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EL DORADO

CHEMICAL COMPANY

March 31, 2015

Ms. Linda Hanson
Professional Geologist
Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

Dear Ms. Hanson:

Please find the attached 2014 El Dorado Chemical Company groundwater monitoring report.
This report is being submitted in accordance with CAO LIS Number 06-0153.

Should you have any questions concerning this report please don't hesitate to contact me at 870-863-1400.

Sincerely,

Greg Withrow

Greg Withrow
General Manager
El Dorado Chemical Company

2014 ANNUAL GROUND WATER REPORT

Prepared For:

EL DORADO

El Dorado Chemical Company

Prepared By:

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

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March 30, 2015

2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

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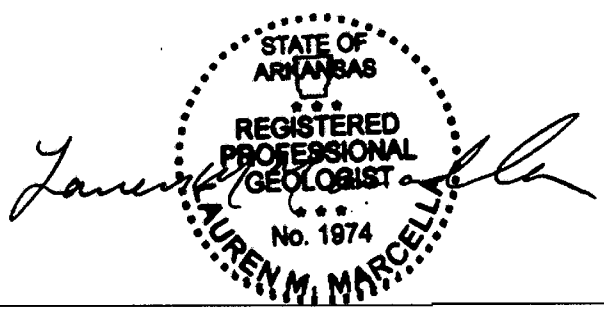
The report contained herein has been prepared by Environmental Management Services, Inc. (EMS) under the direct supervision of the environmental professional(s) indicated below. To the best of our knowledge all appropriate standards of care and practices were utilized to collect and report the data contained within this document. Services performed by EMS were conducted in a manner consistent with that degree of care and skill ordinarily exercised by reputable members of the same profession as EMS practicing in the same locality under similar conditions as exists at the time the service was provided. No other representation, express or implied, and no warranty or guarantee is included or intended in this proposal, or any report, opinion, document or otherwise as a result of, or part of the work by EMS, its subcontractors, or vendors.

Prepared By:



Date: March 30, 2015

Lauren M. Marcella, P.G.
Project Geologist
AR Professional Geologist No. 1974

2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

1.0 INTRODUCTION

This report presents the results of ground water sampling activities conducted at the El Dorado Chemical Company (EDCC) facility during 2014. Field sampling techniques, ground water flow, ground water quality and data analysis are discussed. A site map is provided as Figure 1.

2.0 SITE GEOLOGY

The EDCC facility is located west of the Mississippi Embayment in the Gulf Coastal Plain Geostratigraphic Region. Sediments within the region are characterized as a thick sequence of unconsolidated sediments, fluvial-deltaic in origin, and Tertiary in age. In some areas of Union County, unconsolidated alluvial deposits, Quaternary in age, overlay the Tertiary sediments.

Within the Claiborne Group, two units crop out in Union County, the Cook Mountain Formation and the Cockfield Formation. The Cook Mountain is overlain by the Cockfield Formation. The Cook Mountain is uniformly underlain by the Sparta Formation. The Cook Mountain is 50 to 200 feet thick and is composed of clay and silty clay containing minor amounts of localized very fine to silty sand. These clays serve as a confining unit between the more permeable overlying Cockfield Formation and the underlying aquifer. The Cockfield Formation, locally referred to as the "lignite sand", is generally characterized by fine sand, interbedded silty clay and lignite becoming more massive and containing less silt and clay with depth. The local shallow subsurface consists of interbedded sand, silty sand, silt and clay, with more clay in the northern area of the property and more sand to the south.

3.0 GROUND WATER MONITORING PROGRAM

The ground water monitoring program including parameters, sampling methodology and laboratory analyses is described in the following sections.

3.1 MONITORING PARAMETERS

In September 2005 statistical analyses were performed on ground water data to compare downgradient well data to upgradient (background) data and determine if the site constituents of concern are present at statistically significant levels. As a result of the statistical analyses, the monitoring program was revised in 2005 and implemented in 2006. The list was changed to

allow EDCC to continue to collect data to evaluate the potential risk associated with the current ground water conditions, but eliminate parameters for which there is sufficient data.

Further revisions to the monitoring program were proposed in a letter dated April 25, 2007 and approved by the Arkansas Department of Environmental Quality (ADEQ) on June 8, 2007. The changes to the monitoring program that were implemented in 2007-2008 are as follows:

- ***Lead and chromium:*** These parameters were removed from the monitoring program during 2005; in 2007 ADEQ requested these parameters be sampled semiannually every two years to verify concentrations remain at the previously documented background levels.

- ***Background Wells***: In 2004, data were used to establish the background levels of ammonia, nitrate, lead and chromium in the three upgradient wells ECMW-1, ECMW-2 and ECMW-3. These four parameters were dropped from the annual sampling list but are sampled semiannually every two years to verify concentrations remain at the previously documented background levels.

- ***Nitrate***: The statistical evaluation indicates that wells ECMW-12, ECMW-13, ECMW-15 and ECMW-19 through ECMW-22 have concentrations of nitrate comparable to the background level. Nitrate was dropped from the annual parameter list for these wells, but is sampled semiannually every two years. Nitrate will continue to be analyzed semiannually in monitor wells ECMW-4 through ECMW-11, ECMW-14, ECMW-16, ECMW-17 and ECMW-18.

- ***Ammonia***: The statistical evaluation indicates that wells ECMW-12, ECMW-13, ECMW-15 and ECMW-18 through ECMW-22 have concentrations of ammonia comparable to the background level. Ammonia was dropped from the annual parameter list for these wells, but is sampled semiannually every two years. Ammonia will continue to be analyzed semiannually in monitor wells ECMW-4 through ECMW-11, ECMW-14, ECMW-16 and ECMW-17.

- ***Sulfate***: The statistical evaluation indicates that wells ECMW-12, ECMW-13, ECMW-15 and ECMW-18 through ECMW-22 have concentrations of sulfate comparable to the background level. Sulfate was dropped from the annual parameter list for these wells, but is sampled semiannually every two years. Sulfate will continue to be analyzed semiannually in monitor wells ECMW-4 through ECMW-11, ECMW-14, ECMW-16 and ECMW-17.

- ***Total Dissolved Solids***: There is sufficient ground water data for TDS. This parameter was dropped from the list of all monitoring wells at this time. TDS can be added back to the list if the information becomes necessary.

- ***Vanadium***: Vanadium was added to the list of parameters in 2004. ADEQ recommended that vanadium remain on the list in order to obtain enough data for statistical comparison.

In a letter dated June 30, 2009, EDCC proposed a modification to the monitoring program requesting the elimination of vanadium from the list of sampling parameters. ADEQ responded in a September 1, 2009 letter, approving the request, stating that historical vanadium data have been non-detect or at low concentrations in the 22 monitor wells at the facility. The removal of vanadium from the sampling program became effective during the second half of 2009 sampling event.

Collection began for several new parameters for the evaluation of in situ remediation from all wells during the October 2005 sampling event. Field testing was conducted to collect measurements for dissolved oxygen, and redox. In addition, samples were shipped to the laboratory and analyzed for alkalinity, nitrite, dissolved manganese, dissolved iron, total phosphorus and Total Organic Carbon. In a letter to ADEQ dated June 3, 2011, EDCC requested additional changes to the monitoring program which included removal of these parameters from the list of constituents. The request was approved August 9, 2011 and was effective for the second half of 2011 sampling event.

3.2 FIELD SAMPLING

Ground water sampling events were conducted in June and November of 2014. Depth-to-water measurements were collected from each well using an electronic water level indicator. The device was decontaminated between each well to minimize cross-contamination. Depth-to-water measurements were subtracted from their respective top-of-casing elevations to calculate ground water elevations referenced to Mean Sea Level (MSL) at each well. Monitoring well construction details are provided on Table 1. Ground water elevations for the 2014 sampling events are summarized on Table 2.

The depth-to-water measurements were used to calculate the volume of water within each well and determine the amount to be purged prior to sampling. Three well volumes were removed from each well or until the well became dry using a Redi-Flo electric pump. Dedicated polyethylene tubing was used for each well to minimize the potential for cross-contamination. The field parameters were recorded on the sampling forms during the 2014 sampling events (see Appendix A) to demonstrate when aquifer parameters have stabilized sufficiently prior to sampling. Meters used to measure field data were calibrated each day during sampling. Ground water indicator parameter data (final readings only) are summarized on Table 3. Purge water was containerized for proper disposal.

Ground water samples were collected using new, clean, dedicated, disposable polyethylene bailers. Ground water samples were placed into laboratory-provided containers with the appropriate preservatives. The containers were packed in ice-chests and shipped to the laboratory under chain-of-custody.

Field quality assurance/quality control samples collected consisted of blind duplicates. Duplicates are required at a rate of one (1) duplicate per twenty (20) field samples. Four duplicates were collected in 2014 (two per period). Duplicate samples were tested for all parameters (ammonia, nitrate, sulfate, lead and chromium). The duplicate analyses are evaluated in Section 4.2.3.

3.3 LABORATORY ANALYSIS

Ground water samples were analyzed by Arkansas Analytical, Inc. in Little Rock, Arkansas. Arkansas Analytical is certified by the Arkansas Department of Environmental Quality. The analytical reports are provided in Appendix A.

Ground water samples were analyzed in 2014 for the following constituents:

PARAMETER	ANALYTICAL METHODS
Ammonia-N	4500-NH3 D
Nitrate-N	EPA 300.0
Sulfate	EPA 300.0
Total and Dissolved Lead	EPA 200.7
Total and Dissolved Chromium	EPA 200.7
pH, Temperature, Specific Conductance	Field

4.0 SAMPLING RESULTS

The following sections present ground water flow and analytical data collected in 2014.

4.1 GROUND WATER FLOW

Ground water elevations from June and November 2014 were used to construct the potentiometric maps included as Figures 2 and 3. The average ground water elevation was approximately 1.7 feet higher in June than in November. The general ground water flow direction is from northwest to southeast for both sampling events and is consistent with previous measurements.

4.2 GROUND WATER QUALITY

4.2.1 Field Parameters

Indicator parameter data collected during well purging are summarized on Table 3. In 2014, pH values ranged from 2.64 standard units in ECMW-16 to 7.26 standard units (s.u.) in ECMW-5, with an average of 4.56 s.u. The average of pH readings for 2014 (4.56 s.u.) was lower than in 2013 (5.32 s.u.). Specific conductance values ranged from 37.2 (ECMW-1) to 28,030 (ECMW-6) micro-Siemens/cm (µS/cm) in 2014. The average of specific conductance readings for 2014 (3747 µS/cm) is similar to 2013 (4083 µS/cm) with the highest readings in Wells ECMW-6, ECMW-7 and ECMW-8.

4.2.2 Analytical Results

The analytical results are summarized in Tables 4 through 25 and the laboratory reports are provided in Appendix A. A discussion of each constituent is provided below:

Ammonia

During the year 2014, ammonia concentrations ranged from below the detection limit (0.5 mg/L) to 1110 mg/L (ECMW-6). As with previous years, results from ECMW-6, ECMW-7 and ECMW-8 exhibited the highest concentrations. Figures 4 and 5 were prepared to show the distribution of ammonia in groundwater at the facility. As shown on Figures 4 and 5, the highest ammonia concentrations continue to be located north of the acid and nitrate process areas known as the Production Area.

Trend graphs of ammonia concentrations through 2014 are provided in Appendix B. Well ECMW-6 shows an increasing trend. Well ECMW-16 shows a decreasing trend. Wells ECMW-4, ECMW-8 and ECMW-9 show an overall steady or decreasing trend, but with recent increases in concentration. Ammonia concentration trends in all other wells are relatively constant.

Nitrate

For the year 2014, nitrate concentrations ranged from below the detection limit (0.25 mg/L) to 3560 mg/L (ECMW-6). ECMW-6, ECMW-7 and ECMW-8 exhibited the highest concentrations throughout the year. Figures 6 and 7 were prepared to show the distribution of nitrate in groundwater at the facility. As shown on Figures 6 and 7, the highest nitrate concentrations continue to be located north of the acid and nitrate process areas known as the Production Area.

Trends graphs for nitrate are provided in Appendix B. Nitrate concentrations in ECMW-5, ECMW-6 and ECMW-11 show increasing trends. Wells ECMW-2, ECMW-4 and ECMW-8 show an overall steady or decreasing trend, but with recent increases in concentration.

Wells ECMW-1, ECMW-7, ECMW-10, ECMW-14, ECMW-15, ECMW-16 and ECMW-17 show decreasing trends. Nitrate concentration trends in the remaining wells are relatively constant.

Sulfate

For the year 2014, sulfate concentrations ranged from 2.64 mg/L in ECMW-18 to 816 mg/L in ECMW-7. ECMW-4, ECMW-7, ECMW-8, ECMW-9 and ECMW-13 exhibited the highest concentrations throughout the year.

Figures 8 and 9 were prepared to show the distribution of sulfate in groundwater at the facility. As shown on Figures 8 and 9, the highest sulfate concentrations are located north of the acid and nitrate process areas known as the Production Area.

Trends graphs for sulfate are provided in Appendix B. Sulfate concentrations in Wells ECMW-6 and ECMW-7 show increasing trends. Wells ECMW-5 and ECMW-11 show decreasing trends. Sulfate concentration trends in the remaining wells are relatively constant.

Chromium

The monitoring program requires results for total and dissolved chromium for all wells in even numbered years. All total and dissolved chromium analyses were non-detect in samples collected during 2014.

Lead

Total and dissolved lead were only detected in ECMW-6 at concentrations of 0.036 and 0.031 mg/L, respectively. The concentrations detected are slightly above the EPA's Maximum Contaminant Level of 0.015 mg/L. However, this well is in the middle of the property located near the recovery wells and concentrations do not pose any risk to human health or the environment.

4.2.3 Quality Assurance/Quality Control Results

Precision is the degree of agreement among repeated measurements of the same characteristic on samples collected as close as possible in time and place. It tells how consistent and reproducible field and analytical methods are by showing how close the measurements are to each other. Precision is determined by analyzing blind duplicate samples. The Relative Percent Difference (RPD) is calculated to determine the precision of duplicate analyses as follows:

$$RPD = \frac{(X_1 - X_2)}{(X_1 + X_2)/2} x\,100\%$$

The smaller the relative percent difference, the more precise the analyses. EPA and state guidelines generally consider RPD values below 20-30% to be within acceptable limits.

Well and Duplicate	Date	Ammonia	Nitrate	Sulfate
		RPD		
ECMW-4	6/3/2014	ND	11.8	4.16
ECMW-16	6/4/2014	41.6	4.69	6.33
ECMW-4	11/4/2014	0	106.7	1.30
ECMW-15	11/5/2014	ND	5	0.832

The four duplicate samples collected in 2014 and analyzed for ammonia, nitrate and sulfate had RPD values shown on the above table. Lead and chromium were non-detect in all sample pairs.

5.0 GROUND WATER REMEDIATION

Recovery Wells ECRW #1 and ECRW #2 wells operated consistently throughout 2014. Approximately 78,840 gallons of water were recovered from ECRW #1 and 512,460 gallons from ECRW #2, with average recovery rates ranging from 0.3 to 1.0 gallon per minute.

TABLES

TABLE 1
MONITORING WELL CONSTRUCTION DETAILS
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

Monitoring Well ID	Completion Date	Well Depth (ft below top of casing)	Screened Interval (ft from top of casing)	Top of Casing Elevation (ft above MSL)
ECMW-1	2/14/1996	22.1	12.1 to 22.2	213.28
ECMW-2	2/14/1996	20.2	10.2 to 20.2	196.25
ECMW-3	2/15/1996	27.1	17.1 to 27.1	192.11
ECMW-4	2/15/1996	22.1	12.1 to 22.1	194.84
ECMW-5	2/21/1996	17.7	7.7 to 17.7	182.69
ECMW-6	2/21/1996	22.0	12 to 22	191.87
ECMW-7	2/20/1996	23.9	13.9 to 23.9	195.88
ECMW-8	2/20/1996	29.9	19.9 to 29.9	197.34
ECMW-9	2/15/1996	30.0	20 to 30	198.39
ECMW-10	2/19/1996	22.6	12.6 to 22.6	205.75
ECMW-11	2/19/1996	19.8	9.8 to 19.8	201.65
ECMW-12	2/19/1996	19.9	9.9 to 19.9	184.97
ECMW-13	2/14/1996	19.8	9.8 to 19.8	177.26
ECMW-14	2/13/1996	18.2	8.2 to 18.2	178.48
ECMW-15	2/13/1996	17.0	7 to 17	180.84
ECMW-16	2/12/1996	19.3	9.3 to 19.3	180.14
ECMW-17	2/13/1996	34.7	24.7 to 34.7	185.40
ECMW-18	2/22/1996	17.2	7.2 to 17.2	155.46
ECMW-19	1/11/2004	61.5	51.5 to 61.5	150.41
ECMW-20	1/7/2004	54.4	44.5 to 54.4	192.77
ECMW-21	1/6/2004	34.9	24.9 to 34.9	176.29
ECMW-22	1/21/2004	79.8	69.8 to 79.8	173.55

Notes:

1. EDC-MW-1 through EDC-MW-18 constructed of 4-inch Sch. 40 PVC flush threaded pipe with 4-inch diamater screens, 10-foot length and 0.01-inch openings, casing risers are approximately 3 feet above ground surface, drilled with hollow-stem auger (Data from Woodward-Clyde June 1996 Report)
2. EDC-MW-19, EDC-MW-20 and EDC-MW-22 constructed of 2-inch Sch. 40 PVC flush threaded pipe with 2-inch diamater screens, 10-foot length and 0.01-inch openings, casing risers are approximately 2.5 to 3 feet above ground surface, drilled with rotary wash procedures
2. EDC-MW-20 constructed of 1-inch Sch. 40 PVC flush threaded pipe with 1-inch diameter screen, 10-foot length and 0.01-inch opening, casing riser approximately 2.5 feet above ground surface, drilled with Geoprobe

TABLE 2
GROUNDWATER ELEVATION DATA
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

Monitor Well	Top of Casing Elevation (ft above Mean Sea Level)	Measurement Date			
		6/2-6/4/2014		11/3-11/4/2014	
		Depth to Water (ft from top of casing)	Ground Water Elevation (ft above MSL)	Depth to Water (ft from top of casing)	Ground Water Elevation (ft above MSL)
ECMW-1	213.28	10.63	202.65	14.94	198.34
ECMW-2	196.25	0.00	196.25	1.44	194.81
ECMW-3	192.11	10.02	182.09	12.15	179.96
ECMW-4	194.84	8.96	185.88	9.78	185.06
ECMW-5	182.69	3.94	178.75	4.61	178.08
ECMW-6	191.87	5.96	185.91	6.88	184.99
ECMW-7	195.88	7.65	188.23	9.03	186.85
ECMW-8	197.34	7.52	189.82	8.59	188.75
ECMW-9	198.39	9.61	188.78	12.10	186.29
ECMW-10	205.75	11.99	193.76	15.32	190.43
ECMW-11	201.65	10.30	191.35	12.21	189.44
ECMW-12	184.97	6.71	178.26	6.70	178.27
ECMW-13	177.26	5.71	171.55	7.42	169.84
ECMW-14	178.48	7.54	170.94	10.19	168.29
ECMW-15	180.84	4.43	176.41	7.02	173.82
ECMW-16	180.14	4.83	175.31	6.81	173.33
ECMW-17	185.40	29.62	155.78	30.01	155.39
ECMW-18	155.46	5.51	149.95	6.68	148.78
ECMW-19	150.41	1.22	149.19	4.21	146.20
ECMW-20	192.77	30.13	162.64	29.83	162.95
ECMW-21	176.29	18.19	158.10	19.13	157.16
ECMW-22	173.55	6.78	166.77	9.06	164.49

TABLE 3
GROUNDWATER INDICATOR PARAMETER DATA
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

WELL	TEMPERATURE (C)		pH (s.u.)		CONDUCTIVITY (uS)	
	Date		Date		Date	
	6/2-6/4/2014	11/3-11/4/2014	6/2-6/4/2014	11/3-11/4/2014	6/2-6/4/2014	11/3-11/4/2014
ECMW-1	17.5	18.7	4.74	3.97	37.2	47.5
ECMW-2	18.3	18.2	5.10	4.45	251.5	325.5
ECMW-3	18.8	18.6	5.86	4.97	187.8	249.3
ECMW-4	20.6	20.9	4.50	3.01	6540	6810
ECMW-5	19.4	20.7	7.26	4.13	488	510
ECMW-6	19.5	20.7	3.99	3.29	28030	27940
ECMW-7	19.9	20.6	5.24	4.56	20570	19280
ECMW-8	19.9	19.2	4.33	3.09	20790	20030
ECMW-9	20.6	19.9	5.47	4.81	2066	2114
ECMW-10	20.1	20.9	4.93	3.07	733	675
ECMW-11	19.1	21.5	4.18	3.08	577	655
ECMW-12	20.4	22.2	5.56	4.53	591	625
ECMW-13	18.2	20.7	5.33	4.03	1163	1211
ECMW-14	20.1	22.1	5.73	4.09	283.9	401.6
ECMW-15	22.2	21.7	5.36	2.75	67.1	70.5
ECMW-16	20.5	22.3	5.07	2.64	145.7	135.5
ECMW-17	20.5	18.5	4.62	2.73	217.3	228.6
ECMW-18	19.0	20.3	5.82	4.71	78	74.1
ECMW-19	19.7	18.5	5.92	5.05	74.5	80.6
ECMW-20	20	19.3	5.63	3.61	72.2	63.6
ECMW-21	20.5	20.2	5.22	3.81	47	56.7
ECMW-22	20.5	19.0	5.79	4.42	138	132.5

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)
	s.u.	mg/L									
3/14/1996	9.70	--	1.7	4.1	--	0.0037	< 0.002	< 0.005	< 0.005	--	--
5/29/2001	5.10	< 0.5	1.83	3.67	42	< 0.04	--	< 0.02	--	--	--
11/1/2001	4.80	< 0.5	2.74	3.34	43	< 0.04	--	< 0.02	--	--	--
6/3/2002	5.50	< 0.5	2.01	4.66	83	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	5.60	0.66	1.56	4.63	44	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	6.10	< 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	--
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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

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)
	s.u.	mg/L									
11/5/2008	4.63	<0.5	0.732	4.34	--	<0.015	--	<0.02	--	<0.02	--
4/22/2009	4.57	--	--	--	--	--	--	--	--	<0.02	--
10/20/2009	4.68	--	--	--	--	--	--	--	--	--	--
4/13/2010	4.53	<0.5	<0.5	6.46	--	<0.015	--	<0.02	--	--	--
11/2/2010	7.69	<0.5	1.31	5.55	--	<0.015	--	<0.01	--	--	--
4/26/2011	5.04	--	--	--	--	--	--	--	--	--	--
5/2/2012	5.48	<0.5	2.07	3.35	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.43	<0.5	0.866	5.94	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.03	--	--	--	--	--	--	--	--	--	--
11/4/2013	5.21	--	--	--	--	--	--	--	--	--	--
6/3/2014	4.74	<0.5	0.986	3.98	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	3.97	<0.5	0.674	6.29	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 5
ECMW-2 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)
	s.u.	mg/L									
3/14/1996	9.70	--	< 0.2	17	--	0.018	< 0.002	0.0342	< 0.005	--	--
5/29/2001	5.40	< 0.5	< 0.5	19.6	340	< 0.04	--	0.032	--	--	--
11/1/2001	5.30	< 0.5	< 0.5	22.9	300	< 0.04	--	< 0.02	--	--	--
6/3/2002	6.00	< 0.5	< 0.5	20	396	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	6.10	< 0.5	< 0.5	25.7	517	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	6.70	< 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	5.20	<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	5.40	<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	<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	5.20	--	--	--	--	--	--	--	--	<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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 5
ECMW-2 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)
	s.u.	mg/L									
4/22/2009	5.41	--	--	--	--	--	--	--	--	<0.02	--
10/20/2009	5.48	--	--	--	--	--	--	--	--	--	--
4/13/2010	5.23	<0.5	<0.5	16.9	--	<0.015	--	<0.02	--	--	--
11/2/2010	8.28	<0.5	<0.5	22.6	--	<0.015	--	<0.01	--	--	--
4/26/2011	5.51	--	--	--	--	--	--	--	--	--	--
5/2/2012	5.76	<0.5	<0.5	18.7	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.57	<0.5	<0.5	22	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.75	--	--	--	--	--	--	--	--	--	--
11/4/2013	5.91	--	--	--	--	--	--	--	--	--	--
6/3/2014	5.1	<0.5	3.95	30.7	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	4.45	<0.5	0.635	21.9	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 6
ECMW-3 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)
	s.u.	mg/L									
3/14/1996	8.00	--	< 0.2	10	--	0.0027	< 0.002	< 0.005	< 0.005	--	--
5/29/2001	6.20	< 0.5	< 0.5	10.6	180	< 0.04	--	< 0.02	--	--	--
11/1/2001	5.40	< 0.5	< 0.5	22.5	240	< 0.04	--	< 0.02	--	--	--
6/3/2002	6.40	< 0.5	< 0.5	11.4	228	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	6.50	< 0.5	< 0.5	21.6	295	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	6.00	< 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	--
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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 6
ECMW-3 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)
	s.u.	mg/L									
4/22/2009	--	<0.5	<0.5	10.5	--	--	--	--	--	<0.02	--
10/20/2009	5.83	--	--	--	--	--	--	--	--	--	--
4/13/2010	6.20	<0.5	<0.5	9.39	--	<0.015	--	<0.02	--	--	--
11/2/2010	6.97	<0.5	<0.5	17.5	--	<0.015	--	<0.01	--	--	--
4/27/2011	6.19	--	--	--	--	--	--	--	--	--	--
5/3/2012	6.28	<0.5	<0.5	8.87	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.74	<0.5	<0.5	13.4	--	0.0169	<0.015	<0.01	<0.02	--	--
5/15/2013	6.29	--	--	--	--	--	--	--	--	--	--
11/4/2013	5.72	--	--	--	--	--	--	--	--	--	--
6/3/2014	5.86	<0.5	<0.25	9.14	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	4.97	<0.5	0.239	12.8	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 7
ECMW-4 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)
	s.u.	mg/L									
3/14/1996	8.10	--	1.3	728	--	0.0025	< 0.002	< 0.005	< 0.005	--	--
8/8/2001	4.10	0.66	< 0.5	925	5100	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.30	< 0.5	< 0.5	936	5200	0.06	--	0.04	--	--	--
6/3/2002	5.20	< 0.5	< 0.5	979	4862	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	4.80	< 0.5	0.62	756	4240	0.02	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	4.40	< 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	4.10	<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	--
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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 7
ECMW-4 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)
	s.u.	mg/L									
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	--
10/20/2009	3.62	<0.5	<0.5	830	--	--	--	--	--	--	--
10/20/2009	--	<0.5	<0.5	906	--	--	--	--	--	--	--
4/13/2010	3.75	<0.5	<0.5	655	--	0.029	--	<0.02	--	--	--
11/2/2010	6.57	<0.5	<0.5	745	--	<0.015	--	<0.01	--	--	--
11/2/2010	--	<0.5	<0.5	1000	--	<0.015	--	<0.01	--	--	--
4/27/2011	3.91	1.02	<0.5	845	--	--	--	--	--	--	--
11/30/2011	3.72	<0.5	<0.5	930	--	--	--	--	--	--	--
5/3/2012	4.12	<0.5	<0.5	865	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.17	<0.5	<0.5	890	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	4.03	2.12	0.37	856	--	--	--	--	--	--	--
11/5/2013	4.63	2.03	0.752	609	--	--	--	--	--	--	--
6/3/2014	4.5	<0.5	0.431	737	--	<0.0156	<0.016	<0.0104	<0.021	--	--
6/3/2014	--	0.69	0.383	707	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	3.01	1.31	1.29	772	--	<0.0156	<0.015	<0.0104	<0.02	--	--
11/4/2014	--	1.31	4.24	762	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 8
ECMW-5 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)
	s.u.	mg/L									
3/13/1996	5.80	--	4.4	441	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
8/8/2001	4.60	< 0.5	3.54	657	1000	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.70	< 0.5	3.27	526	980	< 0.04	--	< 0.02	--	--	--
6/3/2002	6.30	< 0.5	3.35	650	934	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	5.40	< 0.5	3.66	582	929	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.20	< 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	6.70	0.59	3.75	515	700	<0.015	<0.015	<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	--
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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 8
ECMW-5 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)
	s.u.	mg/L									
11/12/2008	2.40	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	--	--	--	--	--	--	--	--
10/20/2009	4.98	<0.5	8.82	93.4	--	--	--	--	--	--	--
4/13/2010	4.75	<0.5	7.96	105	--	<0.015	--	<0.02	--	--	--
11/2/2010	5.64	<0.5	11	94.7	--	<0.015	--	<0.01	--	--	--
4/27/2011	5.03	1.08	15	92.4	--	--	--	--	--	--	--
11/30/2011	4.67	<0.5	19	94.4	--	--	--	--	--	--	--
5/3/2012	5.13	<0.5	23.5	59.6	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.43	<0.5	26.6	74.6	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.07	<0.5	32.8	60.7	--	--	--	--	--	--	--
11/5/2013	7.23	0.56	34.7	66.5	--	--	--	--	--	--	--
11/5/2013	--	<0.5	35.5	62.8	--	--	--	--	--	--	--
6/3/2014	7.26	<0.5	38	65	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	4.13	1	43.4	55.6	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 9
ECMW-6 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)
	s.u.	mg/L									
3/13/1996	7.70	--	51.1	24	--	0.0026	< 0.002	< 0.005	< 0.005	--	--
8/8/2001	4.30	0.5	298	18.3	2100	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.30	< 0.5	326	15.7	2700	< 0.04	--	< 0.02	--	--	--
6/3/2002	6.10	< 0.5	459	12.1	290	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	5.00	0.51	661	8.13	3840	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	4.60	< 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	4.40	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	--
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	--
5/23/2007	6.46	63.3	3550	44.9	--	--	--	--	--	<0.02	--
11/6/2007	5.15	35.7	941	54.1	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 9
ECMW-6 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)
	s.u.	mg/L									
5/21/2008	4.50	59.1	1130	23.7	--	<0.015	--	<0.02	--	<0.02	--
5/21/2008	--	72.5	256	28.3	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	3.89	103	1060	26.1	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.47	135	1070	148	--	--	--	--	--	<0.02	--
10/20/2009	4.16	181	1330	24.7	--	--	--	--	--	--	--
4/13/2010	4.04	92.8	1660	29.2	--	<0.015	--	<0.02	--	--	--
4/13/2010	--	566	1640	25.7	--	0.023	--	<0.02	--	--	--
7/22/2010	--	246	1940	42.3	--	<0.015	--	<0.02	--	--	--
11/2/2010	5.71	311	1460	29.6	--	<0.015	--	0.011	--	--	--
4/27/2011	4.30	371	1680	46.8	--	--	--	--	--	--	--
6/16/2011	4.01	393	1620	207	--	--	--	--	--	--	--
11/30/2011	3.88	445	1970	60.5	--	--	--	--	--	--	--
11/30/2011	--	455	2060	63.8	--	--	--	--	--	--	--
5/3/2012	4.28	344	1850	456	--	0.0312 E3	0.032	<0.01	<0.02	--	--
5/3/2012	--	407	1740	36.5	--	0.0298 E3	0.028	<0.01 E3	<0.02	--	--
11/7/2012	6.20	620	2520	112	--	0.0185	0.017	<0.01	<0.02	--	--
11/7/2012	--	655	2430	113	--	0.0211	0.016	<0.01	<0.02	--	--
5/15/2013	4.15	521	3120	37.7	--	--	--	--	--	--	--
11/5/2013	4.49	935	3380	28.5	--	--	--	--	--	--	--
6/3/2014	3.99	1110	3560	28.9	--	0.0339	0.034	<0.0104	<0.021	--	--
11/4/2014	3.29	1110	3550	33.7	--	0.036	0.031	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 10
ECMW-7 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)
	s.u.	mg/L									
3/13/1996	8.10	--	282	380	--	0.0221	0.0185	0.0078	< 0.005	--	--
8/8/2001	9.70	184	336	316	1300	< 0.04	--	< 0.02	--	--	--
10/30/2001	3.50	< 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	4.40	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	4.20	167	294	345	1080	0.017	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	3.70	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	--
9/14/2004	--	25.9	76	143	990	<0.015	<0.015	<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	3.90	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	--
5/23/2007	4.30	96	181	798	--	--	--	--	--	<0.02	--

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E3 - Incorrect preservation, results qualified as "estimated".

TABLE 10
ECMW-7 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)
	s.u.	mg/L									
11/6/2007	3.58	49.9	85.3	906	--	--	--	--	--	<0.02	--
5/21/2008	2.81	55.2	153	936	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	3.40	115	237	962	--	<0.015		<0.02	--	<0.02	--
4/21/2009	4.13	77.8	126	895	--	--	--	--	--	<0.02	--
10/20/2009	3.55	51.2	49.9	1090	--	--	--	--	--	--	--
4/13/2010	3.53	1000	1080	214	--	0.06	--	<0.02	--	--	--
7/22/2010	--	43.2	103	3490	--	<0.015	--	<0.02	--	--	--
11/2/2010	4.92	107	155	156	--	<0.015	--	<0.01	--	--	--
4/27/2011	4.47	1630	2640	248	--	--	--	--	--	--	--
6/16/2011	4.17	56.6	227	899	--	--	--	--	--	--	--
11/30/2011	4.18	132	192	259	--	--	--	--	--	--	--
5/3/2012	4.82	132	161	761	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.31	187	153	692	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.09	105	141	930	--	--	--	--	--	--	--
5/15/2013	--	110	145	921	--	--	--	--	--	--	--
11/5/2013	5.81	132	156	927	--	--	--	--	--	--	--
6/3/2014	5.24	100	169	858	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	4.56	77	99.6	816	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 11
ECMW-8 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)
	s.u.	mg/L									
3/13/1996	7.90	--	1010	68.3	--	0.0234	0.0238	< 0.005	< 0.005	--	--
10/30/2001	3.90	0.94	1030	81.1	5000	< 0.04	--	< 0.02	--	--	--
6/3/2002	5.40	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	4.40	406	1330	151	4560	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	4.00	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	<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	--
5/23/2007	4.11	122	<0.5	971	--	--	--	--	--	<0.02	--
11/6/2007	3.70	96.2	340	816	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 11
ECMW-8 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)
	s.u.	mg/L									
5/21/2008	3.42	56.8	171	1000	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	3.61	70	181	719	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.88	53.6	108	839	--	--	--	--	--	<0.02	--
10/20/2009	3.79	45.8	116	937	--	--	--	--	--	--	--
4/13/2010	4.56	62.1	52.2	737	--	<0.015	--	<0.02	--	--	--
11/2/2010	6.35	63.4	163	860	--	<0.015	--	<0.01	--	--	--
4/27/2011	3.85	1980	3310	106	--	--	--	--	--	--	--
6/29/2011	4.10	175	350	--	--	--	--	--	--	--	--
6/29/2011	--	168	352	--	--	--	--	--	--	--	--
11/30/2011	3.44	120	401	727	--	--	--	--	--	--	--
11/30/2011	--	101	361	637	--	--	--	--	--	--	--
5/3/2012	3.97	122	296	754	--	0.0159 E3	0.015	<0.01	<0.02	--	--
5/3/2012	--	111	287	762	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	5.99	193	429	814	--	0.0166	<0.015	<0.01	<0.02	--	--
5/15/2013	3.97	172	551	614	--	--	--	--	--	--	--
11/5/2013	4.06	150	584	642	--	--	--	--	--	--	--
6/3/2014	4.33	157	712	516	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	3.09	198	697	466	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 12
ECMW-9 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)
	s.u.	mg/L									
3/14/1996	9.00	--	37.3	621	--	0.004	< 0.002	< 0.005	< 0.005	--	--
6/27/2001	5.40	< 0.5	28.8	520	1600	< 0.04	--	< 0.02	--	--	--
10/30/2001	5.50	< 0.5	26.7	514	2600	< 0.04	--	< 0.02	--	--	--
6/3/2002	6.00	< 0.5	24.4	639	1597	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	6.00	18.8	59	655	1630	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.20	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	--
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	5.00	--	40.2	--	--	--	--	--	--	<0.02	--
5/23/2007	5.57	2.91	32.8	420	--	--	--	--	--	<0.02	--
5/23/2007	--	1.48	31.2	502	--	--	--	--	--	<0.02	--
11/6/2007	4.94	3.59	30.6	642	--	--	--	--	--	<0.02	--
5/21/2008	6.04	<0.5	31.7	522	--	<0.015	--	<0.02	--	<0.02	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 12
ECMW-9 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)
	s.u.	mg/L									
11/5/2008	4.41	<0.5	23.7	391	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	5.91	<0.5	28	501	--	--	--	--	--	<0.02	--
10/20/2009	5.41	2.31	21	505	--	--	--	--	--	--	--
4/13/2010	5.44	<0.5	16.8	462	--	<0.015	--	<0.02	--	--	--
11/2/2010	7.04	<0.5	20	684	--	<0.015	--	<0.01	--	--	--
4/27/2011	5.74	2.96	32.1	542	--	--	--	--	--	--	--
11/30/2011	5.37	0.7	28.5	650	--	--	--	--	--	--	--
5/3/2012	5.71	<0.5	25.5	520	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.50	0.68	32.5	568	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.68	<0.5	30.1	514	--	--	--	--	--	--	--
11/5/2013	5.51	17	53.9	545	--	--	--	--	--	--	--
6/3/2014	5.47	3.23	35.6	525	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	4.81	4.61	37.6	484	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 13
ECMW-10 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)
	s.u.	mg/L									
3/13/1996	7.70	--	257	89	--	0.0052	0.0039	< 0.005	< 0.005	--	--
6/27/2001	4.40	< 0.5	156	100	1300	< 0.04	--	0.025	--	--	--
10/30/2001	3.90	< 0.5	153	134	1400	< 0.04	--	0.04	--	--	--
6/3/2002	5.30	< 0.5	138	84.9	1122	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	5.60	1.84	137	140	968	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	4.50	< 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	4.60	<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	4.70	0.77	123	137	1000	<0.015	<0.015	<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	4.30	--	97.7	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	4.40	--	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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 13
ECMW-10 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)
	s.u.	mg/L									
6/3/2009	6.35	<0.5	--	--	--	--	--	--	--	--	--
10/20/2009	4.57	<0.5	53.5	136	--	--	--	--	--	--	--
4/13/2010	4.08	0.8	44.7	170	--	<0.015	--	<0.02	--	--	--
11/2/2010	6.42	<0.5	41.9	164	--	<0.015	--	<0.01	--	--	--
4/27/2011	4.30	3.18	54.1	166	--	--	--	--	--	--	--
11/30/2011	3.97	<0.5	49.2	94.8	--	--	--	--	--	--	--
5/3/2012	4.39	<0.5	38.4	158	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.13	<0.5	44.4	152	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	4.44	<0.5	42.1	163	--	--	--	--	--	--	--
11/5/2013	4.91	<0.5	47.8	153	--	--	--	--	--	--	--
6/3/2014	4.93	2.2	50.6	136	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	3.07	<0.5	39.8	172	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 14
ECMW-11 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)
	s.u.	mg/L									
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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 14
ECMW-11 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)
	s.u.	mg/L									
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	--	--	--	--	--	--	--	--	--
10/20/2009	4.28	18.2	9.44	125	--	--	--	--	--	--	--
4/13/2010	4.32	32.6	7.78	135	--	<0.015	--	<0.02	--	--	--
11/2/2010	5.67	3.17	4.52	325	--	<0.015	--	<0.01	--	--	--
4/27/2011	4.57	47	15.8	146	--	--	--	--	--	--	--
11/30/2011	4.11	2.19	3.56	318	--	--	--	--	--	--	--
5/3/2012	4.73	14.5	29.4	95.6	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	5.92	33.2	23.8	161	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	4.58	17	45.4	98	--	--	--	--	--	--	--
5/15/2013	--	15.7	40.7	102	--	--	--	--	--	--	--
11/5/2013	4.48	<0.5	30.5	125	--	--	--	--	--	--	--
6/3/2014	4.18	26	30.7	105	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	3.08	13.9	30.5	117	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 15
ECMW-12 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)
	s.u.	mg/L									
3/13/1996	6.10	--	< 0.2	9.6	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
6/27/2001	5.90	2.2	< 0.5	13	330	< 0.04	--	< 0.02	--	--	--
6/4/2002	6.00	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	6.10	4.2	< 0.5	21.6	382	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.80	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	5.80	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	5.80	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	5.30	1.06	--	--	--	--	--	--	--	<0.02	<0.02
4/11/2006	6.12	1.58	--	--	--	--	--	--	--	<0.02	<0.02
11/1/2006	5.30	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
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 15
ECMW-12 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)
	s.u.	mg/L									
10/21/2009	7.08	--	--	--	--	--	--	--	--	--	--
4/13/2010	5.95	5.56	<0.5	2.14	--	<0.015	--	<0.02	--	--	--
11/3/2010	6.64	1.44	<0.5	21.5	--	<0.015	--	<0.01	--	--	--
11/3/2010	--	1.34	<0.5	20.5	--	<0.015	--	<0.01	--	--	--
4/27/2011	5.67	--	--	--	--	--	--	--	--	--	--
5/3/2012	6.02	1.81	<0.5	17	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/7/2012	6.49	3.55	<0.5	21.5	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	6.02	--	--	--	--	--	--	--	--	--	--
11/4/2013	5.84	--	--	--	--	--	--	--	--	--	--
6/3/2014	5.56	3.11	0.334	5.04	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/4/2014	4.53	2.15	<0.25	20.6	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 16
ECMW-13 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)
	s.u.	mg/L									
3/13/1996	5.60	--	0.2	809	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
6/5/2001	5.60	< 0.5	< 0.5	538	1400	< 0.04	--	< 0.02	--	--	--
10/30/2001	5.30	< 0.5	< 0.5	606	1300	< 0.04	--	< 0.02	--	--	--
6/4/2002	5.70	< 0.5	< 0.5	372	718	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	6.10	1.28	< 0.5	538	1030	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.50	< 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	--
9/14/2004	--	0.51	<0.5	425	960	<0.015	<0.015	<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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 16
ECMW-13 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)
	s.u.	mg/L									
11/7/2008	5.01	<0.5	<0.5	346	--	<0.015	--	<0.02	--	<0.02	--
4/21/2009	4.77	--	--	--	--	--	--	--	--	<0.02	--
10/21/2009	4.63	--	--	--	--	--	--	--	--	--	--
4/14/2010	4.75	<0.5	<0.5	470	--	<0.015	--	<0.02	--	--	--
11/3/2010	6.44	<0.5	<0.5	589	--	<0.015	--	<0.01	--	--	--
4/26/2011	4.68	--	--	--	--	--	--	--	--	--	--
5/2/2012	5.23	<0.5	<0.5	505	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.25	<0.5	<0.5	593	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.19	--	--	--	--	--	--	--	--	--	--
11/4/2013	4.83	--	--	--	--	--	--	--	--	--	--
6/4/2014	5.33	<0.5	0.255	374	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/5/2014	4.03	<0.5	<0.25	425	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 17
ECMW-14 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)
	s.u.	mg/L									
3/13/1996	4.60	--	11.9	139	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
8/8/2001	4.30	< 0.5	75	175	1000	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.50	< 0.5	25.2	211	790	< 0.04	--	< 0.02	--	--	--
6/4/2002	5.60	< 0.5	26.5	187	675	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	6.30	5.32	17	288	669	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.30	< 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	--
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	4.60	<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	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 17
ECMW-14 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)
	s.u.	mg/L									
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	--
12/16/2009	5.53	<0.5	15.7	212	--	--	--	--	--	--	--
4/14/2010	4.54	0.5	24.3	166	--	<0.015	--	<0.02	--	--	--
12/21/2010	5.68	<0.5	12.7	152	--	<0.015	--	<0.01	--	--	--
4/26/2011	5.04	<0.5	10.7	159	--	--	--	--	--	--	--
11/30/2011	4.50	<0.5	8.09	156	--	--	--	--	--	--	--
5/2/2012	5.20	<0.5	17.4	139	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.25	<0.5	8.03	140	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.20	<0.5	6.17	108	--	--	--	--	--	--	--
11/5/2013	5.46	7.52	6.92	91.6	--	--	--	--	--	--	--
6/4/2014	5.73	<0.5	4.31	54.2	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/5/2014	4.09	<0.5	5.12	98.3	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 18
ECMW-15 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)
	s.u.	mg/L									
3/13/1996	6.40	--	34.5	4.4	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
8/8/2001	4.30	< 0.5	19.1	7.8	140	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.30	< 0.5	12.6	10.2	110	< 0.04	--	< 0.02	--	--	--
6/4/2002	5.40	< 0.5	10.7	11.1	100	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	5.40	1.16	18.2	9.22	120	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.80	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	--
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
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 18
ECMW-15 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)
	s.u.	mg/L									
10/20/2009	4.36	--	--	--	--	--	--	--	--	--	--
4/14/2010	4.39	<0.5	2.99	10.7	--	<0.015	--	<0.02	--	--	--
11/3/2010	5.30	<0.5	1.9	13.2	--	<0.015	--	<0.01	--	--	--
4/26/2011	4.86	--	--	--	--	--	--	--	--	--	--
5/2/2012	4.88	<0.5	1.08	13.9	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.22	<0.5	1.26	13	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	6.21	--	--	--	--	--	--	--	--	--	--
11/4/2013	4.56	--	--	--	--	--	--	--	--	--	--
6/4/2014	5.36	<0.5	1.74	12.4	--	<0.0156	<0.016	0.0122	<0.021	--	--
11/5/2014	2.75	<0.5	3.07	9.58	--	<0.0156	<0.015	<0.0104	<0.02	--	--
11/5/2014	--	<0.5	2.92	9.66	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 19
ECMW-16 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)
	s.u.	mg/L									
3/13/1996	5.70	--	137	4.6	--	0.0036	0.0034	< 0.005	< 0.005	--	--
6/5/2001	4.30	4.61	134	5.09	1100	< 0.04	--	< 0.02	--	--	--
10/30/2001	3.90	< 0.5	58.4	6.44	330	< 0.04	--	< 0.02	--	--	--
6/4/2002	5.00	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	5.00	11.6	72	9.21	263	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.90	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	5.50	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	--
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	4.30	1.77	19.6	12.6	--	--	--	--	--	<0.02	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 19
ECMW-16 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)
	s.u.	mg/L									
5/21/2008	6.08	3.35	14.8	15.9	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	6.50	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	--
10/21/2009	4.38	0.88	13.1	12.1	--	--	--	--	--	--	--
10/21/2009	--	0.94	13.2	13	--	--	--	--	--	--	--
4/14/2010	4.42	2.38	4.73	15.3	--	<0.015	--	<0.02	--	--	--
11/3/2010	5.98	0.96	19.2	13.4	--	<0.015	--	<0.01	--	--	--
4/26/2011	4.50	3.56	7.5	15.8	--	--	--	--	--	--	--
11/30/2011	4.12	0.84	11.6	17.9	--	--	--	--	--	--	--
5/2/2012	4.66	0.81	10.7	15.4	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.09	1.19	9.94	14.6	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	4.79	3.91	12.2	13	--	--	--	--	--	--	--
11/5/2013	4.60	1.58	10.3	13.3	--	--	--	--	--	--	--
6/4/2014	5.07	1.8	10.9	10.7	--	<0.0156	<0.016	<0.0104	<0.021	--	--
6/4/2014	--	1.18	10.4	11.4	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/5/2014	2.64	1.27	9.2	11.2	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 20
ECMW-17 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)
	s.u.	mg/L									
3/13/1996	4.90	--	45	145	--	< 0.002	< 0.002	< 0.005	< 0.005	--	--
6/5/2001	4.40	1.16	54.2	87.7	600	< 0.04	--	< 0.02	--	--	--
10/30/2001	4.10	< 0.5	106	11.5	760	< 0.04	--	< 0.02	--	--	--
6/4/2002	5.10	< 0.5	83.4	8.04	603	< 0.02	< 0.02	< 0.02	< 0.02	--	--
10/30/2002	5.10	2.36	92	9.53	540	< 0.015	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	5.60	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	4.40	1.42	78.4	3.14	570	<0.015	<0.015	<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	--
5/23/2007	4.19	1.49	58.5	12.7	--	--	--	--	--	<0.02	--
11/7/2007	3.70	0.64	83.3	51.7	--	--	--	--	--	<0.02	--
5/21/2008	4.84	1.63	63.1	63	--	<0.015	--	<0.02	--	<0.02	--
11/5/2008	3.85	1.31	34.6	17.5	--	<0.015	--	<0.02	--	<0.02	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 20
ECMW-17 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)
	s.u.	mg/L									
4/21/2009	4.25	12.2 outlier	27.1	99.9	--	--	--	--	--	<0.02	--
6/3/2009	5.84	3.04	--	--	--	--	--	--	--	--	--
10/21/2009	4.68	11.2	14.4	87.1	--	--	--	--	--	--	--
4/14/2010	4.07	<0.5	15.9	6.73	--	<0.015	--	<0.02	--	--	--
11/3/2010	7.02	1.94	27.2	13.1	--	<0.015	--	<0.01	--	--	--
4/26/2011	4.34	10.1	4.03	40.2	--	--	--	--	--	--	--
11/30/2011	4.65	2.75	5.95	36.1	--	--	--	--	--	--	--
5/2/2012	4.75	2.51	8.13	20.9	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.21	3.82	1.82	39.2	--	<0.015	<0.015	<0.01	<0.02	--	--
11/6/2012	--	5.67	1.51	37.3	--	<0.015	<0.015	0.0174	<0.02	--	--
5/15/2013	4.70	1.41	3.6	34.5	--	--	--	--	--	--	--
11/5/2013	4.77	<0.5	1.24	39.6	--	--	--	--	--	--	--
6/4/2014	4.62	2.46	7.19	29.3	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/5/2014	2.73	3.46	7.5	34.3	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 21
ECMW-18 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)
	s.u.	mg/L									
3/14/1996	6.60	--	0.4	3.3	--	0.017	< 0.002	0.0194	< 0.005	--	--
10/30/2001	5.40	< 0.5	< 0.5	3.74	300	< 0.04	--	0.05	--	--	--
6/4/2002	6.20	< 0.5	< 0.5	8.38	796	0.115	< 0.02	0.147	0.137	--	--
10/30/2002	6.30	0.43	< 0.5	3.22	258	0.018	< 0.015	< 0.02	< 0.02	--	--
12/10/2002	6.40	< 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	6.40	<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	5.90	<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
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 21
ECMW-18 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)
	s.u.	mg/L									
10/21/2009	7.16	--	<0.5	--	--	--	--	--	--	--	--
4/14/2010	5.50	<0.5	<0.5	2.82	--	<0.015	--	<0.02	--	--	--
11/3/2010	8.22	<0.5	<1	3.65	--	<0.015	--	<0.01	--	--	--
4/26/2011	5.77	--	--	--	--	--	--	--	--	--	--
6/30/2011	5.71	--	<0.5	--	--	--	--	--	--	--	--
11/30/2011	5.64	--	<0.5	--	--	--	--	--	--	--	--
5/2/2012	5.89	<0.5	<0.5	2.17	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.61	<0.5	<0.5	2.99	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	5.96	<0.5	0.328	6.25	--	--	--	--	--	--	--
11/5/2013	6.28	9.64	<0.25	6.3	--	--	--	--	--	--	--
6/4/2014	5.82	<0.5	0.299	7.15	--	0.0274	<0.016	0.0531	<0.021	--	--
11/5/2014	4.71	<0.5	0.254	2.64	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 22
ECMW-19 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)
	s.u.	mg/L									
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	6.10	<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	5.80	--	--	--	--	--	--	--	--	<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	5.90	<0.5	<0.5	2.04	--	<0.015	--	<0.02	--	<0.02	--
4/22/2009	5.66	--	--	--	--	--	--	--	--	<0.02	--
10/21/2009	7.82	--	--	--	--	--	--	--	--	--	--
4/14/2010	5.62	<0.5	<0.5	2.46	--	<0.015	--	<0.02	--	--	--
4/14/2010	--	<0.5	<0.5	2.43	--	<0.015	--	<0.02	--	--	--
11/3/2010	6.87	<0.5	<0.5	2.97	--	<0.015	--	<0.01	--	--	--
4/26/2011	5.82	--	--	--	--	--	--	--	--	--	--
5/2/2012	5.98	<0.5	<0.5	2.31	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.68	<0.5	<0.5	2.88	--	<0.015	<0.015	<0.01	<0.02	--	--
5/14/2013	6.13	--	--	--	--	--	--	--	--	--	--
11/5/2013	6.73	--	--	--	--	--	--	--	--	--	--
6/4/2014	5.92	<0.5	<0.25	2.78	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/5/2014	5.05	<0.5	<0.25	2.97	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 23
ECMW-20 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)
	s.u.	mg/L									
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	5.80	<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	--
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	6.20	<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	8.60	<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	--
10/21/2009	7.37	--	--	--	--	--	--	--	--	--	--
4/14/2010	5.64	<0.5	<0.5	10.1	--	<0.015	--	<0.02	--	--	--
12/21/2010	5.02	<0.5	<0.5	8.95	--	<0.015	--	<0.01	--	--	--
4/26/2011	6.03	--	--	--	--	--	--	--	--	--	--
5/2/2012	5.96	<0.5	<0.5	7.82	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.74	<0.5	<0.5	9.31	--	<0.015	<0.015	<0.01	<0.02	--	--
5/14/2013	5.29	--	--	--	--	--	--	--	--	--	--
11/5/2013	6.00	--	--	--	--	--	--	--	--	--	--
6/4/2014	5.63	<0.5	<0.25	8.17	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/5/2014	3.61	<0.5	0.262	9.87	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 24
ECMW-21 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)
	s.u.	mg/L									
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	--
10/21/2009	5.91	--	--	--	--	--	--	--	--	--	--
4/14/2010	4.88	<0.5	2.24	3.7	--	<0.015	--	<0.02	--	--	--
11/3/2010	7.13	<0.5	1.8	6.07	--	<0.015	--	<0.01	--	--	--
4/26/2011	5.85	--	--	--	--	--	--	--	--	--	--
5/2/2012	5.68	<0.5	1.4	3.94	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.48	<0.5	1.1	6.28	--	<0.015	<0.015	<0.01	<0.02	--	--
5/15/2013	6.09	--	--	--	--	--	--	--	--	--	--
11/5/2013	5.68	--	--	--	--	--	--	--	--	--	--
6/4/2014	5.22	<0.5	1.63	4.57	--	<0.0156	<0.016	0.0105	<0.021	--	--
11/5/2014	3.81	<0.5	1.62	5.25	--	<0.0156	<0.015	<0.0104	<0.02	--	--

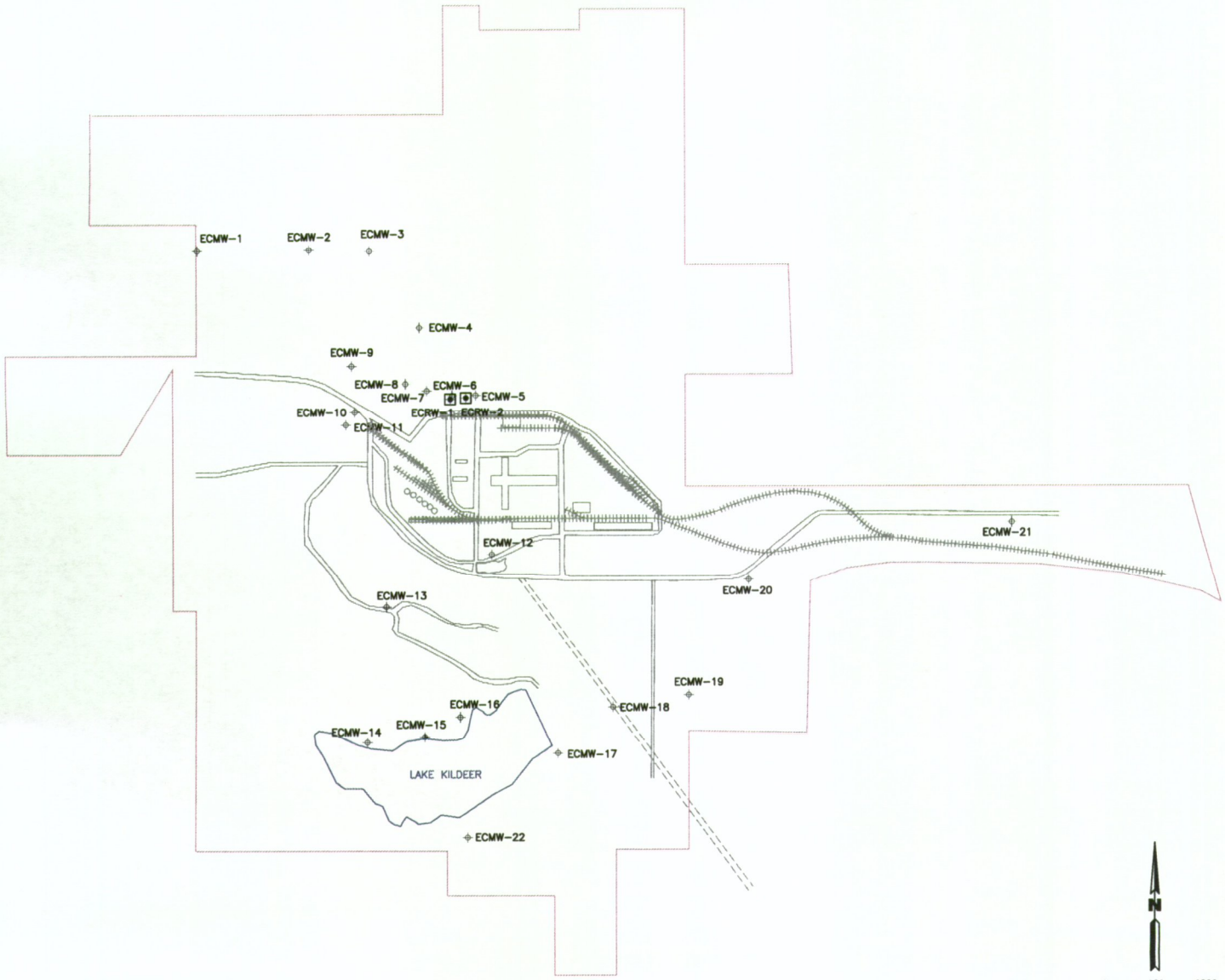
"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

TABLE 25
ECMW-22 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)
	s.u.	mg/L									
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	--
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	5.80	--	--	--	--	--	--	--	--	<0.02	--
4/21/2009	--	<0.5	0.991	3.67	--	--	--	--	--	<0.02	--
10/21/2009	6.15	--	--	--	--	--	--	--	--	--	--
4/14/2010	5.84	<0.5	1.13	7.73	--	<0.015	--	<0.02	--	--	--
11/3/2010	8.15	<0.5	1.31	6.68	--	<0.015	--	<0.01	--	--	--
4/26/2011	6.05	--	--	--	--	--	--	--	--	--	--
5/2/2012	6.10	<0.5	1.15	4.99	--	<0.015 E3	<0.015	<0.01 E3	<0.02	--	--
11/6/2012	6.73	<0.5	1.74	7.01	--	<0.015	<0.015	<0.01	<0.02	--	--
5/14/2013	6.19	--	--	--	--	--	--	--	--	--	--
11/4/2013	5.64	--	--	--	--	--	--	--	--	--	--
6/4/2014	5.79	<0.5	1.75	5.05	--	<0.0156	<0.016	<0.0104	<0.021	--	--
11/5/2014	4.42	0.61	2.58	5.66	--	<0.0156	<0.015	<0.0104	<0.02	--	--

"--" - Parameter not analyzed
E3 - Incorrect preservation, results qualified as "estimated".

FIGURES



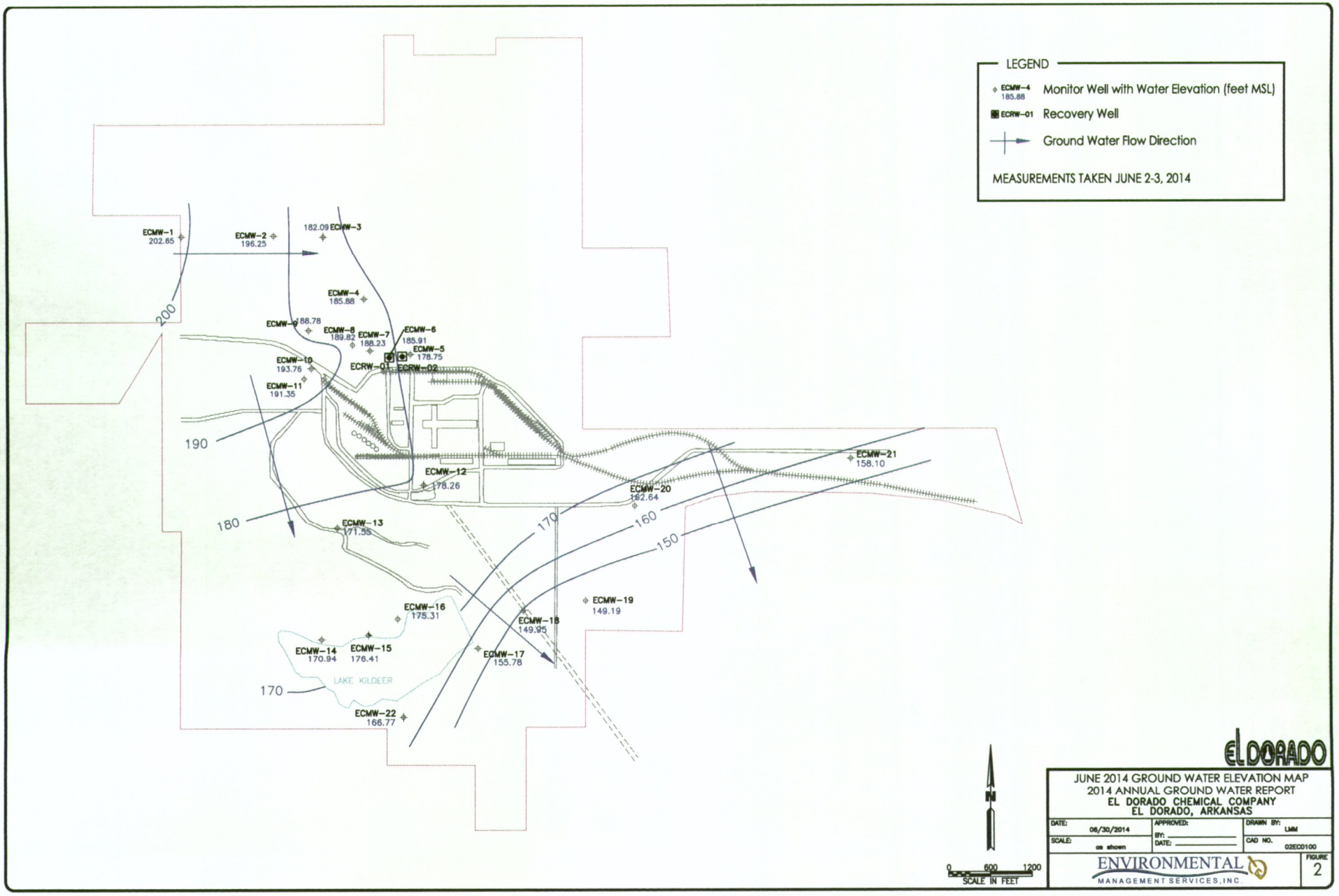
EL DORADO

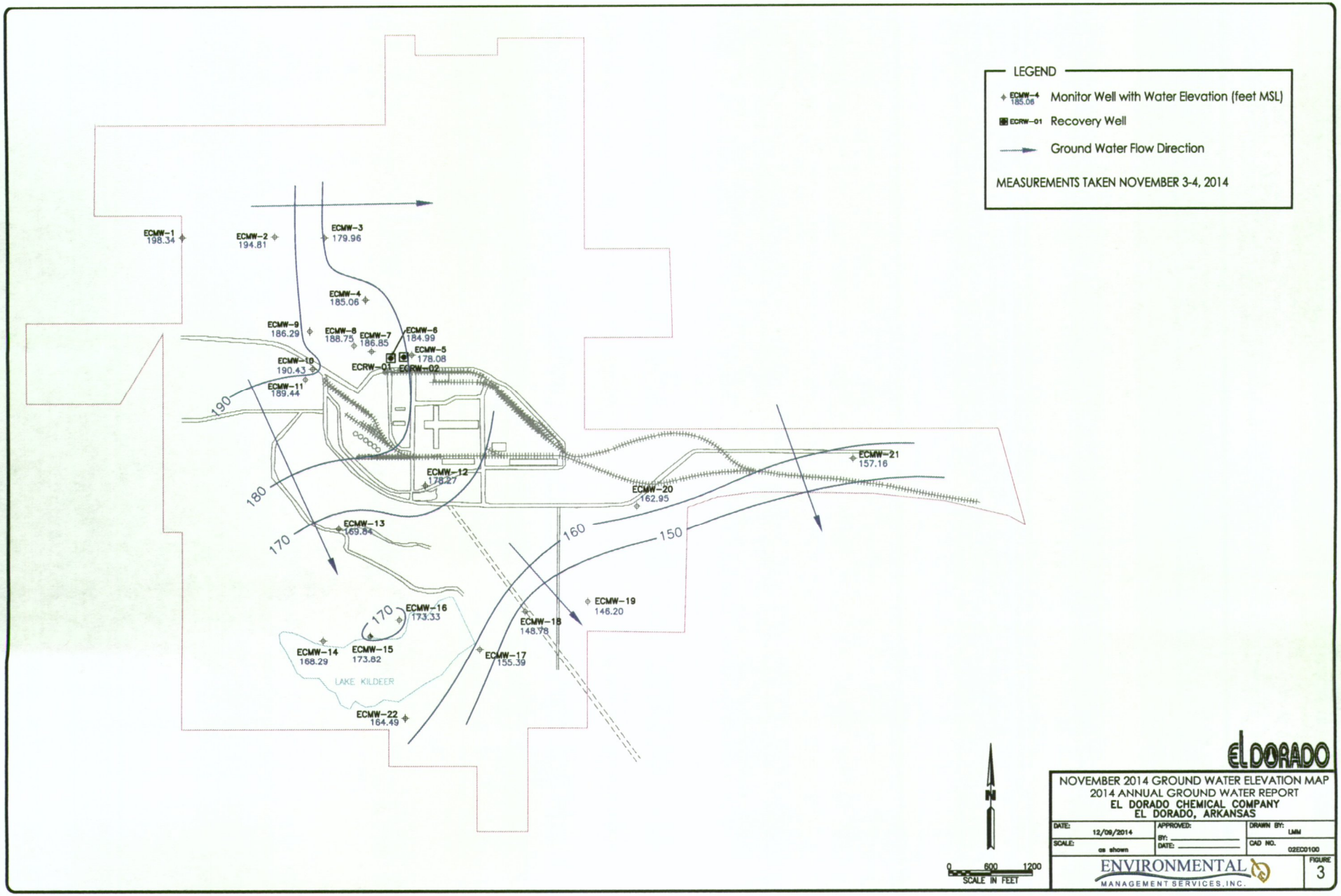
SITE MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

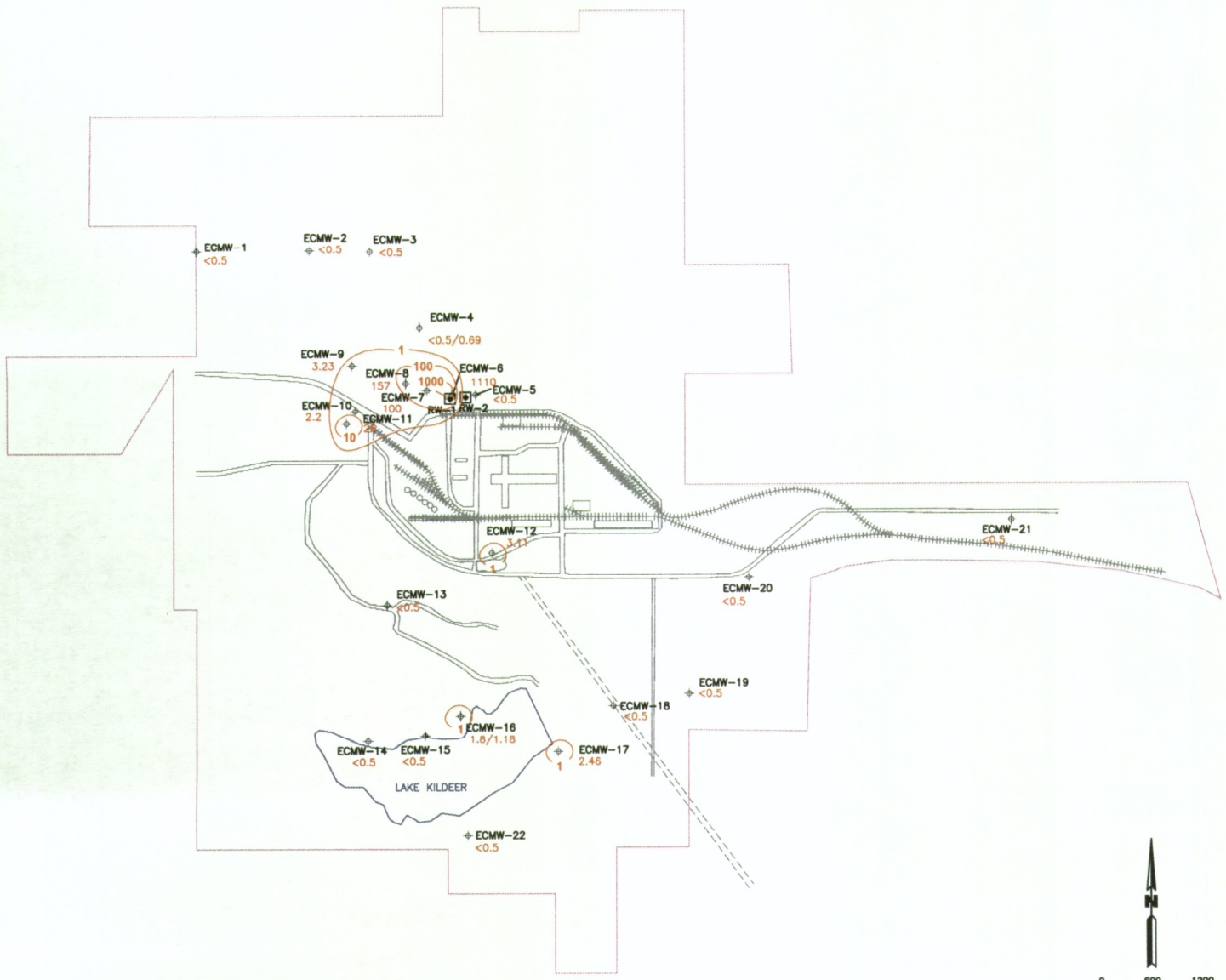
DATE: 12/09/2014	APPROVED: BY: DATE:	DRAWN BY: LMM
SCALE: see above		CAD NO. 02EC0100

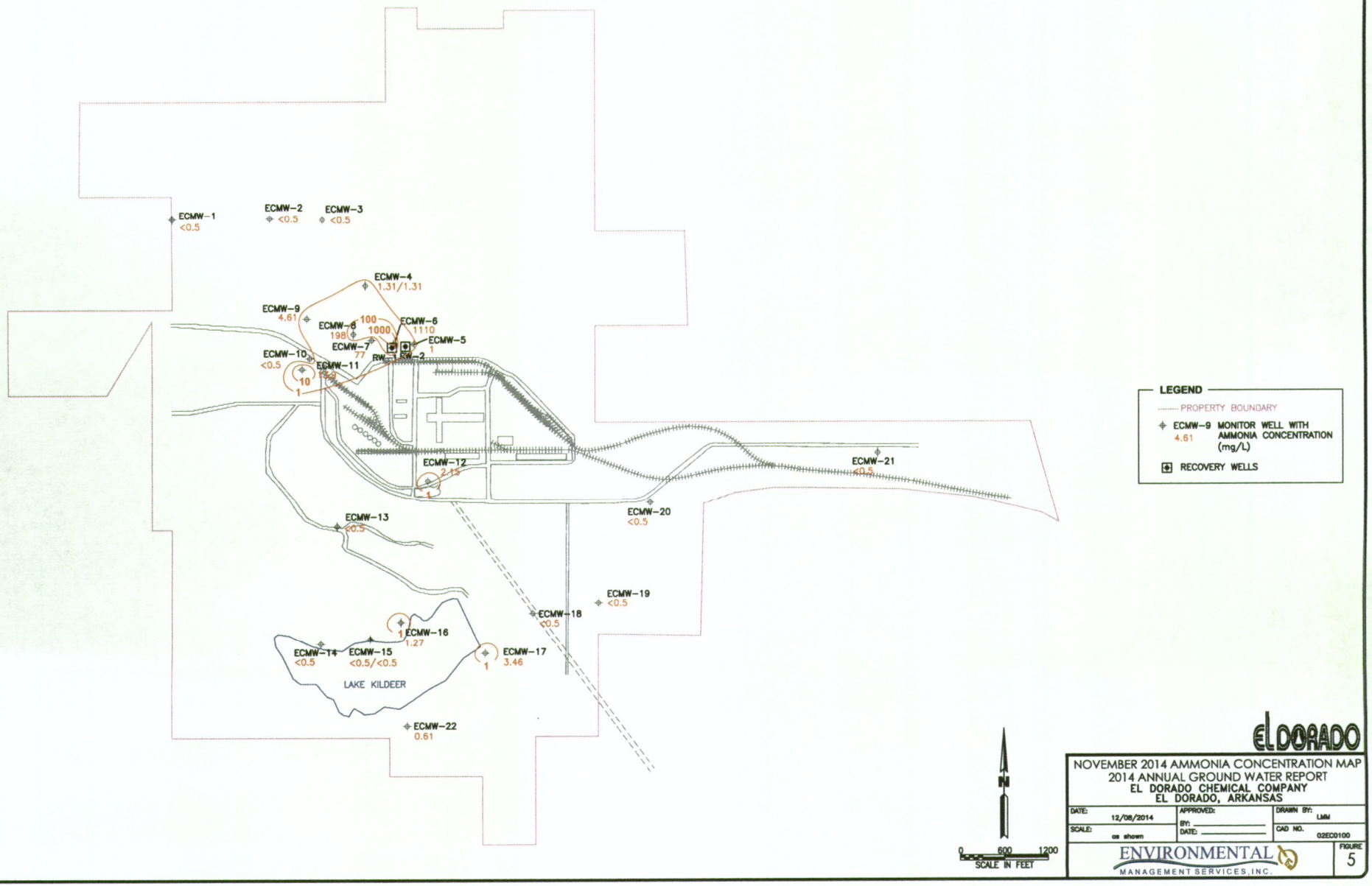
ENVIRONMENTAL MANAGEMENT SERVICES, INC.

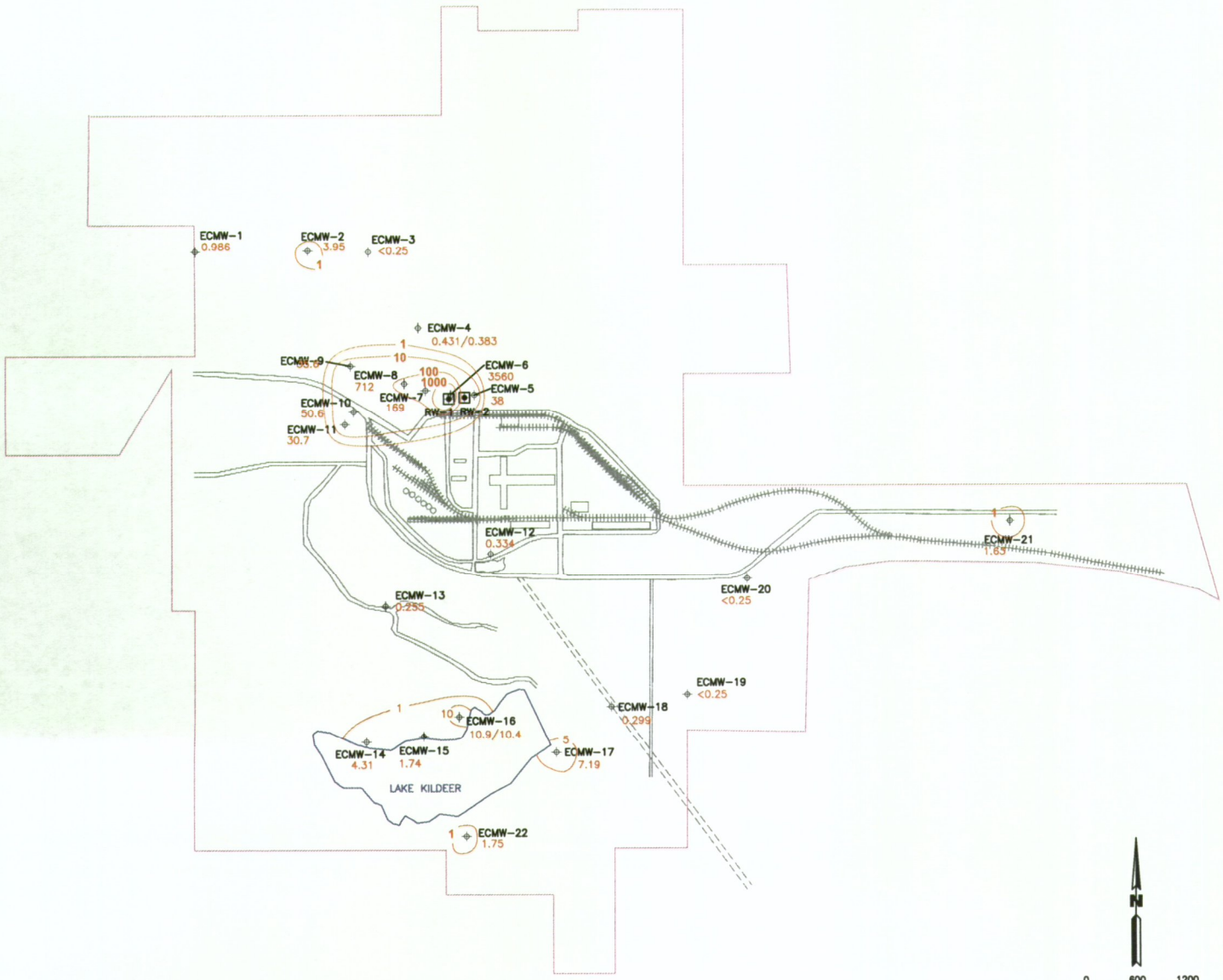
FIGURE 1


LEGEND
ECMW-4 185.88 Monitor Well with Water Elevation (feet MSL)
ECRW-01 Recovery Well
Ground Water Flow Direction
MEASUREMENTS TAKEN JUNE 2-3, 2014
ECMW-1 202.65
ECMW-2 196.25
182.09 ECMW-3
ECMW-4 185.88
ECMW-9 188.78
ECMW-8 189.82
ECMW-7 188.23
ECMW-6 185.91
ECMW-5 178.75
ECRW-01
ECRW-02
ECMW-10 193.76
ECMW-11 191.35
ECMW-12 178.26
ECMW-13 171.55
ECMW-20 162.64
ECMW-21 158.10
ECMW-16 175.31
ECMW-18 149.95
ECMW-19 149.19
ECMW-14 170.94
ECMW-15 176.41
ECMW-17 155.78
LAKE KILDEER
ECMW-22 166.77
200
190
180
170
160
150
170
N
0 600 1200
SCALE IN FEET
EL DORADO
JUNE 2014 GROUND WATER ELEVATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS
DATE: 06/30/2014
APPROVED:
BY:
DATE:
DRAWN BY: LMM
SCALE: as shown
CAD NO. 02EC0100
ENVIRONMENTAL MANAGEMENT SERVICES, INC.
FIGURE 2


LEGEND
ECMW-4 185.06 Monitor Well with Water Elevation (feet MSL)
ECRW-01 Recovery Well
Ground Water Flow Direction
MEASUREMENTS TAKEN NOVEMBER 3-4, 2014
ECMW-1 198.34
ECMW-2 194.81
ECMW-3 179.96
ECMW-4 185.06
ECMW-5 178.08
ECMW-6 184.99
ECMW-7 186.85
ECMW-8 188.75
ECMW-9 186.29
ECMW-10 190.43
ECMW-11 189.44
ECRW-01
ECRW-02
ECMW-12 178.27
ECMW-13 169.84
ECMW-14 168.29
ECMW-15 173.82
ECMW-16 173.33
ECMW-17 155.39
ECMW-18 148.78
ECMW-19 146.20
ECMW-20 162.95
ECMW-21 157.16
ECMW-22 164.49
LAKE KILDEER
190
180
170
160
150
N
0 600 1200
SCALE IN FEET
EL DORADO
NOVEMBER 2014 GROUND WATER ELEVATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS
DATE: 12/09/2014
APPROVED:
BY:
DATE:
DRAWN BY: LMM
SCALE: as shown
CAD NO. 02EC0100
ENVIRONMENTAL MANAGEMENT SERVICES, INC.
FIGURE 3


ECMW-1
<0.5
ECMW-2
<0.5
ECMW-3
<0.5
ECMW-4
<0.5/0.69
ECMW-9
3.23
ECMW-8
157
ECMW-7
100
ECMW-6
1110
ECMW-5
<0.5
ECMW-10
2.2
ECMW-11
25
RW-1
RW-2
1
100
1000
10
ECMW-12
3.11
1
ECMW-21
<0.5
ECMW-20
<0.5
ECMW-13
<0.5
ECMW-19
<0.5
ECMW-18
<0.5
1
ECMW-16
1.8/1.18
ECMW-14
<0.5
ECMW-15
<0.5
ECMW-17
2.46
1
LAKE KILDEER
ECMW-22
<0.5
LEGEND
PROPERTY BOUNDARY
ECMW-9 MONITOR WELL WITH AMMONIA CONCENTRATION (mg/L)
3.23
RECOVERY WELLS
N
0
600
1200
SCALE IN FEET
EL DORADO
JUNE 2014 AMMONIA CONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS
DATE: 06/30/14
APPROVED:
BY:
DATE:
DRAWN BY: LMM
SCALE: as shown
CAD NO. 02EC0100
ENVIRONMENTAL MANAGEMENT SERVICES, INC.
FIGURE 4


ECMW-1
<0.5
ECMW-2
<0.5
ECMW-3
<0.5
ECMW-4
1.31/1.31
ECMW-9
4.61
ECMW-8
198
100
1000
ECMW-6
1110
ECMW-7
77
ECMW-5
1
RW-1
RW-2
ECMW-10
<0.5
ECMW-11
10
1
ECMW-12
2.15
1
ECMW-21
<0.5
ECMW-20
<0.5
ECMW-13
<0.5
ECMW-19
<0.5
ECMW-18
<0.5
1
ECMW-16
1.27
ECMW-14
<0.5
ECMW-15
<0.5/<0.5
ECMW-17
1
3.46
LAKE KILDEER
ECMW-22
0.61
LEGEND
PROPERTY BOUNDARY
ECMW-9 MONITOR WELL WITH AMMONIA CONCENTRATION (mg/L)
4.61
RECOVERY WELLS
N
0
600
1200
SCALE IN FEET
EL DORADO
NOVEMBER 2014 AMMONIA CONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS
DATE: 12/08/2014
APPROVED:
BY:
DATE:
DRAWN BY: LMM
SCALE: as shown
CAD NO. 02EC0100
ENVIRONMENTAL MANAGEMENT SERVICES, INC.
FIGURE 5



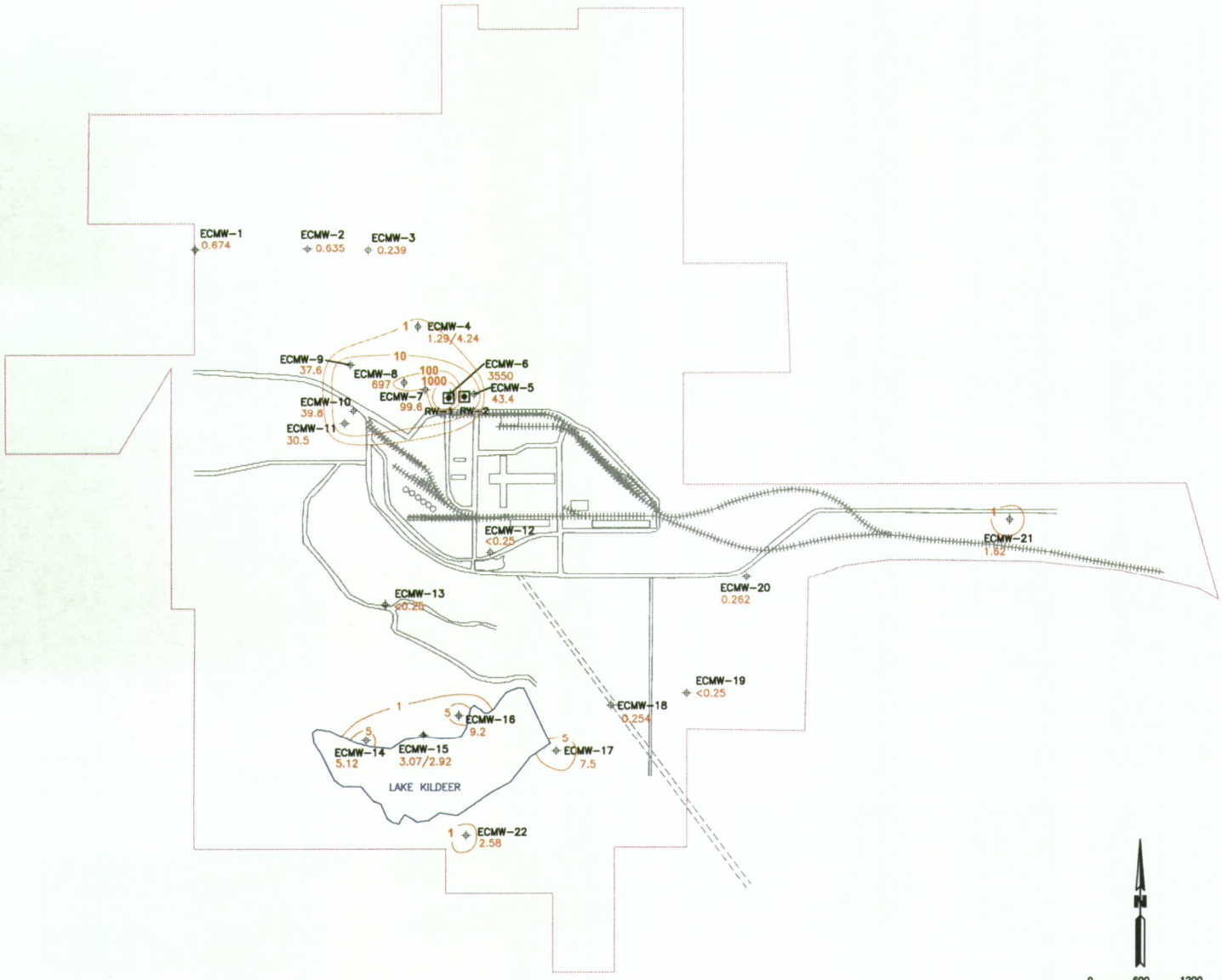
EL DORADO

JUNE 2014 NITRATE CONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 06/30/2014	APPROVED: BY: DATE:	DRAWN BY: LMM
SCALE: as shown		CAD NO. 02EC0100

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

FIGURE 6

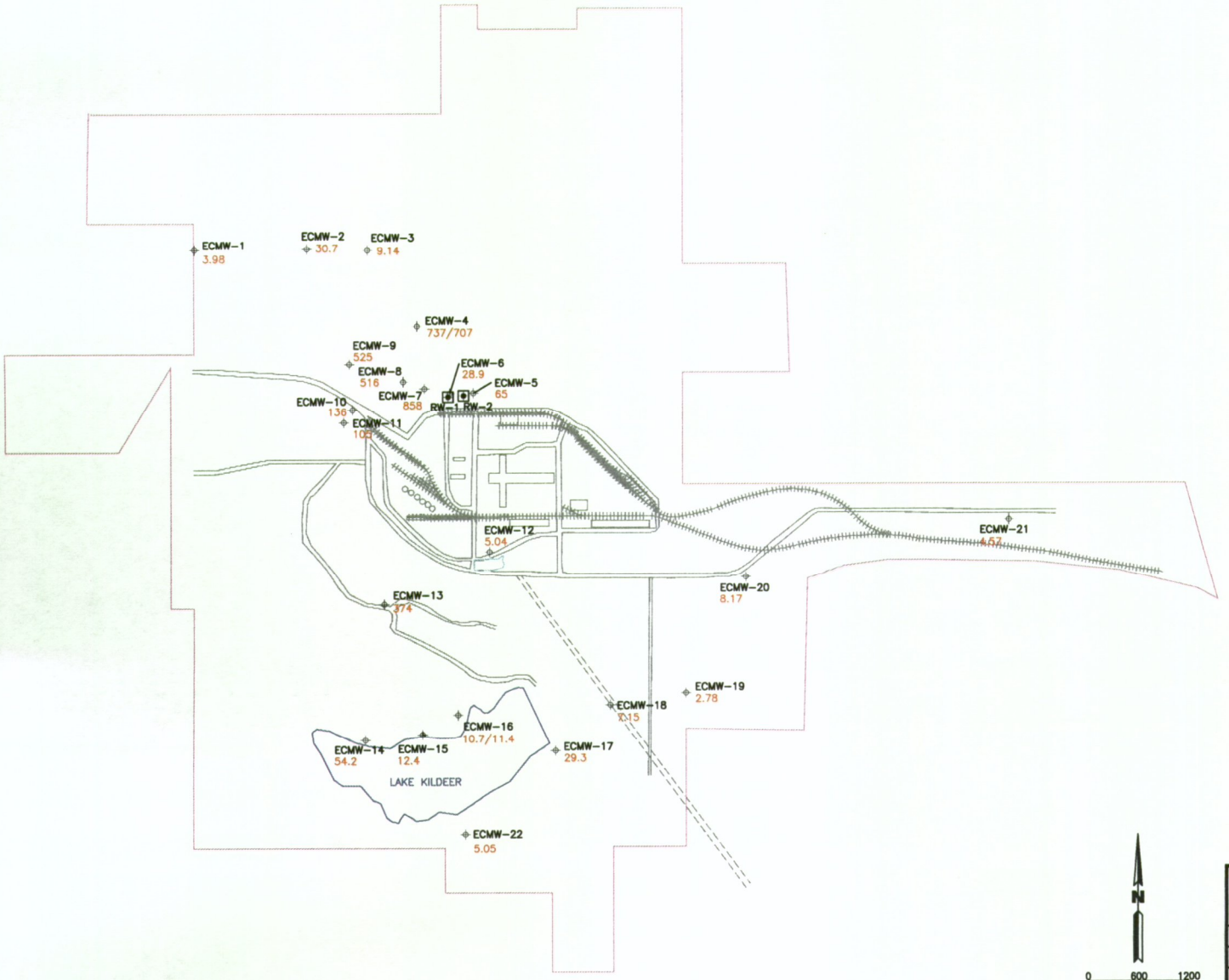


ELDORADO

NOVEMBER 2014 NITRATE CONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 03/17/2014	APPROVED:	DRAWN BY: LMM	
SCALE: as shown	BY:	CAD NO. 02EC0100	
	DATE:		FIGURE 7

ENVIRONMENTAL MANAGEMENT SERVICES, INC.



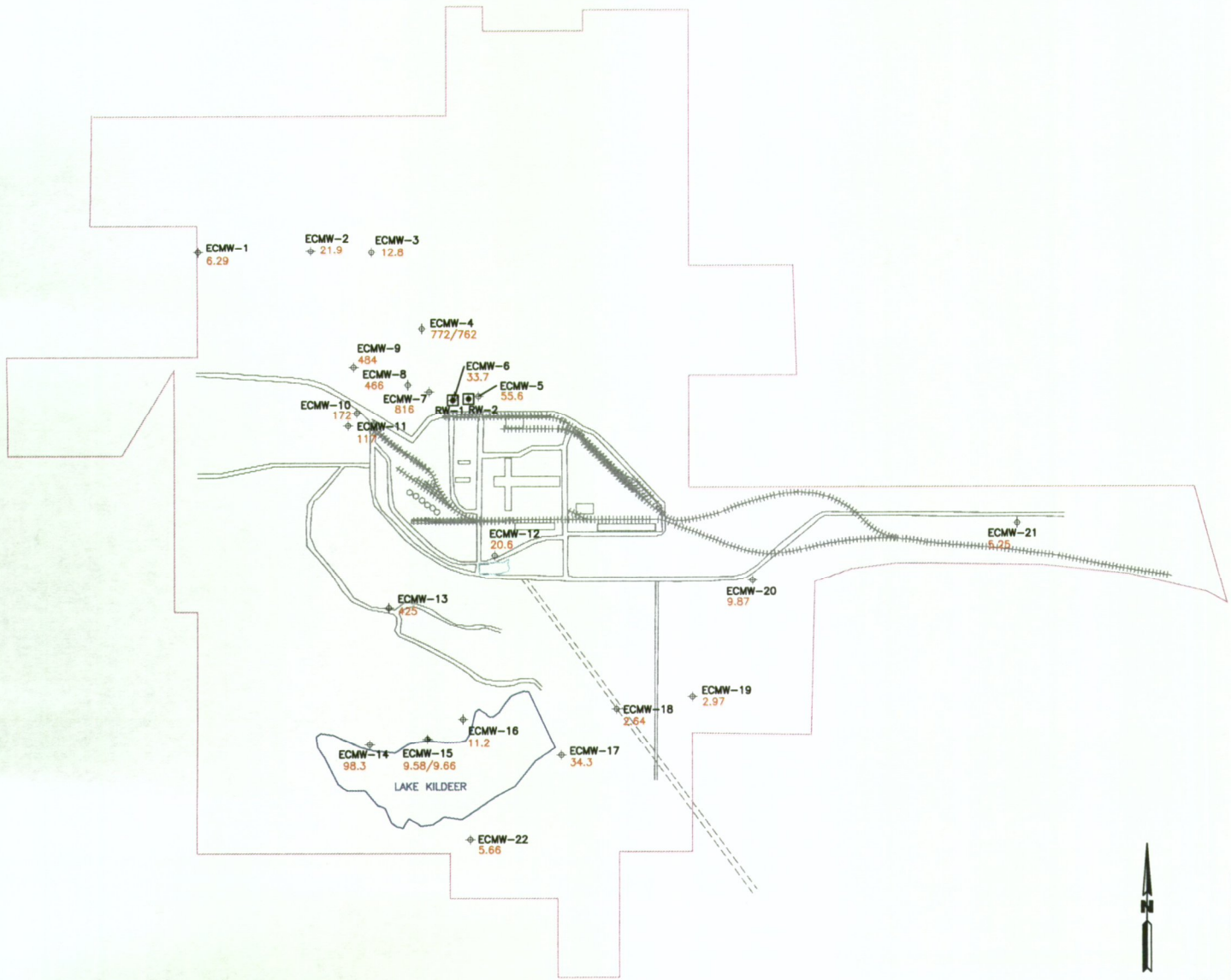
EL DORADO

JUNE 2014 SULFATE CONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 06/30/2014	APPROVED: BY: DATE:	DRAWN BY: LMM
SCALE: as shown		CAD NO. 02EC0100

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

FIGURE 8



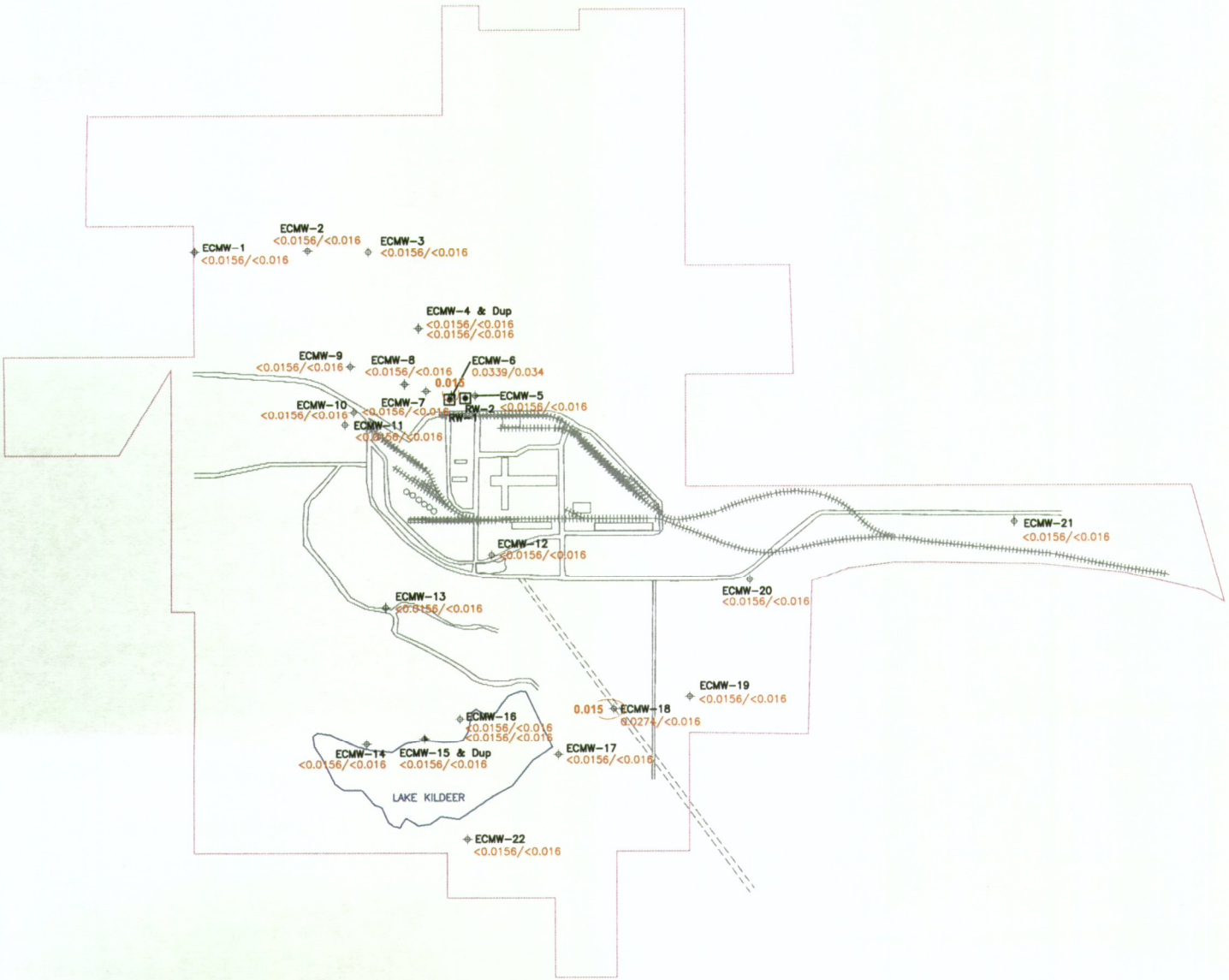
EL DORADO

NOVEMBER 2014 SULFATE CONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 12/08/2014	APPROVED: BY: DATE:	DRAWN BY: LMM
SCALE: as shown		CAD NO. 02EC0100

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

FIGURE 9



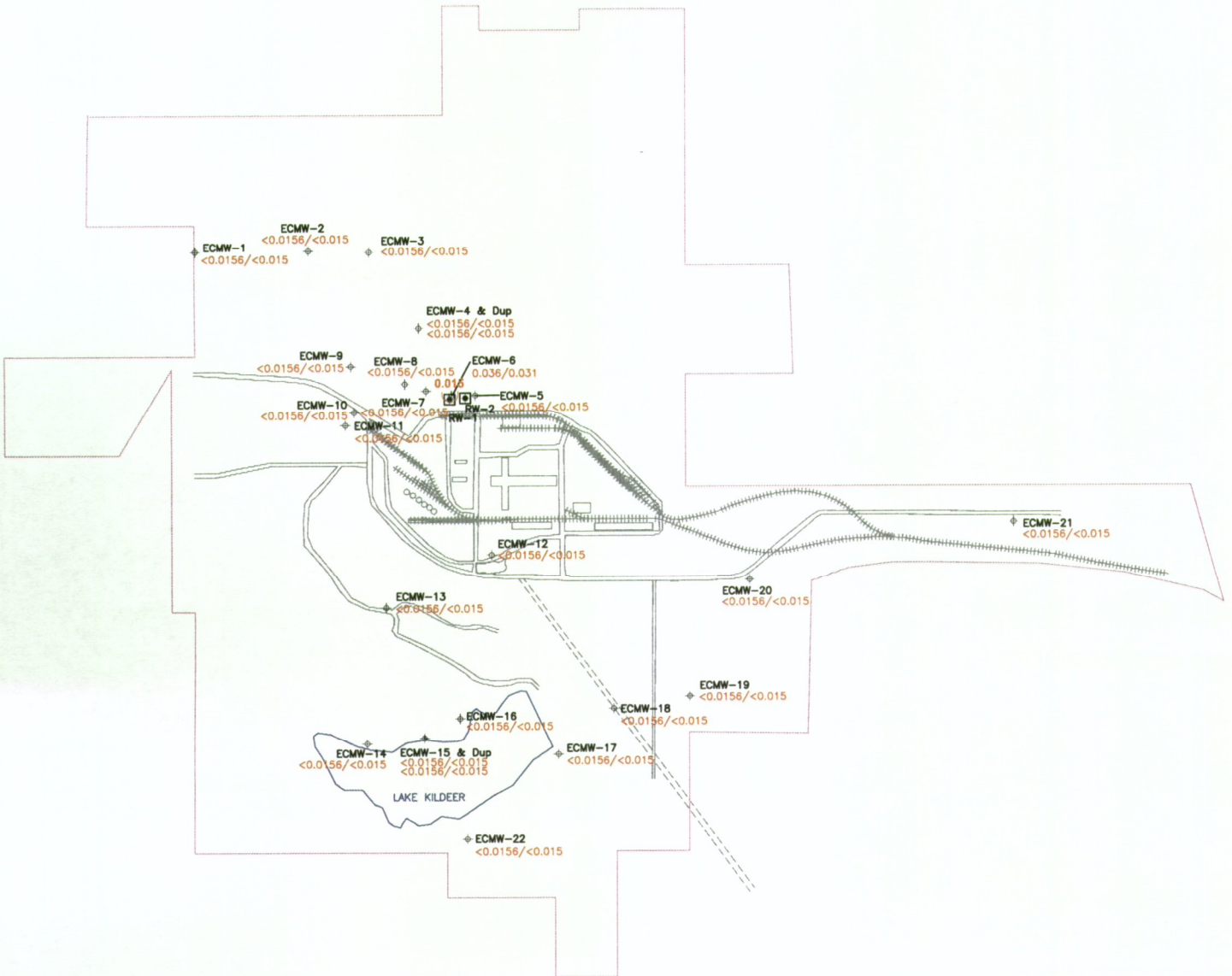
EL DORADO

JUNE 2014 LEAD ISOCONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 06/30/2014	APPROVED: BY: DATE:	DRAWN BY: LMM
SCALE: see above		CAD NO. 02EC0100

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

FIGURE 10

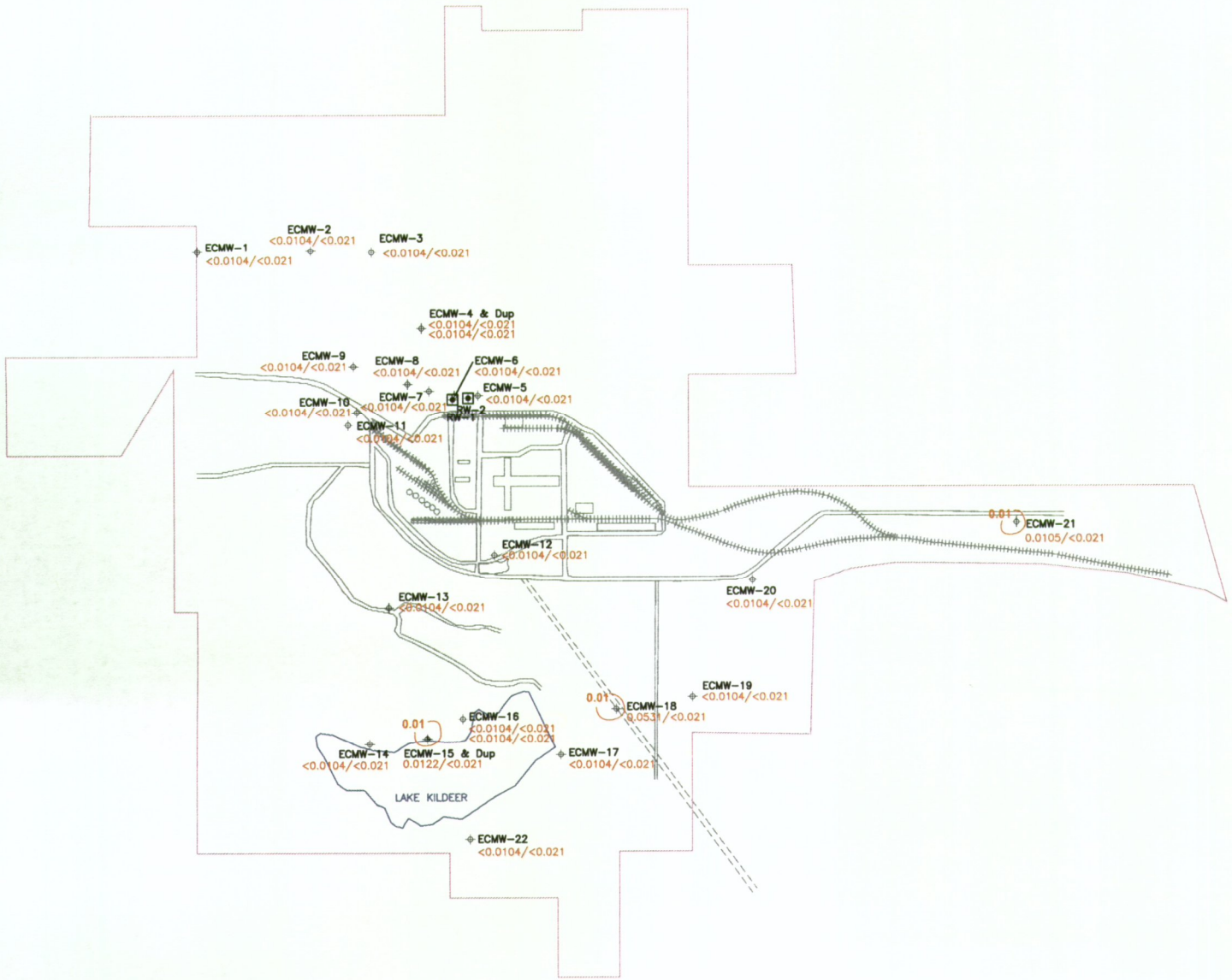


EL DORADO

NOVEMBER 2014 LEAD ISOCONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 12/08/2014	APPROVED:	DRAWN BY: LMM	
SCALE: see above	BY:	CAD NO. 02EC0100	
	DATE:		FIGURE 11

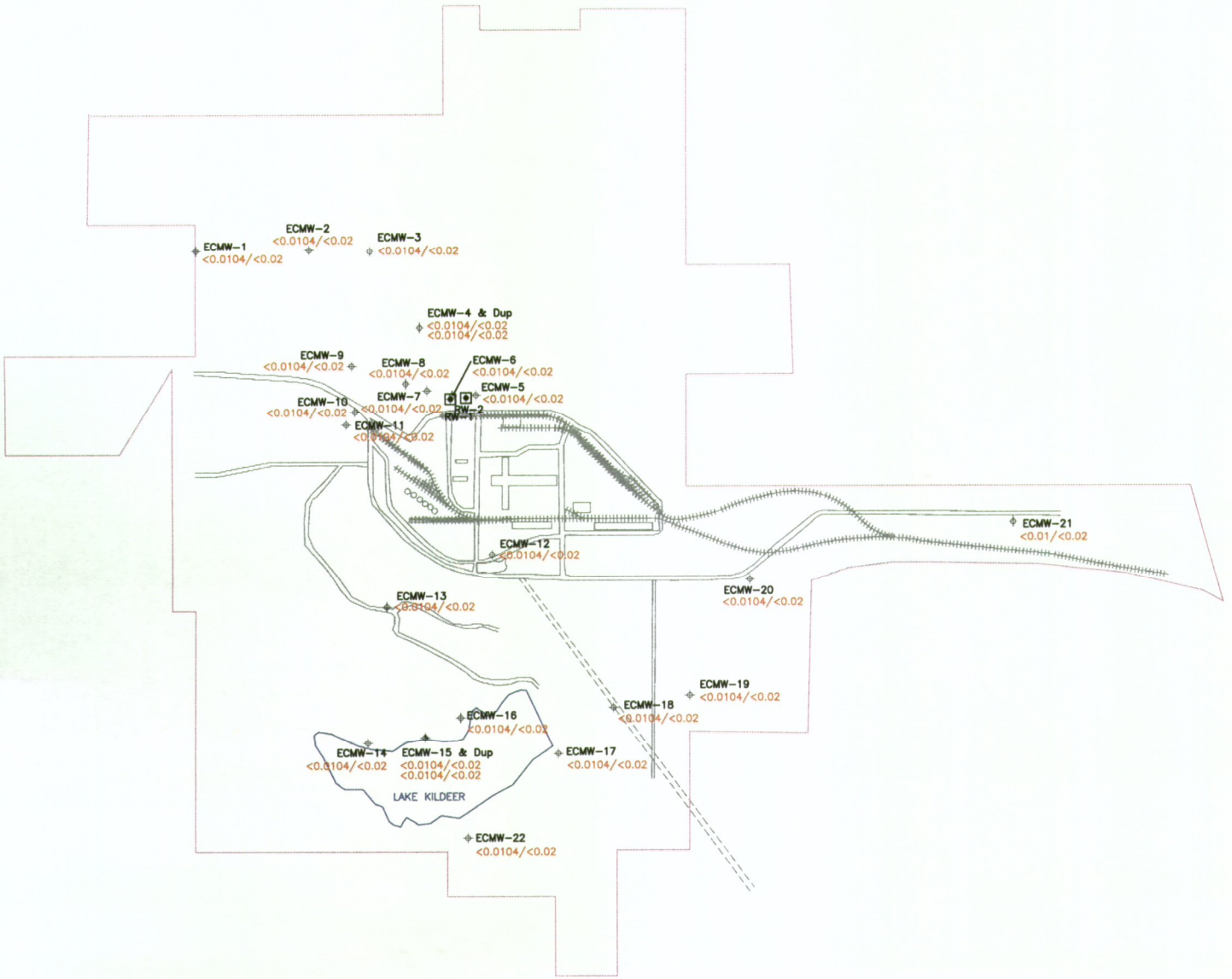
ENVIRONMENTAL MANAGEMENT SERVICES, INC.



EL DORADO

JUNE 2014 CHROMIUM ISOCONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 06/30/2014	APPROVED:	DRAWN BY: LMM	
SCALE: see above	BY:	CAD NO. 02EC0100	
	DATE:	ENVIRONMENTAL MANAGEMENT SERVICES, INC.	FIGURE 12



EL DORADO

NOVEMBER 2014 CHROMIUM ISOCONCENTRATION MAP
2014 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

DATE: 12/08/2014	APPROVED: BY: DATE:	DRAWN BY: LMM
SCALE: see above		CAD NO. 02ECD100

ENVIRONMENTAL MANAGEMENT SERVICES, INC.

FIGURE 13

APPENDIX A

SAMPLING FORMS AND LABORATORY ANALYTICAL REPORTS

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-12
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1350		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	6.71	ft	Gallons per well volume	8.4	
Top of casing to bottom	19.9	ft	Total gallons evacuated	25.2	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-3-14 1125		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse	Oxygen[mg/l]	Turbidity [NT
22.9	5.29	638 uS			
21.0	5.50	596 uS			
20.4	5.56	591 uS			

GENERAL INFORMATION

Weather conditions at time of sampling: P. CLOUDY/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-13
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1410		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	5.71	ft	Gallons per well volume	9.2	
Top of casing to bottom	19.8	ft	Total gallons evacuated	27.6	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-4-14 0725		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
20.8	5.32	1188 us		
19.0	5.41	1176 us		
18.2	5.33	1163 us		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-24
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14 1510	Method of Evacuation	ELEC. PUMP
Top of casing to water level	18.19 ft	Gallons per well volume	.9
Top of casing to bottom	34.9 ft	Total gallons evacuated	2.7
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-4-14 1035	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
22.5	5.19	51.0 us		
20.8	5.54	48.5 us		
20.5	5.22	42.0 us		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW 2D
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14 1440		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	30.13	ft	Gallons per well volume	3.9	
Top of casing to bottom	54.4	ft	Total gallons evacuated	11.7	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-4-14 1015		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse...	Oxygen[mg/l]	Turbidity [NT
21.8	5.69	71.7 MA			
19.9	5.72	69.6			
20.0	5.63	72.2 MA			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: ODOR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-19
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14 1420		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	1.22	ft	Gallons per well volume	9.6	
Top of casing to bottom	6.45	ft	Total gallons evacuated	28.8	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-4-14 0955		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
22.1	6.02	78.7 ms		
18.5	5.95	74.4 ms		
19.7	5.92	74.5 ms		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-18
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14 1355	Method of Evacuation	ELEC. PUMP
Top of casing to water level	5.51 ft	Gallons per well volume	7.6
Top of casing to bottom	17.2 ft	Total gallons evacuated	22.8
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-4-14 0925	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
21.4	5.99	83.2 MS		
19.3	5.90	77.3 MS		
19.0	5.82	78.0 MS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR / WARM
Sample characteristics: ~~SUNNY~~ CLOUDY

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No ECMW-17
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14 1340		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	29.62	ft	Gallons per well volume	3.3	
Top of casing to bottom	34.7	ft	Total gallons evacuated	9.9	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-4-14 0905		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
24.2	5.24	228.5 mS		
21.3	4.82	219.4		
20.5	4.62	217.3 mS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
L. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-22
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14 1510	Method of Evacuation	ELEC. PUMP
Top of casing to water level	6.78 ft	Gallons per well volume	11.7
Top of casing to bottom	79.8 ft	Total gallons evacuated	35.1
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-4-14 0845	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse... Oxygen[mg/l]	Turbidity [NT
22.1	5.82	146.3 us		
20.9	5.78	145.6 us		
20.5	5.79	138.6 us		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-16 + DUP
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14	1255	Method of Evacuation	ELEC. PUMP	
Top of casing to water level	4.83	ft	Gallons per well volume	9.4	
Top of casing to bottom	19.3	ft	Total gallons evacuated	28.2	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-4-14	0830	Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso	Oxygen[mg/l]	Turbidity [NT
22.0	5.48	151.3			
20.7	5.23	140.7			
20.5	5.09	145.7			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-15
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-3-14 1240		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	4.43	ft	Gallons per well volume	8.2	
Top of casing to bottom	17.0	ft	Total gallons evacuated	24.6	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-4-14 0810		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
24.0	5.87	95.7 uS		
22.1	5.60	67.6		
22.2	5.36	67.1 uS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-2
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1015	Method of Evacuation	ELEC. PUMP
Top of casing to water level	0.00 ft	Gallons per well volume	13.0
Top of casing to bottom	20.2 ft	Total gallons evacuated	39.0
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 0810	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso	Oxygen[mg/l]	Turbidity [NT
19.7	5.45	269.0 uS			
18.2	5.27	259.5 uS			
18.3	5.10	251.5 uS			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-3
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 0945	Method of Evacuation	ELEC. PUMP
Top of casing to water level	10.02 ft	Gallons per well volume	11.1
Top of casing to bottom	27.1 ft	Total gallons evacuated	33.3
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 0745	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso	Oxygen[mg/l]	Turbidity [NT
23.2	5.25	412.3 µs			
19.7	5.88	194.9 µs			
18.8	5.86	187.8 µs			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-4
Colle... R. DURHAM + DUP

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 0920	Method of Evacuation	ELEC. PUMP
Top of casing to water level	9.96 ft	Gallons per well volume	8.5
Top of casing to bottom	22.1 ft	Total gallons evacuated	25.5
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 0840	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso Oxygen[mg/l]	Turbidity [NT
21.30°C	5.66	6.55 ms		
20.7°C	4.92	6.57 ms		
20.6°C	4.50	6.54 ms		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW 5
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 0845	Method of Evacuation	ELEC. PUMP
Top of casing to water level	3.94 ft	Gallons per well volume	16.9
Top of casing to bottom	22.9 ft	Total gallons evacuated	50.7
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 0730	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse... Oxygen[mg/l]	Turbidity [NT
23.6°C	7.96	513 us		
20.4°C	7.53	496 us		
19.4	7.26	488 us		

GENERAL INFORMATION

Weather conditions at time of sampling: Cloudy/ Warm
Sample characteristics: Clear
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-6
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14	1055	Method of Evacuation	ELEC. PUMP	
Top of casing to water level	5.86	ft	Gallons per well volume	10.4	
Top of casing to bottom	22.0	ft	Total gallons evacuated	31.2	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	6-3-14	0905	Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
21.0	3.85	35.17 mS		
19.9	4.00	31.53 mS		
19.5	3.99	28.03 mS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-7
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1120	Method of Evacuation	ELEC. PUMP
Top of casing to water level	7.65 ft	Gallons per well volume	10.6
Top of casing to bottom	23.9 ft	Total gallons evacuated	31.8
Water level after evacuation	~~6-3-14 0925~~ ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 0925	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso	Oxygen[mg/l]	Turbidity [NT
22.4	4.18	86.1 mS			
20.7	5.37	23.56 mS			
19.9	5.24	20.57 µs			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-8
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1145	Method of Evacuation	ELEC. PUMP
Top of casing to water level	2.52 ft	Gallons per well volume	14.5
Top of casing to bottom	29.9 ft	Total gallons evacuated	43.5
Water level after evacuation	~~10~~ ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 1010	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss... Oxygen[mg/l]	Turbidity [NT
22.2	5.19	21.85 mS		
20.7	4.63	21.08 mS		
19.9	4.33	20.79 mS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-9
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1220	Method of Evacuation	ELEC. PUMP
Top of casing to water level	9.61 ft	Gallons per well volume	13.3
Top of casing to bottom	30.0 ft	Total gallons evacuated	39.9
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 0945	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
23.0	5.37	2455 µs		
20.6	5.47	2111 µs		
20.6	5.47	2066 µs		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR / WARM
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-10
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-17 1250	Method of Evacuation	ELEC. PUMP
Top of casing to water level	11.99 ft	Gallons per well volume	6.9
Top of casing to bottom	22.6 ft	Total gallons evacuated	20.7
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-17 1035	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse... Oxygen[mg/l]	Turbidity [NT
22.5	5.66	789 us		
20.7	5.34	739 us		
20.1	4.93	733 us		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-11
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1315	Method of Evacuation	ELEC. PUMP
Top of casing to water level	10.30 ft	Gallons per well volume	6.2
Top of casing to bottom	19.8 ft	Total gallons evacuated	18.6
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 1105	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse...	Oxygen[mg/l]	Turbidity [NT
20.6	4.69	618 µs			
19.3	4.39	593 µs			
19.1	4.18	587 µs			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-1
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14 1035	Method of Evacuation	ELEC. PUMP
Top of casing to water level	10.63 ft	Gallons per well volume	7.5
Top of casing to bottom	22.1 ft	Total gallons evacuated	22.5
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	6-3-14 0825	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
20.8	5.29	65.5 µs		
18.1	4.97	38.2 µs		
17.5	4.74	37.2 µs		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ERMW-14
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	6-2-14	1435		Method of Evacuation	ELEC. PUMP
Top of casing to water level	2.54	ft		Gallons per well volume	6.9
Top of casing to bottom	18.2	ft		Total gallons evacuated	20.7
Water level after evacuation		ft		Elevation, Top of casing	
Sampling: Date/Time	6-4-14	0750		Elevation of well water	
Top of casing to water level		ft		Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
21.4	5.69	343.1 µs		
20.4	5.81	290.9 µs		
20.1	5.73	283.9 µs		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/WARM
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

Arkansas Analytical Inc.

11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731

RE: Groundwater Sample(s)

SDG Number: 1406035

Enclosed are the results of analyses for samples received by the laboratory on 03-Jun-14 15:05. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	18.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

ANALYTICAL RESULTS

Lab Number: 1406035-01
Sample Name: ECMW #1
Date/Time Collected: 6/3/14 8:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**3.98**		6/4/14 12:06	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**0.986**		6/4/14 12:06	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:02	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:02	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 18:54	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 18:54	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406035-02
Sample Name: ECMW #2
Date/Time Collected: 6/3/14 8:10
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**30.7**		6/5/14 8:47	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**3.95**		6/4/14 12:30	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:12	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:12	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:16	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:16	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

ANALYTICAL RESULTS

Lab Number: 1406035-03
Sample Name: ECMW #3
Date/Time Collected: 6/3/14 7:45
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**9.14**		6/5/14 9:10	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		6/4/14 12:53	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:15	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:15	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:20	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:20	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406035-04
Sample Name: ECMW #4
Date/Time Collected: 6/3/14 8:40
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**737**		6/5/14 9:34	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**0.431**		6/4/14 13:17	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:19	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:19	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:23	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:23	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

12 June 2014

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Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

ANALYTICAL RESULTS

Lab Number: 1406035-05
Sample Name: ECMW #5
Date/Time Collected: 6/3/14 7:30
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**65.0**		6/4/14 14:04	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**38.0**		6/4/14 14:04	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:22	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:22	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:26	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:26	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406035-06
Sample Name: ECMW #6
Date/Time Collected: 6/3/14 9:05
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**28.9**		6/5/14 8:23	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**3560**		6/4/14 14:27	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:25	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	**0.034**		6/12/14 9:25	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:29	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	**0.0339**		6/11/14 19:29	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1110**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

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El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

ANALYTICAL RESULTS

Lab Number: 1406035-07
Sample Name: ECMW #7
Date/Time Collected: 6/3/14 9:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**858**		6/4/14 14:51	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**169**		6/4/14 14:51	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:42	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:42	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:33	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:33	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**100**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406035-08
Sample Name: ECMW #8
Date/Time Collected: 6/3/14 10:10
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**516**		6/4/14 15:15	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**712**		6/4/14 15:15	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:45	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:45	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:36	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:36	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**157**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

12 June 2014

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Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

ANALYTICAL RESULTS

Lab Number: 1406035-09
Sample Name: ECMW #9
Date/Time Collected: 6/3/14 9:45
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**525**		6/4/14 15:38	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**35.6**		6/4/14 15:38	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:48	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:48	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:39	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:39	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**3.23**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406035-10
Sample Name: ECMW #10
Date/Time Collected: 6/3/14 10:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**136**		6/4/14 16:52	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**50.6**		6/4/14 16:52	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:51	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:51	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:55	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:55	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**2.20**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

12 June 2014

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4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

ANALYTICAL RESULTS

Lab Number: 1406035-11
Sample Name: ECMW #11
Date/Time Collected: 6/3/14 11:05
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**105**		6/4/14 17:15	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**30.7**		6/4/14 17:15	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:55	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:55	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 19:59	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 19:59	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**26.0**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406035-12
Sample Name: ECMW #12
Date/Time Collected: 6/3/14 11:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**5.04**		6/4/14 17:39	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**0.334**		6/4/14 17:39	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 9:58	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 9:58	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 20:02	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 20:02	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**3.11**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

12 June 2014

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El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

ANALYTICAL RESULTS

Lab Number:	**1406035-13**
Sample Name:	**DUP**
Date/Time Collected:	**6/3/14 0:00**
Sample Matrix:	**Water**

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**707**		6/5/14 16:35	A406036	300.0, 2.1-1993
Nitrate as N	mg/L	**0.383**		6/4/14 13:40	A406036	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:01	A406094	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:01	A406094	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 20:05	A406096	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 20:05	A406096	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**0.69**		6/5/14 7:46	A406045	4500-NH3 B,D,C-1997

12 June 2014

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Project: Groundwater Sample(s)

Date Received: 03-Jun-14 15:05

QUALITY CONTROL RESULTS

Anions -- Batch: A406036 (Water)
Prepared: 04-Jun-14 11:32 By: MB -- Analyzed: 04-Jun-14 20:24 By: Mel

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Nitrate as N	<0.250 mg/L	99.1% / NA	99.3% / 103%		2.63%	
Sulfate as SO4	<0.500 mg/L	97.5% / NA	101% / 103%		0.801%	

Wet Chemistry -- Batch: A406045 (Water)
Prepared: 05-Jun-14 07:46 By: KP -- Analyzed: 05-Jun-14 07:46 By: RJH

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.50 mg/L	122% / NA	116% / 122%		4.62%	

Dissolved Metals -- Batch: A406094 (Water)
Prepared: 09-Jun-14 12:04 By: ST -- Analyzed: 12-Jun-14 09:09 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.021 mg/L	94.8% / NA	97.9% / 98.5%		0.539%	
Lead	<0.016 mg/L	95.4% / NA	98.7% / 99.1%		0.470%	

Total Metals -- Batch: A406096 (Water)
Prepared: 05-Jun-14 16:10 By: ST -- Analyzed: 11-Jun-14 19:13 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.0104 mg/L	100% / NA	99.1% / 101%		2.07%	
Lead	<0.0156 mg/L	99.6% / NA	98.2% / 101%		2.44%	

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

Arkansas Analytical Inc.

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION	Project Description	Turnaround Time	Preservation Codes:	
El Dorado Chemical Inc.	El Dorado Chemical Inc.	Groundwater Samples	1 Day (100%)	1. Cool, 4 Degrees Centigrade	4. Thiosulfate for Dechlorination
4500 Northwest Ave.	P.O. Box 231		2 Day (50%)	2. Sulfuric Acid (H_2SO_4), pH < 2	5. Hydrochloric Acid(HCl)
El Dorado, AR 71731	El Dorado, AR 71731	Reporting Information	3 Day (25%)	3. Nitric Acid (HNO_3), pH < 2	6. Sodium Hydroxide (NaOH), pH > 12
		Telephone: 870-863-1484	5 Day (Routine) (circled)	TEST PARAMETERS	Bottle Type Code
Attn: David Sartain		Fax: 870-863-1499	Preservative Code: 1 / 1,2 / 1 / 1,3		G = Glass; P = Plastic
		Email: dsartain@edc-ark.com; browo@edc-ark.com; lmarcella@env-mgt.com	Bottle Type: P / P / P / P		V = Septum; A = Amber

Sampler(s) Signature: R. Durham EMS Inc (signature)

Sampler(s) Printed: R. DURHAM EMS INC

Arkansas Analytical Work Order Number: 1406035

Field Number	Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb						Work Order
1	6-3-14	0825	X		4	Water	ECMW-1	X	X	X	X						01
2	6-3-14	0810	X		4	Water	ECMW-2	X	X	X	X						02
3		0745	X		4	Water	ECMW-3	X	X	X	X						03
4		0840	X		4	Water	ECMW-4	X	X	X	X						04
5		0730	X		4	Water	ECMW-5	X	X	X	X						05
6		0805	X		4	Water	ECMW-6	X	X	X	X						06
7		0925	X		4	Water	ECMW-7	X	X	X	X						07
8		1010	X		4	Water	ECMW-8	X	X	X	X						08
9		0945	X		4	Water	ECMW-9	X	X	X	X						09
10		1025	X		4	Water	ECMW-10	X	X	X	X						10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
R. Durham	6-3-14 1135	Allen Parker
3. Relinquished by: (Signature)	**Date/Time**	**4. Received by lab: (Signature)**
Allen Parker	6-3-14 1505	Amanda Fobush

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS: ✓ Yes ___ No
2. CONTAINERS CORRECT: ✓ Yes ___ No
3. COC/LABELS AGREE: ✓ Yes ___ No
4. RECEIVED ON ICE: ✓ Yes ___ No
5. TEMPERATURE ON RECEIPT: 18°C
6. TEMPERATURE GUN ID: HHT#2

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

Revision 2
2/14/14

Arkansas Analytical Inc.

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION	Project Description	Turnaround Time
El Dorado Chemical Inc.	El Dorado Chemical Inc.	Groundwater Samples	1 Day (100%)
4500 Northwest Ave.	P.O. Box 231		2 Day (50%)
El Dorado, AR 71731	El Dorado, AR 71731	Reporting Information	3 Day (25%)
		Telephone: 870-863-1484	5 Day (Routine)
Attn: David Sartain		Fax: 870-863-1499	Preservative Code:
		Email: dsartain@edc-ark.com; browe@edc-ark.com; lmarcella@env-mgt.com	Bottle Type:

Preservation Codes:
1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid(HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Sampler(s) Signature: R. Durham EMSERC

Sampler(s) Printed: R. DURHAM EMS INC

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	TEST PARAMETERS: Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb	Bottle Type Code	Arkansas Analytical Work Order Number: 1406035
							Preservative Code:	1	1,2	1	1,3		
							Bottle Type:	P	P	P	P		
11	6-3-14	1105	X		4	Water	ECMW- 11	X	X	X	X		11
12	6-3-14	1125	X		4	Water	ECMW- 12	X	X	X	X		12
13	"		X		4	Water	ECMW- DUP	X	X	X	X		13
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		

Bottle Type Code: G = Glass; P = Plastic; V = Septum; A = Amber

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
R. Durham	6-3-14 1135	Allen Parker
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
Allen Parker	6-3-14 1505	Amanda Fisher

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS:	✓ Yes	___ No
2. CONTAINERS CORRECT:	___ Yes	___ No
3. COC/LABELS AGREE:	___ Yes	___ No
4. RECEIVED ON ICE:	___ Yes	___ No
5. TEMPERATURE ON RECEIPT:	18°C	
6. TEMPERATURE GUN ID:	HHTH2	

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

Revision 2
2/14/14

Arkansas Analytical Inc.

11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731

RE: Groundwater Sample(s)

SDG Number: 1406042

Enclosed are the results of analyses for samples received by the laboratory on 04-Jun-14 15:35. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	13.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Jun-14 15:35

ANALYTICAL RESULTS

Lab Number: 1406042-01
Sample Name: ECMW #13
Date/Time Collected: 6/4/14 7:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**374**		6/6/14 8:40	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**0.255**		6/5/14 11:03	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:11	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:11	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 20:22	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 20:22	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406042-02
Sample Name: ECMW #21
Date/Time Collected: 6/4/14 10:35
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**4.57**		6/5/14 11:27	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**1.63**		6/5/14 11:27	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:34	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:34	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	**0.0105**		6/11/14 20:44	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 20:44	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Jun-14 15:35

ANALYTICAL RESULTS

Lab Number: 1406042-03
Sample Name: ECMW #20
Date/Time Collected: 6/4/14 10:15
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**8.17**		6/6/14 9:04	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		6/5/14 11:50	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:37	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:37	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 20:48	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 20:48	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406042-04
Sample Name: ECMW #19
Date/Time Collected: 6/4/14 9:55
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**2.78**		6/5/14 12:14	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		6/5/14 12:14	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:40	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:40	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 20:51	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 20:51	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Jun-14 15:35

ANALYTICAL RESULTS

Lab Number: 1406042-05
Sample Name: ECMW #18
Date/Time Collected: 6/4/14 9:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**7.15**		6/5/14 12:37	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**0.299**		6/5/14 12:37	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:44	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:44	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	**0.0531**		6/11/14 20:54	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	**0.0274**		6/11/14 20:54	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406042-06
Sample Name: ECMW #17
Date/Time Collected: 6/4/14 9:05
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**29.3**		6/6/14 9:28	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**7.19**		6/5/14 13:01	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:47	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:47	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 20:57	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 20:57	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**2.46**		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Jun-14 15:35

ANALYTICAL RESULTS

Lab Number: 1406042-07
Sample Name: ECMW #22
Date/Time Collected: 6/4/14 8:45
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**5.05**		6/5/14 13:24	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**1.75**		6/5/14 13:24	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:50	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:50	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 21:01	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 21:01	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406042-08
Sample Name: ECMW #16
Date/Time Collected: 6/4/14 8:30
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**10.7**		6/5/14 14:12	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**10.9**		6/5/14 14:12	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:53	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:53	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 21:04	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 21:04	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1.80**		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Jun-14 15:35

ANALYTICAL RESULTS

Lab Number: 1406042-09
Sample Name: ECMW #15
Date/Time Collected: 6/4/14 8:10
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**12.4**		6/5/14 14:35	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**1.74**		6/5/14 14:35	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 10:57	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 10:57	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	**0.0122**		6/11/14 21:07	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 21:07	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406042-10
Sample Name: ECMW #14
Date/Time Collected: 6/4/14 7:50
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**54.2**		6/5/14 15:46	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**4.31**		6/5/14 15:46	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 11:13	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 11:13	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 21:10	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 21:10	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Jun-14 15:35

ANALYTICAL RESULTS

Lab Number: 1406042-11
Sample Name: DUP
Date/Time Collected: 6/4/14 0:00
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**11.4**		6/5/14 16:58	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	**10.4**		6/5/14 16:58	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 11:16	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 11:16	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 21:27	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 21:27	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1.18**		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1406042-12
Sample Name: Field Blank
Date/Time Collected: 6/4/14 0:00
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	< 0.500		6/5/14 16:09	A406065	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		6/5/14 16:09	A406065	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.021		6/12/14 11:20	A406095	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.016		6/12/14 11:20	A406095	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		6/11/14 21:30	A406103	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		6/11/14 21:30	A406103	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		6/5/14 7:47	A406046	4500-NH3 B,D,C-1997

12 June 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Jun-14 15:35

QUALITY CONTROL RESULTS

Wet Chemistry -- Batch: A406046 (Water)
Prepared: 05-Jun-14 07:47 By: KP -- Analyzed: 05-Jun-14 07:47 By: RJH

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.50 mg/L	107% / NA	118% / 126%		5.40%	

Anions -- Batch: A406065 (Water)
Prepared: 05-Jun-14 10:21 By: MB -- Analyzed: 05-Jun-14 18:33 By: Mel

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Nitrate as N	<0.250 mg/L	98.7% / NA	107% / 107%		0.409%	
Sulfate as SO4	<0.500 mg/L	104% / NA	110% / 110%		0.0724%	

Dissolved Metals -- Batch: A406095 (Water)
Prepared: 09-Jun-14 12:07 By: ST -- Analyzed: 12-Jun-14 10:31 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.021 mg/L	99.4% / NA	102% / 101%		0.919%	
Lead	<0.016 mg/L	100% / NA	102% / 101%		0.778%	

Total Metals -- Batch: A406103 (Water)
Prepared: 06-Jun-14 10:25 By: ST -- Analyzed: 11-Jun-14 20:41 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.0104 mg/L	97.5% / NA	99.4% / 97.7%		1.68%	
Lead	<0.0156 mg/L	96.8% / NA	98.1% / 96.1%		2.01%	

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

Arkansas Analytical Inc.

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION	Project Description	Turnaround Time
El Dorado Chemical Inc.	El Dorado Chemical Inc.	Groundwater Samples	1 Day (100%)
4500 Northwest Ave.	P.O. Box 231		2 Day (50%)
El Dorado, AR 71731	El Dorado, AR 71731	Reporting Information	3 Day (25%)
		Telephone: 870-863-1484	5 Day (Routine)
Attn: David Sartain		Fax: 870-863-1499	Preservative Code:
		Email: dsartain@edc-ark.com; browe@edc-ark.com; lmarcella@env-mgt.com	Bottle Type:

Preservation Codes:
1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid(HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Sampler(s) Signature: R. Durham EMS Inc

Sampler(s) Printed: R. DURHAM EMS INC

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	TEST PARAMETERS: Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb						Arkansas Analytical Work Order Number:
							Bottle Type Code: G = Glass; P = Plastic; V = Septum; A = Amber										
							Preservative Code:	1	1,2	1	1,3						
1	6-4-14	0725	X		4	Water	ECMW-13	X	X	X	X						01
2	"	1035	X		4	Water	ECMW-21	X	X	X	X						02
3	"	1015	X		4	Water	ECMW-20	X	X	X	X						03
4	"	0955	X		4	Water	ECMW-19	X	X	X	X						04
5	"	0925	X		4	Water	ECMW-18	X	X	X	X						05
6	"	0905	X		4	Water	ECMW-17	X	X	X	X						06
7	"	0845	X		4	Water	ECMW-22	X	X	X	X						07
8	"	0830	X		4	Water	ECMW-16	X	X	X	X						08
9	"	0810	X		4	Water	ECMW-15	X	X	X	X						09
10	"	0750	X		4	Water	ECMW-14	X	X	X	X						10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
R. Durham	6-4-14 1115	Robbie Cameron
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
Robbie Cameron	6/4/14. 1535	Sydney James

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS:	✓ Yes	___ No
2. CONTAINERS CORRECT:	___ Yes	___ No
3. COC/LABELS AGREE:	___ Yes	___ No
4. RECEIVED ON ICE:	___ Yes	___ No
5. TEMPERATURE ON RECEIPT:	13°C	
6. TEMPERATURE GUN ID:	HTT#2	

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

Revision 2
2/14/14

Arkansas Analytical Inc.

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION	Project Description	Turnaround Time
El Dorado Chemical Inc.	El Dorado Chemical Inc.	Groundwater Samples	1 Day (100%)
4500 Northwest Ave.	P.O. Box 231		2 Day (50%)
El Dorado, AR 71731	El Dorado, AR 71731	Reporting Information	3 Day (25%)
		Telephone: 870-863-1484	5 Day (Routine)
Attn: David Sartain		Fax: 870-863-1499	Preservative Code:
		Email: dsartain@edc-ark.com; browe@edc-ark.com; lmarcella@env-mgt.com	Bottle Type:

Preservation Codes:
1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid(HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Sampler(s) Signature: L. Durham

Sampler(s) Printed: P. DURHAM

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb						Arkansas Analytical Work Order Number:
							TEST PARAMETERS	1	1,2	1	1,3						Bottle Type Code
								P	P	P	P						G = Glass; P = Plastic; V = Septum; A = Amber
11	6-4-14		X		4	Water	ECMW- DUP	X	X	X	X						11
12	6-4-14		X		4	Water	ECMW- FIELD BLANK	X	X	X	X						12
			X		4	Water	ECMW-	X	X	X	X						
			X		4	Water	ECMW-	X	X	X	X						
			X		4	Water	ECMW-	X	X	X	X						
			X		4	Water	ECMW-	X	X	X	X						
			X		4	Water	ECMW-	X	X	X	X						
			X		4	Water	ECMW-	X	X	X	X						
			X		4	Water	ECMW-	X	X	X	X						
			X		4	Water	ECMW-	X	X	X	X						

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
L. Durham	6-4-14 1115	Bobbie Caldwell
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
Bobbie Caldwell	6/4/14. 1535	Sydney Johns

SAMPLE CONDITION UPON RECEIPT IN LAB		
1. CUSTODY SEALS:	✓ Yes	No
2. CONTAINERS CORRECT:	Yes	No
3. COC/LABELS AGREE:	Yes	No
4. RECEIVED ON ICE:	Yes	No
5. TEMPERATURE ON RECEIPT:	13°C	
6. TEMPERATURE GUN ID:	HHT #2	
FOR COMPLETION BY LAB ONLY		

REMARKS / SAMPLE COMMENTS

Revision 2
2/14/14

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-19
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-4-14 1325	Method of Evacuation	ELEC. PUMP
Top of casing to water level	4.71 ft	Gallons per well volume	9.2
Top of casing to bottom	61.5 ft	Total gallons evacuated	28.2
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 0925	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso	Oxygen[mg/l]	Turbidity [NT
19.3	5.19	86.6 us			
18.6	5.13	75.2 us			
18.5	5.05	80.6 us			

GENERAL INFORMATION

Weather conditions at time of sampling: COOL/RAINY
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-18
Colle.. : : R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-4-14 1300	Method of Evacuation	ELEC. PUMP
Top of casing to water level	6.68 ft	Gallons per well volume	6.8
Top of casing to bottom	17.20 ft	Total gallons evacuated	20.4
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 0910	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss. Oxygen[mg/l]	Turbidity [NT
20.3	4.31	73.8 us		
20.2	4.76	75.3 us		
20.3	4.71	74. us		

GENERAL INFORMATION

Weather conditions at time of sampling: COOL / RAIN
Sample characteristics: CLOUDY
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-[illegible]
Colle[illegible] R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-4-14 1230	Method of Evacuation	ELEC. PUMP
Top of casing to water level	29.83 ft	Gallons per well volume	3.98
Top of casing to bottom	54.4 ft	Total gallons evacuated	11.7
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 0950	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse	Oxygen[mg/l]	Turbidity [NT
18.7	4.07	42.0 ms			
20.2	3.71	78.4 ms			
19.3	3.61	63.6 ms			

GENERAL INFORMATION

Weather conditions at time of sampling: COOL / RAIN
Sample characteristics: CLOUDY

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-24
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-4-14 1210	Method of Evacuation	ELEC. PUMP
Top of casing to water level	19.13 ft	Gallons per well volume	2.5
Top of casing to bottom	34.9 ft	Total gallons evacuated	7.5
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 1005	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
21.5	5.35	62.2 ms		
20.7	4.36	63.0 ms		
20.2	3.81	56.7 ms		

GENERAL INFORMATION

Weather conditions at time of sampling: Clear / RAIN
Sample characteristics:
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-14
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1400	Method of Evacuation	ELEC. PUMP
Top of casing to water level	10.19 ft	Gallons per well volume	5.2
Top of casing to bottom	18.2 ft	Total gallons evacuated	15.6
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 0810	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss... Oxygen[mg/l]	Turbidity [NT
21.9	4.32	558 µS		
22.2	4.16	429.4 µs		
22.1	4.09	401.6 µs		

GENERAL INFORMATION

Weather conditions at time of sampling: Cool / RAIN
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EGMW-15 + DUP
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1415	Method of Evacuation	ELEC. PUMP
Top of casing to water level	7.02 ft	Gallons per well volume	6.5
Top of casing to bottom	17.00 ft	Total gallons evacuated	25.5
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 0820	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
21.3	2.87	77.8 ms		
21.8	2.72	75.6 ms		
21.7	2.75	70.5 ms		

GENERAL INFORMATION

Weather conditions at time of sampling: RAIN/COOL
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMWS-16
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1425	Method of Evacuation	ELEC. PUMP
Top of casing to water level	6.81 ft	Gallons per well volume	8.1
Top of casing to bottom	19.3 ft	Total gallons evacuated	24.3
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 0845	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss... Oxygen[mg/l]	Turbidity [NT
21.5	2.78	136.9 mS		
22.0	2.65	135.6 mS		
22.3	2.64	135.5 mS		

GENERAL INFORMATION

Weather conditions at time of sampling: COOL / RAIN
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EGMW-22
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-5-14 1435	Method of Evacuation	ELEC. PUMP
Top of casing to water level	9.06 ft	Gallons per well volume	11.3
Top of casing to bottom	79.8 ft	Total gallons evacuated	33.9
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-5-14 1020	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss... Oxygen[mg/l]	Turbidity [NT
19.2	4.34	134.7		
18.9	4.37	129.6		
19.0	4.42	132.5		

GENERAL INFORMATION

Weather conditions at time of sampling: COOL/RAIN
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-17
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1450		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	30.01	ft	Gallons per well volume	3.0	
Top of casing to bottom	34.7	ft	Total gallons evacuated	9.0	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	11-5-14 0855		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss... Oxygen[mg/l]	Turbidity [NT
18.8	3.01	228.2 us		
18.6	2.74	241.8 us		
18.5	2.73	228.6 us		

GENERAL INFORMATION

Weather conditions at time of sampling: COOL/RAIN
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-13
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1500	Method of Evacuation	ELEC. PUMP
Top of casing to water level	7.42 ft	Gallons per well volume	8.0
Top of casing to bottom	19.8 ft	Total gallons evacuated	24.0
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time		Elevation of well water	
Top of casing to water level	11-5-14 0745 ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
19.5	3.89	1215 us		
20.0	3.96	1248 us		
20.7	4.03	1241 us		

GENERAL INFORMATION

Weather conditions at time of sampling: Clear/RAIN
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-12
Colle.. R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1545	Method of Evacuation	ELEC. PUMP
Top of casing to water level	6.70 ft	Gallons per well volume	8.6
Top of casing to bottom	19.9 ft	Total gallons evacuated	25.8
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-[illegible]-14 1025	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso	Oxygen[mg/l]	Turbidity [NT
21.4	4.61	641 us			
21.6	4.53	630 us			
22.2	4.53	625 us			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/COOL
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-10
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1535	Method of Evacuation	ELEC. PUMP
Top of casing to water level	15.32 ft	Gallons per well volume	4.7
Top of casing to bottom	22.6 ft	Total gallons evacuated	14.1
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-4-14 1005	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
20.5	3.46	752 us		
20.7	3.14	682 us		
28.9	3.07	675 us		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/COOL
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ELMW-11
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-5-14 1515		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	12.21	ft	Gallons per well volume	4.9	
Top of casing to bottom	19.8	ft	Total gallons evacuated	14.7	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	11-4-14 1015		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[uS]	Disso	Oxygen[mg/l]	Turbidity [NT
20.9	3.69	742 uS			
21.6	3.21	720 uS			
20.5	3.08	655 uS			

GENERAL INFORMATION

Weather conditions at time of sampling: COOL / RAIN
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-9
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-94 1135	Method of Evacuation	ELEC. PUMP
Top of casing to water level	12.10 ft	Gallons per well volume	11.6
Top of casing to bottom	30.0 ft	Total gallons evacuated	34.8
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-4-94 0955	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
20.0	4.75	2557 us		
19.3	4.82	2128 us		
18.9	4.81	2114 us		

GENERAL INFORMATION

Weather conditions at time of sampling: COOL / CLEAR
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-8
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1120	Method of Evacuation	ELEC. PUMP
Top of casing to water level	8.59 ft	Gallons per well volume	13.8
Top of casing to bottom	29.9 ft	Total gallons evacuated	41.4
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-4-14 0940	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
19.5	3.45	20.70 MS		
19.7	3.16	20.04 MS		
19.2	3.09	20.03 MS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/Cool
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-7
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1110	Method of Evacuation	ELEC. PUMP
Top of casing to water level	9.03 ft	Gallons per well volume	9.7
Top of casing to bottom	23.9 ft	Total gallons evacuated	29.1
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-3-14 0225	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss.. Oxygen[mg/l]	Turbidity [NT
19.7	5.50	29.3 MS		
20.3	4.76	21.62 MS		
20.6	4.56	19.28 MS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/COOL
Sample characteristics:

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-1
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1055		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	14.87	ft	Gallons per well volume	7.8	
Top of casing to bottom	22.1	ft	Total gallons evacuated	23.4	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	11-4-14 0915		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss.. Oxygen[mg/l]	Turbidity [NT
17.9	5.11	77.2 µS		
18.2	4.22	52.5 µS		
18.7	3.97	47.5 µS		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/COOL
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-2
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 1040	Method of Evacuation	ELEC. PUMP
Top of casing to water level	1.44 ft	Gallons per well volume	12.2
Top of casing to bottom	20.2 ft	Total gallons evacuated	36.6
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-4-14 0900	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Diss... Oxygen[mg/l]	Turbidity [NT
18.2	4.82	415.0 us		
18.2	4.76	335.1 us		
18.2	4.45	325.5 us		

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/COOL
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-3
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 10:20		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	12.15	ft	Gallons per well volume	9.7	
Top of casing to bottom	27.1	ft	Total gallons evacuated	29.1	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	11-4-14 0830		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso... Oxygen[mg/l]	Turbidity [NT
18.5	5.16	494.8 ms		
18.3	5.12	259.4 ms		
18.6	4.97	249.3 ms		

GENERAL INFORMATION

Weather conditions at time of sampling:
Sample characteristics:
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-4 +DUP
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11.3.14 1005		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	9.28	ft	Gallons per well volume	7.9	
Top of casing to bottom	22.1	ft	Total gallons evacuated	23.7	
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	11-4-14 0825		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse	Oxygen[mg/l]	Turbidity [NT
19.8	3.29	7.25 MS			
20.2	3.16	6.86 MS			
20.9	3.01	6.81 MS			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/COOL
Sample characteristics: CLEAR

Containers and preservatives:

Comments and observations:

Recommendations:

Certification:
K. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-6
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 0950	Method of Evacuation	ELEC. PUMP
Top of casing to water level	6.88 ft	Gallons per well volume	9.8
Top of casing to bottom	22.00 ft	Total gallons evacuated	29.4
Water level after evacuation	ft	Elevation, Top of casing	
Sampling: Date/Time	11-4-14 0815	Elevation of well water	
Top of casing to water level	ft	Method of Sampling	PVC BAILER

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disso	Oxygen[mg/l]	Turbidity [NT
20.2	3.37	28.46 MS			
20.8	3.29	27.31 MS			
20.7	3.29	27.94 MS			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR / COOL
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW 5
Colle... R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time	11-3-14 0930		Method of Evacuation	ELEC. PUMP	
Top of casing to water level	4.61	ft	Gallons per well volume		
Top of casing to bottom	17.7	ft	Total gallons evacuated		
Water level after evacuation		ft	Elevation, Top of casing		
Sampling: Date/Time	11-4-14 0805		Elevation of well water		
Top of casing to water level		ft	Method of Sampling	PVC BAILER	

SAMPLE D.

Temperature[°C]	pH	Conductivity[µS]	Disse	Oxygen[mg/l]	Turbidity [NT
~~4.4~~ 20.1	~~20.14.45~~	505 ms			
20.5	3.99	501 ms			
20.7	4.13	510 ms			

GENERAL INFORMATION

Weather conditions at time of sampling: CLEAR/COOL
Sample characteristics: CLEAR
Containers and preservatives:
Comments and observations:
Recommendations:

Certification:
R. Durham

Well Casing Volumes [gal/ft]			
1 1/4"=0.077	2"=0.16	3"=0.37	4"=0.65
1 1/2"=0.10	2 1/2"=0.24	3 1/2"=0.50	6"=1.46

FIGUI

Arkansas Analytical Inc.

11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731

RE: Groundwater Sample(s)

SDG Number: 1411035

Enclosed are the results of analyses for samples received by the laboratory on 04-Nov-14 16:05. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	11.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

ANALYTICAL RESULTS

Lab Number: 1411035-01
Sample Name: ECMW #1
Date/Time Collected: 11/4/14 9:15
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**6.29**		11/5/14 12:30	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**0.674**		11/5/14 12:30	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 11:37	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 11:37	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 12:59	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 12:59	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411035-02
Sample Name: ECMW #2
Date/Time Collected: 11/4/14 9:00
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**21.9**		11/5/14 12:54	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**0.635**		11/5/14 12:54	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 11:40	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 11:40	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:02	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:02	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

ANALYTICAL RESULTS

Lab Number: 1411035-03
Sample Name: ECMW #3
Date/Time Collected: 11/4/14 8:30
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**12.8**		11/7/14 15:00	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**0.239**		11/5/14 13:17	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 11:44	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 11:44	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:05	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:05	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411035-04
Sample Name: ECMW #4
Date/Time Collected: 11/4/14 8:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**772**		11/7/14 15:23	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**1.29**		11/5/14 13:41	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 11:47	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 11:47	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:09	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:09	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1.31**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

ANALYTICAL RESULTS

Lab Number: 1411035-05
Sample Name: ECMW #5
Date/Time Collected: 11/4/14 8:05
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**55.6**		11/5/14 14:04	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**43.4**		11/5/14 14:04	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 11:50	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 11:50	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:12	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:12	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1.00**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411035-06
Sample Name: ECMW #6
Date/Time Collected: 11/4/14 8:15
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**33.7**		11/7/14 15:47	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**3550**		11/5/14 14:28	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 11:53	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	**0.031**		11/7/14 11:53	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:15	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	**0.0360**		11/7/14 13:15	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1110**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

ANALYTICAL RESULTS

Lab Number: 1411035-07
Sample Name: ECMW #7
Date/Time Collected: 11/4/14 9:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**816**		11/5/14 14:52	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**99.6**		11/5/14 14:52	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 12:10	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 12:10	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:18	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:18	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**77.0**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411035-08
Sample Name: ECMW #8
Date/Time Collected: 11/4/14 9:40
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**466**		11/5/14 15:15	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**697**		11/5/14 15:15	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 12:13	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 12:13	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:22	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:22	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**198**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

ANALYTICAL RESULTS

Lab Number: 1411035-09
Sample Name: ECMW #9
Date/Time Collected: 11/4/14 9:55
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**484**		11/5/14 15:39	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**37.6**		11/5/14 15:39	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 12:16	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 12:16	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:25	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:25	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**4.61**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411035-10
Sample Name: ECMW #10
Date/Time Collected: 11/4/14 10:05
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**172**		11/5/14 16:02	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**39.8**		11/5/14 16:02	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 12:20	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 12:20	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:41	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:41	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

ANALYTICAL RESULTS

Lab Number: 1411035-11
Sample Name: ECMW #11
Date/Time Collected: 11/4/14 10:15
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**117**		11/5/14 17:28	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**30.5**		11/5/14 17:28	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 12:23	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 12:23	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:44	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:44	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**13.9**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411035-12
Sample Name: ECMW #12
Date/Time Collected: 11/4/14 10:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**20.6**		11/7/14 14:10	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		11/5/14 17:52	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 12:26	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 12:26	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:48	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:48	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**2.15**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

ANALYTICAL RESULTS

Lab Number:	**1411035-13**
Sample Name:	**DUP**
Date/Time Collected:	**11/4/14 12:00**
Sample Matrix:	**Water**

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**762**		11/7/14 14:34	A411047	300.0, 2.1-1993
Nitrate as N	mg/L	**4.24**		11/5/14 18:15	A411047	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 12:29	A411065	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 12:29	A411065	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 13:51	A411066	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 13:51	A411066	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1.31**		11/7/14 15:39	A411078	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 04-Nov-14 16:05

QUALITY CONTROL RESULTS

Anions -- Batch: A411047 (Water)
Prepared: 05-Nov-14 11:55 By: MB -- Analyzed: 05-Nov-14 23:21 By: Mel

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Nitrate as N	<0.250 mg/L	101% / NA	94.4% / 92.6%		1.85%	
Sulfate as SO4	<0.500 mg/L	100% / NA	106% / 104%		1.12%	

Dissolved Metals -- Batch: A411065 (Water)
Prepared: 06-Nov-14 11:45 By: ST -- Analyzed: 07-Nov-14 11:34 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.020 mg/L	96.1% / NA	94.8% / 94.1%		0.755%	
Lead	<0.015 mg/L	100% / NA	97.5% / 96.7%		0.879%	

Total Metals -- Batch: A411066 (Water)
Prepared: 06-Nov-14 11:47 By: ST -- Analyzed: 07-Nov-14 12:55 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.0104 mg/L	101% / NA	98.8% / 95.5%		3.43%	
Lead	<0.0156 mg/L	106% / NA	102% / 98.9%		2.79%	

Wet Chemistry -- Batch: A411078 (Water)
Prepared: 07-Nov-14 09:20 By: KP -- Analyzed: 07-Nov-14 15:39 By: KP

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.50 mg/L	102% / NA	103% / 101%		2.39%	

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

Arkansas Analytical Inc.
11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION	Project Description	Turnaround Time
El Dorado Chemical Inc.	El Dorado Chemical Inc.	Groundwater Samples	1 Day (100%)
4500 Northwest Ave.	P.O. Box 231		2 Day (50%)
El Dorado, AR 71731	El Dorado, AR 71731	Reporting Information	3 Day (25%)
		Telephone: 870-863-1484	5 Day (Routine) (circled)
Attn: David Sartain		Fax: 870-863-1499	
		Email: dsartain@edc-ark.com; tmarcella@env-mgt.com	

Preservation Codes:
1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid (HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Bottle Type Code: G = Glass; P = Plastic; V = Septum; A = Amber

Sampler(s) Signature: R. Durham EMS Inc
Sampler(s) Printed: R. DURHAM EMS Inc

Arkansas Analytical Work Order Number: 1411035

Field Number	Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	Sample Identification/ Description	Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb						Work Order
Preservative Code:								1	1,2	1	1,3						
Bottle Type:								P	P	P	P						
1	11-4-14	0915	X		4	Water	ECMW-1	X	X	X	X						01
2		0900	X		4	Water	ECMW-2	X	X	X	X						02
3		0830	X		4	Water	ECMW-3	X	X	X	X						03
4		0825	X		4	Water	ECMW-4	X	X	X	X						04
5		0805	X		4	Water	ECMW-5	X	X	X	X						05
6		0815	X		4	Water	ECMW-6	X	X	X	X						06
7		0925	X		4	Water	ECMW-7	X	X	X	X						07
8		0940	X		4	Water	ECMW-8	X	X	X	X						08
9		0955	X		4	Water	ECMW-9	X	X	X	X						09
10		1005	X		4	Water	ECMW-10	X	X	X	X						10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
R. Durham EMS	11-4-14 1130	Parrish
3. Relinquished by: (Signature)	**Date/Time**	**4. Received by lab: (Signature)**
Parrish	11-4-14 1605	Amanda Parish

SAMPLE CONDITION UPON RECEIPT IN LAB
1. CUSTODY SEALS: ✓ Yes ___ No
2. CONTAINERS CORRECT: ✓ Yes ___ No
3. COC/LABELS AGREE: ✓ Yes ___ No
4. RECEIVED ON ICE: ✓ Yes ___ No
5. TEMPERATURE ON RECEIPT: 11°C
6. TEMPERATURE GUN ID: HH T-12

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

Revision 2
2/14/14

Arkansas Analytical Inc.

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION	Project Description	Turnaround Time
El Dorado Chemical Inc.	El Dorado Chemical Inc.	Groundwater Samples	1 Day (100%)
4500 Northwest Ave.	P.O. Box 231		2 Day (50%)
El Dorado, AR 71731	El Dorado, AR 71731	Reporting Information	3 Day (25%)
		Telephone: 870-863-1484	5 Day (Routine)
Attn: David Sartain		Fax: 870-863-1499	Preservative Code:
		Email: dsartain@edc-ark.com; tmarcella@env-mgt.com	Bottle Type:

Preservation Codes:

1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid(HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Sampler(s) Signature:

Sampler(s) Printed:

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	TEST PARAMETERS: Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb						Bottle Type Code (G = Glass; P = Plastic; V = Septum; A = Amber)	Arkansas Analytical Work Order Number: 1411035
								1	1,2	1	1,3							
								P	P	P	P							
11	11-4-14	1015	X		4	Water	ECMW- 11	X	X	X	X						11	
12	"	~~1025~~ 1035	X		4	Water	ECMW- ~~DUP~~ 12	X	X	X	X						12	
13		12:00	X		4	Water	ECMW- DUP	X	X	X	X						13	
			X		4	Water	ECMW-	X	X	X	X							
			X		4	Water	ECMW-	X	X	X	X							
			X		4	Water	ECMW-	X	X	X	X							
			X		4	Water	ECMW-	X	X	X	X							
			X		4	Water	ECMW-	X	X	X	X							
			X		4	Water	ECMW-	X	X	X	X							
			X		4	Water	ECMW-	X	X	X	X							

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
		Parrish
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
Parrish	11-4-14 1605	Amanda Tabarish

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS:	✓ Yes	No
2. CONTAINERS CORRECT:	Yes	No
3. COC/LABELS AGREE:	Yes	No
4. RECEIVED ON ICE:	Yes	No
5. TEMPERATURE ON RECEIPT:	11°c	
6. TEMPERATURE GUN ID:	HHTT#2	

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

Arkansas Analytical Inc.

11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731

RE: Groundwater Sample(s)

SDG Number: 1411046

Enclosed are the results of analyses for samples received by the laboratory on 05-Nov-14 14:15. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✔
Containers Correct	✔
COC/Labels Agree	✔
Received On Ice	✔
Temperature on Receipt	9.0°C

Sincerely,

Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 05-Nov-14 14:15

ANALYTICAL RESULTS

Lab Number: 1411046-01
Sample Name: ECMW #13
Date/Time Collected: 11/5/14 7:45
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**425**		11/7/14 16:58	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		11/6/14 8:59	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:27	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:27	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 15:33	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 15:33	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411046-02
Sample Name: ECMW #14
Date/Time Collected: 11/5/14 8:00
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**98.3**		11/6/14 9:23	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**5.12**		11/6/14 9:23	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:30	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:30	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 15:36	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 15:36	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 05-Nov-14 14:15

ANALYTICAL RESULTS

Lab Number: 1411046-03
Sample Name: ECMW #15
Date/Time Collected: 11/5/14 8:20
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**9.58**		11/6/14 9:46	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**3.07**		11/6/14 9:46	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:33	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:33	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 15:39	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 15:39	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411046-04
Sample Name: ECMW #16
Date/Time Collected: 11/5/14 8:45
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**11.2**		11/6/14 10:10	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**9.20**		11/6/14 10:10	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:37	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:37	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 15:42	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 15:42	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**1.27**		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 05-Nov-14 14:15

ANALYTICAL RESULTS

Lab Number: 1411046-05
Sample Name: ECMW #17
Date/Time Collected: 11/5/14 8:55
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**34.3**		11/6/14 10:33	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**7.50**		11/6/14 10:33	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:41	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:41	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 15:59	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 15:59	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**3.46**		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411046-06
Sample Name: ECMW #18
Date/Time Collected: 11/5/14 9:10
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**2.64**		11/6/14 10:57	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**0.254**		11/6/14 10:57	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:44	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:44	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 16:02	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 16:02	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 05-Nov-14 14:15

ANALYTICAL RESULTS

Lab Number: 1411046-07
Sample Name: ECMW #19
Date/Time Collected: 11/5/14 9:25
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**2.97**		11/6/14 11:20	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		11/6/14 11:20	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:47	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:47	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 16:05	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 16:05	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411046-08
Sample Name: ECMW #20
Date/Time Collected: 11/5/14 9:50
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**9.87**		11/6/14 12:31	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**0.262**		11/6/14 12:31	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:50	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:50	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 16:08	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 16:08	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 05-Nov-14 14:15

ANALYTICAL RESULTS

Lab Number: 1411046-09
Sample Name: ECMW #21
Date/Time Collected: 11/5/14 10:05
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**5.25**		11/6/14 12:55	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**1.62**		11/6/14 12:55	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:54	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:54	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 16:12	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 16:12	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411046-10
Sample Name: ECMW #22
Date/Time Collected: 11/5/14 10:20
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**5.66**		11/6/14 14:05	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**2.58**		11/6/14 14:05	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 14:57	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 14:57	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 16:15	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 16:15	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	**0.61**		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 05-Nov-14 14:15

ANALYTICAL RESULTS

Lab Number: 1411046-11
Sample Name: DUP
Date/Time Collected: 11/5/14 12:00
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	**9.66**		11/6/14 14:29	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	**2.92**		11/6/14 14:29	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 15:13	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 15:13	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 16:18	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 16:18	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1411046-12
Sample Name: Field Blank
Date/Time Collected: 11/5/14 10:50
Sample Matrix: Water

Anions	Units	Result	Qualifier(s)	Date/Time Analyzed	Batch	Method
Sulfate as SO4	mg/L	< 0.500		11/6/14 14:53	A411048	300.0, 2.1-1993
Nitrate as N	mg/L	< 0.250		11/6/14 14:53	A411048	300.0, 2.1-1993
Dissolved Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.020		11/7/14 15:16	A411082	200.7, Rev. 4.4 (1994)
Lead	mg/L	< 0.015		11/7/14 15:16	A411082	200.7, Rev. 4.4 (1994)
Total Metals	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Chromium	mg/L	< 0.0104		11/7/14 16:21	A411080	200.7, Rev 4.4 (1994)
Lead	mg/L	< 0.0156		11/7/14 16:21	A411080	200.7, Rev 4.4 (1994)
Wet Chemistry	**Units**	**Result**	**Qualifier(s)**	**Date/Time Analyzed**	**Batch**	**Method**
Ammonia as N	mg/L	< 0.50		11/10/14 8:45	A411122	4500-NH3 B,D,C-1997

11 November 2014

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)

Date Received: 05-Nov-14 14:15

QUALITY CONTROL RESULTS

Anions -- Batch: A411048 (Water)
Prepared: 05-Nov-14 16:50 By: MB -- Analyzed: 06-Nov-14 16:03 By: Mel

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Nitrate as N	<0.250 mg/L	98.5% / NA	107% / 107%		0.353%	
Sulfate as SO4	<0.500 mg/L	99.3% / NA	101% / 101%		0.0998%	

Total Metals -- Batch: A411080 (Water)
Prepared: 07-Nov-14 10:10 By: ST -- Analyzed: 07-Nov-14 15:29 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.0104 mg/L	98.0% / NA	95.6% / 94.4%		1.32%	
Lead	<0.0156 mg/L	103% / NA	96.5% / 95.3%		1.30%	

Dissolved Metals -- Batch: A411082 (Water)
Prepared: 07-Nov-14 10:15 By: ST -- Analyzed: 07-Nov-14 14:11 By: ST

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Chromium	<0.020 mg/L	95.8% / NA	97.1% / 95.7%		1.38%	
Lead	<0.015 mg/L	101% / NA	101% / 99.7%		1.29%	

Wet Chemistry -- Batch: A411122 (Water)
Prepared: 10-Nov-14 08:45 By: RJH -- Analyzed: 10-Nov-14 08:45 By: RJH

Analyte	BLK	LCS / LCSD	MS / MSD	Dup	RPD	Qualifiers
Ammonia as N	<0.50 mg/L	91.1% / NA	94.4% / 96.3%		2.01%	

All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins

Norma James and/or Teresa Coins
Technical Director and/or QA Officer

Arkansas Analytical Inc.

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION
El Dorado Chemical Inc.	El Dorado Chemical Inc.
4500 Northwest Ave.	P.O. Box 231
El Dorado, AR 71731	El Dorado, AR 71731
Attn: David Sartain	

Project Description: Groundwater Samples

Reporting Information
Telephone: 870-863-1484
Fax: 870-863-1499
Email: dsartain@edc-ark.com; lmarcella@env-mgt.com

Turnaround Time: 1 Day (100%) / 2 Day (50%) / 3 Day (25%) / 5 Day (Routine)

Preservation Codes:
1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid(HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Sampler(s) Signature:

Sampler(s) Printed:

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	TEST PARAMETERS: Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb	Bottle Type Code: Arkansas Analytical Work Order Number: 1411046
							Preservative Code:	1	1,2	1	1,3	
							Bottle Type:	P	P	P	P	G = Glass; P = Plastic; V = Septum; A = Amber
1	11-5-14	0745	X		4	Water	ECMW- 13	X	X	X	X	01
2		0810	X		4	Water	ECMW- 14	X	X	X	X	02
3		0820	X		4	Water	ECMW- 15	X	X	X	X	03
4		0845	X		4	Water	ECMW- 16	X	X	X	X	04
5		0855	X		4	Water	ECMW- 17	X	X	X	X	05
6		0910	X		4	Water	ECMW- 18	X	X	X	X	06
7		0925	X		4	Water	ECMW- 19	X	X	X	X	07
8		0950	X		4	Water	ECMW- 20	X	X	X	X	08
9		1005	X		4	Water	ECMW- 21	X	X	X	X	09
10		1020	X		4	Water	ECMW- 22	X	X	X	X	10

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
		Eddie P
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
Eddie CP	11-5-14 1445	Amanda Holden

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS:	Yes	No
2. CONTAINERS CORRECT:	Yes	No
3. COC/LABELS AGREE:	Yes	No
4. RECEIVED ON ICE:	Yes	No
5. TEMPERATURE ON RECEIPT:	9°C	
6. TEMPERATURE GUN ID:	HHT#1	

FOR COMPLETION BY LAB ONLY

REMARKS / SAMPLE COMMENTS

Revision 2
2/14/14

Arkansas Analytical Inc.

11701 Interstate 30, Bldg. 1, Ste. 115
Little Rock, AR 72209
PHONE: 501-455-3233
FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION	BILLING INFORMATION	Project Description	Turnaround Time
El Dorado Chemical Inc.	El Dorado Chemical Inc.	Groundwater Samples	1 Day (100%)
4500 Northwest Ave.	P.O. Box 231		2 Day (50%)
El Dorado, AR 71731	El Dorado, AR 71731	Reporting Information	3 Day (25%)
		Telephone: 870-863-1484	5 Day (Routine)
Attn: David Sartain		Fax: 870-863-1499	Preservative Code:
		Email: dsartain@edc-ark.com; lmarcella@env-mgt.com	Bottle Type:

Preservation Codes:

1. Cool, 4 Degrees Centigrade
2. Sulfuric Acid (H_2SO_4), pH < 2
3. Nitric Acid (HNO_3), pH < 2
4. Thiosulfate for Dechlorination
5. Hydrochloric Acid(HCl)
6. Sodium Hydroxide (NaOH), pH > 12

Sampler(s) Signature: R. Durham EMS Inc

Sampler(s) Printed: R. DURHAM

Field Number	SAMPLE COLLECTION Date/s	Time/s	Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	TEST PARAMETERS: Nitrate, Sulfate	Ammonia	d Cr, d Pb	Cr, Pb	Bottle Type Code (G = Glass; P = Plastic; V = Septum; A = Amber)	Arkansas Analytical Work Order Number: 1411046
								1	1,2	1	1,3		
								P	P	P	P		
11	12-5-14	1200	X		4	Water	ECMW- DUP	X	X	X	X		11
B21	1	1050	X		4	Water	ECMW- FIELD BLANK	X	X	X	X		12
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		
			X		4	Water	ECMW-	X	X	X	X		

1. Relinquished by: (Signature)	Date/Time	2. Received by: (Signature)
	11-5-14 1130	11/5/14 2:15pm
3. Relinquished by: (Signature)	Date/Time	4. Received by lab: (Signature)
	1415 11-5-14	

SAMPLE CONDITION UPON RECEIPT IN LAB

1. CUSTODY SEALS:	✓ Yes	No
2. CONTAINERS CORRECT:	Yes	No
3. COC/LABELS AGREE:	Yes	No
4. RECEIVED ON ICE:	Yes	No
5. TEMPERATURE ON RECEIPT:	9.9	
6. TEMPERATURE GUN ID:	HHT#2	

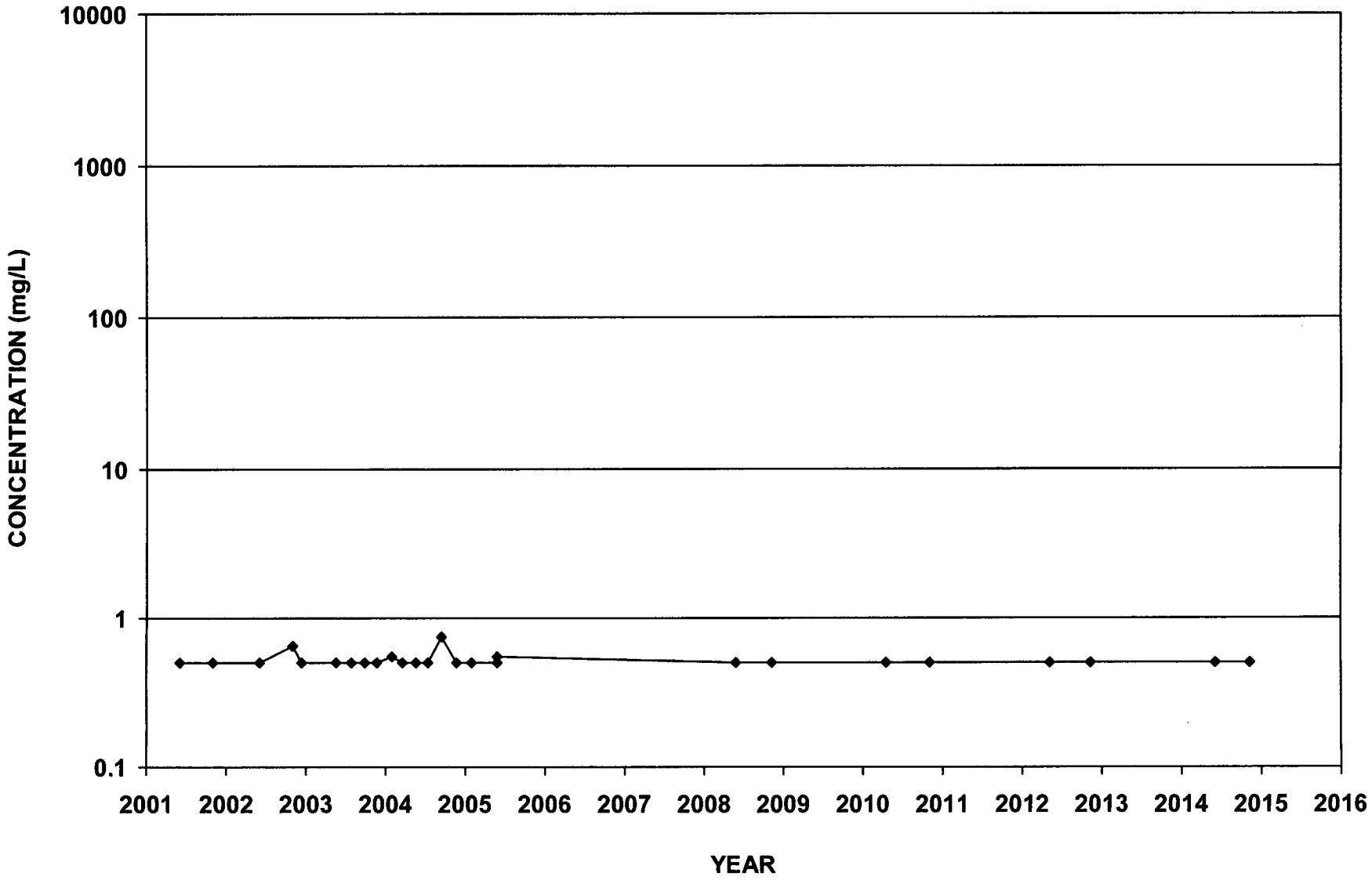
FOR COMPLETION BY LAB ONLY

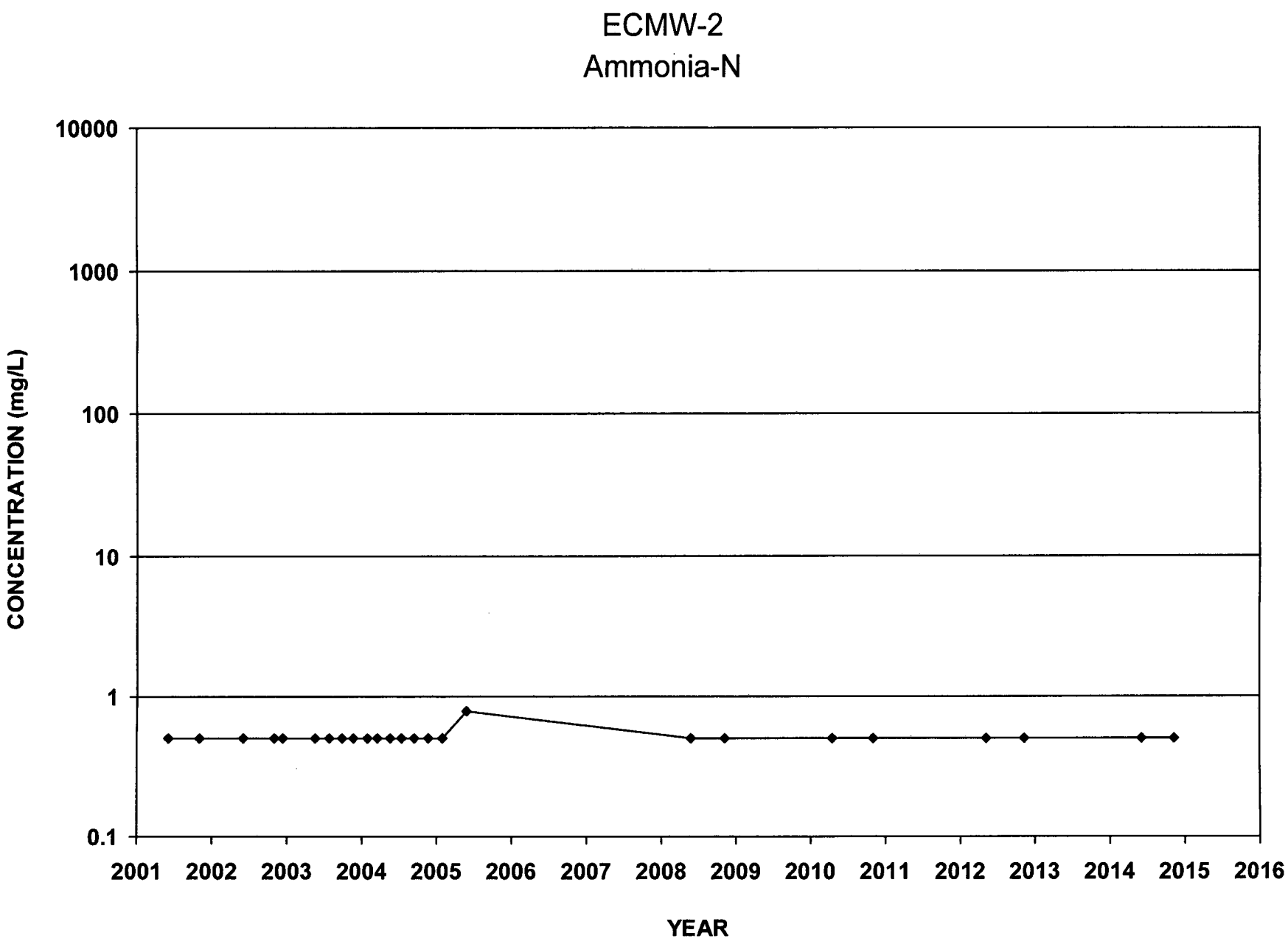
REMARKS / SAMPLE COMMENTS

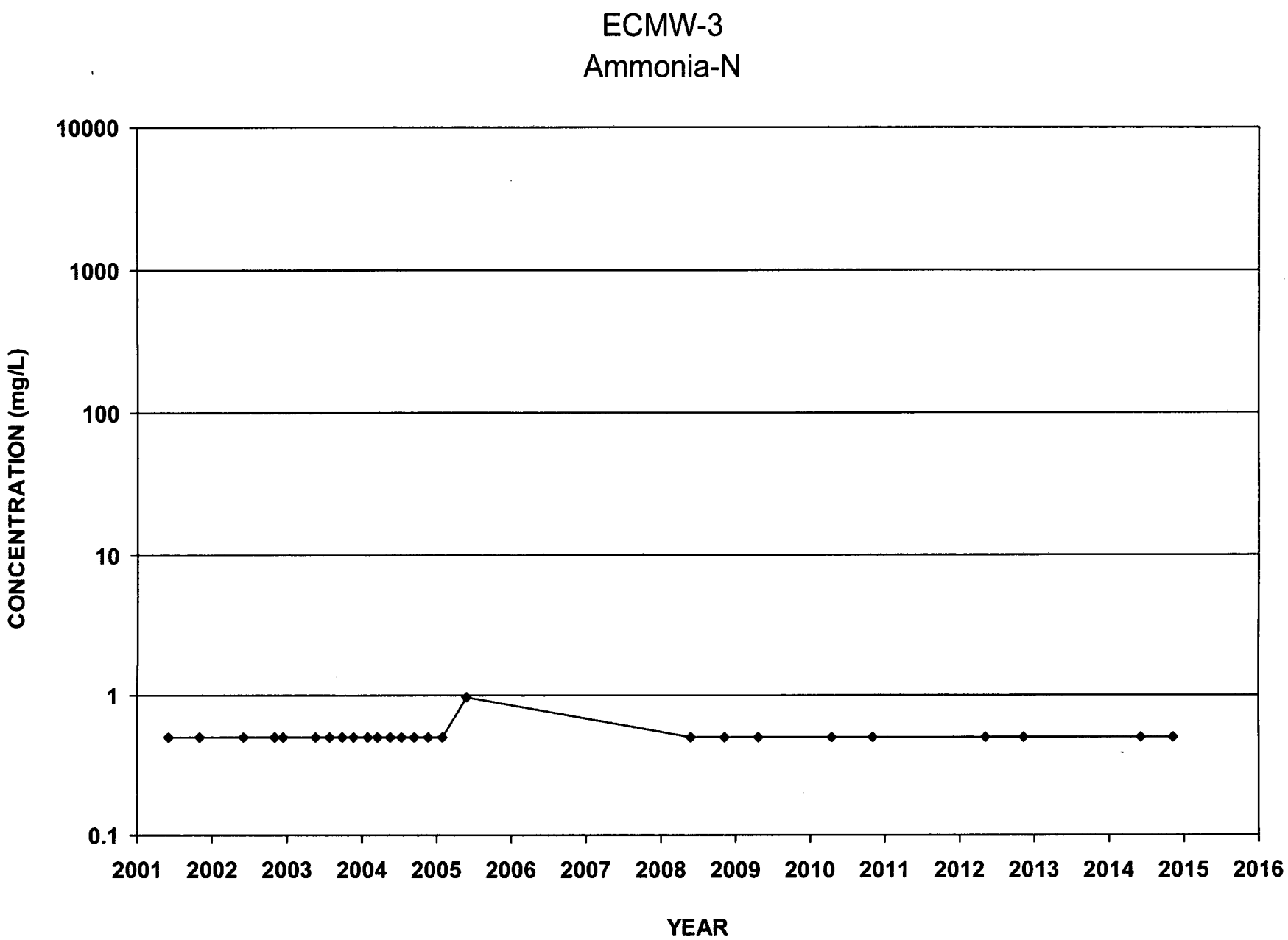
APPENDIX B

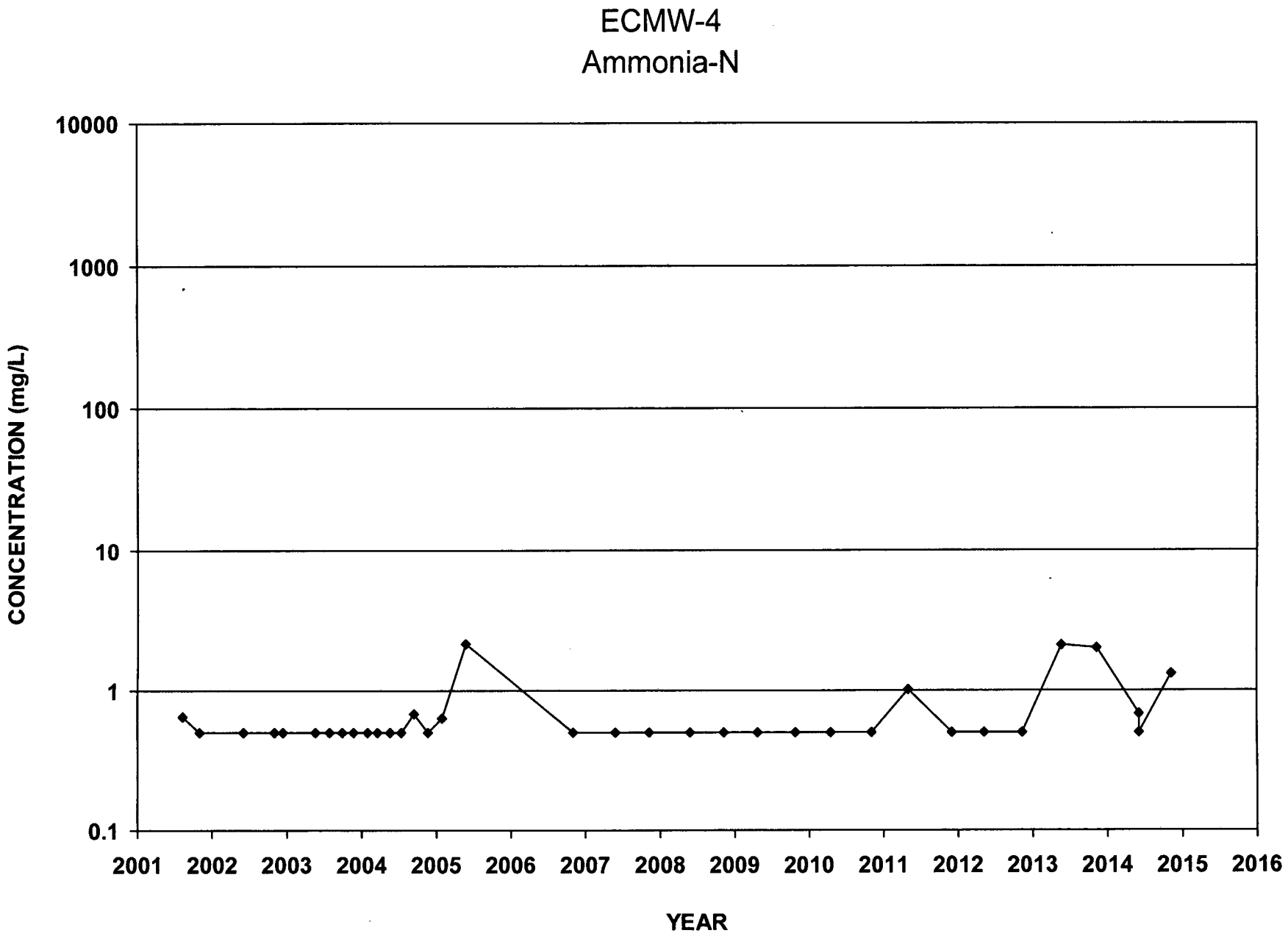
TREND GRAPHS

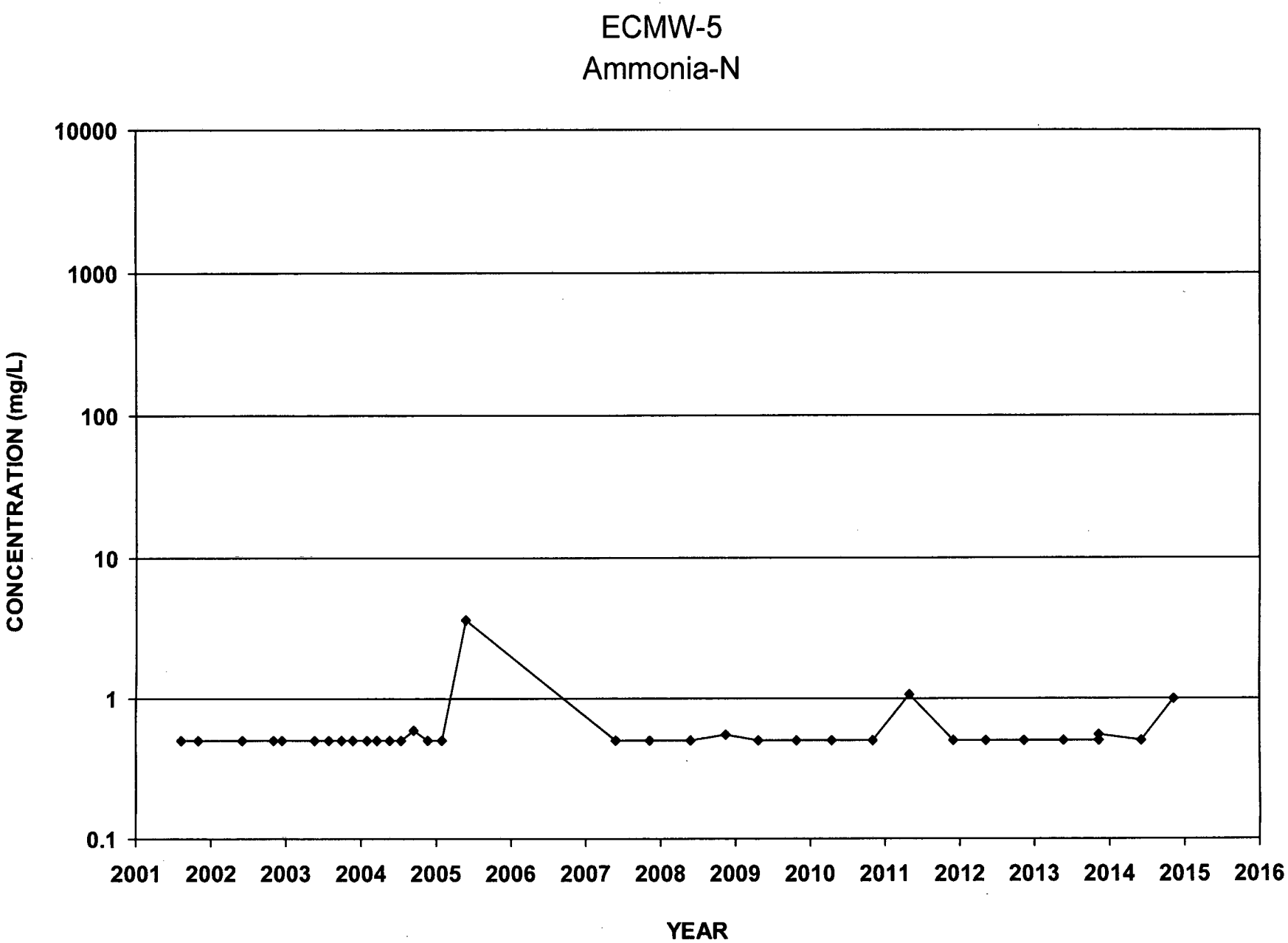
ECMW-1
Ammonia-N

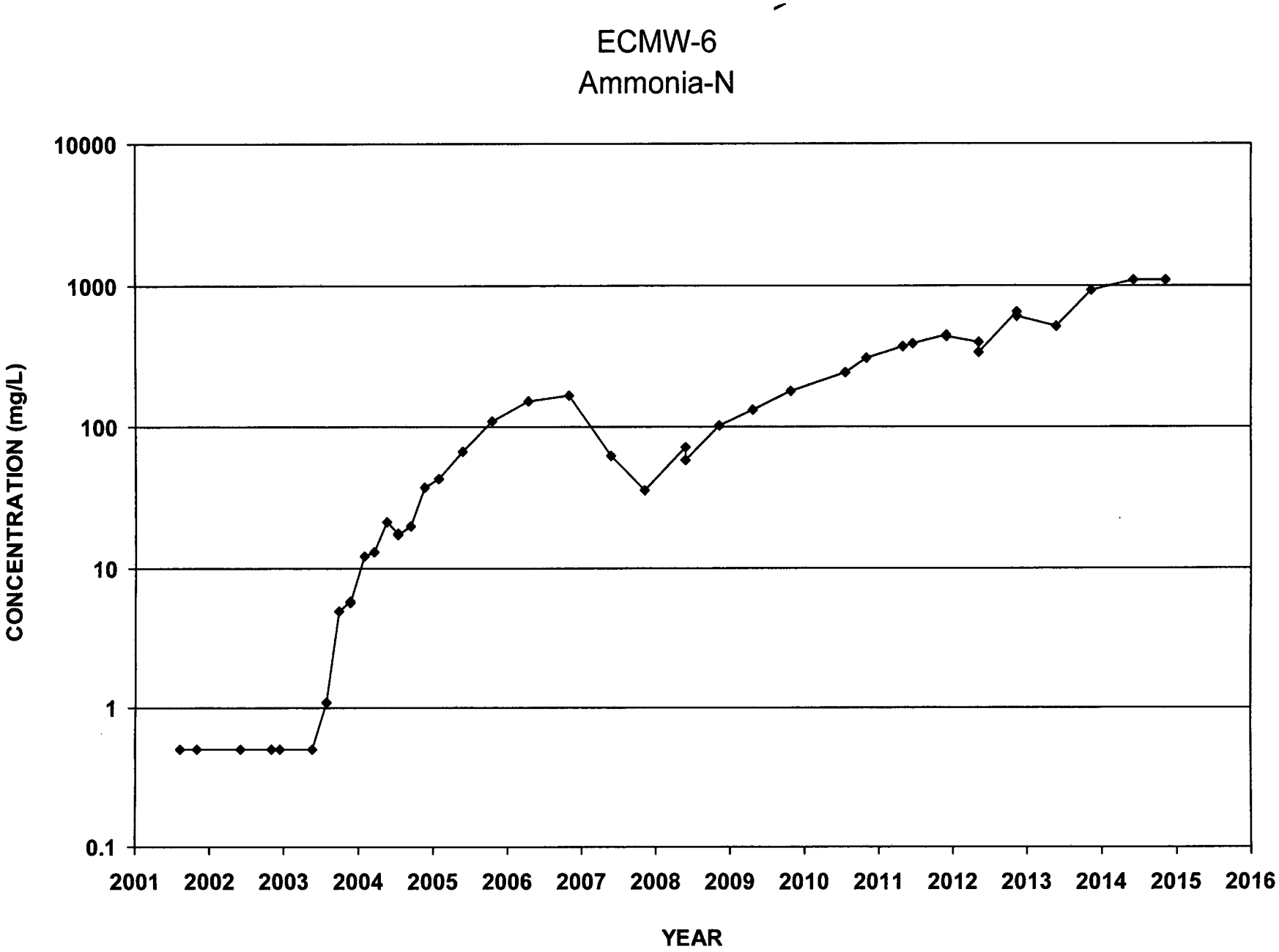


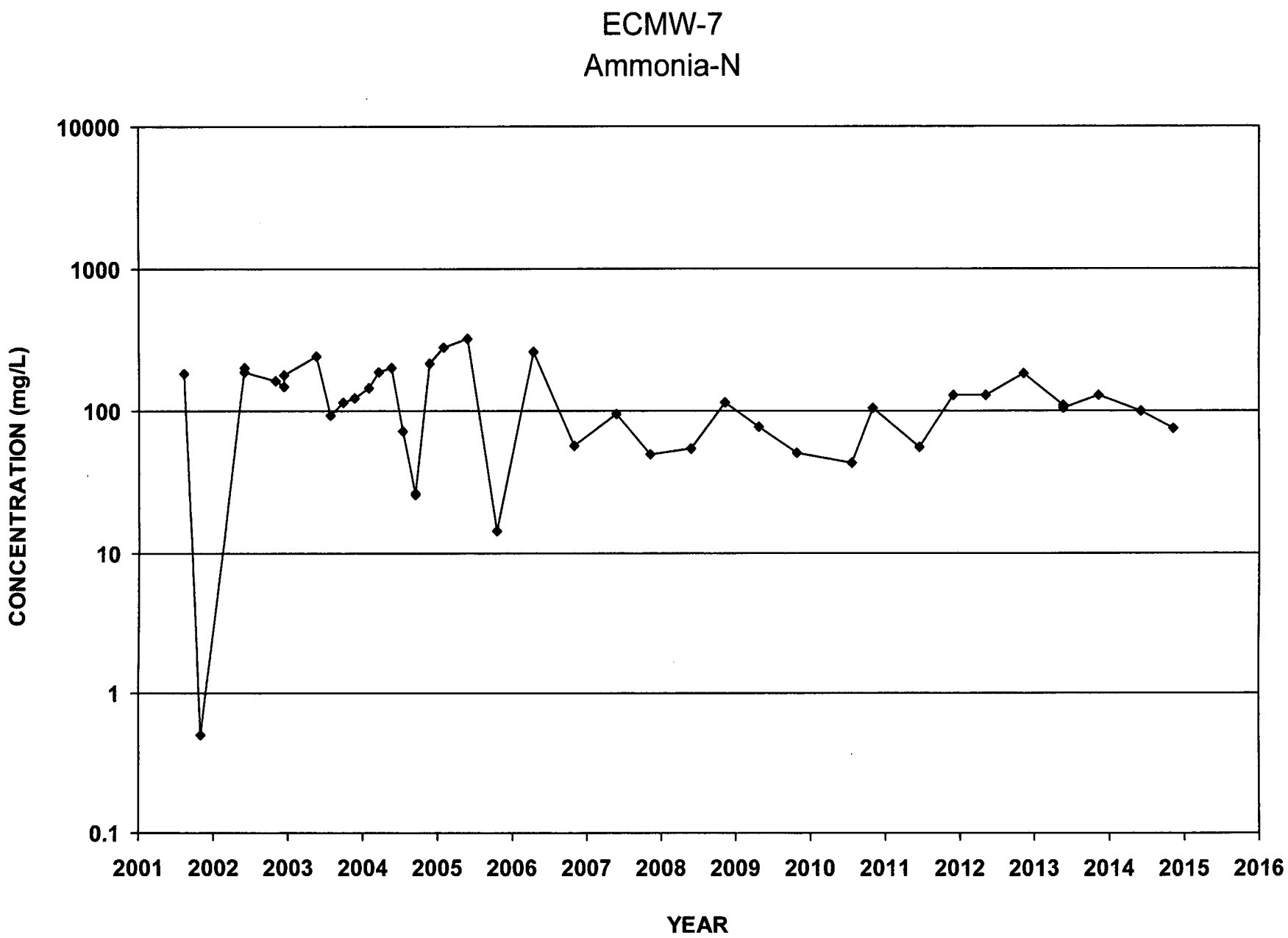

ECMW-2
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR


ECMW-3
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

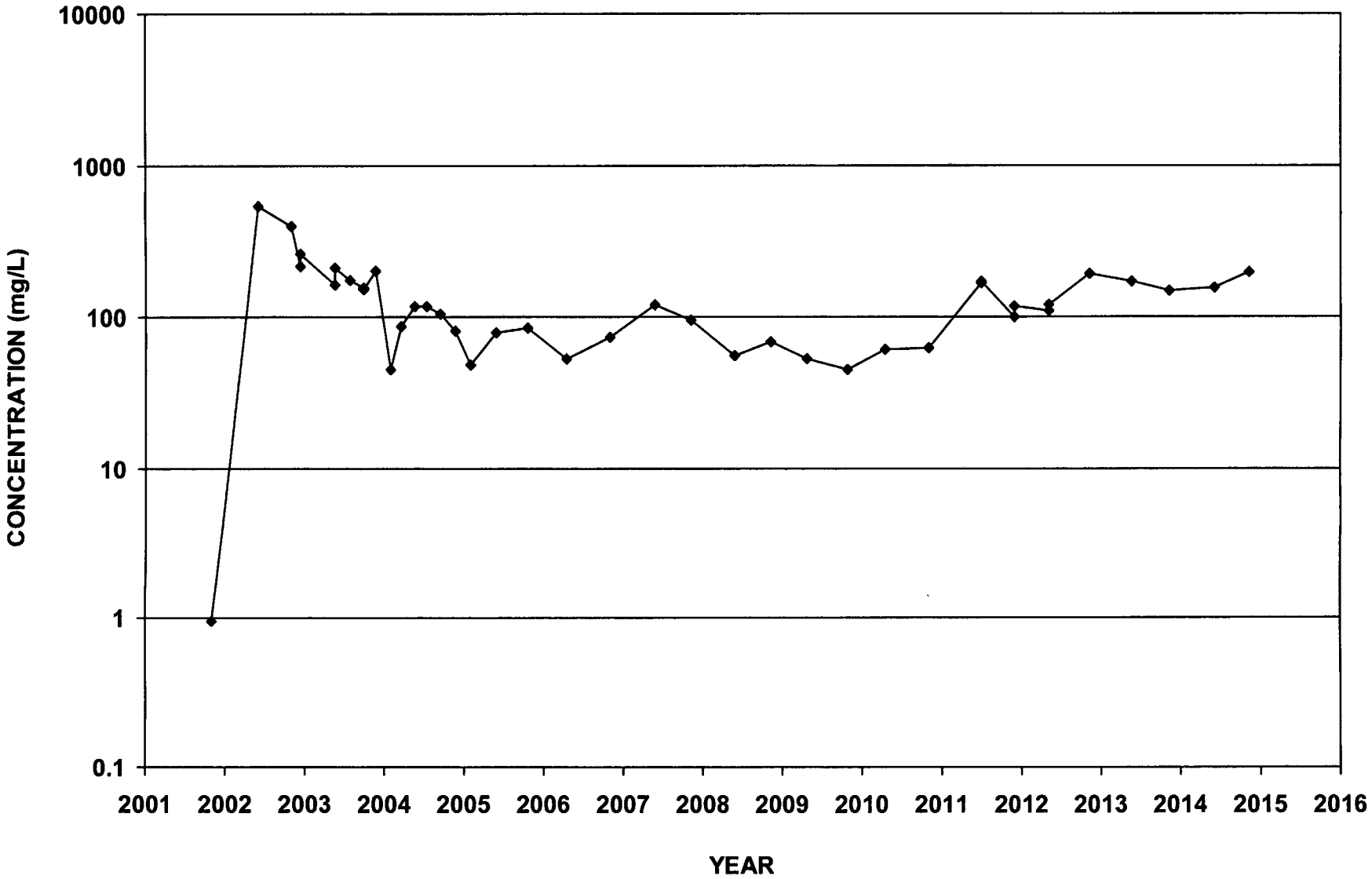

ECMW-4
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR


ECMW-5
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

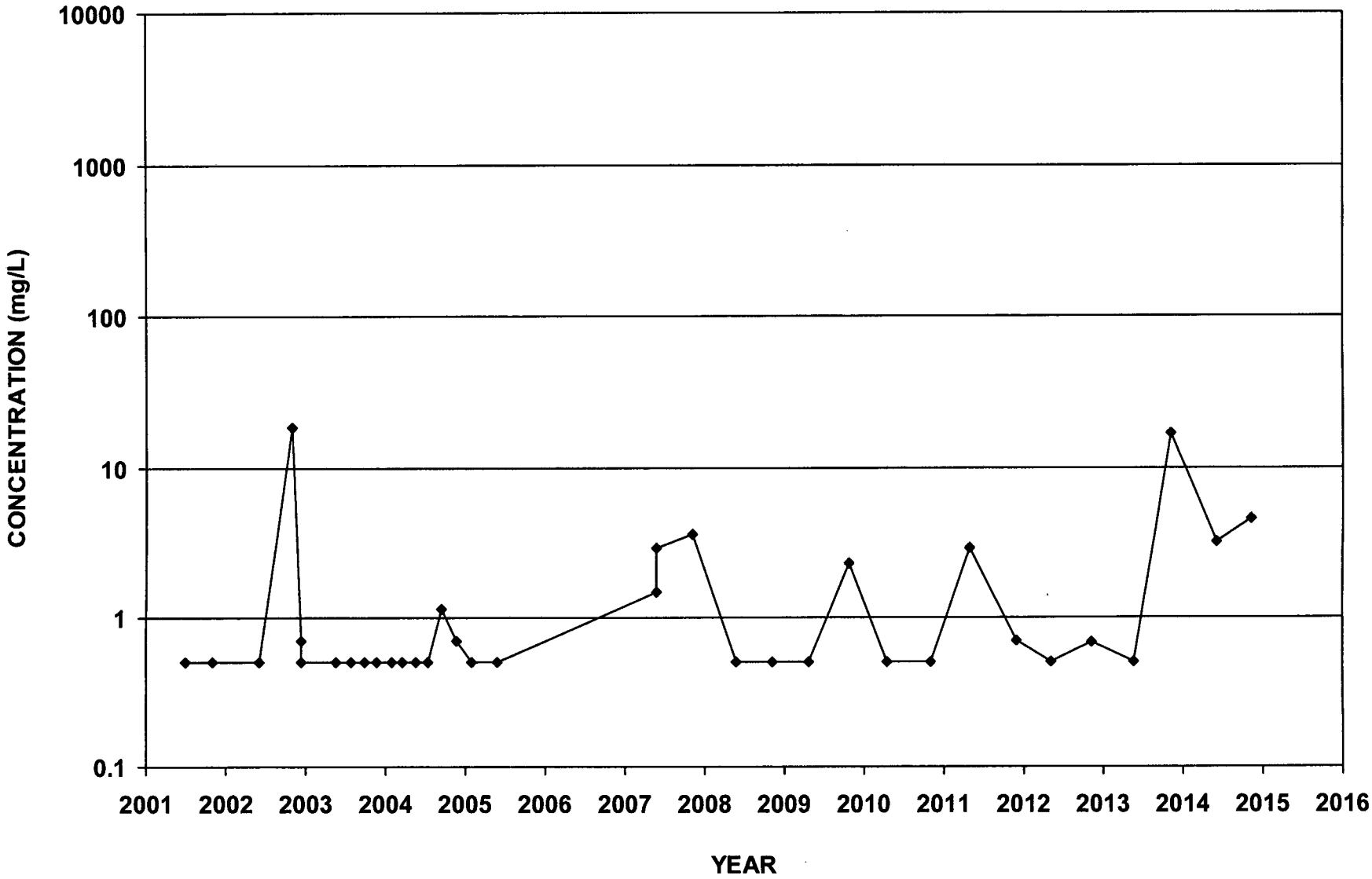

ECMW-6
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

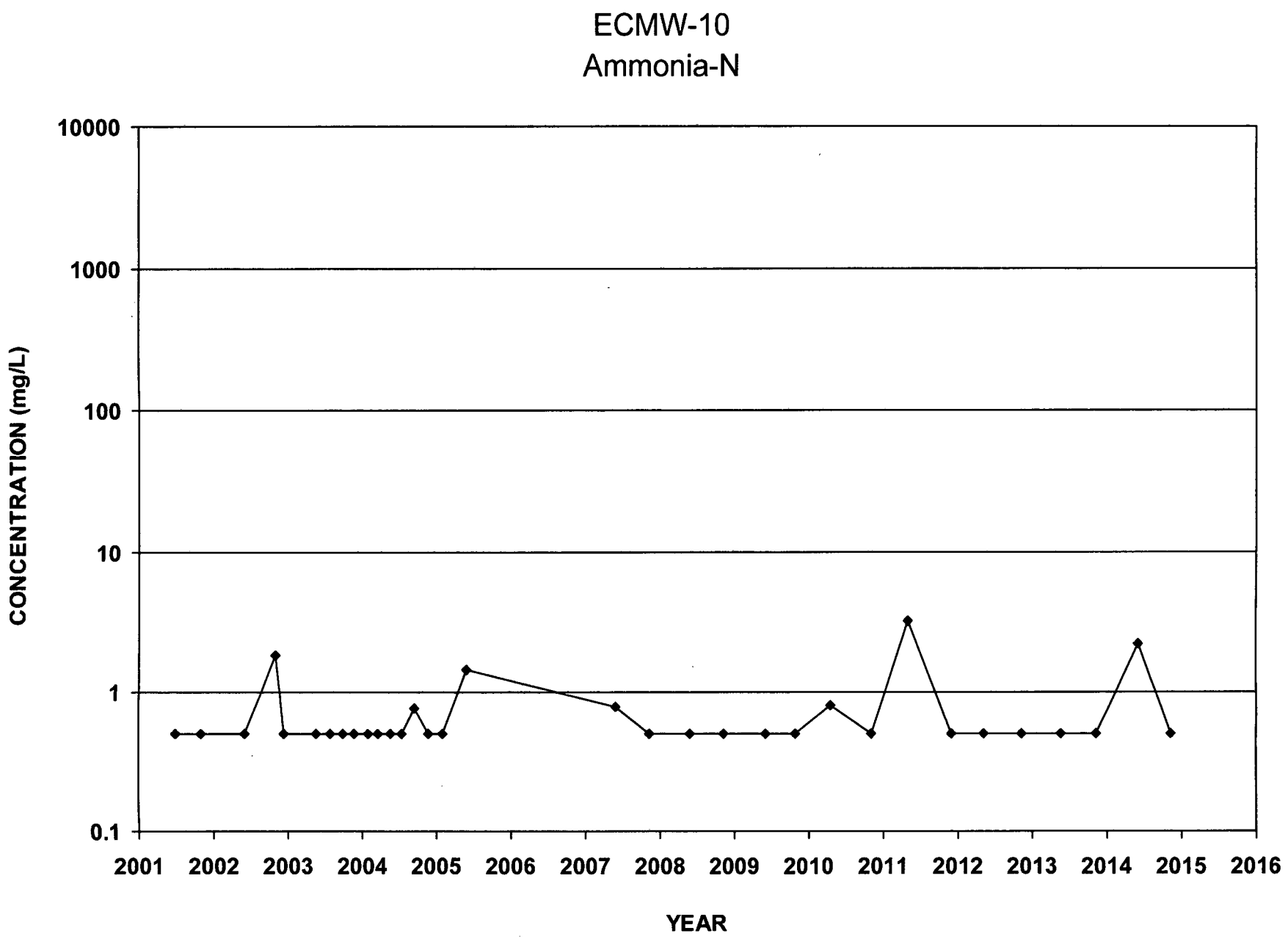

ECMW-7
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

ECMW-8
Ammonia-N

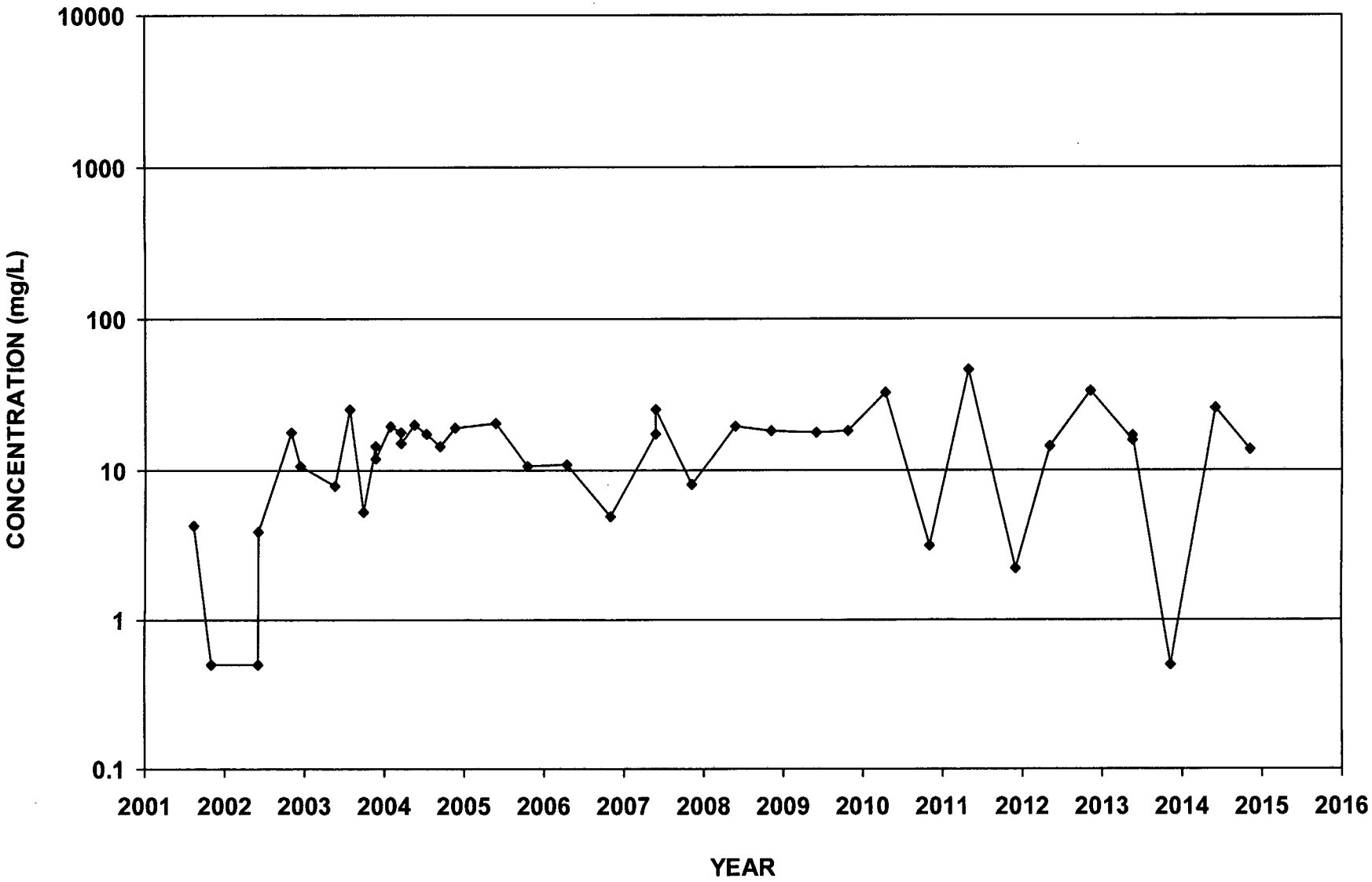


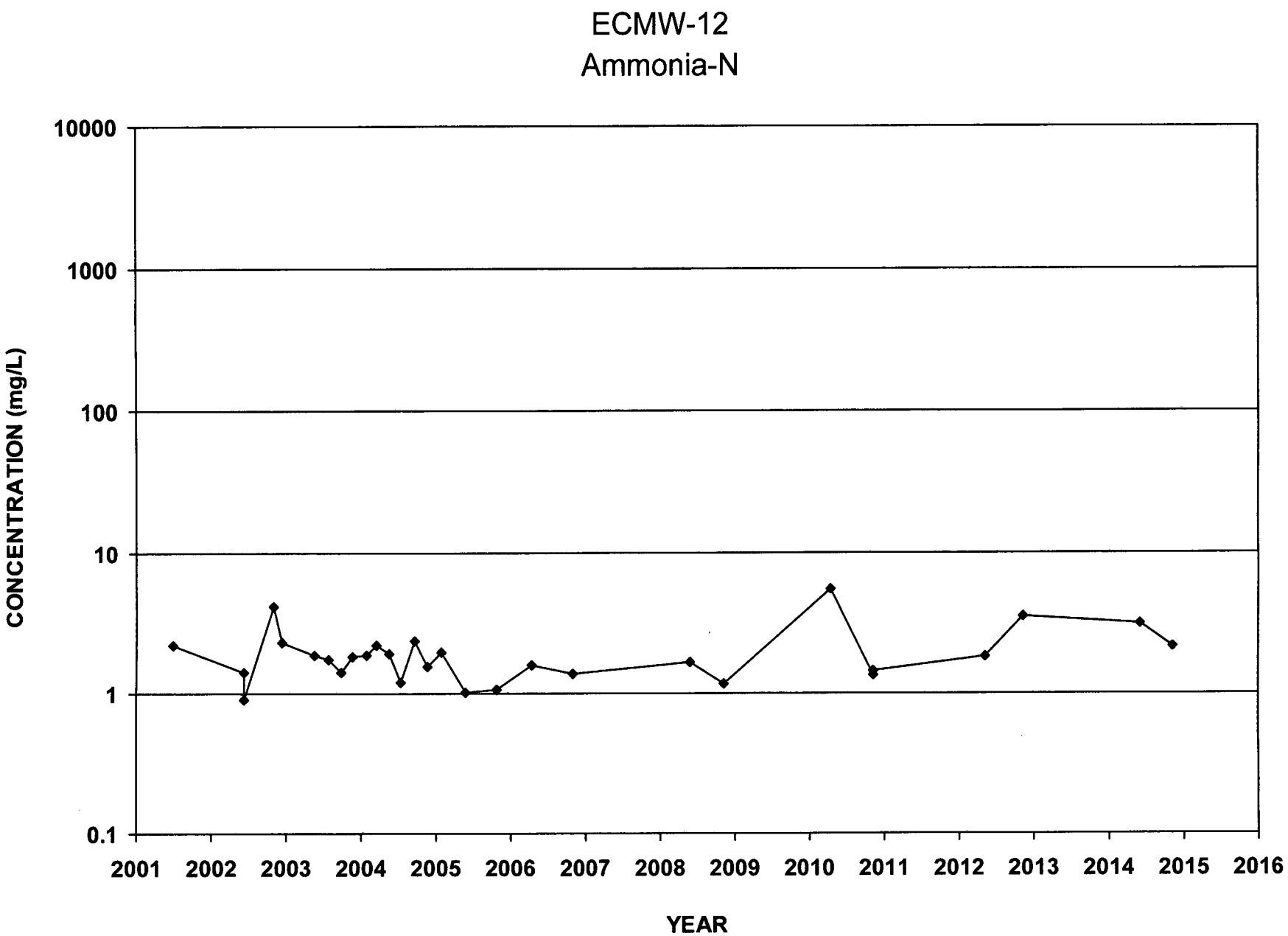
ECMW-9
Ammonia-N



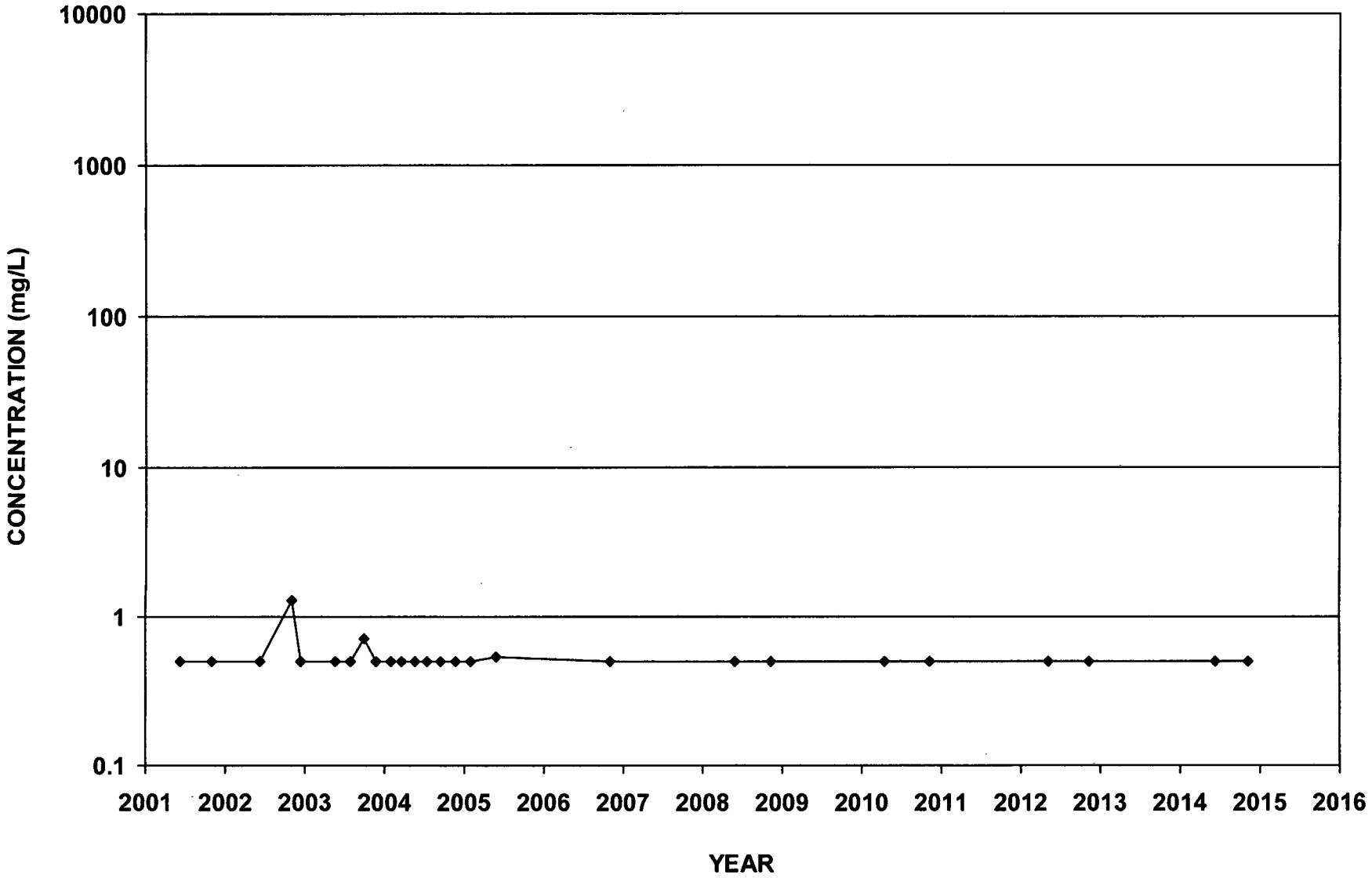

ECMW-10
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

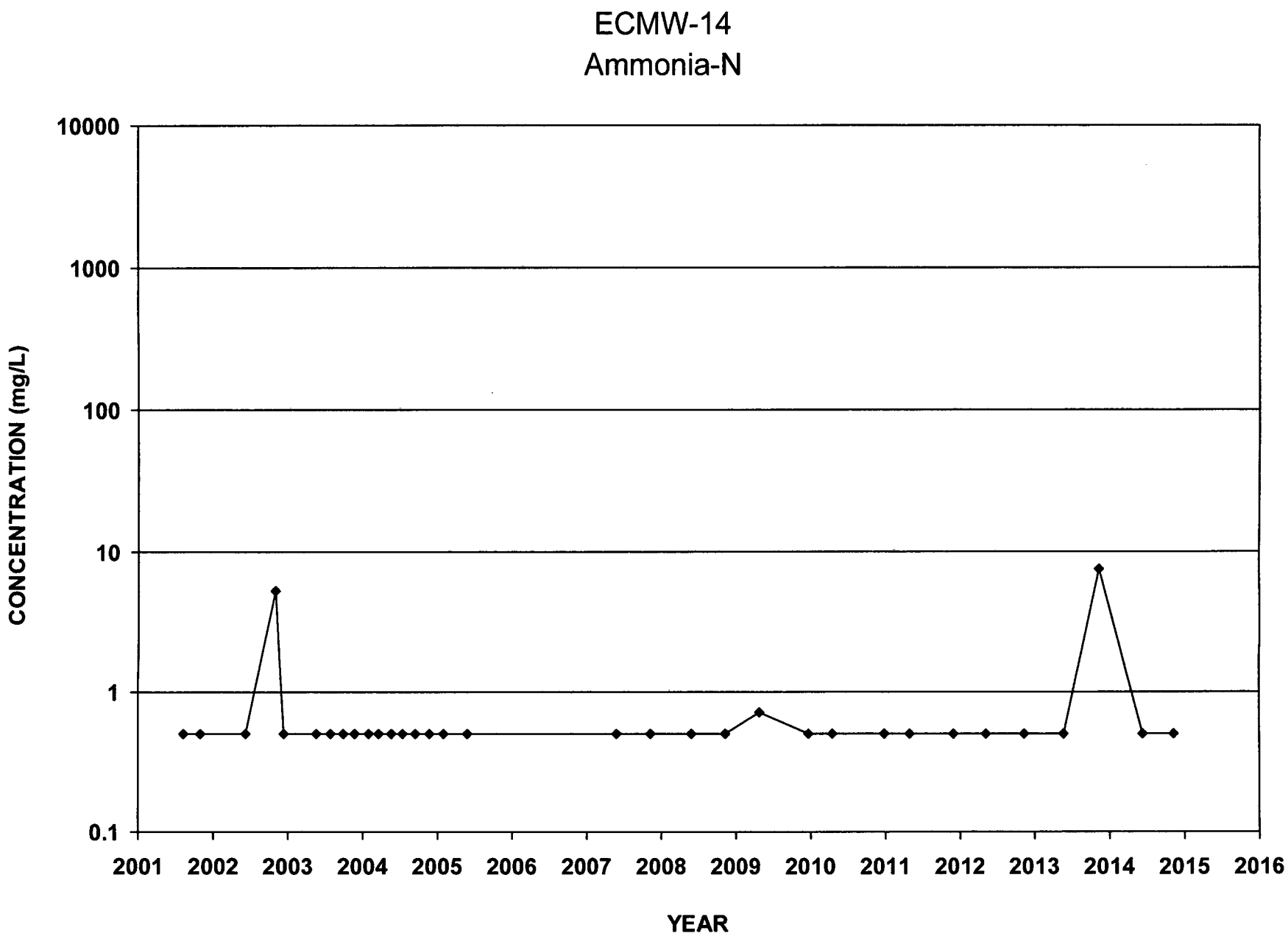
ECMW-11
Ammonia-N

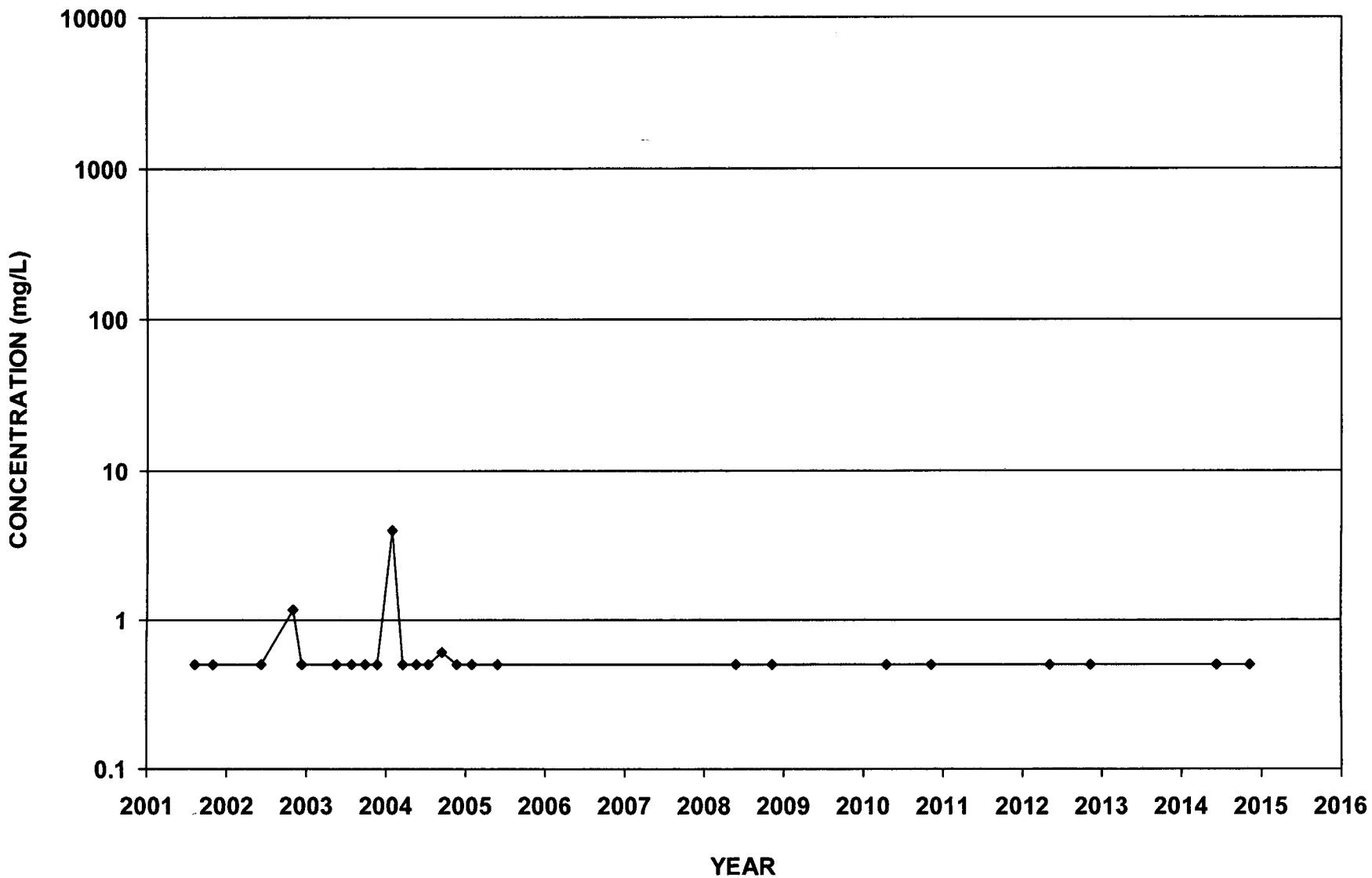



ECMW-12
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

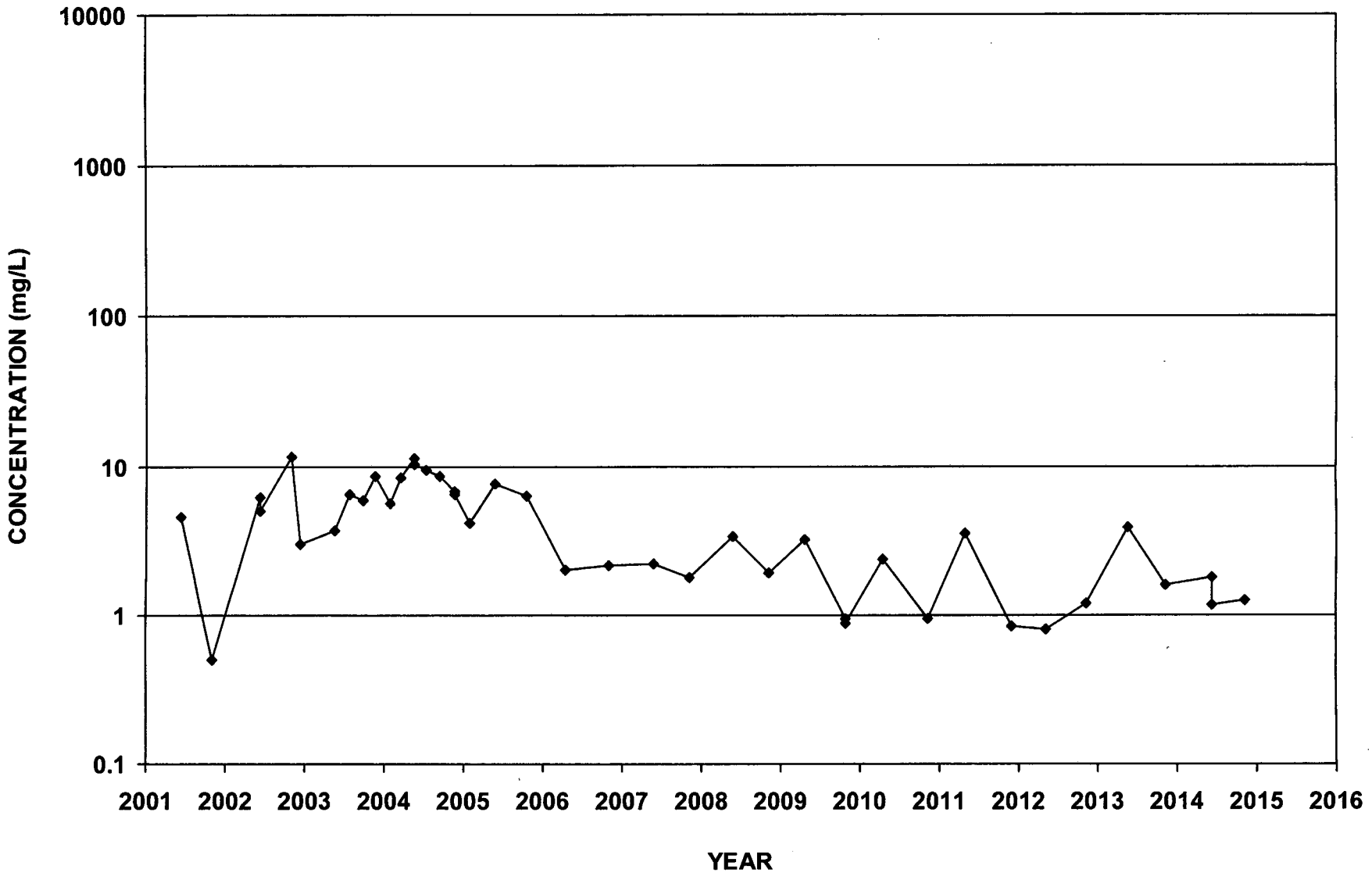
ECMW-13
Ammonia-N

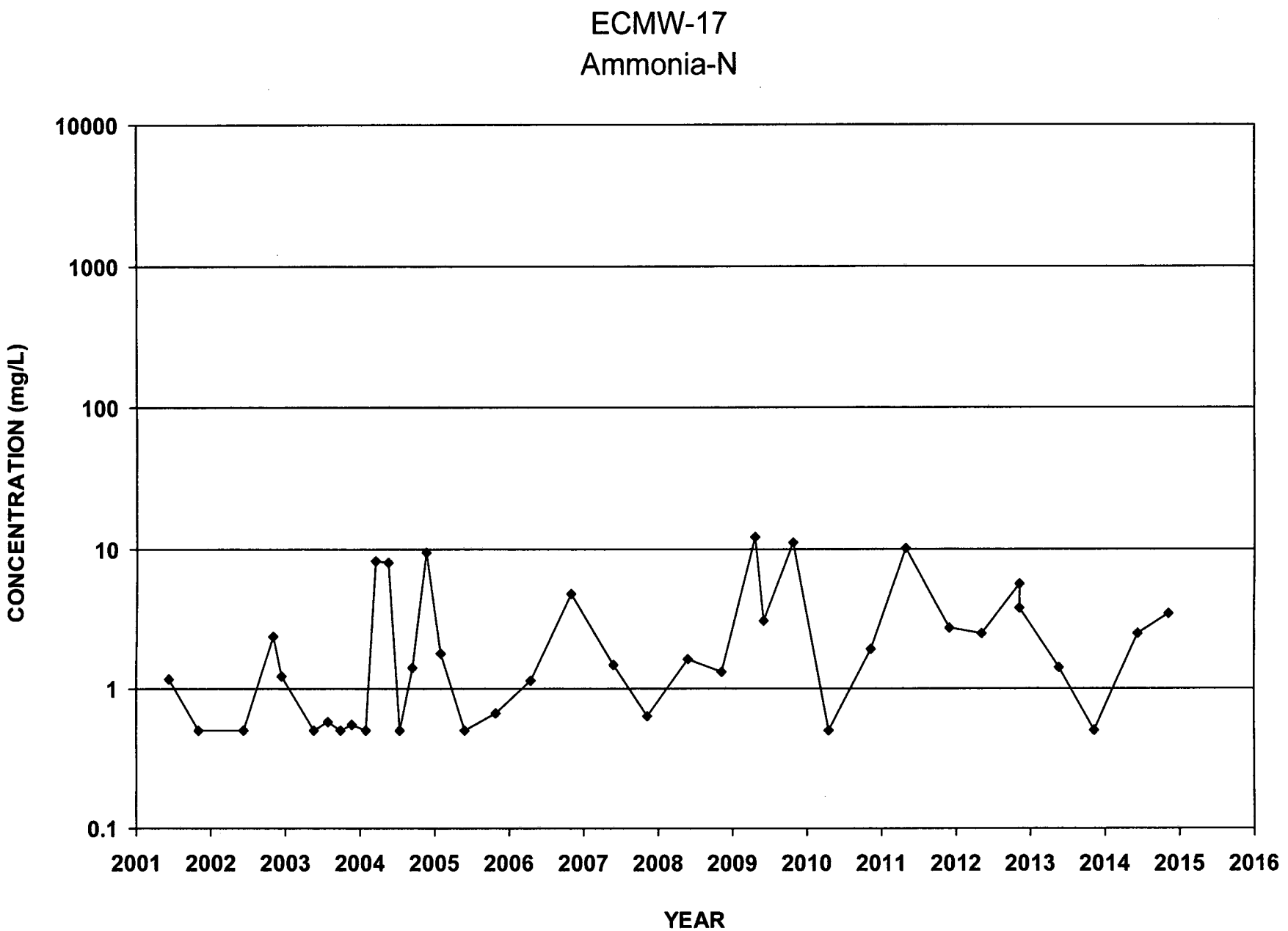



ECMW-14
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR


ECMW-15
Ammonia-N
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

ECMW-16
Ammonia-N




ECMW-17
Ammonia-N
10000
1000
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0.1
CONCENTRATION (mg/L)
2001
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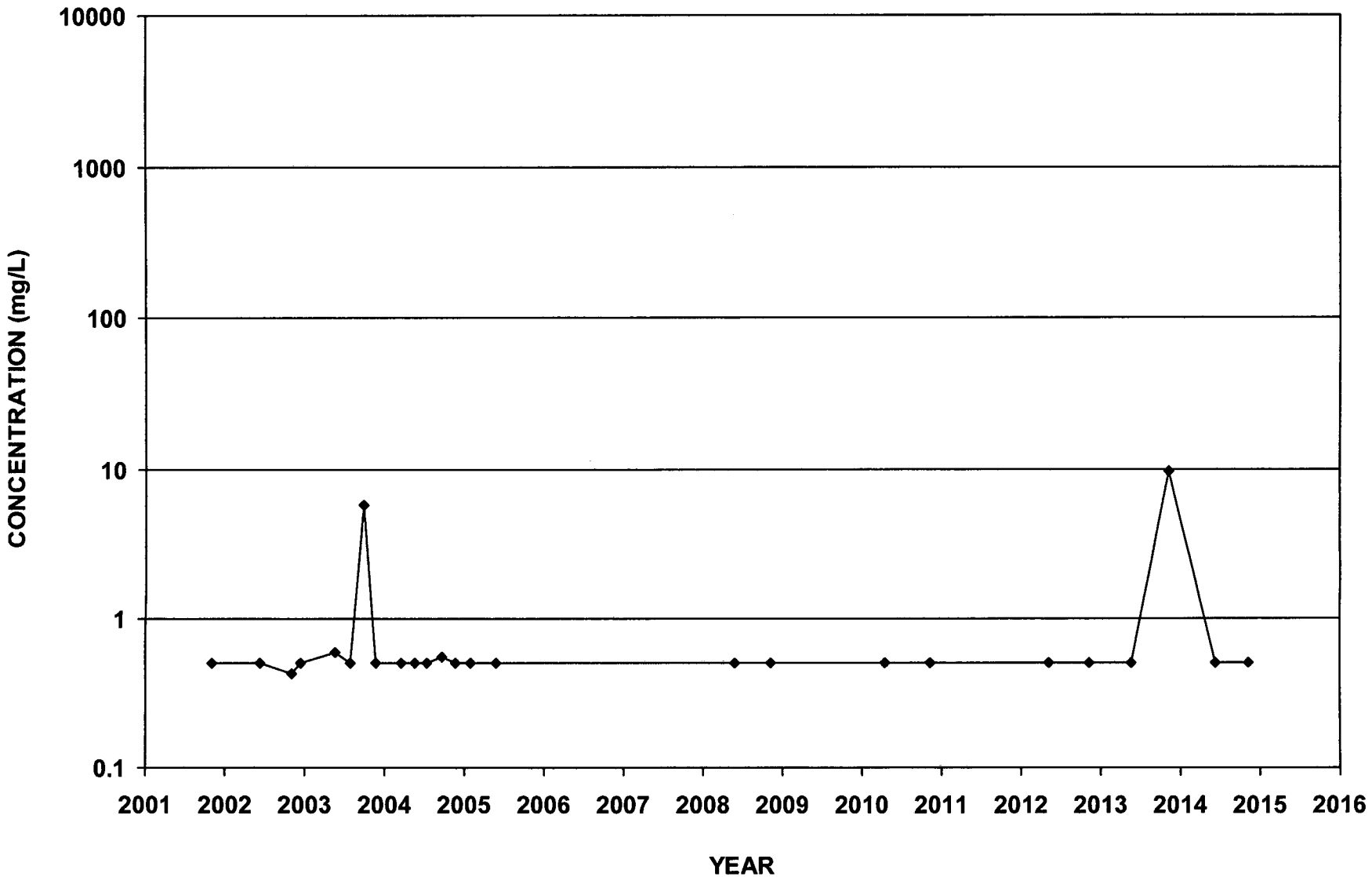
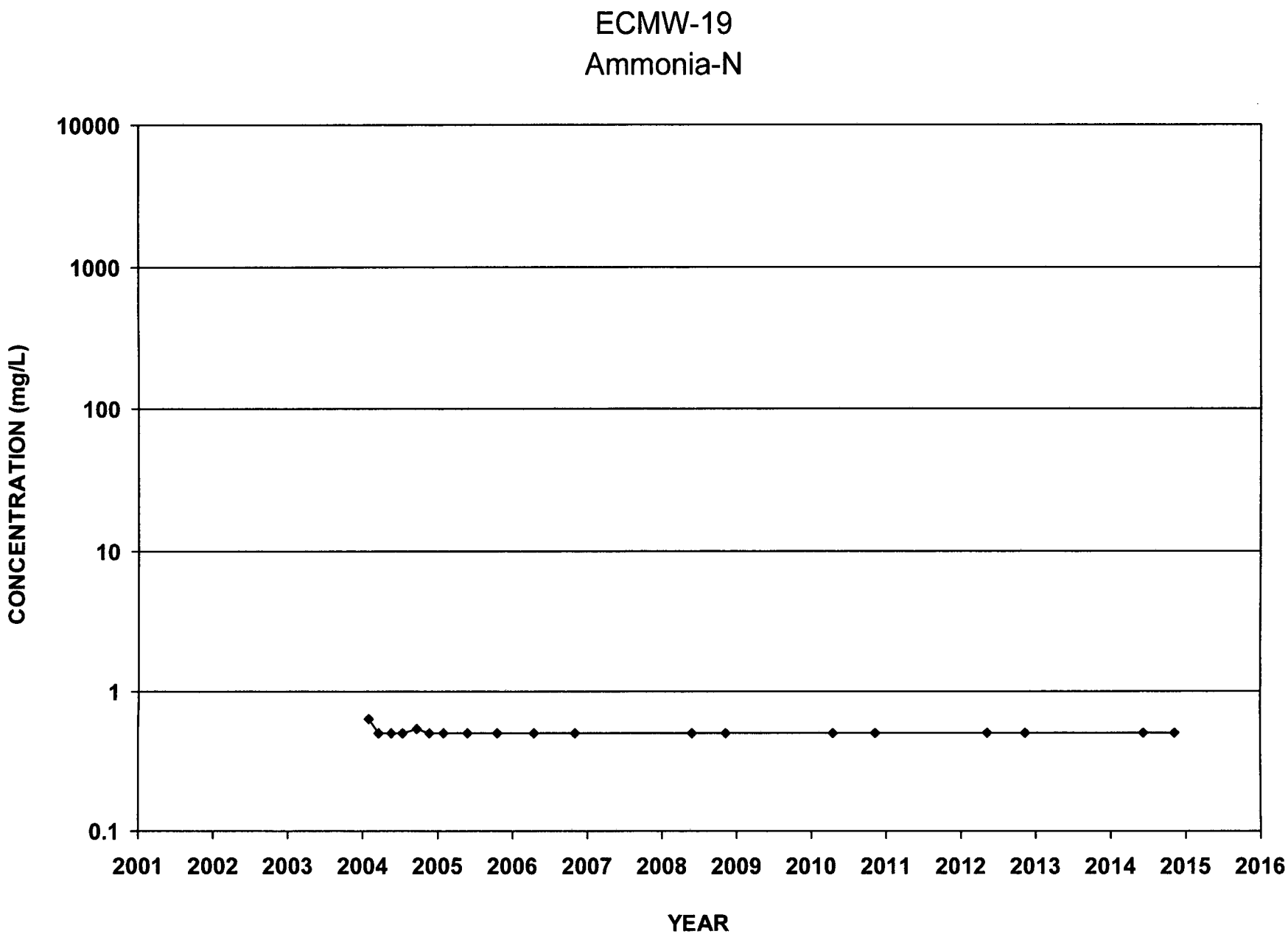
2016
YEAR

ECMW-18
Ammonia-N




ECMW-19
Ammonia-N
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CONCENTRATION (mg/L)
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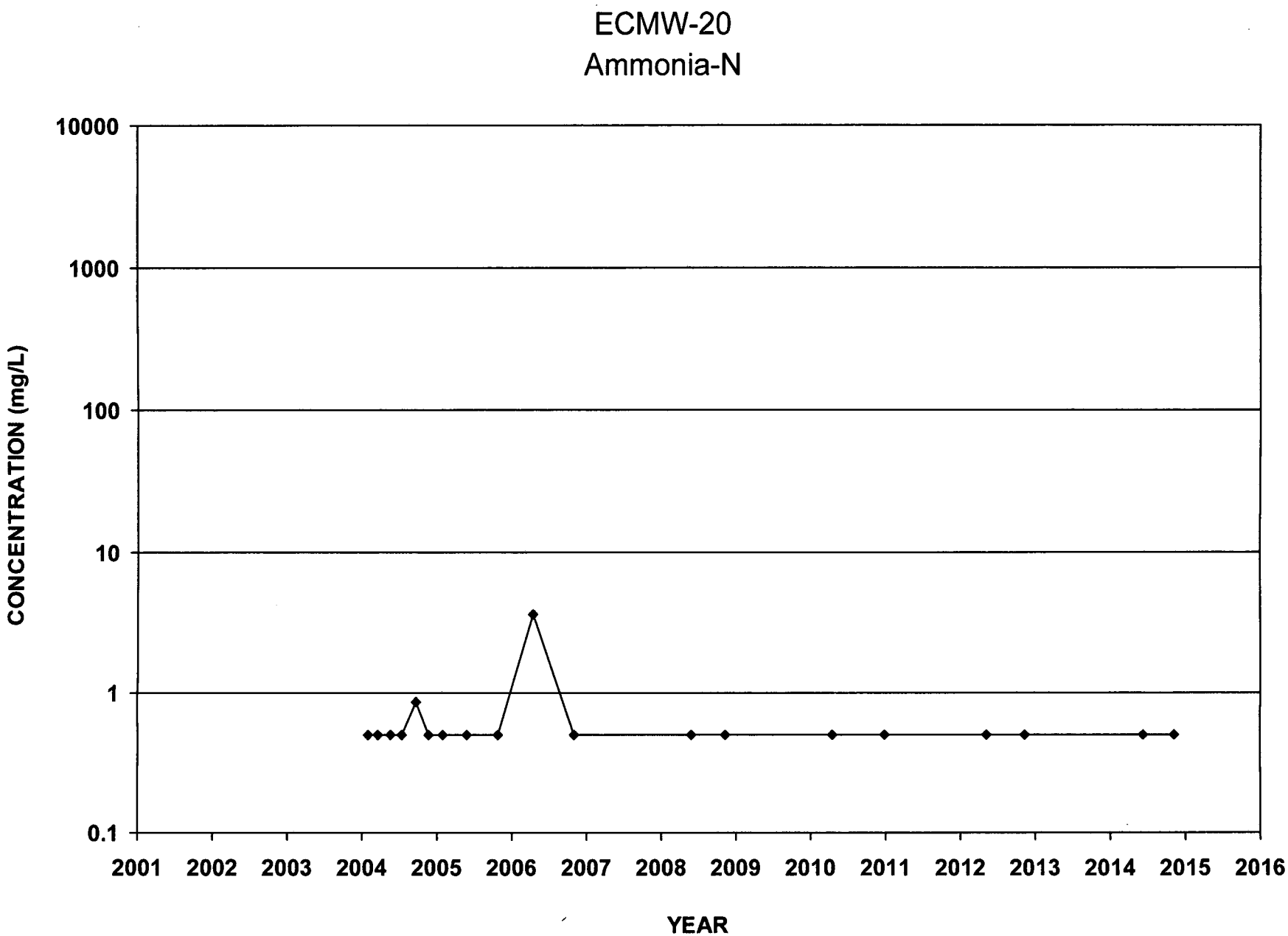
YEAR


ECMW-20
Ammonia-N
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CONCENTRATION (mg/L)
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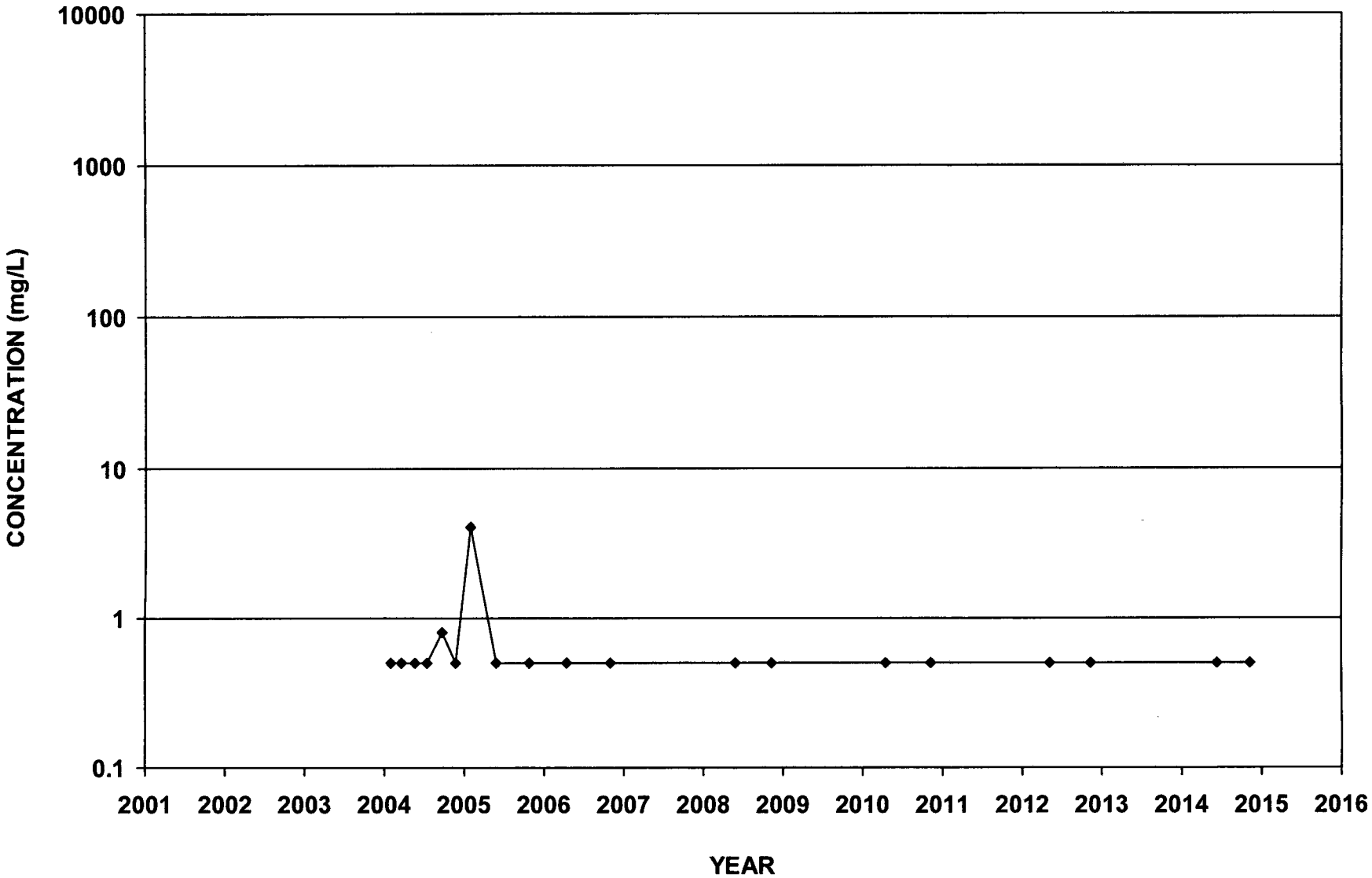
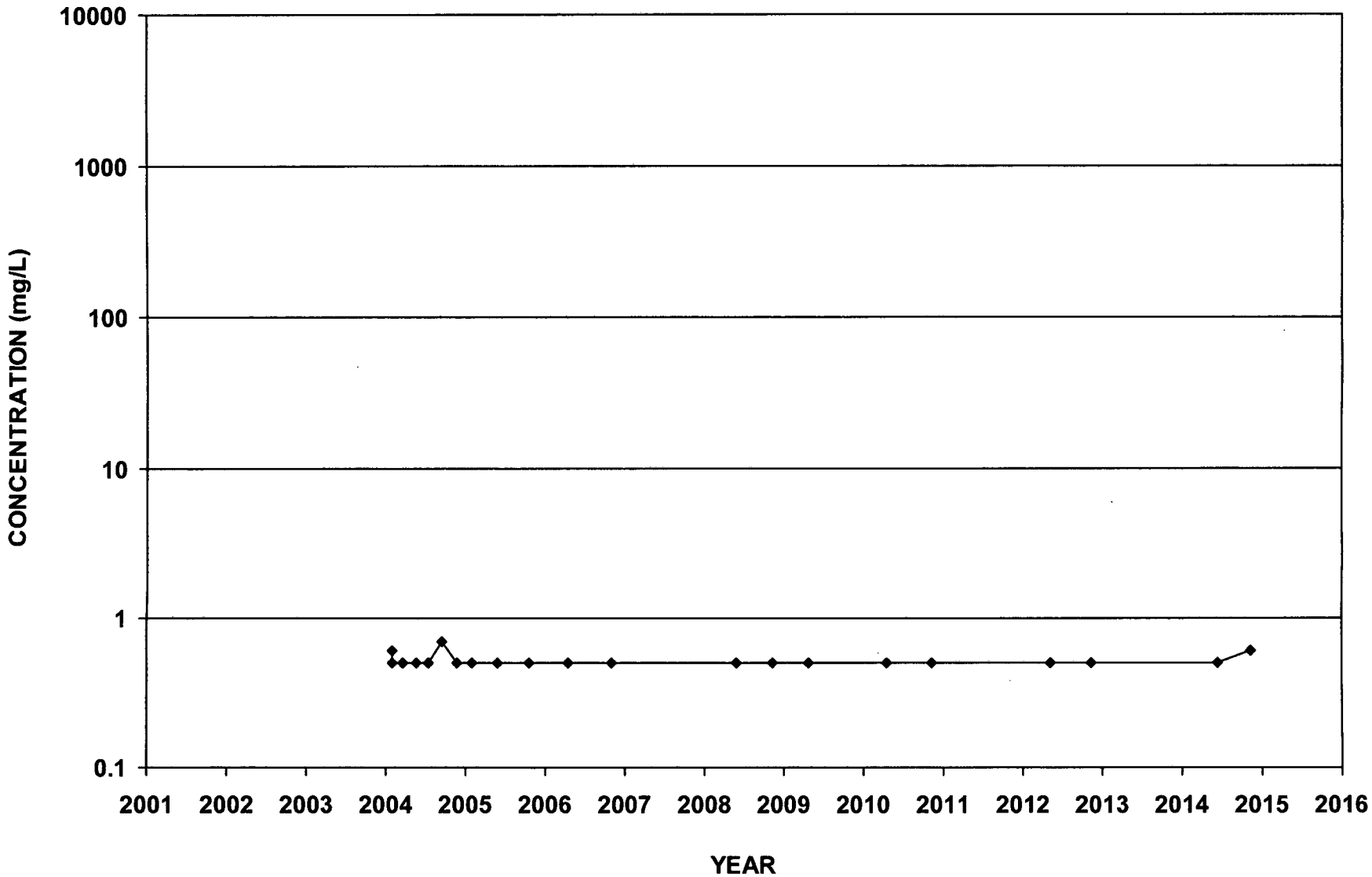
2016
YEAR

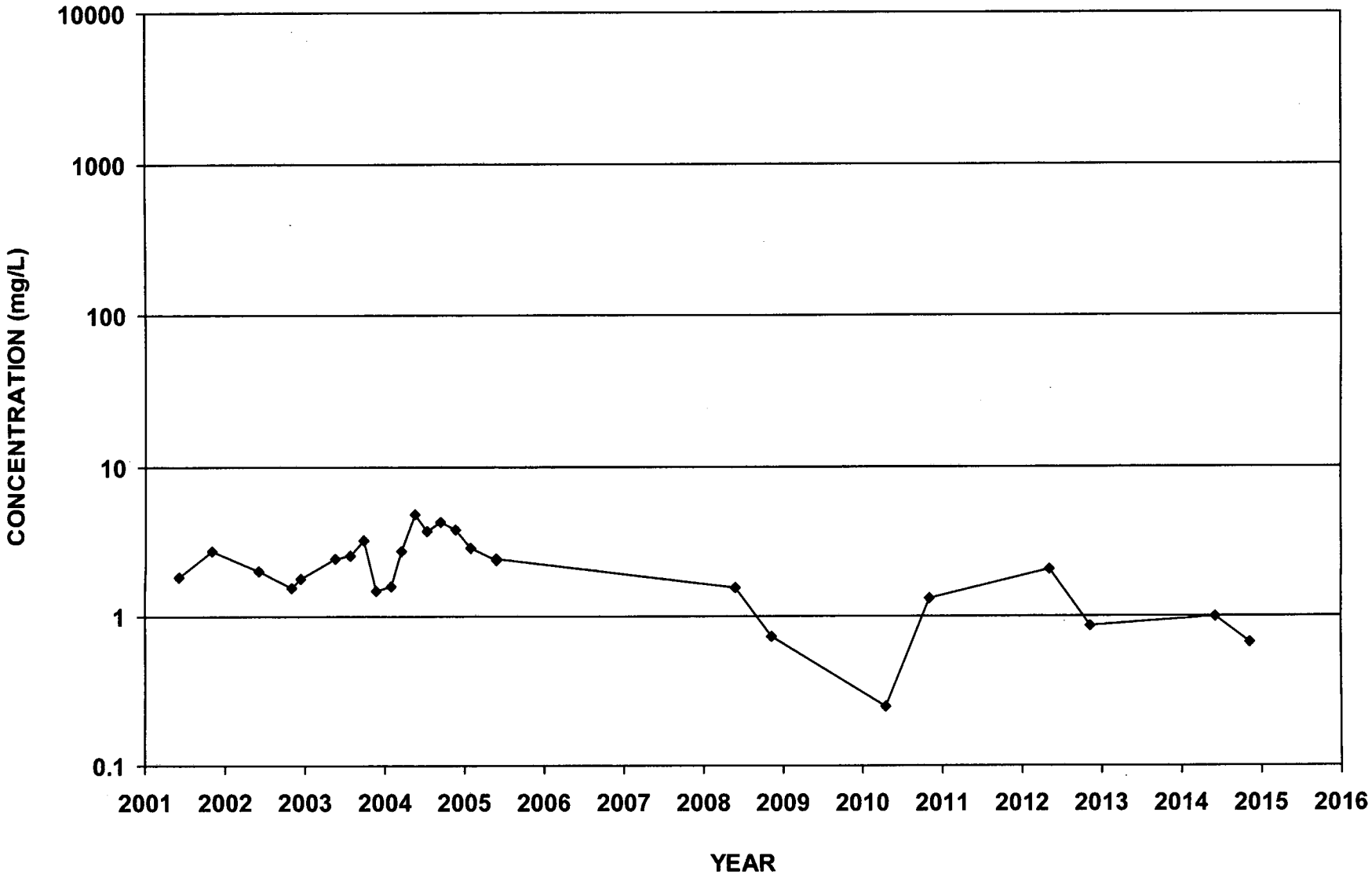
ECMW-21
Ammonia-N

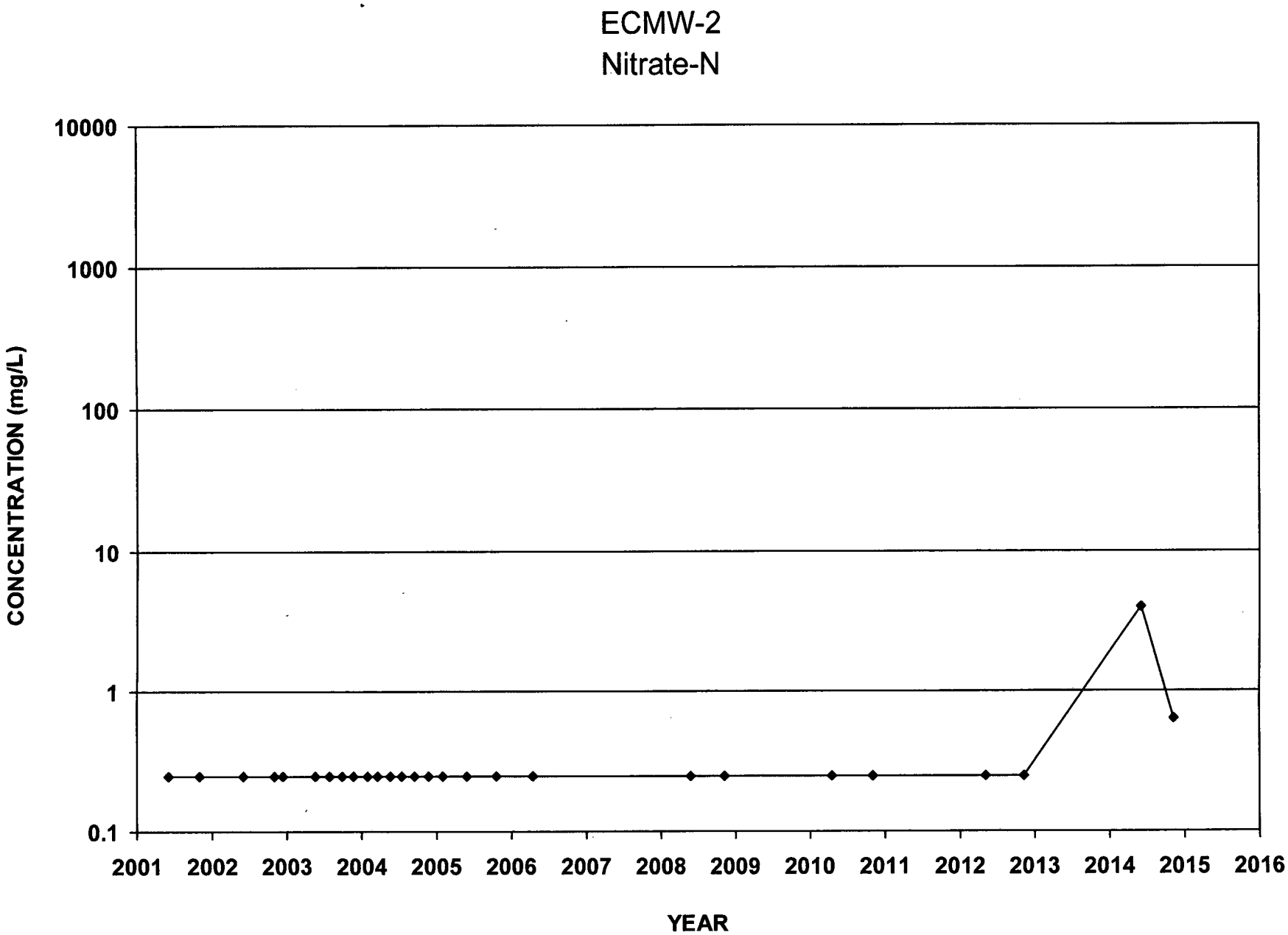


ECMW-22
Ammonia-N



ECMW-1
Nitrate-N




ECMW-2
Nitrate-N
10000
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CONCENTRATION (mg/L)
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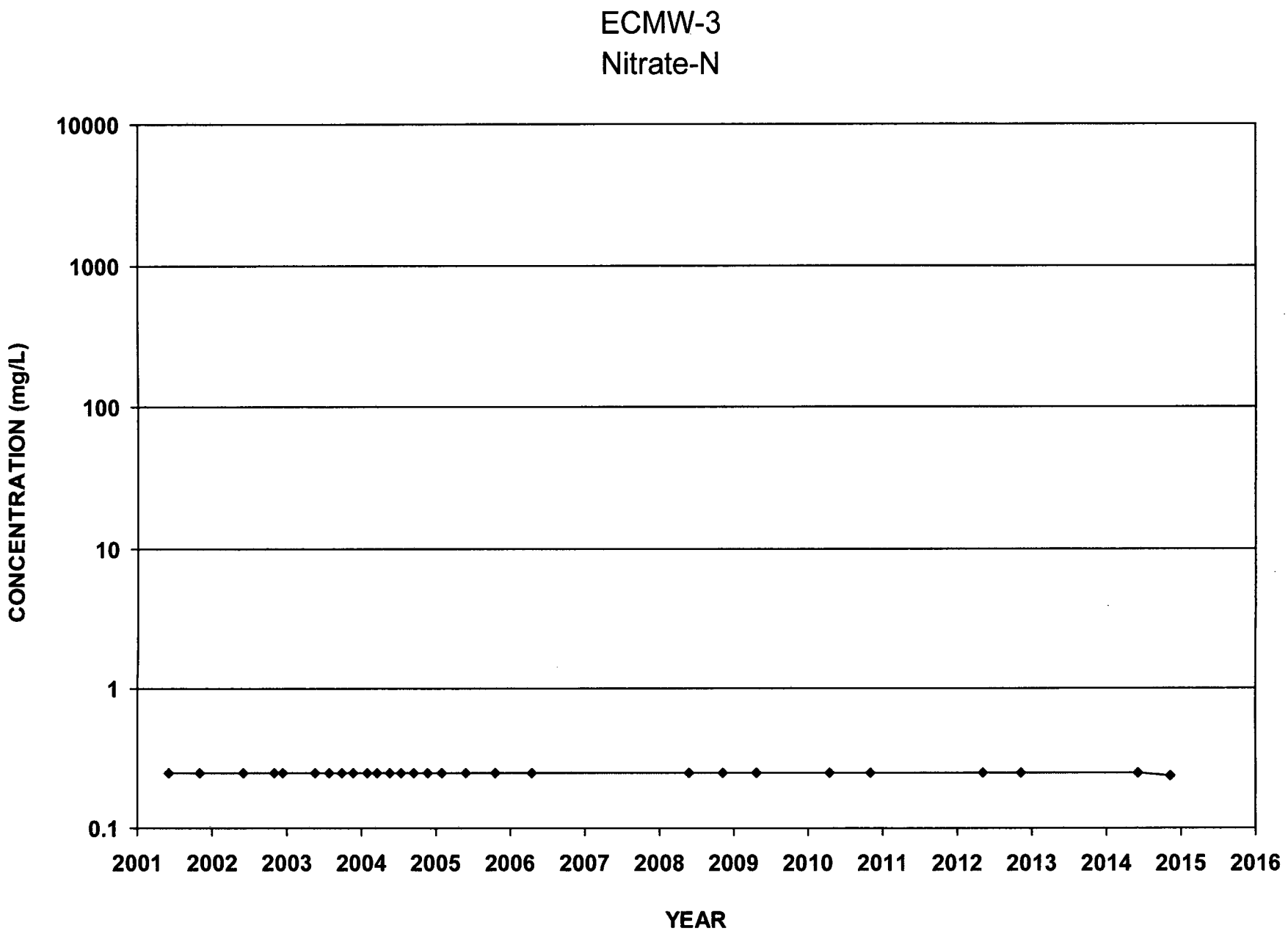
YEAR


ECMW-3
Nitrate-N
10000
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0.1
CONCENTRATION (mg/L)
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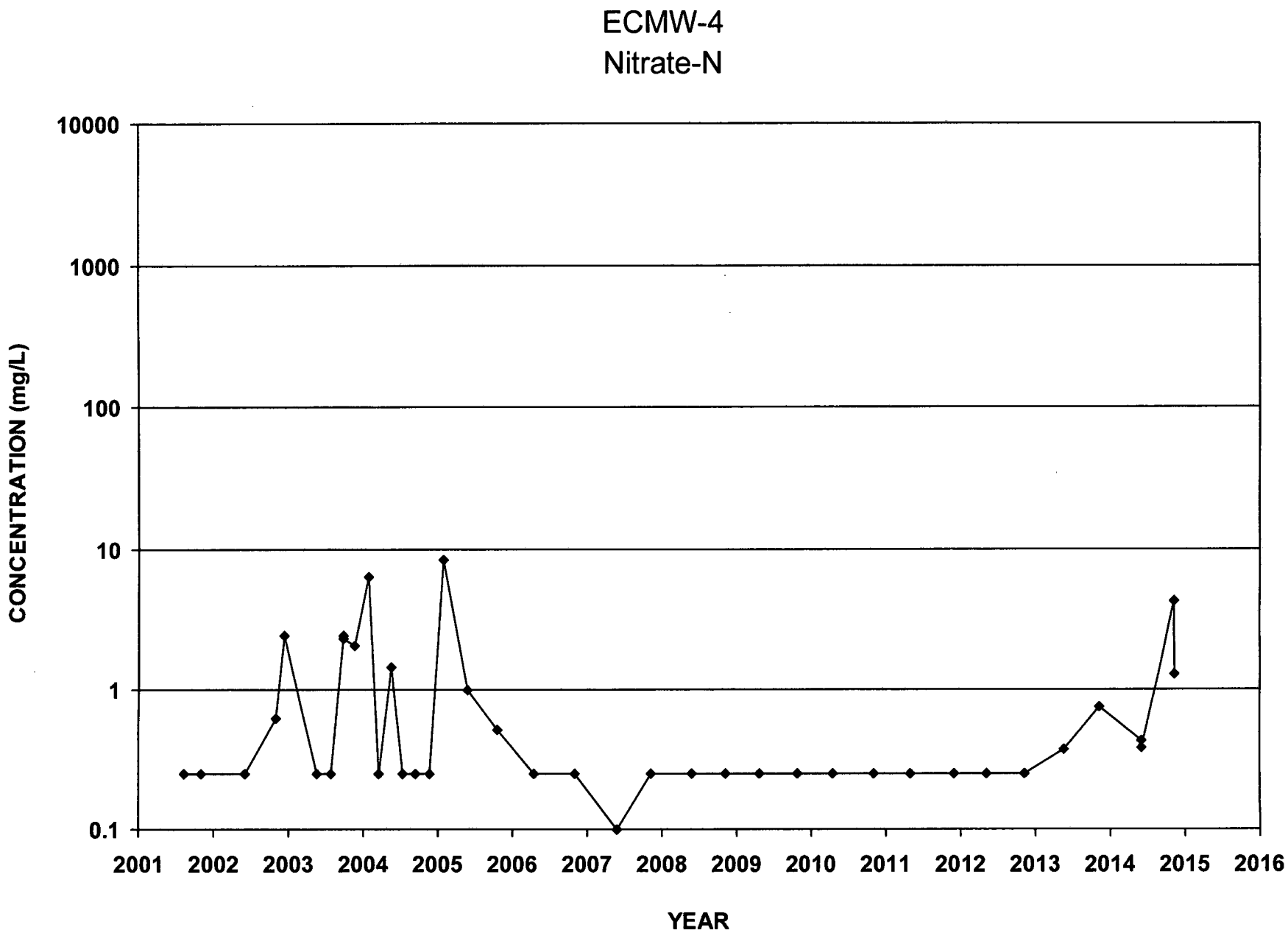
ECMW-4
Nitrate-N
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0.1
CONCENTRATION (mg/L)
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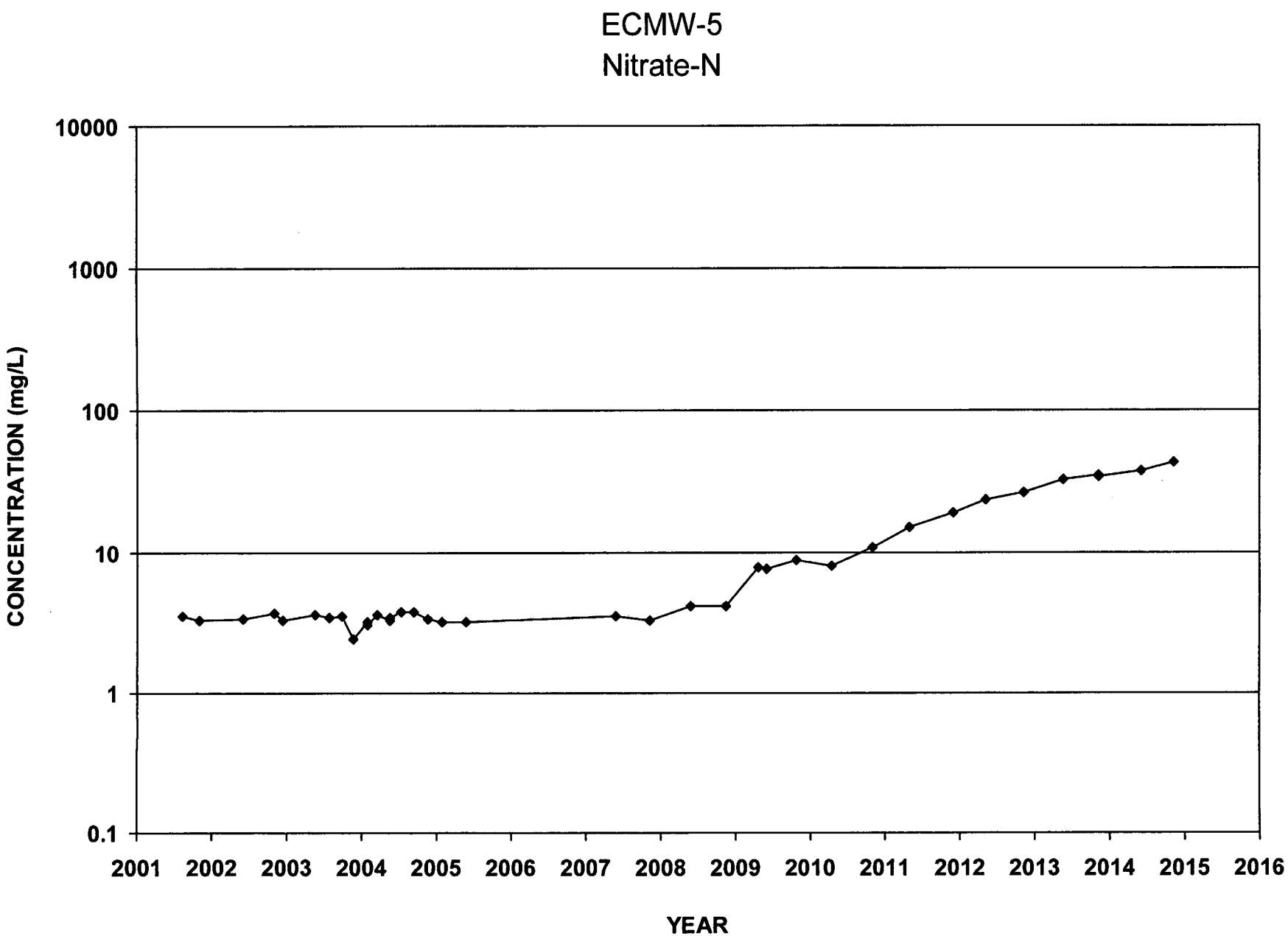
YEAR


ECMW-5
Nitrate-N
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0.1
CONCENTRATION (mg/L)
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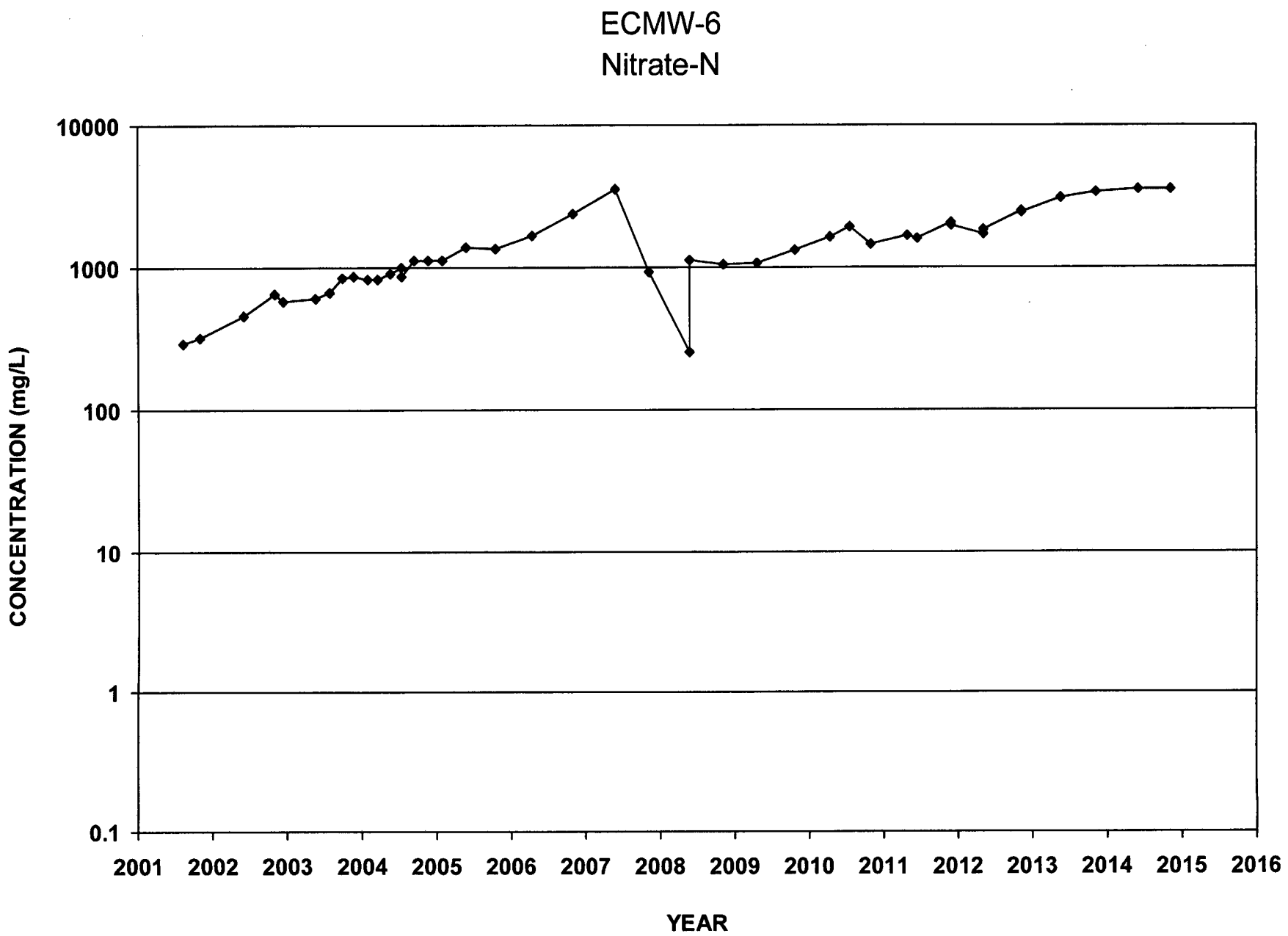
YEAR


ECMW-6
Nitrate-N
10000
1000
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0.1
CONCENTRATION (mg/L)
2001
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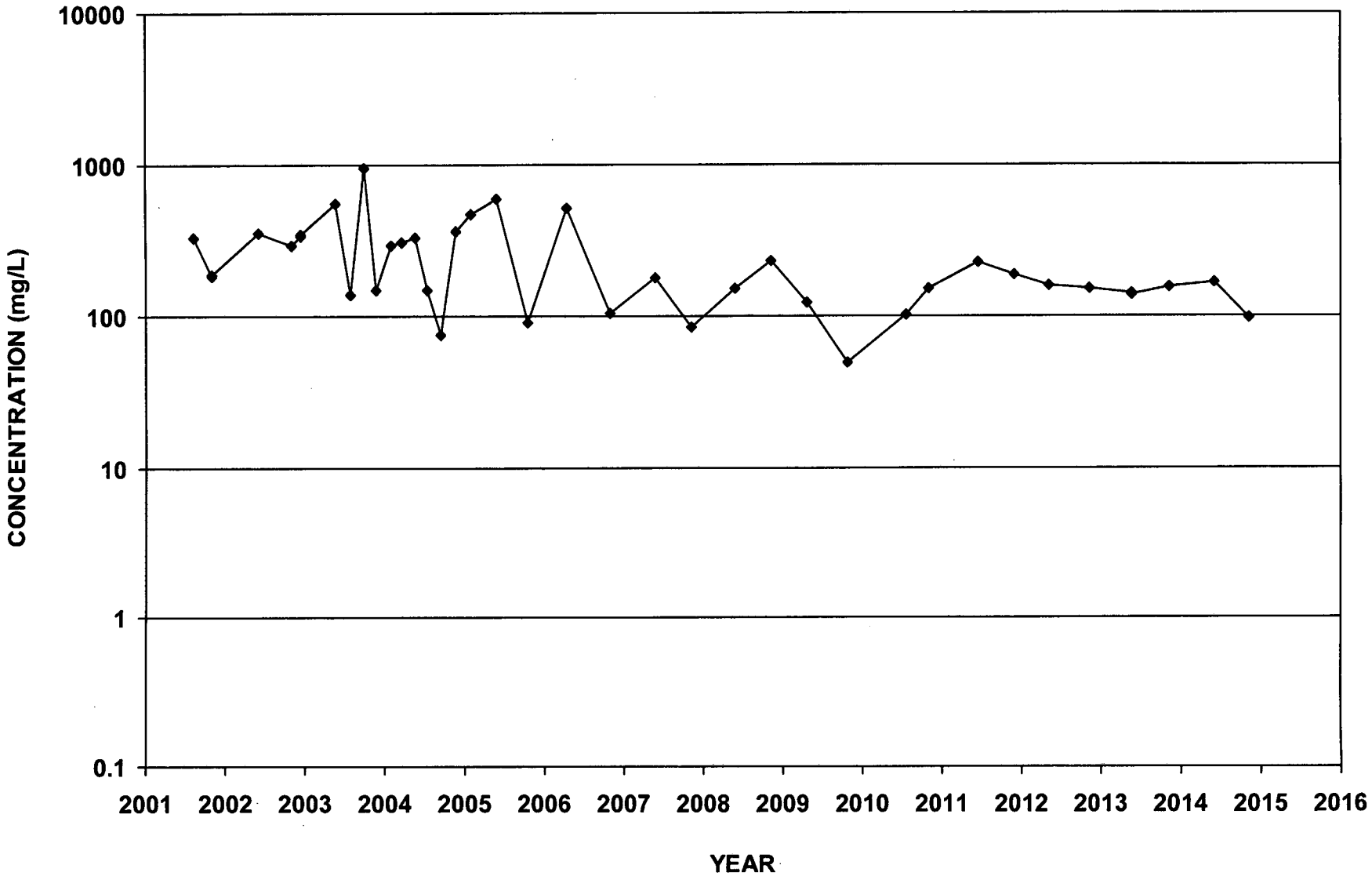
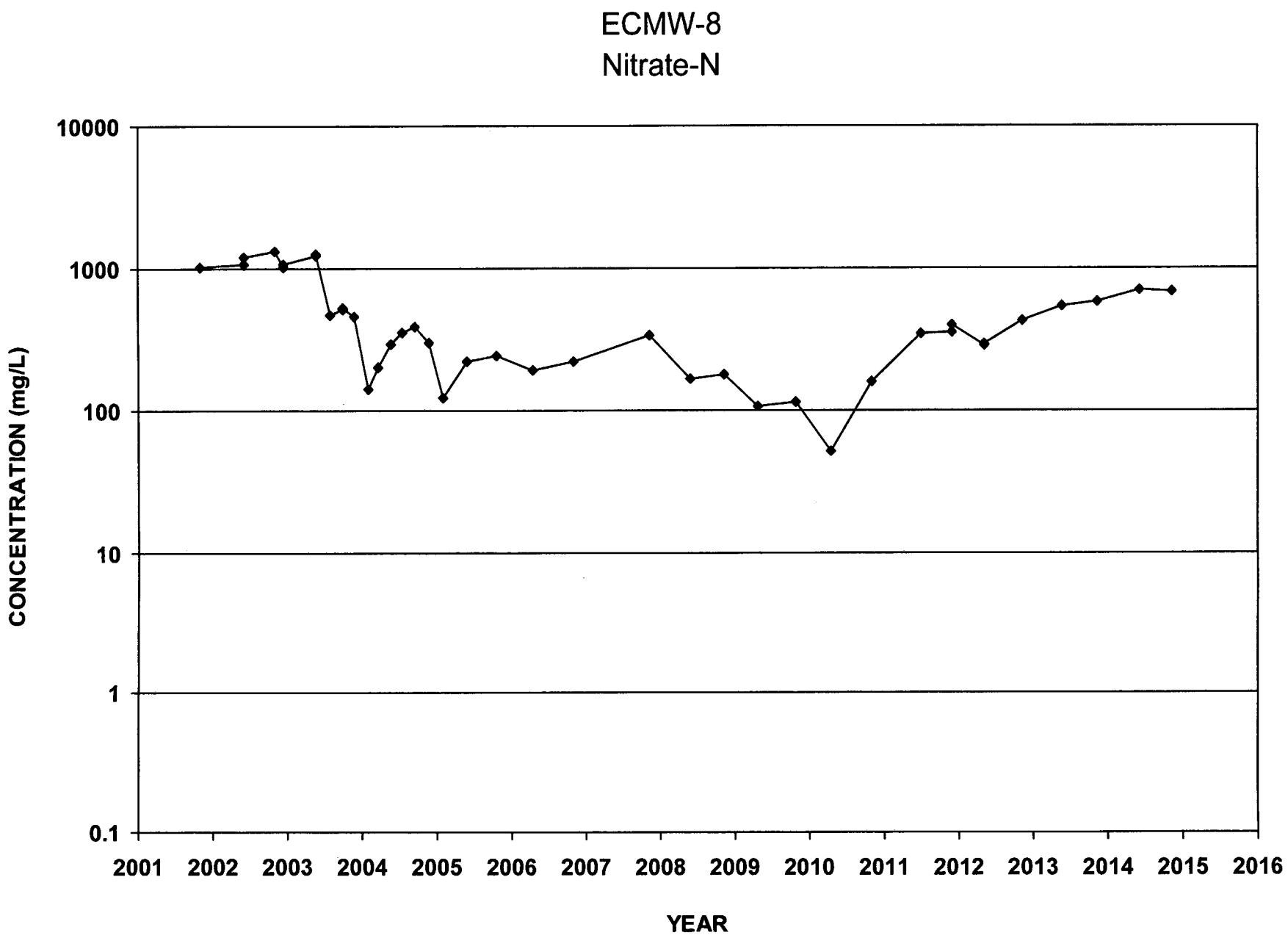
YEAR

ECMW-7
Nitrate-N




ECMW-8
Nitrate-N
10000
1000
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0.1
CONCENTRATION (mg/L)
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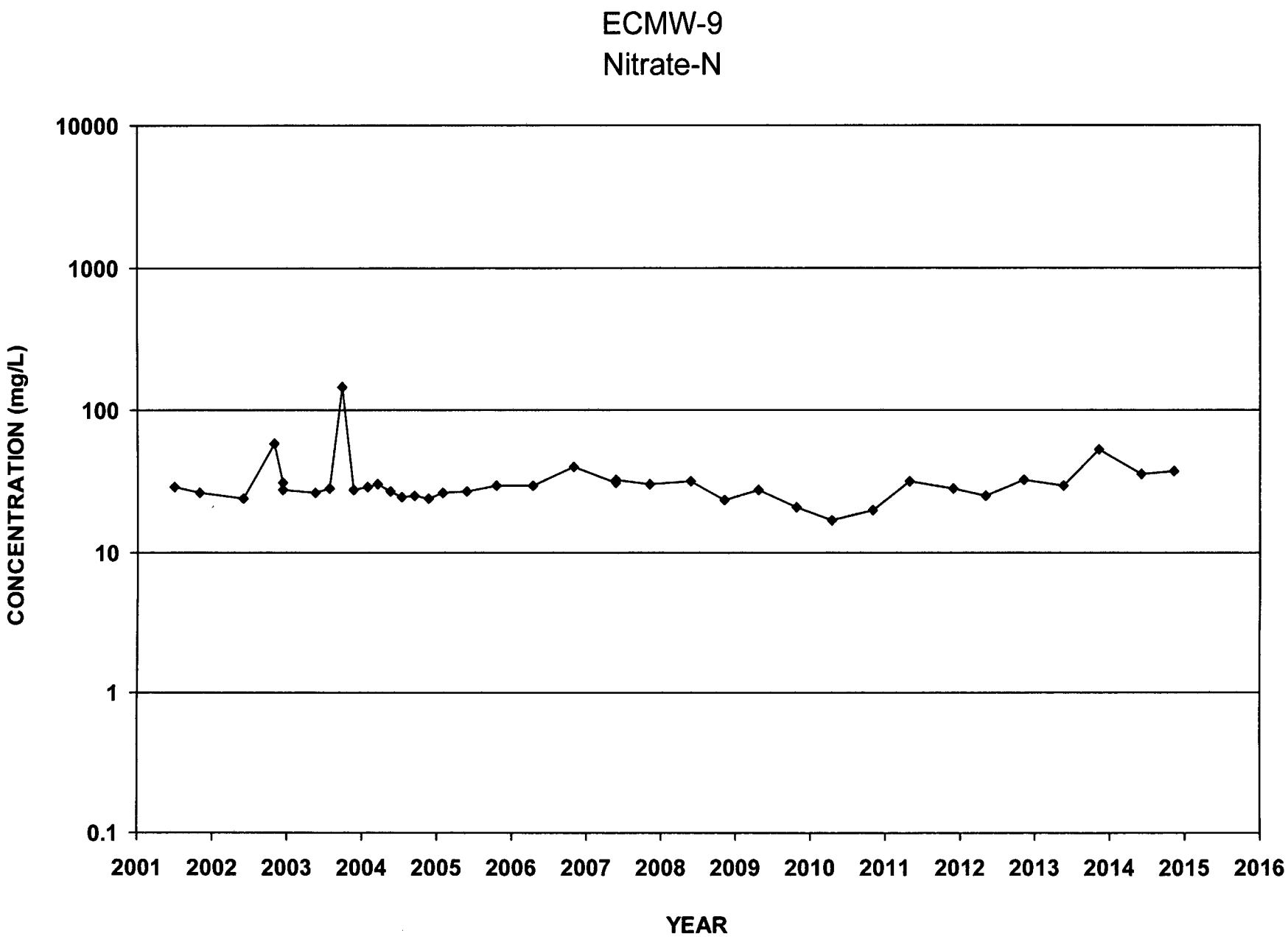
YEAR


ECMW-9
Nitrate-N
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0.1
CONCENTRATION (mg/L)
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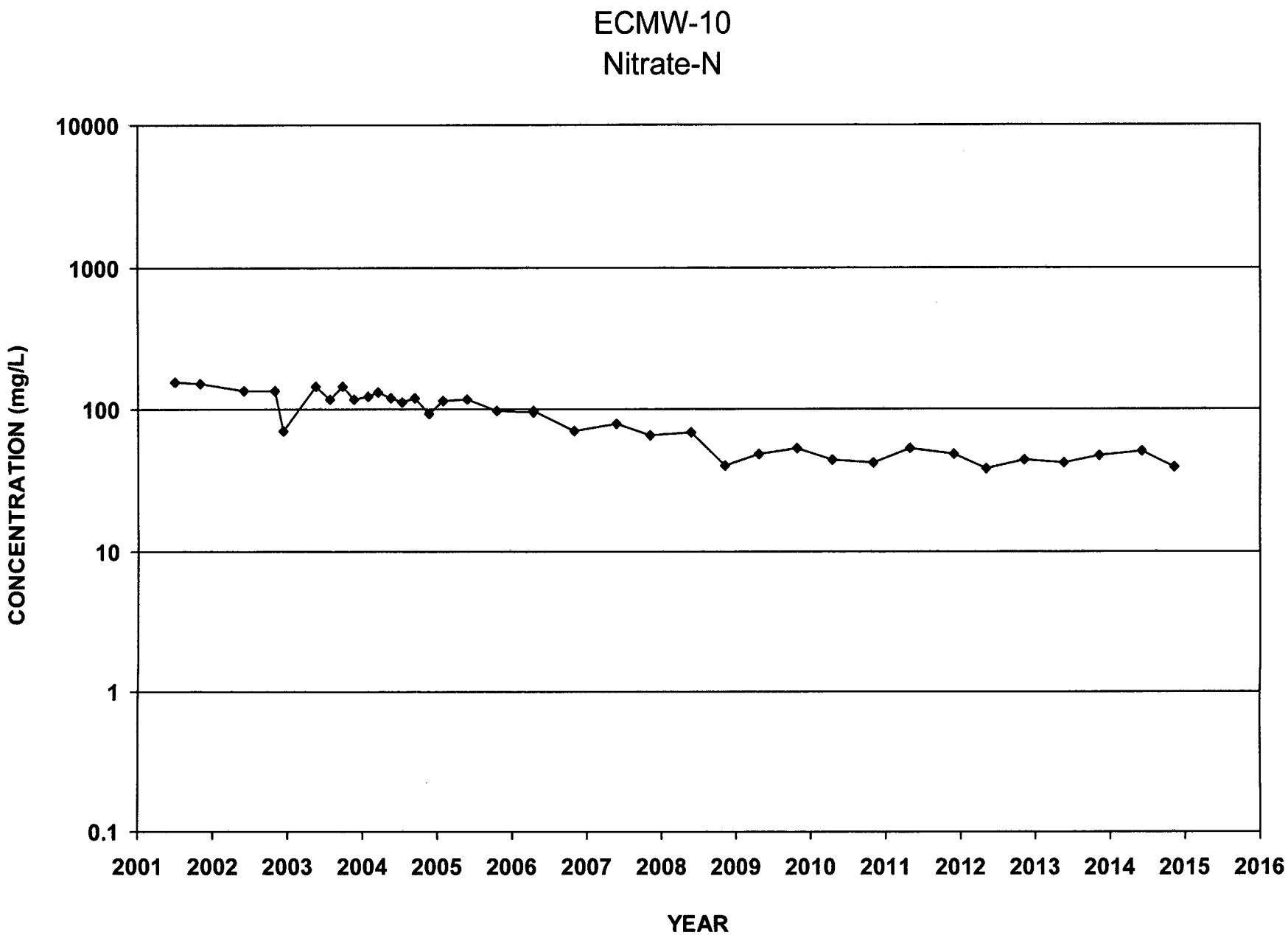
ECMW-10
Nitrate-N
10000
1000
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1
0.1
CONCENTRATION (mg/L)
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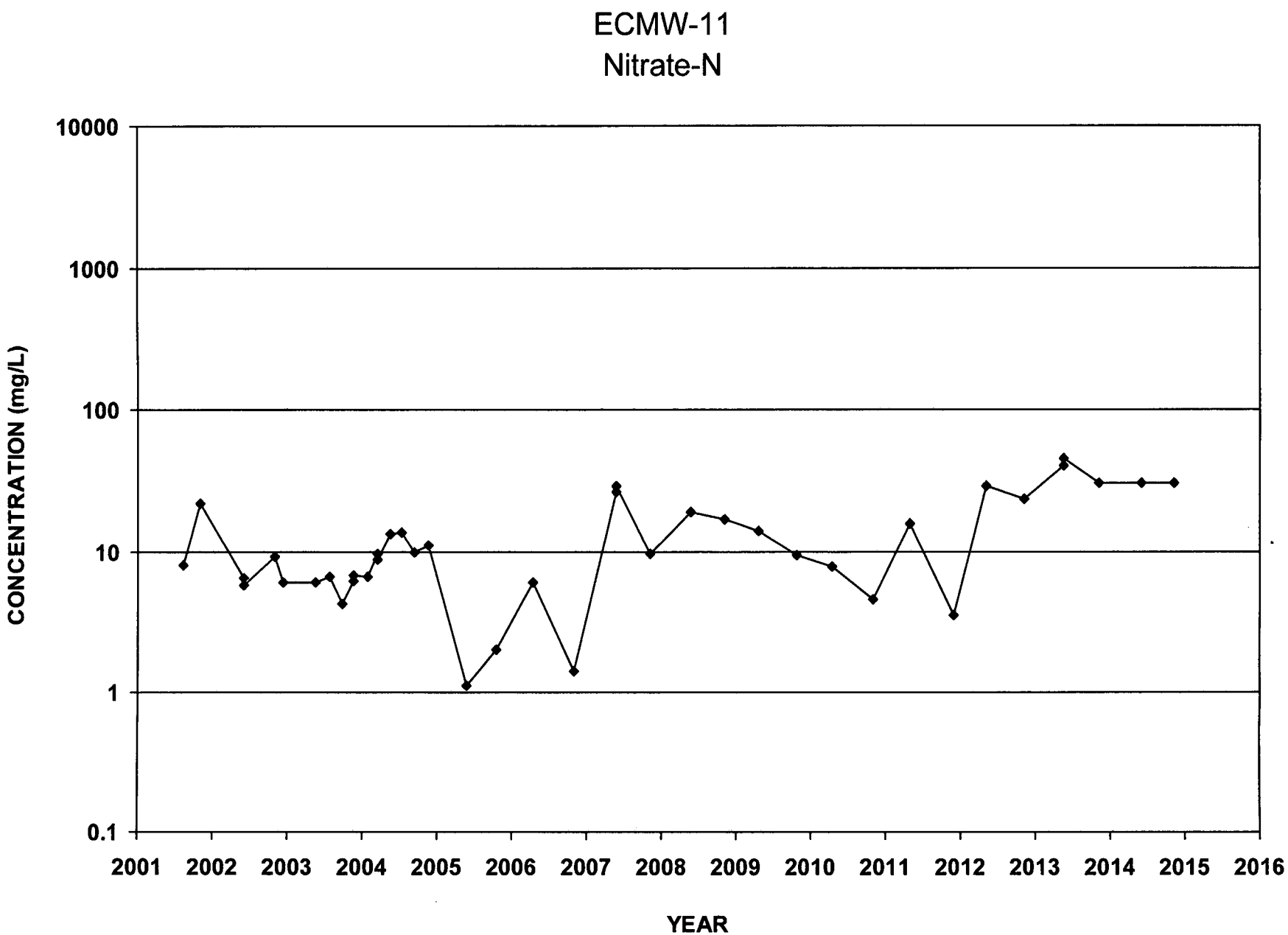
ECMW-11
Nitrate-N
10000
1000
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0.1
CONCENTRATION (mg/L)
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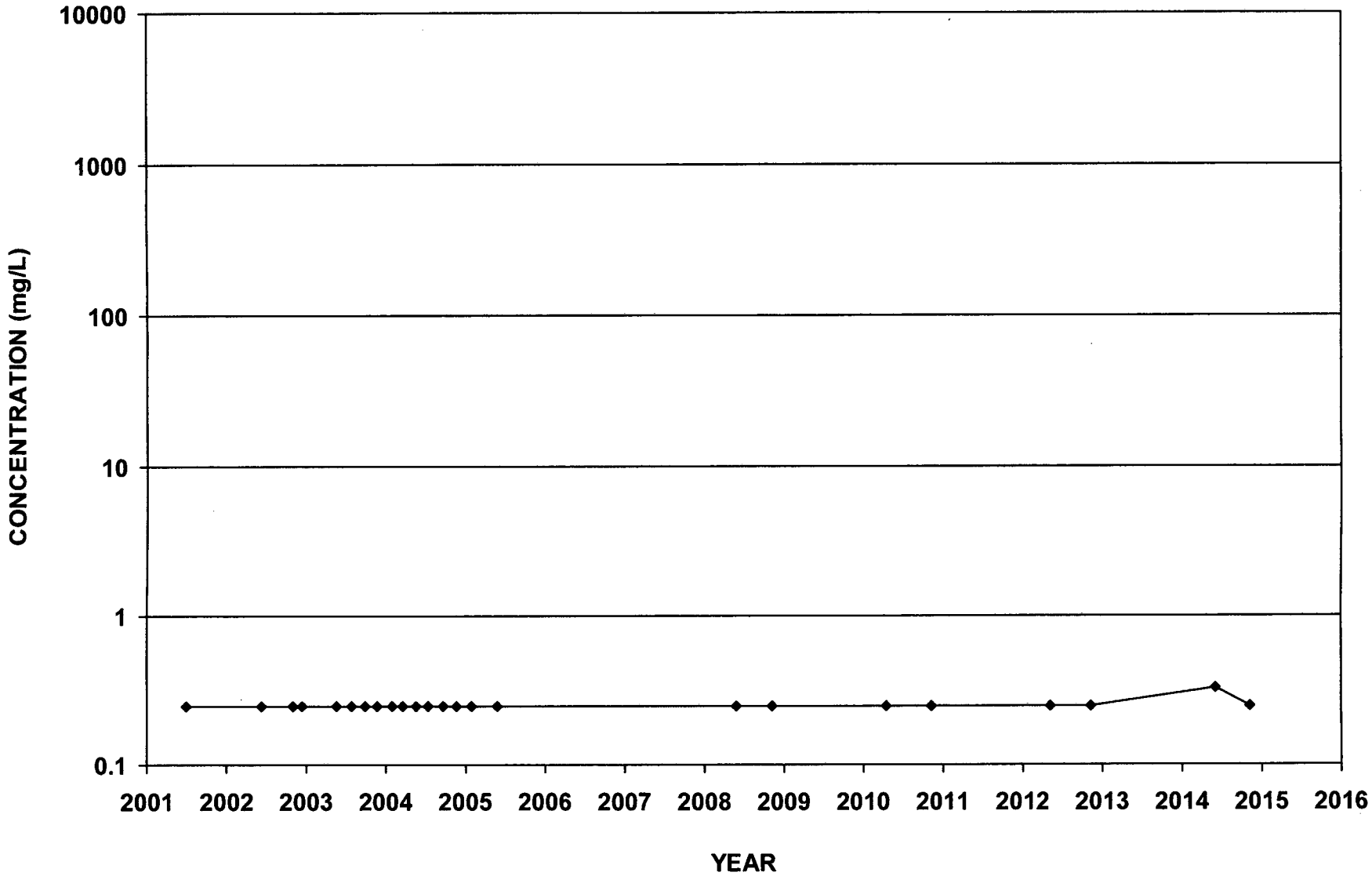
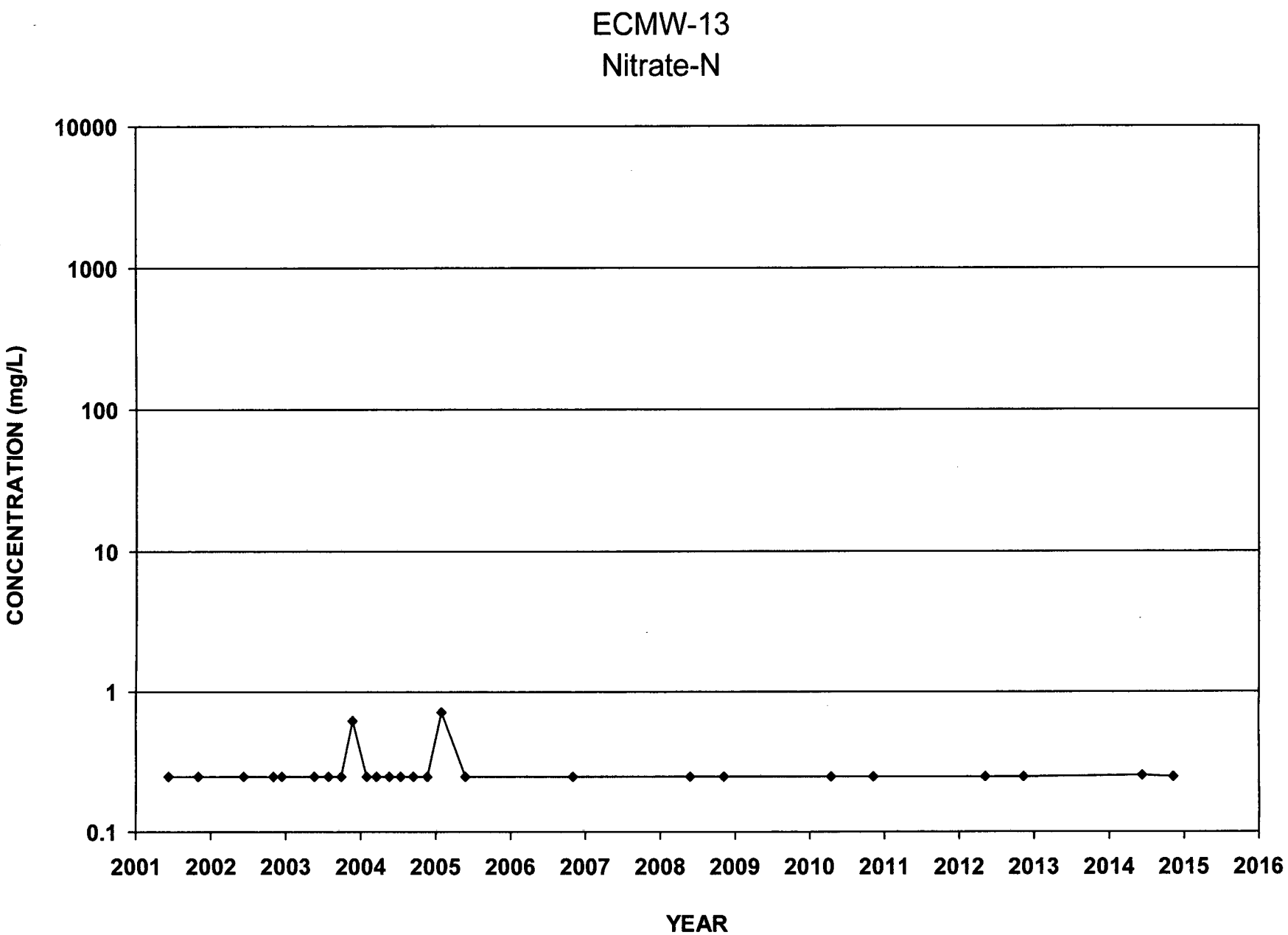
ECMW-12
Nitrate-N




ECMW-13
Nitrate-N
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CONCENTRATION (mg/L)
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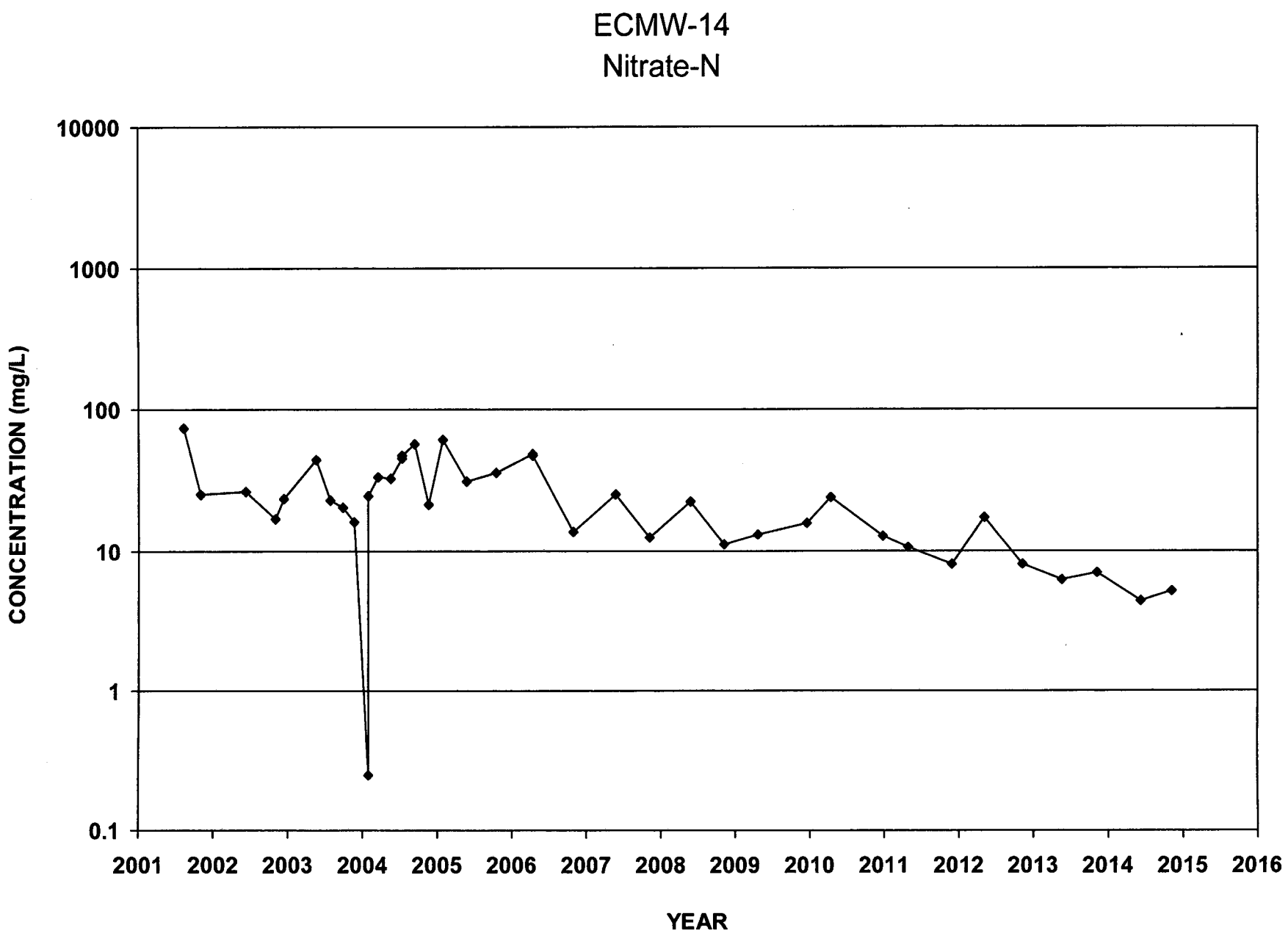
ECMW-14
Nitrate-N
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CONCENTRATION (mg/L)
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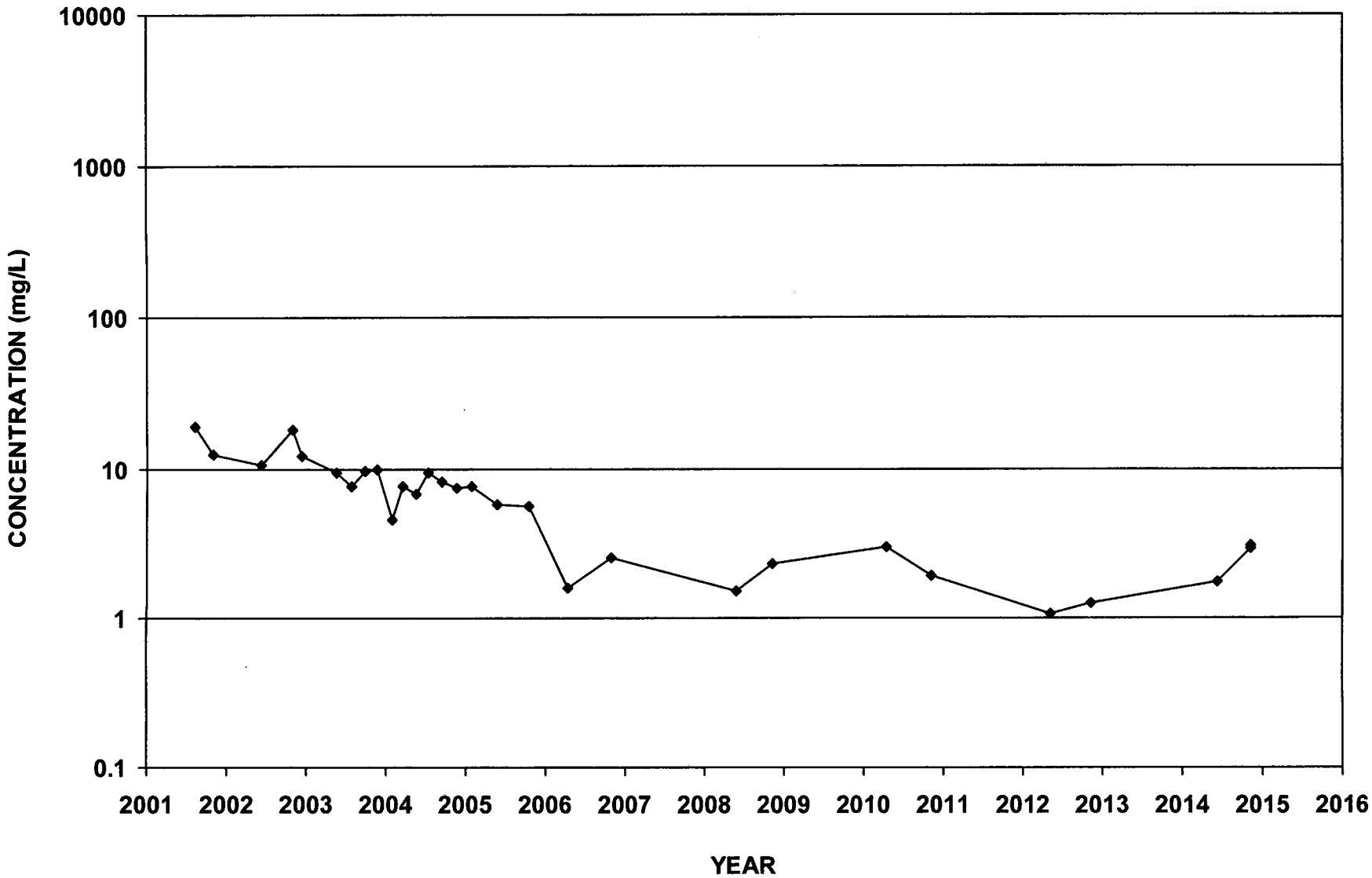
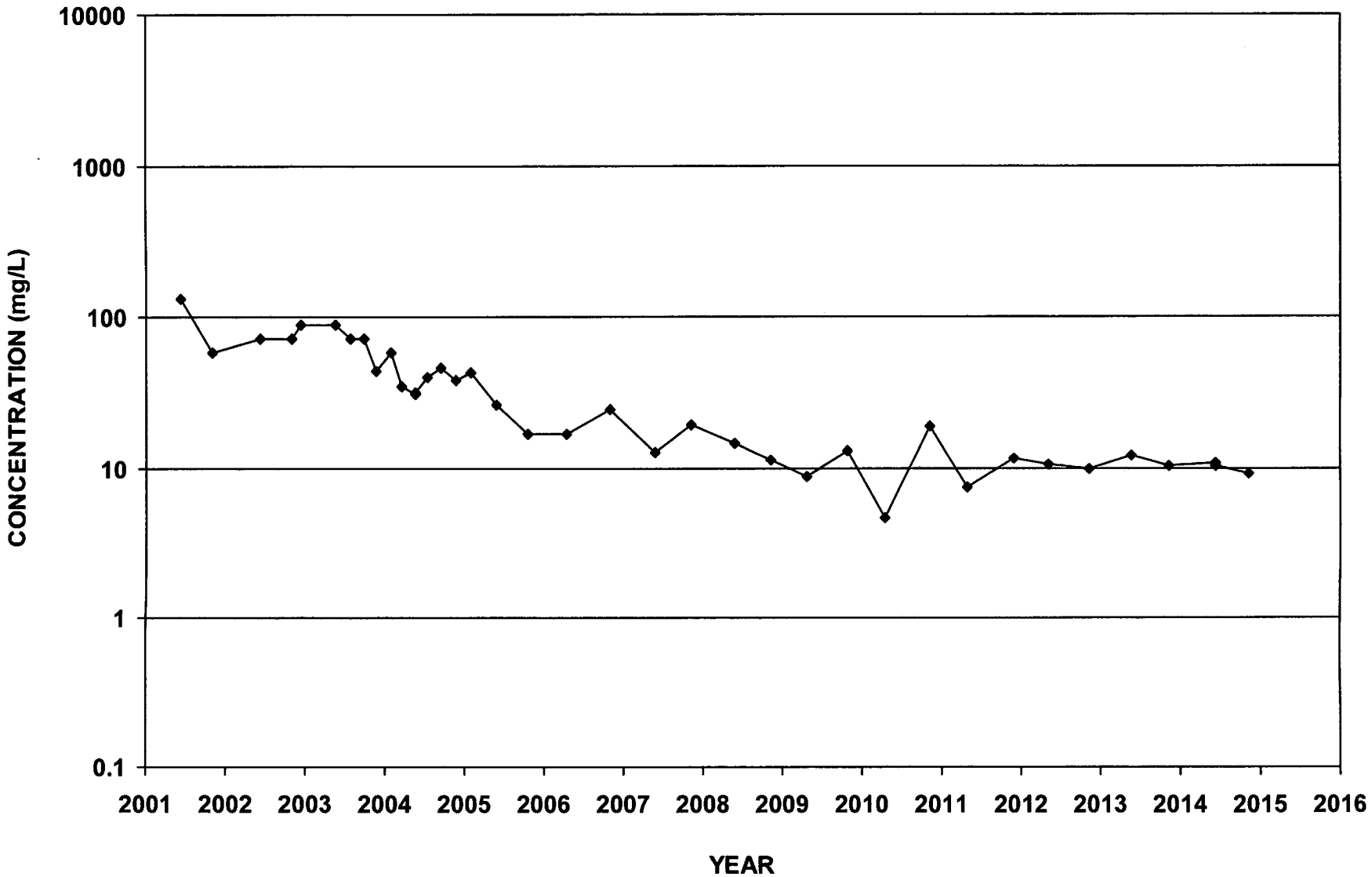
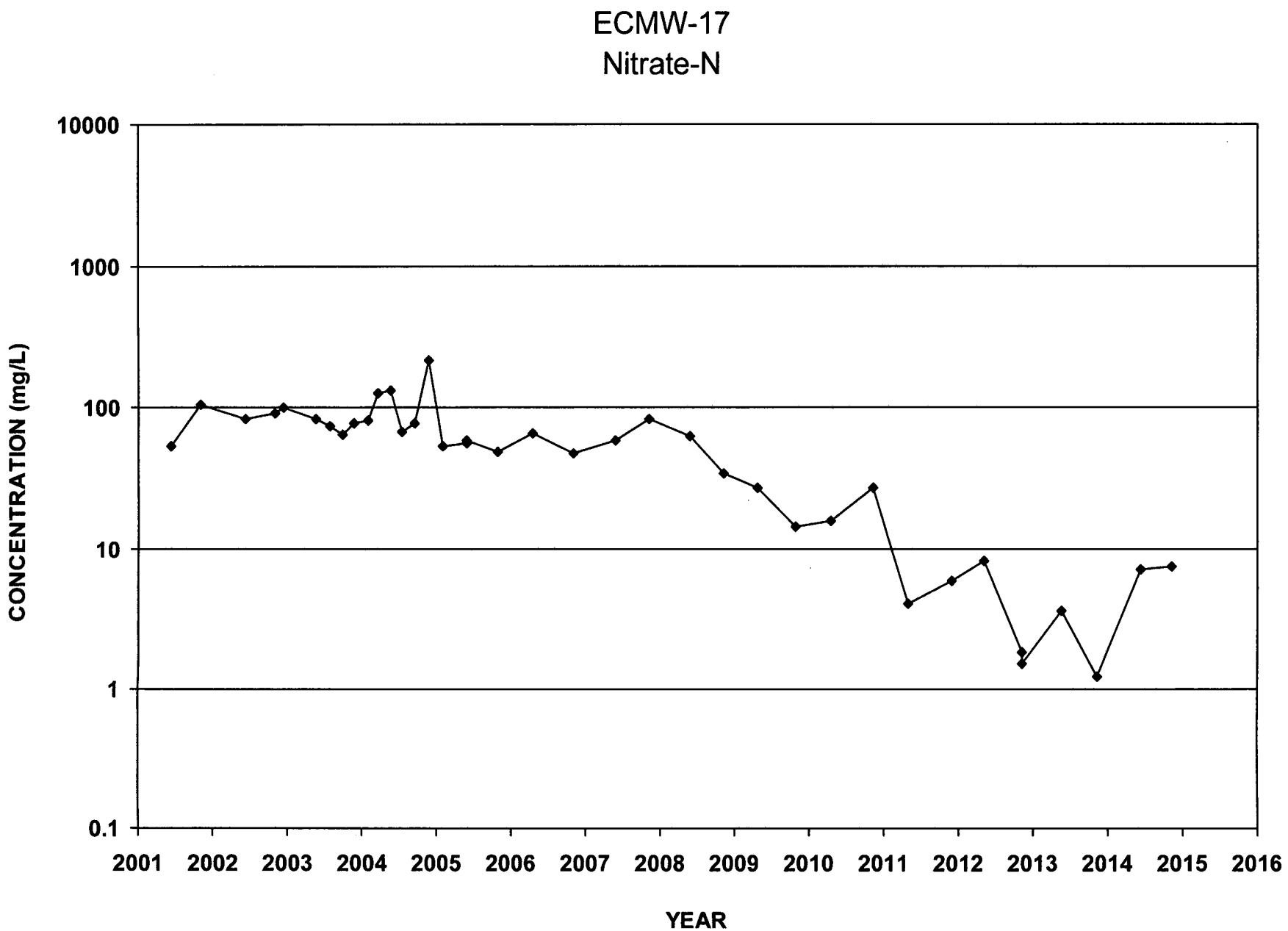
ECMW-15
Nitrate-N



ECMW-16
Nitrate-N




ECMW-17
Nitrate-N
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CONCENTRATION (mg/L)
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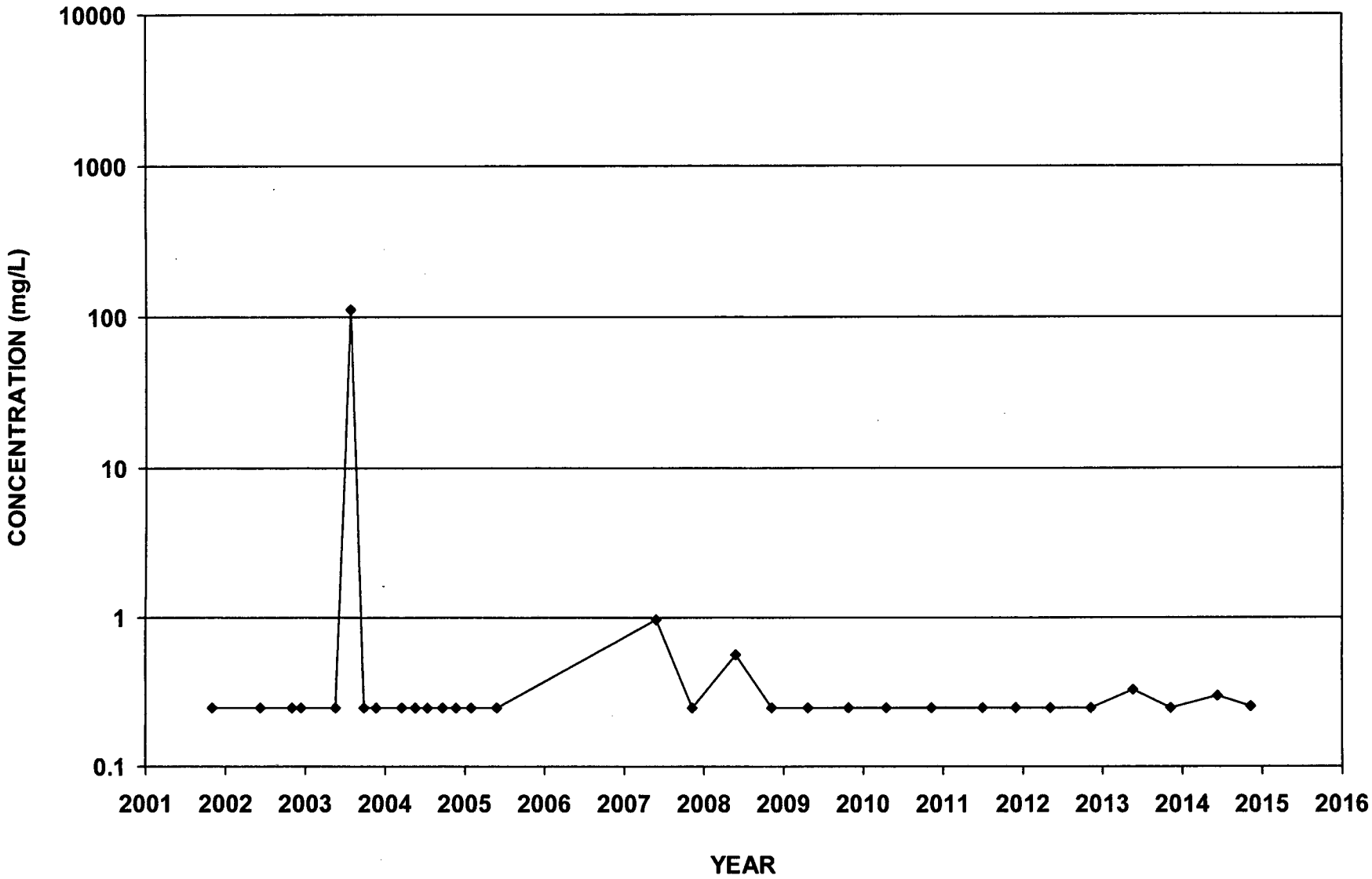
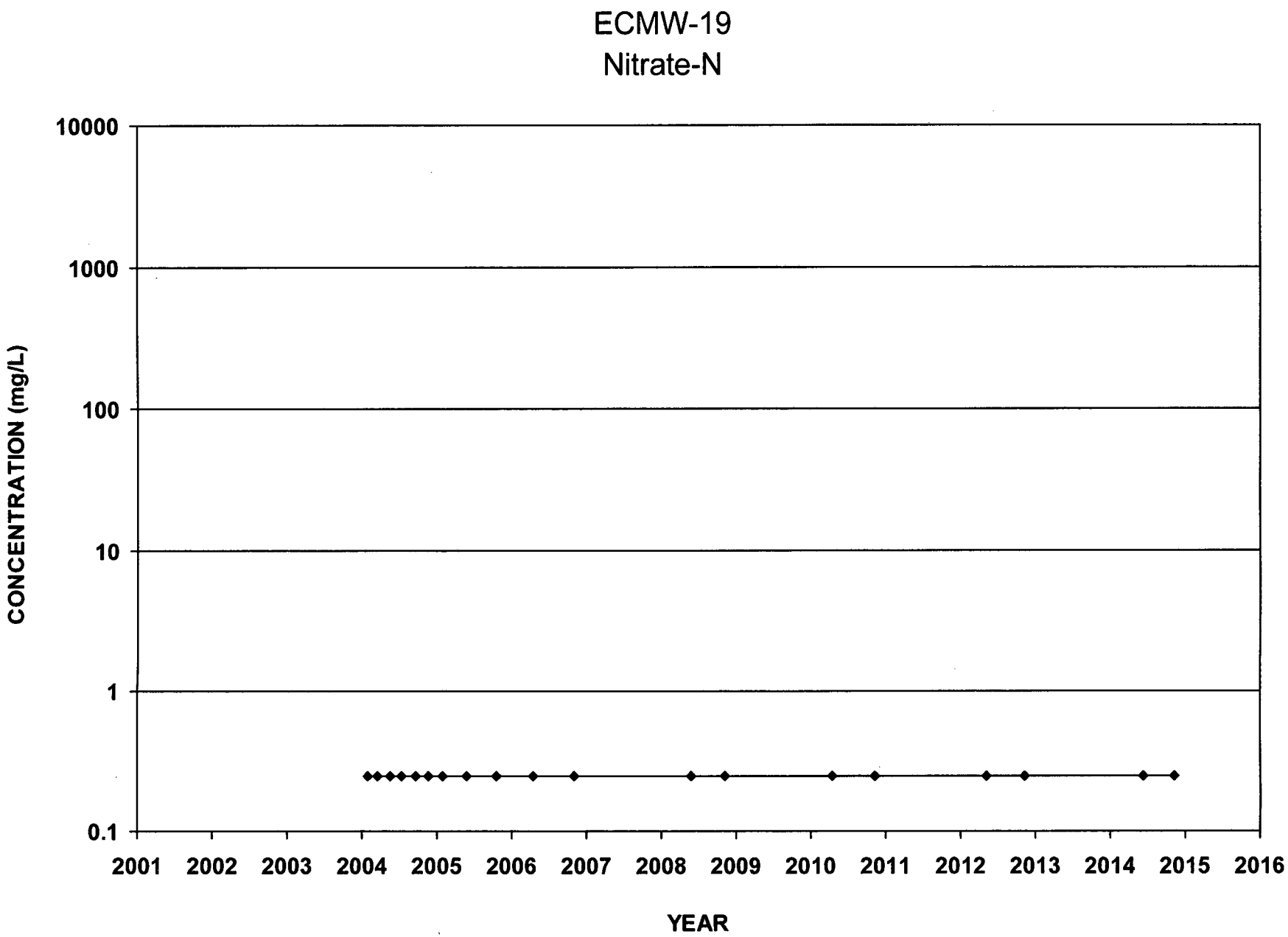
ECMW-18
Nitrate-N




ECMW-19
Nitrate-N
10000
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CONCENTRATION (mg/L)
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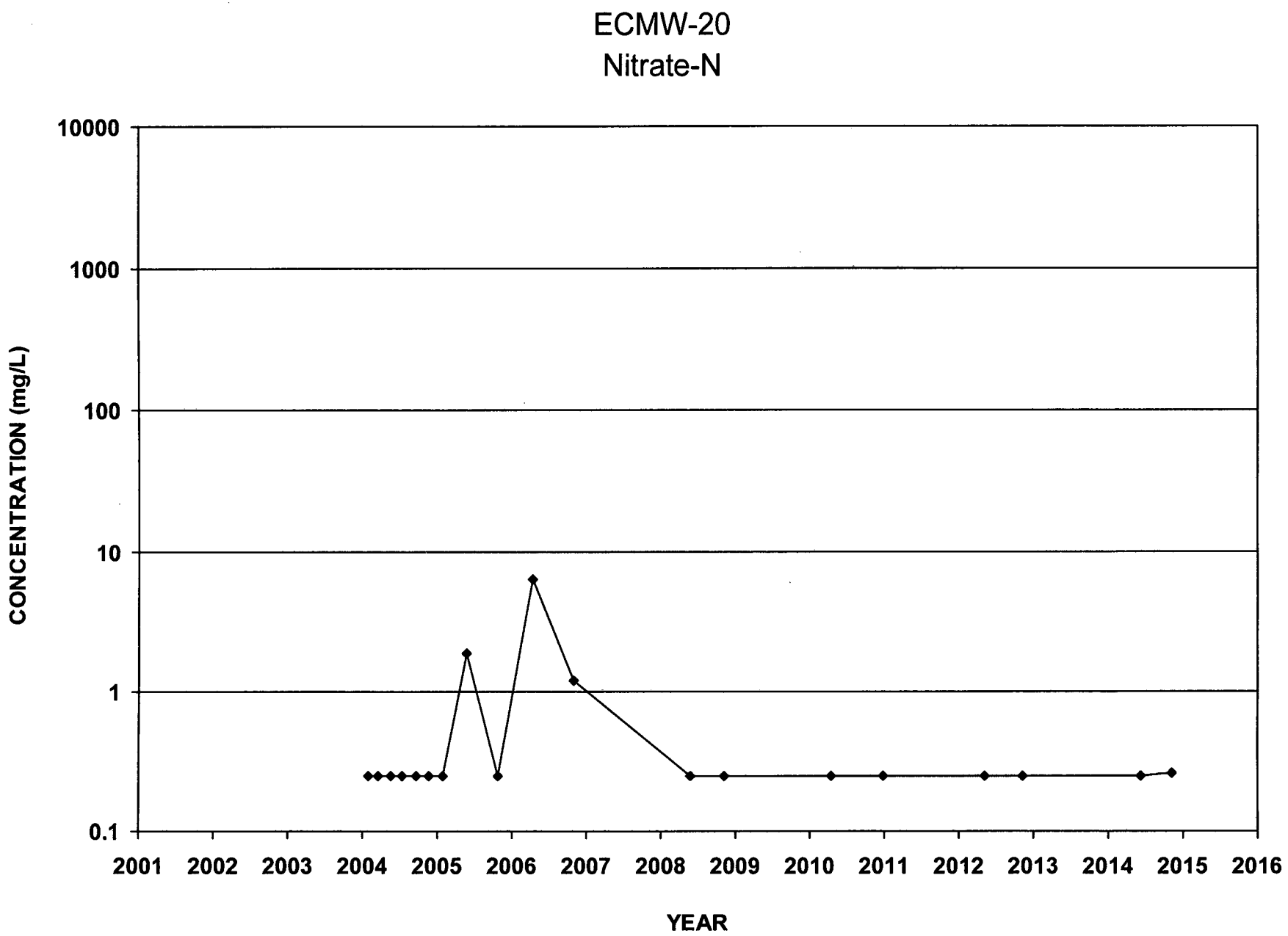
ECMW-20
Nitrate-N
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CONCENTRATION (mg/L)
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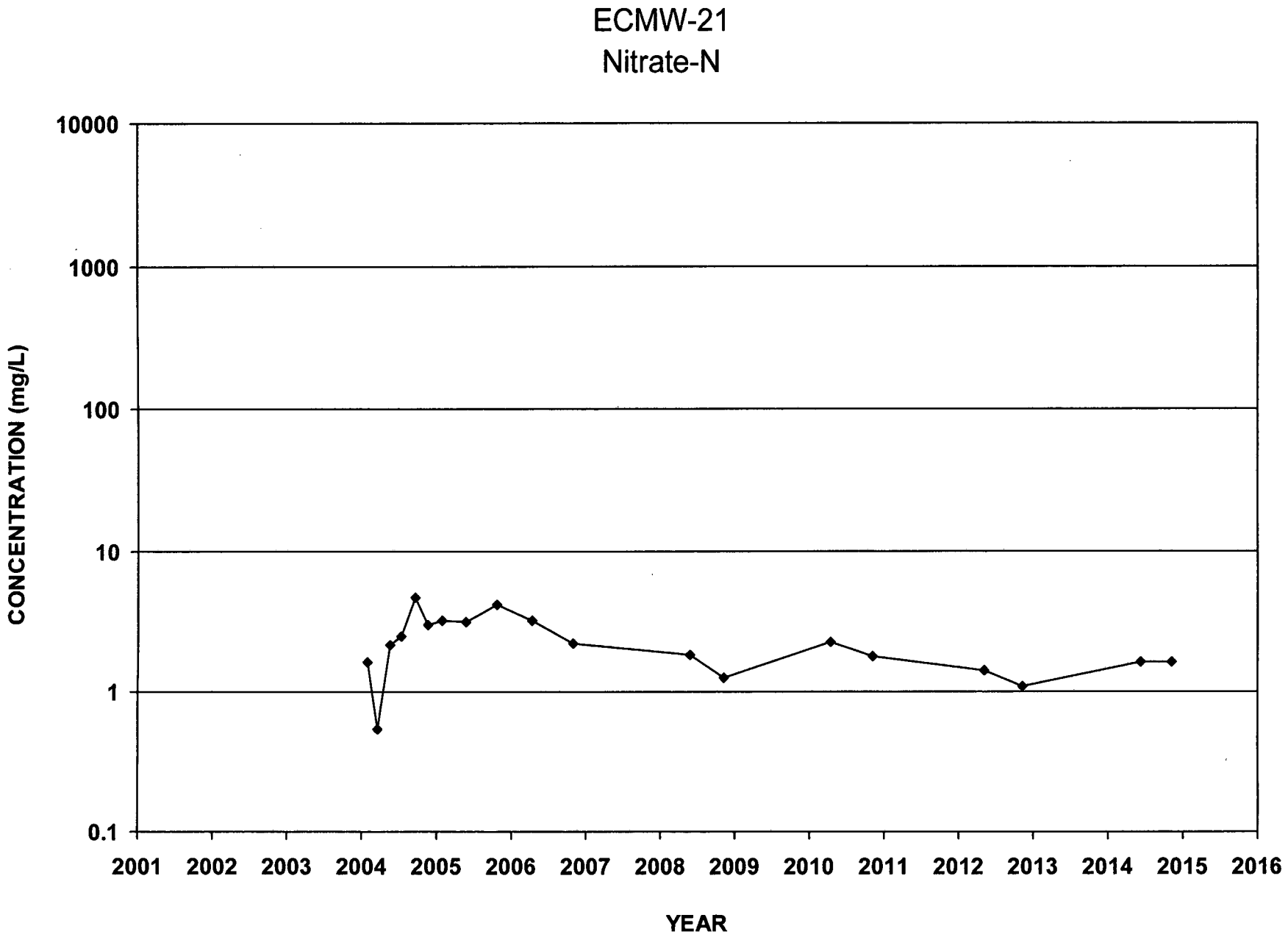
ECMW-21
Nitrate-N
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CONCENTRATION (mg/L)
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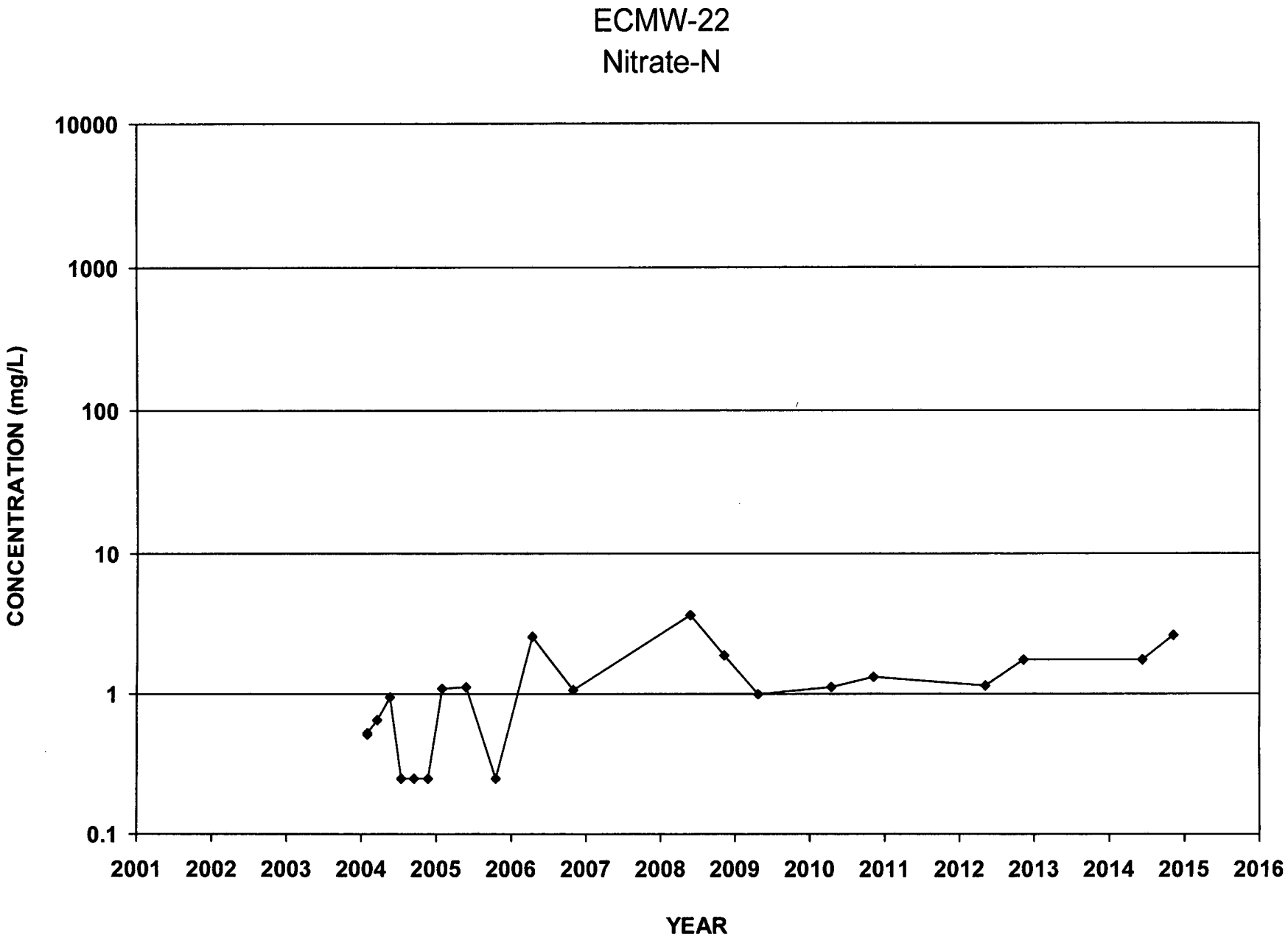
YEAR


ECMW-22
Nitrate-N
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CONCENTRATION (mg/L)
2001
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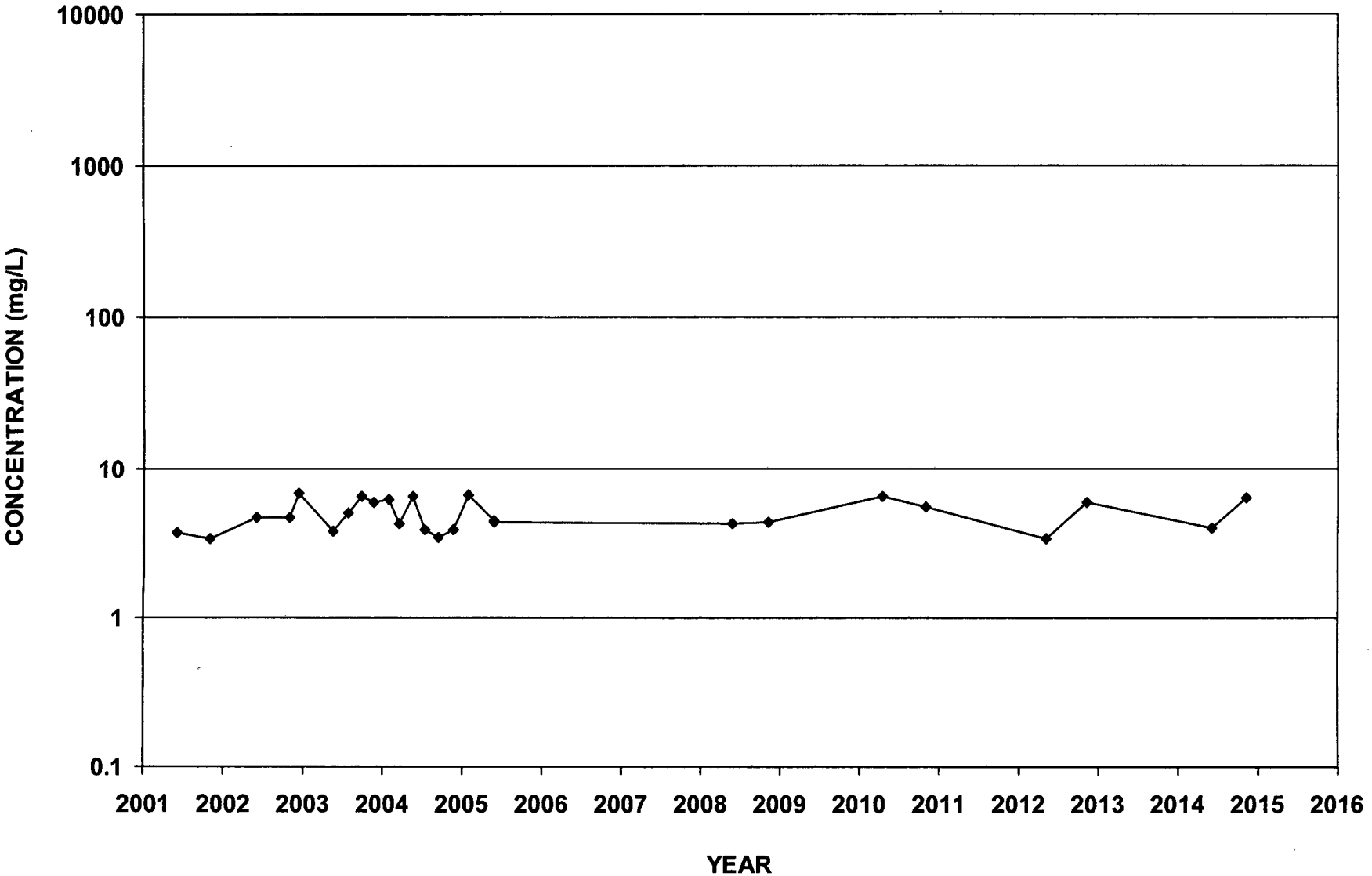
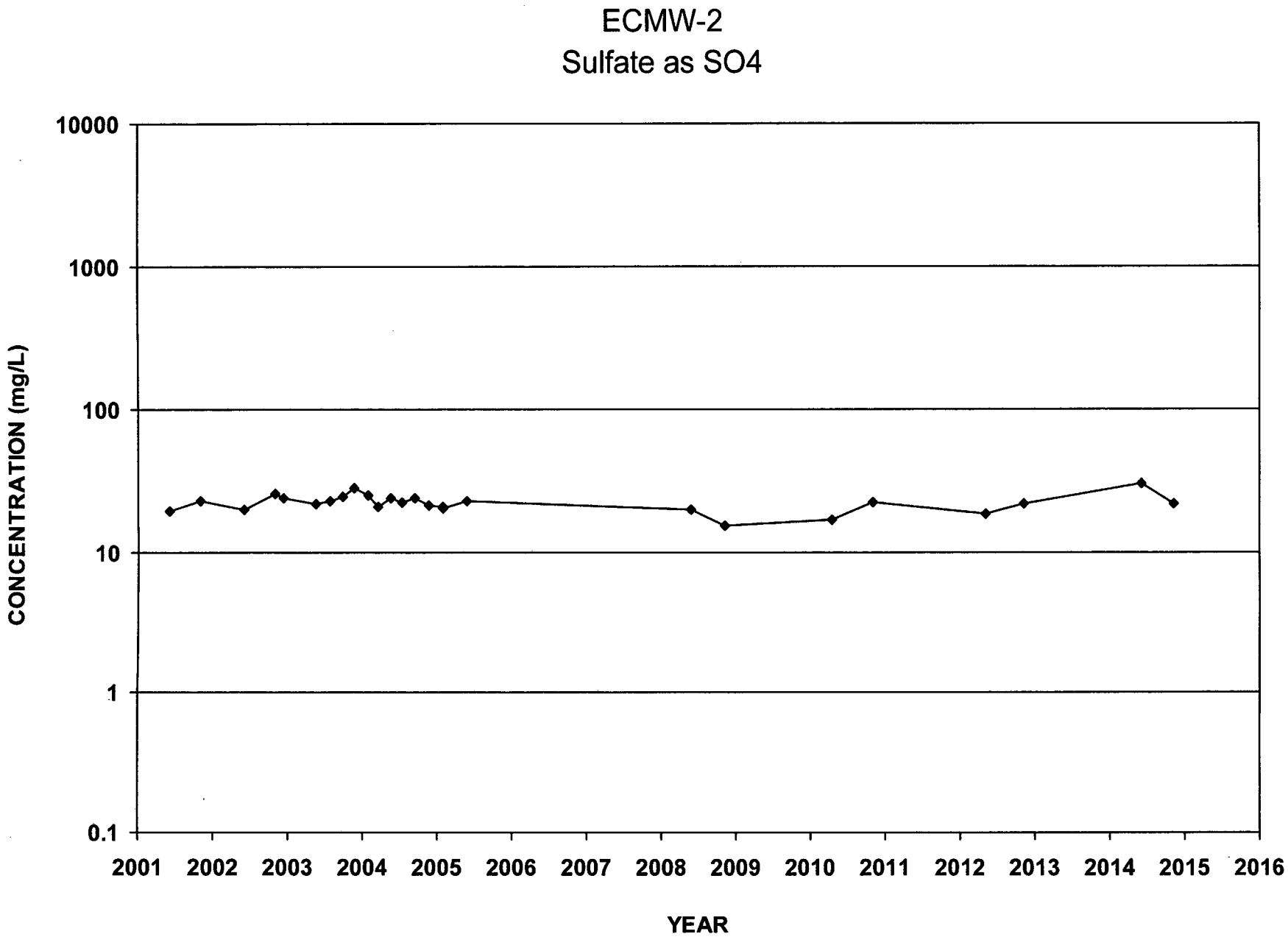
2016
YEAR

ECMW-1
Sulfate as SO4




ECMW-2
Sulfate as SO4
10000
1000
100
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1
0.1
CONCENTRATION (mg/L)
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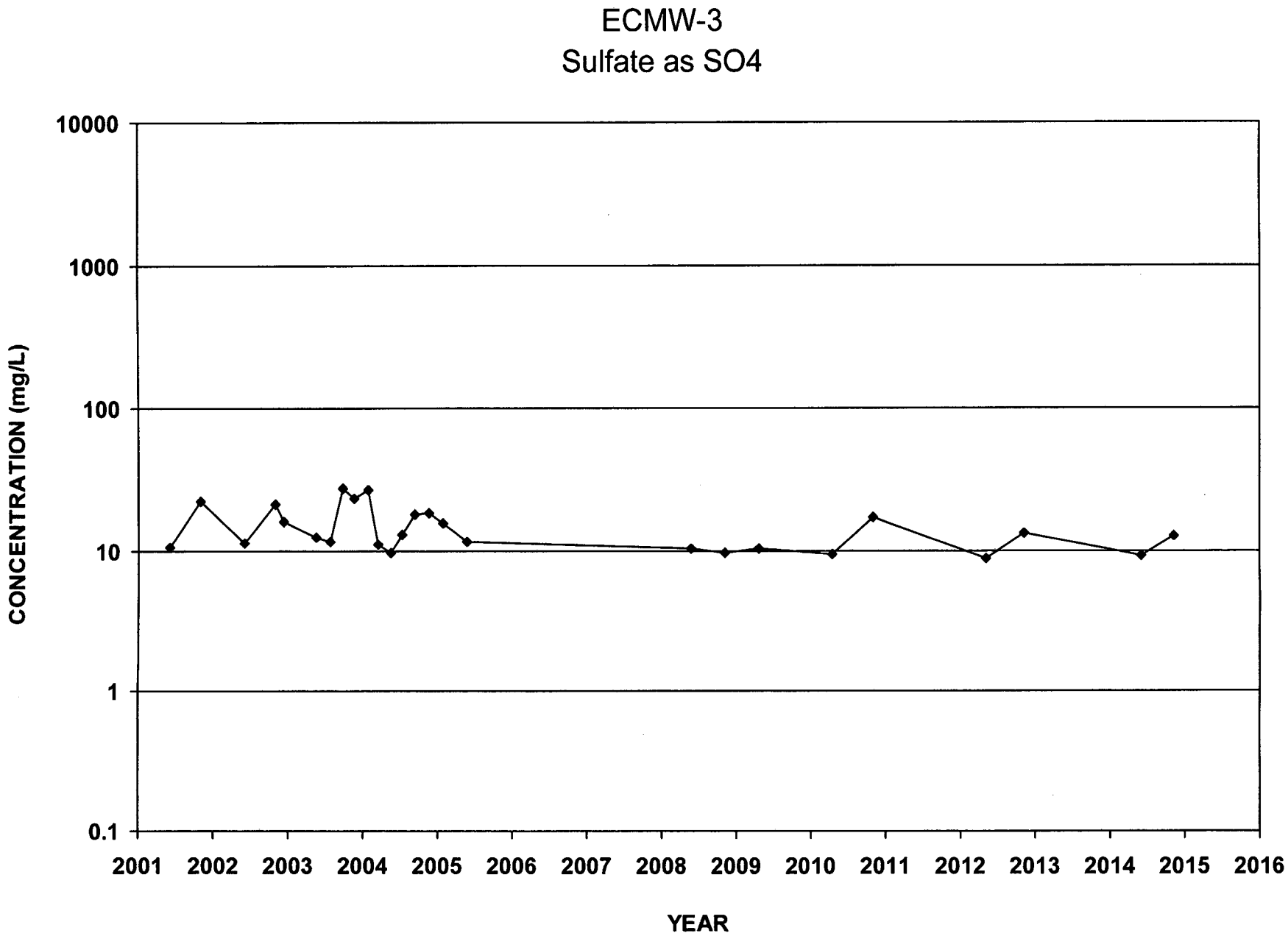
2016
YEAR


ECMW-3
Sulfate as SO4
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
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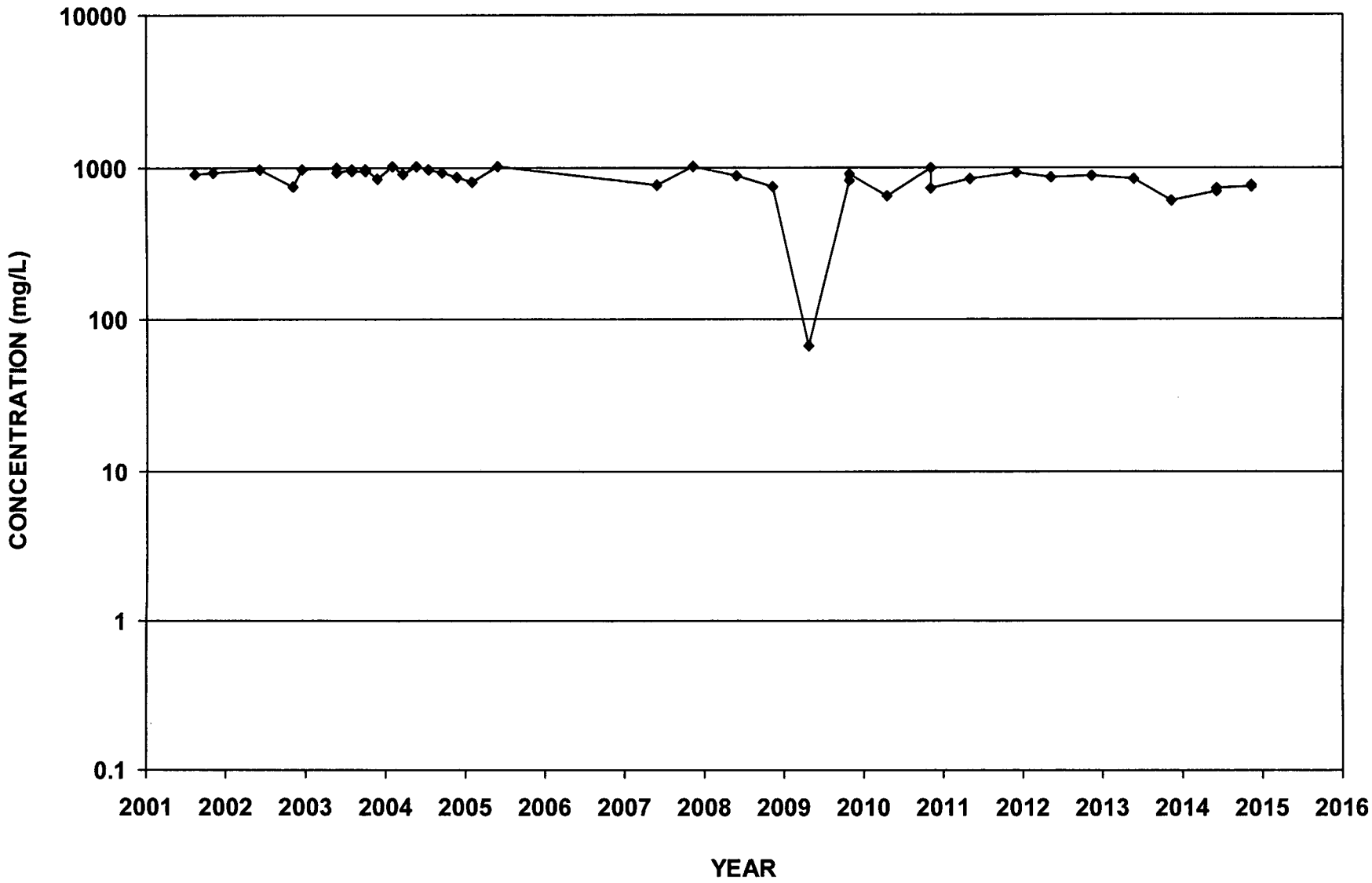
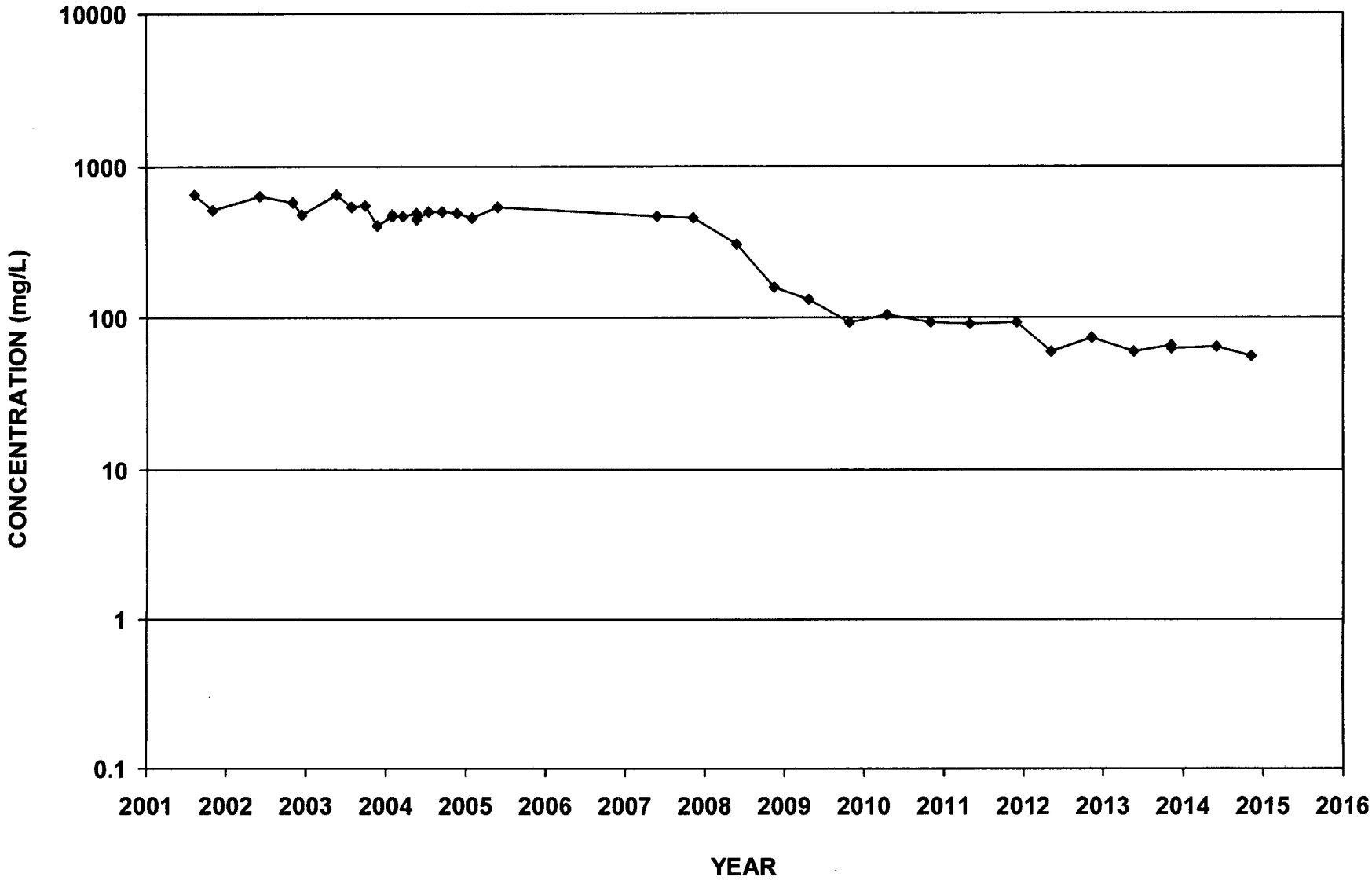
2016
YEAR

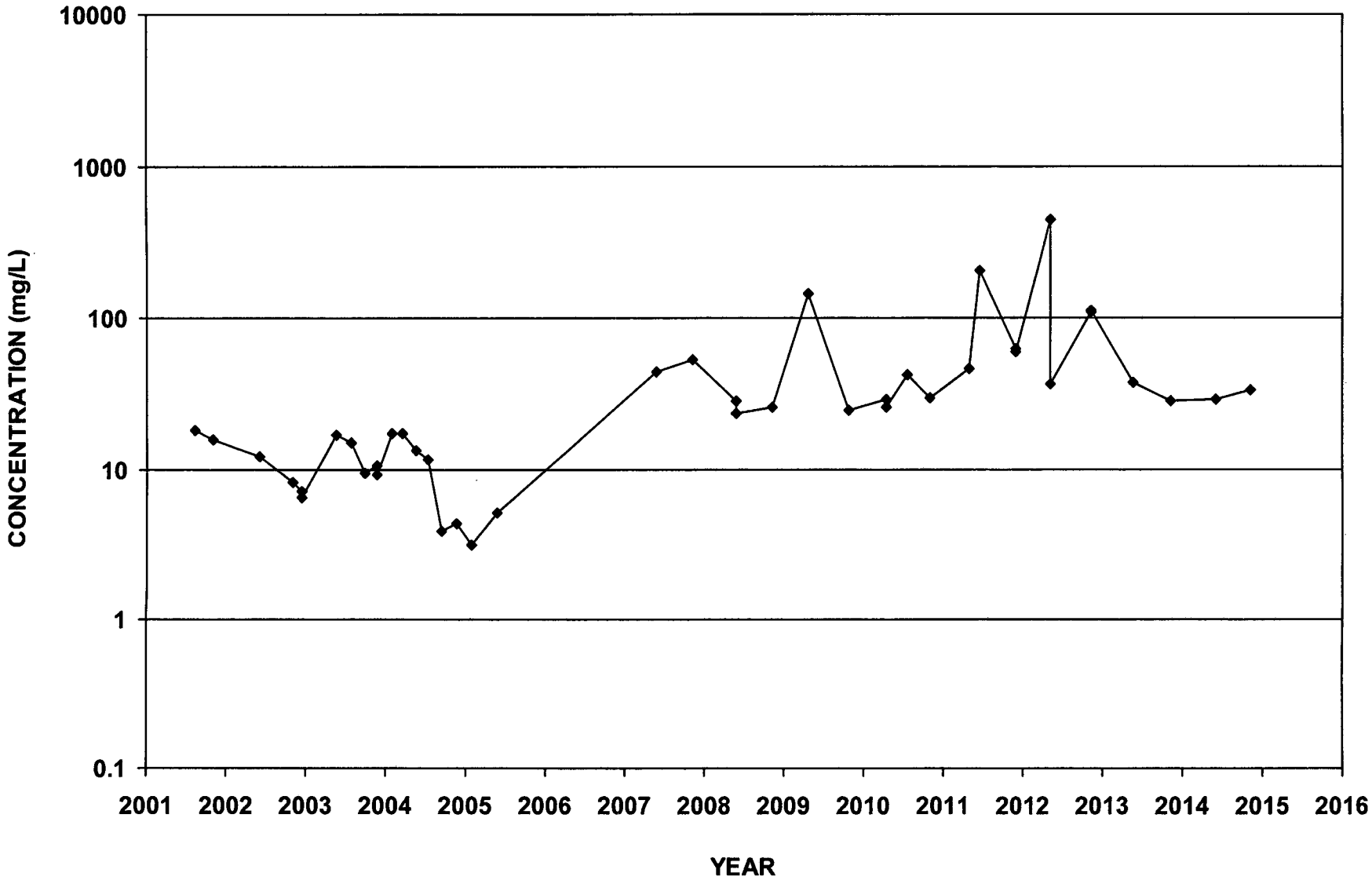
ECMW-4
Sulfate as SO4



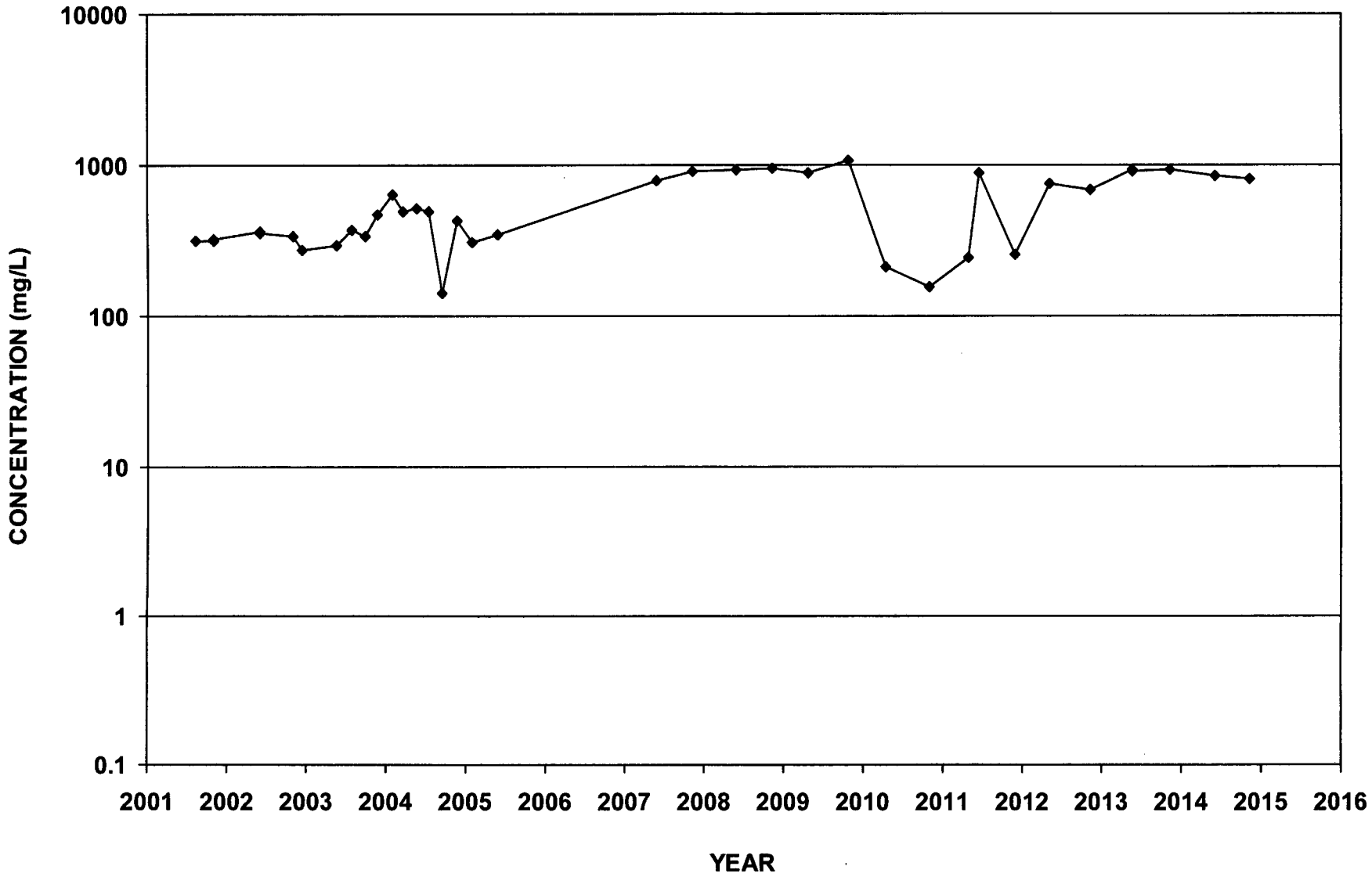
ECMW-5
Sulfate as SO4



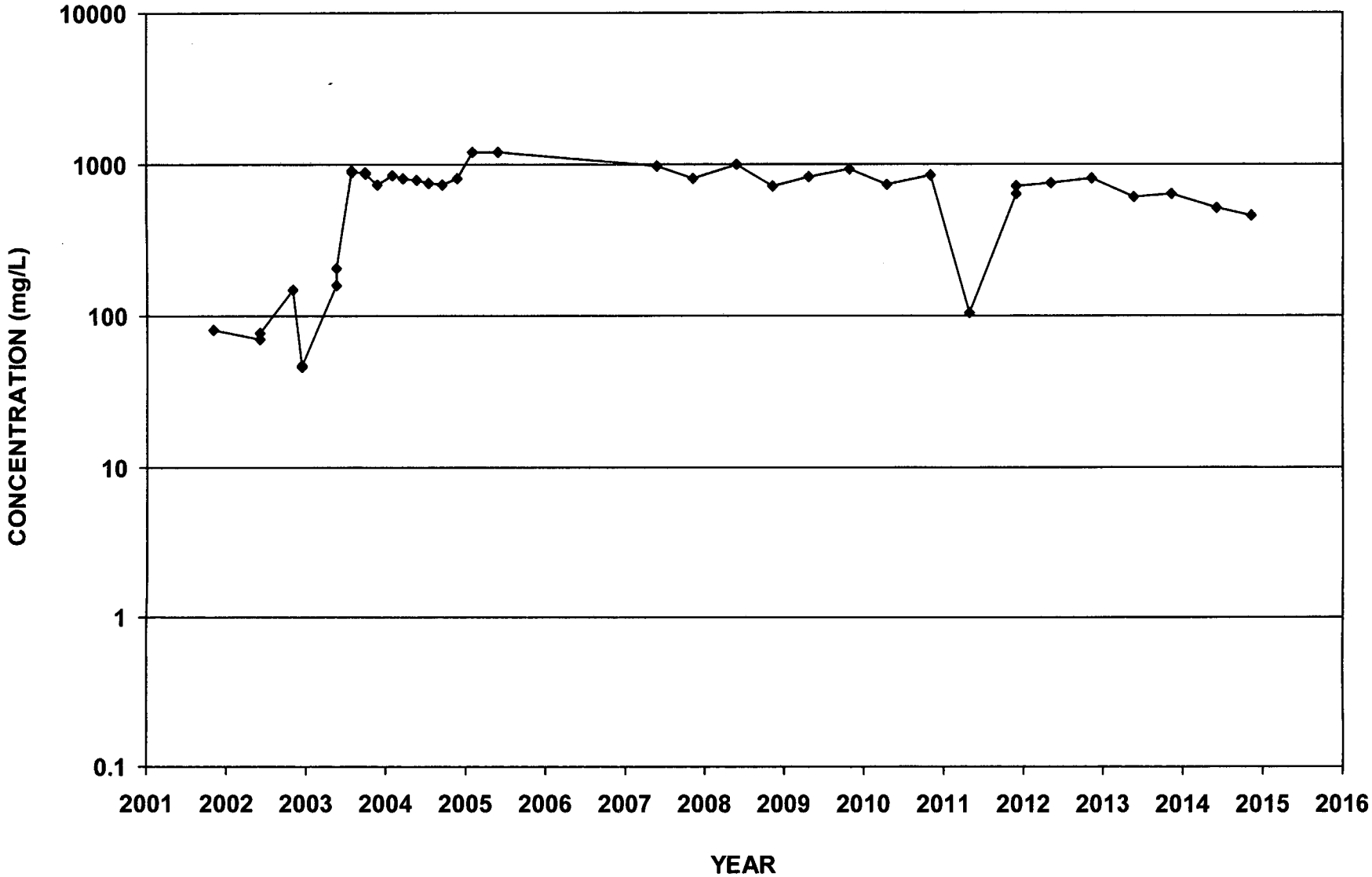
ECMW-6
Sulfate as SO4

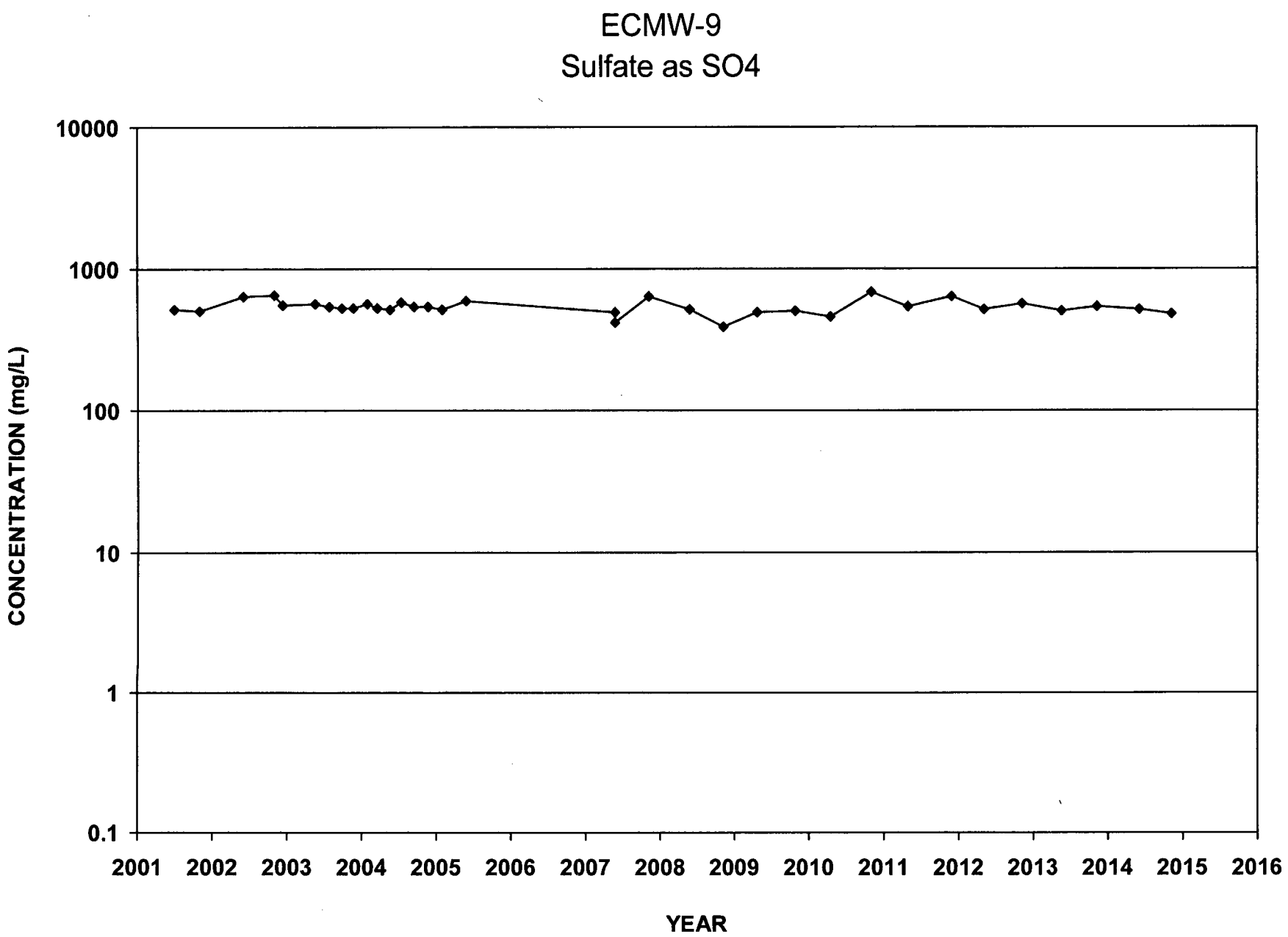


ECMW-7
Sulfate as SO4



ECMW-8
Sulfate as SO4




ECMW-9
Sulfate as SO4
10000
1000
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0.1
CONCENTRATION (mg/L)
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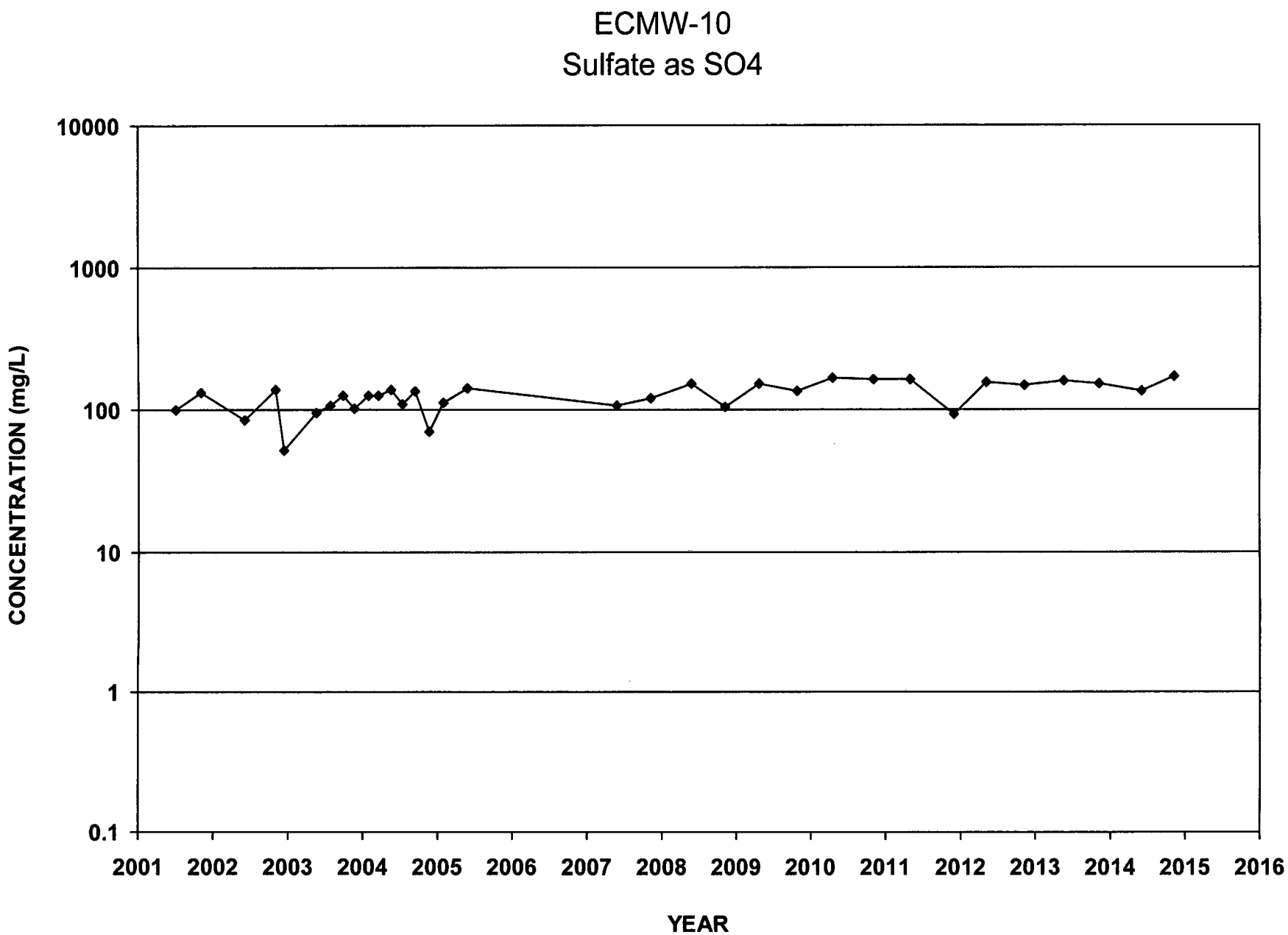
YEAR


ECMW-10
Sulfate as SO4
10000
1000
100
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1
0.1
CONCENTRATION (mg/L)
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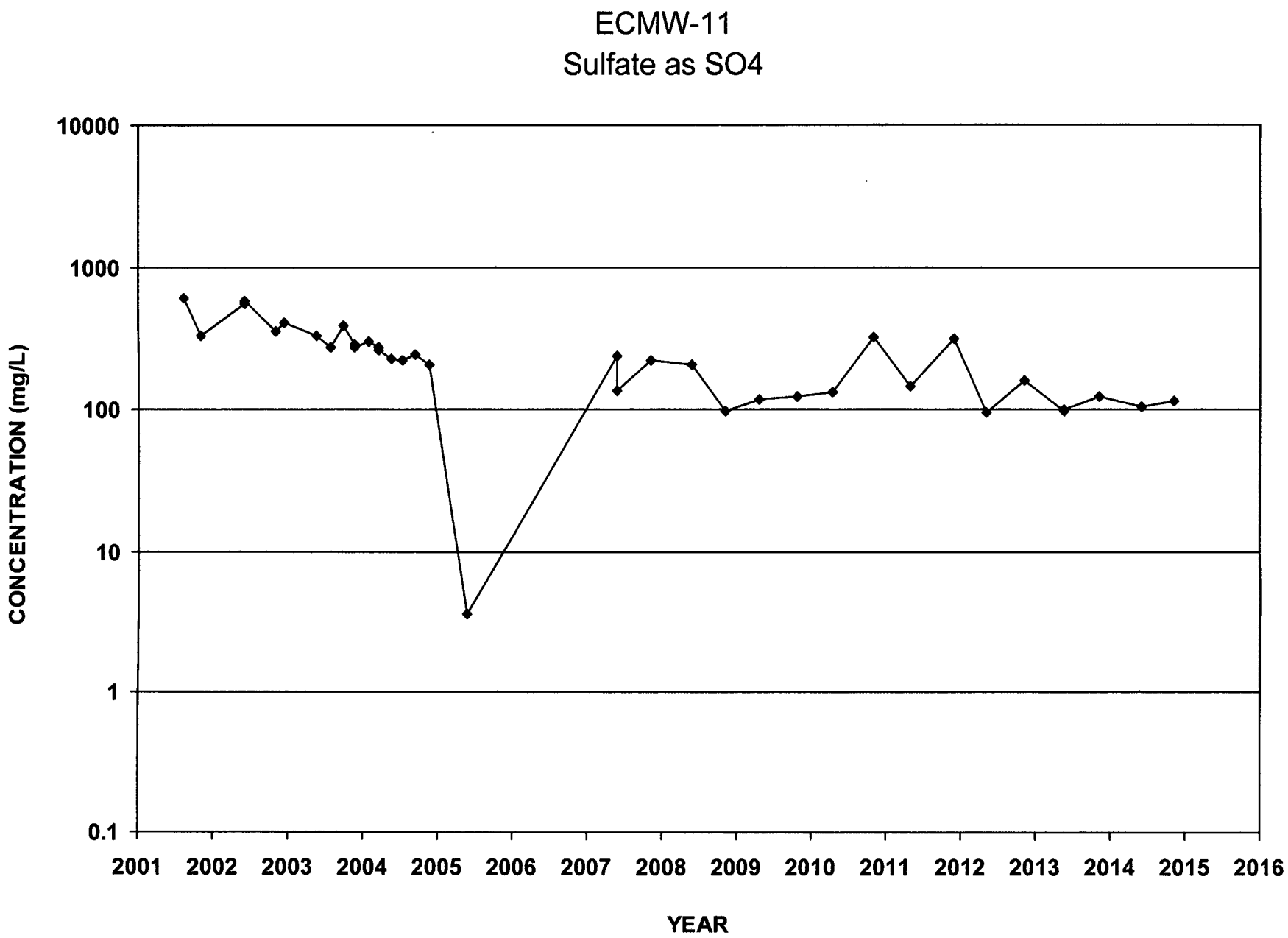
2016
YEAR


ECMW-11
Sulfate as SO4
10000
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100
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0.1
CONCENTRATION (mg/L)
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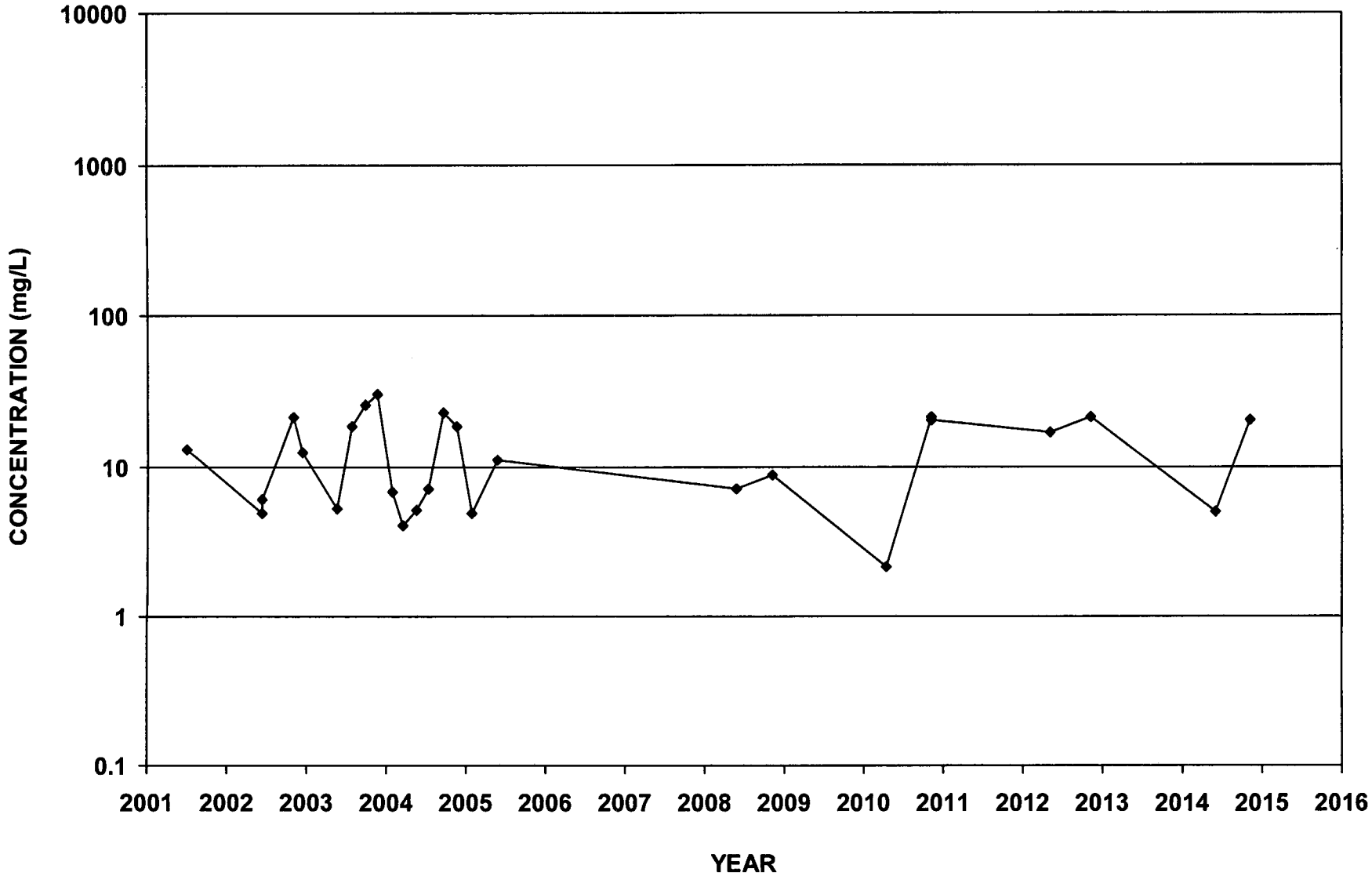
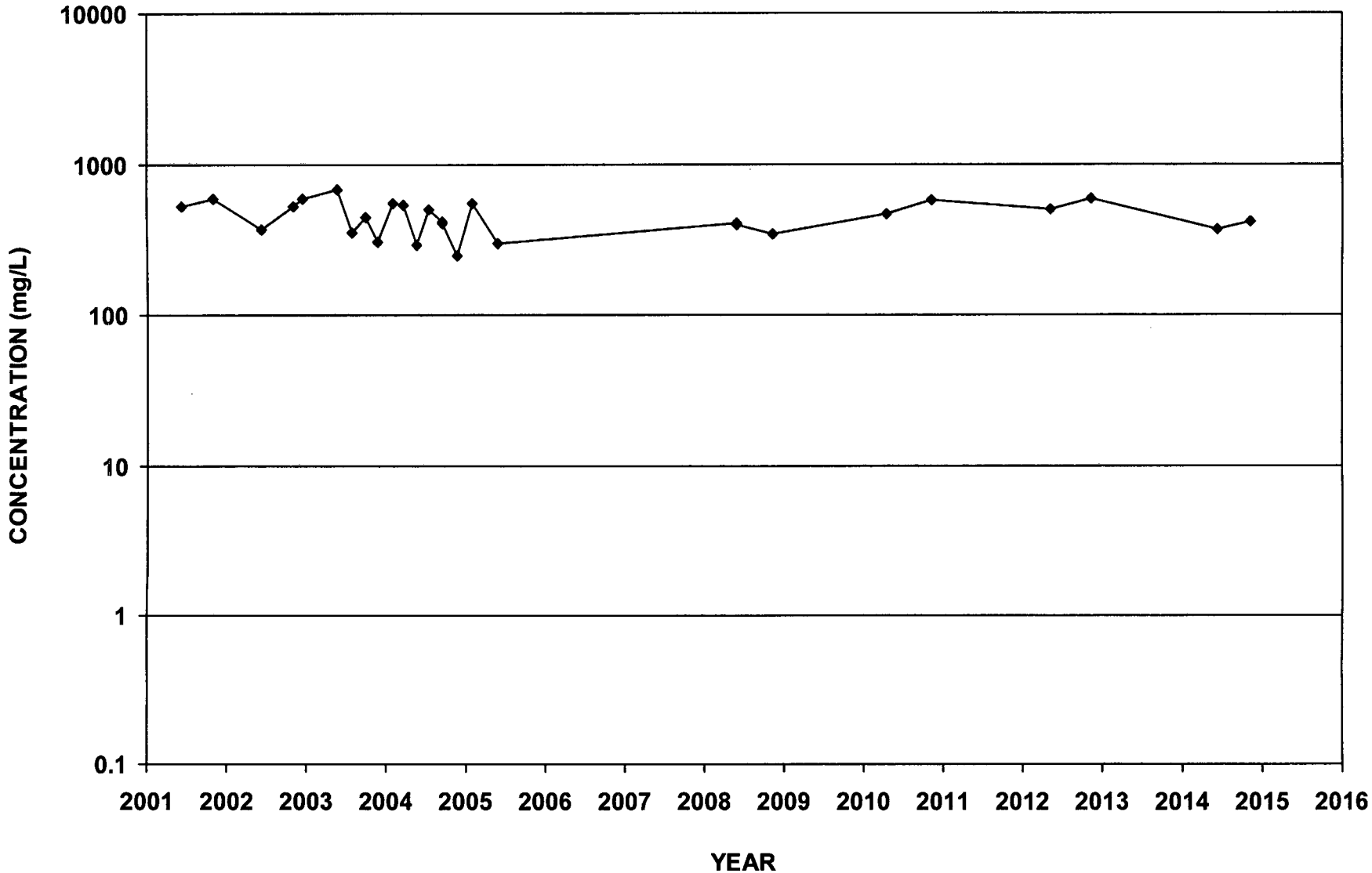
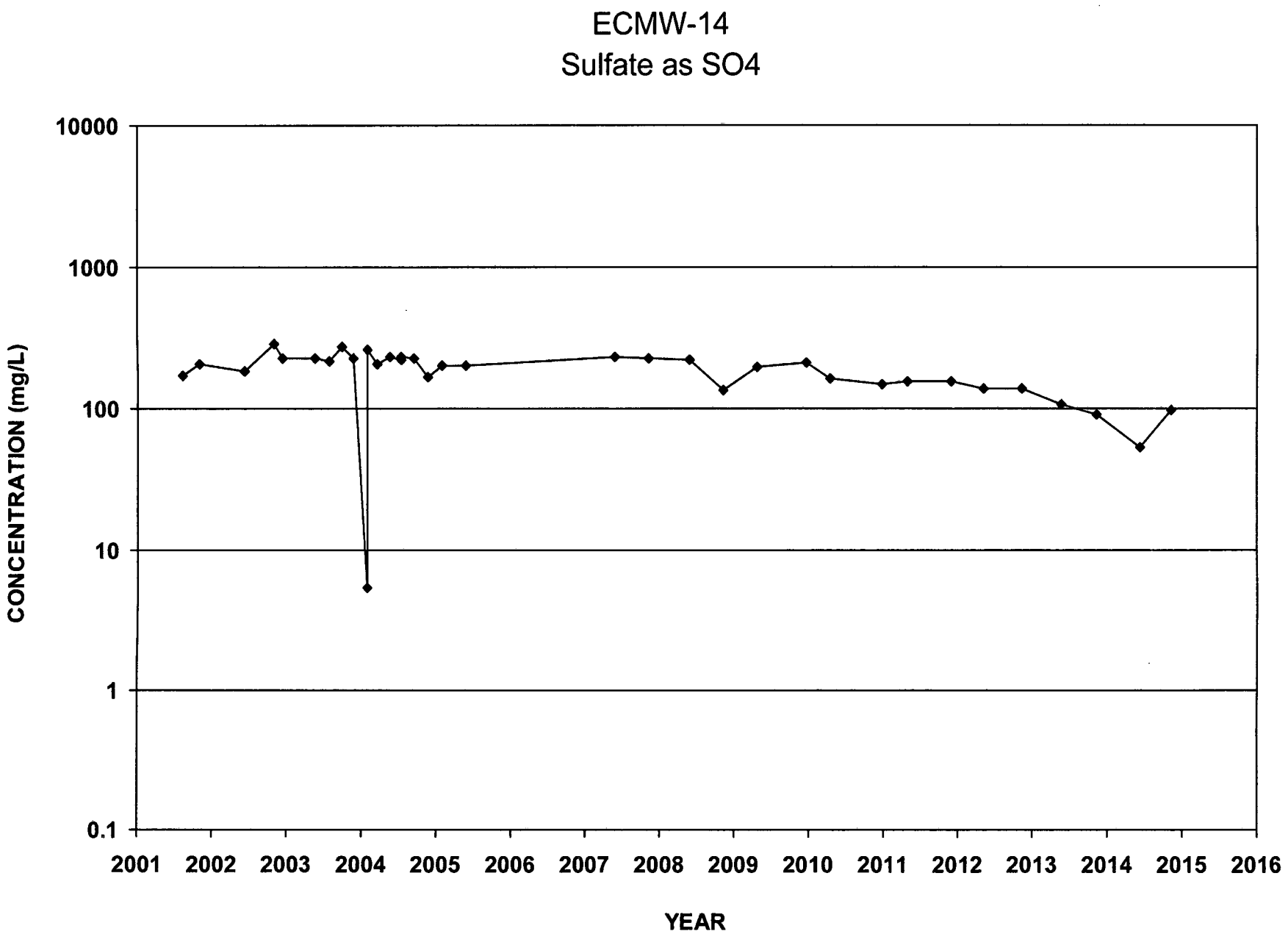
YEAR

ECMW-12
Sulfate as SO4



ECMW-13
Sulfate as SO4




ECMW-14
Sulfate as SO4
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0.1
CONCENTRATION (mg/L)
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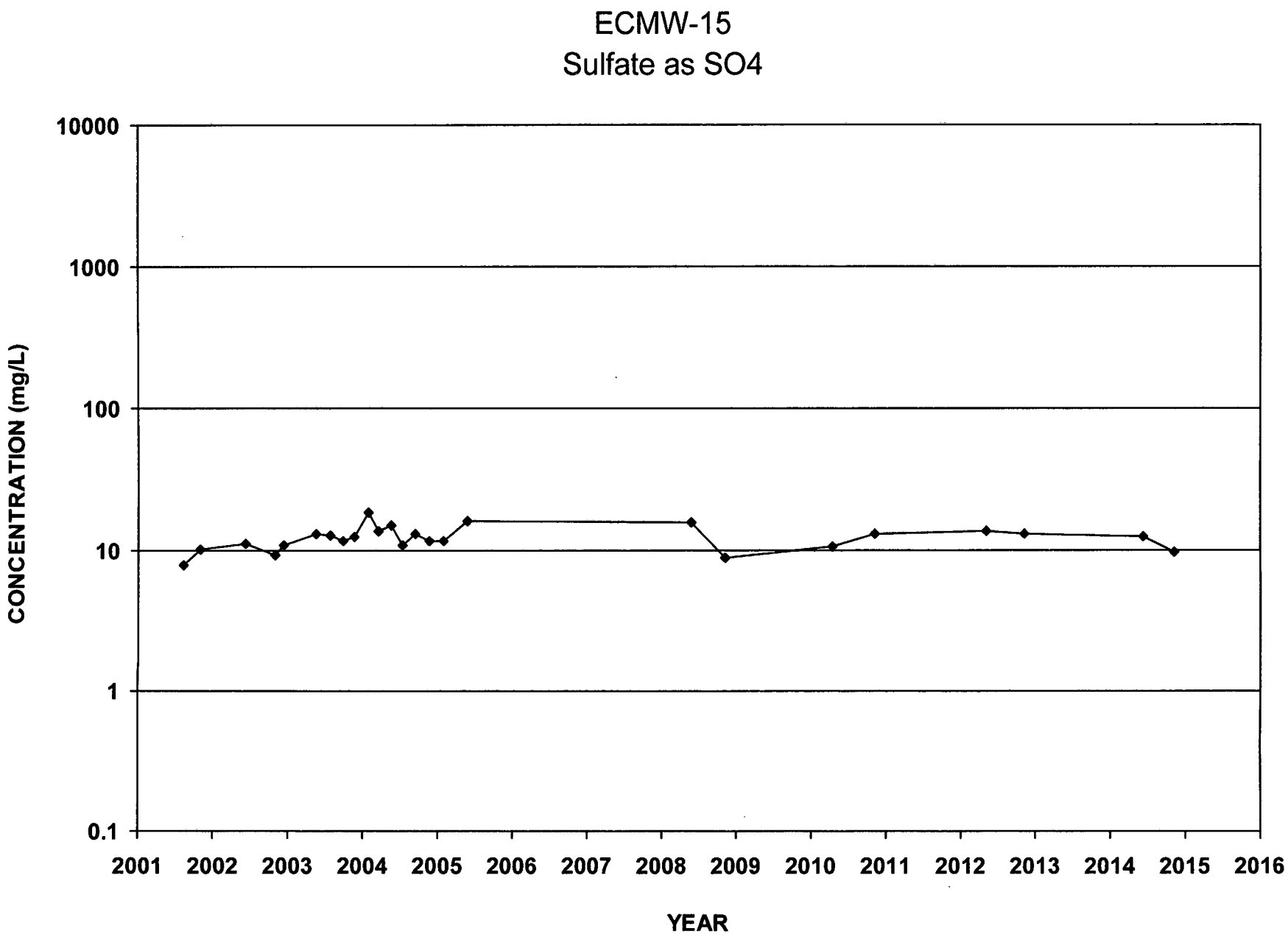
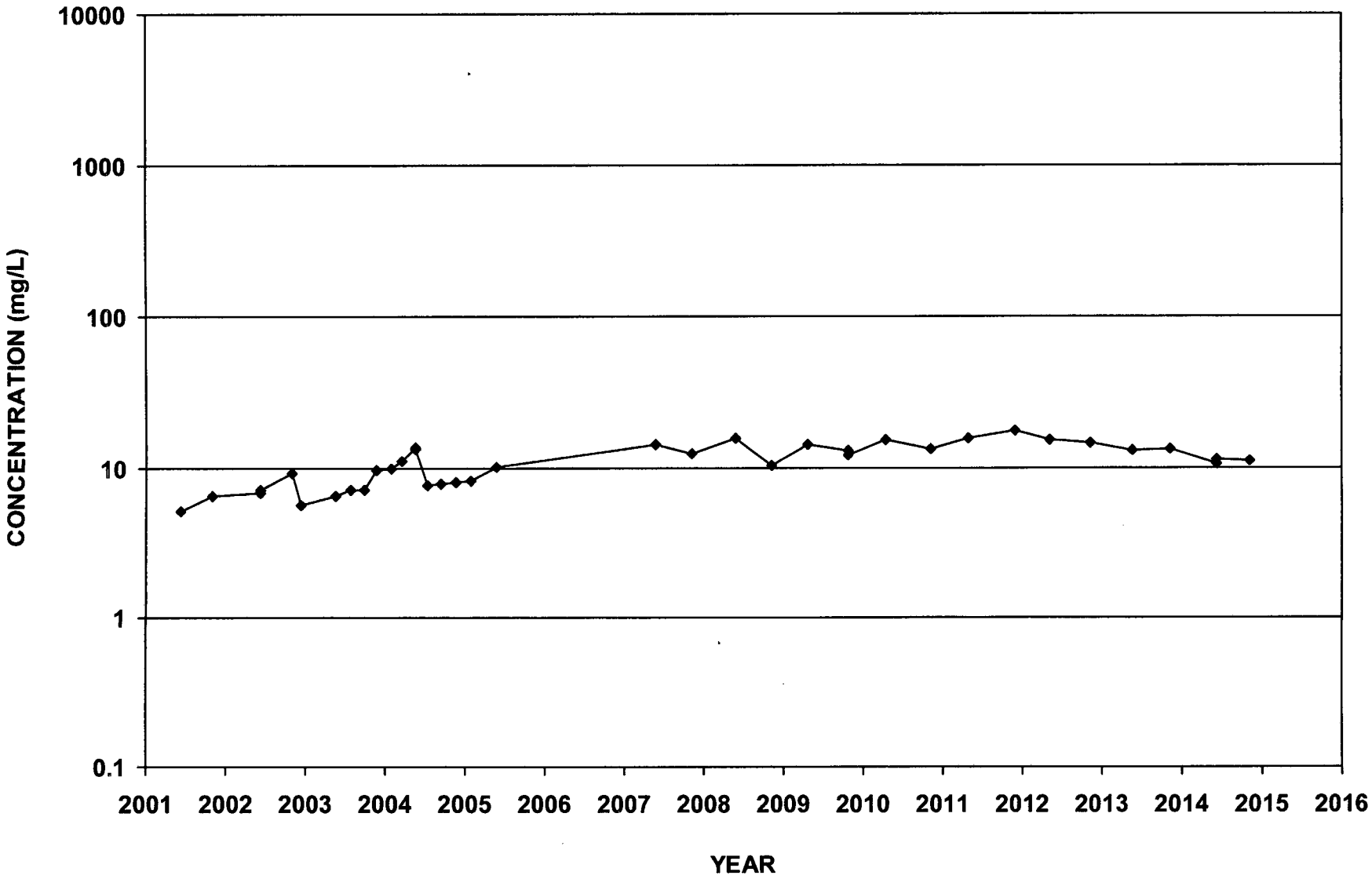
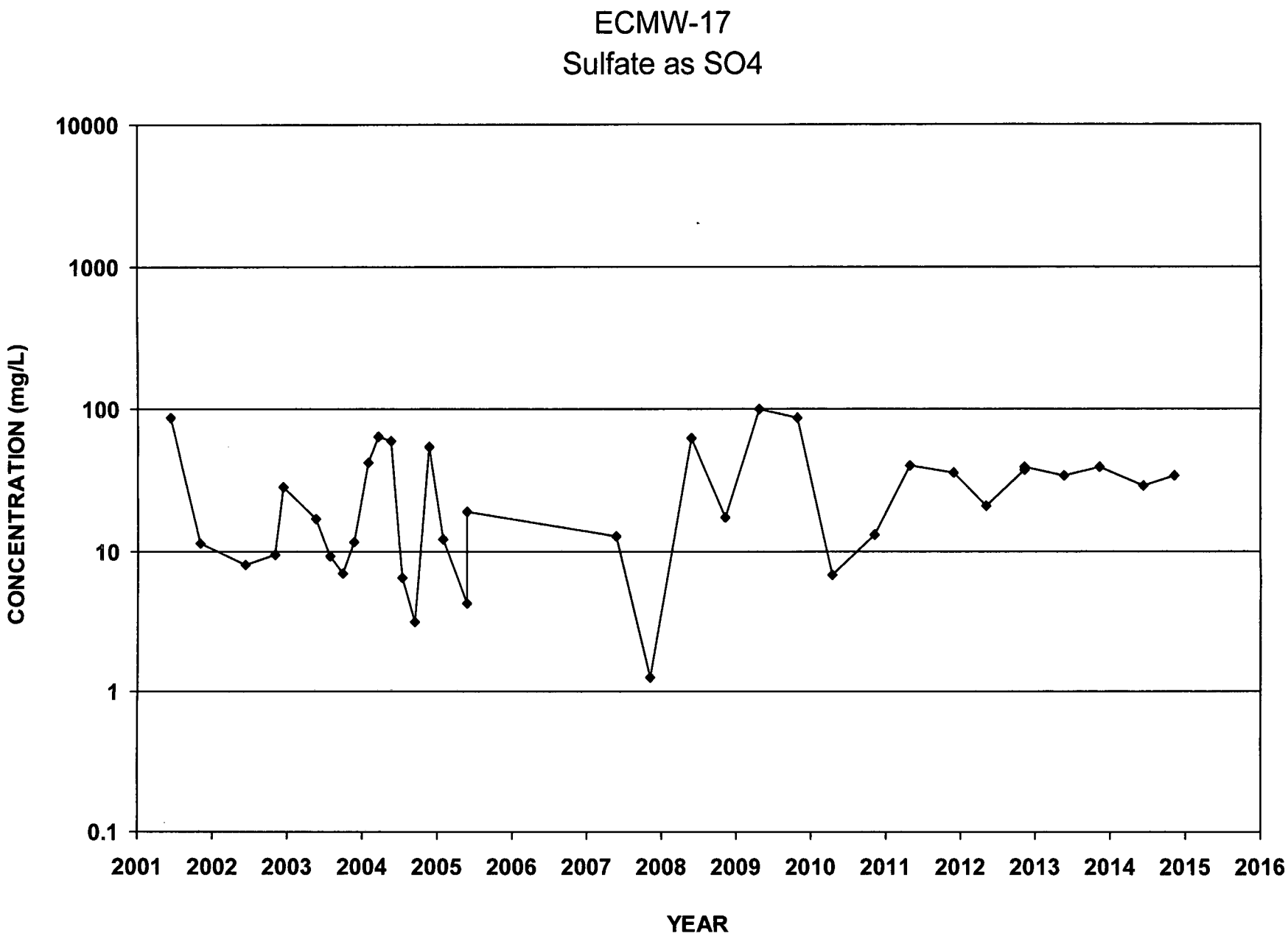
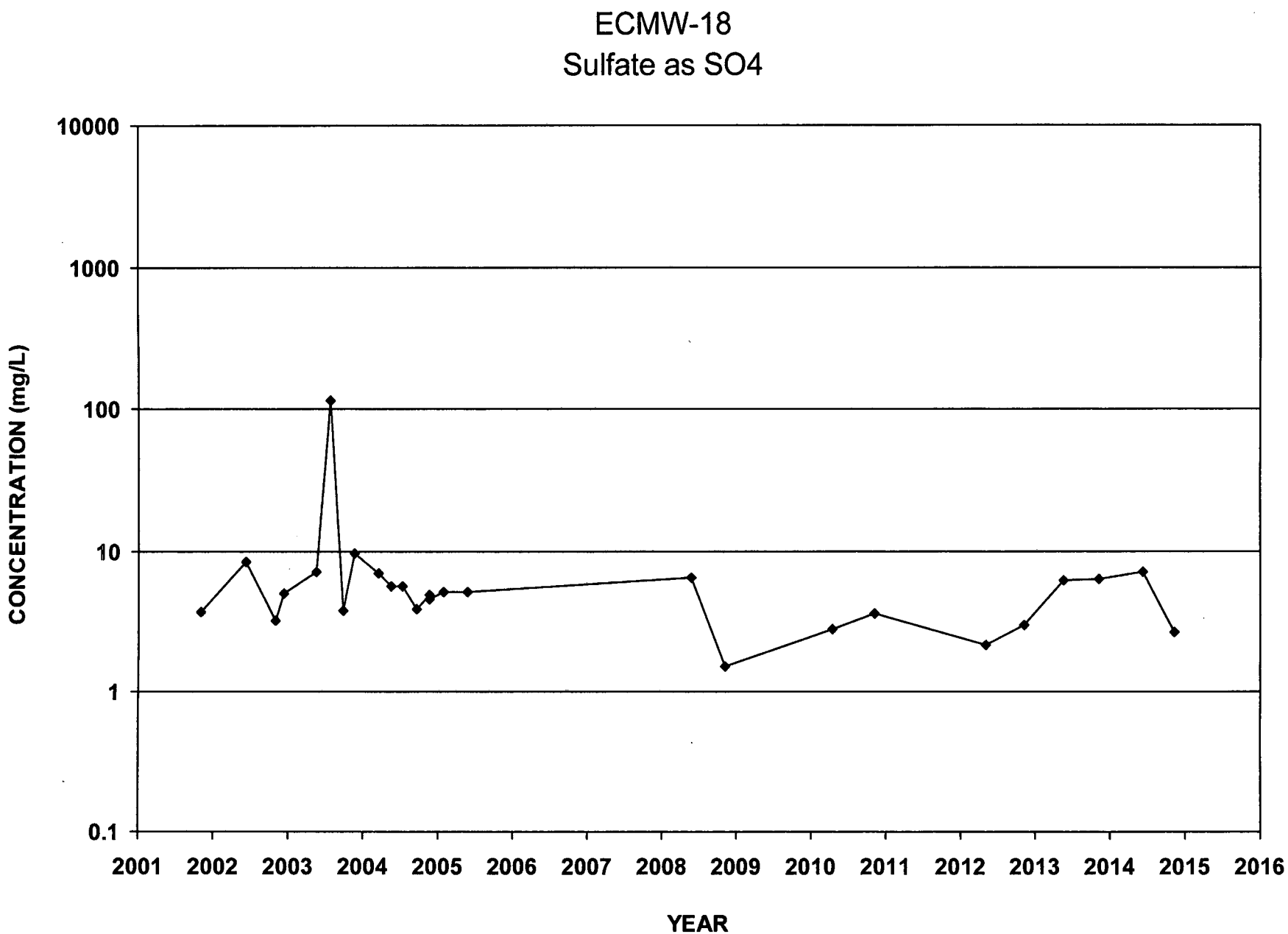
2016
YEAR


ECMW-15
Sulfate as SO4
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

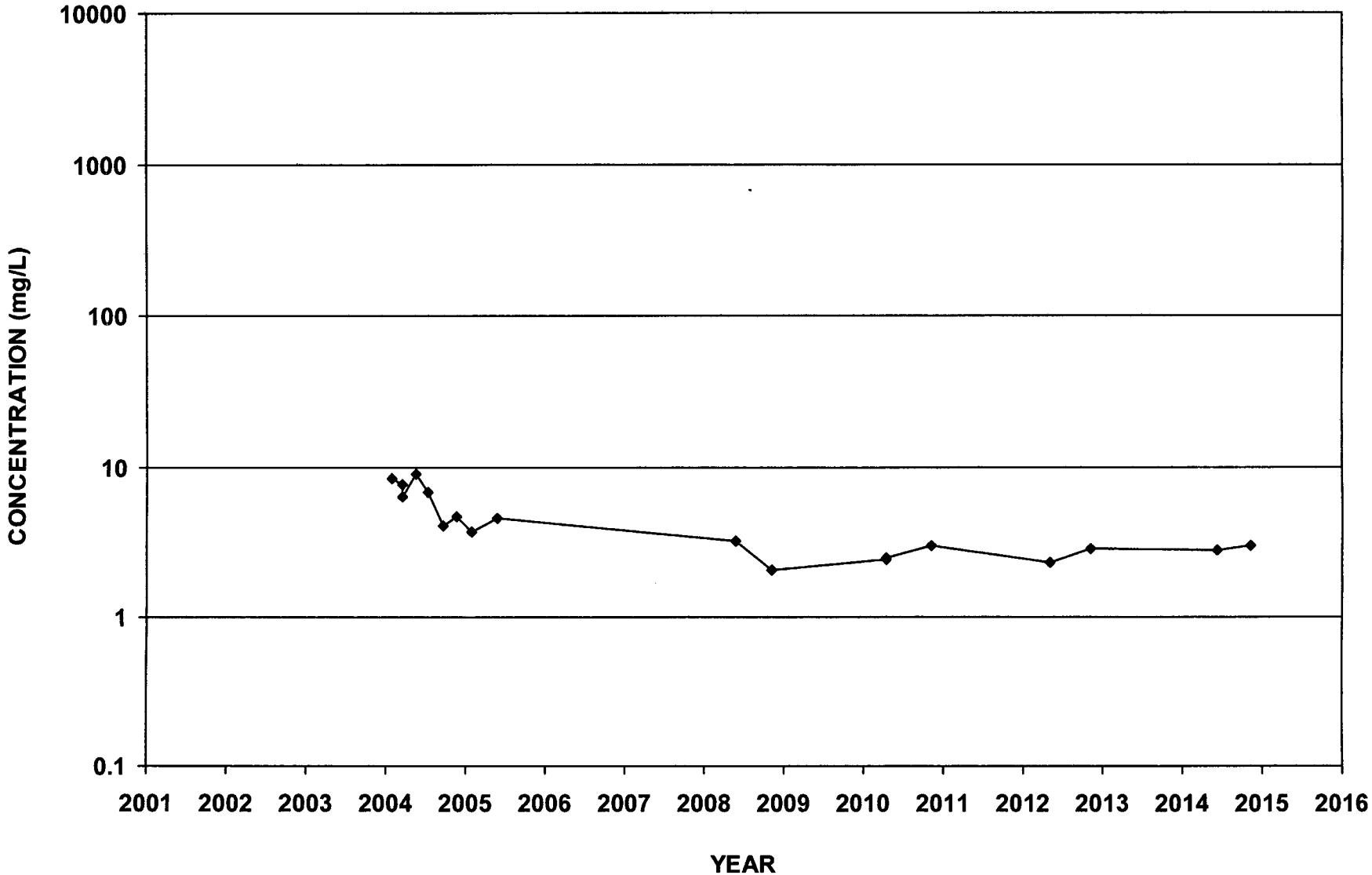
ECMW-16
Sulfate as SO4



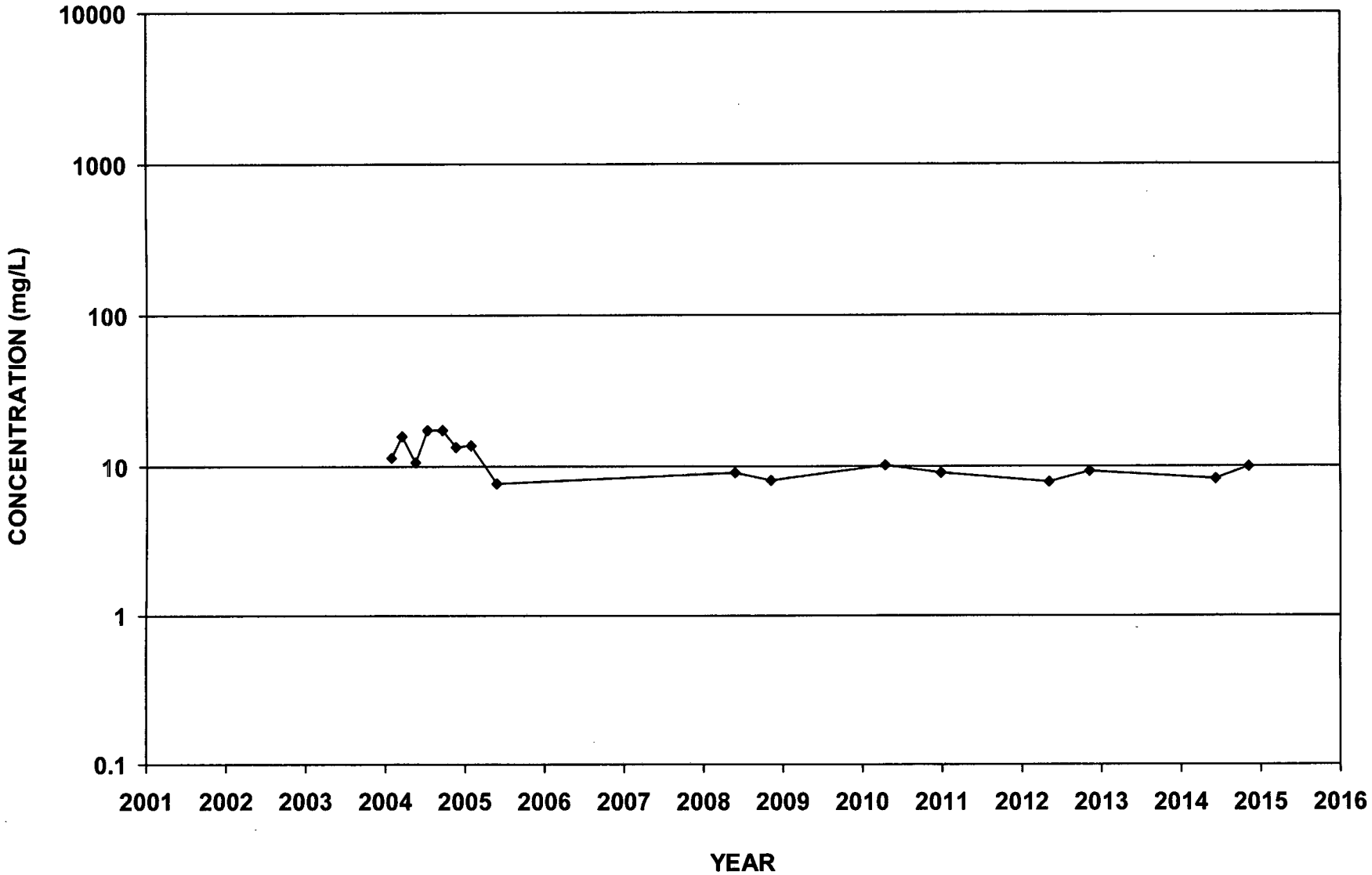

ECMW-17
Sulfate as SO4
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

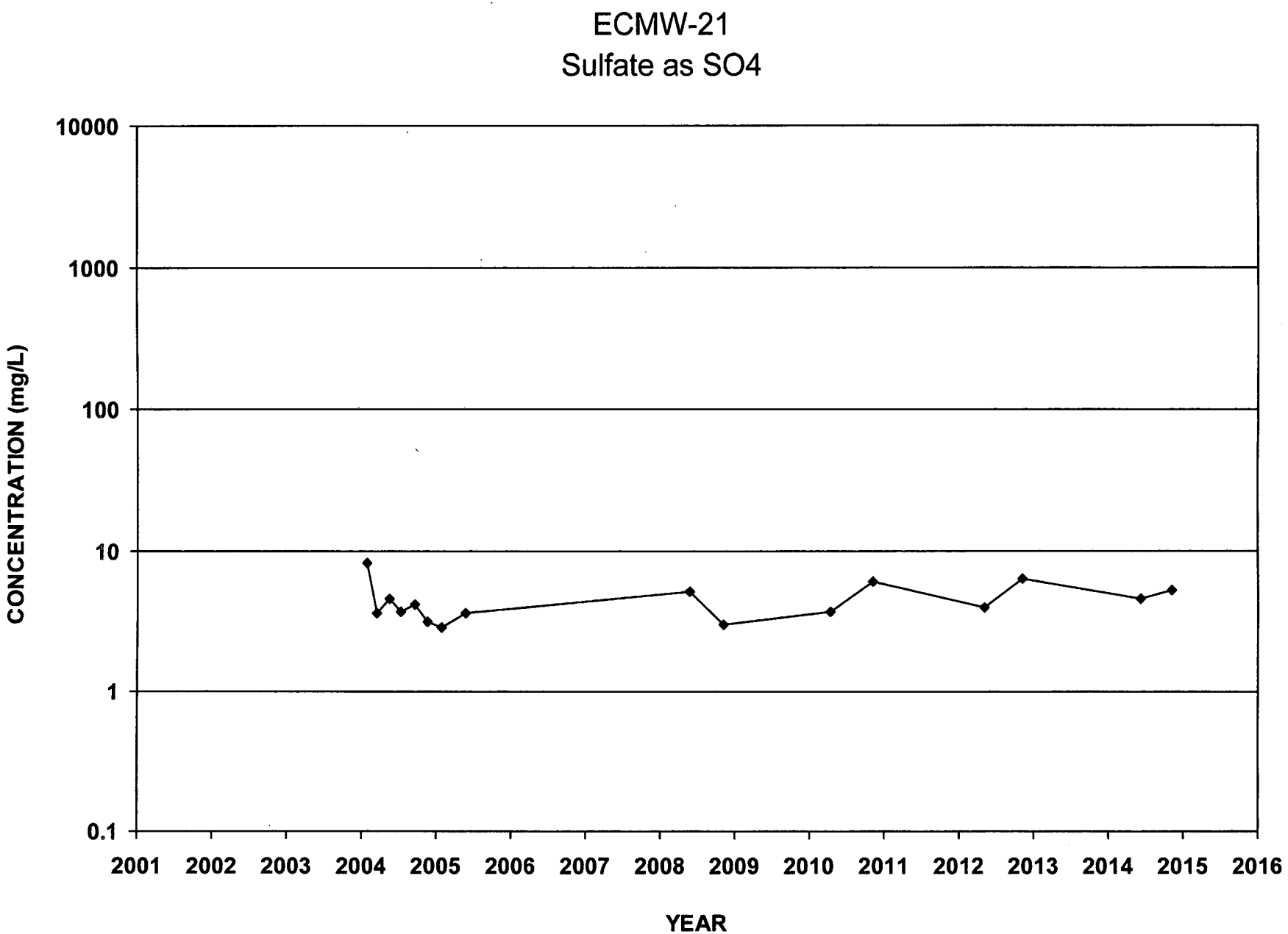

ECMW-18
Sulfate as SO4
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

ECMW-19
Sulfate as SO4

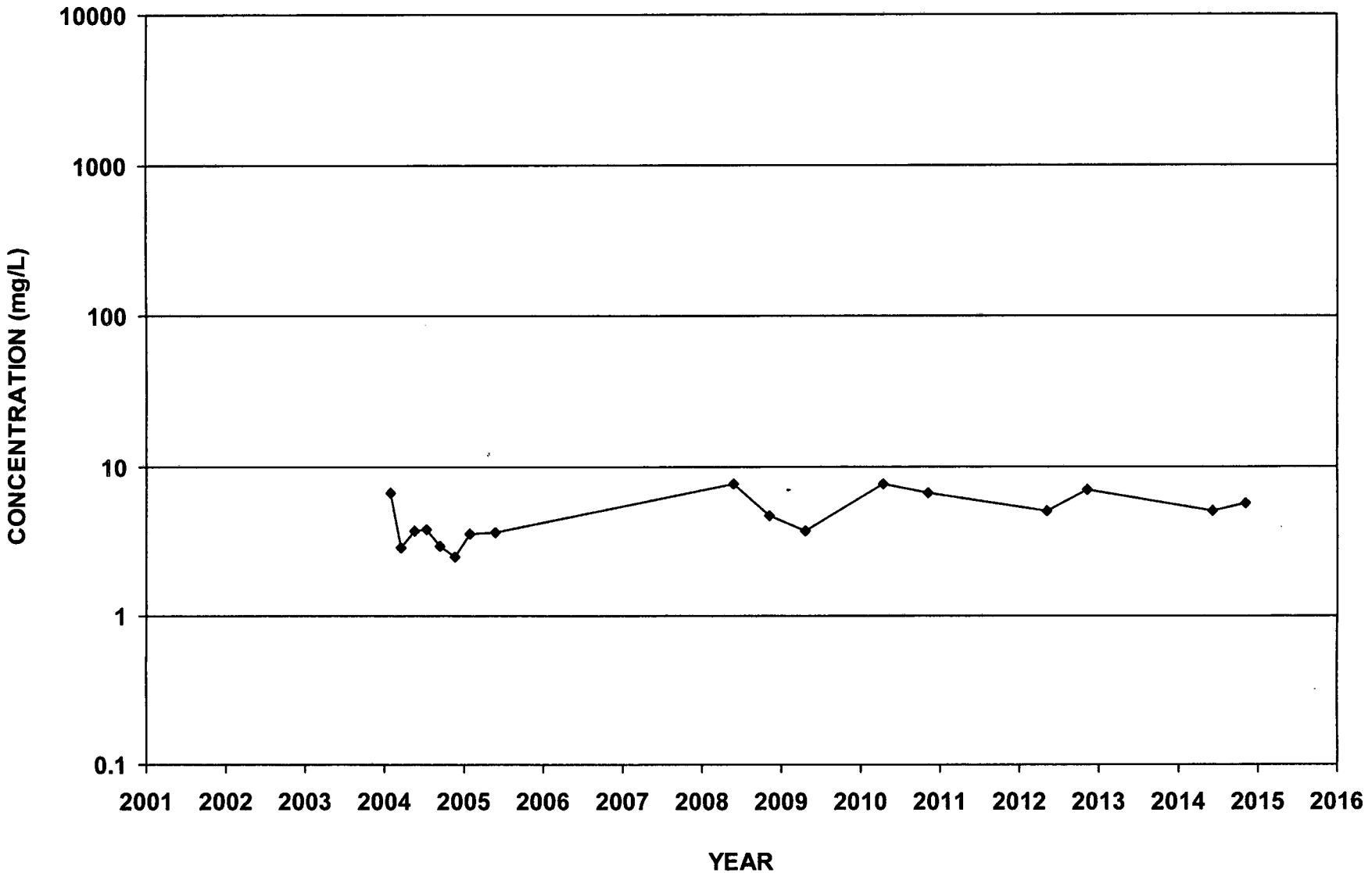


ECMW-20
Sulfate as SO4




ECMW-21
Sulfate as SO4
10000
1000
100
10
1
0.1
CONCENTRATION (mg/L)
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
2014
2015
2016
YEAR

ECMW-22
Sulfate as SO4



From: (870) 863-1400 Origin ID: ELDA
Eddie Pearson
ELDORADO CHEMICAL COMPANY
4500 NORTH WEST AVE

ELDORADO, AR 71730

J15121502303uv

Ship Date: 31MAR15
ActWgt: 5.0 LB
CAD: 5887030/INET3610

Delivery Address Bar Code

Ref #
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PO #
Dept #

SHIP TO: (501) 682-0646 BILL SENDER
LINDA HANSON
ADEQ
5301 NORTHSHORE DRIVE

NORTH LITTLE ROCK, AR 72118

WED - 01 APR 10:30A
PRIORITY OVERNIGHT

TRK# 7732 5583 0446
0201

72118
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