

2015 ANNUAL GROUND WATER REPORT

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**2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS**

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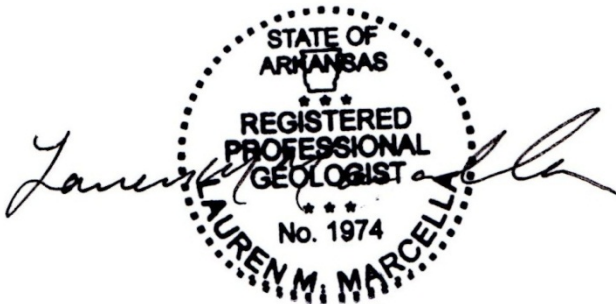
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The report contained herein has been prepared by Environmental Management Services, Inc. (EMS) under the direct supervision of the environmental professional(s) indicated below. To the best of our knowledge all appropriate standards of care and practices 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.

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1.0 INTRODUCTION

This report presents the results of ground water sampling activities conducted at the El Dorado Chemical Company (EDCC) facility during 2015. Field sampling techniques, ground water flow and ground water quality 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

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 May and November of 2015 with the exception of well EDCC-14. The area around EDCC-14 was inaccessible during the May 2015 sampling event due to high water; therefore, this well was not sampled until September 2015. 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 2015 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 2015 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. Twelve wells were sampled each half, requiring one duplicate sample per half. Duplicate samples were tested for all parameters (ammonia, nitrate and sulfate). 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 2015 for the following constituents:

| PARAMETER | ANALYTICAL METHODS |
|---------------------------------------|---------------------------|
| Ammonia-N | 4500-NH3 D |
| Nitrate-N | EPA 300.0/9056A |
| Sulfate | EPA 300.0/9056A |
| pH, Temperature, Specific Conductance | Field |

4.0 SAMPLING RESULTS

The following sections present ground water flow and analytical data collected in 2015.

4.1 GROUND WATER FLOW

Ground water elevations from May and November 2015 were used to construct the potentiometric maps included as Figures 2 and 3. The average ground water elevation was approximately two feet higher in May 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

The following sections provide an analysis of ground water analytical results from the 2015 sampling events.

4.2.1 Field Parameters

Indicator parameter data collected during well purging are summarized on Table 3. In 2013, pH values ranged from 3.29 standard units in ECMW-4 to 6.28 s.u. in ECMW-22, with an average of 5.06 s.u. The average of pH readings for 2015 (5.06 s.u.) did not differ significantly than 2014 (4.56 s.u.). Specific conductance values ranged from 28 (ECMW-2) to 32,140 (ECMW-6) micro-Siemens/cm ($\mu\text{S}/\text{cm}$) in 2015. The average of specific conductance readings for 2015 (3999 $\mu\text{S}/\text{cm}$) is similar to 2014 (3747 $\mu\text{S}/\text{cm}$) 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 2015, ammonia concentrations ranged from below the detection limit (0.5 mg/L) to 2550 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. However, because the monitoring program specifies that only wells with concentrations above background were sampled and not all wells have data for 2015, no concentration contour lines were drawn. 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 2015 are provided in Appendix B. Wells ECMW-4, ECMW-9, ECMW-11 and ECMW-17 show slight increases with ECMW-6 having a pronounced increasing trend. Wells ECMW-7 and ECMW-16 show a decreasing trend. Wells ECMW-5, ECMW-8 and ECMW-10 show a historical steady or decreasing trend, but with recent increases in concentration. Ammonia concentration trends in other wells are relatively constant.

Nitrate

For the year 2015, nitrate concentrations ranged from below the detection limit (0.25 mg/L) to 3930 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. However, because the monitoring program specifies that only wells with concentrations above background were sampled and not all wells have data for 2015, no concentration contour lines were drawn. 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-7, ECMW-10 and ECMW-16 show decreasing trends. Wells ECMW-4, ECMW-8, ECMW-14 and ECMW-17, while showing overall steady or decreasing trends, recently have shown increasing concentrations. Nitrate concentration trends in the remaining wells are relatively constant.

Sulfate

For the year 2015, sulfate concentrations ranged from 5.63 mg/L in ECMW-18 to 915 mg/L in ECMW-4. ECMW-4, ECMW-7, ECMW-8, ECMW-9 and ECMW-11 exhibited the highest concentrations throughout the year.

Figures 8 and 9 were prepared to show the distribution of sulfate in groundwater at the facility. However, because the monitoring program specifies that only wells with concentrations above background were sampled and not all wells have data for 2015, no concentration contour lines were drawn. 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.

Sulfate concentrations in Wells ECMW-6 and ECMW-7 show increasing trends. Wells ECMW-5, ECMW-11 and ECMW-14 show decreasing trends. Sulfate concentration trends in the remaining wells are relatively constant.

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:

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

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. The two duplicate samples collected in 2015 and analyzed for ammonia, nitrate and sulfate had RPD values as follows:

| Well and Duplicate | Date | Ammonia | Nitrate | Sulfate |
|--------------------|------------|---------|---------|---------|
| | | RPD (%) | | |
| ECMW-10 | 5/20/2015 | 36 | 1.8 | 0.67 |
| ECMW-8 | 11/18/2015 | 2.8 | 14 | 11 |

The RPD for ammonia for ECMW-10 slightly exceeded the upper limit of 30%; however, RPD values are not representative when the original and duplicate results are less than 5 times the detection limit (U.S. Environmental Protection Agency. 2004. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review; EPA-540-R-04-004). The reporting limit for ammonia is 0.5 mg/L, yielding an RPD applicability value of 2.5 mg/L. The duplicate values for ECMW-10 were 1.33 and 1.94 mg/L, less than 2.5 mg/L.

5.0 GROUND WATER REMEDIATION

Recovery Wells ECRW-1 and ECRW-2 operated consistently throughout 2015. Recovery well ECRW-1 pumped at a rate of approximately 0.4 gallons per minute (210,240 gallons of water) and ECRW-2 pumped approximately 1.0 gpm (512,460 gallons of water) for the year 2015.

TABLES

TABLE 1
MONITORING WELL CONSTRUCTION DETAILS
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| 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. ECMW-1 through ECMW-18 constructed of 4-inch Sch. 40 PVC flush threaded pipe with 4-inch diameter 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. ECMW-19, ECMW-20 and ECMW-22 constructed of 2-inch Sch. 40 PVC flush threaded pipe with 2-inch diameter 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. ECMW-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
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| Monitor Well | Top of Casing Elevation (ft above Mean Sea Level) | Measurement Date | | | |
|--------------|--|---|---------------------------------------|---|---------------------------------------|
| | | 5/19-22/2015 | | 11/16-18/2015 | |
| | | 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 | 8.78 | 204.50 | 12.56 | 191.94 |
| ECMW-2 | 196.25 | 0.00 | 196.25 | 0.00 | 196.25 |
| ECMW-3 | 192.11 | 8.81 | 183.30 | 12.42 | 170.88 |
| ECMW-4 | 194.84 | 8.62 | 186.22 | 10.24 | 175.98 |
| ECMW-5 | 182.69 | 3.90 | 178.79 | 4.35 | 174.44 |
| ECMW-6 | 191.87 | 6.04 | 185.83 | 5.03 | 180.80 |
| ECMW-7 | 195.88 | 8.31 | 187.57 | 7.77 | 179.80 |
| ECMW-8 | 197.34 | 7.73 | 189.61 | 7.73 | 181.88 |
| ECMW-9 | 198.39 | 8.58 | 189.81 | 12.22 | 177.59 |
| ECMW-10 | 205.75 | 12.39 | 193.36 | 15.42 | 177.94 |
| ECMW-11 | 201.65 | 10.13 | 191.52 | 12.00 | 179.52 |
| ECMW-12 | 184.97 | 6.21 | 178.76 | 5.86 | 172.90 |
| ECMW-13 | 177.26 | 5.11 | 172.15 | 6.06 | 166.09 |
| ECMW-14* | 178.48 | 6.79 | 171.69 | 9.11 | 162.58 |
| ECMW-15 | 180.84 | 3.46 | 177.38 | 3.91 | 173.47 |
| ECMW-16 | 180.14 | 2.61 | 177.53 | 5.46 | 172.07 |
| ECMW-17 | 185.40 | 26.59 | 158.81 | 29.26 | 129.55 |
| ECMW-18 | 155.46 | 4.90 | 150.56 | 7.13 | 143.43 |
| ECMW-19 | 150.41 | 0.00 | 150.41 | 4.60 | 145.81 |
| ECMW-20 | 192.77 | 27.63 | 165.14 | 30.11 | 135.03 |
| ECMW-21 | 176.29 | 15.48 | 160.81 | 17.89 | 142.92 |
| ECMW-22 | 173.55 | 3.81 | 169.74 | 8.06 | 161.68 |

*ECMW-14 was inaccessible during the May 2015 sampling event, measurement taken on 9/8/2015.

TABLE 3
GROUNDWATER INDICATOR PARAMETER DATA
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EL DORADO, ARKANSAS

| WELL | TEMPERATURE (C) | | pH (s.u.) | | CONDUCTIVITY (uS) | |
|----------|-----------------|---------------|--------------|---------------|-------------------|---------------|
| | Date | | Date | | Date | |
| | 5/19-22/2015 | 11/16-18/2015 | 5/19-22/2015 | 11/16-18/2015 | 5/19-22/2015 | 11/16-18/2015 |
| ECMW-1 | 19.9 | 19.7 | 4.83 | 5.57 | 46.8 | 41.6 |
| ECMW-2 | 15.7 | 18.4 | 5.43 | 5.84 | 239.7 | 27.6 |
| ECMW-3 | 15.5 | 19.0 | 6.18 | 6.11 | 179.6 | 268.2 |
| ECMW-4 | 17.9 | 20.5 | 3.29 | 4.04 | 6220 | 6770 |
| ECMW-5 | 18.3 | 20.6 | 5.27 | 5.59 | 540 | 558 |
| ECMW-6 | 18.2 | 20.7 | 3.91 | 3.96 | 24800 | 32140 |
| ECMW-7 | 19.2 | 20.8 | 4.06 | 5.31 | 20790 | 23720 |
| ECMW-8 | 18.8 | 19.5 | 4.56 | 3.70 | 21920 | 25290 |
| ECMW-9 | 18.6 | 19.9 | 5.52 | 5.36 | 2162 | 2213 |
| ECMW-10 | 19.0 | 21.6 | 4.65 | 4.22 | 761 | 763 |
| ECMW-11 | 18.1 | 22.3 | 4.19 | 4.13 | 692 | 705 |
| ECMW-12 | 18.1 | 21.8 | 6.02 | 5.73 | 488 | 654 |
| ECMW-13 | 17.4 | 20.8 | 5.20 | 4.68 | 795 | 937 |
| ECMW-14* | 18.5 | 21.8 | 4.89 | 5.15 | 79.9 | 432.8 |
| ECMW-15 | 18.2 | 20.3 | 4.68 | 5.14 | 76.9 | 76.8 |
| ECMW-16 | 19.1 | 21.9 | 4.54 | 4.64 | 133.3 | 130.7 |
| ECMW-17 | 19.5 | 18.6 | 4.10 | 4.04 | 203.3 | 246.6 |
| ECMW-18 | 19.8 | 18.8 | 5.64 | 5.70 | 77.9 | 74.2 |
| ECMW-19 | 18.3 | 17.4 | 5.95 | 6.13 | 82.9 | 82 |
| ECMW-20 | 18.5 | 17.3 | 5.61 | 6.08 | 67.3 | 62.8 |
| ECMW-21 | 17.4 | 18.2 | 5.37 | 5.39 | 53.2 | 54 |
| ECMW-22 | 18.8 | 18.8 | 6.28 | 6.07 | 157 | 144.9 |

*ECMW-14 was inaccessible during the May 2015 sampling event, parameters were measured on 9/8/2015.

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 | -- | -- |
| 5/22/2015 | 4.83 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.57 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | 5.10 | <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 | -- | -- |
| 5/22/2015 | 5.43 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.84 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/22/2015 | 6.18 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 6.11 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

--" - 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 | 4.50 | <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 | -- | -- |
| 5/20/2015 | 3.29 | 3.5 | 1.6 | 915 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 4.04 | 0.53 | 0.332 | 722 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/20/2015 | 5.27 | 1.27 | 44.6 | 54.5 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.59 | 0.73 | 27 | 61.2 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- |
| 5/21/2008 | 4.50 | 59.1 | 1130 | 23.7 | -- | < 0.015 | -- | < 0.02 | -- | < 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 | -- | 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 | -- | -- |
| 5/20/2015 | 3.91 | 2550 | 2960 | 39.8 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 3.96 | 2280 | 3930 | 40.2 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- |

"--" - 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 | | | | | | | | | |
| 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 | -- | -- |
| 5/20/2015 | 4.06 | 61 | 63.6 | 866 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.31 | 66.2 | 104 | 758 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/20/2015 | 4.56 | 158 | 791 | 470 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 3.7 | 143 | 751 | 431 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | -- | 139 | 654 | 385 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/20/2015 | 5.52 | 4.13 | 31.9 | 540 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.36 | 2.36 | 32.7 | 526 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/20/2015 | 4.65 | 1.91 | 50 | 148 | -- | -- | -- | -- | -- | -- | -- |
| 5/20/2015 | -- | 1.33 | 49.1 | 149 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 4.22 | <0.5 | 61.2 | 99.9 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/20/2015 | 4.19 | 3.12 | 28.8 | 134 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 4.13 | 39 | 35.7 | 93.4 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/22/2015 | 6.02 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.73 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

--" - 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 | -- | -- |
| 5/22/2015 | 5.20 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 4.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 9/8/2015 | 4.89 | <0.5 | 9.58 | 77.8 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.15 | 0.63 | 17.2 | 45.6 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/22/2015 | 4.68 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.14 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

--" - 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 | -- | -- |
| 5/20/2015 | 4.54 | 6.2 | 8.65 | 12.9 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 4.64 | 0.5 | 8.43 | 15.9 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/20/2015 | 4.10 | 6.53 | 10.4 | 18.7 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 4.04 | 3.67 | 14.3 | 22.9 | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- |
| 5/20/2015 | 5.64 | -- | 0.295 | 5.63 | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.7 | -- | <0.25 | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 | | | | | | | | | |
| 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 | -- | -- |
| 5/22/2015 | 5.95 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 6.13 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - 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 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 | | | | | | | | | |
| 5/22/2015 | 5.61 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 6.08 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

--" - 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 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 | | | | | | | | | |
| 5/22/2015 | 5.37 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 5.39 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

--" - 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 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - Parameter not analyzed

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

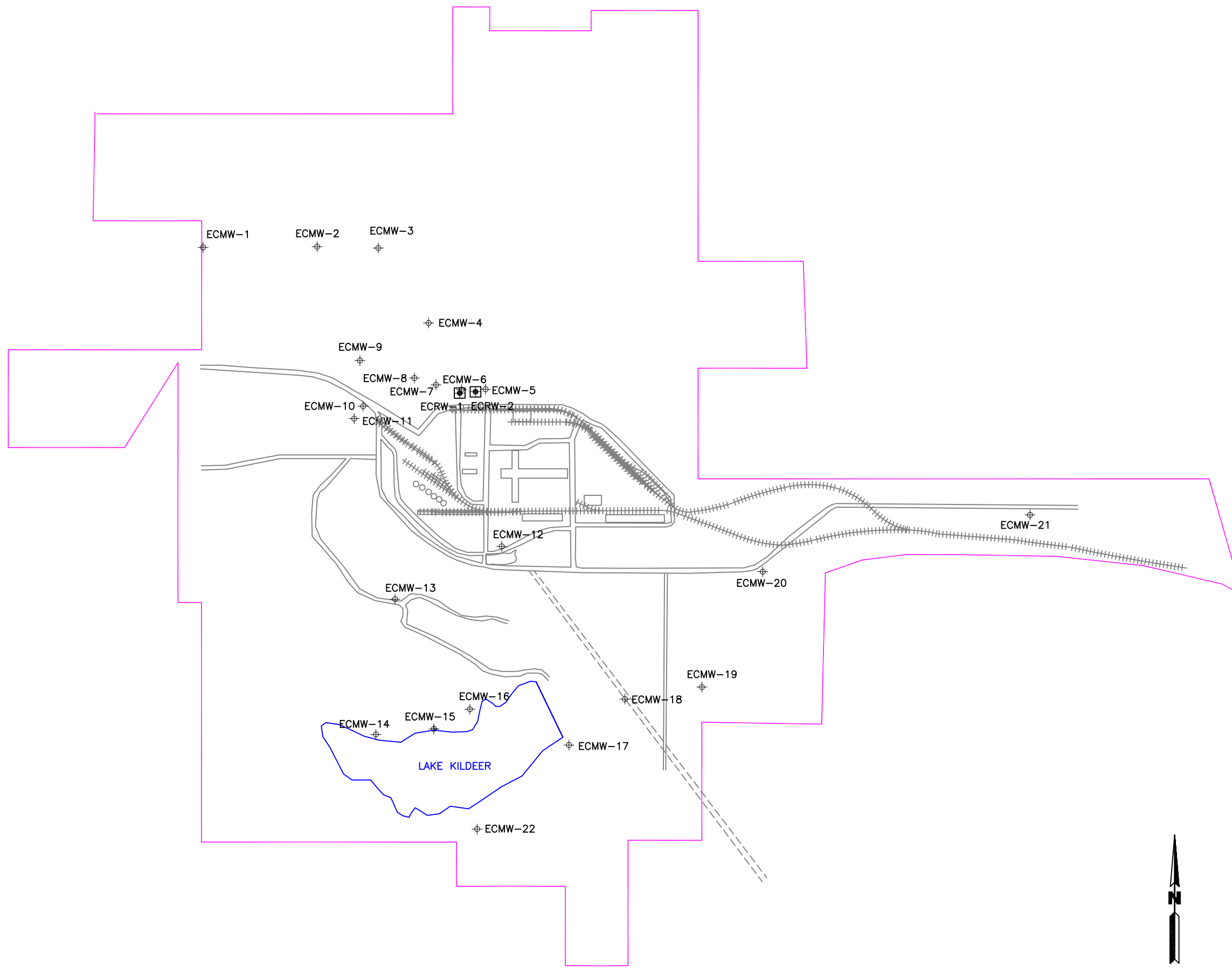
TABLE 25
ECMW-22 ANALYTICAL SUMMARY
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| 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 | | | | | | | | | |
| 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 | -- | -- |
| 5/22/2015 | 6.28 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| 11/18/2015 | 6.07 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

"--" - Parameter not analyzed

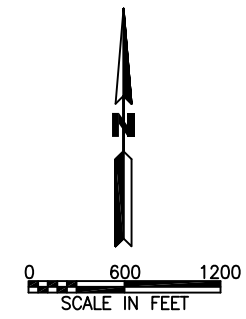
E3 - Incorrect preservation, results qualified as "estimated".

FIGURES



LEGEND

- ⊕ MONITOR WELLS
- ⊕ RECOVERY WELLS
- PROPERTY BOUNDARY



EL DORADO

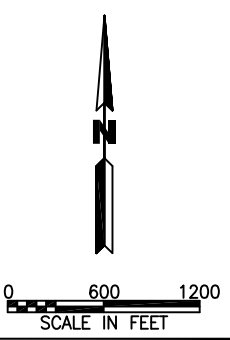
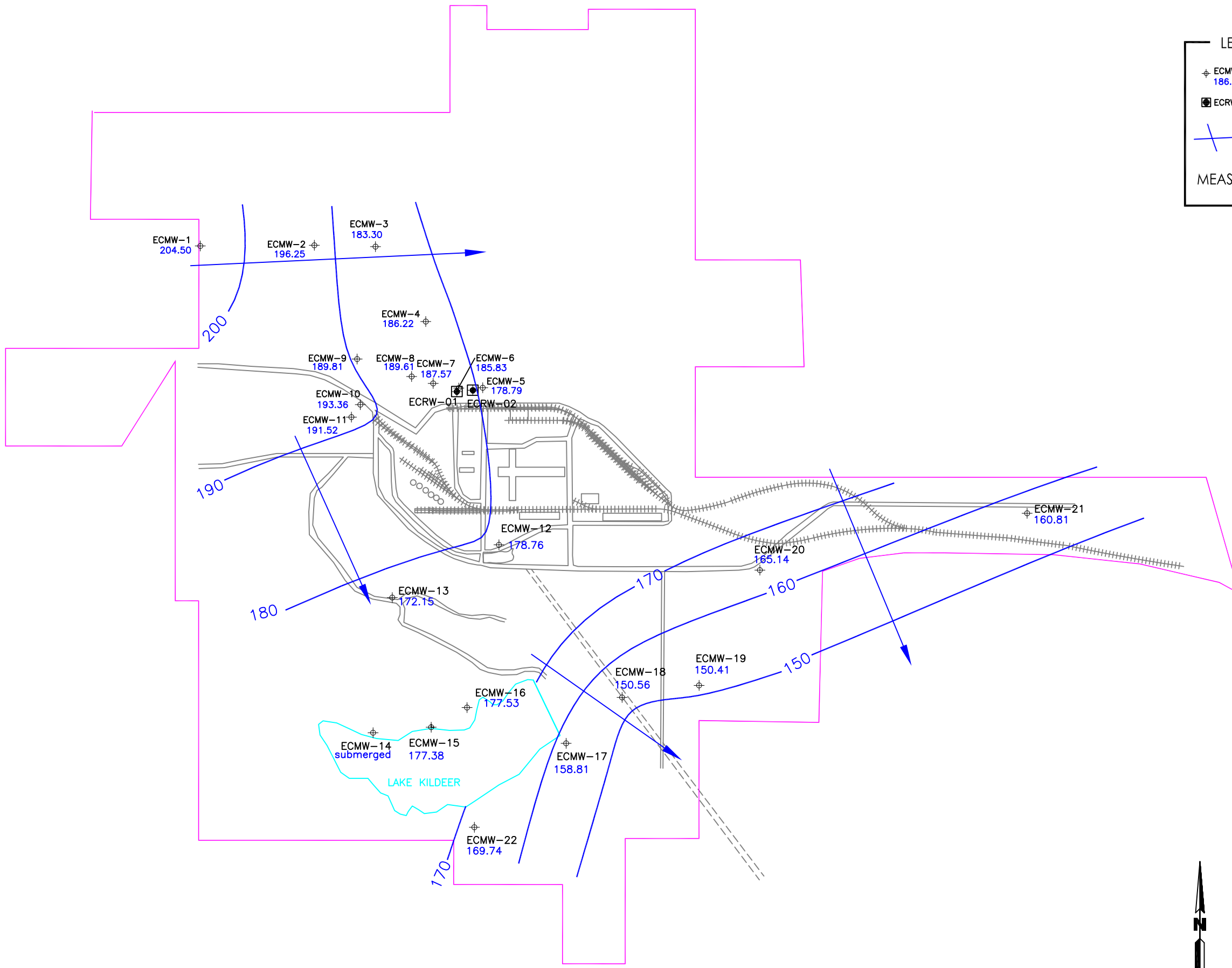
SITE MAP
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| | | |
|------------------|-----------------|------------------|
| DATE: 03/26/2016 | APPROVED: _____ | DRAWN BY: LMM |
| SCALE: see above | BY: _____ | CAD NO. 02EC0100 |
| | | FIGURE 1 |

LEGEND

- ⊕ ECMW-4 186.22 Monitor Well with Water Elevation (feet MSL)
- ⊠ ECRW-01 Recovery Well
- Ground Water Flow Direction

MEASUREMENTS TAKEN MAY 19-22, 2015



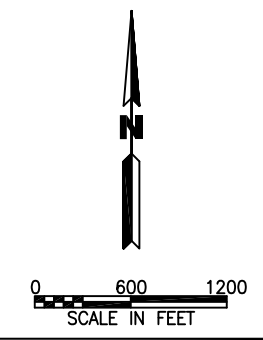
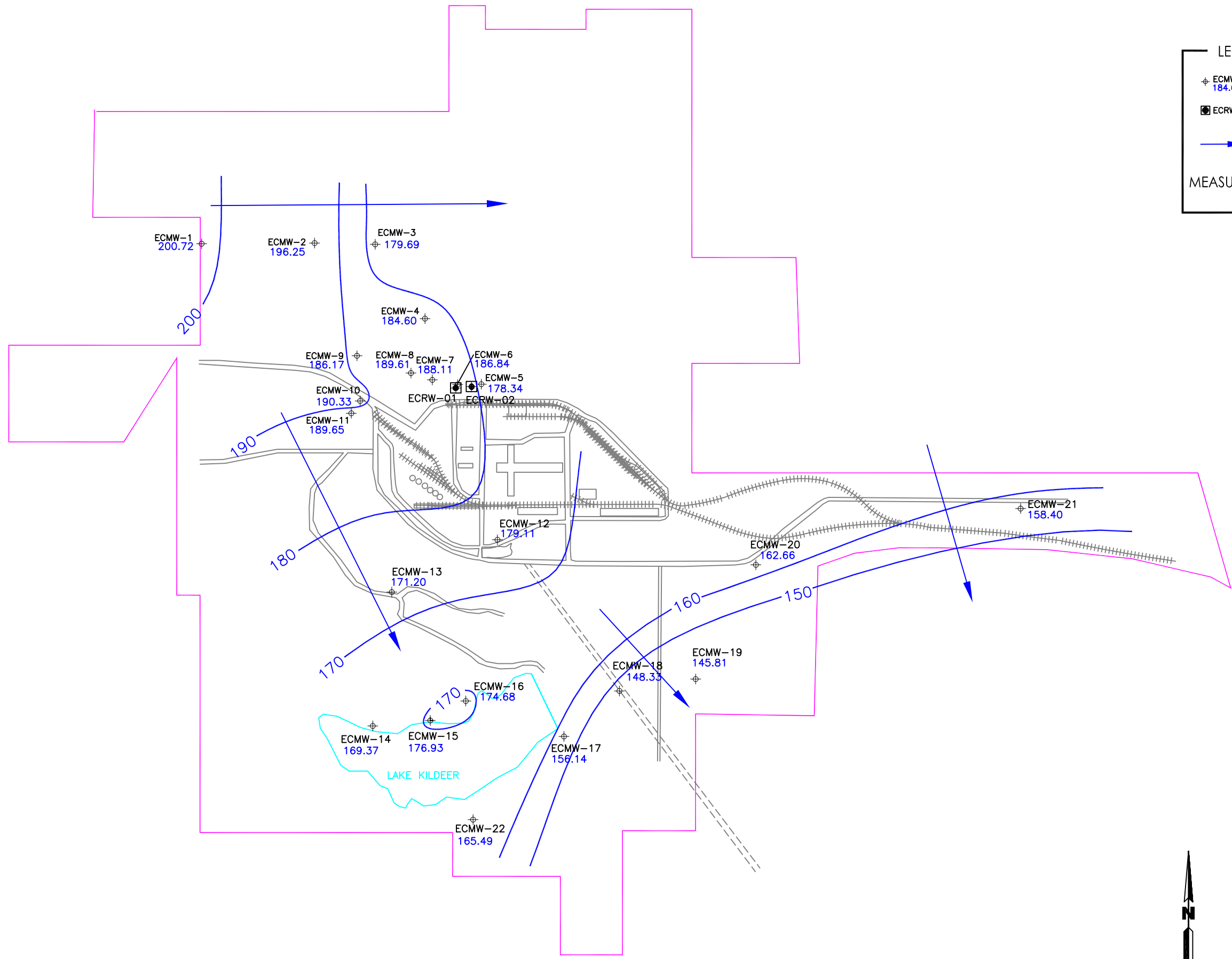
EL DORADO

| | | |
|---|--------------------------|--------------------|
| MAY 2015 GROUND WATER ELEVATION MAP 2015 ANNUAL GROUND WATER REPORT EL DORADO CHEMICAL COMPANY EL DORADO, ARKANSAS | | |
| DATE: 06/16/2015 | APPROVED: | DRAWN BY: LMM |
| SCALE: as shown | BY: _____ DATE: _____ | CAD NO. 02EC0100 |
| | | FIGURE 2 |

LEGEND

- ⊕ ECMW-4 184.60 Monitor Well with Water Elevation (feet MSL)
- ⊕ ECRW-01 Recovery Well
- Ground Water Flow Direction

MEASUREMENTS TAKEN NOVEMBER 16-18, 2015

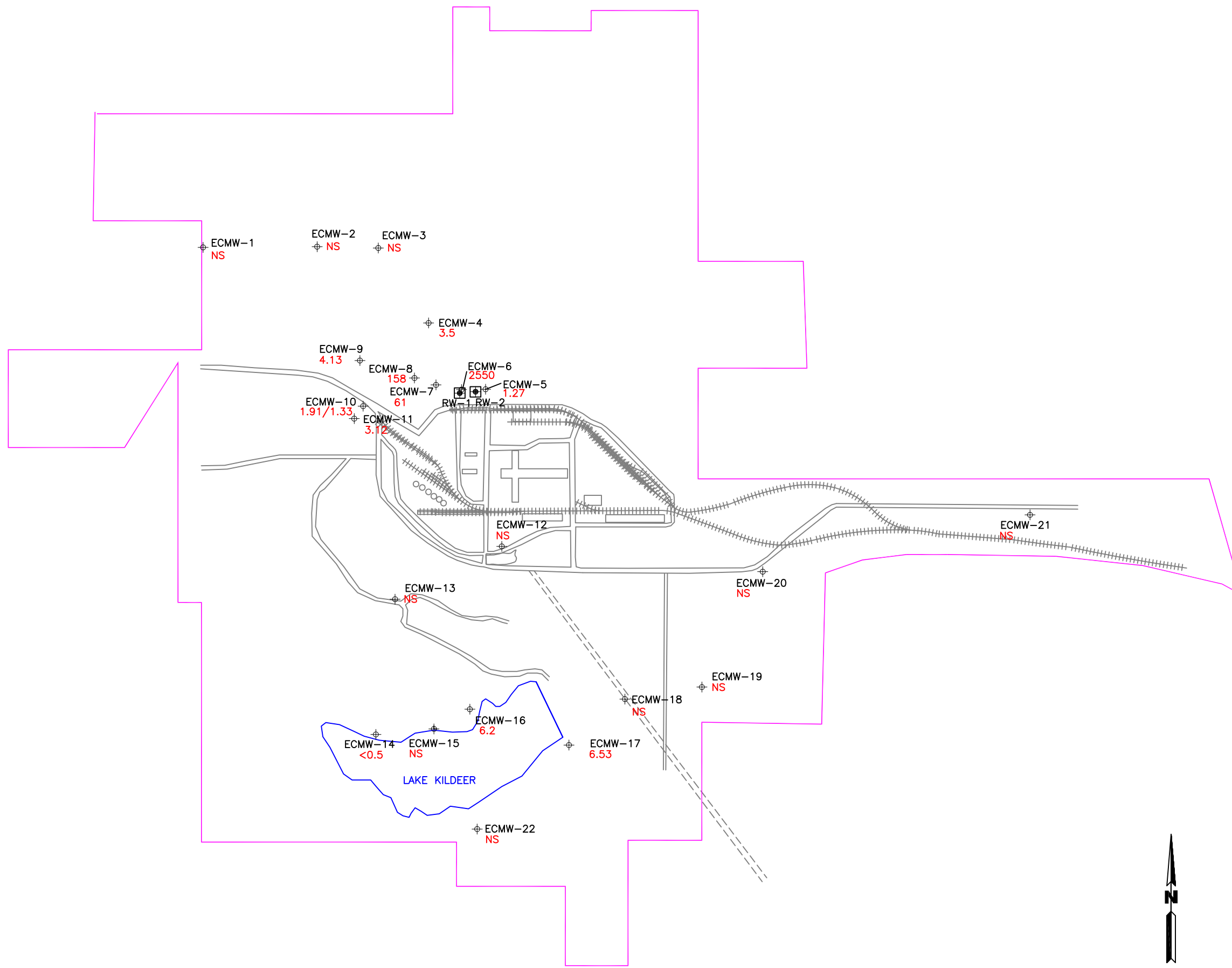


EL DORADO

NOVEMBER 2015 GROUND WATER ELEVATION MAP
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

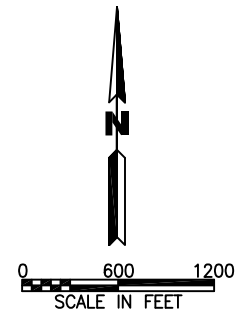
| | | |
|---------------------|---------------------------------------|------------------|
| DATE: 12/15/2015 | APPROVED: BY: _____ DATE: _____ | DRAWN BY: LMM |
| SCALE: as shown | CAD NO. 02EC0100 | FIGURE 3 |

ENVIRONMENTAL
MANAGEMENT SERVICES, INC.



LEGEND

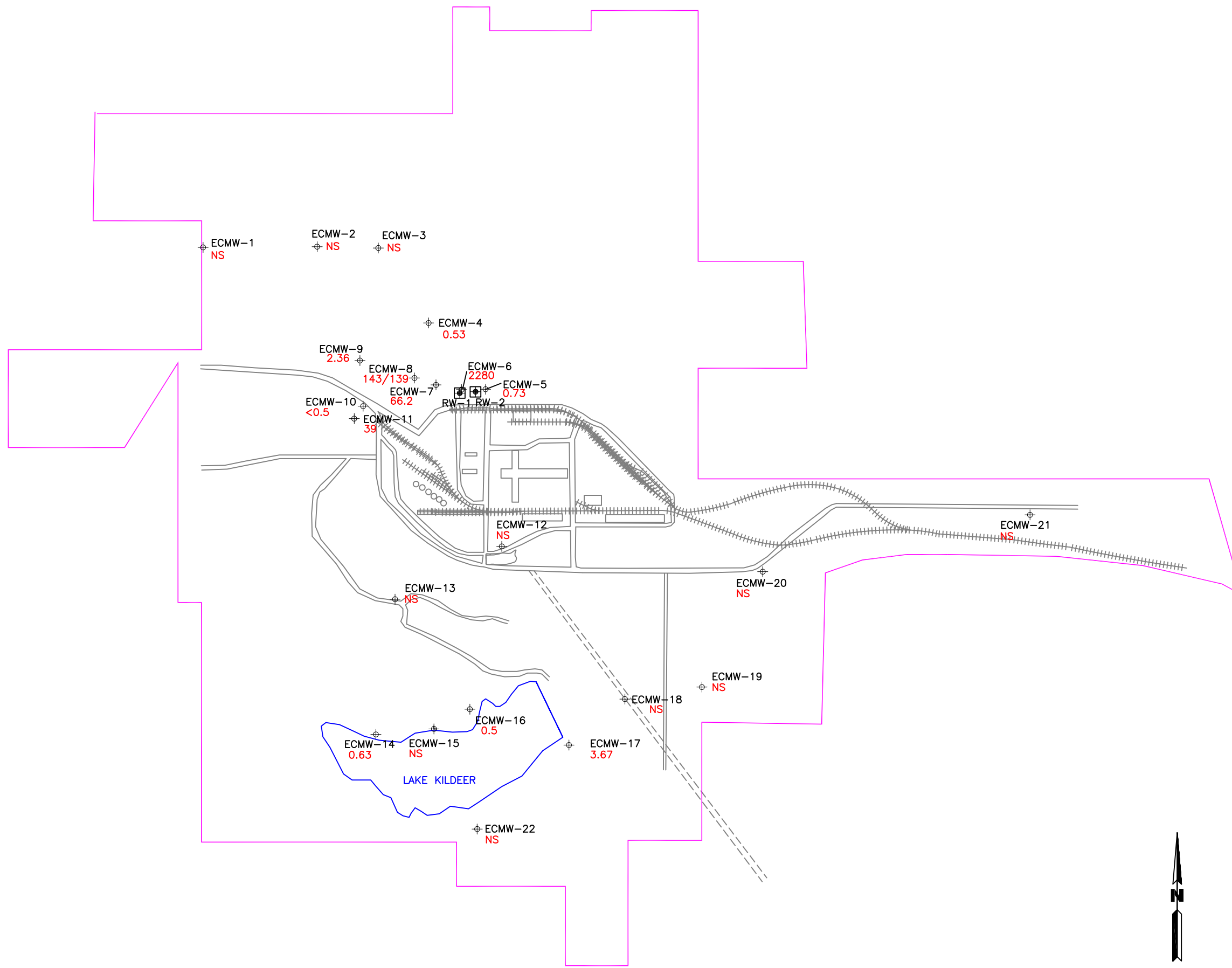
- PROPERTY BOUNDARY
- ⊕ ECMW-4 MONITOR WELL WITH AMMONIA CONCENTRATION (mg/L)
3.5
- ⊕ RECOVERY WELLS
- NS - Not Sampled in Odd Numbered Years



EL DORADO

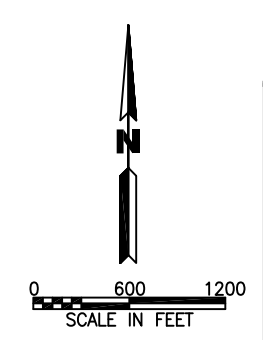
MAY 2015 AMMONIA CONCENTRATION MAP
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| | | | |
|---|-----------------|------------------|--------------------|
| DATE: 02/26/2016 | APPROVED: _____ | DRAWN BY: LMM | |
| SCALE: as shown | BY: _____ | CAD NO. 02EC0100 | |
| ENVIRONMENTAL MANAGEMENT SERVICES, INC. | | | FIGURE 4 |



LEGEND

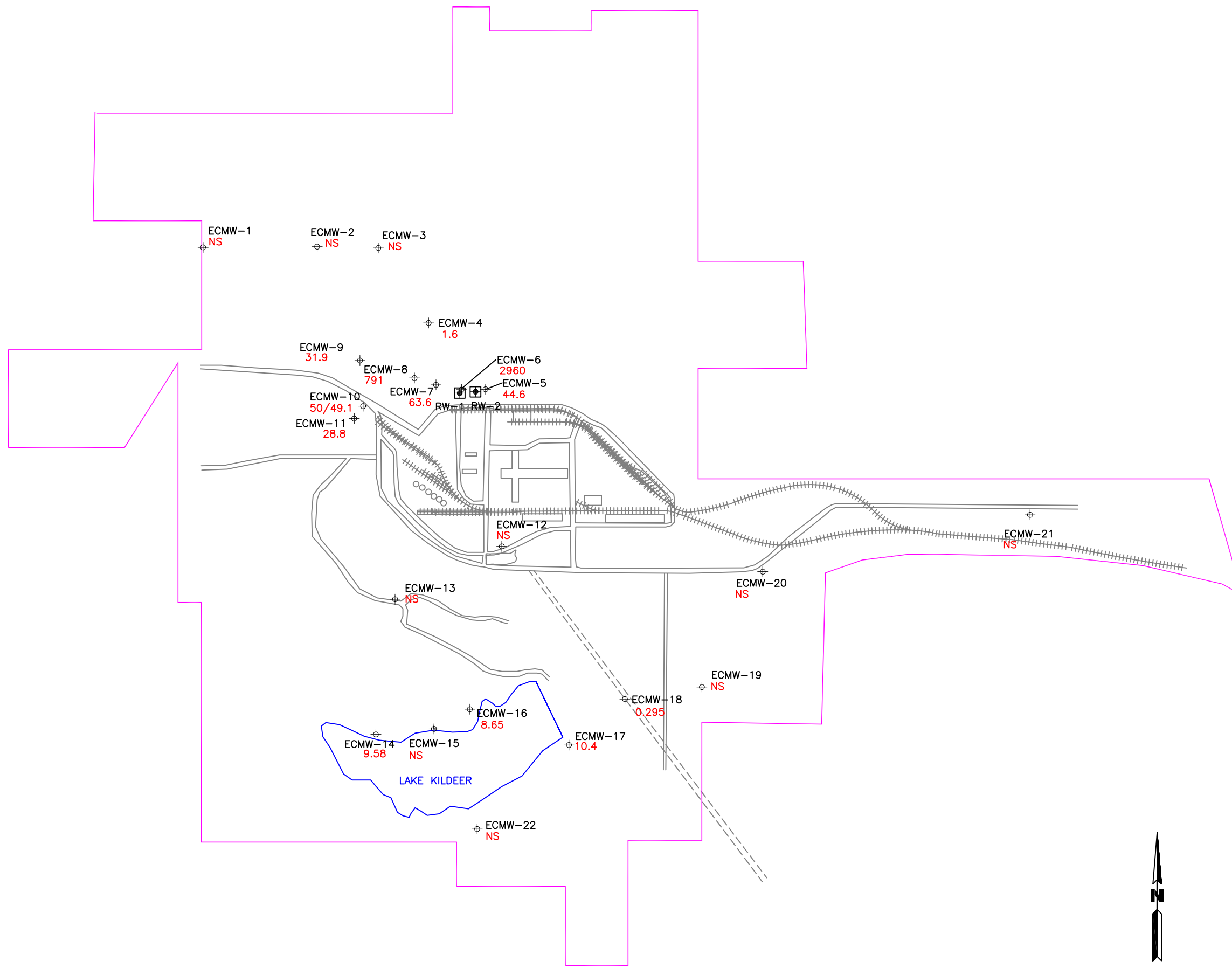
- PROPERTY BOUNDARY
- ⊕ ECMW-4 MONITOR WELL WITH AMMONIA CONCENTRATION (mg/L)
- ⊕ RECOVERY WELLS
- NS - Not Sampled in Odd Numbered Years



EL DORADO

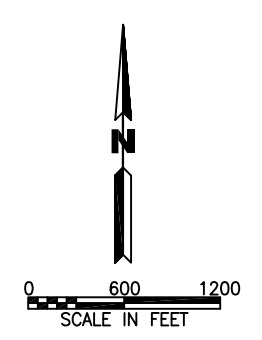
NOVEMBER 2015 AMMONIA CONCENTRATION MAP
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| | | |
|---|-----------|--------------------|
| DATE: 02/26/2016 | APPROVED: | DRAWN BY: LMM |
| SCALE: as shown | BY: | CAD NO. 02EC0100 |
| ENVIRONMENTAL MANAGEMENT SERVICES, INC. | | FIGURE 5 |



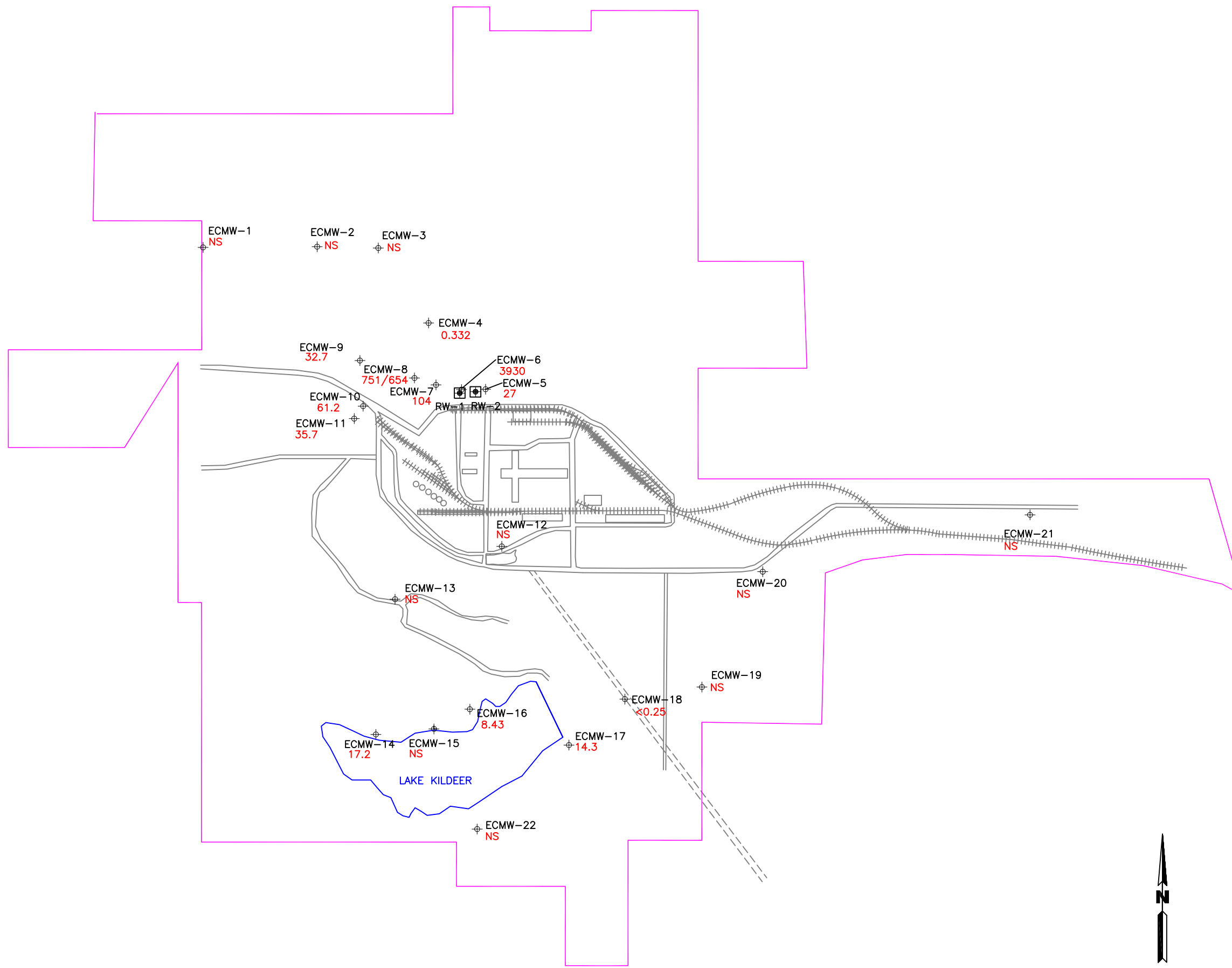
LEGEND

- PROPERTY BOUNDARY
- ⊕ ECMW-4 MONITOR WELL WITH 1.6 NITRATE CONCENTRATION (mg/L)
- ⊕ RECOVERY WELLS
- NS - Not Sampled in Odd Numbered Years



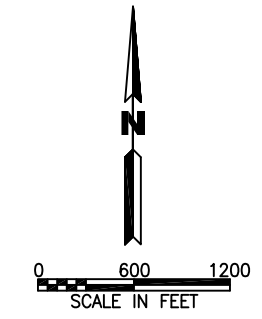
EL DORADO

| | | |
|--|-----------|--------------------|
| MAY 2015 NITRATE CONCENTRATION MAP 2015 ANNUAL GROUND WATER REPORT EL DORADO CHEMICAL COMPANY EL DORADO, ARKANSAS | | |
| DATE: 02/26/2016 | APPROVED: | DRAWN BY: LMM |
| SCALE: as shown | BY: | CAD NO. 02EC0100 |
| | | FIGURE 6 |



LEGEND

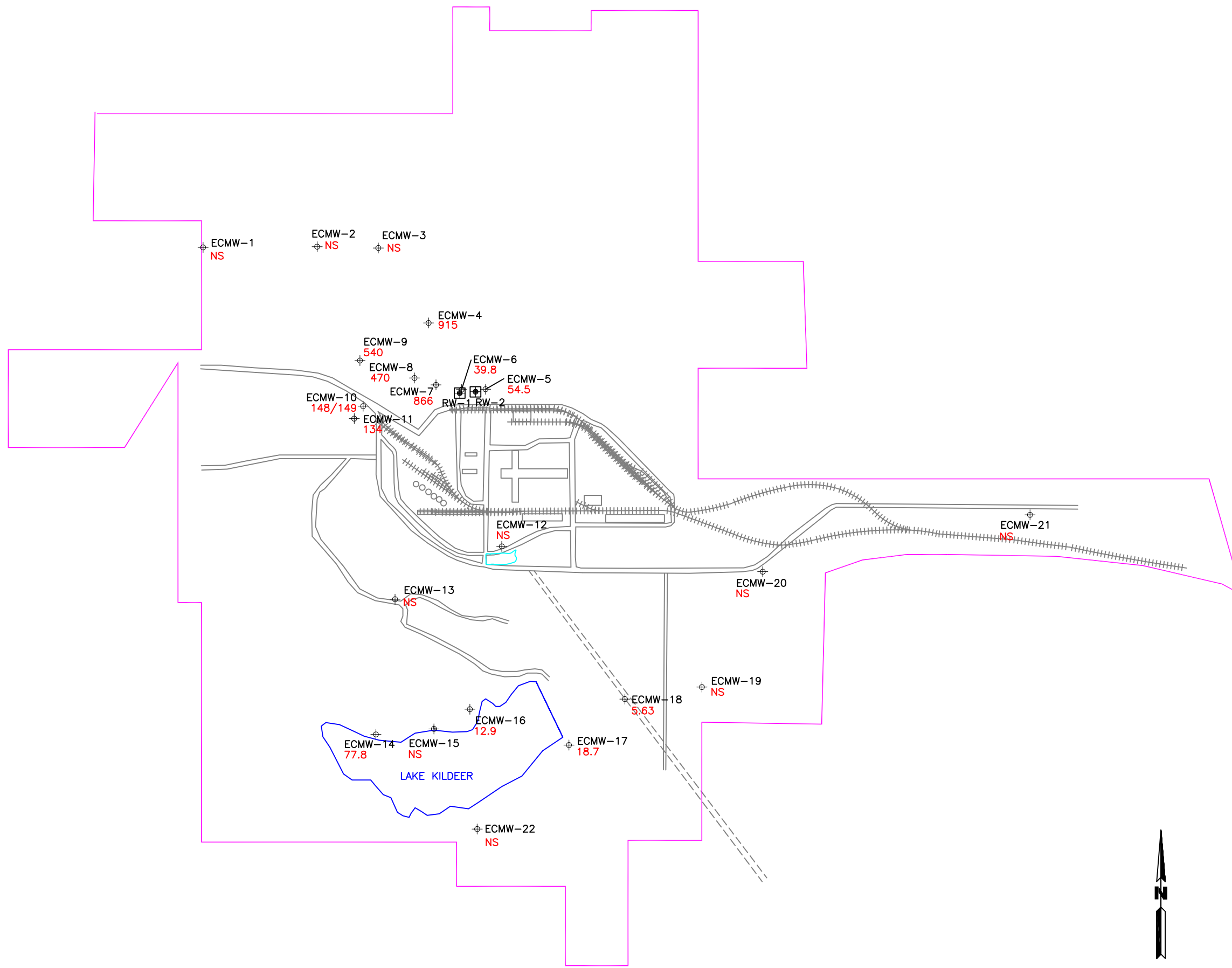
- PROPERTY BOUNDARY
- ⊕ ECMW-4 MONITOR WELL WITH 0.332 NITRATE CONCENTRATION (mg/L)
- ⊕ RECOVERY WELLS
- NS - Not Sampled in Odd Numbered Years



EL DORADO

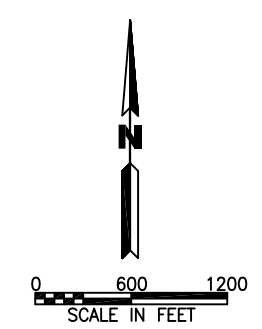
NOVEMBER 2015 NITRATE CONCENTRATION MAP
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| | | |
|---|-----------------|------------------|
| DATE: 02/26/2016 | APPROVED: _____ | DRAWN BY: LMM |
| SCALE: as shown | BY: _____ | CAD NO. 02EC0100 |
| ENVIRONMENTAL MANAGEMENT SERVICES, INC. | | FIGURE 7 |



LEGEND

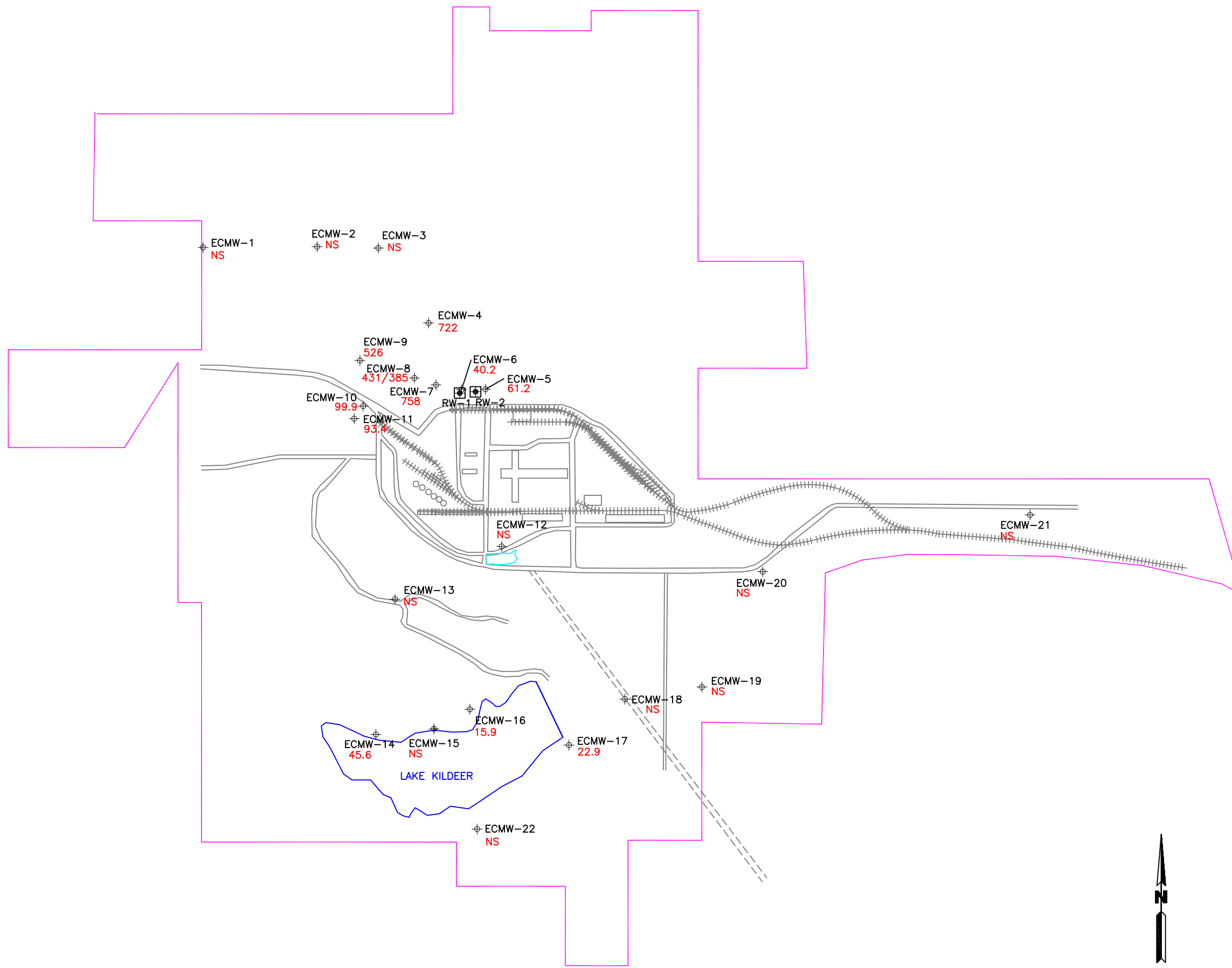
- PROPERTY BOUNDARY
- ⊕ ECMW-4 MONITOR WELL WITH SULFATE CONCENTRATION (mg/L)
915
- ⊕ RECOVERY WELLS
- NS - Not Sampled in Odd Numbered Years



EL DORADO

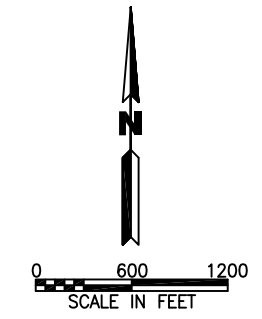
MAY 2015 SULFATE CONCENTRATION MAP
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| | | | |
|------------------|-----------------|------------------|----------|
| DATE: 02/26/2016 | APPROVED: _____ | DRAWN BY: LMM | |
| SCALE: as shown | BY: _____ | CAD NO. 02EC0100 | |
| | | | FIGURE 8 |



LEGEND

- PROPERTY BOUNDARY
- ⊕ ECMW-4 MONITOR WELL WITH SULFATE CONCENTRATION (mg/L)
- ⊕ RECOVERY WELLS
- NS - Not Sampled in Odd Numbered Years



EL DORADO

NOVEMBER 2015 SULFATE CONCENTRATION MAP
2015 ANNUAL GROUND WATER REPORT
EL DORADO CHEMICAL COMPANY
EL DORADO, ARKANSAS

| | | |
|---|-----------------|--------------------|
| DATE: 02/26/2016 | APPROVED: _____ | DRAWN BY: LMM |
| SCALE: as shown | BY: _____ | CAD NO. 02ECO100 |
| ENVIRONMENTAL MANAGEMENT SERVICES, INC. | | FIGURE 9 |

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-18
 Colle. R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time 5-19-15 1345 Method of Evacuation ELEC. PUMP
 Top of casing to water level 4.90 ft Gallons per well volume 8.0
 Top of casing to bottom 17.2 ft Total gallons evacuated 24.0
 Water level after evacuation _____ ft Elevation, Top of casing _____
 Sampling: Date/Time 5-20-15 0930 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[mS/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>22.1</u> | <u>5.77</u> | <u>83.6 μS</u> | | |
| <u>19.6</u> | <u>5.49</u> | <u>81.1 μS</u> | | |
| <u>19.8</u> | <u>5.64</u> | <u>77.9 μS</u> | | |

GENERAL INFORMATION

Weather conditions at time of sampling: PCLOUDY/WARM
 Sample characteristics: CLOUDY
 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 |

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 5-19-15 1320 Method of Evacuation ELEC. PUMP
 Top of casing to water level 26.59 ft Gallons per well volume 5.3
 Top of casing to bottom 34.7 ft Total gallons evacuated 15.9
 Water level after evacuation _____ ft Elevation, Top of casing _____
 Sampling: Date/Time 5-26-15 0905 Elevation of well water 1
 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] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>21.4</u> | <u>4.22</u> | <u>209.6 μs</u> | _____ | _____ |
| <u>20.5</u> | <u>4.13</u> | <u>212.2 μs</u> | _____ | _____ |
| <u>19.9</u> | <u>4.10</u> | <u>203.3 μs</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: Partly cloudy / warm
 Sample characteristics: Clean
 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-19-15 1300</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>2.61</u> ft | Gallons per well volume | <u>10.8</u> |
| Top of casing to bottom | <u>19.3</u> ft | Total gallons evacuated | <u>32.4</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>5-20-15 0910</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[m%] | Turbidity [NT] |
|-----------------|-------------|------------------|------------------|----------------|
| <u>20.7</u> | <u>5.24</u> | <u>173.1 μS</u> | _____ | _____ |
| <u>19.8</u> | <u>4.74</u> | <u>206.6 μS</u> | _____ | _____ |
| <u>19.1</u> | <u>4.54</u> | <u>133.3 μS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: Cloudy/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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMWS-11
 Collector R. DURHAM

MONITORING WELL INFORMATION

Evacuation: Date/Time 5-19-15 1105 Method of Evacuation ELEC. PUMP
 Top of casing to water level 10.13 ft Gallons per well volume 6.3
 Top of casing to bottom 19.8 ft Total gallons evacuated 18.9
 Water level after evacuation _____ ft Elevation, Top of casing _____
 Sampling: Date/Time 5-26-15 0845 Elevation of well water 1
 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] |
|-----------------|---------------------------------|------------------|--------------------|----------------|
| <u>19.2</u> | _____ | <u>733 μs</u> | _____ | _____ |
| <u>18.3</u> | _____ | <u>681 μs</u> | _____ | _____ |
| <u>18.1</u> | _____ <u>4.19</u> | <u>692 μs</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: P. Cloudy / 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 |

FIGURE

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-14
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | |
|---------------------------------------|--|
| Evacuation: Date/Time _____ | Method of Evacuation <u>ELEC. PUMP</u> |
| Top of casing to water level _____ ft | Gallons per well volume _____ |
| _____ ft | Total gallons evacuated _____ |
| Top of casing to bottom _____ ft | Elevation, Top of casing _____ |
| Water level after evacuation _____ | Elevation of well water _____ |
| Sampling: Date/Time _____ | Method of Sampling <u>PVC BAILER</u> |
| Top of casing to water level _____ | |

COULD NOT SAMPLE DUE TO HIGH WATER

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------|-------------------|---------------------|----------------|
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: _____

Sample characteristics: _____

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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-10 + DUP
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-19-15 1045</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>12.39</u> ft | Gallons per well volume | <u>6.6</u> |
| Top of casing to bottom | <u>28.6</u> ft | Total gallons evacuated | <u>19.8</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>5-26-15 0830</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|------------------|-------------------|---------------------|----------------|
| <u>19.5</u> | _____ | <u>898 µS</u> | _____ | _____ |
| <u>19.1</u> | _____ | <u>769 µS</u> | _____ | _____ |
| <u>19.0</u> | <u>4.65</u> | <u>761 µS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: P. Cloudy / 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EDMW-9
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-19-15 1020</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>8.58</u> ft | Gallons per well volume | <u>13.9</u> |
| Top of casing to bottom | <u>30.0</u> ft | Total gallons evacuated | <u>41.7</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>5-26-15 0815</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mS/l] | Turbidity [NT] |
|------------------|------------------|-------------------|---------------------|----------------|
| <u>19.7</u> | _____ | <u>2943µ</u> | _____ | _____ |
| <u>18.9</u> | _____ | <u>2217µ</u> | _____ | _____ |
| <u>18.6</u> | _____ | <u>2162µ</u> | _____ | _____ |
| | <u>5.52</u> | | | |

GENERAL INFORMATION

Weather conditions at time of sampling: Partly cloudy / 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 |

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-19-15 1005</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>7.73</u> ft | Gallons per well volume | <u>14.2</u> |
| Top of casing to bottom | <u>29.9</u> ft | Total gallons evacuated | <u>43.2</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>5-20-15 0805</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[^{mg/l}] | Turbidity [NT] |
|-----------------|------------------|------------------|---------------------------------|----------------|
| <u>19.3</u> | _____ | <u>21.64 MS</u> | _____ | _____ |
| <u>18.9</u> | _____ | <u>21.64 MS</u> | _____ | _____ |
| <u>18.8</u> | <u>4.56</u> | <u>21.92 MS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: P. Cloudy Warm
 Sample characteristics: Clean
 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 |

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 | <u>5-19-15 0935</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>8.31</u> ft | Gallons per well volume | <u>18.1</u> |
| Top of casing to bottom | <u>23.9</u> ft | Total gallons evacuated | <u>30.3</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>5-26-15 0740</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| <u>Temperature[°C]</u> | <u>pH</u> | <u>Conductivity[µS]</u> | <u>Diss. Oxygen[^{mg/l}]</u> | <u>Turbidity [NT]</u> |
|------------------------|------------------|-------------------------|--------------------------------------|-----------------------|
| <u>20.2</u> | _____ | <u>79.1 MS</u> | _____ | _____ |
| <u>19.2</u> | _____ | <u>22.74 MS</u> | _____ | _____ |
| <u>19.2</u> | _____ | <u>20.79 MS</u> | _____ | _____ |
| | <u>4.06</u> | | | |

GENERAL INFORMATION

Weather conditions at time of sampling: P. Cloudy / Warm
 Sample characteristics: Clean
 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 |

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

Evacuation: Date/Time 5-19-15 0920 Method of Evacuation ELEC. PUMP
 Top of casing to water level 8.62 ft Gallons per well volume 8.8
 Top of casing to bottom 22.1 ft Total gallons evacuated 26.4
 Water level after evacuation _____ ft Elevation, Top of casing _____
 Sampling: Date/Time 5-26-15 0750 Elevation of well water _____
 Top of casing to water level _____ ft Method of Sampling PVC BAILER

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Dissolved Oxygen[^{mg} /l] | Turbidity [NT] |
|-----------------|------------------|------------------|-------------------------------------|----------------|
| <u>19.1</u> | _____ | <u>7.13MS</u> | _____ | _____ |
| <u>18.1</u> | _____ | <u>6.45MS</u> | _____ | _____ |
| <u>17.9</u> | _____ | <u>6.22MS</u> | _____ | _____ |
| | <u>3.29</u> | | | |

GENERAL INFORMATION

Weather conditions at time of sampling: H. Cloudy / Warm
 Sample characteristics: Clean
 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC-MW-6
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-19-15 0900</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>6.04</u> ft | Gallons per well volume | <u>10.4</u> |
| Top of casing to bottom | 5-20-15 22.0725 | Total gallons evacuated | <u>31.2</u> |
| Water level after evacuation | <u>2.0</u> ft | Elevation, Top of casing | <u> </u> |
| Sampling: Date/Time | <u>5-20-15 0725</u> | Elevation of well water | <u> </u> |
| Top of casing to water level | <u> </u> ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Dissolved Oxygen [mg/l] | Turbidity [NT] |
|------------------|-----------------------|-------------------|-------------------------|-------------------|
| <u>18.2</u> | | <u>29.22 MS</u> | <u> </u> | <u> </u> |
| <u>18.3</u> | | <u>24.64 MS</u> | <u> </u> | <u> </u> |
| <u>18.2</u> | | <u>24.80 MS</u> | <u> </u> | <u> </u> |
| | <u>3.91</u> | | | |

GENERAL INFORMATION

Weather conditions at time of sampling: P. Cloudy / Clear

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 |

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 5-19-15 0840 Method of Evacuation ELEC. PUMP
 Top of casing to water level 3.90 ft Gallons per well volume 9.0
 Top of casing to bottom 12.7 ft Total gallons evacuated 27.0
 Water level after evacuation _____ ft Elevation, Top of casing _____
 Sampling: Date/Time 5-28-15 0710 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] |
|-----------------|-----------------|------------------|--------------------|----------------|
| <u>19.2</u> | 5.27 | <u>976 μs</u> | _____ | _____ |
| <u>18.2</u> | 5.27 | <u>587 μs</u> | _____ | _____ |
| <u>18.3</u> | 5.27 | <u>548 μs</u> | _____ | _____ |
| | <u>5.27</u> | | | |

GENERAL INFORMATION

Weather conditions at time of sampling: P. Cloudy / 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 |

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-21
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-22-15 1310</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>15.48</u> ft | Gallons per well volume | <u>3.9</u> |
| Top of casing to bottom | <u>39.9</u> ft | Total gallons evacuated | <u>11.7</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| <u>Temperature[°C]</u> | <u>pH</u> | <u>Conductivity[μS]</u> | <u>Diss. Oxygen[m%]</u> | <u>Turbidity [NT]</u> |
|------------------------|-------------|-------------------------|-------------------------|-----------------------|
| <u>19.2</u> | <u>5.84</u> | <u>58.1 us</u> | _____ | _____ |
| <u>17.7</u> | <u>5.62</u> | <u>51.4 us</u> | _____ | _____ |
| <u>17.4</u> | <u>5.37</u> | <u>53.2 us</u> | _____ | _____ |

GENERAL INFORMATION

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

Certification: R. Durham

| <u>Well Casing Volumes [gal/ft]</u> | | | |
|-------------------------------------|-------------|-------------|---------|
| 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

Evacuation: Date/Time 5-22-15 0840 Method of Evacuation ELEC. PUMP
 Top of casing to water level 5.78 ft Gallons per well volume 8.7
 Top of casing to bottom 22.1 ft Total gallons evacuated 26.1
 Water level after evacuation _____ ft Elevation, Top of casing _____
 Sampling: Date/Time _____ Elevation of well water _____
 Top of casing to water level _____ ft Method of Sampling PVC BAILER

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Dissolved Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|-------------------------|----------------|
| <u>16.3</u> | <u>5.46</u> | <u>113.3 µS</u> | | |
| <u>16.1</u> | <u>5.08</u> | <u>58.1 µS</u> | | |
| <u>15.9</u> | <u>4.83</u> | <u>46.8 µS</u> | | |

GENERAL INFORMATION

Weather conditions at time of sampling: _____
 Sample characteristics: _____
 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-2
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5.22.15 0910</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>0.00</u> ft | Gallons per well volume | <u>13.1</u> |
| Top of casing to bottom | <u>20.2</u> ft | Total gallons evacuated | <u>39.3</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Dissolved Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|------------------------|----------------|
| <u>16.0</u> | <u>5.48</u> | <u>253.9 μS</u> | _____ | _____ |
| <u>15.8</u> | <u>5.49</u> | <u>252.1 μS</u> | _____ | _____ |
| <u>15.7</u> | <u>5.43</u> | <u>239.7 μS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: _____
 Sample characteristics: _____
 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 |

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECM-12
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-22-15 0945</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>6.21</u> ft | Gallons per well volume | <u>8.9</u> |
| Top of casing to bottom | <u>19.9</u> ft | Total gallons evacuated | <u>26.7</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| <u>Temperature[°C]</u> | <u>pH</u> | <u>Conductivity[μS]</u> | <u>Diss. Oxygen[^{mg}/l]</u> | <u>Turbidity [NT]</u> |
|------------------------|-------------|-------------------------|--------------------------------------|-----------------------|
| <u>18.2</u> | <u>6.06</u> | <u>504 μS</u> | _____ | _____ |
| <u>17.9</u> | <u>6.05</u> | <u>494 μS</u> | _____ | _____ |
| <u>18.1</u> | <u>6.02</u> | <u>488 μS</u> | _____ | _____ |

GENERAL INFORMATION

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

Certification: R. Durham

| <u>Well Casing Volumes [gal/ft]</u> | | | |
|-------------------------------------|-------------|-------------|---------|
| 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 |

FIGURE

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC1AW-3
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | | |
|------------------------------|----------------|-------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-22-15</u> | <u>0930</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>8.81</u> | ft | Gallons per well volume | <u>11.9</u> |
| Top of casing to bottom | <u>27.1</u> | ft | Total gallons evacuated | <u>33.7</u> |
| Water level after evacuation | | ft | Elevation, Top of casing | |
| Sampling: Date/Time | | | Elevation of well water | <u>1</u> |
| Top of casing to water level | | ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Dissolved Oxygen[m%] | Turbidity [NT] |
|-----------------|-------------|------------------|----------------------|----------------|
| <u>16.6</u> | <u>6.11</u> | <u>196.7 μS</u> | | |
| <u>15.6</u> | <u>6.16</u> | <u>181.5 μS</u> | | |
| <u>15.5</u> | <u>6.18</u> | <u>179.6 μS</u> | | |

GENERAL INFORMATION

Weather conditions at time of sampling: _____
 Sample characteristics: _____
 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-22-15 1005</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>3.81</u> ft | Gallons per well volume | <u>23.1</u> |
| Top of casing to bottom | <u>29.8</u> ft | Total gallons evacuated | <u>34.3</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [μS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>18.0</u> | <u>6.93</u> | <u>168.3 μs</u> | _____ | _____ |
| <u>18.8</u> | <u>6.43</u> | <u>162.0 μs</u> | _____ | _____ |
| <u>18.8</u> | <u>6.28</u> | <u>157.0 μs</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: _____
 Sample characteristics: _____
 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 |

FIGURE

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECABW-23
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | |
|---|--|
| Evacuation: Date/Time <u>5.22.15 1020</u> | Method of Evacuation <u>ELEC. PUMP</u> |
| Top of casing to water level <u>5.11</u> ft | Gallons per well volume <u>9.5</u> |
| Top of casing to bottom <u>19.8</u> ft | Total gallons evacuated <u>28.5</u> |
| Water level after evacuation _____ ft | Elevation, Top of casing _____ |
| Sampling: Date/Time _____ | Elevation of well water <u>1</u> |
| Top of casing to water level _____ ft | Method of Sampling <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Dissolved Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|-------------------------|----------------|
| <u>18.1</u> | <u>5.46</u> | <u>821 µS</u> | _____ | _____ |
| <u>17.5</u> | <u>5.25</u> | <u>820 µS</u> | _____ | _____ |
| <u>17.4</u> | <u>5.20</u> | <u>795 µS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: _____
 Sample characteristics: _____
 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MS-15
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-22-15 1040</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>3.46</u> ft | Gallons per well volume | <u>8.8</u> |
| Top of casing to bottom | <u>17.0</u> ft | Total gallons evacuated | <u>26.4</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>18.7</u> | <u>5.11</u> | <u>188.2 µS</u> | _____ | _____ |
| <u>18.5</u> | <u>4.77</u> | <u>79.4 µS</u> | _____ | _____ |
| <u>18.2</u> | <u>4.68</u> | <u>76.9 µS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: _____

Sample characteristics: _____

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 |

FIGURE

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMLW-09
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-22-15 1240</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>0.00</u> ft | Gallons per well volume | <u>9.8</u> |
| Top of casing to bottom | <u>61.5</u> ft | Total gallons evacuated | <u>29.4</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE DATA

| Temperature [°C] | pH | Conductivity [µS] | Dissolved Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|-------------------------|----------------|
| <u>20.4</u> | <u>6.62</u> | <u>127.7 µS</u> | _____ | _____ |
| <u>18.5</u> | <u>6.04</u> | <u>90.5 µS</u> | _____ | _____ |
| <u>18.3</u> | <u>5.95</u> | <u>82.9 µS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: _____
 Sample characteristics: _____

 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 |

FIGURE

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EDPW-21
 Colle. R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-18-15 1425</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>17.89</u> ft | Gallons per well volume | <u>1.1</u> |
| Top of casing to bottom | <u>34.9</u> ft | Total gallons evacuated | <u>5.3</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | _____ |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[^{mg} /l] | Turbidity [NT] |
|-----------------|-------------|------------------|---------------------------------|----------------|
| <u>18.1</u> | <u>5.48</u> | <u>51.6 μs</u> | _____ | _____ |
| <u>18.1</u> | <u>5.49</u> | <u>50.9 μs</u> | _____ | _____ |
| <u>18.2</u> | <u>5.39</u> | <u>54.0 μs</u> | _____ | _____ |

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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-18
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-16-15 1405</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>7.13</u> ft | Gallons per well volume | <u>6.5</u> |
| Top of casing to bottom | <u>17.2</u> ft | Total gallons evacuated | <u>19.5</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 1020</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>19.4</u> | <u>5.58</u> | <u>78.0 μS</u> | _____ | _____ |
| <u>19.0</u> | <u>5.68</u> | <u>72.8 μS</u> | _____ | _____ |
| <u>18.8</u> | <u>5.70</u> | <u>74.2 μS</u> | _____ | _____ |

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 |

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 | <u>11-16-15 1340</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>29.26</u> ft | Gallons per well volume | <u>3.5</u> |
| Top of casing to bottom | <u>34.7</u> ft | Total gallons evacuated | <u>10.5</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 1010</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>19.5</u> | <u>4.07</u> | <u>258.8 μs</u> | _____ | _____ |
| <u>18.9</u> | <u>3.96</u> | <u>255.3 μs</u> | _____ | _____ |
| <u>18.6</u> | <u>4.04</u> | <u>246.6 μs</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: CLOUDY / 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-16
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-16-15 1320</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>5.46</u> ft | Gallons per well volume | <u>9.0</u> |
| Top of casing to bottom | <u>19.3</u> ft | Total gallons evacuated | <u>27.0</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 0955</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE DATA

| Temperature [°C] | pH | Conductivity [µS] | Dissolved Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|-------------------------|----------------|
| <u>21.4</u> | <u>5.04</u> | <u>131.3 µS</u> | _____ | _____ |
| <u>21.7</u> | <u>4.73</u> | <u>132.6 µS</u> | _____ | _____ |
| <u>21.9</u> | <u>4.08</u> | <u>130.7 µS</u> | _____ | _____ |

GENERAL INFORMATION

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

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

Evacuation: Date/Time 11-16-15 1305 Method of Evacuation ELEC. PUMP
 Top of casing to water level 9.11 ft Gallons per well volume 5.9
 Top of casing to bottom 18.2 ft Total gallons evacuated 17.7
 Water level after evacuation _____ ft Elevation, Top of casing _____
 Sampling: Date/Time 11-18-15 0935 Elevation of well water 1
 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] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>21.4</u> | <u>4.96</u> | <u>461.40</u> | _____ | _____ |
| <u>21.6</u> | <u>5.14</u> | <u>425.4 µS</u> | _____ | _____ |
| <u>21.8</u> | <u>5.15</u> | <u>432.8 µS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: CLOUDY/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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW 11
 Colle. R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-16-15 1235</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>12.00</u> ft | Gallons per well volume | <u>5.1</u> |
| Top of casing to bottom | <u>19.8</u> ft | Total gallons evacuated | <u>15.3</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 0915</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[^{mg} /l] | Turbidity [NT] |
|-----------------|-------------|------------------|---------------------------------|----------------|
| <u>21.7</u> | <u>4.59</u> | <u>756 uS</u> | _____ | _____ |
| <u>22.1</u> | <u>4.31</u> | <u>740 uS</u> | _____ | _____ |
| <u>22.3</u> | <u>4.13</u> | <u>705 uS</u> | _____ | _____ |

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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW10
 Colle. R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-16-75 1215</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>15.42</u> ft | Gallons per well volume | <u>4.7</u> |
| Top of casing to bottom | <u>22.6</u> ft | Total gallons evacuated | <u>14.1</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-75 0905</u> | Elevation of well water | _____ |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>21.0</u> | <u>4.83</u> | <u>875 µS</u> | _____ | _____ |
| <u>21.4</u> | <u>4.41</u> | <u>752 µS</u> | _____ | _____ |
| <u>21.6</u> | <u>4.22</u> | <u>763 µS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: CLOUDY, 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 |

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 | <u>11-16-15 1140</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>12.22</u> ft | Gallons per well volume | <u>34.5 @ 1.5</u> |
| Top of casing to bottom | <u>30.0</u> ft | Total gallons evacuated | <u>34.5</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 0845</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>20.0</u> | <u>5.09</u> | <u>2501 μs</u> | _____ | _____ |
| <u>19.9</u> | <u>5.30</u> | <u>2243 μs</u> | _____ | _____ |
| <u>19.9</u> | <u>5.36</u> | <u>2213 μs</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: CLOUDY, 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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|-----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-16-15 11 25</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>7.73</u> ft | Gallons per well volume | <u>14.4</u> |
| Top of casing to bottom | <u>29.9</u> ft | Total gallons evacuated | <u>43.2</u> |
| Water level after evacuation | | Elevation, Top of casing | |
| Sampling: Date/Time | <u>11-18-15 0840</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>19.8</u> | <u>3.78</u> | <u>26.77 MS</u> | | |
| <u>19.6</u> | <u>3.72</u> | <u>25.24 MS</u> | | |
| <u>19.5</u> | <u>3.70</u> | <u>25.29 MS</u> | | |

GENERAL INFORMATION

Weather conditions at time of sampling: CLOUDY, 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 |

GROUNDWATER SAMPLING DATA FORM El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-16-15 0920</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>22.77</u> ft | Gallons per well volume | <u>10.5</u> |
| Top of casing to bottom | <u>23.9</u> ft | Total gallons evacuated | <u>31.5</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 0835</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>20.1</u> | <u>5.80</u> | <u>84.3 MS</u> | _____ | _____ |
| <u>20.7</u> | <u>5.46</u> | <u>25.02 MS</u> | _____ | _____ |
| <u>20.8</u> | <u>5.31</u> | <u>23.72 MS</u> | _____ | _____ |

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 |

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 | <u>11-16-15 1110</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>5.03</u> ft | Gallons per well volume | <u>11.0</u> |
| Top of casing to bottom | <u>22.0</u> ft | Total gallons evacuated | <u>33.0</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 0815</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| <u>Temperature[°C]</u> | <u>pH</u> | <u>Conductivity[μS]</u> | <u>Diss. Oxygen[mg/l]</u> | <u>Turbidity [NT]</u> |
|------------------------|-------------|-------------------------|---------------------------|-----------------------|
| <u>20.5</u> | <u>4.87</u> | <u>37.04 MS</u> | _____ | _____ |
| <u>20.5</u> | <u>4.05</u> | <u>34.42 MS</u> | _____ | _____ |
| <u>20.7</u> | <u>3.96</u> | <u>32.14 MS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: CLOUDY, 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 |

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 | <u>11-18-15 0845</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>4.35</u> ft | Gallons per well volume | <u>8.7</u> |
| Top of casing to bottom | <u>17.7</u> ft | Total gallons evacuated | <u>26.1</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 0805</u> | Elevation of well water | _____ |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>26.7</u> | <u>6.02</u> | <u>646 μs</u> | _____ | _____ |
| <u>20.7</u> | <u>5.77</u> | <u>566 μs</u> | _____ | _____ |
| <u>20.6</u> | <u>5.58</u> | <u>558 μs</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: Cloudy/Cool

Sample characteristics: Clean

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 |

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-16-15 0905</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>10.24</u> ft | Gallons per well volume | <u>7.7</u> |
| Top of casing to bottom | <u>22.1</u> ft | Total gallons evacuated | <u>23.1</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | <u>11-18-15 0825</u> | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>19.8</u> | <u>4.52</u> | <u>6.90 MS</u> | _____ | _____ |
| <u>20.4</u> | <u>4.09</u> | <u>6.77 MS</u> | _____ | _____ |
| <u>20.5</u> | <u>4.04</u> | <u>6.77 MS</u> | _____ | _____ |

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 |

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 | <u>11-18-15 1205</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>12.82</u> ft | Gallons per well volume | <u>9.5</u> |
| Top of casing to bottom | <u>27.1</u> ft | Total gallons evacuated | <u>28.5</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>20.1</u> | <u>6.80</u> | <u>279.1 us</u> | _____ | _____ |
| <u>19.3</u> | <u>6.21</u> | <u>273.2 us</u> | _____ | _____ |
| <u>19.0</u> | <u>6.11</u> | <u>268.2 us</u> | _____ | _____ |

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 |

GROUNDWATER SAMPLING DATA FORM
El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ERMU-2
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-18-15 1220</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>0.00</u> ft | Gallons per well volume | <u>13.1</u> |
| Top of casing to bottom | <u>20.2</u> ft | Total gallons evacuated | <u>29.3</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| <u>Temperature[°C]</u> | <u>pH</u> | <u>Conductivity[μS]</u> | <u>Diss. Oxygen[^{mg}/l]</u> | <u>Turbidity [NT]</u> |
|------------------------|-------------|-------------------------|--------------------------------------|-----------------------|
| <u>18.4</u> | <u>6.29</u> | <u>295.9 μs</u> | _____ | _____ |
| <u>18.6</u> | <u>5.93</u> | <u>292.3 μs</u> | _____ | _____ |
| <u>18.4</u> | <u>5.84</u> | <u>27.6 μs</u> | _____ | _____ |

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 |

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 | <u>11-18-15 12:40</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>12.56</u> ft | Gallons per well volume | <u>6.2</u> |
| Top of casing to bottom | <u>22.1</u> ft | Total gallons evacuated | <u>18.6</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>18.3</u> | <u>5.57</u> | <u>48.8 μS</u> | _____ | _____ |
| <u>19.4</u> | <u>5.39</u> | <u>42.6 μS</u> | _____ | _____ |
| <u>19.7</u> | <u>5.57</u> | <u>41.6 μS</u> | _____ | _____ |

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 |

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 | <u>11-18-15 1255</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>8.06</u> ft | Gallons per well volume | <u>11.5</u> |
| Top of casing to bottom | <u>79.8</u> ft | Total gallons evacuated | <u>34.5</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>18.9</u> | <u>5.96</u> | <u>159.0 μS</u> | _____ | _____ |
| <u>19.3</u> | <u>6.04</u> | <u>161.3 μS</u> | _____ | _____ |
| <u>18.8</u> | <u>6.07</u> | <u>144.9 μS</u> | _____ | _____ |

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 |

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 | <u>11-18-15 1310</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>3.91</u> ft | Gallons per well volume | <u>8.5</u> |
| Top of casing to bottom | <u>17.0</u> ft | Total gallons evacuated | <u>25.5</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | _____ |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[µS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>20.3</u> | <u>6.08</u> | <u>73.1 µs</u> | _____ | _____ |
| <u>20.8</u> | <u>5.48</u> | <u>71.4 µs</u> | _____ | _____ |
| <u>20.3</u> | <u>5.14</u> | <u>76.8 µs</u> | _____ | _____ |

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 |

GROUNDWATER SAMPLING DATA FORM El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-18-15 1320</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>6.06</u> ft | Gallons per well volume | <u>8.9</u> |
| Top of casing to bottom | <u>19.8</u> ft | Total gallons evacuated | <u>26.7</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | _____ |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. : Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|----------------------|----------------|
| <u>19.5</u> | <u>4.95</u> | <u>1094 μs</u> | _____ | _____ |
| <u>20.6</u> | <u>4.72</u> | <u>999 μs</u> | _____ | _____ |
| <u>20.8</u> | <u>4.18</u> | <u>937 μs</u> | _____ | _____ |

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 |

GROUNDWATER SAMPLING DATA FORM El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | | |
|------------------------------|----------------------|----|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-18-15 1335</u> | | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>5.86</u> | ft | Gallons per well volume | <u>9.1</u> |
| Top of casing to bottom | <u>19.9</u> | ft | Total gallons evacuated | <u>27.3</u> |
| Water level after evacuation | | ft | Elevation, Top of casing | |
| Sampling: Date/Time | | | Elevation of well water | <u>1</u> |
| Top of casing to water level | | ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|--------------------|----------------|
| <u>21.1</u> | <u>5.66</u> | <u>791 μs</u> | | |
| <u>21.7</u> | <u>5.72</u> | <u>673 μs</u> | | |
| <u>21.8</u> | <u>5.73</u> | <u>654 μs</u> | | |

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 |

GROUNDWATER SAMPLING DATA FORM El Dorado Chemical Company

FIELD LOG

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

MONITORING WELL INFORMATION

| | | | |
|------------------------------|----------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-18-15 1345</u> | Method of Evacuation | <u>ELEC PUMP</u> |
| Top of casing to water level | <u>4.60</u> ft | Gallons per well volume | <u>9.1</u> |
| Top of casing to bottom | <u>61.5</u> ft | Total gallons evacuated | <u>27.3</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature [°C] | pH | Conductivity [µS] | Diss. Oxygen [mg/l] | Turbidity [NT] |
|------------------|-------------|-------------------|---------------------|----------------|
| <u>17.7°</u> | <u>6.41</u> | <u>94.0 µS</u> | _____ | _____ |
| <u>17.4°</u> | <u>6.32</u> | <u>81.7 µS</u> | _____ | _____ |
| <u>17.4°</u> | <u>6.13</u> | <u>82.0 µS</u> | _____ | _____ |

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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. ECMW-28
 Colle. R. DURHAM

MONITORING WELL INFORMATION

| | | | | |
|------------------------------|----------------------|----|--------------------------|-------------------|
| Evacuation: Date/Time | <u>11-18-15 1410</u> | | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>30.11</u> | ft | Gallons per well volume | <u>3.9</u> |
| Top of casing to bottom | <u>54.4</u> | ft | Total gallons evacuated | <u>11.7</u> |
| Water level after evacuation | | ft | Elevation, Top of casing | |
| Sampling: Date/Time | | | Elevation of well water | <u>1</u> |
| Top of casing to water level | | ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Diss. Oxygen[^m %] | Turbidity [NT] |
|-----------------|-------------|------------------|-------------------------------|----------------|
| <u>17.2</u> | <u>6.71</u> | <u>63.1 μs</u> | | |
| <u>17.4</u> | <u>6.23</u> | <u>62.8 μs</u> | | |
| <u>17.3</u> | <u>6.08</u> | <u>62.8 μs</u> | | |

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 |

GROUNDWATER SAMPLING DATA FORM

El Dorado Chemical Company

FIELD LOG

Site EL DORADO CHEMICAL Facility EL DORADO, AR Well No. EC MW-20
 Collector R. DURHAM

MONITORING WELL INFORMATION

| | | | |
|------------------------------|---------------------|--------------------------|-------------------|
| Evacuation: Date/Time | <u>5-22-15 1255</u> | Method of Evacuation | <u>ELEC. PUMP</u> |
| Top of casing to water level | <u>27.63</u> ft | Gallons per well volume | <u>3.2</u> |
| Top of casing to bottom | <u>54.4</u> ft | Total gallons evacuated | <u>9.6</u> |
| Water level after evacuation | _____ ft | Elevation, Top of casing | _____ |
| Sampling: Date/Time | _____ | Elevation of well water | <u>1</u> |
| Top of casing to water level | _____ ft | Method of Sampling | <u>PVC BAILER</u> |

SAMPLE D.

| Temperature[°C] | pH | Conductivity[μS] | Dissolved Oxygen[mg/l] | Turbidity [NT] |
|-----------------|-------------|------------------|------------------------|----------------|
| <u>19.2</u> | <u>6.01</u> | <u>74.1 μS</u> | _____ | _____ |
| <u>18.6</u> | <u>5.64</u> | <u>64.3 μS</u> | _____ | _____ |
| <u>18.5</u> | <u>5.61</u> | <u>67.3 μS</u> | _____ | _____ |

GENERAL INFORMATION

Weather conditions at time of sampling: _____
 Sample characteristics: _____

 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 |

FIGURE



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

27 May 2015

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

Project: Groundwater Sample(s)
Project Number: May 2015
SDG Number: 1505319

Enclosed are the results of analyses for samples received by the laboratory on 20-May-15 13:50. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

| | |
|---------------------------|--------|
| <u>Custody Seals</u> | ✓ |
| <u>Containers Correct</u> | ✓ |
| <u>COC/Labels Agree</u> | ✓ |
| <u>Received On Ice</u> | ✓ |
| Temperature on Receipt | 13.0°C |

Sincerely,

A handwritten signature in blue ink that reads "Norma James / Teresa Coins".

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

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27 May 2015



David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: May 2015
Date Received: 20-May-15 13:50

ANALYTICAL RESULTS

Lab Number: 1505319-01
Sample Name: ECMW-5
Date/Time Collected: 5/20/15 7:10
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 54.5 | | 5/21/15 10:20 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 44.6 | | 5/21/15 10:20 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 1.27 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1505319-02
Sample Name: ECMW-6
Date/Time Collected: 5/20/15 7:25
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 39.8 | | 5/21/15 10:43 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 2960 | | 5/21/15 15:50 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 2.55 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1505319-03
Sample Name: ECMW-4
Date/Time Collected: 5/20/15 7:50
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 915 | | 5/22/15 9:15 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 1.60 | | 5/21/15 11:07 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 3.50 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

27 May 2015



David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: May 2015
Date Received: 20-May-15 13:50

ANALYTICAL RESULTS

Lab Number: 1505319-04
Sample Name: ECMW-7
Date/Time Collected: 5/20/15 7:40
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 866 | | 5/21/15 11:31 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 63.6 | | 5/21/15 11:31 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 6.10 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1505319-05
Sample Name: ECMW-8
Date/Time Collected: 5/20/15 8:05
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 470 | | 5/21/15 11:54 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 791 | | 5/21/15 11:54 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 3.15 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1505319-06
Sample Name: ECMW-9
Date/Time Collected: 5/20/15 8:15
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 540 | | 5/22/15 9:38 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 31.9 | | 5/21/15 12:18 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 4.13 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

27 May 2015



David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: May 2015
Date Received: 20-May-15 13:50

ANALYTICAL RESULTS

Lab Number: 1505319-07
Sample Name: ECMW-10
Date/Time Collected: 5/20/15 8:30
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 148 | | 5/22/15 10:02 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 50.0 | | 5/21/15 12:41 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 1.91 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1505319-08
Sample Name: ECMW-11
Date/Time Collected: 5/20/15 8:45
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 134 | | 5/22/15 10:26 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 28.8 | | 5/21/15 13:05 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 3.12 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1505319-09
Sample Name: ECMW-16
Date/Time Collected: 5/20/15 9:10
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 12.9 | | 5/21/15 13:28 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 8.65 | | 5/21/15 13:28 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 6.20 | | 5/21/15 8:45 | A505266 | 4500-NH3 B,D,C-1997 |

27 May 2015



David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: May 2015
Date Received: 20-May-15 13:50

ANALYTICAL RESULTS

Lab Number: 1505319-10
Sample Name: ECMW-17
Date/Time Collected: 5/20/15 9:05
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 18.7 | | 5/21/15 16:13 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 10.4 | | 5/21/15 16:13 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 6.53 | | 5/21/15 8:45 | A505266 | 4500-NH3 B.D.C-1997 |

ANALYTICAL RESULTS

Lab Number: 1505319-11
Sample Name: ECMW-18
Date/Time Collected: 5/20/15 9:30
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 5.63 | | 5/21/15 15:03 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 0.295 | | 5/21/15 15:03 | A505246 | 300.0, 2.1-1993 |

ANALYTICAL RESULTS

Lab Number: 1505319-12
Sample Name: DUP
Date/Time Collected: 5/20/15 12:00
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 149 | | 5/22/15 10:49 | A505246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 49.1 | | 5/21/15 15:26 | A505246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 1.33 | | 5/21/15 8:45 | A505266 | 4500-NH3 B.D.C-1997 |

27 May 2015



David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: May 2015
Date Received: 20-May-15 13:50

QUALITY CONTROL RESULTS

Anions -- Batch: A505246 (Water)

Prepared: 21-May-15 09:22 By: MB -- Analyzed: 21-May-15 18:20 By: Mel

Table with 7 columns: Analyte, BLK, LCS / LCSD, MS / MSD, Dup, RPD, Qualifiers. Rows include Nitrate as N and Sulfate as SO4.

Wet Chemistry -- Batch: A505266 (Water)

Prepared: 21-May-15 08:45 By: RJH -- Analyzed: 21-May-15 08:45 By: RJH

Table with 7 columns: Analyte, BLK, LCS / LCSD, MS / MSD, Dup, RPD, Qualifiers. Row includes Ammonia as N.

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.

Handwritten signature: Norma James / Teresa Coins

Reviewed by:
Norma James and/or Teresa Coins
Technical Director and/or QA Officer



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: | | | |
|---|-------------------------|-------------------------|------|-------------------------------------|-------------------|------------------|-------------------------------------|--|------------------|---------------------------|--|
| EI Dorado Chemical Inc. | | EI Dorado Chemical Inc. | | Groundwater Samples | | 1 Day (100%) | | 1. Cool, 4 Degrees Centigrade | | | |
| 4500 Northwest Ave. | | P.O. Box 231 | | | | 2 Day (50%) | | 2. Sulfuric Acid (H ₂ SO ₄), pH < 2 | | | |
| EI Dorado, AR 71731 | | EI Dorado, AR 71731 | | Reporting Information | | 3 Day (25%) | | 3. Nitric Acid (HNO ₃), pH < 2 | | | |
| Attn: David Sartain | | Telephone: 870-863-1484 | | 5 Day (Routine) | | TEST PARAMETERS | | 4. Thiosulfate for Dechlorination | | | |
| Email: dsartain@edc-ark.com; lmarcella@gen-wg.com | | Fax: 870-863-1499 | | Preservative Code: P | | Bottle Type Code | | 5. Hydrochloric Acid (HCl) | | | |
| Bottle Type: | | 1 | | 1,2 | | | | 6. Sodium Hydroxide (NaOH), pH > 12 | | | |
| Sampler(s) Signature | | Sampler(s) Printed | | SAMPLE IDENTIFICATION / DESCRIPTION | | Nitrate, Sulfate | | Ammonia | | | |
| R. Dunbar EMS Inc | | R. Dunbar EMS Inc | | | | | | | | | |
| Field Number | SAMPLE COLLECTION Dates | Times | Grab | Comp | Number of Bottles | Sample Matrix | SAMPLE IDENTIFICATION / DESCRIPTION | | Nitrate, Sulfate | Ammonia | Arkansas Analytical Work Order Number: |
| 1 | 5-20-15 | 0710 | X | | 2 | Water | ECMW-ECMW-5 | | X | X | 1505319- |
| 2 | | 0725 | X | | 2 | Water | ECMW-ECMW-6 | | X | X | 02 |
| 3 | | 0250 | X | | 2 | Water | ECMW-ECMW-7 | | X | X | 03 |
| 4 | | 0240 | X | | 2 | Water | ECMW-ECMW-7 | | X | X | 04 |
| 5 | | 0845 | X | | 2 | Water | ECMW-ECMW-8 | | X | X | 05 |
| 6 | | 0815 | X | | 2 | Water | ECMW-ECMW-9 | | X | X | 06 |
| 7 | | 0830 | X | | 2 | Water | ECMW-ECMW-10 | | X | X | 07 |
| 8 | | 0845 | X | | 2 | Water | ECMW-ECMW-11 | | X | X | 08 |
| 9 | | 0910 | X | | 2 | Water | ECMW-ECMW-14 | | X | X | 09 |
| 10 | | 0935 | X | | 2 | Water | ECMW-ECMW-15 | | X | X | 10 |
| 1. Relinquished by: (Signature) | | Date/Time | | 2. Received by: (Signature) | | Date/Time | | SAMPLE CONDITION UPON RECEIPT IN LAB | | REMARKS / SAMPLE COMMENTS | |
| R. Dunbar EMS Inc | | 5-20-15 | | R. Dunbar EMS Inc | | 12-30 | | 1. CUSTODY SEALS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| 3. Relinquished by: (Signature) | | Date/Time | | 4. Received by lab: (Signature) | | Date/Time | | 2. CONTAINERS CORRECT: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| Ednae Ylan | | 5-20-15, 1350 | | Sydney Adams | | 1350 | | 3. COC/LABELS AGREE: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| | | | | | | | | 4. RECEIVED ON ICE: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| | | | | | | | | 5. TEMPERATURE ON RECEIPT: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| | | | | | | | | 6. TEMPERATURE GUN ID: HHT #2 | | | |
| | | | | | | | | FOR COMPLETION BY LAB ONLY | | | |



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. 4500 Northwest Ave. El Dorado, AR 71731 | | El Dorado Chemical Inc. P.O. Box 231 El Dorado, AR 71731 | | Groundwater Samples | | 1 Day (100%) 2 Day (50%) 3 Day (25%) | | 1. Cool, 4 Degrees Centigrade 2. Sulfuric Acid (H ₂ SO ₄), pH < 2 3. Nitric Acid (HNO ₃), pH < 2 4. Thiosulfate for Dechlorination 5. Hydrochloric Acid (HCl) 6. Sodium Hydroxide (NaOH), pH > 12 | | | | | |
| Attn: David Sartain | | Telephone: 870-863-1484 Fax: 870-863-1499 | | Reporting Information | | 5 Day (Routine) | | TEST PARAMETERS | | | | | |
| Email: dsartain@cdc-ark.com; msarcolla@env-mgt.com | | Preservative Code: P | | Bottle Type: P | | 1 | | 1,2 | | P | | P | |
| Sampler(s) Signature | | Sampler(s) Printed | | SAMPLE IDENTIFICATION/ DESCRIPTION | | Nitrate, Sulfate | | Ammonia | | Ammonia | | Ammonia | |
| Field Number | SAMPLE COLLECTION Dates | Times | Grab | Comp | Number of Bottles | Sample Mark | SAMPLE IDENTIFICATION/ DESCRIPTION | | TEST PARAMETERS | | REMARKS / SAMPLE COMMENTS | | |
| 11 | 5-20-15 | 09:30 | X | | 2 | Water | ECMW- ECNRD-18 | | 11 | | 1505319- | | |
| 12 | 5-20-15 | 12:00 | X | | 2 | Water | ECMW- DDP | | 12 | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| 1. Relinquished by: (Signature) <i>R. S. Sartain</i> | | Date/Time 5-20-15 | | 2. Received by: (Signature) <i>David Sartain</i> | | Date/Time 10:30 | | 3. SAMPLE CONDITION UPON RECEIPT IN LAB | | 1. CUSTODY SEALS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| 3. Relinquished by: (Signature) <i>David Sartain</i> | | Date/Time 5-20-15 | | 4. Received by lab.: (Signature) <i>Sydney Adams</i> | | Date/Time 1:50 | | 2. CONTAINERS CORRECT: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 3. COC/LABELS AGREE: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | | |
| | | | | | | | | 4. RECEIVED ON ICE: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | 5. TEMPERATURE ON RECEIPT: 13°C | | | |
| | | | | | | | | 6. TEMPERATURE GUN ID: HHT #2 | | FOR COMPLETION BY LAB ONLY | | | |

REVISED REPORT



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

24 June 2015

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

RE: Groundwater Sample(s)
Project Number: May 2015
SDG Number: 1505319

Enclosed are the results of analyses for samples received by the laboratory on 20-May-15 13:50. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

| | |
|---------------------------|--------|
| <u>Custody Seals</u> | ✓ |
| <u>Containers Correct</u> | ✓ |
| <u>COC/Labels Agree</u> | ✓ |
| <u>Received On Ice</u> | ✓ |
| Temperature on Receipt | 13.0°C |

Sincerely,

A handwritten signature in blue ink that reads "Norma James / Teresa Coins".

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

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24 June 2015

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: May 2015
Date Received: 20-May-15 13:50



REVISED REPORT

CASE NARRATIVE

Sample Delivery Group – 1505319

Revised Analytical and/or Quality Control Results are Discussed Below:

At client request, samples 1505319-02, -04, and -05 were validated for Ammonia. In the validation process, an error was discovered in the data entry process. The amended/revised results are on the following report page(s).

24 June 2015



David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: May 2015
Date Received: 20-May-15 13:50

REVISED REPORT

ANALYTICAL RESULTS

Lab Number: 1505319-02
Sample Name: ECMW-6
Date/Time Collected: 5/20/15 7:25
Sample Matrix: Water

Table with 7 columns: Wet Chemistry, Units, Result, Qualifier(s), Date/Time Analyzed, Batch, Method. Row 1: Ammonia as N, mg/L, 2550, 5/21/15 8:45, A505266, 4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1505319-04
Sample Name: ECMW-7
Date/Time Collected: 5/20/15 7:40
Sample Matrix: Water

Table with 7 columns: Wet Chemistry, Units, Result, Qualifier(s), Date/Time Analyzed, Batch, Method. Row 1: Ammonia as N, mg/L, 61.0, 5/21/15 8:45, A505266, 4500-NH3 B,D,C-1997

ANALYTICAL RESULTS

Lab Number: 1505319-05
Sample Name: ECMW-8
Date/Time Collected: 5/20/15 8:05
Sample Matrix: Water

Table with 7 columns: Wet Chemistry, Units, Result, Qualifier(s), Date/Time Analyzed, Batch, Method. Row 1: Ammonia as N, mg/L, 158, 5/21/15 8:45, A505266, 4500-NH3 B,D,C-1997

QUALITY CONTROL RESULTS

Wet Chemistry -- Batch: A505266 (Water)
Prepared: 21-May-15 08:45 By: RJH -- Analyzed: 21-May-15 08:45 By: RJH

Table with 7 columns: Analyte, BLK, LCS / LCSD, MS / MSD, Dup, RPD, Qualifiers. Row 1: Ammonia as N, <0.50 mg/L, 117% / NA, 118% / 119%, 1.24%

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: [Signature]
Norma James and/or Teresa Coins
Technical Director and/or QA Officer



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: | | | | |
|--|-------------------------|---|------|---|-------------------|--|------------------------------------|--|-----------------|--|--|----|
| EI Dorado Chemical Inc. | | EI Dorado Chemical Inc. | | Groundwater Samples | | 1 Day (100%) | | 1. Cool, 4 Degrees Centigrade | | | | |
| 4500 Northwest Ave. | | P.O. Box 231 | | | | 2 Day (50%) | | 2. Sulfuric Acid (H ₂ SO ₄), pH < 2 | | | | |
| EI Dorado, AR 71731 | | EI Dorado, AR 71731 | | Reporting Information | | 3 Day (25%) | | 3. Nitric Acid (HNO ₃), pH < 2 | | | | |
| | | | | Telephone: 870-863-1484 | | 5 Day (Routine) | | 4. Thiosulfate for Dechlorination | | | | |
| Attn: David Sartain | | | | Fax: 870-863-1499 | | Preservative Code: | | 5. Hydrochloric Acid(HCl) | | | | |
| | | | | Email: dsartain@edc-ark.com; lmarcella@serv-nrg.com | | Bottle Type: | | 6. Sodium Hydroxide (NaOH), pH > 12 | | | | |
| R. Dunbar EMS Inc Sampler(s) Signature | | R. Dunbar EMS Inc Sampler(s) Printed | | Sample Identification/Description | | Nitrate, Sulfate | | Ammonia | | | | |
| Field Number | SAMPLE COLLECTION Dates | Times | Grab | Comp | Number of Bottles | Sample Matrix | SAMPLE IDENTIFICATION/ DESCRIPTION | | TEST PARAMETERS | | Arkansas Analytical Work Order Number: 1505319- | |
| 1 | 5-20-15 | 0710 | X | | 2 | Water | ECMW-ECMW-5 | X | X | | | 01 |
| 2 | | 0725 | X | | 2 | Water | ECMW-ECMW-6 | X | X | | | 02 |
| 3 | | 0250 | X | | 2 | Water | ECMW-ECMW-7 | X | X | | | 03 |
| 4 | | 0240 | X | | 2 | Water | ECMW-ECMW-7 | X | X | | | 04 |
| 5 | | 0845 | X | | 2 | Water | ECMW-ECMW-8 | X | X | | | 05 |
| 6 | | 0815 | X | | 2 | Water | ECMW-ECMW-9 | X | X | | | 06 |
| 7 | | 0830 | X | | 2 | Water | ECMW-ECMW-10 | X | X | | | 07 |
| 8 | | 0845 | X | | 2 | Water | ECMW-ECMW-11 | X | X | | | 08 |
| 9 | | 0910 | X | | 2 | Water | ECMW-ECMW-14 | X | X | | | 09 |
| 10 | | 0935 | X | | 2 | Water | ECMW-ECMW-15 | X | X | | 10 | |
| 1. Relinquished by: (Signature) R. Dunbar EMS Inc | | Date/Time 5-20-15 12:30 | | 2. Received by: (Signature) David Sartain | | SAMPLE CONDITION UPON RECEIPT IN LAB | | REMARKS / SAMPLE COMMENTS | | | | |
| 3. Relinquished by: (Signature) David Sartain | | Date/Time 5-20-15 1350 | | 4. Received by lab: (Signature) Sydney James | | 1. CUSTODY SEALS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. CONTAINERS CORRECT: <input type="checkbox"/> Yes <input type="checkbox"/> No 3. COC/LABELS AGREE: <input type="checkbox"/> Yes <input type="checkbox"/> No 4. RECEIVED ON ICE: <input type="checkbox"/> Yes <input type="checkbox"/> No 5. TEMPERATURE ON RECEIPT: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 6. TEMPERATURE GUN ID: HHT #2 | | | | | | |
| FOR COMPLETION BY LAB ONLY | | | | | | | | | | | | |



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. 4500 Northwest Ave. El Dorado, AR 71731 | | El Dorado Chemical Inc. P.O. Box 231 El Dorado, AR 71731 | | Groundwater Samples | | 1 Day (100%) 2 Day (50%) 3 Day (25%) | | 1. Cool, 4 Degrees Centigrade 2. Sulfuric Acid (H ₂ SO ₄), pH < 2 3. Nitric Acid (HNO ₃), pH < 2 4. Thiosulfate for Dechlorination 5. Hydrochloric Acid (HCl) 6. Sodium Hydroxide (NaOH), pH > 12 | | | | | |
| Attn: David Sartain | | Telephone: 870-863-1484 Fax: 870-863-1499 | | Reporting Information | | 5 Day (Routine) | | TEST PARAMETERS | | | | | |
| Email: dsartain@cdc-ark.com; msarcolla@env-mgt.com | | Preservative Code: P | | Bottle Type: P | | 1 | | 1,2 | | P | | P | |
| Sampler(s) Signature | | Sampler(s) Printed | | SAMPLE IDENTIFICATION/ DESCRIPTION | | Nitrate, Sulfate | | Ammonia | | Ammonia | | Ammonia | |
| Field Number | SAMPLE COLLECTION Dates | Times | Grab | Comp | Number of Bottles | Sample Mark | SAMPLE IDENTIFICATION/ DESCRIPTION | | TEST PARAMETERS | | REMARKS / SAMPLE COMMENTS | | |
| 11 | 5-20-15 | 09:30 | X | | 2 | Water | ECMW- ECNR2-18 | | 11 | | 1505319- | | |
| 12 | 5-20-15 | 12:00 | X | | 2 | Water | ECMW- DDP | | 12 | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| | | | X | | 2 | Water | ECMW- | | | | | | |
| 1. Relinquished by: (Signature) <i>R. S. Sartain</i> | | Date/Time 5-20-15 | | 2. Received by: (Signature) <i>David Sartain</i> | | Date/Time 10:30 | | 3. SAMPLE CONDITION UPON RECEIPT IN LAB | | 1. CUSTODY SEALS: <input checked="" type="checkbox"/> Yes ___ No | | | |
| 3. Relinquished by: (Signature) <i>David Sartain</i> | | Date/Time 5-20-15 | | 4. Received by lab.: (Signature) <i>Sydney Adams</i> | | Date/Time 1:50 | | 2. CONTAINERS CORRECT: <input checked="" type="checkbox"/> Yes ___ No | | 3. COC/LABELS AGREE: <input checked="" type="checkbox"/> Yes ___ No | | 4. RECEIVED ON ICE: <input checked="" type="checkbox"/> Yes ___ No | |
| | | | | | | | | 5. TEMPERATURE ON RECEIPT: 13°C | | 6. TEMPERATURE GUN ID: HHT #2 | | | |
| | | | | | | | | FOR COMPLETION BY LAB ONLY | | | | | |



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

14 September 2015

Eddie Pearson
El Dorado Chemical Inc.
P.O.Box 231
El Dorado, AR 71731

Project: Groundwater Sample(s)
Project Number: September 2015
SDG Number: 1509101

Enclosed are the results of analyses for samples received by the laboratory on 09-Sep-15 09:47. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

| | |
|---------------------------|-------|
| <u>Custody Seals</u> | ✓ |
| <u>Containers Correct</u> | ✓ |
| <u>COC/Labels Agree</u> | ✓ |
| <u>Received On Ice</u> | ✓ |
| Temperature on Receipt | 2.0°C |

Sincerely,

A handwritten signature in blue ink that reads "Norma James / Teresa Coins".

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

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14 September 2015



Eddie Pearson
El Dorado Chemical Inc.
P.O.Box 231
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: September 2015
Date Received: 09-Sep-15 09:47

ANALYTICAL RESULTS

Lab Number: 1509101-01
Sample Name: ECMW #14
Date/Time Collected: 9/8/15 10:35
Sample Matrix: Water

Table with 7 columns: Anions, Units, Result, Qualifier(s), Date/Time Analyzed, Batch, Method. Rows include Sulfate as SO4, Nitrate as N, and Ammonia as N.

QUALITY CONTROL RESULTS

Anions -- Batch: A509154 (Water)
Prepared: 10-Sep-15 08:38 By: MB -- Analyzed: 10-Sep-15 17:40 By: Mel

Table with 7 columns: Analyte, BLK, LCS / LCSD, MS / MSD, Dup, RPD, Qualifiers. Rows include Nitrate as N and Sulfate as SO4.

Wet Chemistry -- Batch: A509229 (Water)
Prepared: 11-Sep-15 09:00 By: RJH -- Analyzed: 11-Sep-15 09:00 By: RJH

Table with 7 columns: Analyte, BLK, LCS / LCSD, MS / MSD, Dup, RPD, Qualifiers. Row includes Ammonia as N.

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: [Signature]
Norma James and/or Teresa Coins
Technical Director and/or QA Officer



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: | |
|---|--|--|--|---|--|---|--|--|--|
| EI Dorado Chemical Inc. 4500 Northwest Ave. EI Dorado, AR 71731 | | EI Dorado Chemical Inc. P.O. Box 231 EI Dorado, AR 71731 | | Reporting Information Telephone: 870-863-1457 Fax: 870-863-1405 Email: EPearson@edc-ar.com | | 1 Day (100%) 2 Day (50%) 3 Day (25%) | | 1. Cool, 4 Degrees Centigrade 2. Sulfuric Acid (H ₂ SO ₄), pH < 2 3. Nitric Acid (HNO ₃), pH < 2 4. Thiosulfate for Dechlorination 5. Hydrochloric Acid(HCl) 6. Sodium Hydroxide (NaOH), pH > 12 | |
| Attn: Eddie Pearson | | Attn: Accounts Payable | | R. DORRAN EMS INC. | | 5 Day (Routine)* | | TEST PARAMETERS | |
| Sampler(s) Signature <i>R. Dorran</i> | | Sampler(s) Printed | | SAMPLE IDENTIFICATION/ DESCRIPTION | | Preservative Code: | | Bottle Type Code | |
| Field Number | | SAMPLE COLLECTION Date/s Time/s | | Grab Comp | | Number of Sample Boilies Matrix | | Sulfate Nitrate Ammonia | |
| 1 | | 9-8-15 1035 | | ✓ | | 2 | | ✓ ✓ ✓ | |
| 1. Relinquished by: (Signature) <i>R. Dorran</i> | | Date/Time 9-8-15 11:30 | | 2. Received by: (Signature) <i>Allen Paker</i> | | 3. Received by lab: (Signature) <i>Juanita Johnson</i> | | SAMPLE CONDITION UPON RECEIPT IN LAB 1. CUSTODY SEALS: <input checked="" type="checkbox"/> Yes ___ No 2. CONTAINERS CORRECT: <input checked="" type="checkbox"/> Yes ___ No 3. COC/LABELS AGREE: <input checked="" type="checkbox"/> Yes ___ No 4. RECEIVED ON ICE: <input checked="" type="checkbox"/> Yes ___ No 5. TEMPERATURE ON RECEIPT: 2°C 6. TEMPERATURE GUN ID: HHT#2 FOR COMPLETION BY LAB ONLY | |
| 3. Relinquished by: (Signature) <i>Allen Paker</i> | | Date/Time 9-9-15 0947 | | 4. Received by lab: (Signature) | | REMARKS / SAMPLE COMMENTS | | P.O. Number - | |
| | | | | | | | | Arkansas Analytical Work Order Number: 1509101 AR 002 01 | |

LABORATORY REQUEST FOR ANALYSIS

Contact: Lauren Marcella Date: 05/07/2015 Phone: (225) 753-3631

Project Name: El Dorado Chemical Groundwater Monitoring Job Location: El Dorado, AR

Deliver Containers: To facility as usual

Laboratory Contact: Sydney James Randles Laboratory: Arkansas Analytical, Little Rock, AR

Phone: 501 455 3233 Fax: 501 455 6118

| Parameter | Method | Matrix | Number of Samples |
|----------------------------|-------------|--------|-------------------|
| Sulfate as SO ₄ | 300.0/9056A | Water | 14 |
| Nitrate as N | 300.0/9056A | Water | 14 |
| Ammonia as N | 4500-NH3D | Water | 14 |



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

25 November 2015

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

Project: Groundwater Sample(s)
Project Number: November 2015
SDG Number: 1511276

Enclosed are the results of analyses for samples received by the laboratory on 18-Nov-15 13:00. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

| | |
|---------------------------|-------|
| <u>Custody Seals</u> | ✓ |
| <u>Containers Correct</u> | ✓ |
| <u>COC/Labels Agree</u> | ✓ |
| <u>Received On Ice</u> | ✓ |
| Temperature on Receipt | 4.0°C |

Sincerely,

A handwritten signature in blue ink that reads "Norma James / Teresa Coins".

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

This document is intended only for the use of the person(s) to whom it is expressly addressed. This document may contain information that is confidential and legally privileged. If you are not the intended recipient, you are notified that any disclosure, distribution, or copying of this document is strictly prohibited. If you have received this document in error, please destroy.

David Sartain
 El Dorado Chemical Inc.
 4500 North West Ave.
 El Dorado, AR 71731
 Project: Groundwater Sample(s)
 Project Number: November 2015
 Date Received: 18-Nov-15 13:00

ANALYTICAL RESULTS

Lab Number: 1511276-01
 Sample Name: ECMW-4
 Date/Time Collected: 11/18/15 8:25
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 722 | | 11/23/15 11:00 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 0.332 | | 11/18/15 18:46 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 0.530 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-02
 Sample Name: ECMW-5
 Date/Time Collected: 11/18/15 8:05
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 61.2 | | 11/18/15 19:10 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 27.0 | | 11/18/15 19:10 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 0.730 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-03
 Sample Name: ECMW-6
 Date/Time Collected: 11/18/15 8:15
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 40.2 | | 11/23/15 11:24 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 3930 | | 11/18/15 19:33 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 2280 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: November 2015
Date Received: 18-Nov-15 13:00

ANALYTICAL RESULTS

Lab Number: 1511276-04
Sample Name: ECMW-7
Date/Time Collected: 11/18/15 8:35
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 758 | | 11/18/15 19:57 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 104 | | 11/18/15 19:57 | A511246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 66.2 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-05
Sample Name: ECMW-8
Date/Time Collected: 11/18/15 8:40
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 431 | | 11/18/15 20:20 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 751 | | 11/18/15 20:20 | A511246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 143 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-06
Sample Name: ECMW-9
Date/Time Collected: 11/18/15 8:45
Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Sulfate as SO4 | mg/L | 526 | | 11/18/15 20:44 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 32.7 | | 11/18/15 20:44 | A511246 | 300.0, 2.1-1993 |

| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Ammonia as N | mg/L | 2.36 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

David Sartain
 El Dorado Chemical Inc.
 4500 North West Ave.
 El Dorado, AR 71731
 Project: Groundwater Sample(s)
 Project Number: November 2015
 Date Received: 18-Nov-15 13:00

ANALYTICAL RESULTS

Lab Number: 1511276-07
 Sample Name: ECMW-10
 Date/Time Collected: 11/18/15 9:05
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 99.9 | | 11/18/15 21:07 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 61.2 | | 11/18/15 21:07 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | < 0.500 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-08
 Sample Name: ECMW-11
 Date/Time Collected: 11/18/15 9:15
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 93.4 | | 11/18/15 21:31 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 35.7 | | 11/18/15 21:31 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 39.0 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-09
 Sample Name: ECMW-14
 Date/Time Collected: 11/18/15 9:35
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 45.6 | | 11/18/15 21:55 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 17.2 | | 11/18/15 21:55 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 0.630 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

David Sartain
 El Dorado Chemical Inc.
 4500 North West Ave.
 El Dorado, AR 71731
 Project: Groundwater Sample(s)
 Project Number: November 2015
 Date Received: 18-Nov-15 13:00

ANALYTICAL RESULTS

Lab Number: 1511276-10
 Sample Name: ECMW-16
 Date/Time Collected: 11/18/15 9:55
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 15.9 | | 11/18/15 22:18 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 8.43 | | 11/18/15 22:18 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 0.500 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-11
 Sample Name: ECMW-17
 Date/Time Collected: 11/18/15 10:10
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 22.9 | | 11/18/15 23:29 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 14.3 | | 11/18/15 23:29 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 3.67 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

ANALYTICAL RESULTS

Lab Number: 1511276-12
 Sample Name: ECMW-18
 Date/Time Collected: 11/18/15 10:20
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|---------------|--------------|---------------|---------------------|---------------------------|--------------|-----------------|
| Nitrate as N | mg/L | < 0.250 | | 11/18/15 23:52 | A511246 | 300.0, 2.1-1993 |

ANALYTICAL RESULTS

Lab Number: 1511276-13
 Sample Name: DUP
 Date/Time Collected: 11/18/15 12:00
 Sample Matrix: Water

| <u>Anions</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
|----------------------|--------------|---------------|---------------------|---------------------------|--------------|---------------------|
| Sulfate as SO4 | mg/L | 385 | | 11/19/15 1:50 | A511246 | 300.0, 2.1-1993 |
| Nitrate as N | mg/L | 654 | | 11/19/15 1:50 | A511246 | 300.0, 2.1-1993 |
| <u>Wet Chemistry</u> | <u>Units</u> | <u>Result</u> | <u>Qualifier(s)</u> | <u>Date/Time Analyzed</u> | <u>Batch</u> | <u>Method</u> |
| Ammonia as N | mg/L | 139 | | 11/23/15 9:00 | A511292 | 4500-NH3 B,D,C-1997 |

25 November 2015



David Sartain
El Dorado Chemical Inc.
4500 North West Ave.
El Dorado, AR 71731
Project: Groundwater Sample(s)
Project Number: November 2015
Date Received: 18-Nov-15 13:00

QUALITY CONTROL RESULTS

Anions -- Batch: A511246 (Water)

Prepared: 18-Nov-15 15:18 By: MB -- Analyzed: 19-Nov-15 01:27 By: Mel


| <u>Analyte</u> | <u>BLK</u> | <u>LCS / LCSD</u> | <u>MS / MSD</u> | <u>Dup</u> | <u>RPD</u> | <u>Qualifiers</u> |
|----------------|-------------|-------------------|-----------------|------------|------------|-------------------|
| Nitrate as N | <0.250 mg/L | 95.7% / NA | 102% / 107% | | 1.79% | |
| Sulfate as SO4 | <0.500 mg/L | 92.3% / NA | 110% / 109% | | 0.0953% | |

Wet Chemistry -- Batch: A511292 (Water)

Prepared: 23-Nov-15 15:55 By: RJH -- Analyzed: 23-Nov-15 15:55 By: RJH

| <u>Analyte</u> | <u>BLK</u> | <u>LCS / LCSD</u> | <u>MS / MSD</u> | <u>Dup</u> | <u>RPD</u> | <u>Qualifiers</u> |
|----------------|-------------|-------------------|-----------------|------------|------------|-------------------|
| Ammonia as N | <0.500 mg/L | 94.0% / NA | 105% / 101% | | 3.64% | |

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



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: | | | |
|---|-------------------------|--|------|--------------------------------|-------------------|--|-----------------------------|--|--------|----------------------|--|
| EI Dorado Chemical Inc. 4500 Northwest Ave. EI Dorado, AR 71731 | | EI Dorado Chemical Inc. P.O. Box 231 EI Dorado, AR 71731 | | Groundwater Samples | | 1 Day (100%) 2 Day (50%) 3 Day (25%) | | 1. Cool, 4 Degrees Centigrade 2. Sulfuric Acid (H ₂ SO ₄), pH < 2 3. Nitric Acid (HNO ₃), pH < 2 4. Thiosulfate for Dechlorination 5. Hydrochloric Acid(HCl) 6. Sodium Hydroxide (NaOH), pH > 12 | | | |
| Attn: David Sartain | | Reporting Information Telephone: 870-863-1484 | | 5 Day (Routine) | | TEST PARAMETERS | | Bottle Type Code | | | |
| Email: dsartain@edc-ark.com; sparsco@edc-ark.com; imarcclab@gov-mgt.com | | Fax: 870-863-1499 | | Preservative Code: P | | 1 | | G - Glass; P - Plastic | | | |
| Bottle Type: P | | Boilie Type: P | | 2 | | | | V - Septum; A - Amber | | | |
| Rodney Dorian EMS Inc. | | Rodney Dorian | | Sample(s) Printed | | Nitrate, Sulfate | | Ammonia | | | |
| Field Number | SAMPLE COLLECTION Dates | Time(s) | Grab | Comp | Number of Bottles | Sample Matrix | IDENTIFICATION/ DESCRIPTION | | SAMPLE | | |
| 1 | 11-18-15 | 0825 | X | | 2 | Water | ECMW-4 | X | 01 | | |
| 2 | | 0805 | X | | 2 | Water | ECMW-5 | X | 02 | | |
| 3 | | 0815 | X | | 2 | Water | ECMW-6 | X | 03 | | |
| 4 | | 0835 | X | | 2 | Water | ECMW-7 | X | 04 | | |
| 5 | | 0840 | X | | 2 | Water | ECMW-8 | X | 05 | | |
| 6 | | 0845 | X | | 2 | Water | ECMW-9 | X | 06 | | |
| 7 | | 0905 | X | | 2 | Water | ECMW-10 | X | 07 | | |
| 8 | | 0915 | X | | 2 | Water | ECMW-11 | X | 08 | | |
| 9 | | 0935 | X | | 2 | Water | ECMW-14 | X | 09 | | |
| 10 | | 0955 | X | | 2 | Water | ECMW-16 | X | 10 | | |
| 1. Relinquished by: (Signature) <i>R. Dorian</i> | | Date/Time 11-18-15 | | 2. Received by: (Signature) | | Date/Time 10/25 | | 3. Relinquished by: (Signature) <i>David Sartain</i> | | Date/Time 11/8/15 | |
| 4. Received by lab: (Signature) <i>Amber Johnson</i> | | 4. RECEIVED ON ICE: Yes ___ No ___ | | 5. TEMPERATURE ON RECEIPT: 4°C | | 6. TEMPERATURE GUN ID: HHT#2 | | REMARKS / SAMPLE COMMENTS | | | |
| FOR COMPLETION BY LAB ONLY | | | | | | | | | | | |



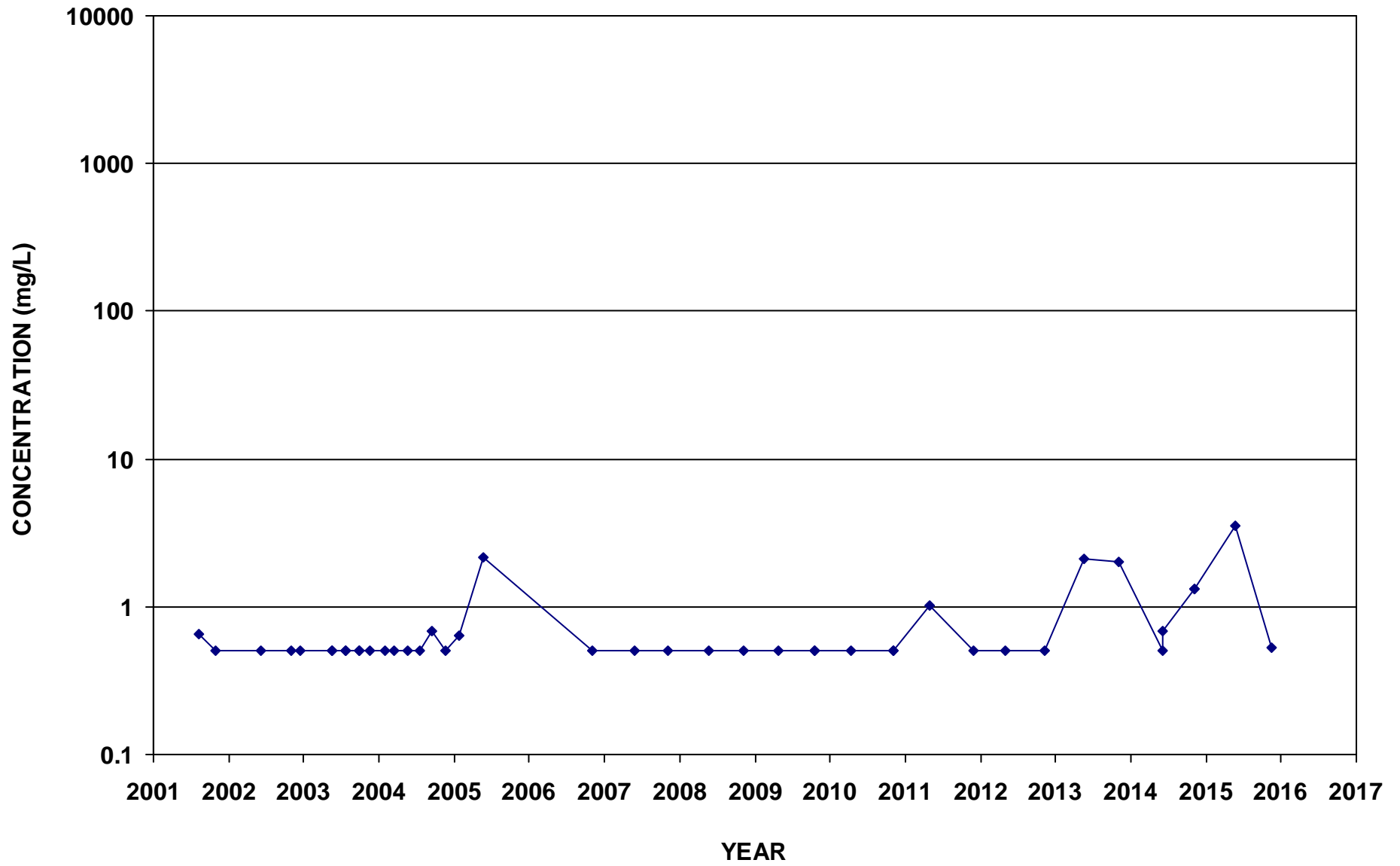
11701 Interstate 30, Bldg. 1, Ste. 115
 Little Rock, AR 72209
 PHONE: 501-455-3233
 FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

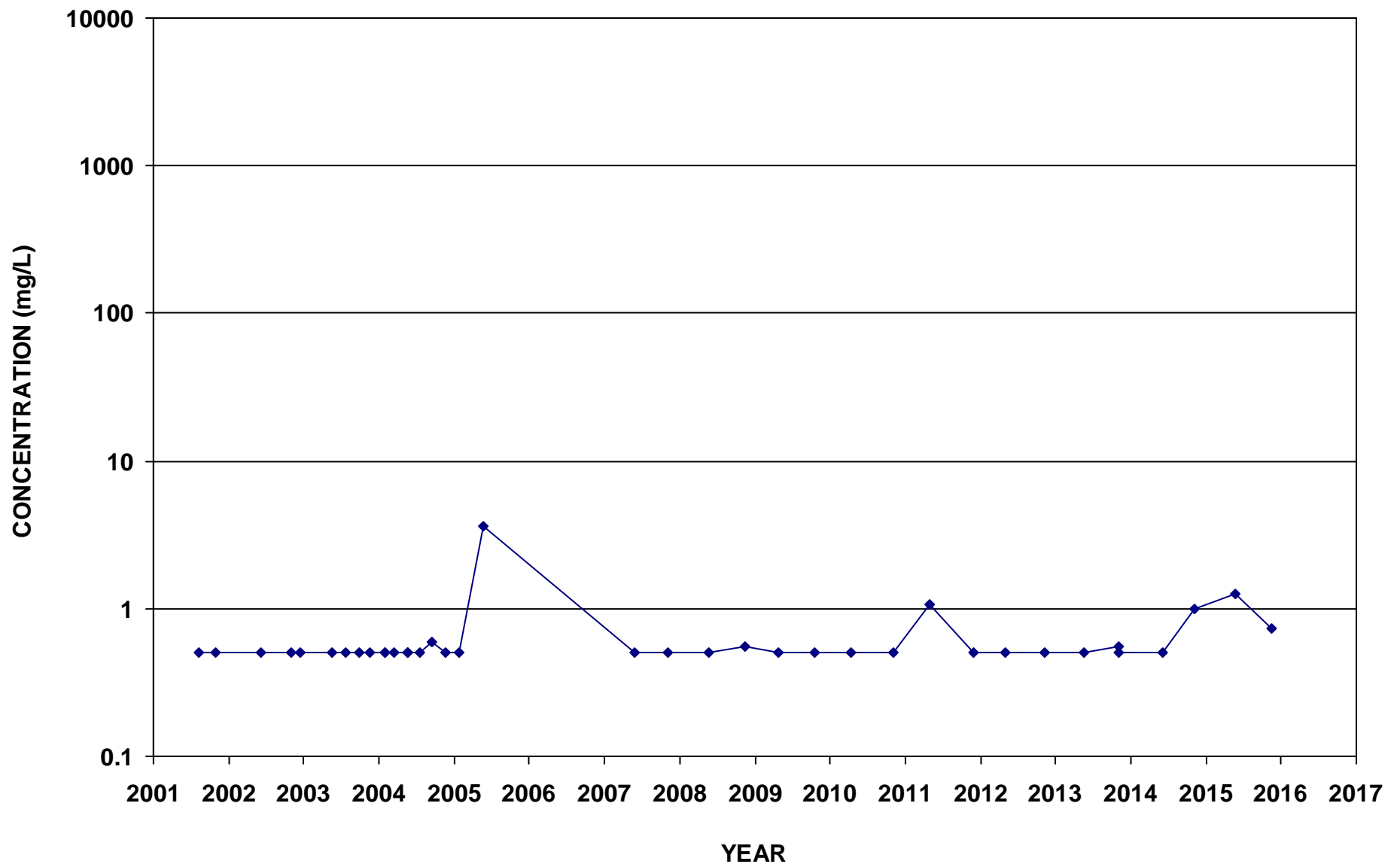
| CLIENT INFORMATION | | BILLING INFORMATION | | Project Description | | Turnaround Time | | Preservation Codes: | | | |
|---|-------------------------|---|------|---|-------------------|--|-------------------------------------|---|-----------------|--|---------------------------|
| El Dorado Chemical Inc. 4500 Northwest Ave. El Dorado, AR 71731 | | El Dorado Chemical Inc. P.O. Box 231 El Dorado, AR 71731 | | Groundwater Samples | | 1 Day (100%) 2 Day (50%) 3 Day (25%) | | 1. Cool, 4 Degrees Centigrade 2. Sulfuric Acid (H ₂ SO ₄), pH < 2 3. Nitric Acid (HNO ₃), pH < 2 4. Thiosulfate for Dechlorination 5. Hydrochloric Acid (HCl) 6. Sodium Hydroxide (NaOH), pH > 12 | | | |
| Attn: David Sartain | | Reporting Information Telephone: 870-863-1484 | | Fax: 870-863-1499 | | 5 Day (Routine) | | TEST PARAMETERS | | | |
| Email: dsartain@edc-ark.com; sparsosn@edc-ark.com; msarsella@genr-nfl.com | | Email: dsartain@edc-ark.com; sparsosn@edc-ark.com; msarsella@genr-nfl.com | | Preservative Code: | | Bottle Type: | | 1. <input checked="" type="checkbox"/> N 2. <input checked="" type="checkbox"/> P 3. <input type="checkbox"/> S 4. <input type="checkbox"/> T 5. <input type="checkbox"/> H 6. <input type="checkbox"/> C | | | |
| Sampler(s) Signature <i>Robert Durham</i> | | Sampler(s) Printed ROBERT DURHAM | | SAMPLE IDENTIFICATION/ DESCRIPTION | | Nitrate, Sulfate SULFATE | | Ammonia | | | |
| Field Number | SAMPLE COLLECTION Dates | Time/s | Grab | Comp | Number of Bottles | Sample Matrix | SAMPLE | | TEST PARAMETERS | | REMARKS / SAMPLE COMMENTS |
| 11 | 11-18-15 | 1010 | X | | 2 | Water | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | 11 |
| 12 | 11 | 1020 | X | | 2 | Water | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | 12 |
| 13 | 11 | 1200 | X | | 2 | Water | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | | | 13 |
| 1. Relinquished by: (Signature) <i>R. Durham</i> | | Date/Time 11-18-15 | | 2. Received by: (Signature) | | SAMPLE CONDITION UPON RECEIPT IN LAB | | REMARKS / SAMPLE COMMENTS | | | |
| 3. Relinquished by: (Signature) <i>Ready for</i> | | Date/Time 11/18/15 | | 4. Received by: (Signature) <i>Forward Johnson</i> | | 1. CUSTODY SEALS: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 2. CONTAINERS CORRECT: <input type="checkbox"/> Yes <input type="checkbox"/> No 3. COC/LABELS AGREE: <input type="checkbox"/> Yes <input type="checkbox"/> No 4. RECEIVED ON ICE: <input type="checkbox"/> Yes <input type="checkbox"/> No 5. TEMPERATURE ON RECEIPT: <input type="checkbox"/> Yes <input type="checkbox"/> No 6. TEMPERATURE GUN ID: <i>47°C</i> <i>HHT#2</i> | | | | | |
| FOR COMPLETION BY LAB ONLY | | | | | | | | | | | |

APPENDIX B
TREND GRAPHS

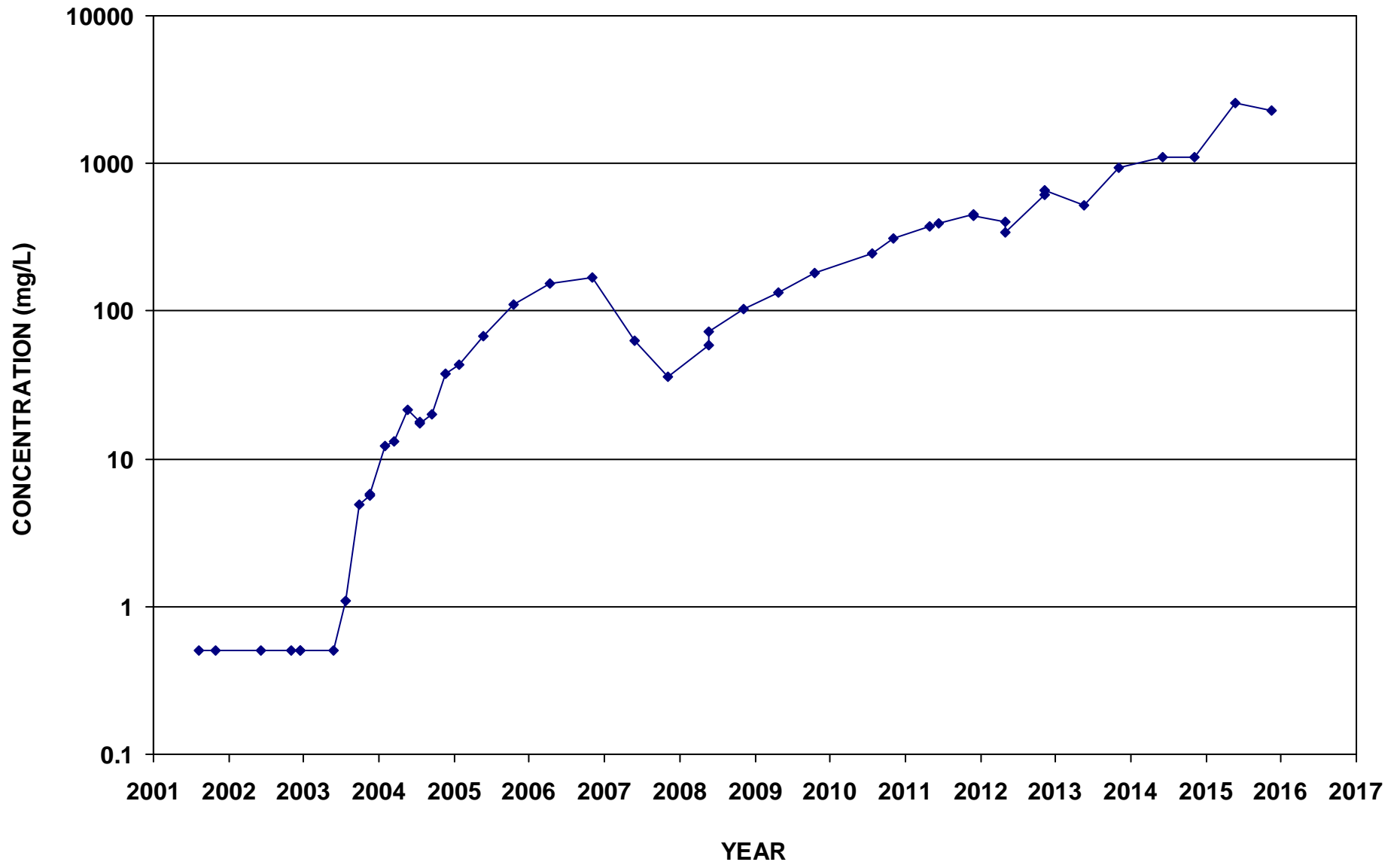
ECMW-4
Ammonia-N



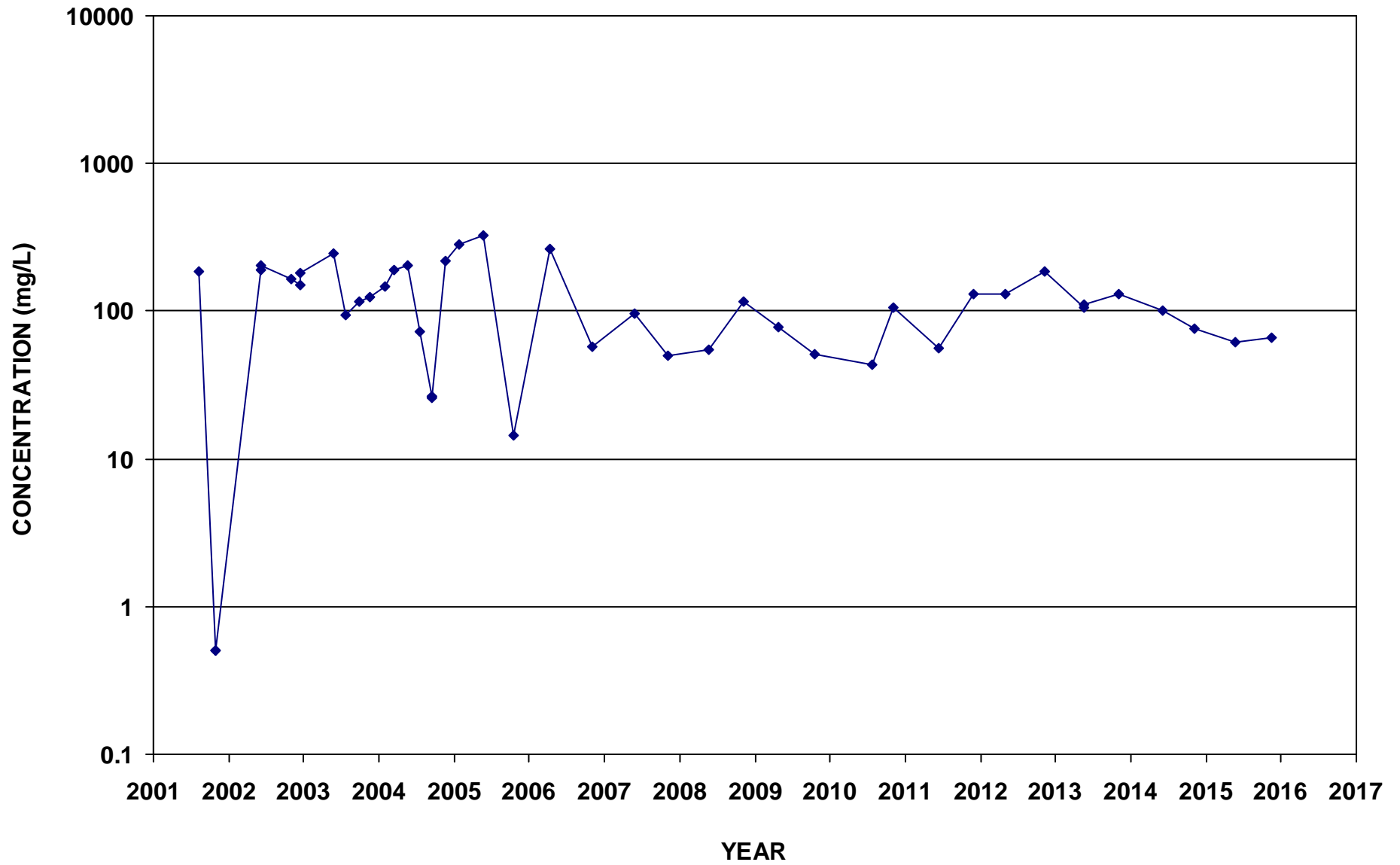
ECMW-5
Ammonia-N



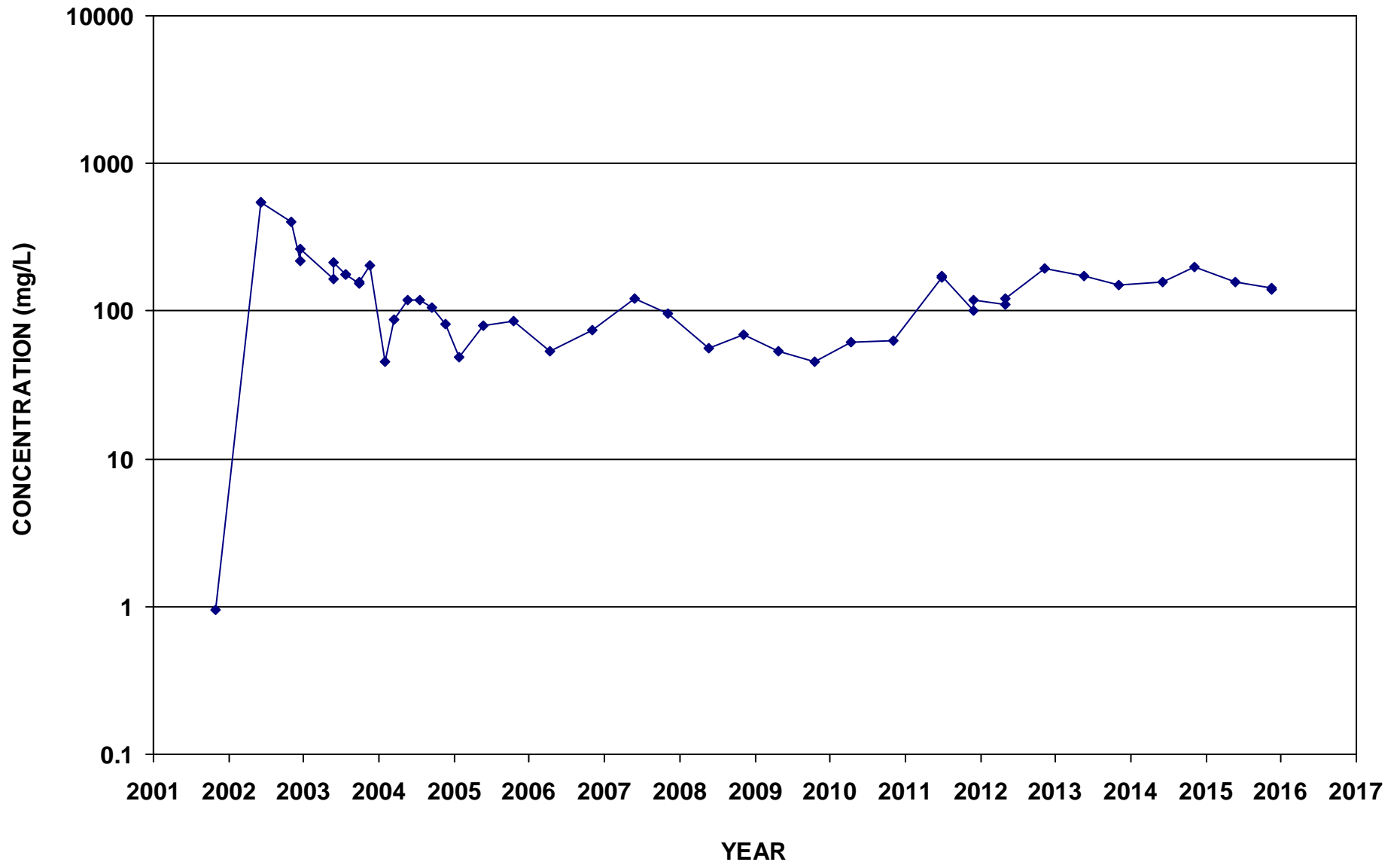
ECMW-6
Ammonia-N



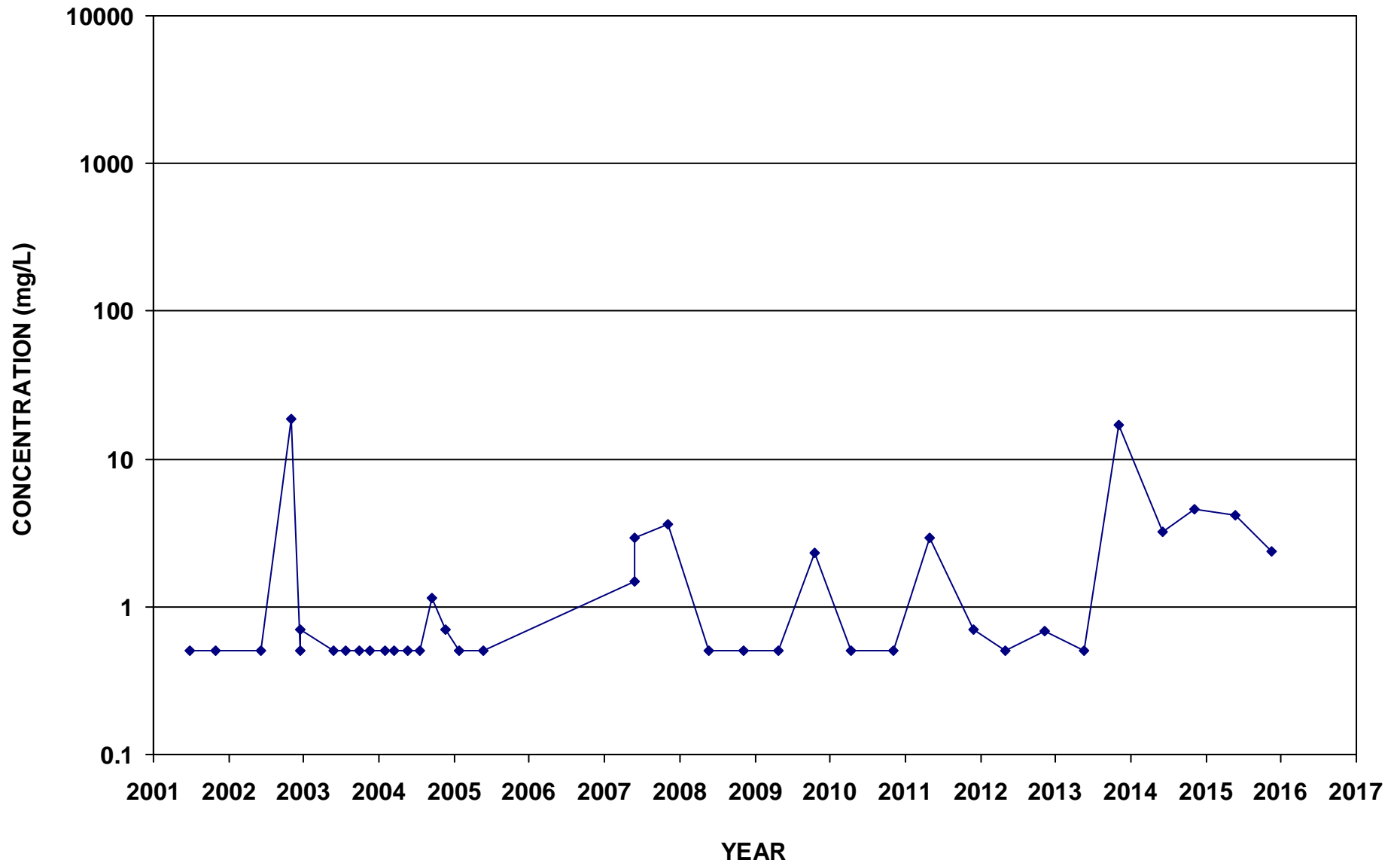
ECMW-7
Ammonia-N



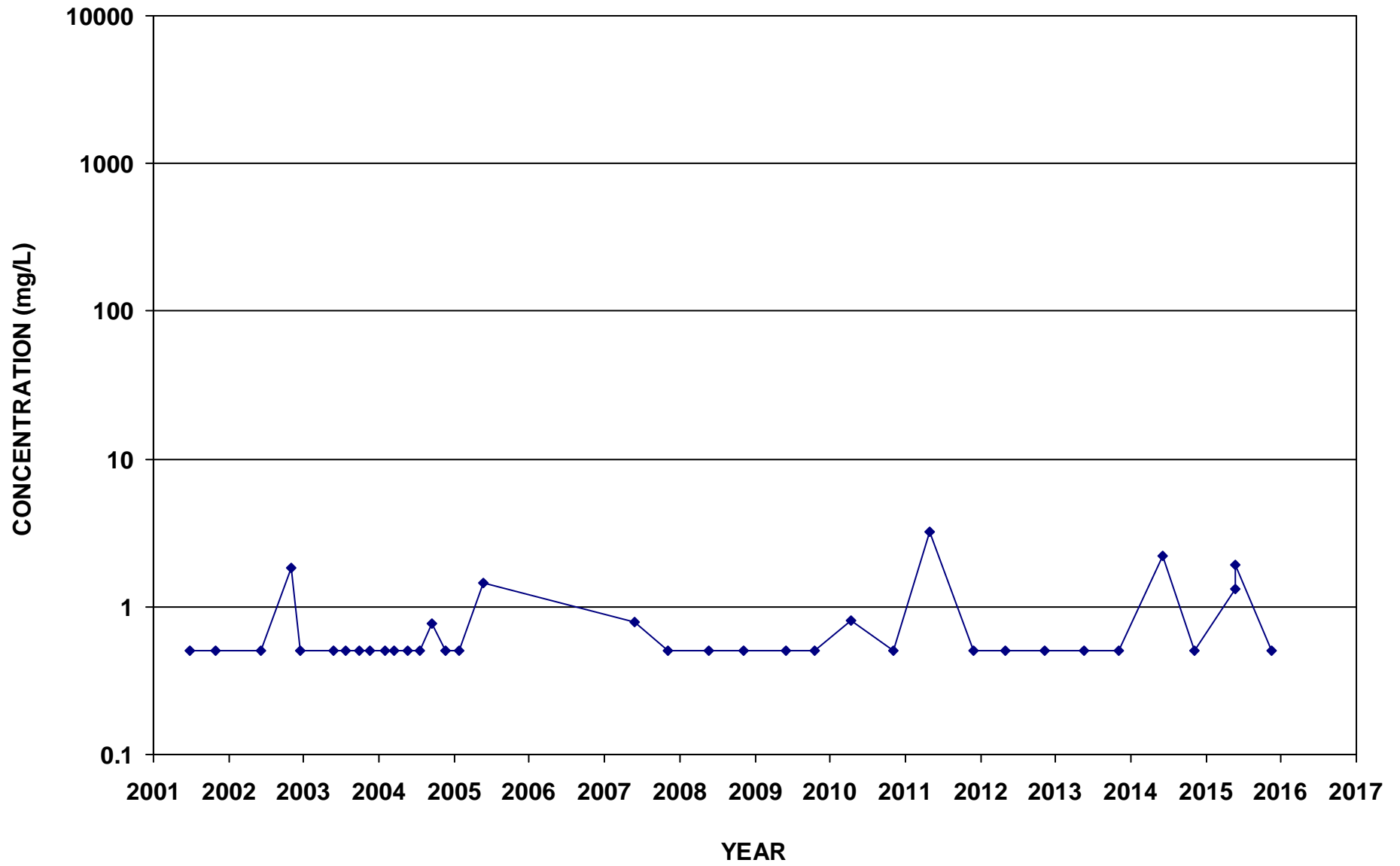
ECMW-8
Ammonia-N



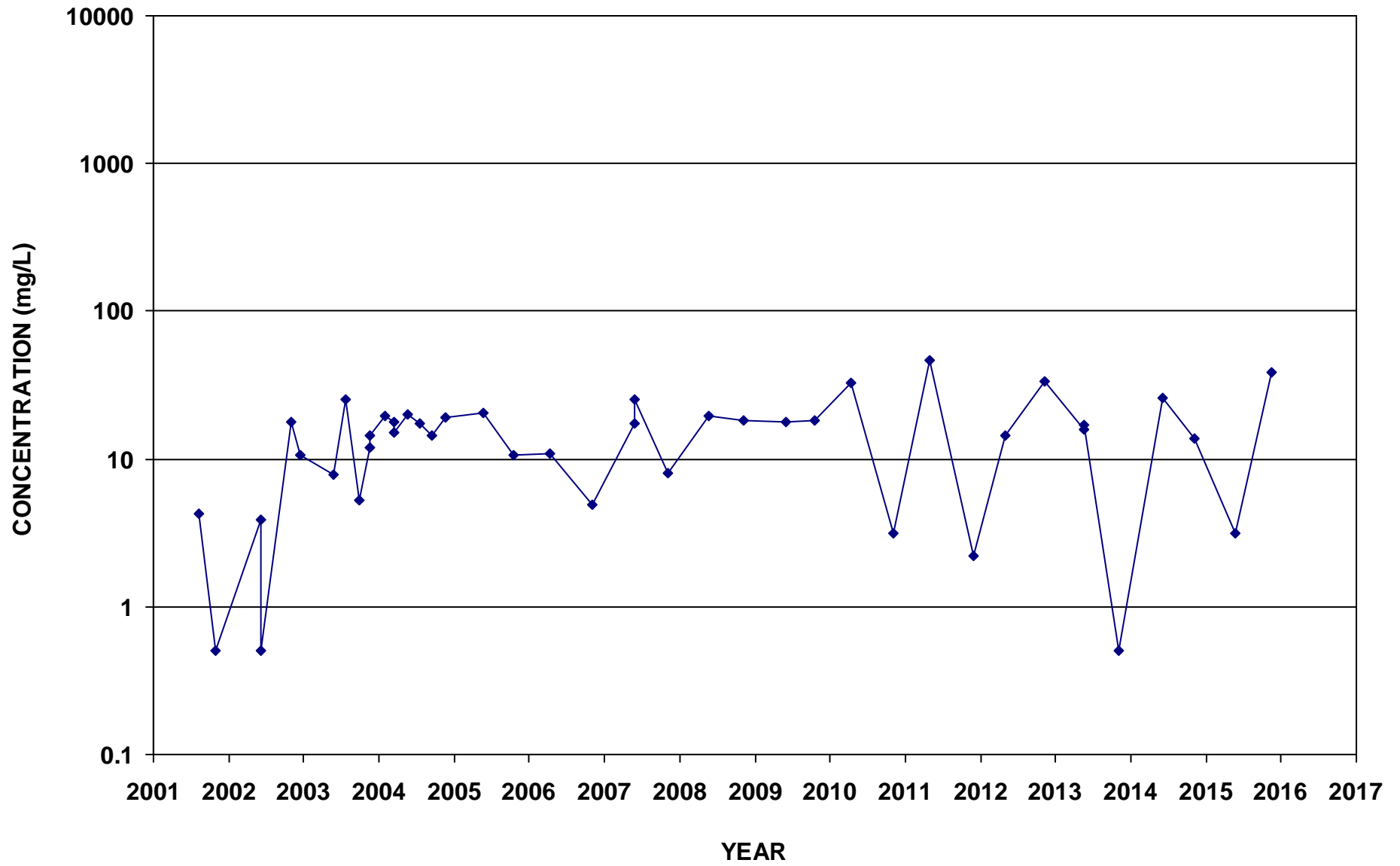
ECMW-9
Ammonia-N



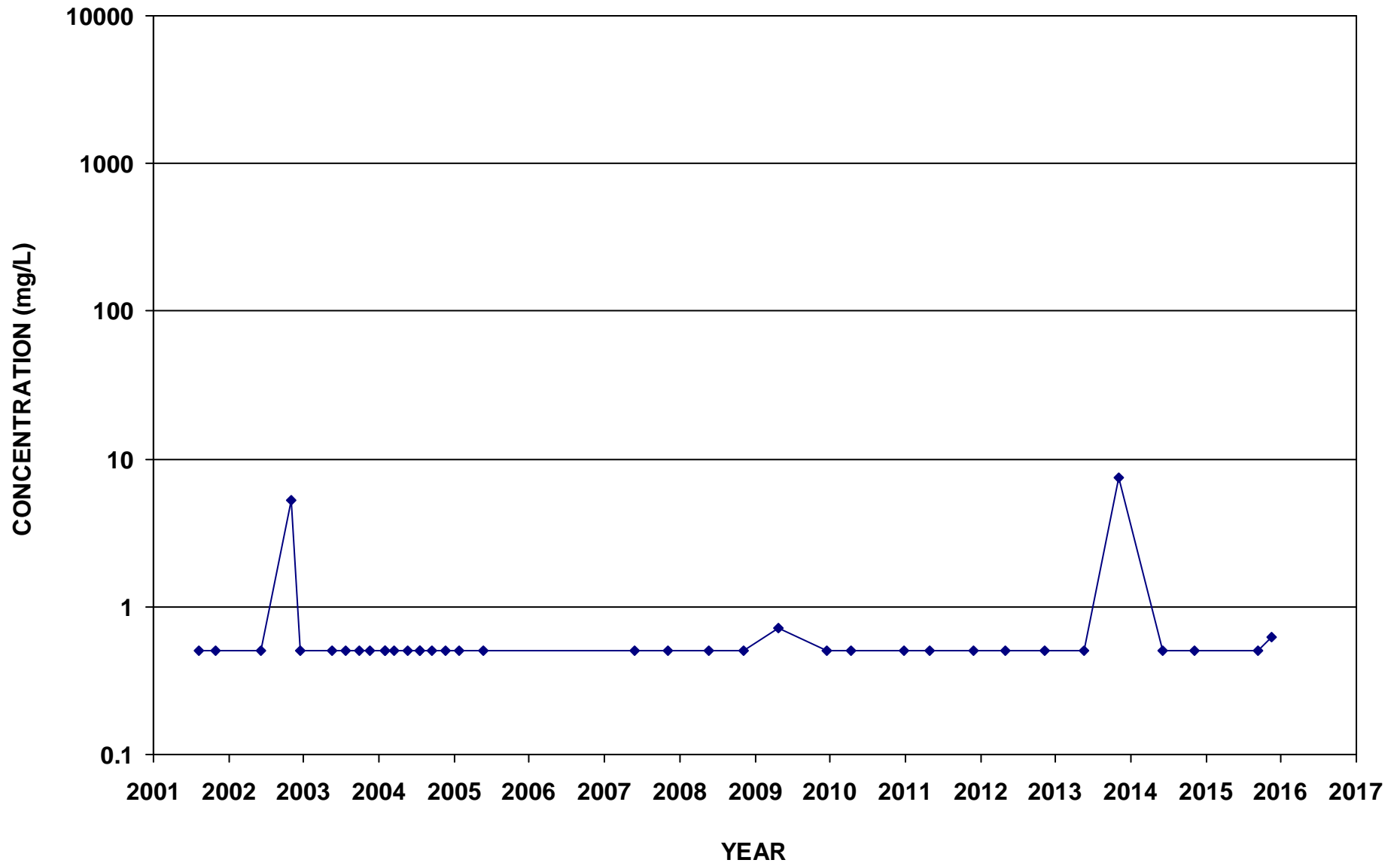
ECMW-10
Ammonia-N



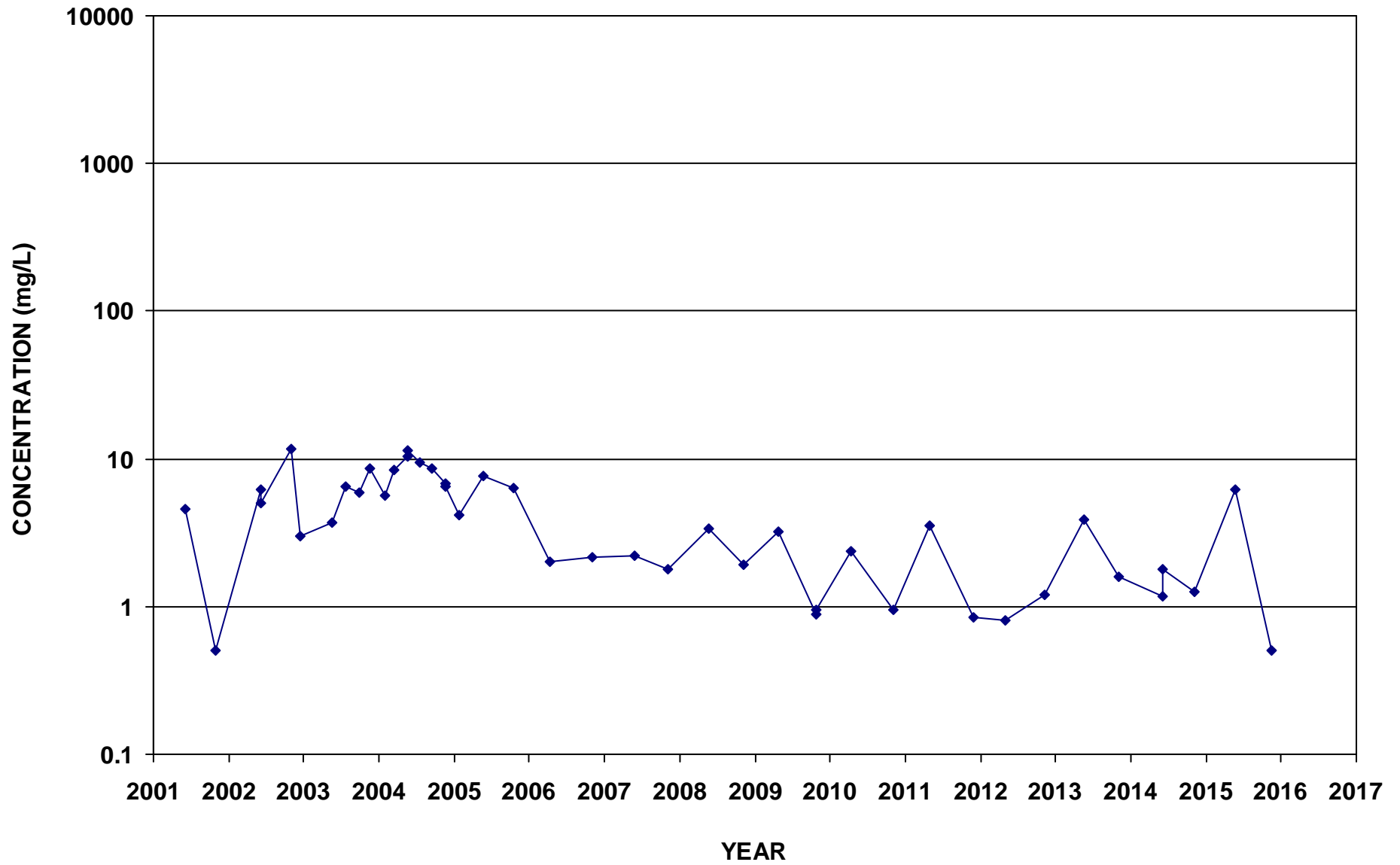
ECMW-11
Ammonia-N



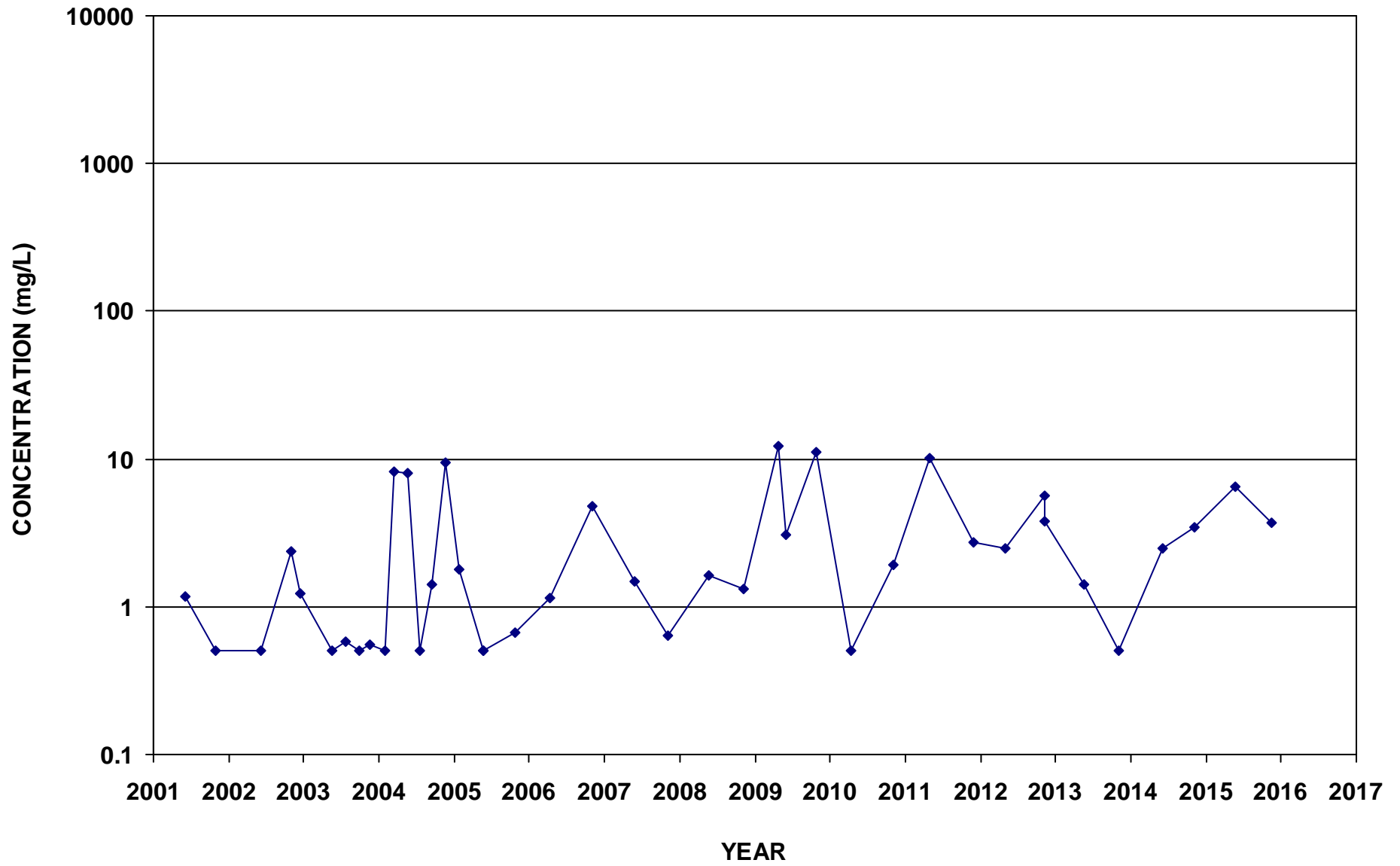
ECMW-14
Ammonia-N



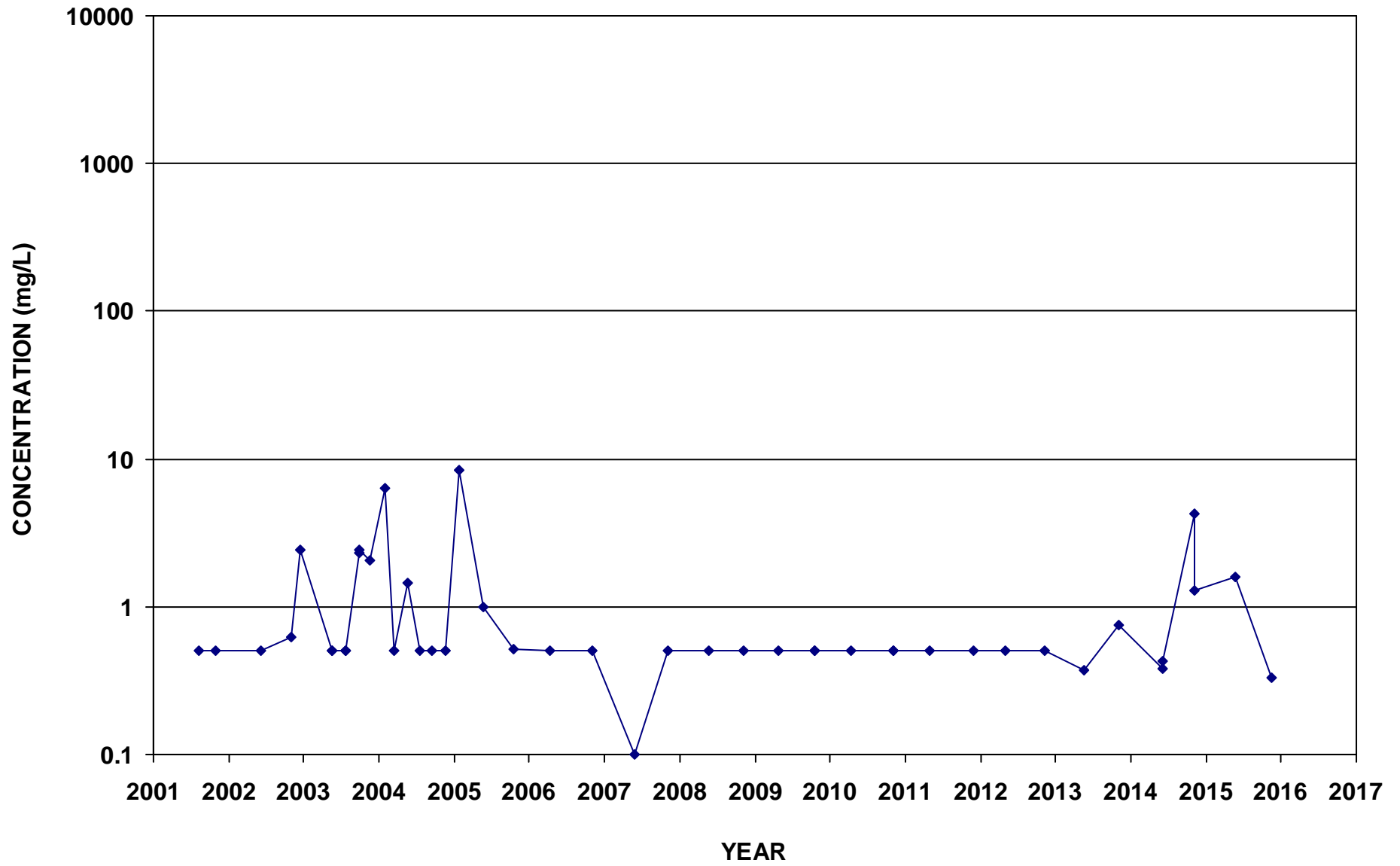
ECMW-16
Ammonia-N



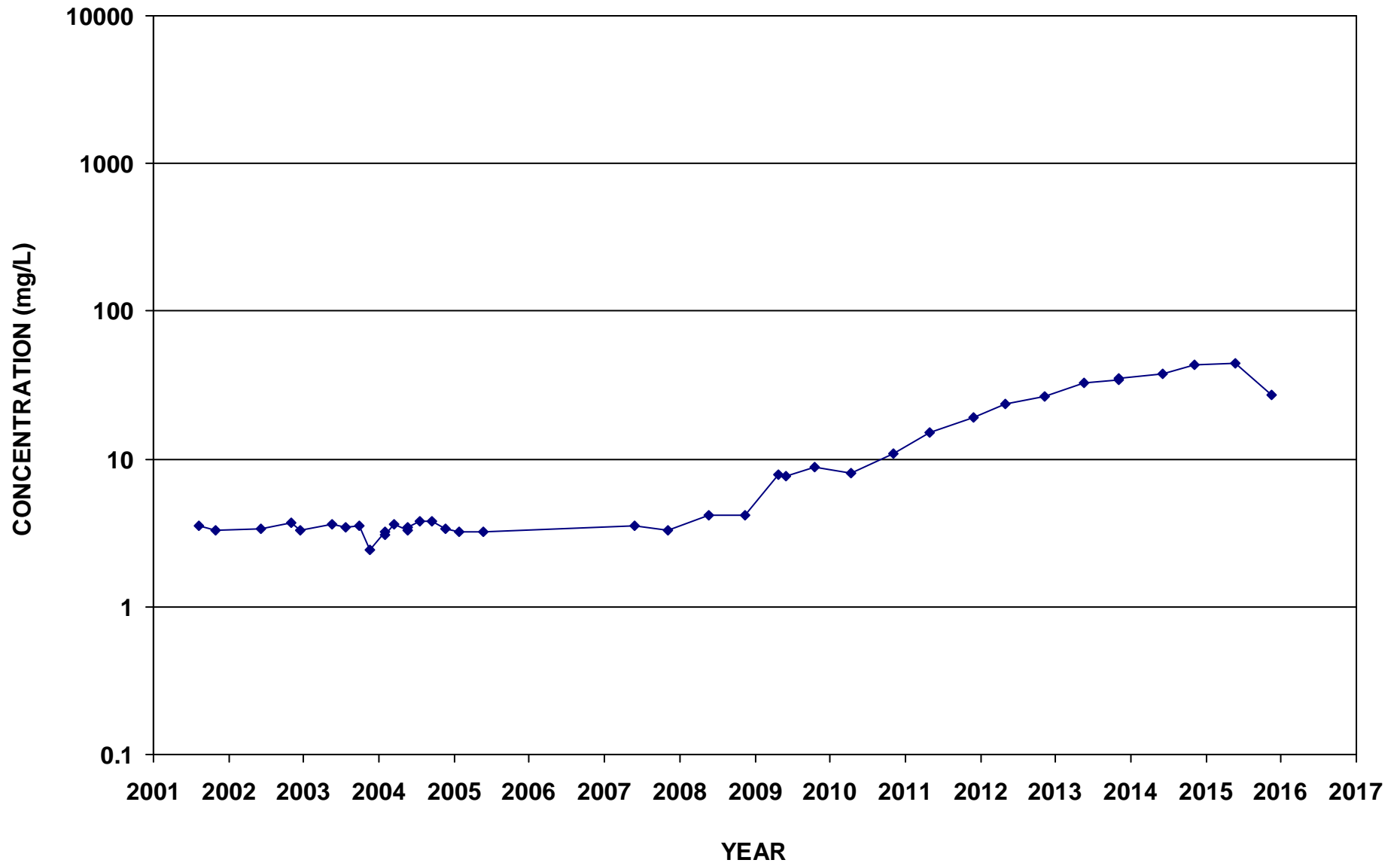
ECMW-17
Ammonia-N



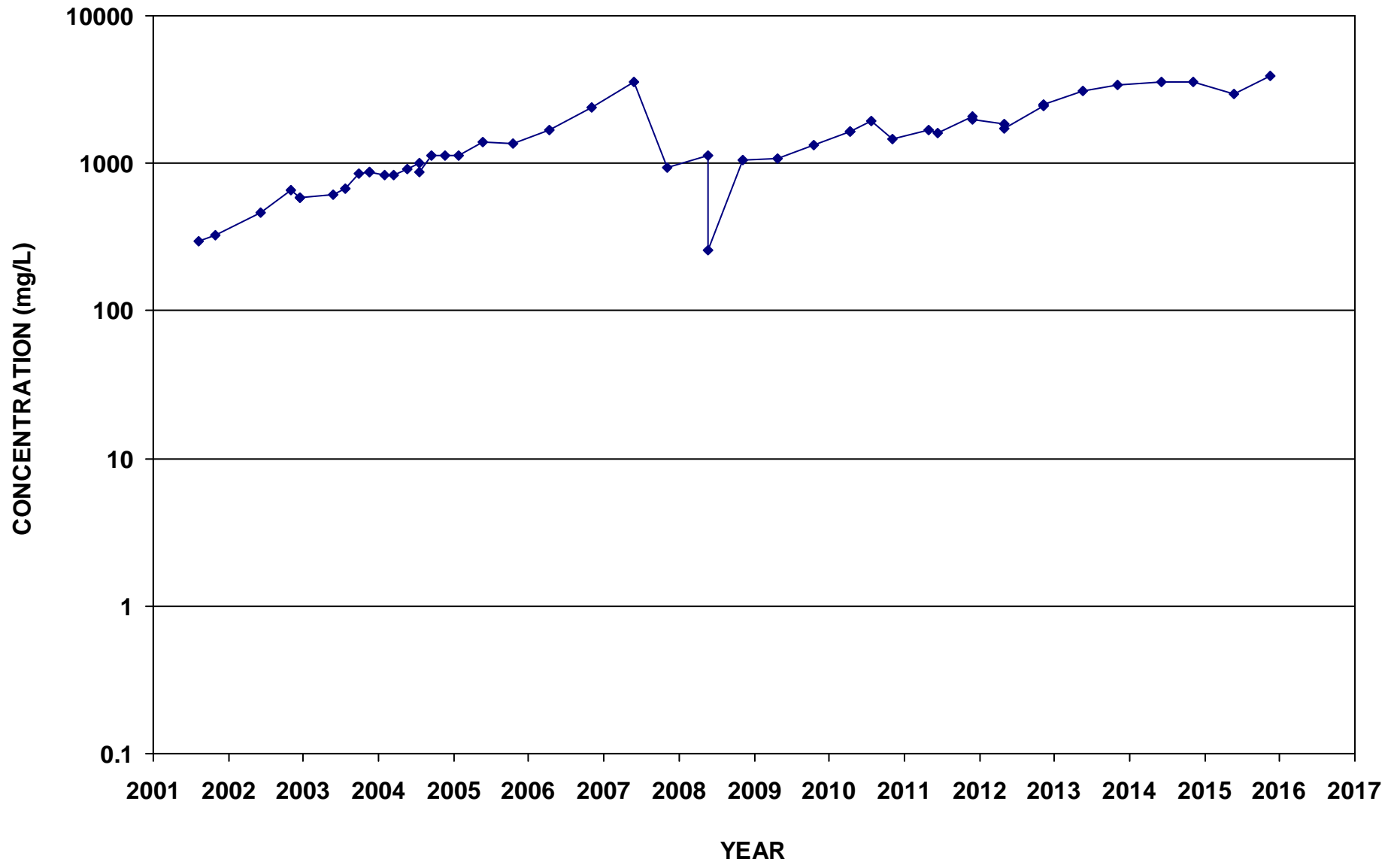
ECMW-4
Nitrate-N



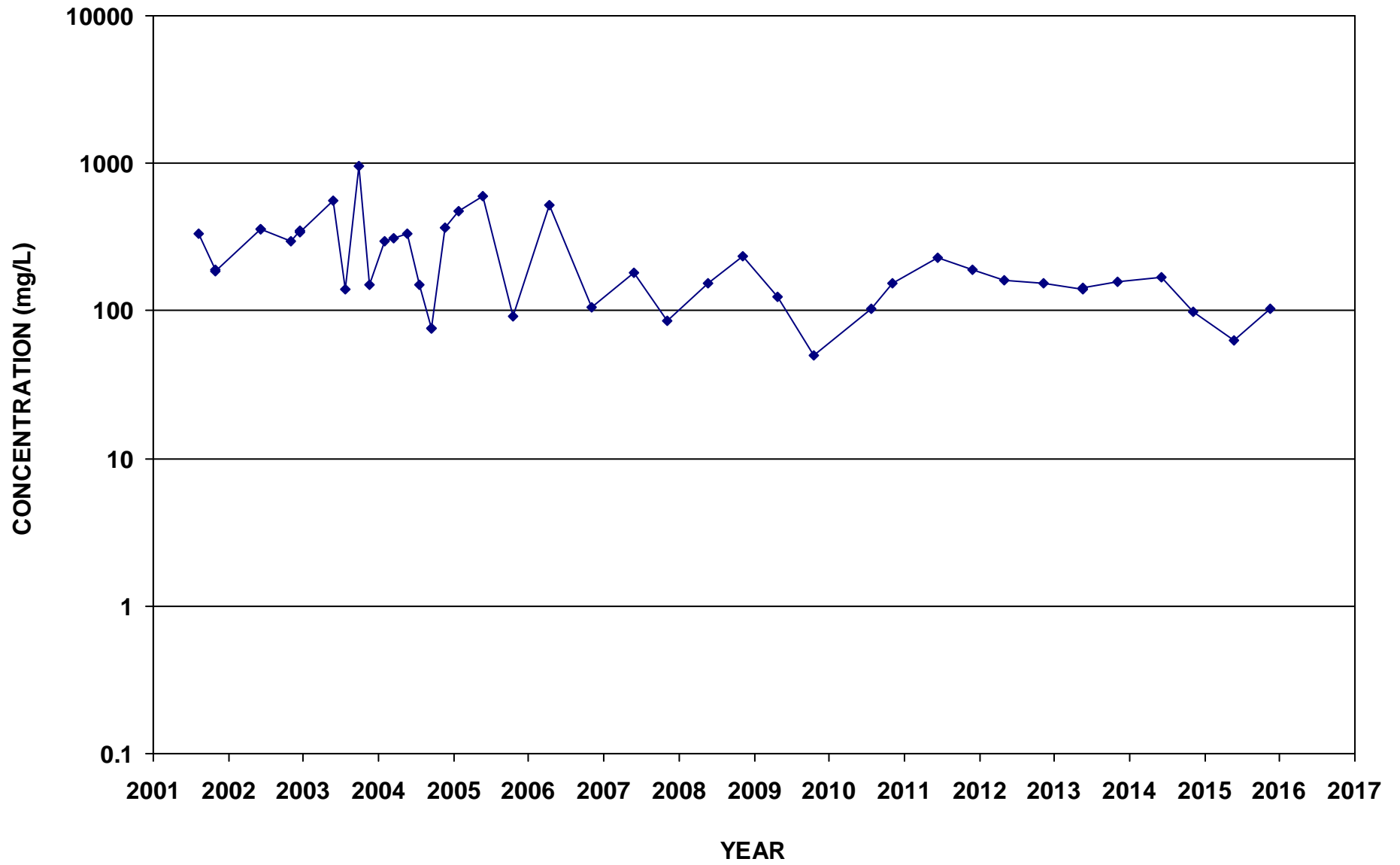
ECMW-5
Nitrate-N



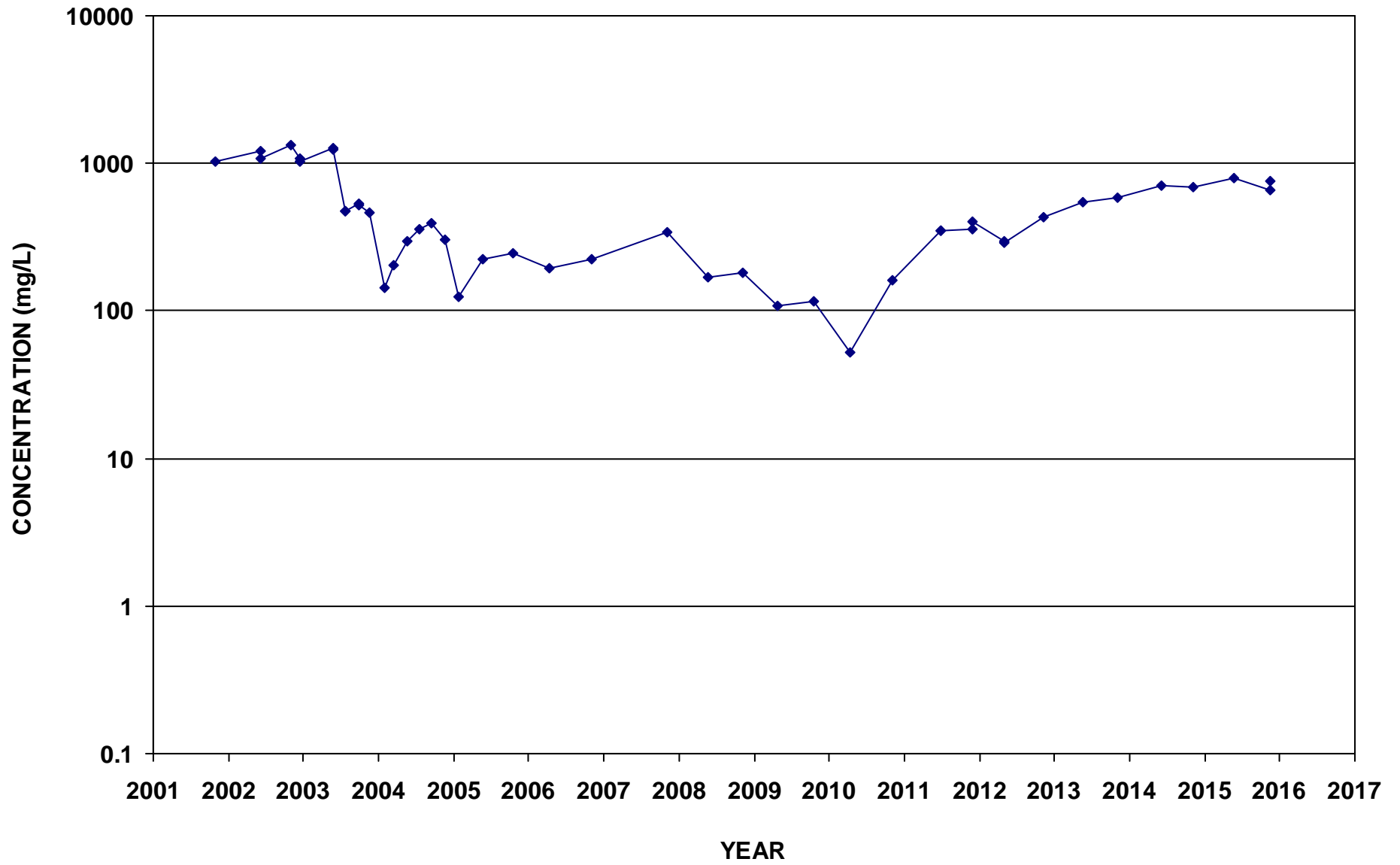
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Nitrate-N



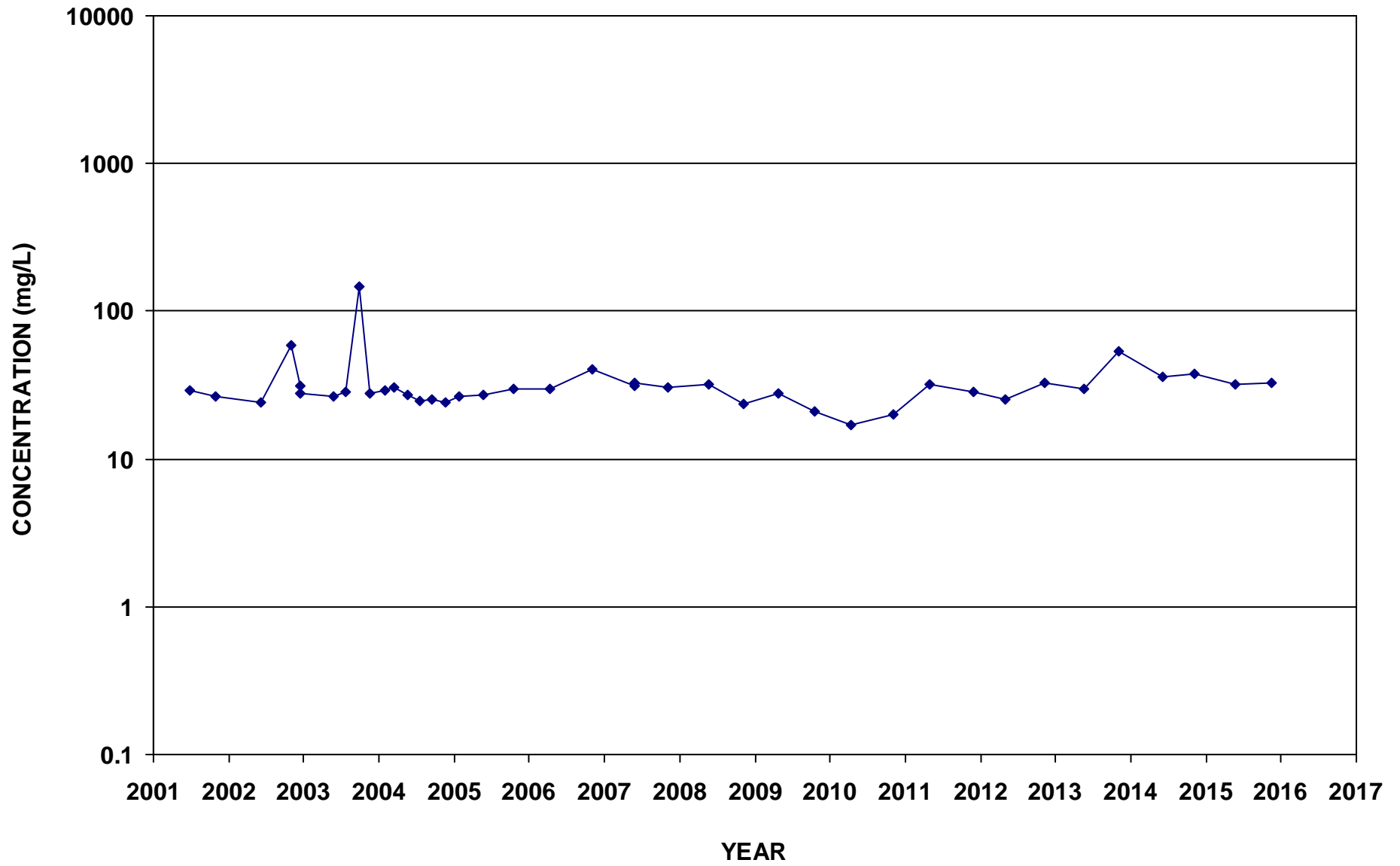
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Nitrate-N



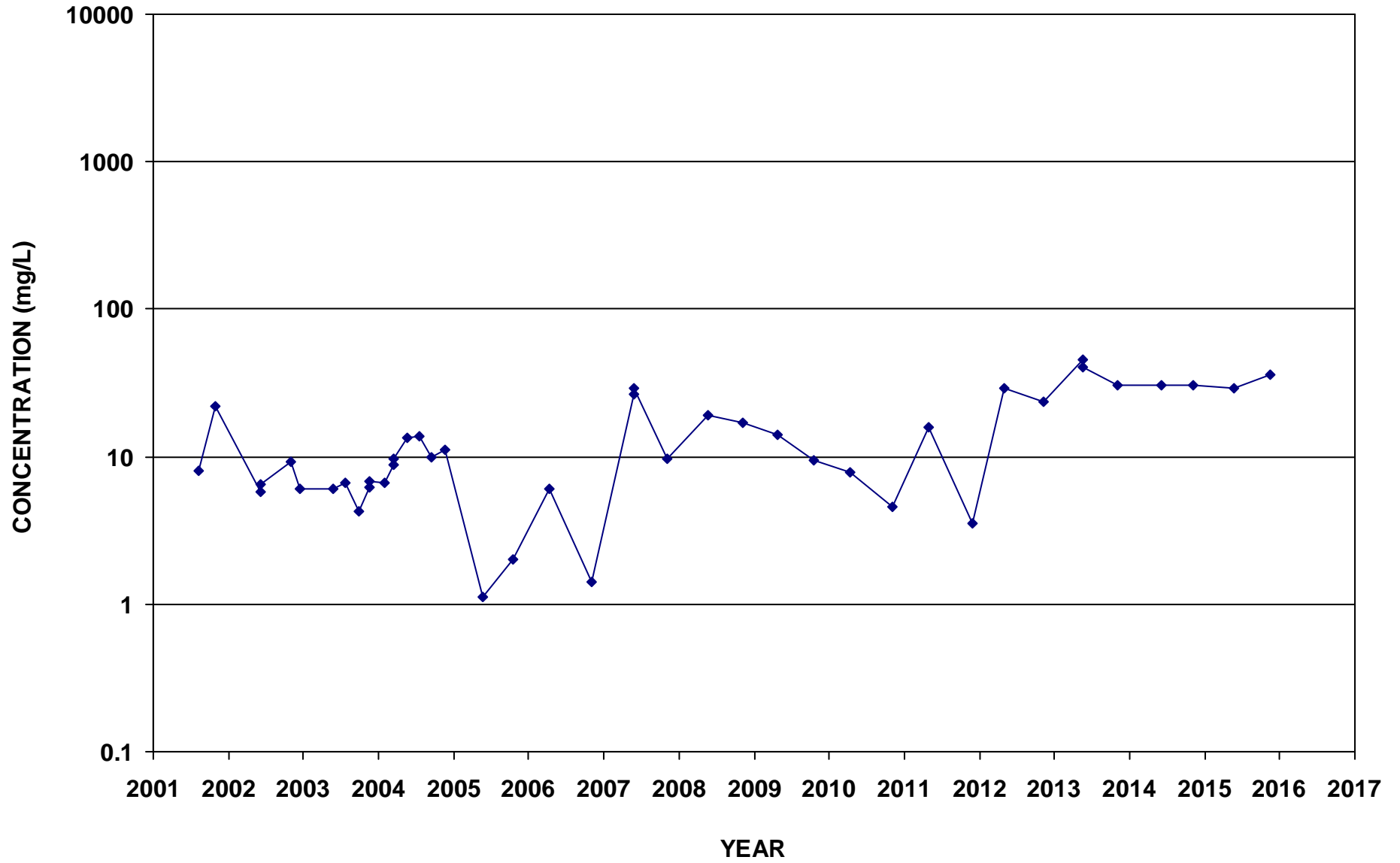
ECMW-8
Nitrate-N



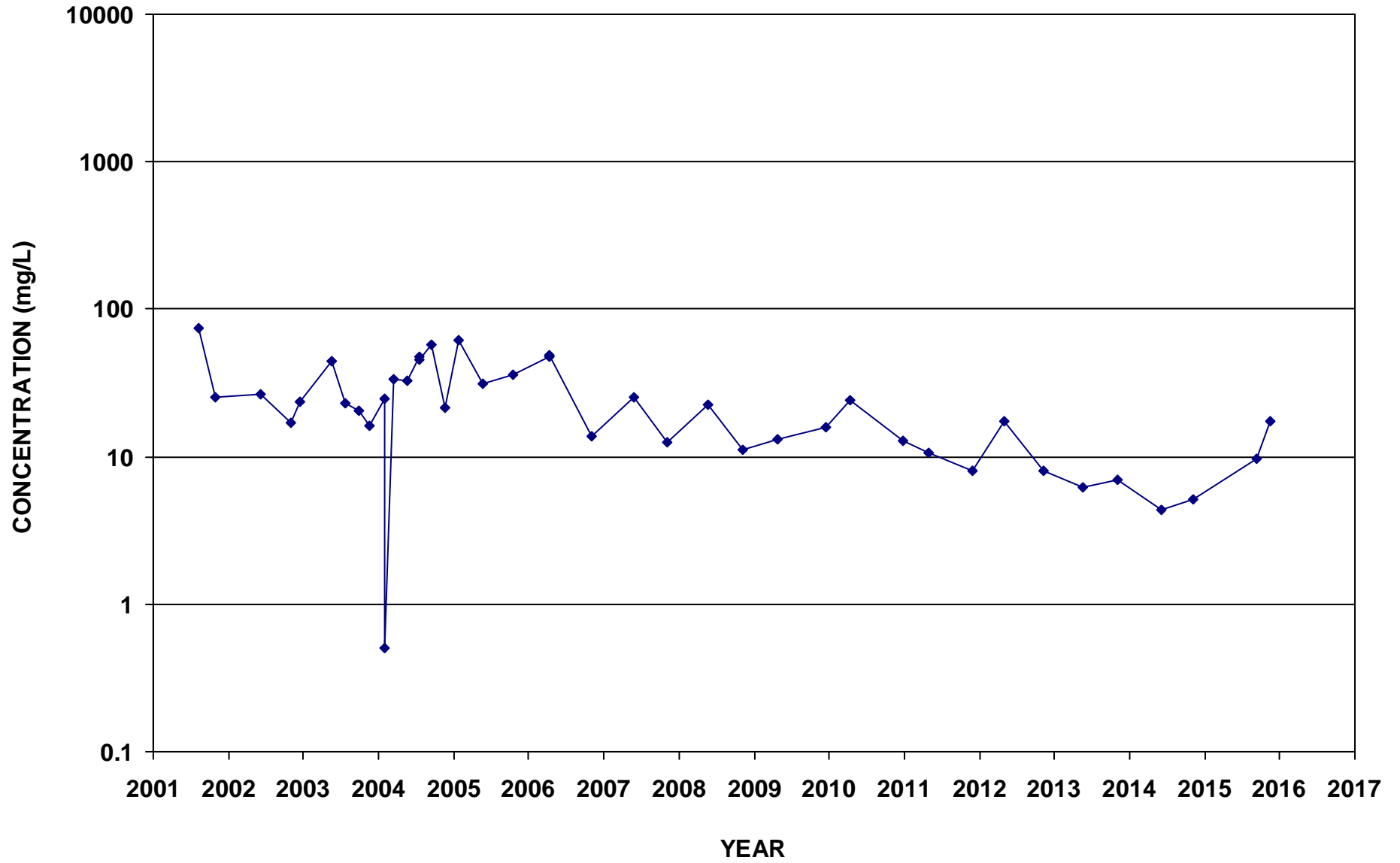
ECMW-9
Nitrate-N



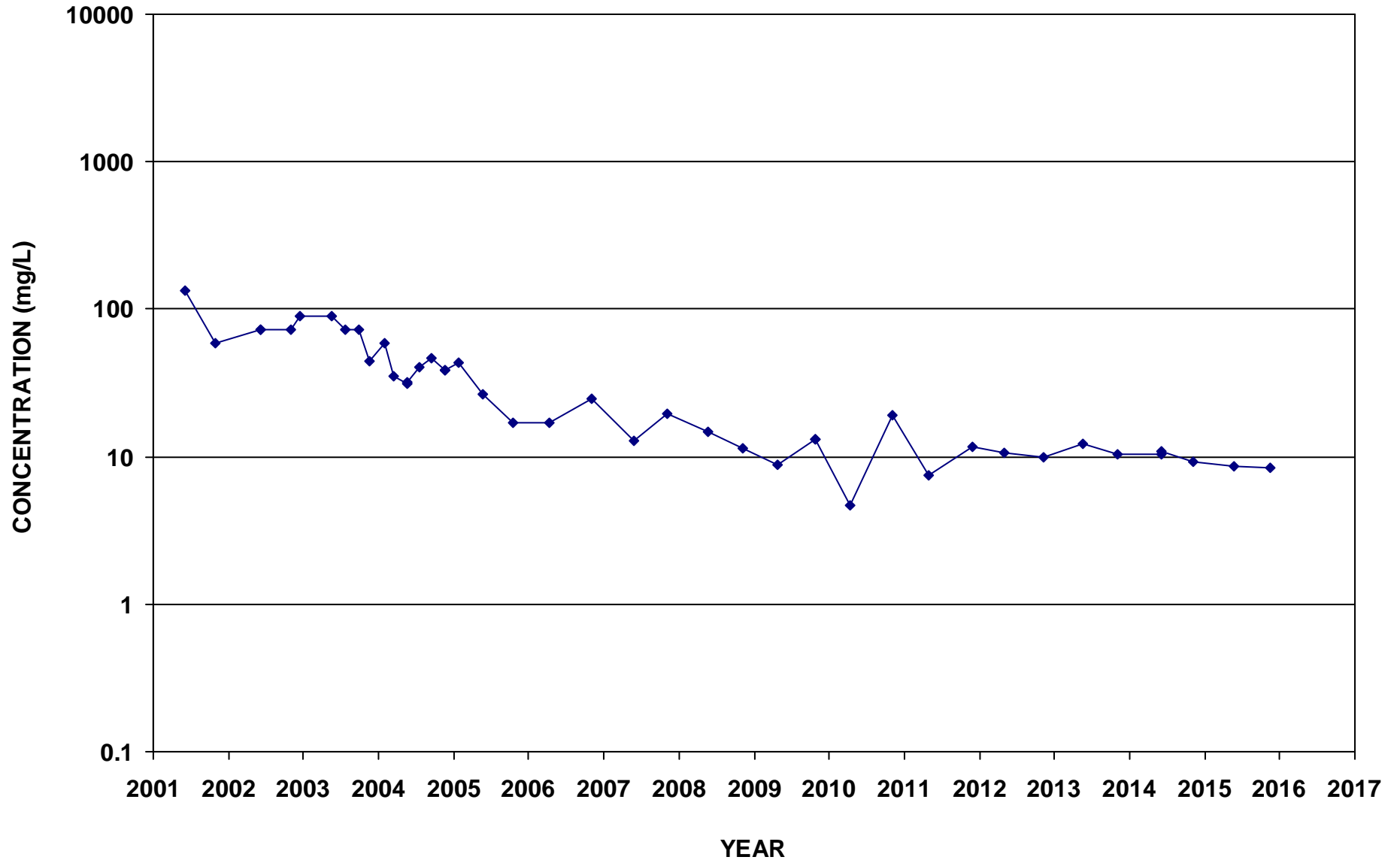
ECMW-11
Nitrate-N



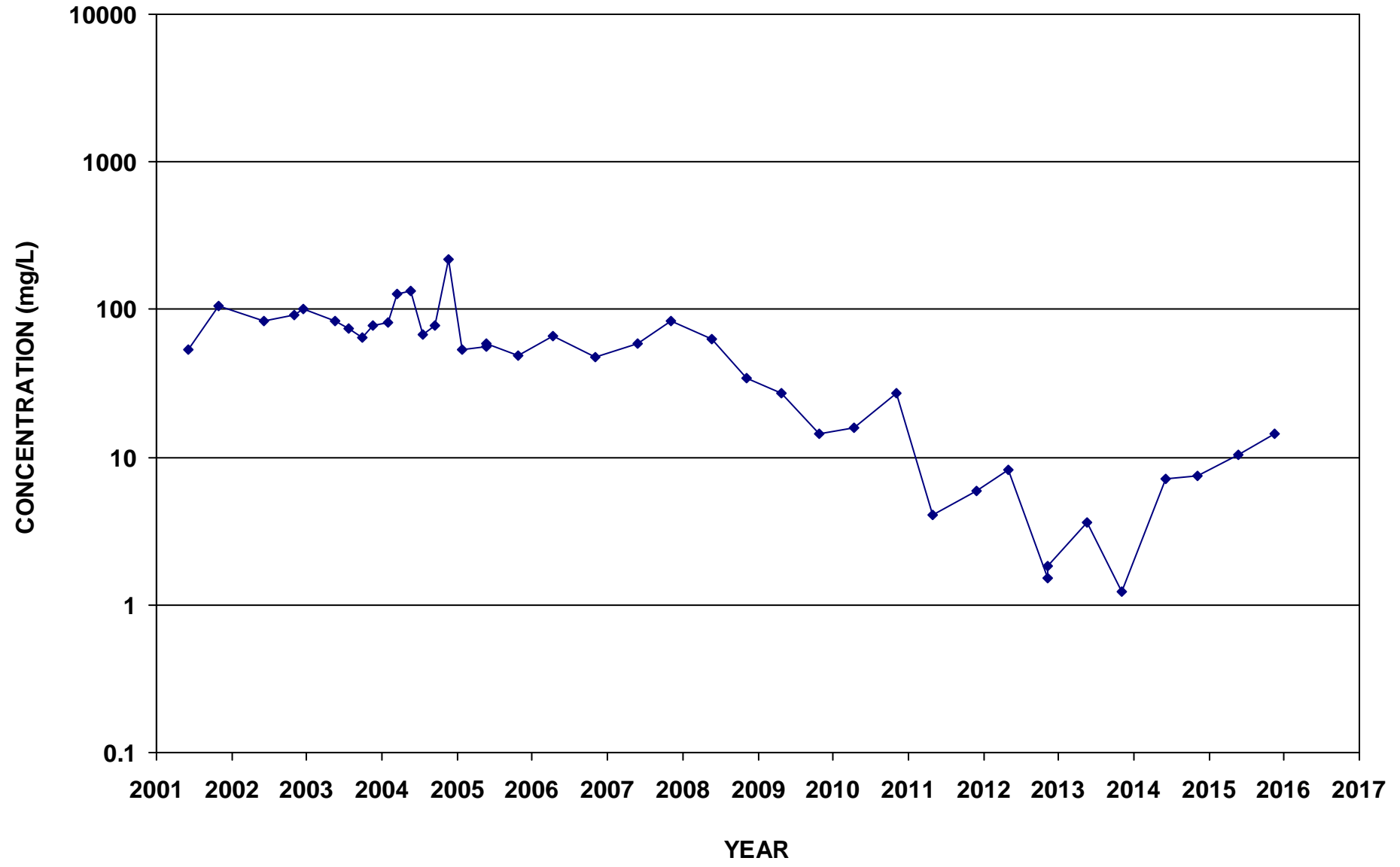
ECMW-14
Nitrate-N



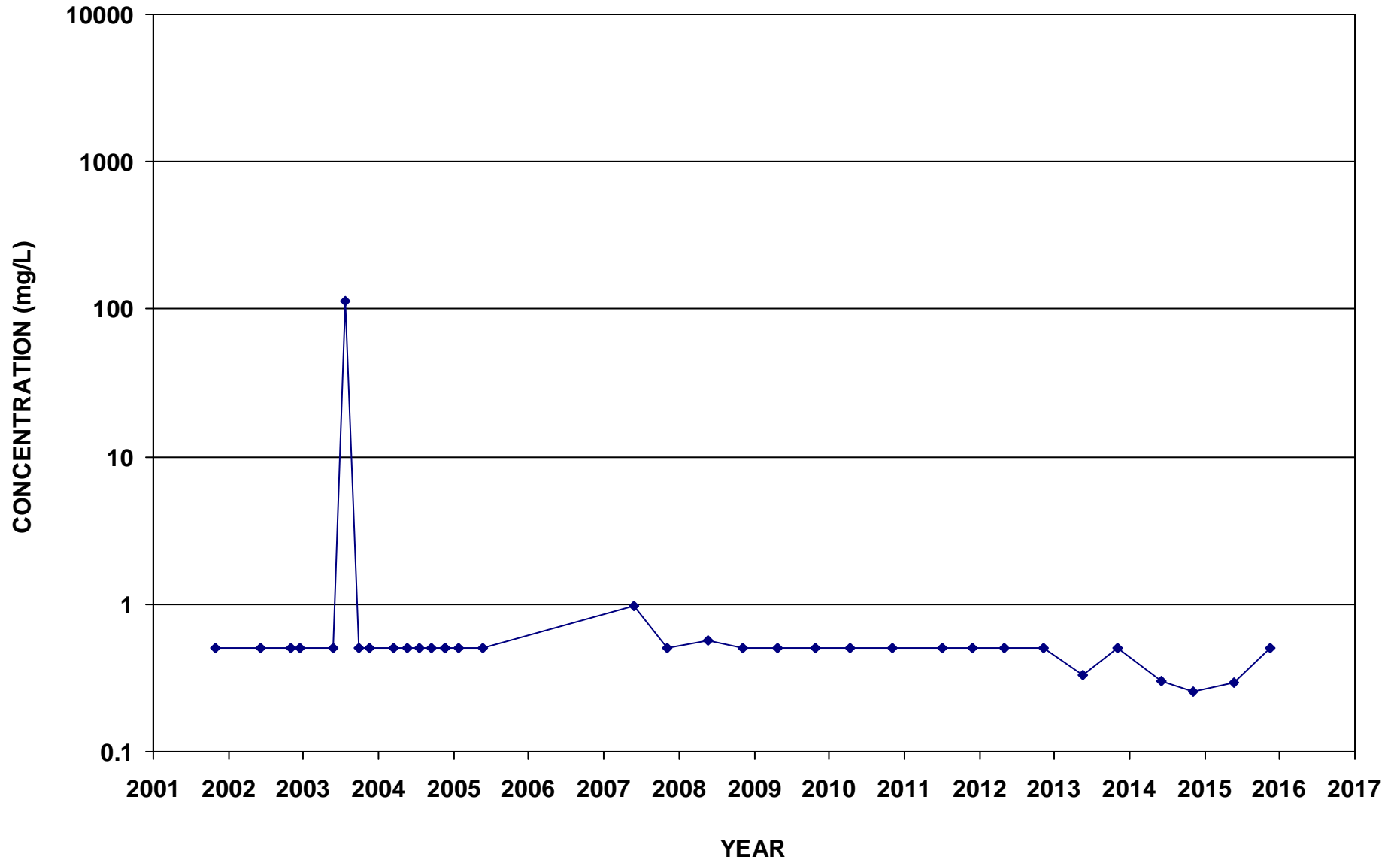
ECMW-16
Nitrate-N



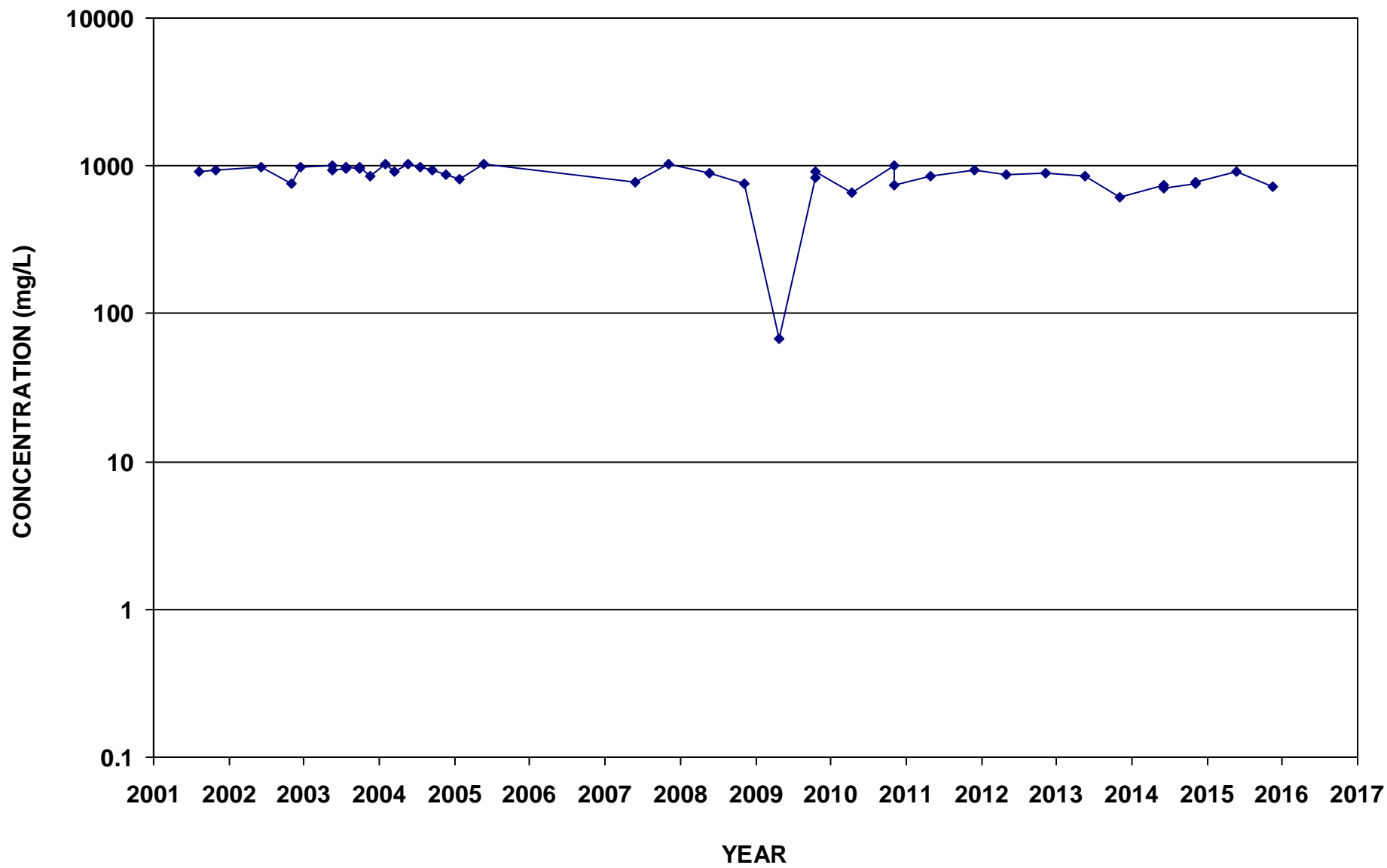
ECMW-17
Nitrate-N



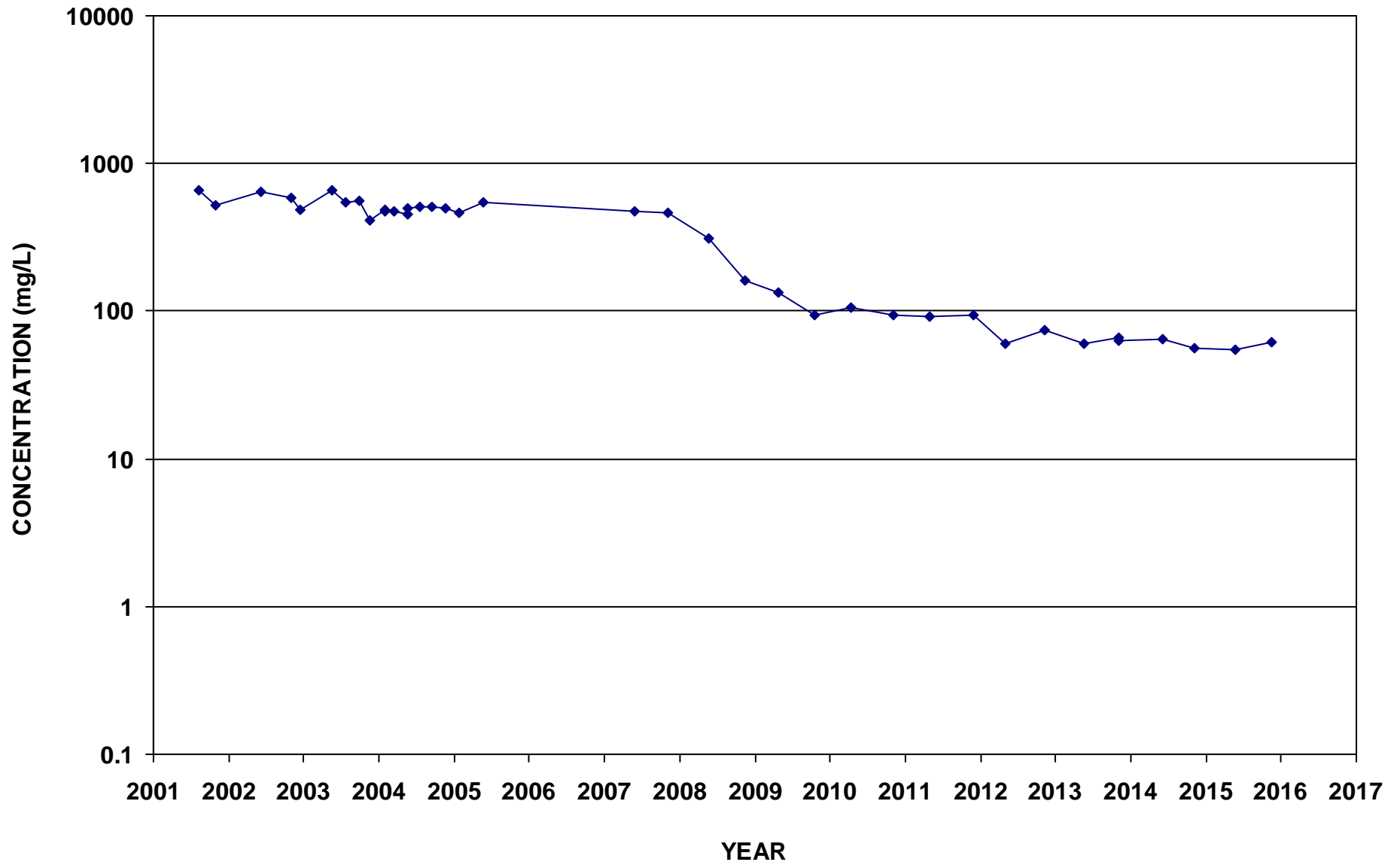
ECMW-18
Nitrate-N



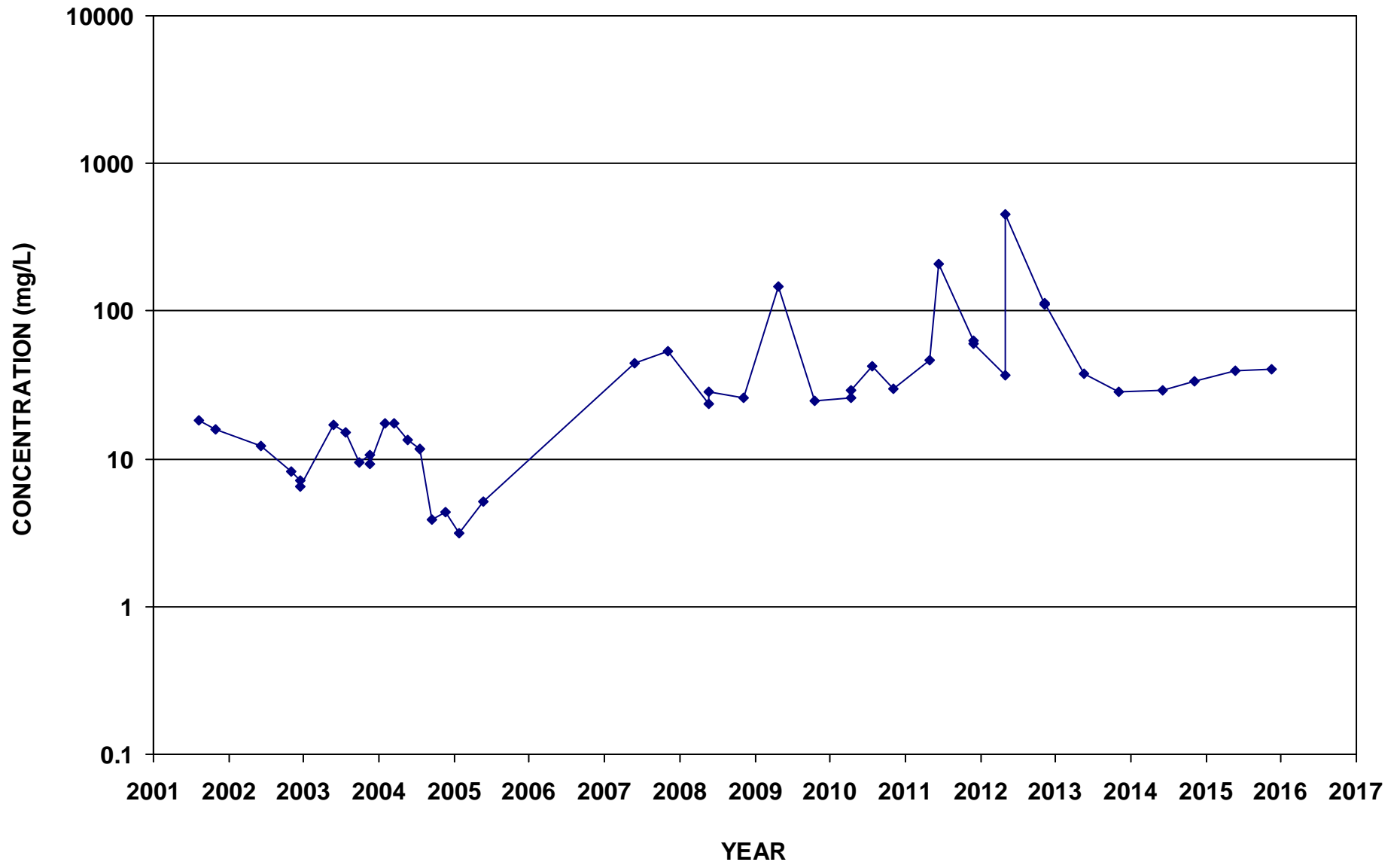
ECMW-4
Sulfate as SO4



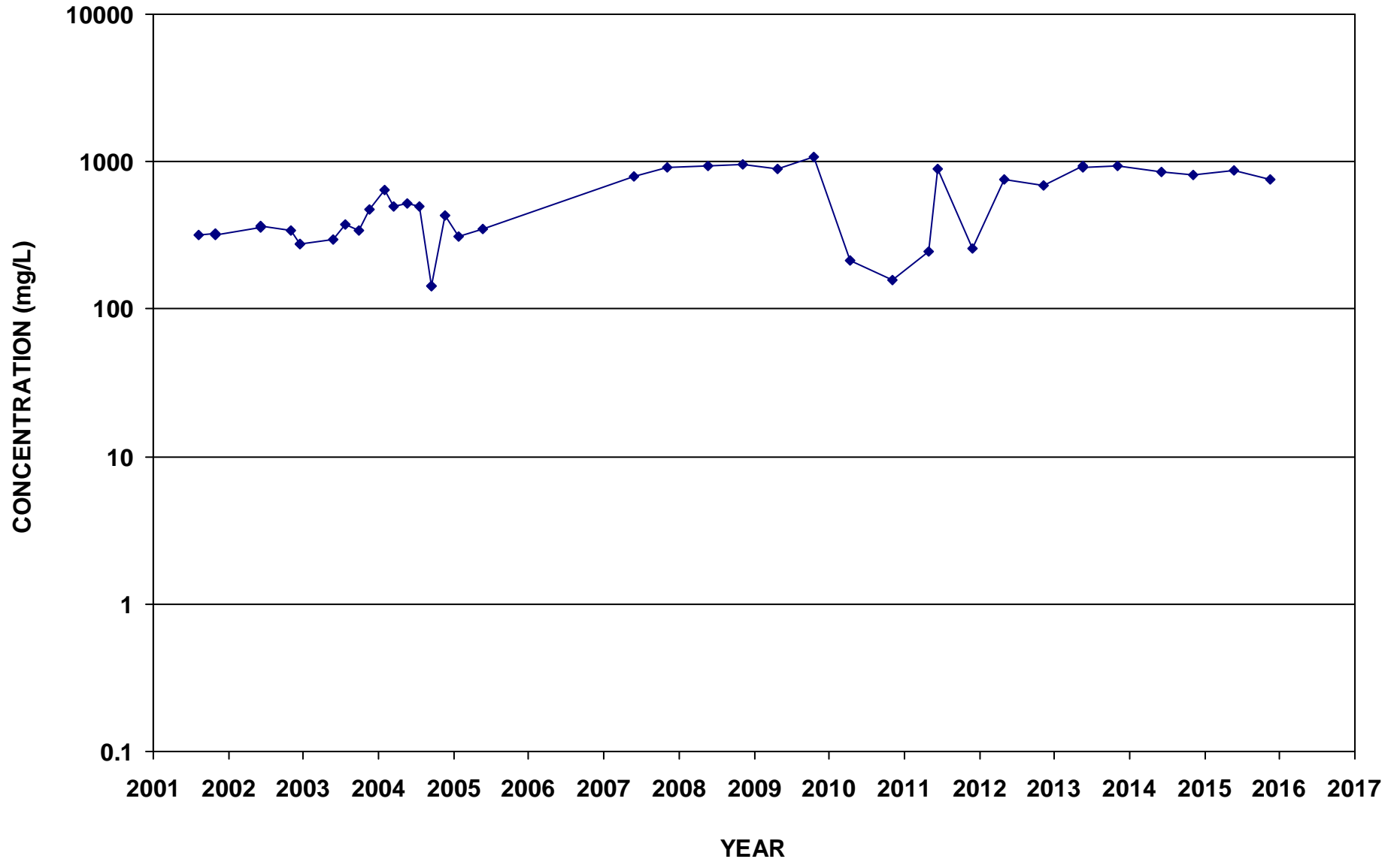
ECMW-5
Sulfate as SO4



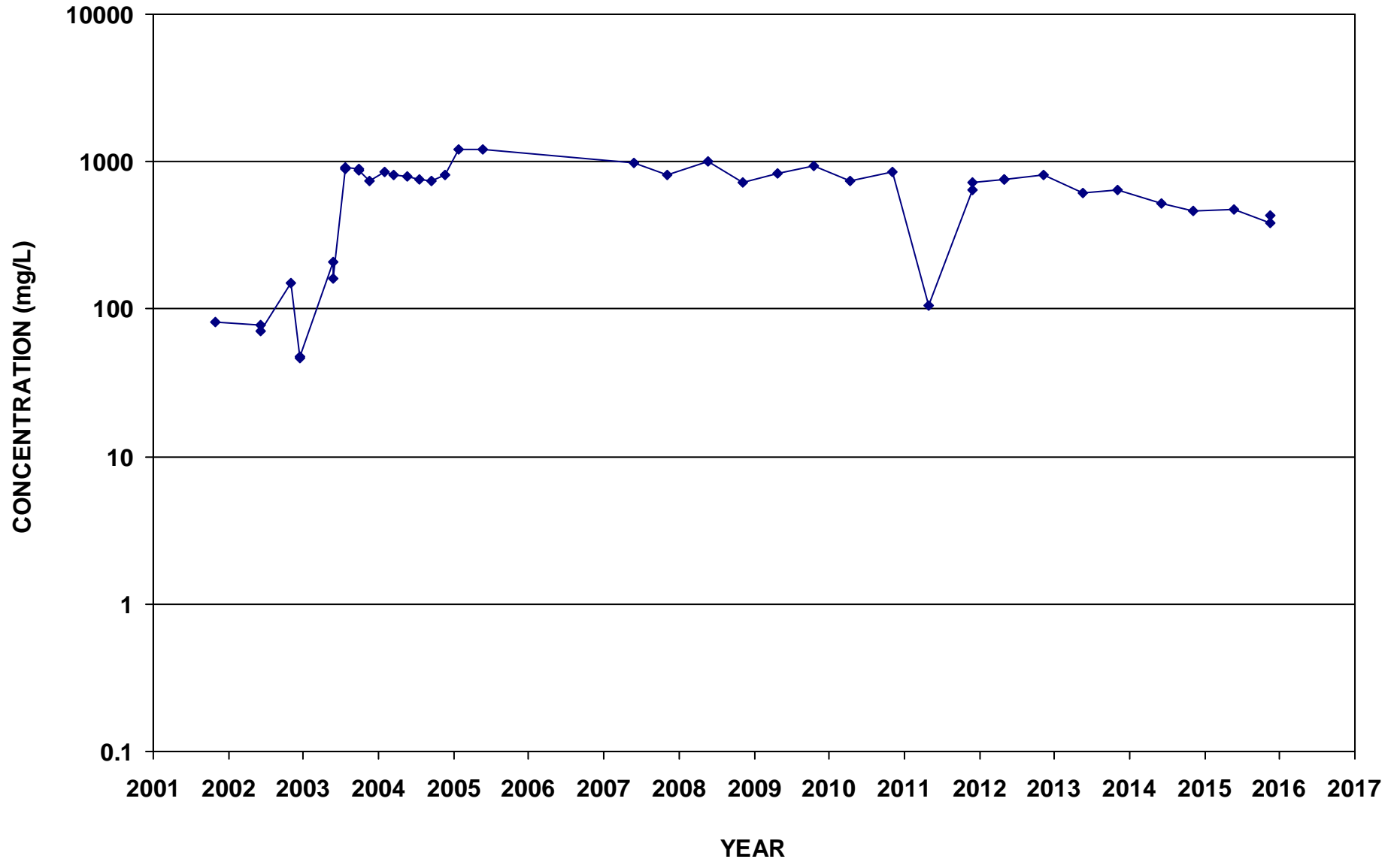
ECMW-6
Sulfate as SO4



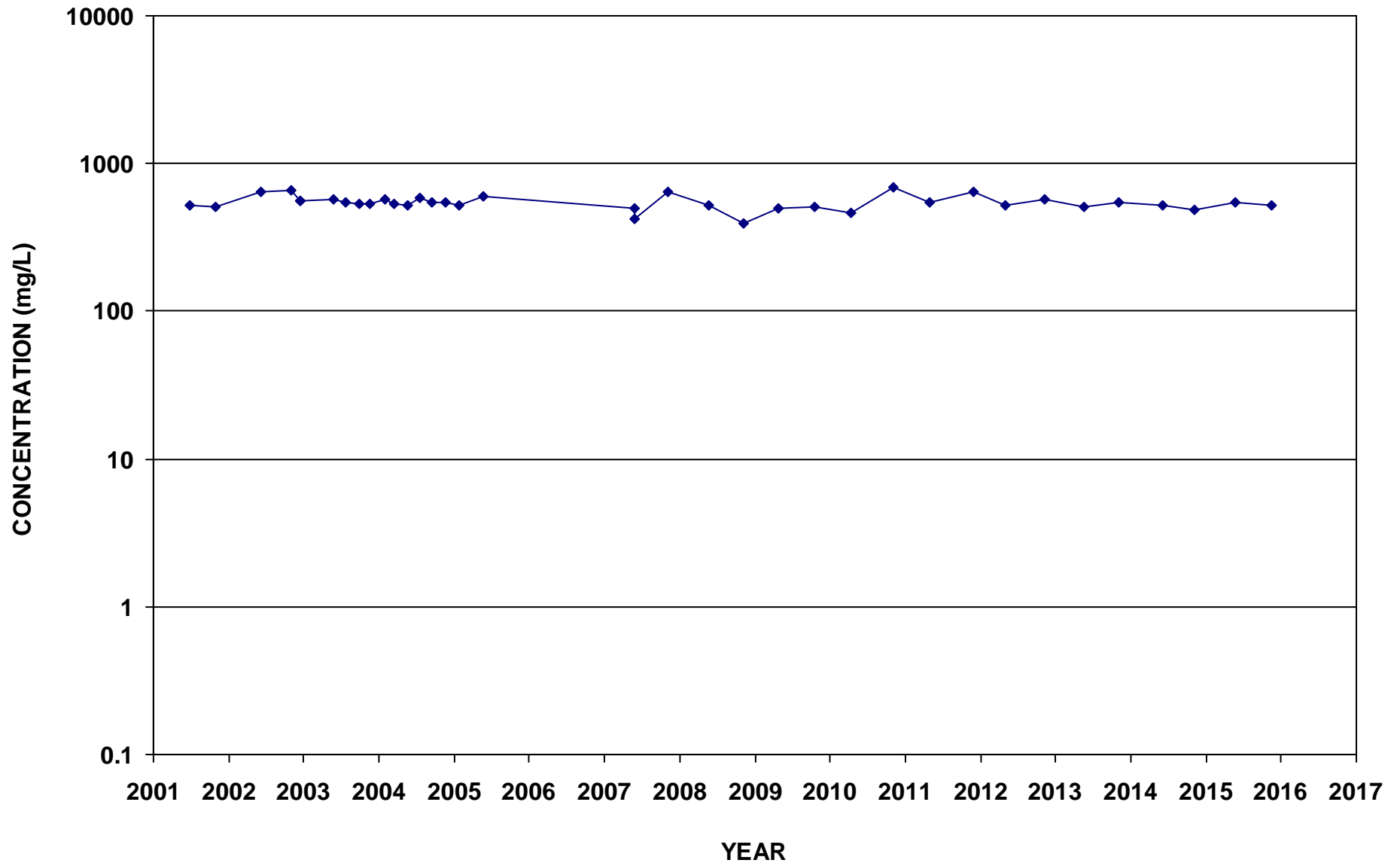
ECMW-7
Sulfate as SO4



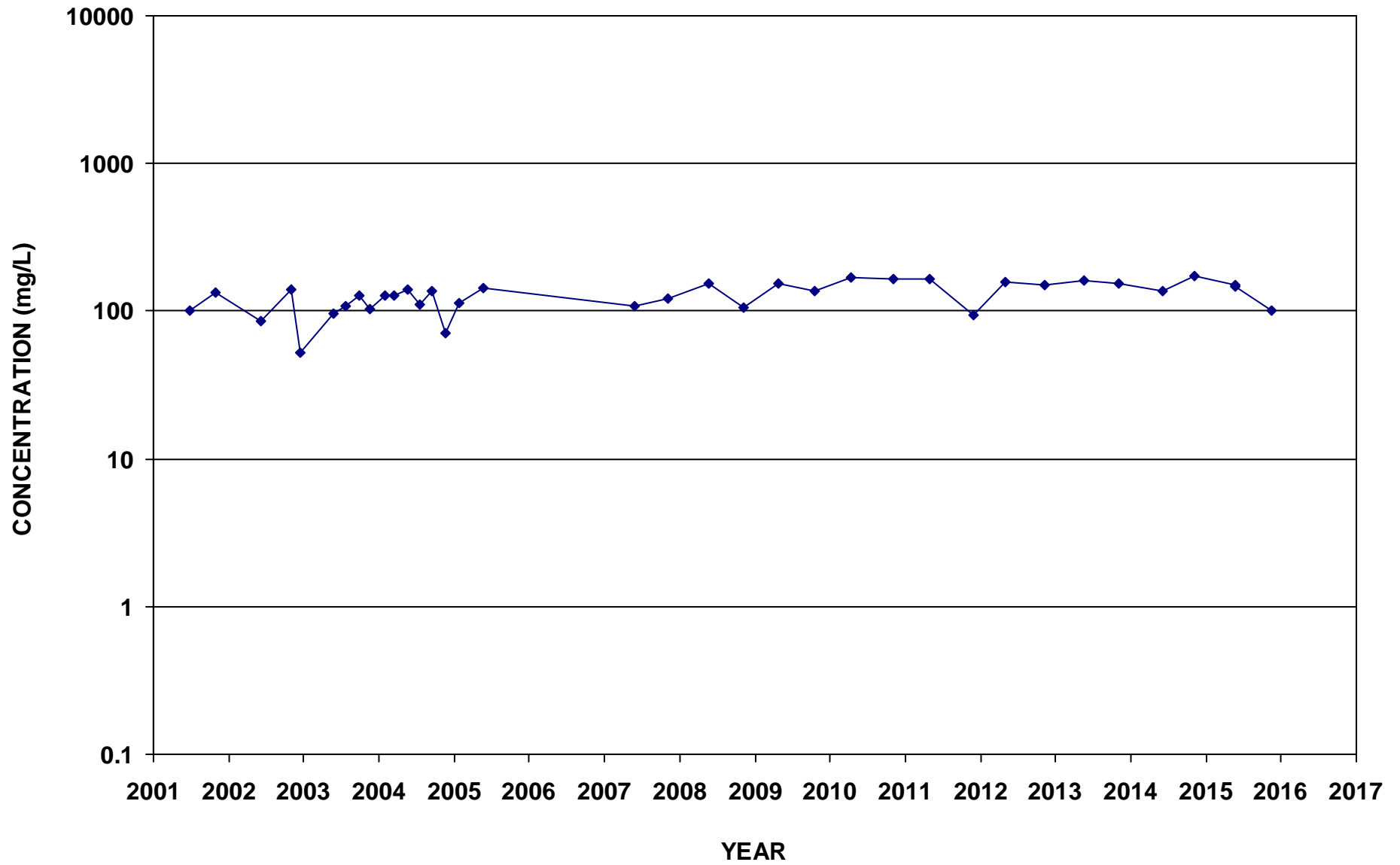
ECMW-8
Sulfate as SO4



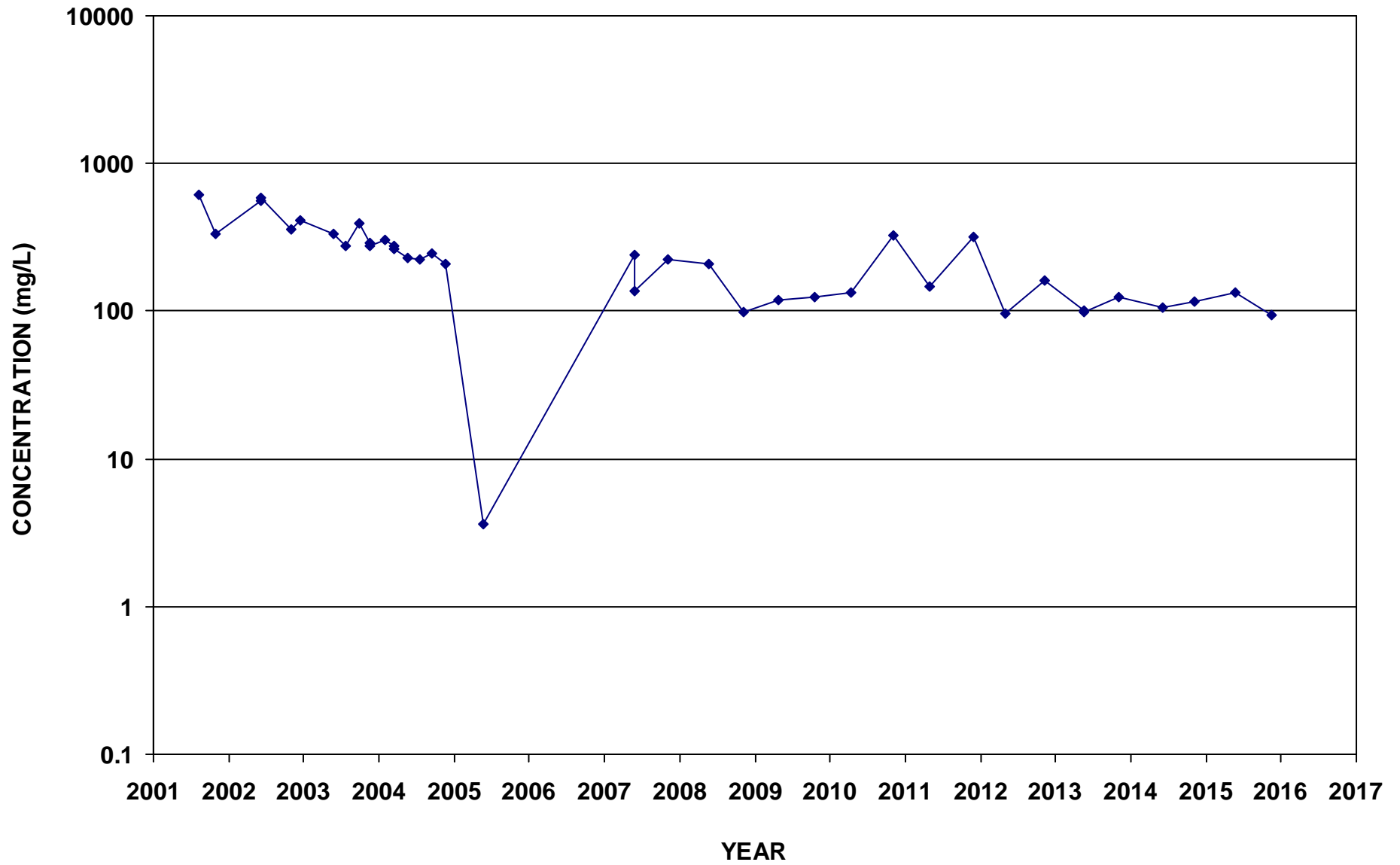
ECMW-9
Sulfate as SO4



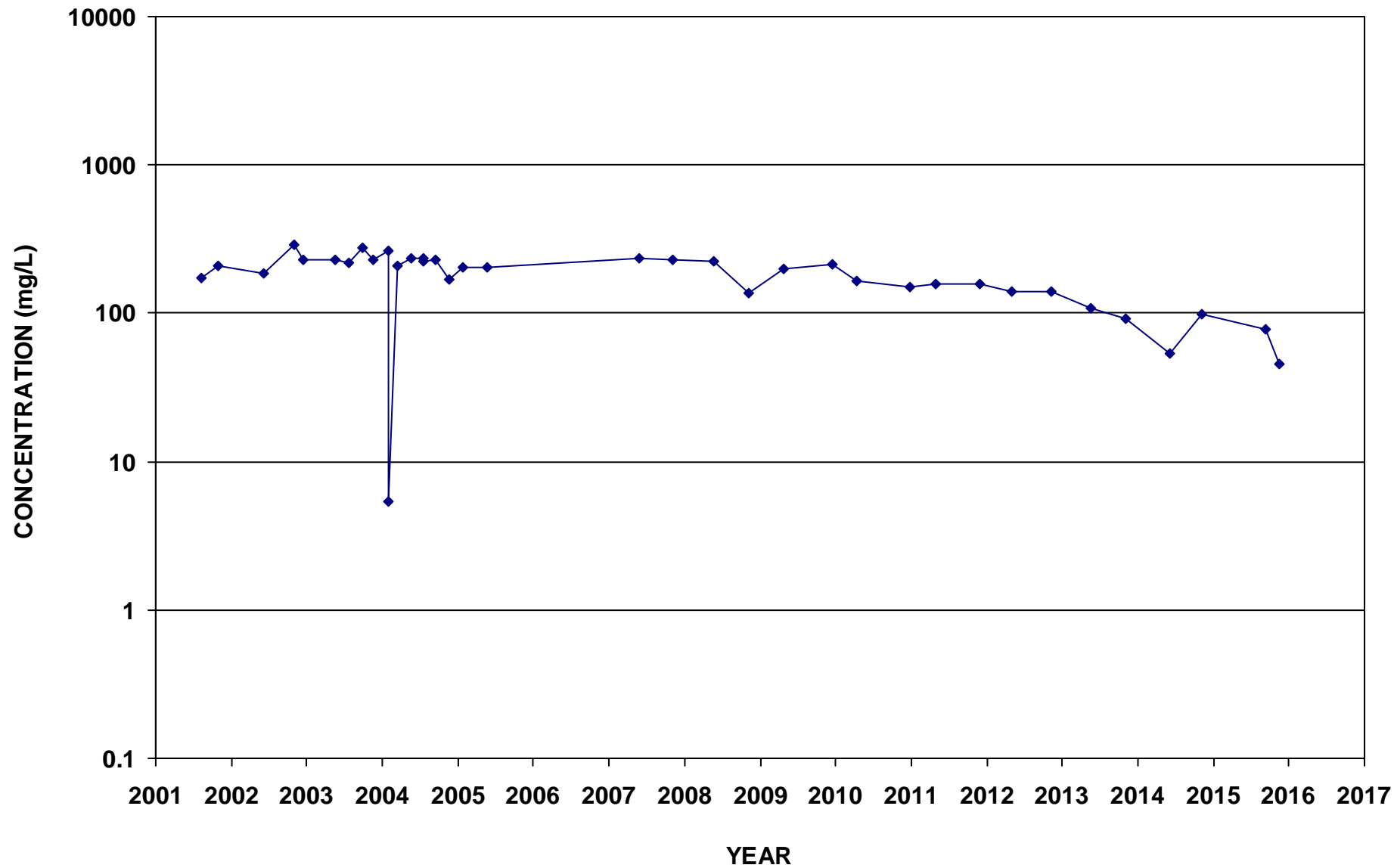
ECMW-10
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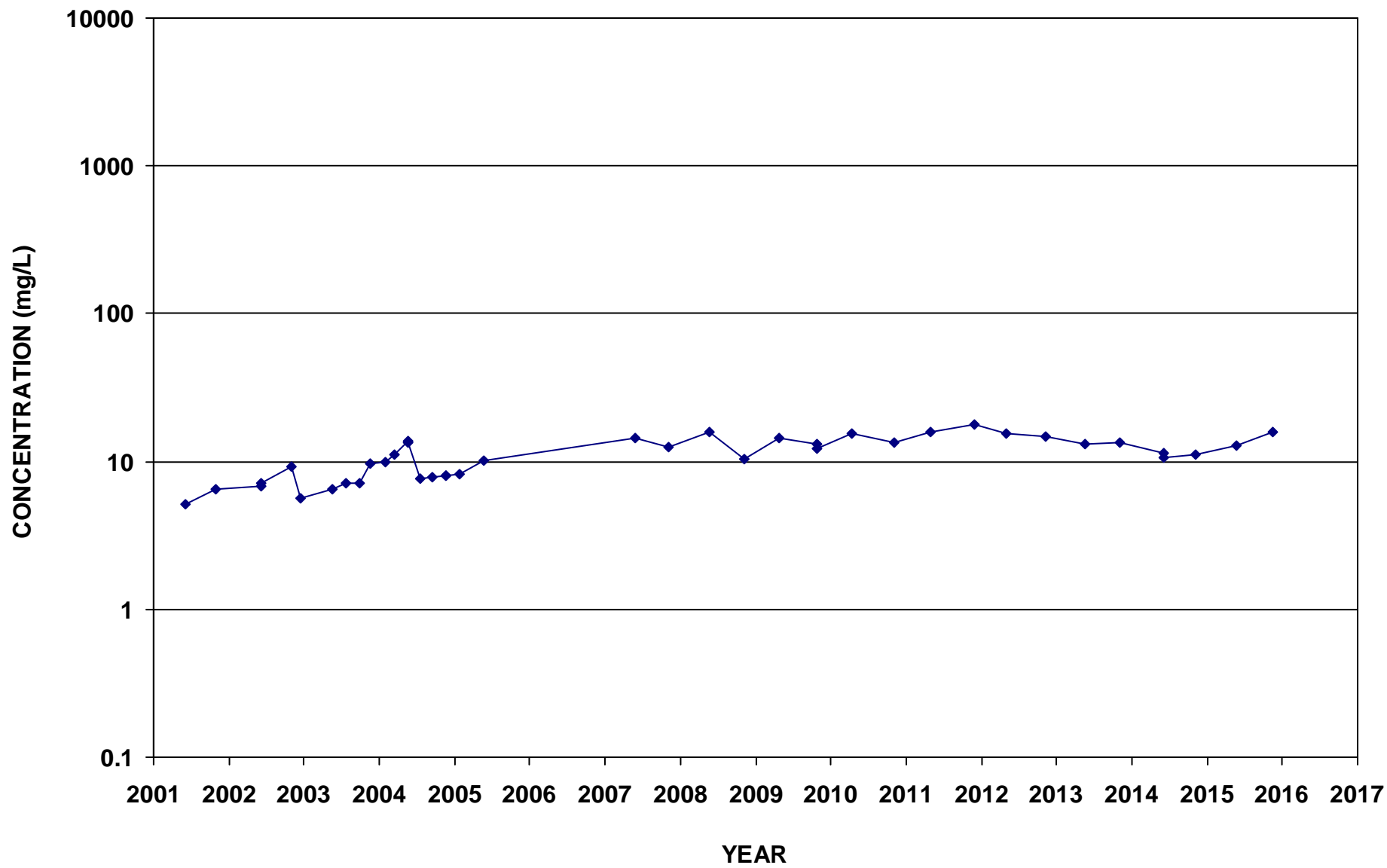
ECMW-11
Sulfate as SO4



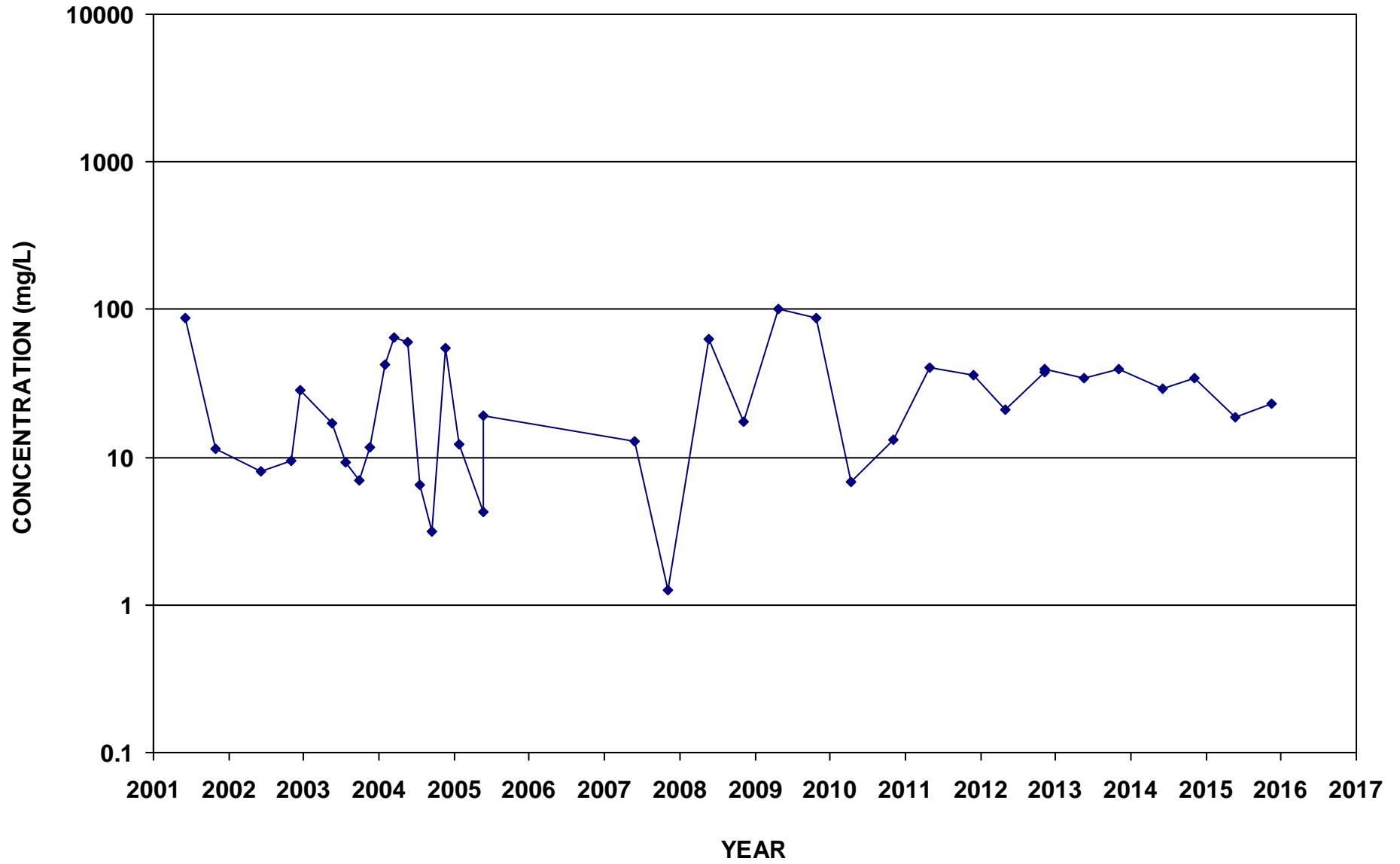
ECMW-14
Sulfate as SO4



ECMW-16
Sulfate as SO4



ECMW-17
Sulfate as SO₄



ECMW-18
Sulfate as SO4

