58	6.29	--	--	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/2/2006	6.2	<0.5	1.21	--	--	<0.015	--	<0.02	--	<0.02	--
5/23/2007	6.06	--	--	--	--	--	--	--	--	<0.02	--
11/7/2007	5.52	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	8.6	<0.5	<0.5	8.94	--	<0.015	--	<0.02	--	<0.02	--
11/7/2008	6.36	<0.5	<0.5	7.94	--	0.016	--	<0.02	--	<0.02	--
4/22/2009	6.22	--	--	--	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 24
ECMW-21 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

ECMW-21

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
1/28/2004	5.56	<0.5	1.63	8.17	82	0.169	<0.015	0.837	<0.02	--	--
3/16/2004	6.34	<0.5	0.54	3.62	130	<0.015	<0.015	0.028	<0.02	--	--
5/19/2004	6.75	<0.5	2.15	4.59	110	0.029	<0.015	0.07	<0.02	--	--
7/13/2004	6.39	<0.5	2.5	3.74	103	0.032	<0.015	0.056	<0.02	--	--
9/15/2004	5.47	0.81	4.65	4.15	150	<0.015	<0.015	0.029	<0.02	<0.02	--
11/17/2004	5.96	<0.5	2.97	3.14	110	<0.015	<0.015	0.047	<0.02	<0.02	<0.02
1/26/2005	5.37	4.06	3.23	2.88	77	0.02	<0.015	0.044	<0.02	<0.02	<0.02
5/26/2005	5.69	<0.5	3.17	3.64	76	0.063	<0.015	0.265	<0.02	0.092	<0.02
10/20/2005	4.17	<0.5	4.16	--	--	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
4/12/2006	--	<0.5	3.19	--	--	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/2/2006	--	<0.5	2.23	--	--	<0.015	--	<0.02	--	<0.02	--
5/23/2007	5.56	--	--	--	--	--	--	--	--	<0.02	--
11/7/2007	5.07	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	7.81	<0.5	1.85	5.18	--	<0.015	--	<0.02	--	<0.02	--
11/7/2008	5.32	<0.5	1.26	3	--	<0.015	--	<0.02	--	<0.02	--
4/22/2009	5.24	--	--	--	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed

TABLE 25
 ECMW-22 ANALYTICAL SUMMARY
 EL DORADO CHEMICAL COMPANY
 EL DORADO, ARKANSAS

ECMW-22

Sample Date	pH	Ammonia-N	Nitrate-N	Sulfate	Total Dissolved Solids	Lead (Total)	Lead (Dissolved)	Chromium (Total)	Chromium (Dissolved)	Vanadium (Total)	Vanadium (Dissolved)
1/28/2004	7.68	0.61	0.53	6.62	540	0.021	<0.015	0.021	<0.02	--	--
1/28/2004	--	<0.5	0.52	6.62	610	0.021	<0.015	0.023	<0.02	--	--
3/16/2004	6.65	<0.5	0.66	2.88	<1	<0.015	<0.015	<0.02	<0.02	--	--
5/18/2004	6.76	<0.5	0.95	3.74	136	<0.015	<0.015	<0.02	<0.02	--	--
7/13/2004	6.74	<0.5	<0.5	3.8	140	<0.015	<0.015	<0.02	<0.02	--	--
9/14/2004	5.84	0.7	<0.5	2.94	170	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/16/2004	6.95	<0.5	<0.5	2.51	180	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
1/26/2005	5.79	<0.5	1.09	3.56	140	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
5/25/2005	6.46	<0.5	1.12	3.61	130	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
10/19/2005	6.21	<0.5	<0.5	--	--	0.056	<0.015	<0.02	<0.02	<0.02	<0.02
4/11/2006	6.22	<0.5	2.56	--	--	<0.015	<0.015	<0.02	<0.02	<0.02	<0.02
11/2/2006	5.37	<0.5	1.07	--	--	<0.015	--	<0.02	--	<0.02	--
5/23/2007	5.67	--	--	--	--	--	--	--	--	<0.02	--
11/7/2007	5.01	--	--	--	--	--	--	--	--	<0.02	--
5/21/2008	7.93	<0.5	3.65	7.6	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	5.06	<0.5	1.87	4.7	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	5.8	--	--	--	--	--	--	--	--	<0.02	--
4/21/2009	--	<0.5	0.991	3.67	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed