

ATTACHMENT 4

Sample Results for Organic Compounds at  
Southern Illinois Power Cooperative,  
City Water Light and Power, Waukegan,  
Will County and Joliet 29.

Table 1. Groundwater Analytical Results - Midwest Generation LLC, Joliet Station #29, Joliet, IL

| Parameter              | Standards | 12/16/2010 |        | 3/23/2011 |        | 6/14/2011 |        | 9/14/2011 |        | 12/7/2011 |        | 3/15/2012 |        | 6/19/2012 |        | 9/19/2012 |         | 12/20/2012 |        | 3/5/2013 |        | 5/23/2013 |        | 7/22/2013 |        | 10/15/2013 |        |
|------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|---------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|
|                        |           | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result  | DL         | Result | DL       | Result | DL        | Result | DL        | Result | DL         | Result |
| Antimony               | 0.006     | 0.0030     | NS     | 0.0030    | NS     | 0.0030    | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0030    | 0.0052  | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Arsenic                | 0.010     | 0.0010     | NS     | 0.0014    | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0010    | 0.0011  | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Barium                 | 2.0       | 0.0025     | 0.13   | NS        | NS     | 0.0025    | 0.14   | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0025    | 0.16    | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Beryllium              | 0.04      | 0.0010     | ND     | NS        | NS     | 0.0010    | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0010    | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Boron                  | 2.0       | 0.0030     | 0.31   | NS        | NS     | 0.0030    | 0.29   | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0030    | 0.38    | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Cadmium                | 0.005     | 0.00050    | ND     | NS        | NS     | 0.00050   | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.00050   | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Chloride               | 200.0     | 10         | 140    | NS        | NS     | 10        | 170    | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 10        | 120     | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Chromium               | 0.1       | 0.0050     | ND     | NS        | NS     | 0.0050    | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0050    | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Cobalt                 | 1.0       | 0.0010     | ND     | NS        | NS     | 0.0010    | 0.0010 | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0010    | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Copper                 | 0.65      | 0.0020     | 0.0032 | NS        | NS     | 0.0020    | 0.0025 | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0020    | 0.0021  | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Cyanide                | 0.2       | 0.010      | ND     | NS        | NS     | 0.010     | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.010     | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Fluoride               | 4.0       | 0.10       | 0.45   | NS        | NS     | 0.10      | 0.43   | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.10      | 0.59    | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Iron                   | 5.0       | 0.10       | ND     | NS        | NS     | 0.10      | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.10      | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Lead                   | 0.0075    | 0.00050    | ND     | NS        | NS     | 0.00050   | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.00050   | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Manganese              | 0.15      | 0.0025     | ND     | NS        | NS     | 0.0025    | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0025    | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Mercury                | 0.002     | 0.00020    | ND     | NS        | NS     | 0.00020   | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.00020   | 0.00029 | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Nickel                 | 0.1       | 0.0020     | 0.0034 | NS        | NS     | 0.0020    | 0.0029 | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0020    | 0.0029  | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Nitrogen-Nitrate       | 10.0      | 0.10       | 1.9    | NS        | NS     | 0.10      | 2.9    | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.10      | 4.2     | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Nitrogen-Nitrite       | NA        | 0.20       | 1.9    | NS        | NS     | 0.20      | 2.9    | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.20      | 4.2     | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Nitrogen-Nitrite       | NA        | 0.020      | ND     | NS        | NS     | 0.020     | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.020     | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Perchlorate            | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR      | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| pH                     | 6.5 - 9.0 | NA         | 7.82   | NS        | NS     | NA        | 7.25   | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NA        | 7.46    | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Selenium               | 0.05      | 0.0025     | ND     | NS        | NS     | 0.0025    | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0025    | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Silver                 | 0.05      | 0.00050    | ND     | NS        | NS     | 0.00050   | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.00050   | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Sulfate                | 400.0     | 50         | 150    | NS        | NS     | 50        | 81     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 50        | 240     | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Thallium               | 0.002     | 0.0020     | ND     | NS        | NS     | 0.0020    | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.0020    | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Total Dissolved Solids | 1,200     | 10         | 590    | NS        | NS     | 10        | 670    | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 10        | 630     | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Vanadium               | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR      | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| Zinc                   | 5.0       | 0.020      | ND     | NS        | NS     | 0.020     | ND     | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | 0.020     | ND      | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Benzene                | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR      | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| BTEX                   | 11,705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR      | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| Temperature            | NA        | NA         | 7.32   | NA        | NA     | NA        | 13.92  | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NA        | 22.01   | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Conductivity           | NA        | NA         | 1.04   | NA        | NA     | NA        | 1.28   | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NA        | 0.97    | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| Dissolved Oxygen       | NA        | NA         | NA     | NA        | NA     | NA        | 4.19   | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NA        | 7.68    | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |
| ORP                    | NA        | NA         | RM     | NA        | NA     | NA        | 210.6  | NS        | NS     | NS        | NS     | NS        | NS     | NS        | NS     | NA        | 155.0   | NS         | NS     | NS       | NS     | NS        | NS     | NS        | NS     | NS         | NS     |

Notes: Standards obtained from IAC, Table 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I, Feasible  
 DL - Detection Limit  
 NA - Not Applicable  
 NR - Not Reported  
 NS - Not Sampled  
 ND - Not Detected  
 NM - Not Measured  
 All values are in mg/L, ppm unless otherwise noted.







Table 1. Groundwater Analytical Results - Midwest Generation LLC, Joliet Station #29, Joliet, IL

Table with columns for Parameter, Standards, Date, and multiple Result/Deviation columns for dates: 12/7/2010, 3/23/2011, 6/14/2011, 9/14/2011, 12/7/2011, 3/15/2012, 6/19/2012, 9/19/2012, 12/20/2012, 3/5/2013, 5/22/2013, 7/22/2013, and 10/16/2013. Parameters include Anionity, Arsenic, Barium, Beryllium, Boron, Cadmium, Chloride, Chromium, Cobalt, Copper, Cyanide, Fluoride, Iron, Lead, Manganese, Mercury, Nickel, Nitrogen/Nitrate, Nitrogen/Nitrite, Perchlorate, pH, Selenium, Silver, Sulfate, Thallium, Total Dissolved Solids, Vanadium, Zinc, Benzene, and BTEX. The table lists numerical results and deviations (DL) for each parameter on each date.

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D  
NA - Not Applicable  
NR - Not Reported  
DL - Deviation Limit  
SD - Not Satisfactory  
OC - Not Measured  
OC needs  
OC results  
OC values

Temperature  
mL cm  
Discharge  
mL  
Oxygen Saturation Potential (OSP)  
°C  
mg/L  
mg/L  
mg/L





Table 1. Groundwater Analytical Results - Midwest Generation LLC, Joliet Station #29, Joliet, IL

| Parameter                 | Standards | Date | 12/7/2010 | 3/23/2011 | 6/14/2011 | 9/14/2011 | 12/7/2011 | 3/15/2012 | 6/19/2012 | 9/19/2012 | 12/20/2012 | 3/5/2013 | 5/22/2013 | 7/23/2013 | 10/16/2013 |
|---------------------------|-----------|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|----------|-----------|-----------|------------|
| Antimony                  |           |      | DL        | Result    | DL        | Result    | DL        | Result    | DL        | Result    | DL         | Result   | DL        | Result    | DL         |
| Asenic                    | 0.010     |      | ND        | 0.0010    | ND        | 0.0010    | ND        | 0.0010    | ND        | 0.0010    | ND         | 0.0010   | ND        | 0.0010    | ND         |
| Barium                    | 2.0       |      | 0.0025    | 0.11      | 0.0025    | 0.11      | 0.0025    | 0.13      | 0.0025    | 0.12      | 0.0035     | 0.11     | 0.0025    | 0.052     | 0.13       |
| Beryllium                 | 0.004     |      | ND        | 0.0010    | ND        | 0.0010    | ND        | 0.0010    | ND        | 0.0010    | ND         | 0.0010   | ND        | 0.0010    | ND         |
| Boron                     | 2.0       |      | 0.0050    | 0.39      | 0.0050    | 0.35      | 0.0050    | 0.30      | 0.0050    | 0.25      | 0.0050     | 0.21     | 0.0050    | 0.21      | 0.24       |
| Cadmium                   | 0.0025    |      | ND        | 0.0025    | ND        | 0.0025    | ND        | 0.0025    | ND        | 0.0025    | ND         | 0.0025   | ND        | 0.0025    | ND         |
| Chloride                  | 200.0     |      | 50        | 430       | 10        | 320       | 10        | 140       | 10        | 140       | 10         | 190      | 10        | 95        | 130        |
| Chromium                  |           |      | DL        | Result    | DL        | Result    | DL        | Result    | DL        | Result    | DL         | Result   | DL        | Result    | DL         |
| Cobalt                    | 0.1       |      | 0.0050    | ND        | 0.0050    | ND        | 0.0050    | ND        | 0.0050    | ND        | 0.0050     | ND       | 0.0050    | ND        | 0.0050     |
| Copper                    | 1.0       |      | 0.0010    | ND        | 0.0010    | 0.011     | 0.0010    | ND        | 0.0010    | ND        | 0.0010     | ND       | 0.0010    | ND        | 0.0010     |
| Cyanide                   | 0.65      |      | 0.0020    | ND        | 0.0020    | 0.0025    | 0.0020    | ND        | 0.0020    | ND        | 0.0020     | ND       | 0.0020    | ND        | 0.0020     |
| Fluoride                  | 0.2       |      | 0.010     | ND        | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010     | 0.010      | 0.010    | 0.010     | 0.010     | 0.010      |
| Iron                      | 4.0       |      | 0.10      | 0.36      | 0.10      | 0.31      | 0.10      | 0.31      | 0.10      | 0.37      | 0.10       | 0.31     | 0.10      | 0.37      | 0.10       |
| Lead                      | 5.0       |      | 0.10      | ND        | 0.10      | 3.8       | 0.10      | ND        | 0.10      | 0.13      | 0.10       | 0.10     | 0.10      | 0.10      | 0.10       |
| Manganese                 | 0.0075    |      | 0.0025    | 0.79      | 0.0025    | 0.014     | 0.0025    | 0.0073    | 0.0025    | 0.0025    | 0.0025     | 0.0025   | 0.0025    | 0.0025    | 0.0025     |
| Mercury                   | 0.02      |      | 0.0020    | ND        | 0.0020    | ND        | 0.0020    | 0.0020    | 0.0020    | 0.0020    | 0.0020     | 0.0020   | 0.0020    | 0.0020    | 0.0020     |
| Nickel                    | 0.1       |      | 0.0020    | 0.0045    | 0.0020    | ND        | 0.0020    | ND        | 0.0020    | 0.0032    | 0.0020     | 0.0020   | 0.0020    | 0.0020    | 0.0020     |
| Nitrogen/Nitrate          | 10.0      |      | 0.10      | 0.10      | 1.2       | 0.10      | 0.60      | 0.10      | 0.10      | 0.65      | 0.10       | 0.73     | 0.10      | 1.7       | 0.10       |
| Nitrogen/Nitrate, Nitrite | NA        |      | 0.10      | ND*       | 0.10      | 1.2       | 0.10      | 0.60      | 0.10      | 0.65      | 0.10       | 0.73     | 0.10      | 1.4       | 0.10       |
| Nitrogen/Nitrate, Nitrite | NA        |      | 0.020     | ND        | 0.020     | ND        | 0.020     | ND        | 0.020     | ND        | 0.020      | ND       | 0.020     | ND        | 0.020      |
| Perchlorate               | 0.0049    |      | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR         | NR       | NR        | NR        | NR         |
| pH                        | 6.5 - 9.0 |      | NA        | 8.08      | NA        | 7.50      | 7.61      | 7.53      | 7.59      | 7.45      | 7.45       | 7.59     | 7.52      | 7.42      | 7.33       |
| Selenium                  | 0.05      |      | 0.0025    | ND        | 0.0025    | ND        | 0.0025    | ND        | 0.0025    | ND        | 0.0025     | 0.0025   | 0.0025    | 0.0025    | 0.0025     |
| Silver                    | 0.05      |      | 0.00050   | ND        | 0.00050   | ND        | 0.00050   | ND        | 0.00050   | ND        | 0.00050    | ND       | 0.00050   | ND        | 0.00050    |
| Sulfate                   | 400.0     |      | 50        | 250       | 50        | 120       | 50        | 140       | 50        | 190       | 50         | 150      | 50        | 74        | 190        |
| Thallium                  | 0.002     |      | 0.0020    | ND        | 0.0020    | ND        | 0.0020    | ND        | 0.0020    | ND        | 0.0020     | ND       | 0.0020    | ND        | 0.0020     |
| Total Dissolved Solids    | 1,200     |      | 10        | 1,200     | 10        | 380       | 10        | 780       | 10        | 760       | 10         | 720      | 10        | 540       | 650        |
| Vanadium                  | 0.049     |      | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR         | NR       | NR        | NR        | NR         |
| Zinc                      | 5.0       |      | 0.020     | ND        | 0.020     | ND        | 0.020     | ND        | 0.020     | ND        | 0.020      | ND       | 0.020     | ND        | 0.020      |
| Bromine                   | 0.005     |      | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR         | NR       | NR        | NR        | NR         |
| BTEX                      | 11,705    |      | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR        | NR         | NR       | NR        | NR        | NR         |
| Temperature               | NA        |      | NA        | 9.72      | NA        | 13.58     | 12.50     | 15.40     | 16.33     | 13.97     | 12.88      | 14.15    | 14.15     | 15.44     | 13.06      |
| Conductivity              | NA        |      | NA        | 2.12      | NA        | 1.02      | 0.78      | 0.89      | 0.99      | 1.00      | 0.91       | 0.99     | 0.99      | 0.72      | 0.89       |
| Dissolved Oxygen          | NA        |      | NA        | 8.10      | NA        | 7.70      | 7.23      | 7.29      | 7.29      | 7.16      | 8.31       | 8.38     | 8.38      | 3.52      | 2.52       |
| ORP                       | NA        |      | NA        | NSJ       | NA        | 183.2     | NA        | 113.0     | NA        | 148.0     | NA         | 154.3    | NA        | 23.7      | NA         |

Notes: Standards based from IAC, Title 15, Chapter I, Part 626, Subpart O, Section 629.410 - Groundwater Quality Standards for Class I, Public Resource Groundwater. All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
 NA - Not Applicable  
 ND - Not Detected  
 NM - Not Measured

NR - Not Reported  
 NS - Not Sampled  
 \* - Data not instrument related QC exceeds the control limits

Temperature  
 Conductivity  
 Dissolved Oxygen  
 Oxygen Reduction Potential (ORP)

°C  
 mg/cm<sup>3</sup>  
 mg/L  
 mV

Percent Coliform  
 mg/cm<sup>3</sup>  
 milligrams/cm<sup>3</sup>  
 milligram/L  
 millivolt







| Sample #/MW-11 | Date | Parameter                | Standards | DL      | Result | DL      | Result | DL      | Result | DL      | Result | DL      | Result | DL      | Result | DL      | Result | DL      | Result | DL      | Result |         |
|----------------|------|--------------------------|-----------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|--------|---------|
|                |      | Arsenic                  | 0.010     | 0.013   | 0.0010 | 0.0016  | 0.0010 | 0.0010  | 0.0010 | 0.0014  | 0.0010 | 0.0010  | 0.0010 | 0.0014  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  |
|                |      | Barium                   | 2.0       | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   | 0.04   | 0.025   |
|                |      | Beryllium                | 0.004     | 0.010   | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  | 0.0010 | 0.0010  |
|                |      | Boron                    | 2.0       | 0.0050  | 0.47   | 0.050   | 2.6    | 0.050   | 2.2    | 0.050   | 1.1    | 0.050   | 1.1    | 0.050   | 1.1    | 0.050   | 1.1    | 0.050   | 1.1    | 0.050   | 1.1    | 0.050   |
|                |      | Chloride                 | 200.0     | 10      | 160    | 10      | 270    | 10      | 280    | 10      | 160    | 10      | 160    | 10      | 160    | 10      | 160    | 10      | 160    | 10      | 160    | 10      |
|                |      | Chromium                 | 0.1       | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  |
|                |      | Cobalt                   | 1.0       | 0.0010  | ND     | 0.0050  | ND     | 0.0010  | ND     | 0.0010  | ND     | 0.0010  | ND     | 0.0010  | ND     | 0.0010  | ND     | 0.0010  | ND     | 0.0010  | ND     | 0.0010  |
|                |      | Copper                   | 0.65      | 0.020   | ND     | 0.020   | ND     | 0.020   | ND     | 0.020   | ND     | 0.020   | ND     | 0.020   | ND     | 0.020   | ND     | 0.020   | ND     | 0.020   | ND     | 0.020   |
|                |      | Cyanide                  | 0.2       | 0.010   | ND     | 0.010   | ND     | 0.010   | ND     | 0.010   | ND     | 0.010   | ND     | 0.010   | ND     | 0.010   | ND     | 0.010   | ND     | 0.010   | ND     | 0.010   |
|                |      | Fluoride                 | 4.0       | 0.10    | 0.34   | 0.10    | 0.34   | 0.10    | 0.36   | 0.10    | 0.34   | 0.10    | 0.34   | 0.10    | 0.34   | 0.10    | 0.34   | 0.10    | 0.34   | 0.10    | 0.34   | 0.10    |
|                |      | Iron                     | 5.0       | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    | 0.10   | 0.10    |
|                |      | Lead                     | 0.0075    | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  | ND     | 0.0050  |
|                |      | Manganese                | 0.025     | 0.0025  | 0.0047 | 0.0025  | 0.0047 | 0.0025  | 0.0025 | 0.0047  | 0.0025 | 0.0025  | 0.0047 | 0.0025  | 0.0025 | 0.0047  | 0.0025 | 0.0025  | 0.0047 | 0.0025  | 0.0025 | 0.0047  |
|                |      | Mercury                  | 0.002     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  |
|                |      | Nickel                   | 0.1       | 0.020   | 0.0022 | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   |
|                |      | Nitrogen/Strate          | 10.0      | 0.10    | 0.39   | 0.10    | 1.1    | 0.10    | 0.92   | 0.10    | 1.1    | 0.10    | 1.1    | 0.10    | 1.1    | 0.10    | 1.1    | 0.10    | 1.1    | 0.10    | 1.1    | 0.10    |
|                |      | Nitrogen/Strate, Nitrate | NA        | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    | 0.20   | 0.20    |
|                |      | Nitrogen/Strate          | NA        | 0.049   | NA     | 0.049   | NA     | 0.049   | NA     | 0.049   | NA     | 0.049   | NA     | 0.049   | NA     | 0.049   | NA     | 0.049   | NA     | 0.049   | NA     | 0.049   |
|                |      | Pesticide                | 0.0049    | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      |
|                |      | pH                       | 6.5-9.0   | NA      | 7.72   | NA      | 7.23   | NA      | 7.60   | NA      | 7.11   | NA      | 7.11   | NA      | 7.33   | NA      | 7.33   | NA      | 7.33   | NA      | 7.33   | NA      |
|                |      | Scandium                 | 0.05      | 0.0025  | ND     | 0.0025  | 0.0043 | 0.0025  | 0.0025 | 0.0043  | 0.0025 | 0.0025  | 0.0043 | 0.0025  | 0.0025 | 0.0043  | 0.0025 | 0.0025  | 0.0043 | 0.0025  | 0.0025 | 0.0043  |
|                |      | Silver                   | 0.05      | 0.00050 | ND     | 0.00050 | ND     | 0.00050 | ND     | 0.00050 | ND     | 0.00050 | ND     | 0.00050 | ND     | 0.00050 | ND     | 0.00050 | ND     | 0.00050 | ND     | 0.00050 |
|                |      | Sulfate                  | 400.0     | 50      | 140    | 50      | 150    | 50      | 110    | 50      | 100    | 50      | 100    | 50      | 100    | 50      | 100    | 50      | 100    | 50      | 100    | 50      |
|                |      | Tellurium                | 0.002     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  | ND     | 0.0020  |
|                |      | Total Dissolved Solids   | 1,200     | 10      | 770    | 10      | 770    | 10      | 1000   | 10      | 670    | 10      | 670    | 10      | 570    | 10      | 570    | 10      | 690    | 10      | 690    | 10      |
|                |      | Vanadium                 | 0.049     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      |
|                |      | Zinc                     | 5.0       | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   | 0.020  | 0.020   |
|                |      | Benzene                  | 0.005     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      |
|                |      | BTEX                     | 11,705    | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      | NR     | NR      |
|                |      | Temperature              | NA        | NA      | 11.97  | NA      | 13.49  | NA      | 11.69  | NA      | 14.41  | NA      | 14.41  | NA      | 15.41  | NA      | 15.41  | NA      | 15.41  | NA      | 15.41  | NA      |
|                |      | Conductivity             | NA        | NA      | NA     | NA      | 1.32   | NA      | 1.14   | NA      | 1.14   | NA      | 0.774  | NA      | 0.68   | NA      | 0.68   | NA      | 0.68   | NA      | 0.68   | NA      |
|                |      | Dissolved Oxygen         | NA        | NA      | NA     | NA      | 7.23   | NA      | 8.65   | NA      | 8.65   | NA      | 5.69   | NA      | 5.69   | NA      | 5.69   | NA      | 5.69   | NA      | 5.69   | NA      |
|                |      | ORP                      | NA        | NA      | NA     | NA      | NA     | NA      | NA     | NA      | NA     | NA      | NA     | NA      | NA     | NA      | NA     | NA      | NA     | NA      | NA     | NA      |

Table 1. Groundwater Analytical Results - Midwest Generation LLC, Joliet Station #29, Joliet, IL.

Note: Standards reported from the Table 35, Chapter 1, Part 626, Subpart D, Section 626.410 - Groundwater Quality Standards for Class 1 Profile

DL - Detection Limit  
 NR - Not Reported  
 NA - Not Analyzed  
 ND - Not Detected  
 \* - Based on relative QC values  
 \*\* - Based on relative QC values

All values are in mg/L (ppm) unless otherwise noted  
 ND - Not Detected  
 NR - Not Reported  
 NA - Not Analyzed  
 DL - Detection Limit



Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-01             | Date      | 12/15/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/29/2013 |         | 7/29/2013 |        | 10/21/2013 |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|---------|-----------|--------|------------|--------|
| Parameter                 | Standards | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result  | DL        | Result | DL         | Result |
| Antimony                  | 0.006     | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.0030     | ND     | 0.0030    | 0.0048 | 0.0030    | ND      | 0.0030    | ND     | 0.0030     | ND     |
| Arsenic                   | 0.010     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.0010    | ND      | 0.0010    | ND     | 0.0010     | ND     |
| Barium                    | 2.0       | NP         | 0.044  | 0.001     | 0.026  | 0.001     | 0.034  | 0.001     | 0.056  | 0.001      | 0.044  | 0.001     | 0.038  | 0.001     | 0.06   | 0.001     | 0.074  | 0.20       | ND     | 0.001     | 0.08   | 0.0025    | 0.078   | 0.0025    | 0.081  | 0.0025     | 0.070  |
| Beryllium                 | 0.004     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND      | 0.0010    | ND     | 0.0010     | ND     |
| Boron                     | 2.0       | NP         | 0.45   | 0.01      | 0.26   | 0.01      | 0.33   | 0.01      | 1.0    | 0.01       | 0.48   | 0.01      | 0.29   | 0.01      | 0.46   | 0.01      | 1.8    | 2.0        | ND     | 0.01      | 1.7    | 0.050     | 0.47    | 0.050     | 0.48   | 0.050      | 0.62   |
| Calcium                   | 0.005     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | ND      | 0.00050   | ND     | 0.00050    | ND     |
| Chloride                  | 200.0     | NP         | 46     | 10        | 37     | 10        | 40     | 10        | 41     | 10         | 26     | 10        | 53     | 10        | 42     | 10        | 43     | 10         | 41     | 10        | 38     | 10        | 160     | 10        | 140    | 2.0        | 46     |
| Chromium                  | 0.1       | NP         | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.004      | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.0030     | 0.014  | 0.004     | 0.0076 | 0.0050    | ND      | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                    | 1.0       | NP         | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.0030     | ND     | 0.002     | ND     | 0.0010    | ND      | 0.0010    | ND     | 0.0010     | ND     |
| Copper                    | 0.65      | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | 0.0057 | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.010      | ND     | 0.003     | ND     | 0.0020    | ND      | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                   | 0.2       | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | 0.0077 | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND      | 0.010     | ND     | 0.010      | ND     |
| Fluoride                  | 4.0       | NP         | 0.28   | 0.25      | 0.32   | 0.25      | 0.38   | 0.25      | ND     | 0.25       | ND     | 0.25      | ND     | 0.25      | ND     | 0.25      | ND     | 0.25       | ND     | 0.25      | ND     | 0.10      | 0.12    | 0.10      | 0.16   | 0.10       | 0.11   |
| Iron                      | 5.0       | NP         | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | 0.17   | 0.01      | ND     | 0.10      | 0.43    | 0.10      | ND     | 0.10       | ND     |
| Lead                      | 0.0075    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.00050   | 0.00080 | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                 | 0.15      | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | 0.0027 | 0.0020     | 0.018  | 0.001     | ND     | 0.0025    | 0.027   | 0.0025    | ND     | 0.0025     | ND     |
| Mercury                   | 0.002     | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.00020   | ND      | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                    | 0.1       | NP         | 0.01   | 0.005     | 0.008  | 0.005     | ND     | 0.005     | 0.0069 | 0.005      | 0.0095 | 0.005     | ND     | 0.005     | 0.0066 | 0.005     | 0.01   | 0.010      | ND     | 0.005     | 0.0062 | 0.0020    | ND      | 0.0020    | ND     | 0.0020     | ND     |
| Nitrogen/Nitrate          | 10.0      | NP         | 7.2    | 0.20      | 4.3    | 0.20      | 5.7    | 0.20      | 11     | 0.20       | 4.1    | 0.20      | 7.3    | 0.20      | 6.5    | 0.20      | 5.4    | 0.20       | 7.2    | 0.2       | 7.4    | 0.10      | 0.23    | 0.10      | 0.42   | 0.10       | 4.5    |
| Nitrogen/Nitrate, Nitrite | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.10      | 0.23    | 0.10      | 0.42   | 0.50       | 4.5    |
| Nitrogen/Nitrate          | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.020     | ND      | 0.020     | ND     | 0.020      | ND     |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0040    | ND      | 0.0040    | ND     | 0.0040     | ND     |
| pH                        | 6.5 - 9.0 | NA         | 7.46   | NA        | 7.43   | NA        | 7.58   | NA        | 7.37   | NA         | 6.39   | NA        | 7.59   | NA        | 7.45   | NA        | 7.06   | NA         | 6.98   | NA        | 9.53   | NA        | 7.00    | NA        | 6.75   | NA         | 7.12   |
| Selenium                  | 0.05      | NP         | 0.0016 | 0.001     | 0.0022 | 0.001     | 0.0016 | 0.001     | 0.0036 | 0.001      | 0.0027 | 0.001     | 0.0025 | 0.001     | 0.0042 | 0.001     | 0.005  | 0.0050     | ND     | 0.001     | 0.0045 | 0.0025    | ND      | 0.0025    | ND     | 0.0025     | 0.0042 |
| Silver                    | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND      | 0.00050   | ND     | 0.00050    | ND     |
| Sulfate                   | 400.0     | NP         | 50     | 10        | 30     | 10        | 39     | 10        | 83     | 10         | 31     | 10        | 61     | 10        | 68     | 25        | 72     | 10         | 91     | 10        | 77     | 100       | 330     | 50        | 270    | 20         | 85     |
| Thallium                  | 0.002     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND      | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids    | 1,200     | NP         | 490    | 17        | 340    | 17        | 410    | 17        | 510    | 17         | 440    | 17        | 470    | 17        | 580    | 17        | 710    | 26         | 640    | 26        | 640    | 10        | 840     | 10        | 870    | 10         | 660    |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.005     | ND      | 0.005     | ND     | 0.0050     | ND     |
| Zinc                      | 5.0       | NP         | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.020      | ND     | 0.006     | ND     | 0.020     | ND      | 0.020     | ND     | 0.020      | ND     |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0050    | ND      | 0.0050    | ND     | 0.0050     | ND     |
| BETX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.03      | ND      | 0.03      | ND     | 0.0025     | ND     |
| Temperature               | NA        | NA         | 10.47  | NA        | 3.77   | NA        | 9.71   | NA        | 18.42  | NA         | 10.85  | NA        | 7.33   | NA        | 17.97  | NA        | 15.74  | NA         | 13.58  | NA        | 11.00  | NA        | 10.71   | NA        | 15.64  | NA         | 15.06  |
| Conductivity              | NA        | NA         | 0.92   | NA        | 0.64   | NA        | 0.69   | NA        | 0.74   | NA         | 0.56   | NA        | 0.53   | NA        | 0.79   | NA        | 0.92   | NA         | 0.85   | NA        | 0.88   | NA        | 0.94    | NA        | 1.06   | NA         | 0.88   |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 7.76   | NA        | 4.61   | NA        | 4.57   | NA         | 5.21   | NA        | 8.46   | NA        | 0.66   | NA        | 3.34   | NA         | 3.04   | NA        | 3.03   | NA        | 3.10    | NA        | 2.03   | NA         | 1.33   |
| ORP                       | NA        | NA         | NM     | NA        | 140.1  | NA        | 209.8  | NA        | -98    | NA         | 13     | NA        | 242    | NA        | 43     | NA        | 165    | NA         | 130    | NA        | 94     | NA        | 30.4    | NA        | 58.8   | NA         | -127   |

Note: Standards observed from IAC Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I: Potable Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
\* - Denotes instrument related QC exceeds the control limits

Temperature  
Conductivity  
Dissolved Oxygen  
Oxygen Reduction Potential (ORP)

°C  
mg/cm³  
mg/L  
mV  
degrees Celsius  
milligrams centimeters  
milligrams/liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-02             | Date      | 12/15/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/29/2013 |        | 7/29/2013 |        | 10/21/2013 |         |     |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|---------|-----|
| Parameter                 | Standards | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result  |     |
| Antimony                  | 0.006     | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.0030    | 0.015  | 0.0030    | ND     | 0.0030     | ND      |     |
| Arsenic                   | 0.010     | NP         | 0.0018 | 0.001     | 0.0015 | 0.001     | 0.0017 | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | 0.0011 | 0.001     | 0.0012 | 0.001      | 0.0012 | 0.001     | 0.0011 | 0.0010    | 0.0010 | 0.0010    | ND     | 0.0010     | ND      |     |
| Barium                    | 2.0       | NP         | 0.042  | 0.001     | 0.025  | 0.001     | 0.053  | 0.001     | 0.059  | 0.001      | 0.066  | 0.001     | 0.049  | 0.001     | 0.064  | 0.001     | 0.06   | 0.040      | 0.075  | 0.001     | 0.035  | 0.0025    | 0.053  | 0.0025    | 0.078  | 0.0025     | 0.088   |     |
| Beryllium                 | 0.004     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND ^   | 0.0010    | ND     | 0.0010     | ND      |     |
| Boron                     | 2.0       | NP         | 0.38   | 0.01      | 0.23   | 0.01      | 0.35   | 0.01      | 0.83   | 0.01       | 0.69   | 0.01      | 0.27   | 0.01      | 0.74   | 0.01      | 0.65   | 0.40       | 0.8    | 0.01      | 0.29   | 0.050     | 0.21   | 0.050     | 1.4    | 0.050      | 2.7     |     |
| Cadmium                   | 0.005     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND      |     |
| Chloride                  | 200.0     | NP         | 45     | 10        | 43     | 10        | 44     | 10        | 46     | 10         | 40     | 10        | 53     | 10        | 51     | 10        | 45     | 10         | 48     | 10        | 52     | 2.0       | 53     | 2.0       | 48     | 10         | 90      |     |
| Chromium                  | 0.1       | NP         | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.004      | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.0030     | 0.0096 | 0.004     | 0.0042 | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND      |     |
| Cobalt                    | 1.0       | NP         | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.0030     | ND     | 0.002     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND      |     |
| Copper                    | 0.65      | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.010      | ND     | 0.003     | ND     | 0.0020    | 0.0021 | 0.0020    | ND     | 0.0020     | ND      |     |
| Cyanide                   | 0.2       | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND      |     |
| Fluoride                  | 4.0       | NP         | ND     | 0.25      | 0.30   | 0.25      | 0.35   | 0.25      | ND     | 0.25       | ND     | 0.25      | ND     | 0.25      | ND     | 0.25      | ND     | 0.25       | 0.28   | 0.25      | ND     | 0.10      | 0.32   | 0.10      | 0.19   | 0.10       | 0.17    |     |
| Iron                      | 5.0       | NP         | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | 0.046  | 0.01      | 0.026  | 0.10      | ND     | 0.10      | ND     | 0.10       | ND      |     |
| Lead                      | 0.0075    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND      |     |
| Manganese                 | 0.15      | NP         | ND     | 0.001     | 0.0012 | 0.001     | 0.0022 | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | 0.0019 | 0.0020     | 0.0063 | 0.001     | ND     | 0.0025    | ND     | 0.0025    | 0.0060 | 0.0025     | 0.0060  |     |
| Mercury                   | 0.002     | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND      |     |
| Nickel                    | 0.1       | NP         | 0.0086 | 0.005     | 0.0096 | 0.005     | 0.0053 | 0.005     | 0.01   | 0.005      | 0.0073 | 0.005     | ND     | 0.005     | 0.0065 | 0.005     | 0.0066 | 0.010      | ND     | 0.005     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND      |     |
| Nitrogen/Nitrate          | 10.0      | NP         | 7.5    | 0.20      | 4.5    | 0.20      | 4.7    | 0.20      | 4.3    | 0.20       | 6.9    | 0.20      | 5.1    | 0.20      | 4.4    | 0.20      | 2.9    | 0.20       | 2.4    | 0.2       | 5.7    | 0.10      | 0.44   | 0.10      | 0.59   | 0.10       | 1.1     |     |
| Nitrogen/Nitrate, Nitrite | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | 0.10   | 0.48      | 0.10   | 0.59       | 0.10    | 1.1 |
| Nitrogen/Nitrite          | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | 0.020  | 0.041     | 0.020  | ND         | 0.020   | ND  |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | 0.0040 | ND        | 0.0040 | ND         | 0.0040  | ND  |
| pH                        | 6.5 - 9.0 | NA         | 7.91   | NA        | 7.78   | NA        | 7.20   | NA        | 7.52   | NA         | 6.41   | NA        | 7.92   | NA        | 7.35   | NA        | 7.32   | NA         | 7.38   | NA        | 7.53   | NA        | 7.39   | NA        | 7.03   | NA         | 7.20    |     |
| Selenium                  | 0.05      | NP         | 0.0017 | 0.001     | 0.0032 | 0.001     | 0.0014 | 0.001     | 0.0032 | 0.001      | 0.0037 | 0.001     | ND     | 0.001     | 0.0039 | 0.001     | 0.0016 | 0.0050     | ND     | 0.001     | 0.0032 | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND      |     |
| Silver                    | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND      |     |
| Sulfate                   | 400.0     | NP         | 52     | 10        | 42     | 10        | 53     | 10        | 70     | 10         | 69     | 10        | 55     | 10        | 73     | 10        | 69     | 10         | 95     | 10        | 53     | 20        | 96     | 25        | 140    | 50         | 190     |     |
| Thallium                  | 0.002     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND      |     |
| Total Dissolved Solids    | 1,200     | NP         | 480    | 17        | 420    | 17        | 470    | 17        | 460    | 17         | 490    | 17        | 440    | 17        | 500    | 17        | 510    | 26         | 520    | 26        | 440    | 10        | 340    | 10        | 560    | 10         | 770     |     |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | 0.0080 | ND        | 0.005  | ND         | 0.0050  | ND  |
| Zinc                      | 5.0       | NP         | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | 0.013  | 0.006     | ND     | 0.006     | ND     | 0.020      | ND     | 0.006     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND      |     |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | 0.005  | ND        | 0.005  | ND         | 0.00050 | ND  |
| BETX                      | 11,705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | 0.03   | ND        | 0.03   | ND         | 0.0025  | ND  |
| Temperature               | NA        | NA         | 14.01  | NA        | 3.26   | NA        | 13.14  | NA        | 14.75  | NA         | 9.58   | NA        | 9.56   | NA        | 14.90  | NA        | 17.12  | NA         | 12.33  | NA        | 13.30  | NA        | 20.87  | NA        | 17.02  | NA         | 12.34   |     |
| Conductivity              | NA        | NA         | 0.96   | NA        | 0.74   | NA        | 0.75   | NA        | 0.64   | NA         | 0.59   | NA        | 0.56   | NA        | 0.66   | NA        | 0.68   | NA         | 0.68   | NA        | 0.54   | NA        | 0.56   | NA        | 0.74   | NA         | 0.80    |     |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 7.73   | NA        | 0.58   | NA        | 0.28   | NA         | 3.34   | NA        | 3.91   | NA        | 0.78   | NA        | 0.53   | NA         | 2.03   | NA        | 10.89  | NA        | 0.65   | NA        | 0.47   | NA         | 0.32    |     |
| ORP                       | NA        | NA         | NM     | NA        | 124.5  | NA        | 226.3  | NA        | -196   | NA         | 63     | NA        | 272    | NA        | 168    | NA        | 157    | NA         | 200    | NA        | 185.2  | NA        | -34.5  | NA        | 33.9   | NA         | -180.3  |     |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limits

Temperature °C  
Conductivity ns/cm  
Dissolved Oxygen mg/L  
Oxygen Reduction Potential (ORP) mV

degrees Celsius  
milliampere centimeters  
milligram/liter  
millivolts

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-03             | Date      | 12/15/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/29/2013 |        | 7/31/2013 |        | 10/21/2013 |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|
| Parameter                 | Standards | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result |
| Antimony                  | 0.006     | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.0050     | ND     | 0.003     | ND     | 0.0030    | 0.0057 | 0.0030    | ND     | 0.0030     | ND     |
| Arsenic                   | 0.010     | NP         | 0.0017 | 0.001     | ND     | 0.001     | 0.0011 | 0.001     | 0.0012 | 0.001      | 0.0012 | 0.001     | 0.0012 | 0.001     | ND     | 0.001     | 0.0015 | 0.0050     | ND     | 0.001     | 0.0013 | 0.0010    | 0.0012 | 0.0010    | 0.0013 | 0.0010     | 0.0011 |
| Barium                    | 2.0       | NP         | 0.038  | 0.091     | 0.03   | 0.001     | 0.063  | 0.001     | 0.081  | 0.001      | 0.076  | 0.001     | 0.052  | 0.001     | 0.059  | 0.001     | 0.1    | 0.040      | 0.11   | 0.001     | 0.056  | 0.0025    | 0.061  | 0.0025    | 0.064  | 0.0025     | 0.099  |
| Beryllium                 | 0.004     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Boron                     | 2.0       | NP         | 0.75   | 0.01      | 0.18   | 0.01      | 0.24   | 0.01      | 0.64   | 0.01       | 0.7    | 0.01      | 0.56   | 0.01      | 0.63   | 0.01      | 0.64   | 0.40       | 0.63   | 0.01      | 0.65   | 0.050     | 0.21   | 0.050     | 0.47   | 0.050      | 0.46   |
| Cadmium                   | 0.005     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Chloride                  | 200.0     | NP         | 39     | 10        | 52     | 10        | 59     | 10        | 62     | 10         | 39     | 10        | 54     | 10        | 57     | 10        | 54     | 10         | 58     | 10        | 53     | 2.0       | 55     | 2.0       | 60     | 2.0        | 57     |
| Chromium                  | 0.1       | NP         | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.004      | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.0030     | 0.0086 | 0.004     | 0.005  | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                    | 1.0       | NP         | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.0030     | ND     | 0.002     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Copper                    | 0.65      | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | 0.012  | 0.003      | 0.0042 | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.010      | ND     | 0.003     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                   | 0.2       | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride                  | 4.0       | NP         | 0.3    | 0.25      | 0.35   | 0.25      | 0.41   | 0.25      | 0.35   | 0.25       | ND     | 0.25      | ND     | 0.25      | ND     | 0.25      | 0.29   | 0.25       | 0.35   | 0.25      | ND     | 0.10      | 0.31   | 0.10      | 0.28   | 0.10       | 0.26   |
| Iron                      | 5.0       | NP         | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | 0.042  | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | 0.036  | 0.01      | 0.019  | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Lead                      | 0.0075    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                 | 0.15      | NP         | 0.0047 | 0.001     | 0.0023 | 0.001     | ND     | 0.001     | 0.0037 | 0.001      | 0.0014 | 0.001     | ND     | 0.001     | 0.0033 | 0.001     | 0.002  | 0.0020     | 0.034  | 0.001     | 0.011  | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | 0.0039 |
| Mercury                   | 0.002     | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                    | 0.1       | NP         | 0.011  | 0.005     | 0.0095 | 0.005     | ND     | 0.005     | 0.008  | 0.005      | 0.0078 | 0.005     | ND     | 0.005     | 0.005  | 0.005     | 0.0067 | 0.010      | ND     | 0.005     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Nitrogen/Nitrate          | 10.0      | NP         | 9.4    | 0.20      | 5.2    | 0.20      | 5.4    | 0.02      | 0.20   | 0.02       | 0.20   | 0.20      | 2.1    | 0.02      | 0.37   | 0.02      | 0.08   | 0.02       | 0.13   | 0.2       | 2.00   | 0.10      | 0.15   | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrate, Nitrite | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.10      | 0.15   | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrite          | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     |
| pH                        | 6.5 - 9.0 | NA         | 7.43   | NA        | 7.55   | NA        | 7.33   | NA        | 7.30   | NA         | 6.58   | NA        | 7.38   | NA        | 7.36   | NA        | 7.46   | NA         | 7.41   | NA        | 7.46   | NA        | 7.31   | NA        | 7.22   | NA         | 7.25   |
| Selenium                  | 0.05      | NP         | ND     | 0.001     | 0.0036 | 0.001     | 0.0015 | 0.001     | 0.0036 | 0.001      | 0.0021 | 0.001     | 0.0067 | 0.001     | 0.0018 | 0.001     | 0.0033 | 0.0050     | ND     | 0.001     | 0.0048 | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Silver                    | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Sulfate                   | 400.0     | NP         | 64     | 10        | 42     | 10        | 47     | 10        | 66     | 10         | 45     | 10        | 72     | 10        | 84     | 10        | 74     | 10         | 74     | 10        | 64     | 20        | 82     | 20        | 99     | 20         | 96     |
| Thallium                  | 0.002     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids    | 1,200     | NP         | 480    | 17        | 430    | 17        | 440    | 17        | 460    | 17         | 480    | 17        | 450    | 17        | 520    | 17        | 520    | 26         | 460    | 26        | 500    | 10        | 310    | 10        | 460    | 10         | 430    |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0080     | ND     | 0.005     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Zinc                      | 5.0       | NP         | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | 0.012  | 0.006     | ND     | 0.006     | ND     | 0.020      | ND     | 0.006     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.005      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| BCTX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.03       | ND     | 0.03      | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Temperature               | NA        | NA         | 17.07  | NA        | 5.24   | NA        | 15.72  | NA        | 21.59  | NA         | 18.58  | NA        | 15.50  | NA        | 15.26  | NA        | 15.10  | NA         | 14.28  | NA        | 13.60  | NA        | 21.93  | NA        | 24.39  | NA         | 20.22  |
| Conductivity              | NA        | NA         | 0.90   | NA        | 0.74   | NA        | 0.73   | NA        | 0.76   | NA         | 0.72   | NA        | 0.65   | NA        | 0.67   | NA        | 0.68   | NA         | 0.66   | NA        | 0.73   | NA        | 0.56   | NA        | 0.76   | NA         | 0.70   |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 7.20   | NA        | 0.40   | NA        | 0.32   | NA         | 0.99   | NA        | 4.95   | NA        | 3.02   | NA        | 5.22   | NA         | 2.50   | NA        | 6.10   | NA        | 0.40   | NA        | 0.24   | NA         | 0.35   |
| ORP                       | NA        | NA         | NM     | NA        | 135.1  | NA        | 220.5  | NA        | -218   | NA         | 29     | NA        | 157    | NA        | 125    | NA        | 180    | NA         | 90     | NA        | 140.31 | NA        | -101.8 | NA        | -14.7  | NA         | -160.1 |

Notes: Standards obtained from IAC Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I, Possible Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
NS - Not Sampled  
ND - Not Detected  
NM - Not Measured  
NR - Not Required  
NS - Not Sampled  
^ - Deviate instrument related QC exceeds the control limits

Temperature °C  
Conductivity µm cm⁻¹  
Dissolved Oxygen mg/L  
Oxygen Reduction Potential (ORP) mV  
degrees Celsius  
microsiemens centimeters  
milligrams-liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powertron Station, Peekin, IL

| Parameter                 | Standard | 12/15/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/29/2013 |        | 7/31/2013 |        | 10/21/2013 |        |        |
|---------------------------|----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|--------|
|                           |          | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result |        |
| Arsenite                  | 0.006    | ND         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003  |
| Arsenic                   | 0.010    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001  |
| Barium                    | 2.0      | NP         | 0.055  | 0.001     | 0.052  | 0.003     | 0.058  | 0.001     | 0.041  | 0.001      | 0.048  | 0.001     | 0.043  | 0.001     | 0.04   | 0.001     | 0.07   | 0.040      | 0.001  | 0.054     | 0.001  | 0.054     | 0.001  | 0.054     | 0.001  | 0.054      | 0.001  | 0.054  |
| Beryllium                 | 0.004    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001  |
| Boron                     | 2.0      | NP         | 0.77   | 0.01      | 0.83   | 0.01      | 0.33   | 0.01      | 0.84   | 0.01       | 0.79   | 0.01      | 0.78   | 0.01      | 0.83   | 0.01      | 0.76   | 0.40       | 0.74   | 0.01      | 0.97   | 0.01      | 0.97   | 0.01      | 0.97   | 0.01       | 0.97   | 0.01   |
| Cadmium                   | 0.005    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001  |
| Chloride                  | 200.0    | NP         | 150    | 10        | 77     | 10        | -3     | 25        | 86     | 1.0        | 8.1    | 10        | 58     | 10        | 75     | 25        | 110    | 25         | 130    | 10        | 90     | 2.0       | 54     | 70        | 10     | 150        |        |        |
| Chromium                  | 0.1      | NP         | 0.0045 | 0.004     | ND     | 0.004     | ND     | 0.004     | 0.004  | 0.004      | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.004      | 0.01   | 0.004     | 0.0052 | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |        |
| Cobalt                    | 1.0      | NP         | ND     | 0.002     | 0.0026 | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002  |
| Copper                    | 0.65     | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | 0.003  | 0.003      | 0.003  | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | 0.010  | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003  |
| Cyanide                   | 0.2      | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005  |
| Fluoride                  | 4.0      | NP         | 0.3    | 0.25      | 0.39   | 0.25      | 0.43   | 0.25      | 0.31   | 0.25       | 0.25   | 0.25      | ND     | 0.25      | 0.25   | 0.26      | 0.26   | 0.25       | 0.29   | 0.25      | 0.25   | 0.10      | 0.39   | 0.10      | 0.31   | 0.10       | 0.21   |        |
| Iron                      | 5.0      | NP         | ND     | 0.010     | 0.017  | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | 0.14   | 0.01      | 0.059  | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |        |
| Lead                      | 0.075    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | 0.050  | 0.001     | 0.001  | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |        |
| Manganese                 | 0.15     | NP         | 0.77   | 0.001     | 0.68   | 0.001     | 0.41   | 0.001     | 0.69   | 0.001      | 0.35   | 0.001     | 0.039  | 0.001     | 0.26   | 0.001     | 0.5    | 0.0020     | 0.027  | 0.001     | 0.007  | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |        |
| Mercury                   | 0.002    | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002 |
| Nickel                    | 0.1      | NP         | 0.012  | 0.005     | 0.012  | 0.005     | 0.007  | 0.005     | 0.011  | 0.005      | 0.01   | 0.005     | 0.0055 | 0.005     | 0.0074 | 0.005     | 0.0095 | 0.010      | 0.02   | 0.005     | 0.005  | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |        |
| Nitrogen/Nitrite          | 10.0     | NP         | 0.34   | 0.02      | 0.73   | 0.20      | 2.7    | 0.02      | 0.06   | 0.02       | 0.07   | 0.02      | 0.65   | 0.02      | 1.1    | 0.02      | 0.46   | 0.02       | 1.0    | 0.02      | 1.8    | 0.10      | 0.39   | 0.10      | 0.31   | 0.10       | 0.50   |        |
| Nitrogen/Nitrate, Nitrite | NA       | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Nitrogen/Nitrate          | NA       | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Perchlorate               | 0.0049   | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| pH                        | 6.5-9.0  | NA         | 7.27   | NA        | 7.48   | NA        | 7.26   | NA        | 7.23   | NA         | 6.37   | NA        | 7.24   | NA        | 7.04   | NA        | 7.13   | NA         | 7.14   | NA        | 7.37   | NA        | 7.30   | NA        | 7.02   | NA         | 7.08   |        |
| Selenium                  | 0.05     | NP         | 0.0022 | 0.001     | 0.0037 | 0.001     | 0.0022 | 0.001     | 0.0039 | 0.001      | 0.002  | 0.001     | 0.0085 | 0.001     | 0.0035 | 0.001     | 0.0032 | 0.0050     | 0.001  | 0.013     | 0.001  | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |        |
| Silver                    | 0.05     | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | 0.010  | 0.005     | 0.005  | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |        |
| Sulfate                   | 400.0    | NP         | 110    | 25        | 140    | 10        | 48     | 25        | 61     | 1.0        | 6.7    | 50        | 160    | 10        | 94     | 25        | 170    | 25         | 150    | 50        | 130    | 20        | 92     | 30        | 190    | 100        | 260    |        |
| Thallium                  | 0.002    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | 0.010  | 0.001     | 0.001  | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |        |
| Total Dissolved Solids    | 1,200    | NP         | 680    | 17        | 620    | 17        | 470    | 17        | 580    | 17         | 530    | 17        | 660    | 17        | 660    | 17        | 800    | 26         | 720    | 26        | 640    | 10        | 350    | 10        | 670    | 10         | 980    |        |
| Vanadium                  | 0.049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Zinc                      | 5.0      | NP         | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | 0.020  | 0.006     | 0.006  | 0.0060    | ND     | 0.0060    | ND     | 0.0060     | ND     |        |
| Benzene                   | 0.005    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| BETX                      | 11,705   | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Temperature               | NA       | NA         | 16.30  | NA        | 13.33  | NA        | 17.54  | NA        | 19.07  | NA         | 16.35  | NA        | 12.99  | NA        | 18.12  | NA        | 16.51  | NA         | 14.11  | NA        | 13.20  | NA        | 21.84  | NA        | 26.31  | NA         | 16.83  |        |
| Conductivity              | NA       | NA         | 1.29   | NA        | 1.06   | NA        | 0.75   | NA        | 0.91   | NA         | 0.76   | NA        | 0.76   | NA        | 0.83   | NA        | 1.05   | NA         | 0.98   | NA        | 0.92   | NA        | 0.58   | NA        | 1.08   | NA         | 1.15   |        |
| Dissolved Oxygen          | NA       | NA         | NA     | NA        | NA     | NA        | 0.26   | NA        | 0.18   | NA         | 0.20   | NA        | 1.43   | NA        | 0.33   | NA        | 0.46   | NA         | 4.01   | NA        | 5.93   | NA        | 0.47   | NA        | 0.24   | NA         | 0.53   |        |
| ORP                       | NA       | NA         | NA     | NA        | 116.5  | NA        | 202.6  | NA        | -228   | NA         | 51     | NA        | 212    | NA        | 124    | NA        | 119    | NA         | 130    | NA        | 170.3  | NA        | -90.1  | NA        | 4.1    | NA         | -109.7 |        |

Note: Standards observed from IAC Table 15, Chapter L (16.62), Subpart 43, Section 620.410 - Groundwater Quality Standards for Class 2 Potable Resource Groundwater. All values are in mg/L (ppm) unless otherwise noted.

DL - Detect Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

DL - Not Required  
NR - Not Sampled  
NS - Not Sampled  
A - Does not meet required QC criteria

Temperature  
Conductivity  
Dissolved Oxygen  
Oxygen Reduction Potential (ORP)

μg/L  
mg/L  
mg/L  
mV

mg/L  
μg/L  
mg/L  
mV

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powertron Station, Pekin, IL

| Sample: MW-05          | Date      | 12/15/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/29/2013 |        | 7/31/2013 |        | 10/21/2013 |        |        |        |
|------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|--------|--------|
|                        |           | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result |        |        |
| Ammony                 | 0.006     | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     |        |        |
| Arsenic                | 0.010     | NP         | 0.0011 | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     |        |        |
| Barium                 | 2.0       | NP         | 0.053  | 0.001     | 0.046  | 0.001     | 0.071  | 0.065     | 0.001  | 0.054      | 0.001  | 0.066     | 0.040  | 0.072     | 0.001  | 0.061     | 0.061  | 0.061      | 0.061  | 0.061     | 0.061  | 0.061     | 0.061  | 0.061     | 0.061  | 0.061      | 0.061  | 0.061  |        |
| Beryllium              | 0.004     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001  |        |
| Boron                  | 2.0       | NP         | 0.95   | 0.01      | 0.93   | 0.01      | 0.79   | 0.01      | 0.79   | 0.01       | 0.82   | 0.01      | 0.74   | 0.01      | 0.65   | 0.40      | 0.66   | 0.01       | 0.66   | 0.01      | 0.66   | 0.01      | 0.66   | 0.01      | 0.66   | 0.01       | 0.66   | 0.01   |        |
| Calcium                | 0.005     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001  |        |
| Chloride               | 200.0     | NP         | 150    | 25        | 120    | 10        | 89     | 25        | 160    | 25         | 140    | 10        | 82     | 50        | 100    | 50        | 150    | 25         | 170    | 50        | 110    | 10        | 92     | 10        | 150    | 10         | 170    |        |        |
| Chromium               | 0.1       | NP         | 0.0044 | 0.004     | 0.0042 | 0.004     | 0.0066 | 0.004     | 0.0066 | 0.004      | 0.0022 | 0.002     | 0.002  | 0.002     | 0.002  | 0.002     | 0.002  | 0.002      | 0.002  | 0.002     | 0.002  | 0.002     | 0.002  | 0.002     | 0.002  | 0.002      | 0.002  | 0.002  |        |
| Cobalt                 | 1.0       | NP         | 0.0025 | 0.002     | 0.0023 | 0.002     | 0.0027 | 0.002     | 0.0027 | 0.002      | 0.0022 | 0.002     | 0.002  | 0.002     | 0.002  | 0.002     | 0.002  | 0.002      | 0.002  | 0.002     | 0.002  | 0.002     | 0.002  | 0.002     | 0.002  | 0.002      | 0.002  | 0.002  |        |
| Copper                 | 0.05      | NP         | ND     | 0.003     | ND     | 0.003     | 0.0036 | 0.003     | 0.0036 | 0.003      | 0.0061 | 0.003     | 0.003  | 0.003     | 0.003  | 0.003     | 0.003  | 0.003      | 0.003  | 0.003     | 0.003  | 0.003     | 0.003  | 0.003     | 0.003  | 0.003      | 0.003  | 0.003  | 0.003  |
| Cyanide                | 0.2       | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050 |        |
| Fluoride               | 4.0       | NP         | 0.27   | 0.25      | 0.36   | 0.25      | 0.43   | 0.25      | 0.25   | 0.25       | 0.25   | 0.25      | 0.25   | 0.25      | 0.25   | 0.25      | 0.25   | 0.25       | 0.25   | 0.25      | 0.25   | 0.25      | 0.25   | 0.25      | 0.25   | 0.25       | 0.25   | 0.25   |        |
| Iron                   | 5.0       | NP         | 0.13   | 0.010     | 0.050  | 0.010     | 0.046  | 0.010     | 0.046  | 0.010      | 0.036  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010      | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010      | 0.010  | 0.010  | 0.010  |
| Lead                   | 0.0075    | NP         | ND     | 0.001     | ND     | 0.001     | 0.48   | 0.001     | 0.64   | 0.001      | 0.5    | 0.001     | 0.26   | 0.001     | 0.41   | 0.001     | 1      | 0.040      | 0.59   | 0.001     | 0.001  | 0.21      | 0.0035 | 0.67      | 0.0025 | 0.29       | 0.0025 | 0.62   |        |
| Manganese              | 0.15      | NP         | 0.51   | 0.001     | 0.49   | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001  | 0.001  |
| Mercury                | 0.002     | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002 | 0.0002 |
| Nickel                 | 0.1       | NP         | 0.014  | 0.005     | 0.013  | 0.005     | 0.0077 | 0.005     | 0.014  | 0.005      | 0.014  | 0.005     | 0.008  | 0.005     | 0.005  | 0.005     | 0.013  | 0.010      | 0.005  | 0.005     | 0.009  | 0.0020    | 0.0055 | 0.0020    | 0.0059 | 0.0020     | 0.0020 | 0.0020 |        |
| Nitrogen/Nitrate       | 10.0      | NP         | ND     | 0.02      | ND     | 0.02      | 0.08   | 0.02      | 0.08   | 0.02       | 0.02   | 0.02      | 1.6    | 0.02      | 0.04   | 0.02      | 0.44   | 0.02       | 0.04   | 0.02      | 0.19   | 0.10      | 0.10   | 0.10      | 0.10   | 0.10       | 0.10   | 0.10   |        |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| Perchlorate            | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| pH                     | 6.5 - 9.0 | NA         | 7.24   | NA        | 7.36   | NA        | 7.29   | NA        | 7.05   | NA         | 6.34   | NA        | 7.14   | NA        | 7.00   | NA        | 6.94   | NA         | 6.94   | NA        | 8.01   | NA        | 6.87   | NA        | 8.82   | NA         | 6.89   |        |        |
| Scandium               | 0.05      | NP         | 0.0019 | 0.001     | 0.003  | 0.001     | 0.0045 | 0.001     | 0.0045 | 0.001      | 0.0023 | 0.001     | 0.0028 | 0.001     | 0.0033 | 0.001     | 0.0031 | 0.0031     | 0.0031 | 0.0029    | 0.0029 | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |        |        |
| Selenium               | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005  |        |
| Sulfate                | 400.0     | NP         | 160    | 25        | 170    | 25        | 110    | 25        | 250    | 25         | 170    | 25        | 120    | 50        | 130    | 50        | 200    | 25         | 200    | 50        | 180    | 100       | 310    | 100       | 290    | 100        | 260    |        |        |
| Thallium               | 0.002     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     |        |        |
| Total Dissolved Solids | 1,200     | NP         | 740    | 17        | 680    | 17        | 640    | 17        | 890    | 17         | 820    | 17        | 590    | 17        | 700    | 17        | 890    | 26         | 840    | 26        | 790    | 10        | 990    | 10        | 1000   | 10         | 1100   |        |        |
| Vanadium               | 0.040     | NP         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |        |        |
| Zinc                   | 5.0       | NP         | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     |        |        |
| Benzene                | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |        |
| BETX                   | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |        |        |
| Temperature            | NA        | NA         | 14.80  | NA        | 14.35  | NA        | 15.83  | NA        | 15.80  | NA         | 15.64  | NA        | 17.03  | NA        | 16.99  | NA        | 16.03  | NA         | 14.38  | NA        | 14.50  | NA        | 16.36  | NA        | 17.75  | NA         | 14.79  |        |        |
| Conductivity           | NA        | NA         | 1.33   | NA        | 1.16   | NA        | 1.09   | NA        | 1.21   | NA         | 1.10   | NA        | 0.85   | NA        | 0.94   | NA        | 1.19   | NA         | 1.17   | NA        | 1.17   | NA        | 1.14   | NA        | 1.25   | NA         | 1.33   |        |        |
| Dissolved Oxygen       | NA        | NA         | NA     | NA        | 3.95   | NA        | 0.07   | NA        | 0.06   | NA         | 0.06   | NA        | 0.05   | NA        | 0.07   | NA        | 0.01   | NA         | 0.46   | NA        | 0.40   | NA        | 0.28   | NA        | 0.36   | NA         | 0.33   |        |        |
| ORP                    | NA        | NA         | NA     | NA        | 110.1  | NA        | 70.5   | NA        | -274   | NA         | -26    | NA        | 237    | NA        | 128    | NA        | 152    | NA         | 30     | NA        | 99.2   | NA        | -50.9  | NA        | 55.5   | NA         | -197   |        |        |

Notes: Standards reduced from IAC Title 35, Chapter I, Part 620, Subpart D, Section 620.110 - Groundwater Quality Standards for Class I, Public Resource Groundwater  
 All values are in mg/L, unless otherwise noted  
 DL - Detection Limit  
 NA - Not Applicable  
 ND - Not Detected  
 NM - Not Measured  
 NR - Not Reported  
 NS - Not Sampled  
 \* - Denotes instrument used QC exceeds the control limit  
 Temperature °C  
 Conductivity na/cm²  
 Dissolved Oxygen mg/L  
 Oxygen Reduction Potential (ORP) mV  
 Arsenic Chloride milligrams/liter  
 methylsulfide

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Poweron Station, Pekin, IL

| Parameter              | Standard  | 12/15/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/29/2013 |        | 7/31/2013 |        | 10/23/2013 |        |        |
|------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|--------|
|                        |           | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL     |
| Arsenic                | 0.010     | NP         | 0.003  | ND        | 0.003  | ND        | 0.003  | ND        | 0.003  | ND         | 0.003  | ND        | 0.003  | ND        | 0.003  | ND        | 0.003  | ND         | 0.003  | ND        | 0.003  | ND        | 0.003  | ND        | 0.003  | ND         | 0.003  | ND     |
| Boron                  | 2.0       | NP         | 0.001  | 0.002     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001  |
| Bromine                | 0.004     | NP         | 0.001  | ND        | 0.001  | ND        | 0.001  | ND        | 0.001  | ND         | 0.001  | ND        | 0.001  | ND        | 0.001  | ND        | 0.001  | ND         | 0.001  | ND        | 0.001  | ND        | 0.001  | ND        | 0.001  | ND         | 0.001  | ND     |
| Chloride               | 200.0     | NP         | 180    | 50        | 200    | 50        | 160    | 50        | 200    | 50         | 210    | 50        | 150    | 50        | 200    | 50        | 200    | 50         | 190    | 50        | 210    | 50        | 200    | 50        | 200    | 50         | 200    | 50     |
| Copper                 | 0.05      | NP         | 0.003  | ND        | 0.003  | ND        | 0.003  | ND        | 0.003  | ND         | 0.003  | ND        | 0.003  | ND        | 0.003  | ND        | 0.003  | ND         | 0.003  | ND        | 0.003  | ND        | 0.003  | ND        | 0.003  | ND         | 0.003  | ND     |
| Cyanide                | 0.2       | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050 |
| Fluoride               | 4.0       | NP         | 0.65   | 0.25      | 0.61   | 0.10      | 1.6    | 0.10      | 0.61   | 0.10       | 0.10   | 1.7       | 0.10   | 0.61      | 0.10   | 0.61      | 0.10   | 0.61       | 0.10   | 0.61      | 0.10   | 0.61      | 0.10   | 0.61      | 0.10   | 0.61       | 0.10   | 0.61   |
| Iron                   | 5.0       | NP         | 1.6    | 0.10      | 1.6    | 0.10      | 1.7    | 0.10      | 1.6    | 0.10       | 1.8    | 0.10      | 1.7    | 0.10      | 1.6    | 0.10      | 1.6    | 0.10       | 1.6    | 0.10      | 1.6    | 0.10      | 1.6    | 0.10      | 1.6    | 0.10       | 1.6    | 0.10   |
| Lead                   | 0.0075    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001  |
| Manganese              | 0.15      | NP         | 0.68   | 0.001     | 0.68   | 0.001     | 0.63   | 0.001     | 0.63   | 0.001      | 0.63   | 0.001     | 0.61   | 0.001     | 0.61   | 0.001     | 0.61   | 0.001      | 0.61   | 0.001     | 0.61   | 0.001     | 0.61   | 0.001     | 0.61   | 0.001      | 0.61   |        |
| Mercury                | 0.002     | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002 |
| Nickel                 | 0.1       | NP         | 0.0591 | 0.005     | 0.014  | 0.005     | 0.0078 | 0.005     | 0.0099 | 0.005      | 0.0099 | 0.005     | 0.0089 | 0.005     | 0.0089 | 0.005     | 0.0089 | 0.005      | 0.0089 | 0.005     | 0.0089 | 0.005     | 0.0089 | 0.005     | 0.0089 | 0.005      | 0.0089 |        |
| Nitrogen/Nitrate       | 10.0      | NP         | 0.037  | 0.02      | 0.02   | 0.02      | 0.02   | 0.02      | 0.02   | 0.02       | 0.02   | 0.02      | 0.02   | 0.02      | 0.02   | 0.02      | 0.02   | 0.02       | 0.02   | 0.02      | 0.02   | 0.02      | 0.02   | 0.02      | 0.02   | 0.02       | 0.02   | 0.02   |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Nitrogen/Nitrite       | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Pesticide              | 0.0049    | NP         | 7.67   | NA        | 7.97   | NA        | 7.62   | NA        | 7.61   | NA         | 7.35   | NA        | 7.68   | NA        | 7.59   | NA        | 7.73   | NA         | 7.73   | NA        | 7.68   | NA        | 7.68   | NA        | 7.68   | NA         | 7.68   | NA     |
| pH                     | 6.5 - 9.0 | NP         | 0.0034 | 0.001     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001     | 0.001  | 0.001      | 0.001  | 0.001  |
| Selenium               | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005  |
| Silver                 | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005  |
| Sulfate                | 400.0     | NP         | 210    | 50        | 200    | 50        | 200    | 50        | 200    | 50         | 200    | 50        | 200    | 50        | 200    | 50        | 200    | 50         | 200    | 50        | 200    | 50        | 200    | 50        | 200    | 50         | 200    | 50     |
| Total Dissolved Solids | 1200      | NP         | 950    | 17        | 900    | 17        | 1100   | 17        | 970    | 17         | 1000   | 17        | 1100   | 17        | 1300   | 17        | 1200   | 17         | 1200   | 17        | 1200   | 17        | 1400   | 17        | 1300   | 17         | 1400   | 17     |
| Vanadium               | 0.049     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001  |
| Zinc                   | 5.0       | NP         | 0.004  | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | 0.049  | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | 0.006  | ND        | 0.006  | ND        | 0.006  | ND         | 0.006  | ND     |
| BTEX                   | 11705     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Temperature            | NA        | NA         | 24.53  | NA        | 16.38  | NA        | 18.99  | NA        | 22.40  | NA         | 22.76  | NA        | 20.99  | NA        | 19.83  | NA        | 20.30  | NA         | 20.07  | NA        | 14.40  | NA        | 16.14  | NA        | 16.14  | NA         | 24.20  | NA     |
| Conductivity           | NA        | NA         | 1.65   | NA        | 1.63   | NA        | 1.68   | NA        | 1.56   | NA         | 1.61   | NA        | 1.54   | NA        | 1.65   | NA        | 1.69   | NA         | 1.75   | NA        | 1.49   | NA        | 1.47   | NA        | 1.47   | NA         | 1.71   | NA     |
| Dissolved Oxygen       | NA        | NA         | NA     | NA        | 0.24   | NA        | 0.08   | NA        | 0.10   | NA         | 0.08   | NA        | 0.03   | NA        | 0.23   | NA        | 0.02   | NA         | 0.41   | NA        | 0.18   | NA        | 0.45   | NA        | 0.14   | NA         | 0.14   | NA     |
| ORP                    | NA        | NA         | NA     | NA        | -137.5 | NA        | -161.9 | NA        | -216   | NA         | -196   | NA        | -176   | NA        | -169   | NA        | -183   | NA         | -160   | NA        | -85.8  | NA        | -97.1  | NA        | -180.4 | NA         | -233.2 | NA     |

Notes: Standards obtained from IAC, Table 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class 1, Public Resource Groundwater  
 DL - Detection Limit  
 NA - Not Applicable  
 ND - Not Detected  
 NR - Not Measured  
 NP - Not Required  
 NS - Not Sampled  
 \* - Does not meet required QC criteria  
 °C - Degrees Celsius  
 mg/L - milligrams per liter  
 ng/L - nanograms per liter  
 mV - millivolts  
 µmhos/cm - micromhos per centimeter  
 µg/L - micrograms per liter

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-07             | Date      | 12/6/2010 |        | 3/25/2011 |        | 6/16/2011 |         | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/31/2013 |        | 7/31/2013 |        | 10/23/2013 |        |        |
|---------------------------|-----------|-----------|--------|-----------|--------|-----------|---------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|--------|
|                           |           | Standards | DL     | Result    | DL     | Result    | DL      | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result |
| Antimony                  | 0.006     | NP        | ND     | 0.003     | ND     | 0.003     | ND      | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.0050     | ND     | 0.003     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     |        |
| Arsenic                   | 0.010     | NP        | 0.026  | 0.001     | 0.085  | 0.001     | 0.12    | 0.001     | 0.18   | 0.001      | 0.23   | 0.001     | 0.23   | 0.001     | 0.15   | 0.001     | 0.18   | 0.0050     | 0.26   | 0.001     | 0.17   | 0.0010    | 0.12   | 0.0010    | 0.22   | 0.0010     | 0.20   |        |
| Barium                    | 2.0       | NP        | 0.55   | 0.001     | 0.52   | 0.001     | 0.57    | 0.001     | 0.57   | 0.001      | 0.59   | 0.001     | 0.57   | 0.001     | 0.44   | 0.001     | 0.46   | 0.040      | 0.47   | 0.001     | 0.44   | 0.0025    | 0.42   | 0.0025    | 0.46   | 0.0025     | 0.49   |        |
| Beryllium                 | 0.004     | NP        | ND     | 0.001     | ND     | 0.001     | ND      | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |        |
| Boron                     | 2.0       | NP        | 0.61   | 0.01      | 0.44   | 0.012     | 0.43    | 0.01      | 0.38   | 0.01       | 0.34   | 0.01      | 0.35   | 0.01      | 0.41   | 0.01      | 0.36   | 0.40       | 0.41   | 0.01      | 0.47   | 0.050     | 0.52   | 0.050     | 0.41   | 0.050      | 0.46   |        |
| Cadmium                   | 0.005     | NP        | 0.0026 | 0.001     | ND     | 0.001     | 0.0015  | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |        |
| Chloride                  | 200.0     | NP        | 170    | 50        | 200    | 25        | 140     | 25        | 130    | 10         | 81     | 25        | 99     | 25        | 130    | 25        | 130    | 25         | 150    | 50        | 160    | 10        | 180    | 10        | 150    | 10         | 160    |        |
| Chromium                  | 0.1       | NP        | 0.0088 | 0.004     | 0.0075 | 0.004     | 0.0061  | 0.004     | 0.011  | 0.004      | ND     | 0.004     | ND     | 0.004     | 0.0043 | 0.004     | 0.0051 | 0.0030     | 0.028  | 0.004     | 0.017  | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |        |
| Cobalt                    | 1.0       | NP        | 0.017  | 0.002     | 0.0056 | 0.002     | 0.007   | 0.002     | 0.0055 | 0.002      | 0.006  | 0.002     | 0.0067 | 0.002     | 0.011  | 0.002     | 0.009  | 0.0030     | 0.0056 | 0.002     | 0.0075 | 0.0010    | 0.0059 | 0.0010    | 0.0045 | 0.0010     | 0.0071 |        |
| Copper                    | 0.65      | NP        | 0.14   | 0.003     | ND     | 0.003     | ND      | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.010      | ND     | 0.003     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |        |
| Cyanide                   | 0.2       | NP        | ND     | 0.0050    | ND     | 0.0050    | ND      | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | 0.0055 | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |        |
| Fluoride                  | 4.0       | NP        | 0.47   | 0.25      | 0.42   | 0.25      | 0.58    | 0.25      | 0.94   | 0.25       | 0.47   | 0.25      | 0.54   | 0.25      | 0.38   | 0.25      | 0.35   | 0.25       | 0.35   | 0.25      | ND     | 0.10      | 0.47   | 0.10      | 0.46   | 0.10       | 0.43   |        |
| Iron                      | 5.0       | NP        | 8      | 0.010     | 7.5    | 0.010     | 10      | 0.010     | 22     | 0.010      | 26     | 0.010     | 31     | 0.010     | 10     | 0.010     | 21     | 0.010      | 18     | 0.01      | 27     | 0.10      | 15     | 0.10      | 30     | 0.10       | 20     |        |
| Lead                      | 0.0075    | NP        | 0.039  | 0.001     | ND     | 0.001     | 0.0014  | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | 0.0013 | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |        |
| Manganese                 | 0.15      | NP        | 3.5    | 0.001     | 5.9    | 0.001     | 6.4     | 0.001     | 12     | 0.001      | 12     | 0.001     | 11     | 0.001     | 9.3    | 0.001     | 8      | 0.040      | 6.7    | 0.001     | 9.5    | 0.025     | 5.7    | 0.0025    | 11     | 0.0025     | 5.9    |        |
| Mercury                   | 0.002     | NP        | ND     | 0.0002    | ND     | 0.0002    | 0.00025 | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.00020    | ND     | 0.0002    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |        |
| Nickel                    | 0.1       | NP        | 0.045  | 0.005     | 0.021  | 0.005     | 0.022   | 0.005     | 0.026  | 0.005      | 0.022  | 0.005     | 0.018  | 0.005     | 0.026  | 0.005     | 0.028  | 0.010      | ND     | 0.005     | 0.014  | 0.0020    | 0.0063 | 0.0020    | 0.0055 | 0.0020     | 0.0081 |        |
| Nitrogen/Nitrate          | 10.0      | NP        | 0.043  | 0.02      | 0.08   | 0.02      | ND      | 0.20      | 0.31   | 0.02       | 0.03   | 0.02      | ND     | 0.02      | 0.02   | 0.02      | ND     | 0.02       | 0.03   | 0.02      | 0.06   | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |        |
| Nitrogen/Nitrate, Nitrite | NA        | NR        | NR     | NR        | NR     | NR        | NR      | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Nitrogen/Nitrite          | NA        | NR        | NR     | NR        | NR     | NR        | NR      | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Perchlorate               | 0.0049    | NR        | NR     | NR        | NR     | NR        | NR      | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| pH                        | 6.5 - 9.0 | NA        | NM     | NA        | 7.04   | NA        | 6.78    | NA        | 6.83   | NA         | 6.45   | NA        | 6.79   | NA        | 6.91   | NA        | 6.93   | NA         | 6.97   | NA        | 6.87   | NA        | 6.69   | NA        | 6.68   | NA         | 6.82   |        |
| Selenium                  | 0.05      | NP        | 0.0043 | 0.001     | 0.0026 | 0.001     | 0.0025  | 0.001     | 0.0073 | 0.001      | 0.0054 | 0.001     | 0.0013 | 0.001     | 0.006  | 0.001     | 0.0047 | 0.0050     | ND     | 0.001     | 0.0031 | 0.0025    | 0.0028 | 0.0025    | ND     | 0.0025     | 0.0056 |        |
| Silver                    | 0.05      | NP        | ND     | 0.005     | ND     | 0.005     | ND      | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |        |
| Sulfate                   | 400.0     | NP        | 120    | 10        | 49     | 10        | 25      | 1.0       | 9.1    | 1.0        | 3.3    | 1.0       | 3.0    | 1.0       | 18     | 1.0       | 25     | 10         | 43     | 10        | 36     | 25        | 120    | 10        | 42     | 20         | 80     |        |
| Thallium                  | 0.002     | NP        | ND     | 0.001     | ND     | 0.001     | ND      | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |        |
| Total Dissolved Solids    | 1,200     | NP        | 860    | 17        | 1100   | 17        | 1300    | 17        | 1300   | 17         | 1300   | 17        | 1400   | 17        | 1300   | 17        | 1300   | 26         | 1100   | 26        | 1200   | 10        | 1060   | 10        | 1300   | 10         | 1200   |        |
| Vanadium                  | 0.049     | NR        | NR     | NR        | NR     | NR        | NR      | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Zinc                      | 5.0       | NP        | 0.076  | 0.006     | ND     | 0.006     | ND      | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | 0.011  | 0.006     | ND     | 0.020      | ND     | 0.006     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |        |
| Benzene                   | 0.005     | NR        | NR     | NR        | NR     | NR        | NR      | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.005      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |        |
| BETX                      | 11.705    | NR        | NR     | NR        | NR     | NR        | NR      | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.03       | ND     | 0.03      | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |        |
| Temperature               | NA        | NA        | NM     | NA        | 16.49  | NA        | 18.51   | NA        | 19.33  | NA         | 16.43  | NA        | 21.06  | NA        | 19.19  | NA        | 17.25  | NA         | 16.64  | NA        | 16.30  | NA        | 17.12  | NA        | 17.95  | NA         | 16.36  |        |
| Conductivity              | NA        | NA        | NM     | NA        | 1.98   | NA        | 2.02    | NA        | 2.02   | NA         | 1.90   | NA        | 2.04   | NA        | 1.84   | NA        | 1.78   | NA         | 1.63   | NA        | 1.87   | NA        | 1.42   | NA        | 1.77   | NA         | 1.66   |        |
| Dissolved Oxygen          | NA        | NA        | NM     | NA        | 0.61   | NA        | 0.12    | NA        | 0.34   | NA         | 0.17   | NA        | 0.13   | NA        | -0.02  | NA        | 5.53   | NA         | 2.86   | NA        | 2.31   | NA        | 0.50   | NA        | 0.29   | NA         | 0.44   |        |
| ORP                       | NA        | NA        | NM     | NA        | -81.6  | NA        | -95.7   | NA        | -171   | NA         | -148   | NA        | -141   | NA        | -119   | NA        | -160   | NA         | -100   | NA        | -116.9 | NA        | -145.5 | NA        | -140.7 | NA         | -134.7 |        |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater  
All values are in mg/L, except unless otherwise noted

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
~ - Denotes instrument related QC exceeds the control limits

Temperature  
Conductivity  
Dissolved Oxygen  
Oxygen Reduction Potential (ORP)

°C  
mg/cm³  
mg/L  
mV

degrees Celsius  
milligrams per centimeter  
milligrams per liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-08             | Date      | 12/15/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/30/2013 |        | 7/31/2013 |        | 10/23/2013 |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|
| Parameter                 | Standard  | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result |
| Arsenic                   | 0.010     | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.0050     | ND     | 0.003     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     |
| Barium                    | 2.0       | NP         | 0.11   | 0.001     | 0.12   | 0.001     | 0.11   | 0.001     | 0.11   | 0.001      | 0.13   | 0.001     | 0.14   | 0.001     | 0.14   | 0.001     | 0.14   | 0.040      | 0.16   | 0.001     | 0.14   | 0.0025    | 0.14   | 0.0025    | 0.13   | 0.0025     | 0.13   |
| Beryllium                 | 0.004     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Boron                     | 2.0       | NP         | 0.93   | 0.01      | 0.72   | 0.012     | 0.64   | 0.01      | 0.82   | 0.01       | 0.82   | 0.01      | 0.57   | 0.01      | 0.57   | 0.01      | 1      | 0.40       | 0.93   | 0.01      | 1.1    | 0.050     | 0.91   | 0.050     | 1.2    | 0.050      | 0.93   |
| Cadmium                   | 0.005     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Chloride                  | 200.0     | NP         | 180    | 50        | 210    | 50        | 140    | 50        | 210    | 50         | 190    | 50        | 170    | 50        | 200    | 50        | 210    | 50         | 220    | 50        | 200    | 10        | 230    | 10        | 220    | 10         | 260    |
| Chromium                  | 0.1       | NP         | 0.0059 | 0.004     | 0.0081 | 0.004     | 0.0059 | 0.004     | 0.0084 | 0.004      | 0.0053 | 0.004     | ND     | 0.004     | 0.0056 | 0.004     | 0.0066 | 0.0030     | 0.012  | 0.004     | 0.0046 | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                    | 1.0       | NP         | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.0030     | ND     | 0.002     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Copper                    | 0.65      | NP         | ND     | 0.003     | ND     | 0.003     | 0.0036 | 0.003     | 0.0037 | 0.003      | 0.01   | 0.003     | ND     | 0.003     | ND     | 0.003     | 0.0032 | 0.010      | ND     | 0.003     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                   | 0.2       | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride                  | 4.0       | NP         | 0.77   | 0.25      | 0.76   | 0.25      | 0.81   | 0.25      | 0.84   | 0.25       | 0.75   | 0.25      | 0.70   | 0.25      | 0.63   | 0.25      | 0.53   | 0.25       | 0.63   | 0.25      | 0.28   | 0.10      | 0.74   | 0.10      | 0.68   | 0.10       | 0.74   |
| Iron                      | 5.0       | NP         | 0.56   | 0.010     | 2.1    | 0.010     | 1.7    | 0.010     | 0.97   | 0.010      | 0.94   | 0.010     | 2.3    | 0.010     | 1.2    | 0.010     | 1.3    | 0.010      | 2.1    | 0.01      | 6.5    | 0.10      | 2.3    | 0.10      | 6.6    | 0.10       | 1.3    |
| Lead                      | 0.0075    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                 | 0.15      | NP         | 0.15   | 0.001     | 0.27   | 0.001     | 0.29   | 0.001     | 0.18   | 0.001      | 0.2    | 0.001     | 0.27   | 0.001     | 0.2    | 0.001     | 0.2    | 0.0020     | 0.23   | 0.001     | 0.43   | 0.0025    | 0.25   | 0.0025    | 0.48   | 0.0025     | 0.16   |
| Mercury                   | 0.002     | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.00020    | ND     | 0.0002    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                    | 0.1       | NP         | 0.011  | 0.005     | 0.013  | 0.005     | 0.0076 | 0.005     | 0.007  | 0.005      | 0.009  | 0.005     | 0.0054 | 0.005     | 0.0075 | 0.005     | 0.009  | 0.010      | ND     | 0.005     | 0.0057 | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Nitrogen/Nitrate          | 10.0      | NP         | ND     | 0.02      | ND     | 0.02      | 0.10   | 1.0       | 1.6    | 0.02       | ND     | 0.02      | ND     | 0.02      | ND     | 0.02      | ND     | 0.02       | ND     | 0.02      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrate, Nitrite | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrite          | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Perechlorate              | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     |
| pH                        | 6.5 - 9.0 | NA         | 8.24   | NA        | 8.17   | NA        | 7.66   | NA        | 8.24   | NA         | 7.87   | NA        | 7.97   | NA        | 8.20   | NA        | 8.23   | NA         | 8.09   | NA        | 7.72   | NA        | 7.81   | NA        | 7.39   | NA         | 8.16   |
| Selenium                  | 0.05      | NP         | 0.0036 | 0.001     | 0.0013 | 0.001     | ND     | 0.001     | 0.0031 | 0.001      | 0.0036 | 0.001     | 0.0018 | 0.001     | 0.0018 | 0.001     | ND     | 0.0050     | ND     | 0.001     | 0.002  | 0.0025    | 0.0029 | 0.0025    | ND     | 0.0025     | 0.0048 |
| Silver                    | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Sulfate                   | 400.0     | NP         | 160    | 50        | 240    | 50        | 140    | 50        | 200    | 50         | 200    | 50        | 300    | 50        | 440    | 50        | 330    | 50         | 360    | 50        | 330    | 100       | 460    | 100       | 380    | 100        | 350    |
| Titanium                  | 0.002     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids    | 1,200     | NP         | 890    | 17        | 990    | 17        | 970    | 17        | 940    | 17         | 990    | 17        | 1,200  | 17        | 1,200  | 17        | 1,200  | 26         | 1,200  | 26        | 1,100  | 10        | 1,300  | 10        | 1,300  | 10         | 1,300  |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Zinc                      | 5.0       | NP         | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.020      | ND     | 0.006     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| BETX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Temperature               | NA        | NA         | 19.95  | NA        | 18.15  | NA        | 18.82  | NA        | 17.95  | NA         | 19.20  | NA        | 19.73  | NA        | 18.28  | NA        | 19.15  | NA         | 18.34  | NA        | 17.10  | NA        | 18.11  | NA        | 17.58  | NA         | 15.62  |
| Conductivity              | NA        | NA         | 1.62   | NA        | 1.67   | NA        | 1.61   | NA        | 1.40   | NA         | 1.47   | NA        | 1.57   | NA        | 1.65   | NA        | 1.79   | NA         | 1.82   | NA        | 1.78   | NA        | 1.55   | NA        | 1.60   | NA         | 1.62   |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 0.25   | NA        | 0.08   | NA        | 0.05   | NA         | 0.03   | NA        | 0.03   | NA        | 0.06   | NA        | 0.09   | NA         | 0.64   | NA        | 0.33   | NA        | 0.32   | NA        | 0.16   | NA         | 0.25   |
| ORP                       | NA        | NA         | NM     | NA        | -190.8 | NA        | -181.5 | NA        | -271   | NA         | -238   | NA        | -222   | NA        | -228   | NA        | -231   | NA         | -183.8 | NA        | -225.9 | NA        | -182   | NA        | -225   |            |        |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I, Potable Resource Groundwater  
 All values are in mg/L (ppm) unless otherwise noted

DL - Detection Limit  
 NA - Not Applicable  
 ND - Not Detected  
 NM - Not Measured  
 NR - Not Required  
 NS - Not Sampled  
 ^ - Denotes instrument related QC exceeds the control limits

Temperature °C  
 Conductivity mc/cm  
 Dissolved Oxygen mg/L  
 Oxygen Reduction Potential (ORP) millivolt



Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-09             | Date      | 12/16/2010 |        | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |       | 2/27/2013 |        | 5/30/2013 |       | 7/30/2013 |       | 10/22/2013 |        |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|-------|-----------|--------|-----------|-------|-----------|-------|------------|--------|--------|
|                           |           | Standards  | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL    | Result    | DL     | Result    | DL    | Result    | DL    | Result     | DL     | Result |
| Antimony                  | 0.006     | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.0030     | ND    | 0.0030    | ND     | 0.0030    | ND    | 0.0030    | ND    | 0.0030     | ND     |        |
| Arsenic                   | 0.010     | NP         | ND     | 0.001     | 0.0018 | 0.001     | 0.0017 | 0.001     | ND     | 0.001      | 0.0012 | 0.001     | ND     | 0.001     | 0.0017 | 0.001     | ND     | 0.0050     | ND    | 0.001     | 0.0013 | 0.0010    | ND    | 0.0010    | ND    | 0.0010     | ND     |        |
| Barium                    | 2.0       | NP         | 0.038  | 0.001     | 0.042  | 0.001     | 0.038  | 0.001     | 0.03   | 0.001      | 0.038  | 0.001     | 0.035  | 0.001     | 0.038  | 0.001     | 0.038  | 0.040      | 0.062 | 0.001     | 0.049  | 0.0025    | 0.042 | 0.0025    | 0.050 | 0.0025     | 0.048  |        |
| Beryllium                 | 0.004     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND    | 0.001     | ND     | 0.0010    | ND    | 0.0010    | ND    | 0.0010     | ND     |        |
| Boron                     | 2.0       | NP         | 2.1    | 0.01      | 1.9    | 0.012     | 1.9    | 0.01      | 2.5    | 0.01       | 2.7    | 0.01      | 2.6    | 0.01      | 2.6    | 0.01      | 2.9    | 1.0        | 3.2   | 0.01      | 4.3    | 0.050     | 3.2   | 0.050     | 2.5   | 0.050      | 1.6    |        |
| Cadmium                   | 0.005     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND    | 0.001     | ND     | 0.00050   | ND    | 0.00050   | ND    | 0.00050    | ND     |        |
| Chloride                  | 200.0     | NP         | 25     | 10        | 28     | 10        | 28     | 10        | 30     | 25         | 30     | 10        | 30     | 10        | 27     | 10        | 28     | 10         | 31    | 10        | 27     | 2.0       | 29    | 2.0       | 33    | 2.0        | 42     |        |
| Chromium                  | 0.1       | NP         | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.004      | ND     | 0.004     | ND     | 0.004     | ND     | 0.004     | ND     | 0.0030     | 0.01  | 0.004     | 0.0046 | 0.0050    | ND    | 0.0050    | ND    | 0.0050     | ND     |        |
| Cobalt                    | 1.0       | NP         | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.0030     | ND    | 0.002     | ND     | 0.0010    | ND    | 0.0010    | ND    | 0.0010     | ND     |        |
| Copper                    | 0.65      | NP         | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.010      | ND    | 0.003     | ND     | 0.0020    | ND    | 0.0020    | ND    | 0.0020     | ND     |        |
| Cyanide                   | 0.2       | NP         | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND    | 0.005     | ND     | 0.010     | ND    | 0.010     | ND    | 0.010      | ND     |        |
| Fluoride                  | 4.0       | NP         | ND     | 0.25      | 0.31   | 0.25      | 0.34   | 0.25      | 0.25   | 0.25       | ND     | 0.25      | ND     | 0.25      | ND     | 0.25      | ND     | 0.25       | 0.3   | 0.25      | ND     | 0.10      | 0.21  | 0.10      | 0.18  | 0.10       | 0.17   |        |
| Iron                      | 5.0       | NP         | ND     | 0.010     | 0.066  | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010     | 0.014  | 0.010     | ND     | 0.010     | ND     | 0.010      | ND    | 0.01      | 0.024  | 0.10      | ND    | 0.10      | ND    | 0.10       | ND     |        |
| Lead                      | 0.0075    | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0050     | ND    | 0.001     | ND     | 0.00050   | ND    | 0.00050   | ND    | 0.00050    | ND     |        |
| Manganese                 | 0.15      | NP         | 0.23   | 0.001     | 0.45   | 0.001     | 0.48   | 0.001     | 0.14   | 0.001      | 0.28   | 0.001     | 0.22   | 0.001     | 0.34   | 0.001     | 0.11   | 0.0020     | 0.1   | 0.001     | 0.19   | 0.0025    | 0.053 | 0.0025    | 0.038 | 0.0025     | 0.019  |        |
| Mercury                   | 0.002     | NP         | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.00020    | ND    | 0.0002    | ND     | 0.00020   | ND    | 0.00020   | ND    | 0.00020    | ND     |        |
| Nickel                    | 0.1       | NP         | 0.01   | 0.005     | 0.0093 | 0.005     | 0.0063 | 0.005     | 0.0065 | 0.005      | 0.0038 | 0.005     | ND     | 0.005     | ND     | 0.005     | 0.0067 | 0.010      | ND    | 0.005     | ND     | 0.0020    | ND    | 0.0020    | ND    | 0.0020     | ND     |        |
| Nitrogen/Nitrate          | 10.0      | NP         | 2.9    | 0.20      | 5.6    | 0.20      | 5.6    | 0.20      | 3.7    | 0.50       | 2.6    | 0.20      | 5.0    | 0.20      | 2.8    | 0.20      | 6.3    | 0.20       | 10    | 0.2       | 12     | 0.10      | 11    | 0.10      | 7.9   | 0.10       | 4.6    |        |
| Nitrogen/Nitrate, Nitrite | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR    | NR        | NR     | NR        | NR    | NR        | NR    | NR         | NR     | NR     |
| Nitrogen/Nitrite          | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR    | NR        | NR     | NR        | NR    | NR        | NR    | NR         | NR     | NR     |
| Perechlorate              | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR    | NR        | NR     | NR        | NR    | NR        | NR    | NR         | NR     | NR     |
| pH                        | 6.5 - 9.0 | NA         | 7.22   | NA        | 7.34   | NA        | 7.10   | NA        | 7.32   | NA         | 6.31   | NA        | 7.28   | NA        | 7.30   | NA        | 7.18   | NA         | 7.10  | NA        | 8.00   | NA        | 7.21  | NA        | 6.63  | NA         | 7.19   |        |
| Selenium                  | 0.05      | NP         | 0.0024 | 0.001     | 0.0072 | 0.001     | 0.0017 | 0.001     | 0.0043 | 0.001      | 0.0041 | 0.001     | 0.0072 | 0.001     | 0.0047 | 0.001     | 0.0044 | 0.0050     | 0.009 | 0.001     | 0.015  | 0.0025    | 0.016 | 0.0025    | 0.014 | 0.0025     | 0.0047 |        |
| Silver                    | 0.05      | NP         | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND    | 0.005     | ND     | 0.00050   | ND    | 0.00050   | ND    | 0.00050    | ND     |        |
| Sulfate                   | 400.0     | NP         | 110    | 25        | 110    | 25        | 110    | 25        | 130    | 25         | 110    | 25        | 120    | 50        | 130    | 25        | 120    | 25         | 130   | 50        | 140    | 50        | 140   | 25        | 130   | 25         | 90     |        |
| Thallium                  | 0.002     | NP         | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND    | 0.001     | ND     | 0.0020    | ND    | 0.0020    | ND    | 0.0020     | ND     |        |
| Total Dissolved Solids    | 1,200     | NP         | 500    | 17        | 510    | 17        | 540    | 17        | 500    | 17         | 520    | 17        | 530    | 17        | 520    | 17        | 580    | 26         | 560   | 26        | 520    | 10        | 600   | 10        | 610   | 10         | 430    |        |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR    | NR        | NR     | NR        | NR    | NR        | NR    | NR         | NR     | NR     |
| Zinc                      | 5.0       | NP         | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.020      | ND    | 0.006     | ND     | 0.0020    | ND    | 0.0020    | ND    | 0.0020     | ND     |        |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR    | NR        | NR     | NR        | NR    | NR        | NR    | NR         | NR     | NR     |
| BETX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR    | NR        | NR     | NR        | NR    | NR        | NR    | NR         | NR     | NR     |
| Temperature               | NA        | NA         | 14.61  | NA        | 13.19  | NA        | 14.51  | NA        | 14.08  | NA         | 14.56  | NA        | 18.11  | NA        | 15.72  | NA        | 16.55  | NA         | 13.91 | NA        | 16.40  | NA        | 17.38 | NA        | 14.49 | NA         | 14.68  |        |
| Conductivity              | NA        | NA         | 0.91   | NA        | 0.85   | NA        | 0.84   | NA        | 0.66   | NA         | 0.66   | NA        | 0.73   | NA        | 0.67   | NA        | 0.72   | NA         | 0.77  | NA        | 0.82   | NA        | 0.72  | NA        | 0.76  | NA         | 0.66   |        |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 0.27   | NA        | 0.49   | NA        | 0.16   | NA         | 0.08   | NA        | 0.07   | NA        | 0.11   | NA        | 0.56   | NA         | 1.10  | NA        | 0.87   | NA        | 0.64  | NA        | 0.29  | NA         | 1.01   |        |
| ORP                       | NA        | NA         | NM     | NA        | 21.2   | NA        | 148.2  | NA        | -268   | NA         | 20     | NA        | 68     | NA        | 47     | NA        | 168    | NA         | 210   | NA        | 77.2   | NA        | -68.3 | NA        | 117.2 | NA         | -159.8 |        |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620-410 - Groundwater Quality Standards for Class I Potable Resource Groundwater  
 All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
 NA - Not Applicable  
 ND - Not Detected  
 NM - Not Measured

NR - Not Required  
 NS - Not Sampled  
 - Denotes instrument related QC exceeds the control limits

Temperature °C  
 Conductivity mS/cm  
 Dissolved Oxygen mg/L  
 Oxygen Reduction Potential (ORP) mV

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Parameter              | 12/15/2010 |    | 3/25/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |         | 2/27/2013 |        | 5/29/2013 |         | 7/31/2013 |         | 10/23/2013 |         |         |         |
|------------------------|------------|----|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|---------|-----------|--------|-----------|---------|-----------|---------|------------|---------|---------|---------|
|                        | Standard   | DL | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL      | Result    | DL     | Result    | DL      | Result    | DL      | Result     | DL      | Result  |         |
| Arsenic                | 0.05       | NP | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND      | 0.003     | ND     | 0.003     | ND      | 0.003     | ND      | 0.003      | ND      | 0.003   |         |
| Boron                  | 0.10       | NP | 0.001     | ND     | 0.001     | 0.0015 | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | 0.0015 | 0.001     | ND     | 0.001      | 0.0014  | 0.0050    | ND     | 0.001     | 0.001   | 0.001     | 0.001   | 0.001      | 0.001   | 0.001   |         |
| Beryllium              | 0.04       | NP | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | 0.0010  | ND        | 0.001  | 0.001     | 0.001   | 0.001     | 0.001   | 0.001      | 0.001   | 0.001   |         |
| Barium                 | 2.0        | NP | 0.48      | 0.01   | 0.48      | 0.52   | 0.01      | 0.42   | 0.01       | 0.57   | 0.01      | 0.54   | 0.01      | 0.54   | 0.01      | 0.42   | 0.40       | 0.46    | 0.01      | 0.64   | 0.01      | 0.64    | 0.01      | 0.64    | 0.01       | 0.64    |         |         |
| Cadmium                | 0.005      | NP | ND        | 0.001  | ND        | 0.001  | ND        | 0.001  | ND         | 0.001  | ND        | 0.001  | ND        | 0.001  | ND        | 0.001  | 0.0010     | 0.0010  | ND        | 0.001  | 0.001     | 0.001   | 0.001     | 0.001   | 0.001      | 0.001   | 0.001   |         |
| Chloride               | 200.0      | NP | 40        | 10     | 43        | 10     | 43        | 10     | 49         | 10     | 42        | 10     | 45        | 10     | 46        | 10     | 45         | 10      | 45        | 10     | 37        | 2.0     | 41        | 2.0     | 40         | 2.0     | 51      |         |
| Chromium               | 0.1        | NP | ND        | 0.004  | ND        | 0.004  | ND        | 0.004  | ND         | 0.004  | ND        | 0.004  | ND        | 0.004  | ND        | 0.004  | 0.0030     | 0.0048  | 0.0030    | 0.004  | 0.0064    | 0.0030  | 0.0064    | 0.0030  | 0.0030     | 0.0030  | 0.0030  |         |
| Cobalt                 | 1.0        | NP | 0.0026    | 0.002  | 0.0027    | 0.002  | 0.0026    | 0.002  | 0.0025     | 0.002  | 0.0024    | 0.002  | 0.0024    | 0.002  | 0.0029    | 0.002  | 0.0029     | 0.0030  | 0.0030    | 0.002  | 0.0021    | 0.0010  | 0.002     | 0.0010  | 0.0010     | 0.0010  | 0.0025  |         |
| Copper                 | 0.65       | NP | ND        | 0.003  | ND        | 0.003  | ND        | 0.003  | ND         | 0.003  | 0.0041    | 0.003  | ND        | 0.003  | ND        | 0.0030 | 0.0030     | 0.0030  | 0.0030    | 0.003  | 0.003     | 0.003   | 0.003     | 0.003   | 0.003      | 0.003   | 0.003   |         |
| Cyanide                | 0.2        | NP | ND        | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND         | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | 0.0050     | 0.0050  | 0.0050    | 0.005  | 0.005     | 0.005   | 0.005     | 0.005   | 0.005      | 0.005   | 0.005   |         |
| Fluoride               | 4.0        | NP | ND        | 0.25   | 0.30      | 0.25   | 0.36      | 0.25   | ND         | 0.25   | 0.25      | ND     | 0.25      | ND     | 0.25      | ND     | 0.25       | 0.28    | 0.28      | 0.25   | ND        | 0.10    | 0.18      | 0.10    | 0.10       | 0.10    | 0.17    |         |
| Iron                   | 5.0        | NP | ND        | 0.10   | ND        | 0.10   | 0.44      | 0.10   | ND         | 0.10   | ND        | 0.10   | ND        | 0.10   | 0.15      | 0.10   | 0.10       | 0.10    | 0.10      | 0.01   | ND        | 0.10    | 2.7       | 0.10    | 0.10       | 0.10    | 0.18    |         |
| Lead                   | 0.15       | NP | 2.1       | 0.001  | 2.8       | 0.001  | 3.8       | 0.001  | 2.3        | 0.001  | 2.3       | 0.001  | 2.6       | 0.001  | 2.5       | 0.001  | 2.5        | 0.001   | 2.2       | 0.001  | 1.9       | 0.0025  | 3.2       | 0.0025  | 1.5        | 0.0025  | 2.0     |         |
| Manganese              | 0.02       | NP | ND        | 0.0002 | ND        | 0.0002 | ND        | 0.0002 | ND         | 0.0002 | ND        | 0.0002 | ND        | 0.0002 | ND        | 0.0002 | 0.00020    | 0.00020 | 0.00020   | 0.0002 | 0.0002    | 0.00020 | 0.00020   | 0.00020 | 0.00020    | 0.00020 | 0.00020 | 0.00020 |
| Nickel                 | 0.1        | NP | 0.015     | 0.005  | 0.016     | 0.005  | 0.015     | 0.005  | 0.01       | 0.005  | 0.013     | 0.005  | 0.0093    | 0.005  | 0.014     | 0.005  | 0.014      | 0.010   | 0.010     | 0.005  | 0.0070    | 0.0020  | 0.0023    | 0.0020  | 0.0020     | 0.0020  | 0.0020  |         |
| Nitrogen/Nitrate       | 10.0       | NP | 3.0       | 0.20   | 4.0       | 0.20   | 2.1       | 0.20   | 4.5        | 0.20   | 4.9       | 0.20   | 6.0       | 0.20   | 2.9       | 0.20   | 5.2        | 0.20    | 4.8       | 0.2    | 3.3       | 0.10    | 1.9       | 0.10    | 1.5        | 0.10    | 1.2     |         |
| Nitrogen/Nitrite       | NA         | NR | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR      | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR      |         |
| Nitrogen/Nitrate       | NA         | NR | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR      | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR      |         |
| Percarbonate           | 0.0449     | NR | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR      | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR      |         |
| pH                     | 6.5 - 9.0  | NA | 7.04      | NA     | 7.01      | NA     | 6.88      | NA     | 7.04       | NA     | 6.03      | NA     | 7.03      | NA     | 6.95      | NA     | 6.96       | NA      | 7.03      | NA     | 7.03      | NA      | 6.87      | NA      | 6.85       | NA      | 7.02    |         |
| Selenium               | 0.05       | NP | 0.042     | 0.001  | 0.064     | 0.001  | 0.043     | 0.001  | 0.057      | 0.001  | 0.065     | 0.001  | 0.056     | 0.001  | 0.056     | 0.001  | 0.058      | 0.0590  | 0.074     | 0.001  | 0.0083    | 0.0025  | 0.0043    | 0.0025  | 0.0097     | 0.0025  | 0.0080  |         |
| Silver                 | 0.05       | NP | ND        | 0.005  | ND        | 0.005  | ND        | 0.005  | ND         | 0.005  | ND        | 0.005  | ND        | 0.005  | ND        | 0.005  | ND         | 0.010   | ND        | 0.005  | 0.005     | ND      | 0.0050    | ND      | 0.0050     | ND      | 0.0050  |         |
| Sulfate                | 400.0      | NP | 62        | 10     | 64        | 10     | 67        | 10     | 64         | 10     | 72        | 10     | 76        | 10     | 63        | 10     | 58         | 10      | 59        | 10     | 69        | 25      | 92        | 25      | 150        | 25      | 90      |         |
| Thallium               | 0.002      | NP | ND        | 0.001  | ND        | 0.001  | ND        | 0.001  | ND         | 0.001  | ND        | 0.001  | ND        | 0.001  | ND        | 0.001  | 0.0010     | 0.0010  | 0.0010    | 0.001  | 0.001     | 0.001   | 0.001     | 0.001   | 0.001      | 0.001   | 0.001   |         |
| Total Dissolved Solids | 1,200      | NP | 530       | 17     | 520       | 17     | 650       | 17     | 470        | 17     | 540       | 17     | 530       | 17     | 550       | 17     | 580        | 26      | 420       | 26     | 410       | 10      | 580       | 10      | 550        | 10      | 620     |         |
| Vanadium               | 0.049      | NP | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR      | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR      |         |
| Zinc                   | 5.0        | NP | ND        | 0.006  | ND        | 0.006  | ND        | 0.006  | ND         | 0.006  | ND        | 0.006  | ND        | 0.006  | ND        | 0.006  | ND         | 0.020   | ND        | 0.005  | ND        | 0.005   | ND        | 0.005   | ND         | 0.005   | ND      |         |
| Benzene                | 0.005      | NR | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR      | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR      |         |
| BTEX                   | 11,705     | NR | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR      | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR      |         |
| Temperature            | NA         | NA | 11.72     | NA     | 11.98     | NA     | 14.25     | NA     | 11.76      | NA     | 11.05     | NA     | 14.51     | NA     | 13.49     | NA     | 12.84      | NA      | 11.87     | NA     | 11.60     | NA      | 14.99     | NA      | 13.28      | NA      | 11.61   |         |
| Conductivity           | NA         | NA | 0.99      | NA     | 0.92      | NA     | 1.04      | NA     | 0.62       | NA     | 0.65      | NA     | 0.71      | NA     | 0.67      | NA     | 0.67       | NA      | 0.60      | NA     | 0.70      | NA      | 0.69      | NA      | 0.71       | NA      | 0.70    |         |
| Dissolved Oxygen       | NA         | NA | NM        | NA     | 0.29      | NA     | 0.08      | NA     | 0.02       | NA     | 0.04      | NA     | 0.02      | NA     | 0.04      | NA     | 0.10       | NA      | 2.07      | NA     | 0.49      | NA      | 0.39      | NA      | 0.19       | NA      | 0.50    |         |
| ORP                    | NA         | NA | NM        | NA     | 106.4     | NA     | 132.3     | NA     | -297       | NA     | 23        | NA     | 118       | NA     | 67        | NA     | 107        | NA      | 60        | NA     | 33.2      | NA      | 63.9      | NA      | 20.8       | NA      | -138.7  |         |

Note: Standards obtained from IAC, Table 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standard, for Class I, Possible Resource Groundwater  
 All values are mg/L (ppm) unless otherwise noted  
 DL - Detection Limit  
 NA - Not Applicable  
 ND - Not Detected  
 NM - Not Measured  
 NR - Not Required  
 NS - Not Sampled  
 \* - Derives parameter related QC exceeds the vertical limit

Temperature  
 Conductivity  
 Dissolved Oxygen  
 Oxygen Reduction Potential (ORP)  
 mg/L  
 millimhos/cm  
 milligrams/liter  
 mV

Degrees Celsius  
 mg/cm<sup>3</sup>  
 milligrams/liter  
 millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-11             | Date      | 12/16/2010 |        | 2/15/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/30/2013 |        | 7/30/2013 |        | 10/22/2013 |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|
|                           |           | Standards  | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     |
| Antimony                  | 0.006     | NP         | ND     | NP        | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     |
| Arsenic                   | 0.010     | NP         | 0.0021 | NP        | 0.0025 | 0.001     | 0.0019 | 0.001     | 0.0016 | 0.001      | 0.0019 | 0.001     | 0.0021 | 0.001     | 0.0032 | 0.001     | 0.0038 | 0.0050     | 0.03   | 0.001     | 0.045  | 0.0010    | 0.028  | 0.0010    | 0.038  | 0.0010     | 0.038  |
| Barium                    | 2.0       | NP         | 0.17   | NP        | 0.11   | 0.001     | 0.18   | 0.001     | 0.11   | 0.001      | 0.11   | 0.001     | 0.13   | 0.001     | 0.17   | 0.001     | 0.22   | 0.20       | ND     | 0.001     | 0.2    | 0.0025    | 0.15   | 0.0025    | 0.19   | 0.0025     | 0.18   |
| Beryllium                 | 0.004     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Boron                     | 2.0       | NP         | 1.6    | NP        | 1.8    | 0.012     | 1.6    | 0.01      | 1.5    | 0.01       | 1.8    | 0.01      | 2.3    | 0.01      | 1.9    | 0.01      | 2.6    | 2.0        | ND     | 0.01      | 1.4    | 0.050     | 1.3    | 0.050     | 1.5    | 0.050      | 1.2    |
| Cadmium                   | 0.005     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Chloride                  | 200.0     | NP         | 70     | NP        | 66     | 50        | 120    | 25        | 53     | 50         | 87     | 10        | 54     | 25        | 150    | 10        | 52     | 50         | 83     | 10        | 84     | 10        | 79     | 10        | 110    | 10         | 79     |
| Chromium                  | 0.1       | NP         | ND     | NP        | ND     | 0.004     | ND     | 0.004     | ND     | 0.004      | ND     | 0.004     | ND     | 0.004     | 0.0051 | 0.004     | ND     | 0.0030     | 0.015  | 0.004     | 0.0099 | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                    | 1.0       | NP         | 0.0028 | NP        | 0.0041 | 0.002     | 0.0024 | 0.002     | ND     | 0.002      | ND     | 0.002     | 0.0024 | 0.002     | 0.0039 | 0.002     | 0.0049 | 0.0030     | 0.0041 | 0.002     | 0.0028 | 0.0010    | 0.0020 | 0.0010    | 0.0023 | 0.0010     | 0.0025 |
| Copper                    | 0.65      | NP         | 0.0032 | NP        | 0.0032 | 0.003     | 0.0043 | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | 0.0049 | 0.010      | ND     | 0.003     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                   | 0.2       | NP         | ND     | NP        | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride                  | 4.0       | NP         | 0.53   | NP        | 0.56   | 0.25      | 0.67   | 0.25      | 0.58   | 0.25       | 0.44   | 0.25      | 0.42   | 0.25      | 0.32   | 0.25      | 0.56   | 0.25       | 0.64   | 0.25      | 0.43   | 0.10      | 0.79   | 0.10      | 0.80   | 0.10       | 0.75   |
| Iron                      | 5.0       | NP         | 0.44   | NP        | 0.01   | 0.010     | 0.029  | 0.010     | 0.018  | 0.010      | ND     | 0.010     | ND     | 0.010     | 0.056  | 0.010     | 2.0    | 0.010      | 0.7    | 0.01      | 2.4    | 0.10      | 3.1    | 0.10      | 3.9    | 0.10       | 3.3    |
| Lead                      | 0.0075    | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | 0.0023 | 0.0050     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                 | 0.15      | NP         | 3.2    | NP        | 3.6    | 0.001     | 2.9    | 0.001     | 2.2    | 0.001      | 2.5    | 0.001     | 2.9    | 0.001     | 3.7    | 0.001     | 4.7    | 0.20       | 12     | 0.001     | 11     | 0.025     | 7.5    | 0.0025    | 8.0    | 0.0025     | 7.3    |
| Mercury                   | 0.002     | NP         | ND     | NP        | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.00020    | ND     | 0.0002    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                    | 0.1       | NP         | 0.019  | NP        | 0.016  | 0.005     | 0.013  | 0.005     | 0.011  | 0.005      | 0.013  | 0.005     | 0.011  | 0.005     | 0.013  | 0.005     | 0.017  | 0.010      | ND     | 0.005     | 0.0088 | 0.0020    | 0.0026 | 0.0020    | 0.0033 | 0.0020     | 0.0036 |
| Nitrogen/Nitrate          | 10.0      | NP         | 0.41   | NP        | 0.17   | 0.02      | 0.04   | 0.02      | 0.74   | 0.02       | 1.5    | 0.02      | 0.39   | 0.02      | ND     | 0.20      | 4.6    | 0.02       | 0.39   | 0.02      | 0.33   | 0.10      | 1.1    | 0.10      | ND     | 0.10       | 0.18   |
| Nitrogen/Nitrate, Nitrate | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| Nitrogen/Nitrite          | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| pH                        | 6.5 - 9.0 | NA         | 7.88   | NA        | 7.13   | NA        | 7.02   | NA        | 7.31   | NA         | 6.48   | NA        | 7.32   | NA        | 7.15   | NA        | 7.30   | NA         | 7.28   | NA        | 8.27   | NA        | 6.99   | NA        | 7.08   | NA         | 7.23   |
| Selenium                  | 0.05      | NP         | 0.0026 | NP        | 0.0015 | 0.001     | 0.0018 | 0.001     | 0.004  | 0.001      | 0.0031 | 0.001     | 0.0039 | 0.001     | 0.0039 | 0.001     | 0.004  | 0.0050     | ND     | 0.001     | 0.0014 | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Silver                    | 0.05      | NP         | ND     | NP        | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Sulfate                   | 400.0     | NP         | 170    | NP        | 160    | 50        | 210    | 25        | 140    | 50         | 160    | 50        | 130    | 100       | 320    | 25        | 170    | 50         | 200    | 50        | 150    | 50        | 240    | 50        | 280    | 50         | 180    |
| Thallium                  | 0.002     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids    | 1,200     | NP         | 740    | NP        | 710    | 17        | 930    | 17        | 620    | 17         | 730    | 17        | 740    | 17        | 1000   | 17        | 760    | 26         | 970    | 26        | 840    | 10        | 850    | 10        | 980    | 10         | 770    |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| Zinc                      | 5.0       | NP         | 0.012  | NP        | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | 0.0073 | 0.020      | ND     | 0.006     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| BTEX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| Temperature               | NA        | NA         | 12.61  | NA        | 13.66  | NA        | 17.58  | NA        | 14.67  | NA         | 13.85  | NA        | 16.31  | NA        | 15.74  | NA        | 17.90  | NA         | 13.95  | NA        | 14.20  | NA        | 17.00  | NA        | 16.66  | NA         | 13.33  |
| Conductivity              | NA        | NA         | 1.27   | NA        | 1.14   | NA        | 1.44   | NA        | 0.85   | NA         | 0.89   | NA        | 0.98   | NA        | 1.26   | NA        | 0.96   | NA         | 1.22   | NA        | 1.30   | NA        | 1.19   | NA        | 1.22   | NA         | 1.10   |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA         | NM     | NA        | NM     | NA        | 3.73   | NA        | 5.16   | NA         | 2.54   | NA        | 3.55   | NA        | 0.28   | NA        | 0.20   | NA         | 0.76   |
| ORP                       | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA         | NM     | NA        | NM     | NA        | 0.47   | NA        | 43     | NA         | -60    | NA        | -113.2 | NA        | -147.5 | NA        | -141.2 | NA         | -141.3 |

Note: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I, Potable Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
NA - Not Sampled  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
\* - Denotes instrument related QC exceeds the control limits

Temperature  
Conductivity  
Dissolved Oxygen  
Oxygen Reduction Potential (ORP)

°C  
mg/cm³  
mg/L  
mV

µg/L  
micrograms per liter  
milligram per liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-12            | Date      | 12/15/2010 |        | 2/15/2011 |        | 6/16/2011 |        | 9/19/2011 |        | 12/12/2011 |        | 3/19/2012 |        | 6/25/2012 |        | 9/18/2012 |        | 12/12/2012 |        | 2/27/2013 |        | 5/30/2013 |        | 7/29/2013 |        | 10/22/2013 |        |
|--------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|
|                          |           | Standards  | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     |
| Antimony                 | 0.006     | NP         | ND     | NP        | ND     | 0.003     | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.0050     | ND     | 0.003     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     |
| Arsenic                  | 0.010     | NP         | 0.0088 | NP        | 0.013  | 0.001     | 0.0064 | 0.001     | 0.0087 | 0.001      | 0.0089 | 0.001     | 0.0042 | 0.001     | 0.014  | 0.001     | 0.011  | 0.0050     | 0.022  | 0.001     | 0.0066 | 0.0010    | 0.0051 | 0.0010    | 0.016  | 0.0010     | 0.018  |
| Barium                   | 2.0       | NP         | 0.089  | NP        | 0.11   | 0.001     | 0.091  | 0.001     | 0.085  | 0.001      | 0.09   | 0.001     | 0.071  | 0.001     | 0.12   | 0.001     | 0.11   | 0.040      | 0.1    | 0.001     | 0.1    | 0.0025    | 0.091  | 0.0025    | 0.092  | 0.0025     | 0.087  |
| Beryllium                | 0.004     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND ^   | 0.0010    | ND     | 0.0010     | ND     |
| Boron                    | 2.0       | NP         | 1.6    | NP        | 1.4    | 0.012     | 1.3    | 0.01      | 1.2    | 0.01       | 1.3    | 0.01      | 0.92   | 0.01      | 1.2    | 0.01      | 1.1    | 0.40       | 0.85   | 0.01      | 1.1    | 0.050     | 3.7    | 0.050     | 1.1    | 0.050      | 1.1    |
| Cadmium                  | 0.005     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Chloride                 | 200.0     | NP         | 170    | NP        | 180    | 50        | 180    | 50        | 190    | 50         | 210    | 50        | 170    | 50        | 190    | 50        | 170    | 50         | 210    | 50        | 190    | 10        | 200    | 10        | 190    | 10         | 180    |
| Chromium                 | 0.1       | NP         | ND     | NP        | 0.0056 | 0.004     | 0.0044 | 0.004     | 0.0071 | 0.004      | 0.0047 | 0.004     | ND     | 0.004     | 0.0043 | 0.004     | 0.0045 | 0.0030     | 0.0079 | 0.004     | 0.0052 | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                   | 1.0       | NP         | ND     | NP        | ND     | 0.002     | ND     | 0.002     | ND     | 0.002      | ND     | 0.002     | ND     | 0.002     | ND     | 0.002     | ND     | 0.0030     | ND     | 0.002     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Copper                   | 0.65      | NP         | ND     | NP        | ND     | 0.003     | 0.0032 | 0.003     | 0.0036 | 0.003      | 0.0031 | 0.003     | ND     | 0.003     | ND     | 0.003     | ND     | 0.010      | ND     | 0.003     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                  | 0.2       | NP         | ND     | NP        | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride                 | 4.0       | NP         | 0.71   | NP        | 0.61   | 0.25      | 0.64   | 0.25      | 0.74   | 0.25       | 0.61   | 0.25      | 0.46   | 0.25      | 0.36   | 0.25      | 0.42   | 0.25       | 0.43   | 0.25      | ND     | 0.10      | 0.62   | 0.10      | 0.56   | 0.10       | 0.51   |
| Iron                     | 5.0       | NP         | 5.5    | NP        | 6.3    | 0.010     | 5.6    | 0.010     | 4.0    | 0.010      | 3.1    | 0.010     | 4.8    | 0.010     | 8.2    | 0.010     | 8.9    | 0.010      | 6.4    | 0.01      | 5.8    | 0.10      | 8.9    | 0.10      | 4.5    | 0.10       | 0.23   |
| Lead                     | 0.0075    | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                | 0.15      | NP         | 0.32   | NP        | 0.58   | 0.001     | 0.26   | 0.001     | 0.37   | 0.001      | 0.25   | 0.001     | 0.13   | 0.001     | 0.71   | 0.001     | 0.64   | 0.040      | 1.7    | 0.001     | 0.38   | 0.0025    | 0.24   | 0.0025    | 1.3    | 0.0025     | 1.5    |
| Mercury                  | 0.002     | NP         | ND     | NP        | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.00020    | ND     | 0.0002    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                   | 0.1       | NP         | 0.0096 | NP        | 0.01   | 0.005     | 0.0072 | 0.005     | 0.0075 | 0.005      | 0.0091 | 0.005     | 0.0075 | 0.005     | 0.0052 | 0.005     | 0.012  | 0.010      | ND     | 0.005     | 0.0065 | 0.0020    | ND     | 0.0020    | 0.0029 | 0.0020     | 0.0028 |
| Nitrogen/Nitrate         | 10.0      | NP         | ND     | NP        | ND     | 0.02      | 0.14   | 0.02      | ND     | 0.02       | ND     | 0.02      | 0.04   | 0.20      | ND     | 0.02      | 0.03   | 0.02       | ND     | 0.02      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrate, Nitric | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrite         | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Perchlorate              | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     |
| pH                       | 6.5 - 9.0 | NA         | 7.65   | NA        | 7.51   | NA        | 6.98   | NA        | 7.66   | NA         | 7.38   | NA        | 7.22   | NA        | 7.40   | NA        | 7.50   | NA         | 7.37   | NA        | 8.36   | NA        | 7.17   | NA        | 7.29   | NA         | 7.73   |
| Selenium                 | 0.05      | NP         | 0.0026 | NP        | 0.0027 | 0.001     | ND     | 0.001     | 0.0023 | 0.001      | 0.0034 | 0.001     | 0.0043 | 0.001     | 0.0038 | 0.001     | 0.0016 | 0.0050     | ND     | 0.001     | 0.002  | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Silver                   | 0.05      | NP         | ND     | NP        | ND     | 0.005     | ND     | 0.005     | ND     | 0.005      | ND     | 0.005     | ND     | 0.005     | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Sulfate                  | 400.0     | NP         | 290    | NP        | 270    | 50        | 350    | 50        | 360    | 50         | 300    | 50        | 310    | 50        | 430    | 50        | 370    | 50         | 300    | 50        | 350    | 100       | 410    | 100       | 420    | 100        | 270    |
| Thallium                 | 0.002     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001      | ND     | 0.001     | ND     | 0.001     | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids   | 1,200     | NP         | 980    | NP        | 1000   | 17        | 1100   | 17        | 970    | 17         | 970    | 17        | 1000   | 17        | 1200   | 17        | 1200   | 26         | 1100   | 26        | 1000   | 10        | 1200   | 10        | 1200   | 10         | 1000   |
| Vanadium                 | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0080     | ND     | 0.005     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Zinc                     | 5.0       | NP         | ND     | NP        | ND     | 0.006     | ND     | 0.006     | ND     | 0.006      | ND     | 0.006     | ND     | 0.006     | ND     | 0.006     | ND     | 0.020      | ND     | 0.006     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                  | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.005      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| BETX                     | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.03       | ND     | 0.03      | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Temperature              | NA        | NA         | 16.90  | NA        | 16.77  | NA        | 18.77  | NA        | 17.75  | NA         | 17.78  | NA        | 19.62  | NA        | 19.07  | NA        | 18.88  | NA         | 17.51  | NA        | 16.30  | NA        | 21.42  | NA        | 17.93  | NA         | 14.78  |
| Conductivity             | NA        | NA         | 1.69   | NA        | 1.66   | NA        | 1.63   | NA        | 1.34   | NA         | 1.38   | NA        | 1.54   | NA        | 1.63   | NA        | 1.61   | NA         | 1.48   | NA        | 1.60   | NA        | 1.63   | NA        | 1.47   | NA         | 1.20   |
| Dissolved Oxygen         | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA         | NM     | NA        | NM     | NA        | 0.06   | NA        | 0.11   | NA         | 1.70   | NA        | 0.35   | NA        | 1.04   | NA        | 0.25   | NA         | 0.20   |
| ORP                      | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA         | NM     | NA        | NM     | NA        | -168   | NA        | -157   | NA         | -130   | NA        | -141.2 | NA        | -146.5 | NA        | -85.9  | NA         | -205.6 |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured  
NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limits

Temperature °C  
Conductivity ms/cm  
Dissolved Oxygen mg/L  
Oxygen Reduction Potential (ORP) mV  
degrees Celsius  
milliSiemens centimeters  
milligrams/liter  
millivolta

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-13             | Date      | 12/15/2010 |        | 2/15/2011 |        | 4/25/2011 |        | 6/16/2011 |        | 8/9/2011 |        | 10/13/2011 |        | 12/12/2011 |        | 4/10/2012 |        | 12/14/2012 |        | 2/28/2013 |        | 5/30/2013 |        | 7/30/2013 |        | 10/22/2013 |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|----------|--------|------------|--------|------------|--------|-----------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|
| Parameter                 | Standards | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL       | Result | DL         | Result | DL         | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result |
| Antimony                  | 0.006     | NP         | ND     | NP        | ND     | 0.003     | ND     | 0.003     | ND     | 0.003    | ND     | 0.003      | ND     | 0.003      | ND     | 0.003     | ND     | 0.0050     | ND     | 0.003     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     |
| Arsenic                   | 0.010     | NP         | 0.011  | NP        | 0.0069 | 0.001     | 0.0063 | 0.001     | 0.0057 | 0.001    | 0.0048 | 0.001      | 0.0066 | 0.001      | 0.023  | 0.001     | 0.027  | 0.0050     | 0.041  | 0.001     | 0.029  | 0.0010    | 0.031  | 0.0010    | 0.029  | 0.0010     | 0.024  |
| Barium                    | 2.0       | NP         | 0.11   | NP        | 0.052  | 0.001     | 0.073  | 0.001     | 0.059  | 0.001    | 0.046  | 0.001      | 0.083  | 0.001      | 0.21   | 0.001     | 0.14   | 0.0020     | 0.3    | 0.001     | 0.19   | 0.0025    | 0.23   | 0.0025    | 0.23   | 0.0025     | 0.16   |
| Beryllium                 | 0.004     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001    | ND     | 0.001      | ND     | 0.001      | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND*    | 0.0010    | ND     | 0.0010     | ND     |
| Boron                     | 2.0       | NP         | 3.9    | NP        | 3.1    | 0.01      | 2.6    | 0.012     | 3      | 0.01     | 2.7    | 0.01       | 3      | 0.01       | 4.1    | 0.01      | 4      | 1.0        | 3.6    | 0.01      | 4.2    | 0.050     | 1.6    | 0.050     | 3.8    | 0.050      | 3.5    |
| Cadmium                   | 0.005     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001    | ND     | 0.001      | ND     | 0.001      | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Chloride                  | 200.0     | NP         | 160    | NP        | 120    | 25        | 100    | 25        | 86     | 25       | 110    | 25         | 110    | 100        | 180    | 50        | 170    | 50         | 210    | 50        | 170    | 10        | 190    | 10        | 190    | 10         | 180    |
| Chromium                  | 0.1       | NP         | 0.0062 | NP        | 0.0042 | 0.004     | 0.0045 | 0.004     | ND     | 0.004    | ND     | 0.004      | 0.01   | 0.004      | 0.0055 | 0.004     | 0.0055 | 0.0030     | 0.011  | 0.004     | 0.0057 | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                    | 1.0       | NP         | 0.0031 | NP        | 0.0026 | 0.002     | 0.0023 | 0.002     | 0.0022 | 0.002    | 0.0031 | 0.002      | ND     | 0.002      | ND     | 0.002     | ND     | 0.0030     | ND     | 0.002     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Copper                    | 0.65      | NP         | 0.0068 | NP        | 0.0037 | 0.003     | 0.0041 | 0.003     | 0.004  | 0.003    | 0.004  | 0.003      | 0.0055 | 0.003      | 0.0066 | 0.003     | 0.0068 | 0.010      | ND     | 0.003     | 0.0037 | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                   | 0.2       | NP         | ND     | NP        | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050   | ND     | 0.0050     | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride                  | 4.0       | NP         | 0.28   | NP        | 0.29   | 0.25      | 0.31   | 0.25      | 0.44   | 0.25     | 0.38   | 0.25       | 0.30   | 0.25       | ND     | 0.25      | 0.32   | 0.25       | ND     | 0.25      | ND     | 0.10      | 0.39   | 0.10      | 0.39   | 0.10       | 0.39   |
| Iron                      | 5.0       | NP         | 0.69   | NP        | 0.952  | 0.010     | 0.077  | 0.010     | ND     | 0.016    | 0.043  | 0.010      | ND     | 0.010      | 0.11   | 0.010     | 0.20   | 0.010      | 0.066  | 0.01      | 0.28   | 0.10      | 1.3    | 0.10      | 1.6    | 0.10       | 0.29   |
| Lead                      | 0.0075    | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001    | ND     | 0.001      | ND     | 0.001      | ND     | 0.001     | ND     | 0.0050     | ND     | 0.001     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                 | 0.15      | NP         | 5      | NP        | 3.8    | 0.001     | 2.7    | 0.001     | 2.9    | 0.001    | 2.6    | 0.001      | 3.6    | 0.001      | 3.5    | 0.001     | 3.5    | 0.0020     | 3.7    | 0.001     | 3.5    | 0.0025    | 3.8    | 0.0025    | 4.0    | 0.0025     | 2.8    |
| Mercury                   | 0.002     | NP         | ND     | NP        | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002   | ND     | 0.0002     | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.00020    | ND     | 0.0002    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                    | 0.1       | NP         | 0.03   | NP        | 0.023  | 0.005     | 0.021  | 0.005     | 0.018  | 0.005    | 0.016  | 0.005      | 0.015  | 0.005      | 0.022  | 0.005     | 0.02   | 0.010      | ND     | 0.005     | 0.011  | 0.0020    | ND     | 0.0020    | 0.0027 | 0.0020     | 0.0024 |
| Nitrogen/Nitrate          | 10.0      | NP         | 0.14   | NP        | 1.3    | 0.02      | 1.8    | 0.20      | 2.2    | 0.50     | 3.6    | 0.02       | 1.6    | 0.02       | 0.07   | 0.02      | 0.06   | 0.02       | ND     | 0.02      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrate, Nitrite | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Nitrogen/Nitrate          | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     |
| pH                        | 6.5 - 9.0 | NA         | 7.68   | NA        | 7.53   | NA        | 7.26   | NA        | 6.75   | NA       | 7.13   | NA         | 7.31   | NA         | 7.19   | NA        | 8.49   | NA         | 7.92   | NA        | 8.26   | NA        | 7.65   | NA        | 7.61   | NA         | 7.81   |
| Selenium                  | 0.05      | NP         | 0.0046 | NP        | 0.0046 | 0.001     | 0.0045 | 0.001     | 0.0029 | 0.001    | 0.0056 | 0.001      | 0.004  | 0.001      | 0.0036 | 0.001     | 0.0037 | 0.0050     | ND     | 0.001     | 0.0025 | 0.0025    | 0.010  | 0.0025    | 0.0095 | 0.0025     | ND     |
| Silver                    | 0.05      | NP         | ND     | NP        | ND     | 0.005     | ND     | 0.005     | ND     | 0.005    | ND     | 0.005      | ND     | 0.005      | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Sulfate                   | 400.0     | NP         | 1400   | NP        | 770    | 250       | 580    | 100       | 540    | 100      | 440    | 250        | 660    | 250        | 1100   | 500       | 1100   | 500        | 1100   | 250       | 730    | 250       | 880    | 250       | 1000   | 250        | 690    |
| Thallium                  | 0.002     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001    | ND     | 0.001      | ND     | 0.001      | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids    | 1,200     | NP         | 2600   | NP        | 1600   | 17        | 1400   | 17        | 1300   | 17       | 1100   | 17         | 1500   | 17         | 2100   | 17        | 2300   | 26         | 1900   | 26        | 1600   | 10        | 2000   | 10        | 2000   | 10         | 1700   |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | 0.005     | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Zinc                      | 5.0       | NP         | ND     | NP        | ND     | 0.006     | ND     | 0.006     | ND     | 0.006    | ND     | 0.006      | 0.06   | 0.006      | ND     | 0.006     | ND     | 0.020      | ND     | 0.006     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | 0.005      | ND     | 0.005     | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| BETX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | 0.03       | ND     | 0.03      | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Temperature               | NA        | NA         | 12.59  | NA        | 13.82  | NA        | 14.40  | NA        | 16.84  | NA       | 15.92  | NA         | 14.87  | NA         | 13.78  | NA        | 14.90  | NA         | 14.88  | NA        | 14.00  | NA        | 18.10  | NA        | 16.26  | NA         | 12.38  |
| Conductivity              | NA        | NA         | 3.33   | NA        | 2.15   | NA        | 1.92   | NA        | 1.79   | NA       | 1.63   | NA         | 1.59   | NA         | 2.33   | NA        | 2.89   | NA         | 2.15   | NA        | 2.05   | NA        | 2.12   | NA        | 2.13   | NA         | 1.83   |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA       | NM     | NA         | NM     | NA         | NM     | NA        | NM     | NA         | 3.54   | NA        | 1.69   | NA        | 1.16   | NA        | 0.27   | NA         | 0.94   |
| ORP                       | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA       | NM     | NA         | NM     | NA         | NM     | NA        | NM     | NA         | -20    | NA        | 134    | NA        | -177.9 | NA        | -171.2 | NA         | -189.1 |

Notes: Standards obtained from IAC Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
\* - Denotes instrument related QC exceeds the control limits

Temperature  
Conductivity  
Dissolved Oxygen  
Oxygen Reduction Potential (ORP)

°C  
mg/L  
mV

degrees Celsius  
milligrams per liter  
millivolts

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-14            | Date      | 12/15/2010 |        | 2/15/2011 |        | 4/25/2011 |        | 6/16/2011 |        | 8/9/2011 |        | 10/13/2011 |        | 12/12/2011 |        | 4/10/2012 |        | 12/14/2012 |        | 2/27/2013 |        | 5/30/2013 |         | 7/30/2013 |         | 10/23/2013 |         |    |
|--------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|----------|--------|------------|--------|------------|--------|-----------|--------|------------|--------|-----------|--------|-----------|---------|-----------|---------|------------|---------|----|
| Parameter                | Standards | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL       | Result | DL         | Result | DL         | Result | DL        | Result | DL         | Result | DL        | Result | DL        | Result  | DL        | Result  | DL         | Result  |    |
| Antimony                 | 0.006     | NP         | ND     | NP        | ND     | 0.003     | ND     | 0.003     | ND     | 0.003    | ND     | 0.003      | ND     | 0.003      | ND     | 0.003     | ND     | 0.003      | ND     | 0.003     | ND     | 0.0030    | ND      | 0.0030    | ND      | 0.0030     | ND      |    |
| Arsenic                  | 0.010     | NP         | 0.024  | NP        | 0.019  | 0.001     | 0.0084 | 0.001     | 0.005  | 0.001    | 0.0062 | 0.001      | 0.015  | 0.001      | 0.0033 | 0.001     | 0.0039 | 0.0050     | 0.0053 | 0.001     | 0.0066 | 0.0010    | 0.0023  | 0.0010    | 0.0016  | 0.0010     | ND      |    |
| Barium                   | 2.0       | NP         | 0.034  | NP        | 0.034  | 0.001     | 0.036  | 0.001     | 0.04   | 0.001    | 0.041  | 0.001      | 0.04   | 0.001      | 0.045  | 0.001     | 0.045  | 0.0020     | 0.038  | 0.001     | 0.032  | 0.0025    | 0.053   | 0.0025    | 0.042   | 0.0025     | 0.050   |    |
| Beryllium                | 0.004     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001    | ND     | 0.001      | ND     | 0.001      | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.0010    | ND ^    | 0.0010    | ND      | 0.0010     | ND      |    |
| Boron                    | 2.0       | NP         | 2      | NP        | 1.9    | 0.01      | 1.9    | 0.01      | 1.9    | 0.01     | 1.8    | 0.01       | 1.9    | 0.01       | 1.9    | 0.01      | 1.8    | 2.0        | ND     | 0.01      | 1.9    | 0.050     | 1.7     | 0.050     | 1.7     | 0.050      | 2.0     |    |
| Caesium                  | 0.005     | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001    | ND     | 0.001      | ND     | 0.001      | ND     | 0.001     | ND     | 0.0010     | ND     | 0.001     | ND     | 0.00050   | 0.00060 | 0.00050   | 0.00086 | 0.00050    | 0.00062 |    |
| Chloride                 | 200.0     | NP         | 160    | NP        | 160    | 25        | 160    | 50        | 160    | 25       | 240    | 100        | 200    | 100        | 200    | 50        | 190    | 50         | 190    | 25        | 92     | 10        | 160     | 10        | 190     | 10         | 190     |    |
| Chromium                 | 0.1       | NP         | ND     | NP        | 0.0046 | 0.004     | 0.0078 | 0.004     | 0.0049 | 0.004    | 0.0076 | 0.004      | 0.0096 | 0.004      | 0.0065 | 0.004     | 0.0057 | 0.0030     | 0.018  | 0.004     | 0.0095 | 0.0050    | ND      | 0.0050    | ND      | 0.0050     | ND      |    |
| Cobalt                   | 1.0       | NP         | ND     | NP        | ND     | 0.002     | ND     | 0.002     | ND     | 0.002    | ND     | 0.002      | ND     | 0.002      | ND     | 0.002     | ND     | 0.0030     | ND     | 0.002     | ND     | 0.0010    | ND      | 0.0010    | ND      | 0.0010     | ND      |    |
| Copper                   | 0.65      | NP         | 0.0037 | NP        | 0.0035 | 0.003     | 0.0074 | 0.003     | 0.0071 | 0.003    | 0.0064 | 0.003      | 0.0055 | 0.003      | 0.025  | 0.003     | 0.0067 | 0.010      | ND     | 0.003     | 0.003  | 0.0020    | ND      | 0.0020    | ND      | 0.0020     | ND      |    |
| Cyanide                  | 0.2       | NP         | ND     | NP        | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050   | ND     | 0.0050     | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.005     | ND     | 0.010     | ND      | 0.010     | ND      | 0.010      | ND      |    |
| Fluoride                 | 4.0       | NP         | 1.7    | NP        | 1.6    | 0.25      | 1.1    | 0.25      | 1.3    | 0.25     | 1.4    | 0.25       | 0.88   | 0.25       | 1.1    | 0.25      | 1.0    | 0.25       | 1.2    | 0.25      | 0.29   | 0.10      | 1.1     | 0.10      | 1.1     | 0.10       | 0.95    |    |
| Iron                     | 5.0       | NP         | 2.2    | NP        | 0.94   | 0.010     | 0.36   | 0.010     | 0.30   | 0.010    | 0.71   | 0.010      | 2.0    | 0.010      | 0.12   | 0.010     | 0.77   | 0.010      | 0.012  | 0.01      | 0.02   | 0.10      | ND      | 0.10      | ND      | 0.10       | 0.39    |    |
| Lead                     | 0.0075    | NP         | ND     | NP        | ND     | 0.001     | ND     | 0.001     | ND     | 0.001    | ND     | 0.001      | ND     | 0.001      | ND     | 0.001     | ND     | 0.0035     | 0.0050 | ND        | 0.001  | ND        | 0.00050 | ND        | 0.00050 | ND         | 0.00050 | ND |
| Manganese                | 0.15      | NP         | 0.68   | NP        | 0.81   | 0.001     | 0.29   | 0.001     | 0.36   | 0.001    | 0.57   | 0.001      | 0.84   | 0.001      | 0.067  | 0.001     | 0.63   | 0.0020     | 0.11   | 0.001     | 0.12   | 0.0025    | 0.72    | 0.0025    | 0.32    | 0.0025     | 1.2     |    |
| Mercury                  | 0.002     | NP         | ND     | NP        | ND     | 0.0002    | ND     | 0.0002    | ND     | 0.0002   | ND     | 0.0002     | ND     | 0.0002     | ND     | 0.0002    | ND     | 0.00020    | ND     | 0.0002    | ND     | 0.00020   | ND      | 0.00020   | ND      | 0.00020    | ND      |    |
| Nickel                   | 0.1       | NP         | 0.015  | NP        | 0.015  | 0.005     | 0.02   | 0.005     | 0.016  | 0.005    | 0.016  | 0.005      | 0.011  | 0.005      | 0.015  | 0.005     | 0.018  | 0.010      | ND     | 0.005     | 0.0094 | 0.0020    | 0.0027  | 0.0020    | 0.0073  | 0.0020     | 0.0042  |    |
| Nitrogen/Nitrate         | 10.0      | NP         | 0.036  | NP        | ND     | 0.02      | 1.0    | 0.02      | 0.27   | 0.02     | 0.05   | 0.02       | ND     | 0.02       | 0.33   | 0.02      | 0.31   | 0.02       | 0.32   | 0.2       | 3.5    | 0.10      | ND      | 0.10      | ND      | 0.10       | 0.16    |    |
| Nitrogen/Nitrate, Nitric | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR |
| Nitrogen/Nitrite         | NA        | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR |
| Percchlorate             | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR |
| pH                       | 6.5 - 9.0 | NA         | 7.55   | NA        | 7.75   | NA        | 7.27   | NA        | 7.15   | NA       | 7.08   | NA         | 7.40   | NA         | 6.05   | NA        | 8.35   | NA         | 7.13   | NA        | 8.21   | NA        | 7.03    | NA        | 6.93    | NA         | 7.11    |    |
| Selenium                 | 0.05      | NP         | 0.0024 | NP        | 0.0015 | 0.001     | 0.065  | 0.001     | 0.0035 | 0.001    | 0.003  | 0.001      | 0.0017 | 0.001      | 0.0037 | 0.001     | 0.022  | 0.0050     | 0.0055 | 0.001     | 0.15   | 0.0025    | ND      | 0.0025    | ND      | 0.0025     | ND      |    |
| Silver                   | 0.05      | NP         | ND     | NP        | ND     | 0.005     | ND     | 0.005     | ND     | 0.005    | ND     | 0.005      | ND     | 0.005      | ND     | 0.005     | ND     | 0.010      | ND     | 0.005     | ND     | 0.00050   | ND      | 0.00050   | ND      | 0.00050    | ND      |    |
| Sulfate                  | 400.0     | NP         | 960    | NP        | 820    | 250       | 770    | 250       | 810    | 250      | 940    | 100        | 850    | 100        | 880    | 250       | 990    | 500        | 810    | 100       | 390    | 250       | 800     | 250       | 980     | 250        | 840     |    |
| Thallium                 | 0.002     | NP         | 0.0019 | NP        | 0.0018 | 0.001     | 0.0035 | 0.001     | 0.0039 | 0.001    | 0.0027 | 0.001      | 0.0016 | 0.001      | 0.0016 | 0.001     | 0.0034 | 0.0010     | 0.0025 | 0.001     | 0.0043 | 0.0020    | 0.0025  | 0.0020    | 0.0043  | 0.0020     | 0.0022  |    |
| Total Dissolved Solids   | 1,200     | NP         | 1800   | NP        | 1700   | 17        | 1800   | 17        | 1900   | 17       | 2000   | 17         | 1800   | 17         | 1800   | 17        | 2200   | 26         | 1700   | 26        | 1300   | 10        | 2000    | 10        | 2100    | 10         | 2100    |    |
| Vanadium                 | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR |
| Zinc                     | 5.0       | NP         | ND     | NP        | ND     | 0.006     | ND     | 0.006     | ND     | 0.006    | ND     | 0.006      | ND     | 0.006      | ND     | 0.006     | 0.0084 | 0.020      | ND     | 0.006     | ND     | 0.020     | ND      | 0.020     | ND      | 0.020      | ND      |    |
| Benzene                  | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR |
| BETX                     | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR       | NR     | NR         | NR     | NR         | NR     | NR        | NR     | NR         | NR     | NR        | NR     | NR        | NR      | NR        | NR      | NR         | NR      | NR |
| Temperature              | NA        | NA         | 17.28  | NA        | 14.52  | NA        | 16.04  | NA        | 17.94  | NA       | 18.65  | NA         | 16.54  | NA         | 14.74  | NA        | 15.10  | NA         | 15.06  | NA        | 14.50  | NA        | 17.22   | NA        | 16.52   | NA         | 13.59   |    |
| Conductivity             | NA        | NA         | 2.61   | NA        | 2.42   | NA        | 2.44   | NA        | 2.60   | NA       | 2.74   | NA         | 2.07   | NA         | 2.00   | NA        | 2.92   | NA         | 2.06   | NA        | 1.72   | NA        | 1.98    | NA        | 2.17    | NA         | 2.10    |    |
| Dissolved Oxygen         | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA       | NM     | NA         | NM     | NA         | NM     | NA        | NM     | NA         | NM     | NA        | 3.88   | NA        | 0.72    | NA        | 0.31    | NA         | 0.51    |    |
| ORP                      | NA        | NA         | NM     | NA        | NM     | NA        | NM     | NA        | NM     | NA       | NM     | NA         | NM     | NA         | NM     | NA        | NM     | NA         | NM     | NA        | 80     | NA        | 127     | NA        | 5.9     | NA         | -146.8  |    |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Recharge Groundwater  
 All values are in mg/L (ppm) unless otherwise noted

DL - Detection Limit  
 NA - Not Applicable  
 ND - Not Detected  
 NM - Not Measured  
 NR - Not Required  
 NS - Not Sampled  
 ^ - Denotes instrument related QC exceeds the control limits

Temperature °C  
 Conductivity mc/cm<sup>2</sup>  
 Dissolved Oxygen mg/L  
 Oxygen Reduction Potential (ORP) mV  
 degrees Celsius  
 millimhos-centimeters  
 milligrams/liter  
 millivolts



Table 2. Groundwater Analytical Results - Midwest Generation LLC, Powerton Station, Pekin, IL

| Sample: MW-16             |           | Date    |        | 12/12/2012 |        | 2/27/2013 |        | 5/29/2013 |        | 7/29/2013 |        | 10/22/2013 |        |
|---------------------------|-----------|---------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|
| Parameter                 | Standards | DL      | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result |
| Antimony                  | 0.006     | 0.0050  | ND     | 0.003      | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     |
| Arsenic                   | 0.010     | 0.0050  | ND     | 0.001      | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Barium                    | 2.0       | 0.020   | 0.039  | 0.001      | 0.042  | 0.0025    | 0.038  | 0.0025    | 0.035  | 0.0025    | 0.037  | 0.0025     | 0.037  |
| Beryllium                 | 0.004     | 0.0010  | ND     | 0.001      | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Boron                     | 2.0       | 0.20    | ND     | 0.01       | 0.13   | 0.050     | 0.20   | 0.050     | 0.26   | 0.050     | 0.35   | 0.050      | 0.35   |
| Cadmium                   | 0.005     | 0.0010  | ND     | 0.001      | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Chloride                  | 200.0     | 10      | 26     | 10         | 18     | 2.0       | 19     | 2.0       | 21     | 2.0       | 35     | 2.0        | 35     |
| Chromium                  | 0.1       | 0.0030  | 0.0047 | 0.004      | 0.0052 | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                    | 1.0       | 0.0030  | ND     | 0.002      | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Copper                    | 0.65      | 0.010   | ND     | 0.003      | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                   | 0.2       | 0.0050  | ND     | 0.005      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride                  | 4.0       | 0.25    | ND     | 0.25       | ND     | 0.10      | ND     | 0.10      | 0.11   | 0.10      | 0.11   | 0.10       | 0.11   |
| Iron                      | 5.0       | 0.010   | 0.012  | 0.01       | 0.019  | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     |
| Lead                      | 0.0075    | 0.0050  | ND     | 0.001      | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                 | 0.15      | 0.0020  | 0.022  | 0.001      | 0.0053 | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Mercury                   | 0.002     | 0.00020 | ND     | 0.0002     | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                    | 0.1       | 0.010   | ND     | 0.005      | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Nitrogen/Nitrate          | 10.0      | 0.50    | 18     | 0.5        | 23     | 0.10      | 20     | 0.10      | 13     | 0.10      | 19     | 0.10       | 19     |
| Nitrogen/Nitrate, Nitrate | NA        | NR      | NR     | NR         | NR     | 2.5       | 20     | 2.5       | 13     | 1.0       | 19     |            |        |
| Nitrogen/Nitrite          | NA        | NR      | NR     | NR         | NR     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Perchlorate               | 0.0049    | NR      | NR     | NR         | NR     | 0.0040    | ND     | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     |
| pH                        | 6.5 - 9.0 | NA      | 7.38   | NA         | 8.31   | NA        | 7.10   | NA        | 7.18   | NA        | 7.27   | NA         | 7.27   |
| Selenium                  | 0.05      | 0.0050  | ND     | 0.001      | 0.0015 | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Silver                    | 0.05      | 0.010   | ND     | 0.005      | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Sulfate                   | 400.0     | 10      | 37     | 10         | 31     | 20        | 50     | 20        | 55     | 20        | 55     | 20         | 55     |
| Thallium                  | 0.002     | 0.0010  | ND     | 0.001      | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids    | 1,200     | 26      | 520    | 26         | 420    | 10        | 460    | 10        | 440    | 10        | 540    | 10         | 540    |
| Vanadium                  | 0.049     | 0.0080  | ND     | 0.005      | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Zinc                      | 5.0       | 0.020   | ND     | 0.006      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                   | 0.005     | 0.005   | ND     | 0.005      | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |
| BETX                      | 11.705    | 0.03    | ND     | 0.03       | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |
| Temperature               | NA        | NA      | 12.84  | NA         | 13.10  | NA        | 15.29  | NA        | 16.61  | NA        | 12.74  | NA         | 12.74  |
| Conductivity              | NA        | NA      | 0.61   | NA         | 1.17   | NA        | 0.60   | NA        | 0.59   | NA        | 0.63   | NA         | 0.63   |
| Dissolved Oxygen          | NA        | NA      | 9.54   | NA         | 8.53   | NA        | 6.78   | NA        | 4.91   | NA        | 6.24   | NA         | 6.24   |
| ORP                       | NA        | NA      | 110    | NA         | -38    | NA        | 70.2   | NA        | 24.7   | NA        | -83.4  | NA         | -83.4  |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I, Potable Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
^ - Denotes inorganic related QC exceeds the control limits

Temperature °C degrees Celsius  
Conductivity µm/cm micromhos centimeters  
Dissolved Oxygen mg/L milligrams/liter  
Oxygen Reduction Potential (ORP) mV millivolts





Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL

| Sample: MW-02            | Date      | 10/25/2010 |        | 3/24/2011 |        | 6/13/2011 |        | 9/13/2011 |        | 12/6/2011 |        | 3/14/2012 |        | 6/18/2012 |        | 9/28/2012 |        | 12/19/2012 |        | 3/7/2013 |        | 6/7/2013 |        | 7/25/2013 |        | 11/4/2013 |        |        |
|--------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|----------|--------|-----------|--------|-----------|--------|--------|
| Parameter                | Standard  | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL       | Result | DL       | Result | DL        | Result | DL        | Result |        |
| Antimony                 | 0.006     | 0.0030     | 0.015  | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     |        |
| Arsenic                  | 0.010     | 0.0010     | 0.025  | 0.0010    | 0.016  | 0.0010    | 0.012  | 0.0010    | 0.0087 | 0.0010    | 0.0094 | 0.0010    | 0.011  | 0.0010    | 0.011  | 0.0010    | 0.0089 | 0.0010     | 0.012  | 0.0010   | 0.0090 | 0.0010   | 0.0087 | 0.0010    | 0.0091 | 0.0087    | 0.0010 | 0.0091 |
| Barium                   | 2.0       | 0.0025     | 0.0091 | 0.0025    | 0.014  | 0.0025    | 0.024  | 0.0025    | 0.020  | 0.0025    | 0.023  | 0.0025    | 0.017  | 0.0025    | 0.016  | 0.0025    | 0.019  | 0.0025     | 0.016  | 0.0025   | 0.020  | 0.0025   | 0.021  | 0.0025    | 0.026  | 0.0025    | 0.028  |        |
| Beryllium                | 0.004     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0050    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     |        |
| Boron                    | 2.0       | 0.050      | 2.2    | 0.050     | 2.2    | 0.50      | 2.0    | 0.050     | 1.7    | 0.050     | 1.9    | 0.50      | 2.0    | 0.50      | 2.6    | 0.25      | 2.1    | 0.050      | 1.9    | 0.50     | 2.2    | 0.50     | 1.9    | 0.50      | 2.1    | 0.25      | 2.2    |        |
| Cadmium                  | 0.005     | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |        |
| Chloride                 | 200.0     | 2.0        | 42     | 2.0       | 45     | 2.0       | 46     | 2.0       | 45     | 2.0       | 50     | 2.0       | 53     | 2.0       | 48     | 2.0       | 55     | 2.0        | 54     | 2.0      | 50     | 2.0      | 52     | 2.0       | 47     | 2.0       | 55     |        |
| Chromium                 | 0.1       | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |        |
| Cobalt                   | 1.0       | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     |        |
| Copper                   | 0.65      | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |        |
| Cyanide                  | 0.2       | 0.010      | ND     | 0.010     | ND     | 0.010     | 0.014  | 0.010     | 0.019  | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     |        |
| Fluoride                 | 4.0       | 0.10       | 0.35   | 0.10      | 0.53   | 0.10      | 0.80   | 0.10      | 0.56   | 0.10      | 0.67   | 0.10      | 0.88   | 0.10      | 1.1    | 0.10      | 1.1    | 0.10       | 1.3    | 0.10     | 1.2    | 0.10     | 1.3    | 0.10      | 0.93   | 0.10      | 0.60   |        |
| Iron                     | 5.0       | 0.10       | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     |        |
| Lead                     | 0.0075    | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |        |
| Manganese                | 0.15      | 0.0025     | 0.0034 | 0.0025    | 0.018  | 0.0025    | 0.032  | 0.0025    | 0.038  | 0.0025    | 0.035  | 0.0025    | 0.028  | 0.0025    | 0.031  | 0.0025    | 0.025  | 0.0025     | 0.023  | 0.0025   | 0.039  | 0.0025   | 0.051  | 0.0025    | 0.069  | 0.0025    | 0.034  |        |
| Mercury                  | 0.002     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020   | ND     |        |
| Nickel                   | 0.1       | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | 0.0025 | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |        |
| Nitrogen/Nitrate         | 10.0      | 0.10       | ND     | 0.10      | ND     | 0.10      | 0.23   | 0.10      | 0.12   | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     |        |
| Nitrogen/Nitrate, Nitric | NA        | 0.10       | ND     | 0.10      | ND     | 0.10      | 0.23   | 0.10      | 0.12   | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     |        |
| Nitrogen/Nitrite         | NA        | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     |        |
| Perchlorate              | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.004      | ND     | 0.004    | ND     | 0.0040   | ND     | 0.0040    | ND     | 0.0040    | ND     |        |
| pH                       | 6.5 - 9.0 | NA         | 9.98   | NA        | 9.31   | NA        | 8.65   | NA        | 7.82   | NA        | 7.77   | NA        | 7.82   | NA        | 7.90   | NA        | 8.24   | NA         | 7.94   | NA       | 8.95   | NA       | 7.63   | NA        | 7.61   | NA        | 7.97   |        |
| Selenium                 | 0.05      | 0.0025     | 0.026  | 0.0025    | 0.0085 | 0.0025    | 0.028  | 0.0025    | 0.022  | 0.0025    | 0.0086 | 0.0025    | 0.0046 | 0.0025    | ND     | 0.0025    | 0.0027 | 0.0025     | ND     | 0.0025   | 0.0084 | 0.0025   | ND     | 0.0025    | 0.015  | 0.0025    | ND     |        |
| Silver                   | 0.05      | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |        |
| Sulfate                  | 400.0     | 50         | 230    | 50        | 160    | 50        | 150    | 50        | 200    | 50        | 180    | 50        | 200    | 50        | 210    | 50        | 270    | 50         | 210    | 50       | 230    | 50       | 220    | 50        | 260    | 100       | 290    |        |
| Thallium                 | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |        |
| Total Dissolved Solids   | 1,200     | 10         | 410    | 10        | 400    | 10        | 410    | 10        | 460    | 10        | 490    | 10        | 400    | 10        | 520    | 10        | 540    | 10         | 500    | 10       | 520    | 10       | 550    | 10        | 530    | 10        | 770    |        |
| Vanadium                 | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |        |
| Zinc                     | 5.0       | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     |        |
| Benzene                  | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0005     | ND     | 0.0005   | ND     | 0.0005   | ND     | 0.00050   | ND     | 0.00050   | ND     |        |
| BETX                     | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0025     | ND     | 0.0025   | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     |        |
| Temperature              | NA        | NA         | 15.30  | NA        | 13.42  | NA        | 14.58  | NA        | 14.46  | NA        | 13.5   | NA        | 14.79  | NA        | 16.22  | NA        | 14.24  | NA         | 13.01  | NA       | 12.2   | NA       | 12.99  | NA        | 14.79  | NA        | 13.16  |        |
| Conductivity             | NA        | NA         | 0.610  | NA        | 0.62   | NA        | 0.69   | NA        | 0.56   | NA        | 0.55   | NA        | 0.55   | NA        | 0.63   | NA        | 0.66   | NA         | 0.54   | NA       | 0.62   | NA       | 0.550  | NA        | 0.59   | NA        | 0.62   |        |
| Dissolved Oxygen         | NA        | NA         | NM     | NA        | 0.29   | NA        | 0.22   | NA        | 0.14   | NA        | 0.24   | NA        | 0.12   | NA        | 0.17   | NA        | 0.07   | NA         | 0.33   | NA       | 0.18   | NA       | 0.32   | NA        | 0.42   | NA        | 0.60   |        |
| ORP                      | NA        | NA         | NM     | NA        | 28.4   | NA        | 93     | NA        | -206   | NA        | -119   | NA        | -76    | NA        | -87    | NA        | -116   | NA         | -43    | NA       | -66.4  | NA       | -124.3 | NA        | -90.4  | NA        | -129.8 |        |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured  
NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limits

Temperature °C degrees Celsius  
Conductivity ns/cm² milliamperes centimeters  
Dissolved Oxygen mg/L milligrams/liter  
Oxygen Reduction Potential (ORP) mV millivolts







Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL

| Parameter              | Standards | Date   |        | 12/19/2012 |        | 3/7/2013 |        | 6/6/2013 |        | 7/25/2013 |        | 11/5/2013 |        |
|------------------------|-----------|--------|--------|------------|--------|----------|--------|----------|--------|-----------|--------|-----------|--------|
|                        |           | DL     | Result | DL         | Result | DL       | Result | DL       | Result | DL        | Result | DL        | Result |
| Aluminum               | 0.006     | 0.0030 | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     |
| Arsenic                | 0.010     | 0.0010 | 0.0029 | 0.0010     | 0.0019 | 0.0010   | 0.0065 | 0.0010   | 0.0065 | 0.0010    | 0.0096 | 0.0010    | 0.0054 |
| Barium                 | 2.0       | 0.0025 | 0.11   | 0.0025     | 0.088  | 0.0025   | 0.077  | 0.0025   | 0.092  | 0.0025    | 0.092  | 0.0025    | 0.13   |
| Beryllium              | 0.004     | 0.0010 | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     |
| Boron                  | 2.0       | 0.25   | 1.1    | 0.20       | 2.3    | 0.20     | 6.7    | 0.20     | 6.7    | 0.25      | 4.3    | 0.25      | 2.4    |
| Cadmium                | 0.005     | 0.0050 | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |
| Chloride               | 200.0     | 10     | 110    | 2.0        | 61     | 2.0      | 48     | 2.0      | 69     | 2.0       | 69     | 2.0       | 85     |
| Chromium               | 0.1       | 0.0050 | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |
| Cobalt                 | 1.0       | 0.0010 | ND     | 0.0010     | ND     | 0.0010   | 0.0015 | 0.0010   | 0.0015 | 0.0010    | ND     | 0.0010    | ND     |
| Copper                 | 0.65      | 0.0020 | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |
| Cyanide                | 0.2       | 0.010  | ND     | 0.010      | ND     | 0.010    | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     |
| Fluoride               | 4.0       | 0.10   | 0.43   | 0.10       | 0.27   | 0.10     | 0.30   | 0.10     | 0.34   | 0.10      | 0.34   | 0.10      | 0.30   |
| Iron                   | 5.0       | 0.10   | 2.6    | 0.10       | 2.0    | 0.10     | 6.2    | 0.10     | 16     | 0.10      | 16     | 0.10      | 4.1    |
| Lead                   | 0.0075    | 0.0050 | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |
| Manganese              | 0.15      | 0.0025 | 0.21   | 0.0025     | 0.26   | 0.0025   | 0.75   | 0.0025   | 0.72   | 0.0025    | 0.72   | 0.0025    | 0.44   |
| Mercury                | 0.002     | 0.0020 | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |
| Nickel                 | 0.1       | 0.0020 | ND     | 0.0020     | ND     | 0.0020   | 0.0039 | 0.0020   | 0.0039 | 0.0020    | 0.0029 | 0.0020    | ND     |
| Nitrogen/Nitrate       | 10.0      | 0.10   | ND     | 0.10       | ND     | 0.10     | 1.1    | 0.10     | 1.1    | 0.10      | ND     | 0.10      | ND     |
| Nitrogen/Nitrite       | NA        | 0.10   | ND     | 0.10       | ND     | 0.10     | 1.1    | 0.10     | 1.1    | 0.10      | ND     | 0.10      | ND     |
| Nitrogen/Nitrite       | NA        | 0.020  | ND     | 0.020      | ND     | 0.020    | MD     | 0.020    | MD     | 0.020     | ND     | 0.020     | ND     |
| Perchlorate            | 0.0049    | 0.004  | ND     | 0.004      | ND     | 0.0040   | ND     | 0.0040   | ND     | 0.0040    | ND     | 0.0040    | ND     |
| pH                     | 6.5 - 9.0 | NA     | 7.52   | NA         | 7.42   | NA       | 6.83   | NA       | 6.88   | NA        | 6.88   | NA        | 7.24   |
| Selenium               | 0.05      | 0.0025 | ND     | 0.0025     | ND     | 0.0025   | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     |
| Silver                 | 0.0050    | 0.0050 | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |
| Sulfate                | 400.0     | 50     | 160    | 100        | 380    | 100      | 390    | 100      | 360    | 100       | 360    | 100       | 350    |
| Thallium               | 0.002     | 0.0020 | ND     | 0.0020     | ND     | 0.0020   | MD     | 0.0020   | MD     | 0.0020    | ND     | 0.0020    | ND     |
| Total Dissolved Solids | 1,200     | 10     | 940    | 10         | 1160   | 10       | 1100   | 10       | 1100   | 10        | 1100   | 10        | 1200   |
| Vanadium               | 0.049     | 0.0050 | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |
| Zinc                   | 5.0       | 0.020  | ND     | 0.020      | ND     | 0.020    | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     |
| Barium                 | 0.005     | 0.0005 | ND     | 0.0005     | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |
| BETX                   | 11.705    | 0.0025 | ND     | 0.0025     | ND     | 0.0025   | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     |
| Temperature            | NA        | NA     | 11.32  | NA         | 7.1    | NA       | 9.68   | NA       | 12.92  | NA        | 12.92  | NA        | 13.14  |
| Conductivity           | NA        | NA     | 1.05   | NA         | 1.01   | NA       | 0.911  | NA       | 1.18   | NA        | 1.18   | NA        | 1.10   |
| Dissolved Oxygen       | NA        | NA     | 0.07   | NA         | 0.23   | NA       | 0.40   | NA       | 0.26   | NA        | 0.26   | NA        | 0.22   |
| ORP                    | NA        | NA     | -128   | NA         | -99.4  | NA       | -72.7  | NA       | -109.7 | NA        | -109.7 | NA        | -126.3 |

Note: Standards Abused from IAC Title 35, Chapter I, Part 620, Subpart D, Section 620.110 - Groundwater Quality Standards for Class I Public Drinking Water.

All values are in mg/L, (ppm) unless otherwise noted.

DL - Detection Limit  
 NA - Not Applicable  
 ND - Not Detected  
 NM - Not Measured

DL - Detection Limit  
 NR - Not Required  
 NS - Not Sampled  
 \* - Denotes standard related QC exceeds the control limits

Temperature  
 Conductivity  
 Dissolved Oxygen  
 Oxygen Reading Potential (ORP)

°C  
 mg cm<sup>-3</sup>  
 mg/L  
 mV

Degrees Celsius  
 milliequivalents  
 milligrams/liter  
 millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Waukegan Station, Waukegan, IL

| Sample: MW-07             |           | Date    |        | 12/19/2012 |        | 3/7/2013 |        | 6/6/2013 |        | 7/25/2013 |        | 11/4/2013 |        |
|---------------------------|-----------|---------|--------|------------|--------|----------|--------|----------|--------|-----------|--------|-----------|--------|
| Parameter                 | Standards | DL      | Result | DL         | Result | DL       | Result | DL       | Result | DL        | Result | DL        | Result |
| Antimony                  | 0.006     | 0.0030  | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     |
| Arsenic                   | 0.010     | 0.0010  | 0.0099 | 0.0010     | 0.012  | 0.0010   | 0.010  | 0.0010   | 0.011  | 0.0010    | 0.012  | 0.0010    | 0.012  |
| Barium                    | 2.0       | 0.0025  | 0.080  | 0.0025     | 0.082  | 0.0025   | 0.082  | 0.0025   | 0.083  | 0.0025    | 0.082  | 0.0025    | 0.082  |
| Beryllium                 | 0.004     | 0.0010  | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     |
| Boron                     | 2.0       | 5.0     | 43     | 5.0        | 49     | 5.0      | 42     | 5.0      | 44     | 5.0       | 44     | 1.0       | 45     |
| Cadmium                   | 0.005     | 0.00050 | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |
| Chloride                  | 200.0     | 2.0     | 60     | 2.0        | 54     | 2.0      | 44     | 2.0      | 33     | 2.0       | 33     | 2.0       | 53     |
| Chromium                  | 0.1       | 0.0050  | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |
| Cobalt                    | 1.0       | 0.0010  | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     |
| Copper                    | 0.65      | 0.0020  | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |
| Cyanide                   | 0.2       | 0.010   | ND     | 0.010      | ND     | 0.010    | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     |
| Fluoride                  | 4.0       | 0.10    | 0.48   | 0.10       | 0.50   | 0.10     | 0.46   | 0.10     | 0.46   | 0.10      | 0.46   | 0.10      | 0.44   |
| Iron                      | 5.0       | 0.10    | 12     | 0.10       | 12     | 0.10     | 13     | 0.10     | 13     | 0.10      | 13     | 0.10      | 13     |
| Lead                      | 0.0075    | 0.00050 | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |
| Manganese                 | 0.15      | 0.0025  | 0.46   | 0.0025     | 0.49   | 0.0025   | 0.48   | 0.0025   | 0.46   | 0.0025    | 0.46   | 0.0025    | 0.46   |
| Mercury                   | 0.002     | 0.00020 | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020   | ND     |
| Nickel                    | 0.1       | 0.0020  | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |
| Nitrogen/Nitrate          | 10.0      | 0.10    | ND     | 0.10       | ND     | 0.10     | 0.11   | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     |
| Nitrogen/Nitrate, Nitrite | NA        | 0.10    | ND     | 0.10       | ND     | 0.10     | 0.11   | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     |
| Nitrogen/Nitrite          | NA        | 0.020   | ND     | 0.020      | ND     | 0.020    | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     |
| Perchlorate               | 0.0049    | 0.004   | ND     | 0.004      | ND     | 0.0040   | ND     | 0.0040   | ND     | 0.0040    | ND     | 0.0040    | ND     |
| pH                        | 6.5 - 9.0 | NA      | 7.27   | NA         | 8.24   | NA       | 7.09   | NA       | 7.10   | NA        | 7.18   | NA        | 7.18   |
| Selenium                  | 0.05      | 0.0025  | ND     | 0.0025     | ND     | 0.0025   | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | 0.0025 |
| Silver                    | 0.05      | 0.00050 | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |
| Sulfate                   | 400.0     | 250     | 630    | 250        | 710    | 250      | 650    | 250      | 860    | 250       | 770    | 250       | 770    |
| Thallium                  | 0.002     | 0.0020  | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     |
| Total Dissolved Solids    | 1,200     | 10      | 1800   | 10         | 1800   | 10       | 1800   | 10       | 1800   | 10        | 1800   | 10        | 1800   |
| Vanadium                  | 0.049     | 0.0050  | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     |
| Zinc                      | 5.0       | 0.020   | ND     | 0.020      | ND     | 0.020    | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     |
| Benzene                   | 0.005     | 0.0005  | ND     | 0.0005     | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     |
| BETX                      | 11.705    | 0.0025  | ND     | 0.0025     | ND     | 0.0025   | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     |
| Temperature               | NA        | NA      | 12.99  | NA         | 1.5    | NA       | 12.46  | NA       | 13.99  | NA        | 12.92  | NA        | 12.92  |
| Conductivity              | NA        | NA      | 1.54   | NA         | 1.17   | NA       | 1.385  | NA       | 1.52   | NA        | 1.01   | NA        | 1.01   |
| Dissolved Oxygen          | NA        | NA      | 0.05   | NA         | 0.33   | NA       | 0.80   | NA       | 0.28   | NA        | 0.54   | NA        | 0.54   |
| ORP                       | NA        | NA      | -129   | NA         | -111.6 | NA       | -151.7 | NA       | -125.8 | NA        | -127.7 | NA        | -127.7 |

Notes: Standards obtained from IAC, Title 35, Chapter 1, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limit

Temperature °C degrees Celsius  
Conductivity ms/cm millisiemens centimeter  
Dissolved Oxygen mg/L milligrams/liter  
Oxygen Reduction Potential (ORP) mV millivolt





Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

| Parameter                 | Standard  | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |        | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 5/23/2013 |        | 8/14/2013 |        | 10/29/2013 |        |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|--------|
|                           |           | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL       | Result | DL        | Result | DL        | Result | DL         | Result |        |
| Ammonia                   | 0.0030    | ND         | 0.0030 | ND        | 0.0030 | 0.0063    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030 |
| Arsenic                   | 0.010     | ND         | 0.010  | ND        | 0.010  | ND        | 0.010  | ND        | 0.010  | ND        | 0.010  | ND        | 0.010  | ND        | 0.010  | ND        | 0.010  | ND         | 0.010  | ND       | 0.010  | ND        | 0.010  | ND        | 0.010  | ND         | 0.010  | 0.011  |
| Boron                     | 2.0       | 0.0025     | 0.050  | 0.0025    | 0.041  | 0.0025    | 0.046  | 0.0025    | 0.033  | 0.0025    | 0.033  | 0.0025    | 0.033  | 0.0025    | 0.039  | 0.0025    | 0.035  | 0.0025     | 0.034  | 0.0025   | 0.034  | 0.0025    | 0.035  | 0.0025    | 0.035  | 0.0025     | 0.10   |        |
| Beryllium                 | 0.004     | ND         | 0.0010 | ND        | 0.0010 | ND        | 0.0010 | ND        | 0.0010 | ND        | 0.0010 | ND        | 0.0010 | ND        | 0.0010 | ND        | 0.0010 | ND         | 0.0010 | ND       | 0.0010 | ND        | 0.0010 | ND        | 0.0010 | ND         | 0.0010 | ND     |
| Bromine                   | 2.0       | 0.25       | 1.8    | 0.050     | 1.6    | 0.050     | 1.8    | 0.050     | 1.6    | 0.050     | 1.6    | 0.25      | 1.5    | 0.50      | 2.1    | 0.25      | 1.9    | 0.50       | 1.9    | 0.50     | 1.9    | 0.50      | 2.4    | 0.50      | 2.3    | 0.10       | 2.6    |        |
| Calcium                   | 0.0050    | ND         | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND         | 0.0050 | ND       | 0.0050 | ND        | 0.0050 | ND        | 0.0050 | ND         | 0.0050 | ND     |
| Chloride                  | 200.0     | 10         | 110    | 10        | 210    | 10        | 110    | 10        | 140    | 10        | 140    | 10        | 190    | 10        | 170    | 10        | 120    | 10         | 160    | 10       | 120    | 10        | 190    | 10        | 120    | 10         | 160    |        |
| Chromium                  | 0.1       | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050 |
| Cobalt                    | 1.0       | 0.0010     | 0.0010 | 0.0010    | 0.0010 | 0.0010    | 0.0010 | 0.0010    | 0.0010 | 0.0010    | 0.0010 | 0.0010    | 0.0010 | 0.0010    | 0.0010 | 0.0010    | 0.0010 | 0.0010     | 0.0010 | 0.0010   | 0.0010 | 0.0010    | 0.0010 | 0.0010    | 0.0010 | 0.0010     | 0.0010 | 0.0022 |
| Copper                    | 0.65      | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020 |
| Cyanide                   | 0.2       | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010  |
| Fluoride                  | 4.0       | 0.10       | 0.71   | 0.10      | 0.65   | 0.10      | 0.53   | 0.10      | 0.73   | 0.10      | 0.73   | 0.10      | 0.69   | 0.10      | 0.77   | 0.10      | 0.86   | 0.10       | 0.86   | 0.10     | 0.77   | 0.10      | 0.84   | 0.10      | 0.50   | 0.10       | 0.41   |        |
| Iron                      | 5.0       | 0.10       | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | 0.11   | 0.10      | 0.11   | 0.10      | 0.23   | 0.10      | 0.23   | 0.10      | 0.33   | 0.10       | 0.20   | 0.10     | 0.42   | 0.10      | 0.46   | 0.10      | 0.72   | 0.10       | 1.2    |        |
| Lead                      | 0.0075    | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050 |
| Manganese                 | 0.15      | 0.0025     | 0.20   | 0.0025    | 0.15   | 0.013     | 0.22   | 0.0025    | 0.17   | 0.0025    | 0.17   | 0.0025    | 0.16   | 0.0025    | 0.16   | 0.0025    | 0.15   | 0.0025     | 0.18   | 0.0025   | 0.17   | 0.0025    | 0.13   | 0.0025    | 0.13   | 0.0025     | 0.28   |        |
| Mercury                   | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020 |
| Nickel                    | 0.1       | 0.0020     | 0.0046 | 0.0020    | 0.0038 | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010      | 0.010  | 0.010    | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010      | 0.010  | 0.010  |
| Nitrogen/Nitrate          | 10.0      | 0.10       | ND     | 0.10      | 1.1    | 0.10      | 0.73   | 0.10      | 0.33   | 0.10      | 1.4    | 0.10      | 2.2    | 0.10      | 0.61   | 0.10      | 0.25   | 0.10       | 1.5    | 0.10     | 1.6    | 0.10      | 1.6    | 0.10      | 0.10   | 0.10       | 0.10   | 0.10   |
| Nitrogen/Nitrate, Nitrite | NA        | 0.10       | ND     | 0.10      | 1.1    | 0.10      | 0.73   | 0.10      | 0.37   | 0.10      | 1.4    | 0.10      | 2.2    | 0.10      | 0.61   | 0.10      | 0.25   | 0.10       | 1.5    | 0.10     | 1.6    | 0.10      | 1.6    | 0.10      | 0.10   | 0.10       | 0.10   | 0.10   |
| Nitrogen/Nitrite          | NA        | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | 0.042  | 0.020     | 0.042  | 0.020     | 0.042  | 0.020     | 0.042  | 0.020     | 0.042  | 0.020      | 0.042  | 0.020    | 0.042  | 0.020     | 0.042  | 0.020     | 0.042  | 0.020      | 0.042  | 0.020  |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| pH                        | 6.5 - 9.0 | NA         | 7.89   | NA        | 8.05   | NA        | 7.28   | NA        | 7.57   | NA        | 7.16   | NA        | 7.84   | NA        | 7.55   | NA        | 7.70   | NA         | 7.79   | NA       | 8.41   | NA        | 7.56   | NA        | 7.18   | NA         | 7.04   |        |
| Selenium                  | 0.05      | 0.0025     | ND     | 0.0025    | ND     | 0.013     | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025     | 0.0025 | 0.0025   | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025     | 0.0025 | 0.0025 |
| Silver                    | 0.05      | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050 |
| Sulfate                   | 400.0     | 100        | 530    | 100       | 390    | 100       | 280    | 100       | 320    | 100       | 270    | 100       | 430    | 100       | 390    | 100       | 390    | 100        | 290    | 100      | 310    | 100       | 460    | 100       | 540    | 100        | 430    |        |
| Thallium                  | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020 |
| Total Dissolved Solids    | 1,200     | 10         | 1100   | 10        | 1100   | 10        | 1100   | 10        | 760    | 10        | 770    | 10        | 910    | 10        | 950    | 10        | 790    | 10         | 880    | 10       | 930    | 10        | 1100   | 10        | 1300   | 10         | 1300   |        |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Zinc                      | 5.0       | 0.020      | ND     | 0.020     | ND     | 0.10      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | 0.040  | 0.020      | 0.020  | 0.020    | 0.020  | 0.020     | 0.020  | 0.020     | 0.020  | 0.020      | 0.020  | 0.020  |
| BTEX                      | 11,705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR     |
| Benzene                   | NA        | NA         | 16.28  | NA        | 10.74  | NA        | 14.96  | NA        | 21.42  | NA        | 14.57  | NA        | 12.34  | NA        | 18.50  | NA        | 22.35  | NA         | 14.65  | NA       | 9.99   | NA        | 14.40  | NA        | 16.82  | NA         | 16.20  |        |
| Temperature               | NA        | NA         | 1.70   | NA        | 1.76   | NA        | 1.55   | NA        | 1.01   | NA        | 1.09   | NA        | 1.06   | NA        | 1.24   | NA        | 1.15   | NA         | 1.14   | NA       | 1.16   | NA        | 1.25   | NA        | 1.51   | NA         | 1.53   |        |
| Conductivity              | NA        | NA         | NA     | NA        | 1.76   | NA        | 1.55   | NA        | 1.01   | NA        | 1.09   | NA        | 1.06   | NA        | 1.24   | NA        | 1.15   | NA         | 1.14   | NA       | 1.16   | NA        | 1.25   | NA        | 1.51   | NA         | 1.53   |        |
| Dissolved Oxygen          | NA        | NA         | NA     | NA        | 0.34   | NA        | 0.07   | NA        | 0.06   | NA        | 0.06   | NA        | 0.11   | NA        | 0.13   | NA        | 0.09   | NA         | 0.06   | NA       | 0.20   | NA        | 0.50   | NA        | 0.26   | NA         | 0.57   |        |
| ORP                       | NA        | NA         | NA     | NA        | -174.1 | NA        | 49.2   | NA        | -306   | NA        | -108   | NA        | -63    | NA        | -98    | NA        | -128   | NA         | -103   | NA       | -122.3 | NA        | -157.5 | NA        | -81.4  | NA         | -132.6 |        |

Note: Standards obtained from IAC, Title 35, Chapter 1, Part 600, Subpart D, Section 650.110 - Groundwater Quality Standards for Class 1 Public Resource Groundwater  
 DL - Detection limit  
 NA - Not Applicable  
 NR - Not Detected  
 ND - Not Measured  
 NS - Not Sampled  
 SS - Not Specified  
 °C - Degrees Celsius  
 mg/L - milligrams per liter  
 mg/L - milligrams per liter  
 mV - millivolts  
 °C - Degrees Celsius  
 mg/L - milligrams per liter  
 mV - millivolts  
 All values are in mg/L, unless otherwise noted.

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romcoville, IL

| Sample: MW-02            | Date      | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |       | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 5/23/2013 |        | 8/14/2013 |        | 10/28/2013 |        |         |      |
|--------------------------|-----------|------------|--------|-----------|--------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|---------|------|
|                          |           | Standards  | DL     | Result    | DL     | Result    | DL    | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result   | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result  |      |
| Antimony                 | 0.006     | 0.0030     | ND^    | 0.0030    | ND     | 0.015     | ND    | 0.0030    | 0.0073 | 0.0030    | 0.017  | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030  | ND   |
| Arsenic                  | 0.010     | 0.0010     | 0.0052 | 0.0010    | 0.0032 | 0.0050    | ND    | 0.0010    | 0.0080 | 0.0010    | 0.0058 | 0.0010    | 0.0048 | 0.0010    | 0.0044 | 0.0010    | 0.0071 | 0.0010     | 0.0046 | 0.0010   | 0.0037 | 0.0010    | 0.0051 | 0.0010    | 0.0059 | 0.0010     | 0.0091 | 0.0091  |      |
| Barium                   | 2.0       | 0.0025     | 0.061  | 0.0025    | 0.068  | 0.013     | 0.068 | 0.0025    | 0.048  | 0.0025    | 0.048  | 0.0025    | 0.058  | 0.0025    | 0.062  | 0.0025    | 0.050  | 0.0025     | 0.051  | 0.0025   | 0.057  | 0.0025    | 0.071  | 0.0025    | 0.075  | 0.0025     | 0.079  | 0.079   |      |
| Beryllium                | 0.004     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND    | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  | ND   |
| Boron                    | 2.0       | 0.25       | 1.8    | 0.25      | 1.7    | 0.050     | 2.3   | 0.050     | 2.3    | 0.050     | 1.7    | 0.25      | 1.7    | 0.50      | 2.0    | 0.25      | 2.2    | 0.50       | 1.8    | 0.50     | 1.7    | 0.50      | 1.9    | 0.50      | 2.2    | 0.10       | 2.4    | 2.4     |      |
| Cadmium                  | 0.005     | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| Chloride                 | 200.0     | 10         | 110    | 10        | 250    | 10        | 180   | 10        | 110    | 10        | 120    | 10        | 140    | 10        | 150    | 10        | 110    | 10         | 130    | 10       | 190    | 10        | 200    | 10        | 170    | 10         | 180    | 180     |      |
| Chromium                 | 0.1       | 0.0050     | ND     | 0.0050    | ND     | 0.025     | ND    | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  | ND   |
| Cobalt                   | 1.0       | 0.0010     | ND     | 0.0010    | ND     | 0.0050    | ND    | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  | ND   |
| Copper                   | 0.65      | 0.0020     | ND     | 0.0020    | ND     | 0.010     | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND   |
| Cyanide                  | 0.2       | 0.010      | ND     | 0.010     | ND     | 0.010     | ND    | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010   | ND   |
| Fluoride                 | 4.0       | 0.10       | 0.62   | 0.10      | 0.50   | 0.10      | 0.42  | 0.10      | 0.59   | 0.10      | 0.59   | 0.10      | 0.46   | 0.10      | 0.55   | 0.10      | 0.71   | 0.10       | 0.60^  | 0.10     | 0.48^  | 0.10      | 0.47   | 0.10      | 0.45   | 0.10       | 0.47   | 0.47    |      |
| Iron                     | 5.0       | 0.10       | ND     | 0.10      | ND     | 0.50      | ND    | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     | 0.14       | 0.10   | 0.33    | 0.33 |
| Lead                     | 0.0075    | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| Manganese                | 0.15      | 0.0025     | 0.032  | 0.0025    | 0.032  | 0.013     | 0.043 | 0.0025    | 0.036  | 0.0025    | 0.031  | 0.0025    | 0.031  | 0.0025    | 0.038  | 0.0025    | 0.029  | 0.0025     | 0.033  | 0.0025   | 0.029  | 0.0025    | 0.041  | 0.0025    | 0.041  | 0.0025     | 0.043  | 0.043   |      |
| Mercury                  | 0.002     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND    | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020 | ND   |
| Nickel                   | 0.1       | 0.0020     | ND     | 0.0020    | ND     | 0.010     | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND   |
| Nitrogen/Nitrate         | 10.0      | 0.10       | ND     | 0.10      | ND     | 0.10      | ND    | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10    | ND   |
| Nitrogen/Nitrate, Nitric | NA        | 0.10       | ND     | 0.10      | ND     | 0.10      | ND    | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10    | ND   |
| Nitrogen/Nitrite         | NA        | 0.020      | ND     | 0.020     | ND     | 0.020     | ND    | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   | ND   |
| Perechlorate             | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.004      | ND     | 0.004    | ND     | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     | 0.0040  | ND   |
| pH                       | 6.5 - 9.0 | NA         | 8.62   | NA        | 8.62   | NA        | 8.00  | NA        | 8.11   | NA        | 7.80   | NA        | 8.34   | NA        | 8.23   | NA        | 8.33   | NA         | 8.40   | NA       | 7.79   | NA        | 8.00   | NA        | 7.93   | NA         | 8.06   | 8.06    |      |
| Selenium                 | 0.05      | 0.0025     | ND     | 0.0025    | ND     | 0.013     | ND    | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025  | ND   |
| Silver                   | 0.05      | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| Sulfate                  | 400.0     | 100        | 430    | 100       | 280    | 50        | 400   | 50        | 330    | 50        | 220    | 50        | 330    | 100       | 340    | 50        | 280    | 50         | 250    | 50       | 260    | 50        | 250    | 100       | 300    | 100        | 280    | 280     |      |
| Thallium                 | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND   |
| Total Dissolved Solids   | 1,200     | 10         | 870    | 10        | 970    | 10        | 900   | 10        | 720    | 10        | 650    | 10        | 810    | 10        | 850    | 10        | 690    | 10         | 710    | 10       | 740    | 10        | 880    | 10        | 900    | 10         | 950    | 950     |      |
| Vanadium                 | 0.049     | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  | ND   |
| Zinc                     | 5.0       | 0.020      | ND     | 0.020     | ND     | 0.10      | ND    | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   | ND   |
| Benzene                  | 0.005     | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0005     | ND     | 0.0005   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| BETX                     | 11.705    | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0025     | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025  | ND   |
| Temperature              | NA        | NA         | 16.29  | NA        | 13.56  | NA        | 15.90 | NA        | 18.05  | NA        | 16.14  | NA        | 14.74  | NA        | 16.59  | NA        | 19.10  | NA         | 15.58  | NA       | 12.00  | NA        | 15.53  | NA        | 16.36  | NA         | 15.02  | 15.02   |      |
| Conductivity             | NA        | NA         | 1.37   | NA        | 1.64   | NA        | 1.54  | NA        | 0.96   | NA        | 0.83   | NA        | 0.95   | NA        | 1.12   | NA        | 0.91   | NA         | 0.88   | NA       | 0.97   | NA        | 1.06   | NA        | 1.10   | NA         | 1.06   | 1.06    |      |
| Dissolved Oxygen         | NA        | NA         | NM     | NA        | 0.19   | NA        | 0.07  | NA        | 0.06   | NA        | 0.06   | NA        | 0.02   | NA        | 0.03   | NA        | 0.14   | NA         | 0.06   | NA       | 3.81   | NA        | 0.52   | NA        | 0.19   | NA         | 0.54   | 0.54    |      |
| ORP                      | NA        | NA         | NM     | NA        | -154.9 | NA        | 63    | NA        | -309   | NA        | -147   | NA        | -104   | NA        | -160   | NA        | -156   | NA         | -106   | NA       | 189.8  | NA        | -117.5 | NA        | -160.5 | NA         | -172.5 | -172.5  |      |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured  
NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limits

Temperature °C  
Conductivity mcms  
Dissolved Oxygen mg/L  
Oxygen Reduction Potential (ORP) mV  
degrees Celsius  
microsiemens centimeters  
milligrams/liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

| Parameter              | Standards | Date   |        | 3/28/2011 |        | 6/15/2011 |        | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 5/22/2013 |        | 8/14/2013 |        | 10/28/2013 |        |
|------------------------|-----------|--------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|
|                        |           | DL     | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL       | Result | DL        | Result | DL        | Result | DL         | Result |
| Antimony               | 0.0030    | ND     | 0.0030 | ND        | 0.0030 | ND        | 0.0030 | ND        | 0.0030 | ND        | 0.0030 | ND        | 0.0030 | ND        | 0.0030 | ND        | 0.0030 | ND         | 0.0030 | ND       | 0.0030 | ND        | 0.0030 | ND        | 0.0030 | ND         | 0.0030 |
| Arsenic                | 0.010     | 0.0020 | 0.0024 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025     | 0.0025 | 0.0025   | 0.0025 | 0.0025    | 0.0025 | 0.0025    | 0.0025 | 0.0025     | 0.0025 |
| Barium                 | 2.0       | 0.0025 | 0.084  | 0.0025    | 0.071  | 0.0025    | 0.071  | 0.0025    | 0.071  | 0.0025    | 0.083  | 0.0025    | 0.083  | 0.0025    | 0.12   | 0.0025    | 0.083  | 0.0025     | 0.083  | 0.0025   | 0.083  | 0.0025    | 0.083  | 0.0025    | 0.083  | 0.0025     | 0.083  |
| Beryllium              | 0.004     | 0.0010 | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Boron                  | 2.0       | 0.25   | 2.7    | 0.25      | 2.6    | 0.050     | 3.3    | 0.050     | 2.8    | 0.050     | 2.8    | 0.25      | 2.7    | 0.50      | 3.1    | 0.25      | 3.9    | 0.50       | 3.4    | 0.50     | 3.2    | 0.50      | 3.7    | 0.50      | 3.6    | 0.50       | 3.5    |
| Cadmium                | 0.005     | 0.0050 | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Chloride               | 200.0     | 2.0    | 54     | 10        | 250    | 10        | 130    | 10        | 100    | 10        | 100    | 10        | 95     | 10        | 88     | 10        | 96     | 10         | 100    | 10       | 87     | 10        | 110    | 10        | 100    | 10         | 110    |
| Chromium               | 0.1       | 0.0050 | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                 | 1.0       | 0.0010 | 0.0022 | 0.0050    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Copper                 | 0.05      | 0.0020 | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                | 0.2       | 0.010  | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride               | 4.0       | 0.10   | 0.50   | 0.10      | 0.37   | 0.10      | 0.45   | 0.10      | 0.39   | 0.10      | 0.38   | 0.10      | 0.36   | 0.10      | 0.36   | 0.10      | 0.45   | 0.10       | 0.44   | 0.10     | 0.38   | 0.10      | 0.41   | 0.10      | 0.42   | 0.10       | 0.49   |
| Iron                   | 5.0       | 0.10   | 0.37   | 0.10      | 0.57   | 0.10      | 0.26   | 0.10      | 0.19   | 0.10      | 0.20   | 0.10      | 0.20   | 0.10      | 0.34   | 0.10      | 0.21   | 0.10       | 0.20   | 0.10     | 0.20   | 0.10      | 0.21   | 0.10      | 0.26   | 0.10       | 0.20   |
| Lead                   | 0.075     | 0.0050 | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Manganese              | 0.15      | 0.0025 | 0.34   | 0.0025    | 0.31   | 0.013     | 0.34   | 0.0025    | 0.26   | 0.0025    | 0.29   | 0.0025    | 0.27   | 0.0025    | 0.37   | 0.0025    | 0.24   | 0.0025     | 0.25   | 0.0025   | 0.29   | 0.0025    | 0.22   | 0.0025    | 0.19   | 0.0025     | 0.16   |
| Mercury                | 0.002     | 0.0020 | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Nickel                 | 0.1       | 0.0020 | 0.0054 | 0.0020    | 0.0037 | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010      | 0.010  | 0.010    | 0.010  | 0.010     | 0.010  | 0.010     | 0.010  | 0.010      | 0.010  |
| Nitrogen/Nitrate       | 10.0      | 0.10   | ND     | 0.10      | ND     | 0.10      | 0.81   | 0.10      | 0.54   | 0.10      | 0.54   | 0.10      | 0.54   | 0.10      | 0.18   | 0.10      | 0.10   | 0.10       | 0.10   | 0.10     | 0.10   | 0.10      | 0.10   | 0.10      | 0.10   | 0.10       | 0.10   |
| Nitrogen/Nitrite       | NA        | 0.10   | ND     | 0.10      | ND     | 0.10      | 0.81   | 0.10      | 0.54   | 0.10      | 0.54   | 0.10      | 0.54   | 0.10      | 0.18   | 0.10      | 0.10   | 0.10       | 0.10   | 0.10     | 0.10   | 0.10      | 0.10   | 0.10      | 0.10   | 0.10       | 0.10   |
| Nitrogen/Nitrite       | NA        | 0.020  | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Perchlorate            | 0.0049    | NR     | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| pH                     | 6.5 - 9.0 | NA     | 7.21   | NA        | 7.72   | NA        | 7.01   | NA        | 7.18   | NA        | 6.55   | NA        | 7.24   | NA        | 6.79   | NA        | 7.12   | NA         | 7.21   | NA       | 7.88   | NA        | 7.21   | NA        | 7.20   | NA         | 7.24   |
| Selenium               | 0.05      | 0.0025 | ND     | 0.0025    | ND     | 0.013     | ND     | 0.0025    | 0.033  | 0.0025    | 0.033  | 0.0025    | 0.033  | 0.0025    | 0.033  | 0.0025    | 0.033  | 0.0025     | 0.033  | 0.0025   | 0.033  | 0.0025    | 0.033  | 0.0025    | 0.033  | 0.0025     |        |
| Silver                 | 0.05      | 0.0050 | ND     | 0.0050    | ND     | 0.0025    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Sulfate                | 400.0     | 100    | 330    | 50        | 270    | 50        | 240    | 100       | 250    | 100       | 280    | 100       | 320    | 100       | 500    | 100       | 440    | 100        | 480    | 100      | 390    | 100       | 610    | 100       | 530    | 100        | 540    |
| Thallium               | 0.002     | 0.0020 | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids | 1,200     | 10     | 940    | 10        | 1060   | 10        | 990    | 10        | 1000   | 10        | 930    | 10        | 1060   | 10        | 1400   | 10        | 1100   | 10         | 1160   | 10       | 1100   | 10        | 1200   | 10        | 1200   | 10         | 1100   |
| Vanadium               | 0.049     | NR     | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| Zinc                   | 5.0       | 0.020  | ND     | 0.020     | ND     | 0.10      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                | 11.705    | NR     | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     |
| BTEX                   | NA        | NA     | 12.84  | NA        | 9.89   | NA        | 14.19  | NA        | 15.69  | NA        | 13.57  | NA        | 11.65  | NA        | 15.47  | NA        | 17.33  | NA         | 13.40  | NA       | 9.50   | NA        | 16.15  | NA        | 16.84  | NA         | 14.53  |
| Temperature            | NA        | NA     | 1.52   | NA        | 1.69   | NA        | 1.46   | NA        | 1.24   | NA        | 1.14   | NA        | 1.06   | NA        | 1.48   | NA        | 1.38   | NA         | 1.25   | NA       | 1.18   | NA        | 1.39   | NA        | 1.37   | NA         | 1.22   |
| Conductivity           | NA        | NA     | 1.52   | NA        | 1.69   | NA        | 1.46   | NA        | 1.24   | NA        | 1.14   | NA        | 1.06   | NA        | 1.48   | NA        | 1.38   | NA         | 1.25   | NA       | 1.18   | NA        | 1.39   | NA        | 1.37   | NA         | 1.22   |
| Dissolved Oxygen       | NA        | NA     | 0.18   | NA        | 0.18   | NA        | 0.18   | NA        | 0.06   | NA        | 0.06   | NA        | 0.02   | NA        | 0.03   | NA        | 0.02   | NA         | 0.02   | NA       | 0.15   | NA        | 0.58   | NA        | 0.43   | NA         | 0.51   |
| ORP                    | NA        | NA     | NA     | NA        | -157.3 | NA        | 115.5  | NA        | -285   | NA        | -113   | NA        | -31    | NA        | -59    | NA        | -34    | NA         | -57    | NA       | 60.1   | NA        | -65.3  | NA        | -66.4  | NA         | -138.6 |

Notes: Standards obtained from IAC Title 35, Chapter I, Part 620 Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater  
 All values are in mg/L, (ppm) unless otherwise noted.  
 DL - Detection limit  
 NA - Not Applicable  
 ND - Not Detected  
 NS - Not Measured  
 NR - Not Required  
 NS - Not Sampled  
 ^ - Deviates extension related OQ exceed the control limit  
 °C - degrees Celsius  
 mg/cm<sup>3</sup> - milligrams per centimeter  
 mg/L - milligram per liter  
 mV - millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

| Sample: MW-04             | Date      | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |       | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 5/22/2013 |        | 8/14/2013 |        | 10/28/2013 |        |        |    |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|--------|----|
|                           |           | Standards  | DL     | Result    | DL     | Result    | DL    | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result   | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result |    |
| Antimony                  | 0.006     | 0.0030     | ND^    | 0.0030    | ND     | 0.015     | ND    | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030 | ND |
| Arsenic                   | 0.010     | 0.0010     | 0.0027 | 0.0010    | 0.0016 | 0.0050    | ND    | 0.0010    | 0.0041 | 0.0010    | 0.0016 | 0.0010    | 0.0015 | 0.0010    | 0.0028 | 0.0010    | 0.0044 | 0.0020     | 0.0033 | 0.0010   | 0.0010 | 0.0010    | 0.0013 | 0.0010    | 0.0032 | 0.0010     | 0.0054 |        |    |
| Barium                    | 2.0       | 0.0025     | 0.0068 | 0.0025    | 0.0062 | 0.013     | 0.050 | 0.0025    | 0.050  | 0.0025    | 0.043  | 0.0025    | 0.036  | 0.0025    | 0.041  | 0.0025    | 0.041  | 0.0050     | 0.037  | 0.0025   | 0.033  | 0.0025    | 0.034  | 0.0025    | 0.033  | 0.0025     | 0.037  |        |    |
| Beryllium                 | 0.004     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND    | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0020     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     |        |    |
| Baron                     | 2.0       | 0.25       | 3.7    | 0.25      | 3.3    | 0.050     | 3.6   | 0.050     | 4.3    | 0.050     | 3.0    | 0.25      | 4.0    | 0.50      | 5.3    | 0.25      | 6.2    | 0.10       | 5.2    | 0.50     | 4.5    | 0.50      | 3.8    | 0.50      | 5.1    | 0.10       | 5.6    |        |    |
| Cadmium                   | 0.005     | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.0010     | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |        |    |
| Chloride                  | 200.0     | 10         | 120    | 10        | 190    | 10        | 120   | 10        | 170    | 10        | 150    | 10        | 150    | 10        | 140    | 10        | 170    | 10         | 170    | 10       | 150    | 10        | 110    | 10        | 120    | 10         | 89     |        |    |
| Chromium                  | 0.1       | 0.0050     | ND     | 0.0050    | ND     | 0.025     | ND    | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.010      | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |        |    |
| Cobalt                    | 1.0       | 0.0010     | 0.0011 | 0.0010    | ND     | 0.0050    | ND    | 0.0010    | 0.0012 | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0020     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | 0.0014 |        |    |
| Copper                    | 0.65      | 0.0020     | ND     | 0.0020    | ND     | 0.010     | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0040     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |        |    |
| Cyanide                   | 0.2       | 0.010      | ND     | 0.010     | ND     | 0.010     | ND    | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     |        |    |
| Fluoride                  | 4.0       | 0.10       | 0.52   | 0.10      | 0.49   | 0.10      | 0.48  | 0.10      | 0.53   | 0.10      | 0.55   | 0.10      | 0.50   | 0.10      | 0.62   | 0.10      | 0.68   | 0.10       | 0.63 ^ | 0.10     | 0.56 ^ | 0.10      | 0.60   | 0.10      | 0.66   | 0.10       | 0.47   |        |    |
| Iron                      | 5.0       | 0.10       | 0.83   | 0.10      | 0.78   | 0.50      | 0.70  | 0.10      | 1.2    | 0.10      | 0.64   | 0.10      | 0.53   | 0.10      | 0.95   | 0.10      | 0.83   | 0.20       | 1.2    | 0.10     | 0.20   | 0.10      | ND     | 0.10      | 0.66   | 0.10       | 0.92   |        |    |
| Lead                      | 0.0075    | 0.00050    | ND     | 0.00050   | ND     | 0.0050    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.0010     | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |        |    |
| Manganese                 | 0.15      | 0.0025     | 0.52   | 0.0025    | 0.58   | 0.013     | 0.70  | 0.0025    | 1.0    | 0.0025    | 0.62   | 0.0025    | 0.60   | 0.0025    | 0.70   | 0.0025    | 0.99   | 0.0050     | 0.62   | 0.0025   | 0.47   | 0.0025    | 0.44   | 0.0025    | 0.58   | 0.0025     | 0.65   |        |    |
| Mercury                   | 0.002     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND    | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     |        |    |
| Nickel                    | 0.1       | 0.0020     | 0.0048 | 0.0020    | 0.0041 | 0.010     | ND    | 0.0020    | 0.0051 | 0.0020    | 0.0047 | 0.0020    | 0.0048 | 0.0020    | 0.0047 | 0.0020    | 0.0046 | 0.0040     | 0.0050 | 0.0020   | 0.0047 | 0.0020    | 0.0044 | 0.0020    | 0.0043 | 0.0020     | 0.0055 |        |    |
| Nitrogen/Nitrate          | 10.0      | 0.10       | ND     | 0.10      | ND     | 0.10      | 0.19  | 0.10      | ND     | 0.10      | 0.37   | 0.10      | 0.45   | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | 0.69   | 0.10      | 0.42   | 0.10      | ND     | 0.10       | ND     |        |    |
| Nitrogen/Nitrate, Nitrite | NA        | 0.10       | ND     | 0.10      | ND     | 0.10      | 0.19  | 0.10      | ND     | 0.10      | 0.37   | 0.10      | 0.45   | 0.10      | ND     | 0.10      | ND^    | 0.10       | ND     | 0.10     | 0.69   | 0.10      | 0.42   | 0.10      | ND     | 0.10       | ND     |        |    |
| Nitrogen/Nitrite          | NA        | 0.020      | ND     | 0.020     | ND     | 0.020     | ND    | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |        |    |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.02       | ND     | 0.004    | ND     | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     |        |    |
| pH                        | 6.5 - 9.0 | NA         | 7.37   | NA        | 7.66   | NA        | 7.23  | NA        | 7.21   | NA        | 6.58   | NA        | 7.27   | NA        | 7.10   | NA        | 7.29   | NA         | 7.34   | NA       | 6.61   | NA        | 7.07   | NA        | 7.15   | NA         | 6.74   |        |    |
| Selenium                  | 0.05      | 0.0025     | ND     | 0.0025    | 0.0033 | 0.013     | ND    | 0.0025    | ND     | 0.0025    | 0.0086 | 0.0025    | 0.0067 | 0.0025    | ND     | 0.0025    | 0.0026 | 0.0050     | ND     | 0.0025   | 0.015  | 0.0025    | 0.0087 | 0.0025    | ND     | 0.0025     | ND     |        |    |
| Silver                    | 0.05      | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.0010     | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND^    | 0.00050    | ND     |        |    |
| Sulfate                   | 400.0     | 250        | 1500   | 500       | 1500   | 250       | 1600  | 1000      | 4800   | 500       | 1600   | 500       | 2000   | 500       | 2800   | 500       | 3200   | 500        | 2200   | 500      | 2000   | 500       | 1500   | 500       | 2200   | 250        | 1300   |        |    |
| Thallium                  | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     |        |    |
| Total Dissolved Solids    | 1,200     | 10         | 2500   | 10        | 2600   | 10        | 2800  | 25        | 6060   | 13        | 3100   | 13        | 3700   | 25        | 4300   | 17        | 4400   | 17         | 4000   | 17       | 3600   | 13        | 2900   | 25        | 3500   | 13         | 2400   |        |    |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.01       | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     |        |    |
| Zinc                      | 5.0       | 0.020      | ND     | 0.020     | ND     | 0.10      | ND    | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.040      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     |        |    |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0005     | ND     | 0.0005   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     |        |    |
| BETX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0025     | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     |        |    |
| Temperature               | NA        | NA         | 14.22  | NA        | 10.18  | NA        | 13.86 | NA        | 16.26  | NA        | 13.65  | NA        | 11.77  | NA        | 16.18  | NA        | 17.98  | NA         | 14.14  | NA       | 9.60   | NA        | 13.54  | NA        | 17.54  | NA         | 16.62  |        |    |
| Conductivity              | NA        | NA         | 3.51   | NA        | 3.39   | NA        | 3.51  | NA        | 5.26   | NA        | 2.99   | NA        | 3.22   | NA        | 4.11   | NA        | 4.73   | NA         | 3.85   | NA       | 3.28   | NA        | 2.44   | NA        | 3.58   | NA         | 2.84   |        |    |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 0.73   | NA        | 2.72  | NA        | 0.03   | NA        | 0.11   | NA        | 0.16   | NA        | 0.03   | NA        | 0.03   | NA         | 0.06   | NA       | 1.88   | NA        | 1.07   | NA        | 0.34   | NA         | 0.36   |        |    |
| ORP                       | NA        | NA         | NM     | NA        | -235.2 | NA        | 44.8  | NA        | -269   | NA        | -104   | NA        | -41    | NA        | -76    | NA        | -66    | NA         | -79    | NA       | 87.2   | NA        | -3.9   | NA        | -38.2  | NA         | -127.7 |        |    |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured  
NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limits

Temperature °C  
Conductivity mg/cm³  
Dissolved Oxygen mg/L  
Oxygen Reduction Potential (ORP) mV  
µg/litres Celsius  
milliSiemens centimeters  
milligram/liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Rantocville, IL

| Parameter                 | Standards | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |        | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 6/5/2013 |        | 8/14/2013 |        | 10/28/2013 |        |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|----------|--------|-----------|--------|------------|--------|
|                           |           | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL       | Result | DL       | Result | DL        | Result | DL         | Result |
| Arsimony                  | 0.006     | 0.0030     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030     | ND     |
| Arsenic                   | 0.010     | 0.0010     | 0.0048 | 0.0010    | 0.0048 | 0.0010    | 0.0048 | 0.0010    | 0.0048 | 0.0010    | 0.0048 | 0.0010    | 0.0048 | 0.0010    | 0.0048 | 0.0010    | 0.0048 | 0.0010     | 0.0048 | 0.0010   | 0.0048 | 0.0010   | 0.0048 | 0.0010    | 0.0048 | 0.0010     | 0.0048 |
| Barium                    | 2.0       | 0.0025     | 0.0010 | 0.0025    | 0.0010 | 0.0025    | 0.0010 | 0.0025    | 0.0010 | 0.0025    | 0.0010 | 0.0025    | 0.0010 | 0.0025    | 0.0010 | 0.0025    | 0.0010 | 0.0025     | 0.0010 | 0.0025   | 0.0010 | 0.0025   | 0.0010 | 0.0025    | 0.0010 | 0.0025     | 0.0010 |
| Beryllium                 | 0.004     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Boron                     | 2.0       | 0.25       | 2.7    | 0.25      | 2.7    | 0.25      | 2.7    | 0.25      | 2.7    | 0.25      | 2.7    | 0.25      | 2.7    | 0.25      | 2.7    | 0.25      | 2.7    | 0.25       | 2.7    | 0.25     | 2.7    | 0.25     | 2.7    | 0.25      | 2.7    | 0.25       | 2.7    |
| Cadmium                   | 0.005     | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Chloride                  | 200.0     | 10         | 110    | 10        | 150    | 10        | 140    | 10        | 150    | 10        | 130    | 10        | 170    | 10        | 170    | 10        | 160    | 10         | 150    | 10       | 140    | 10       | 110    | 10        | 120    | 10         | 130    |
| Chromium                  | 0.1       | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050     | ND     |
| Cobalt                    | 1.0       | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010     | ND     |
| Copper                    | 0.05      | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Cyanide                   | 0.2       | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010    | ND     | 0.010     | ND     | 0.010      | ND     |
| Fluoride                  | 4.0       | 0.10       | 0.41   | 0.10      | 0.40   | 0.10      | 0.46   | 0.10      | 0.49   | 0.10      | 0.38   | 0.10      | 0.42   | 0.10      | 0.42   | 0.10      | 0.44   | 0.10       | 0.47   | 0.10     | 0.42   | 0.10     | 0.30   | 0.10      | 0.50   | 0.10       | 0.36   |
| Iron                      | 5.0       | 0.10       | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10     | ND     | 0.10      | ND     | 0.10       | ND     |
| Lead                      | 0.0075    | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Manganese                 | 0.15      | 0.0025     | 0.0079 | 0.0025    | 0.0067 | 0.0025    | 0.0067 | 0.0025    | 0.0067 | 0.0025    | 0.0038 | 0.0025    | 0.0032 | 0.0025    | 0.0032 | 0.0025    | 0.0032 | 0.0025     | 0.0032 | 0.0025   | 0.0032 | 0.0025   | 0.0032 | 0.0025    | 0.0032 | 0.0025     | 0.0032 |
| Mercury                   | 0.002     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020    | ND     |
| Nickel                    | 0.1       | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Nitrate/Nitrite           | 10.0      | 0.10       | 0.27   | 0.10      | 1.6    | 0.10      | 1.1    | 0.10      | 1.1    | 0.10      | 1.0    | 0.10      | 1.1    | 0.10      | 1.1    | 0.10      | 1.1    | 0.10       | 1.1    | 0.10     | 1.1    | 0.10     | 1.1    | 0.10      | 1.1    | 0.10       | 1.1    |
| Nitrogen/Nitrate, Nitrile | NA        | 0.10       | 0.27   | 0.10      | 1.9    | 0.10      | 0.97   | 0.10      | 1.1    | 0.10      | 1.2    | 0.10      | 1.2    | 0.10      | 1.2    | 0.10      | 1.1    | 0.10       | 1.2    | 0.10     | 1.2    | 0.10     | 1.2    | 0.10      | 1.2    | 0.10       | 1.2    |
| Nitrogen/Nitrite          | NA        | 0.020      | ND     | 0.10      | 0.31   | 0.020     | NR     | 0.020     | NR     | 0.020     | NR     | 0.020     | NR     | 0.020     | NR     | 0.020     | NR     | 0.020      | NR     | 0.020    | NR     | 0.020    | NR     | 0.020     | NR     | 0.020      | NR     |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR       | NR     | NR        | NR     | NR         | NR     |
| pH                        | 6.5-9.0   | NA         | 9.58   | NA        | 9.51   | NA        | 7.44   | NA        | 7.38   | NA        | 8.20   | NA        | 9.30   | NA        | 9.30   | NA        | 9.41   | NA         | 9.37   | NA       | 7.43   | NA       | 7.90   | NA        | 7.88   | NA         | 6.75   |
| Selenium                  | 0.05      | 0.0025     | 0.017  | 0.0025    | 0.014  | 0.0025    | 0.016  | 0.0025    | 0.0080 | 0.0025    | 0.010  | 0.0025    | 0.0059 | 0.0025    | 0.0059 | 0.0025    | 0.017  | 0.0025     | 0.0079 | 0.0025   | 0.010  | 0.0025   | 0.0025 | 0.0025    | 0.0025 | 0.0025     | 0.17   |
| Silver                    | 0.05      | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050    | ND     |
| Sulfate                   | 400.0     | 100        | 380    | 100       | 570    | 100       | 540    | 130       | 690    | 100       | 500    | 100       | 370    | 100       | 410    | 100       | 540    | 100        | 280    | 100      | 320    | 250      | 650    | 100       | 500    | 130        | 560    |
| Thallium                  | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020     | ND     |
| Total Dissolved Solids    | 1,200     | 10         | 1000   | 10        | 1300   | 10        | 1400   | 10        | 1500   | 10        | 1000   | 10        | 1000   | 10        | 1000   | 10        | 1100   | 10         | 820    | 10       | 940    | 10       | 1600   | 10        | 1100   | 10         | 1350   |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR       | NR     | NR        | NR     | NR         | NR     |
| Zinc                      | 5.0       | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020    | ND     | 0.020     | ND     | 0.020      | ND     |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR       | NR     | NR        | NR     | NR         | NR     |
| BTEX                      | 11,705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR       | NR     | NR        | NR     | NR         | NR     |
| Temperature               | NA        | NA         | 12.79  | NA        | 7.95   | NA        | 14.62  | NA        | 17.22  | NA        | 13.19  | NA        | 10.98  | NA        | 16.59  | NA        | 19.67  | NA         | 13.41  | NA       | 8.10   | NA       | 14.77  | NA        | 16.72  | NA         | 17.04  |
| Conductivity              | NA        | NA         | 1.66   | NA        | 1.93   | NA        | 1.97   | NA        | 1.78   | NA        | 1.01   | NA        | 1.02   | NA        | 1.44   | NA        | 1.44   | NA         | 1.05   | NA       | 1.02   | NA       | 1.66   | NA        | 1.28   | NA         | 1.55   |
| Dissolved Oxygen          | NA        | NA         | NA     | NA        | 3.81   | NA        | 3.22   | NA        | 0.51   | NA        | 0.39   | NA        | 0.21   | NA        | 0.22   | NA        | 0.66   | NA         | 0.19   | NA       | 4.84   | NA       | 0.56   | NA        | 0.15   | NA         | 0.92   |
| ORP                       | NA        | NA         | NA     | NA        | -156.4 | NA        | 173.2  | NA        | -196   | NA        | -46    | NA        | 47     | NA        | -1     | NA        | 66     | NA         | 8      | NA       | 205.5  | NA       | -11.3  | NA        | 20.8   | NA         | -71.8  |

Notes: Standards obtained from IAC, Title 35, Chapter 4, Part 620, Subpart D, Section 630.410 - Groundwater Quality Standards for Class I, Potable Recharge Groundwater.  
 All values are in mg/L (ppm) unless otherwise noted.  
 DL - Detection Limit  
 NA - Not Analyzed  
 ND - Not Detected  
 NM - Not Measured  
 NR - Not Reported  
 NS - Not Sampled  
 \* - Denotes minimum related QC exceeds the control limits  
 Temperature °C  
 Conductivity µmhos/cm  
 Dissolved Oxygen mg/L  
 Oxygen Reduction Potential (ORP) mV  
 Across Cells milliequivalents  
 milligram/liter

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romcoville, IL

| Sample: MW-06             | Date      | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |       | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 5/22/2013 |        | 8/14/2013 |        | 10/28/2013 |        |         |    |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|---------|----|
|                           |           | Standards  | DL     | Result    | DL     | Result    | DL    | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result   | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result  |    |
| Antimony                  | 0.006     | 0.0030     | ND^    | 0.0030    | ND     | 0.015     | ND    | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030  | ND |
| Arsenic                   | 0.010     | 0.0010     | 0.0018 | 0.0010    | 0.0018 | 0.0050    | ND    | 0.0010    | 0.0031 | 0.0010    | 0.0022 | 0.0010    | 0.0022 | 0.0010    | 0.0021 | 0.0010    | 0.0026 | 0.0010     | 0.0020 | 0.0010   | 0.0019 | 0.0010    | 0.0014 | 0.0010    | 0.0022 | 0.0010     | 0.0031 | 0.0031  |    |
| Barium                    | 2.0       | 0.0025     | 0.050  | 0.0025    | 0.040  | 0.013     | 0.045 | 0.0025    | 0.041  | 0.0025    | 0.053  | 0.0025    | 0.044  | 0.0025    | 0.046  | 0.0025    | 0.054  | 0.0025     | 0.051  | 0.0025   | 0.044  | 0.0025    | 0.057  | 0.0025    | 0.053  | 0.0025     | 0.063  | 0.063   |    |
| Beryllium                 | 0.004     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND    | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  | ND |
| Boron                     | 2.0       | 0.25       | 2.7    | 0.25      | 2.5    | 0.050     | 2.4   | 0.050     | 3.0    | 0.050     | 2.5    | 0.25      | 2.5    | 0.50      | 2.9    | 0.25      | 3.0    | 0.50       | 3.0    | 0.50     | 2.7    | 0.50      | 2.8    | 0.50      | 2.9    | 0.10       | 3.7    | 3.7     |    |
| Cadmium                   | 0.005     | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND |
| Chloride                  | 200.0     | 10         | 120    | 10        | 210    | 10        | 150   | 10        | 120    | 10        | 120    | 10        | 110    | 10        | 92     | 10        | 110    | 10         | 110    | 10       | 130    | 10        | 110    | 10        | 10     | 91         | 10     | 76      | 76 |
| Chromium                  | 0.1       | 0.0050     | ND     | 0.0050    | ND     | 0.025     | ND    | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  | ND |
| Cobalt                    | 1.0       | 0.0010     | ND     | 0.0010    | ND     | 0.0050    | ND    | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  | ND |
| Copper                    | 0.65      | 0.0020     | ND     | 0.0020    | ND     | 0.010     | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND |
| Cyanide                   | 0.2       | 0.010      | ND     | 0.010     | ND     | 0.010     | ND    | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010   | ND |
| Fluoride                  | 4.0       | 0.10       | 0.85   | 0.10      | 0.88   | 0.10      | 0.79  | 0.10      | 0.97   | 0.10      | 0.77   | 0.10      | 0.68   | 0.10      | 0.81   | 0.10      | ND     | 0.10       | 0.71 ^ | 0.10     | 0.71 ^ | 0.10      | 0.65   | 0.10      | 0.57   | 0.10       | 0.57   | 0.57    |    |
| Iron                      | 5.0       | 0.10       | ND     | 0.10      | ND     | 0.50      | ND    | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10    | ND |
| Lead                      | 0.0075    | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND |
| Manganese                 | 0.15      | 0.0025     | 0.073  | 0.0025    | 0.051  | 0.013     | 0.047 | 0.0025    | 0.024  | 0.0025    | 0.038  | 0.0025    | 0.029  | 0.0025    | 0.033  | 0.0025    | 0.038  | 0.0025     | 0.034  | 0.0025   | 0.030  | 0.0025    | 0.082  | 0.0025    | 0.023  | 0.0025     | 0.083  | 0.083   |    |
| Mercury                   | 0.002     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND    | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020 | ND |
| Nickel                    | 0.1       | 0.0020     | ND     | 0.0020    | ND     | 0.010     | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND |
| Nitrogen/Nitrate          | 10.0      | 0.10       | ND     | 0.10      | ND     | 0.10      | 0.26  | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | 0.63   | 0.10      | 0.10   | 0.10      | ND     | 0.10       | ND     | 0.10    | ND |
| Nitrogen/Nitrate, Nitrite | NA        | 0.10       | ND     | 0.10      | ND     | 0.10      | 0.10  | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND^    | 0.10       | ND^    | 0.10     | 0.82   | 0.10      | 0.20   | 0.10      | ND     | 0.10       | ND     | 0.10    | ND |
| Nitrogen/Nitrite          | NA        | 0.020      | ND     | 0.020     | 0.048  | 0.020     | 0.16  | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | 0.052  | 0.020     | 0.026  | 0.020      | ND     | 0.040    | 0.19   | 0.020     | 0.099  | 0.020     | ND     | 0.020      | ND     | 0.020   | ND |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.004      | ND     | 0.004    | ND^    | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     | 0.0040  | ND |
| pH                        | 6.5 - 9.0 | NA         | 8.89   | NA        | 9.65   | NA        | 9.27  | NA        | 9.44   | NA        | 8.82   | NA        | 9.39   | NA        | 9.07   | NA        | 9.17   | NA         | 9.18   | NA       | 8.22   | NA        | 8.41   | NA        | 9.13   | NA         | 8.50   | 8.50    |    |
| Selenium                  | 0.05      | 0.0025     | 0.0062 | 0.0025    | 0.0028 | 0.013     | ND    | 0.0025    | 0.011  | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | 0.0034 | 0.0025    | 0.014  | 0.0025     | 0.0057 | 0.0025   | 0.0075 | 0.0025    | 0.0071 | 0.0025    | 0.0040 | 0.0025     | ND     | ND      |    |
| Silver                    | 0.05      | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND^    | 0.00050    | ND     | 0.00050 | ND |
| Sulfate                   | 400.0     | 100        | 500    | 100       | 540    | 100       | 570   | 100       | 420    | 100       | 440    | 100       | 380    | 100       | 450    | 100       | 550    | 100        | 360    | 100      | 370    | 100       | 360    | 100       | 400    | 100        | 310    | 310     |    |
| Thallium                  | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND |
| Total Dissolved Solids    | 1,200     | 10         | 990    | 10        | 1100   | 10        | 1200  | 10        | 870    | 10        | 880    | 10        | 900    | 10        | 770    | 10        | 890    | 10         | 820    | 10       | 840    | 10        | 880    | 10        | 860    | 10         | 790    | 790     |    |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0050     | ND     | 0.0050   | 0.011  | 0.0050    | ND     | 0.0050    | 0.0087 | 0.0050     | 0.0050 | ND      | ND |
| Zinc                      | 5.0       | 0.020      | ND     | 0.020     | ND     | 0.10      | ND    | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   | ND |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0005     | ND     | 0.0005   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND |
| BETX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0025     | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025  | ND |
| Temperature               | NA        | NA         | 14.59  | NA        | 10.01  | NA        | 13.63 | NA        | 16.28  | NA        | 14.24  | NA        | 10.74  | NA        | 18.03  | NA        | 18.96  | NA         | 14.00  | NA       | 10.00  | NA        | 15.89  | NA        | 18.56  | NA         | 15.76  | 15.76   |    |
| Conductivity              | NA        | NA         | 1.64   | NA        | 1.63   | NA        | 1.69  | NA        | 1.11   | NA        | 1.05   | NA        | 0.92   | NA        | 1.04   | NA        | 1.21   | NA         | 0.99   | NA       | 0.97   | NA        | 1.19   | NA        | 1.04   | NA         | 0.96   | 0.96    |    |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 0.54   | NA        | 0.12  | NA        | 0.06   | NA        | 0.13   | NA        | 3.47   | NA        | 3.06   | NA        | 0.01   | NA         | 0.36   | NA       | 3.48   | NA        | 0.37   | NA        | 0.37   | NA         | 0.23   | 0.23    |    |
| ORP                       | NA        | NA         | NM     | NA        | -239.1 | NA        | 54.4  | NA        | -305   | NA        | -241   | NA        | -50    | NA        | -106   | NA        | -134   | NA         | -174   | NA       | 175.2  | NA        | -14.3  | NA        | -16.6  | NA         | -173.8 | -173.8  |    |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.310 - Groundwater Quality Standards for Class I Potable Resource Groundwater.  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured  
NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limits

Temperature  
Conductivity  
Dissolved Oxygen  
Oxygen Reduction Potential (ORP)  
°C  
mg/cm<sup>3</sup>  
mg/L  
mV  
degrees Celsius  
milliampere centimeters  
milligrams/liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

| Parameter                 | Standards | Date    |        | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |        | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 5/22/2013 |        | 8/15/2013 |        | 10/29/2013 |        |         |
|---------------------------|-----------|---------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|---------|
|                           |           | DL      | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL       | Result | DL        | Result | DL        | Result | DL         | Result |         |
| Antimony                  | 0.006     | 0.0030  | ND     | 0.0030     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     |         |
| Arsenic                   | 0.010     | 0.0010  | 0.0040 | 0.0010     | 0.0042 | 0.0010    | 0.0042 | 0.0010    | 0.0042 | 0.0010    | 0.0042 | 0.0010    | 0.0042 | 0.0010    | 0.0041 | 0.0010    | 0.0039 | 0.0010    | 0.0038 | 0.0010     | 0.0039 | 0.0010   | 0.0038 | 0.0010    | 0.0038 | 0.0010    | 0.0038 | 0.0010     | 0.0038 |         |
| Boron                     | 2.0       | 0.0025  | 0.045  | 0.0025     | 0.067  | 0.0025    | 0.082  | 0.0025    | 0.082  | 0.0025    | 0.082  | 0.0025    | 0.082  | 0.0025    | 0.069  | 0.0025    | 0.057  | 0.0025    | 0.056  | 0.0025     | 0.056  | 0.0025   | 0.056  | 0.0025    | 0.056  | 0.0025    | 0.056  | 0.0025     | 0.056  |         |
| Beryllium                 | 0.004     | 0.0010  | ND     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  |
| Boron                     | 2.0       | 0.25    | 4.7    | 1.0        | 5.0    | 1.0       | 5.7    | 1.0       | 5.7    | 1.0       | 5.7    | 1.0       | 5.0    | 1.0       | 5.1    | 1.0       | 5.6    | 1.0       | 5.5    | 1.0        | 5.5    | 1.0      | 5.5    | 1.0       | 5.5    | 1.0       | 5.5    | 1.0        | 5.5    |         |
| Cadmium                   | 0.005     | 0.0050  | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  |
| Chloride                  | 200.0     | 10      | 160    | 10         | 140    | 10        | 140    | 10        | 140    | 10        | 160    | 10        | 150    | 10        | 130    | 10        | 120    | 10        | 150    | 10         | 150    | 10       | 140    | 10        | 140    | 10        | 140    | 10         | 140    |         |
| Chromium                  | 0.1       | 0.0050  | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  |
| Cobalt                    | 1.0       | 0.0010  | ND     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  |
| Copper                    | 0.65      | 0.0020  | ND     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  |
| Cyanide                   | 0.2       | 0.010   | ND     | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010   |
| Fluoride                  | 4.0       | 0.10    | 0.56   | 0.10       | 0.77   | 0.10      | 0.71   | 0.10      | 0.71   | 0.10      | 0.82   | 0.10      | 0.86   | 0.10      | 0.76   | 0.10      | 0.83   | 0.10      | 0.83   | 0.10       | 0.83   | 0.10     | 0.83   | 0.10      | 0.83   | 0.10      | 0.83   | 0.10       | 0.83   |         |
| Iron                      | 5.0       | 0.10    | 0.23   | 0.10       | 0.18   | 0.50      | ND     | 0.50      | ND     | 0.37      | 0.10   | 0.50      | 0.10   | 0.57      | 0.10   | 0.69      | 0.10   | 0.69      | 0.10   | 0.69       | 0.10   | 0.69     | 0.10   | 0.69      | 0.10   | 0.69      | 0.10   | 0.69       | 0.10   | 0.69    |
| Lead                      | 0.0075    | 0.0050  | ND     | 0.0050     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  |
| Manganese                 | 0.15      | 0.0025  | 0.12   | 0.0025     | 0.11   | 0.0025    | 0.11   | 0.0025    | 0.11   | 0.0025    | 0.18   | 0.0025    | 0.20   | 0.0025    | 0.20   | 0.0025    | 0.19   | 0.0025    | 0.19   | 0.0025     | 0.19   | 0.0025   | 0.19   | 0.0025    | 0.19   | 0.0025    | 0.19   | 0.0025     | 0.19   | 0.0025  |
| Mercury                   | 0.002     | 0.00020 | ND     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020 |
| Nickel                    | 0.1       | 0.0020  | 0.0020 | 0.0020     | 0.0023 | 0.0020    | 0.0023 | 0.0020    | 0.0023 | 0.0024    | 0.0024 | 0.0020    | 0.0021 | 0.0020    | 0.0020 | 0.0020    | 0.0020 | 0.0020    | 0.0020 | 0.0020     | 0.0020 | 0.0020   | 0.0020 | 0.0020    | 0.0020 | 0.0020    | 0.0020 | 0.0020     | 0.0020 | 0.0020  |
| Nitrogen/Nitrate          | 10.0      | 0.10    | ND     | 0.10       | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10    |
| Nitrogen/Nitrate, Nitrite | NA        | 0.020   | ND     | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   |
| Nitrogen/Nitrite          | NA        | 0.020   | ND     | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   |
| Perchlorate               | 0.049     | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR      |
| pH                        | 6.5 - 9.0 | NA      | 8.61   | NA         | 8.79   | NA        | 8.13   | NA        | 8.13   | NA        | 7.91   | NA        | 7.69   | NA        | 8.16   | NA        | 7.92   | NA        | 8.02   | NA         | 8.02   | NA       | 7.75   | NA        | 8.08   | NA        | 8.14   | NA         | 8.43   |         |
| Selenium                  | 0.05      | 0.0025  | ND     | 0.0025     | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025  |
| Silver                    | 0.05      | 0.00050 | ND     | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 |
| Sulfate                   | 400.0     | 100     | 610    | 250        | 650    | 200       | 1000   | 100       | 1000   | 100       | 710    | 100       | 710    | 100       | 770    | 100       | 670    | 100       | 600    | 100        | 600    | 100      | 480    | 100       | 400    | 100       | 390    | 100        | 460    |         |
| Thallium                  | 0.002     | 0.0020  | ND     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  |
| Total Dissolved Solids    | 1,200     | 10      | 1300   | 10         | 1500   | 10        | 1600   | 10        | 1600   | 10        | 1400   | 10        | 1300   | 10        | 1400   | 10        | 1300   | 10        | 1200   | 10         | 1200   | 10       | 1100   | 10        | 1000   | 10        | 1100   | 10         | 1200   |         |
| Vanadium                  | 0.049     | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR      |
| Zinc                      | 5.0       | 0.020   | ND     | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   |
| Barium                    | 0.005     | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR      |
| BETX                      | 11,705    | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR       | NR     | NR        | NR     | NR        | NR     | NR         | NR     | NR      |
| Temperature               | NA        | NA      | 14.84  | NA         | 11.80  | NA        | 14.23  | NA        | 15.96  | NA        | 15.17  | NA        | 15.17  | NA        | 14.21  | NA        | 15.67  | NA        | 17.28  | NA         | 14.37  | NA       | 14.25  | NA        | 13.60  | NA        | 15.62  | NA         | 13.06  |         |
| Conductivity              | NA        | NA      | 1.96   | NA         | 2.12   | NA        | 2.08   | NA        | 1.61   | NA        | 1.55   | NA        | 1.44   | NA        | 1.43   | NA        | 1.44   | NA        | 1.46   | NA         | 1.33   | NA       | 1.20   | NA        | 1.21   | NA        | 1.21   | NA         | 1.20   |         |
| Dissolved Oxygen          | NA        | NA      | NSM    | NA         | 0.43   | NA        | 0.03   | NA        | 0.05   | NA        | 2.54   | NA        | 2.54   | NA        | 0.02   | NA        | 0.41   | NA        | 0.20   | NA         | 0.15   | NA       | 0.17   | NA        | 0.36   | NA        | 0.10   | NA         | 0.41   |         |
| ORP                       | NA        | NA      | NSM    | NA         | -277.2 | NA        | -135.2 | NA        | -301   | NA        | -210   | NA        | -189   | NA        | -189   | NA        | -161   | NA        | -171   | NA         | -150   | NA       | -219.9 | NA        | -155.1 | NA        | -204.2 | NA         | -168.1 |         |

Notes: Standards obtained from IAC, Title 35, Chapter L, Part 620, Subpart D, Section 620.310 - Groundwater Quality Standards for Class 1 Potable Resource Groundwater  
 All values are in mg/L (ppm) unless otherwise noted.  
 DL - Detectable Limit  
 NA - Not Applicable  
 NR - Not Required  
 NS - Not Sampled  
 ND - Not Detected  
 NSM - Not Measured  
 °C - Temperature  
 mc/cm - Conductivity  
 mg/L - Dissolved Oxygen  
 mV - ORP  
 µg/L - Chloride  
 millimoles centimeters - Conductivity  
 milligrams/liter - Dissolved Oxygen  
 milliseconds - ORP

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

| Sample: MW-08             | Date      | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |        | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |        | 5/23/2013 |        | 8/15/2013 |        | 10/28/2013 |        |         |      |
|---------------------------|-----------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|--------|-----------|--------|-----------|--------|------------|--------|---------|------|
|                           |           | Standards  | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result   | DL     | Result    | DL     | Result    | DL     | Result     | DL     | Result  |      |
| Antimony                  | 0.006     | 0.0030     | ND^    | 0.0030    | ND     | 0.015     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030  | ND   |
| Arsenic                   | 0.010     | 0.0010     | 0.0067 | 0.0010    | 0.0059 | 0.0050    | 0.0032 | 0.0010    | 0.014  | 0.0010    | 0.012  | 0.0010    | 0.0066 | 0.0010    | 0.013  | 0.0010    | 0.018  | 0.0010     | 0.0088 | 0.0010   | 0.0088 | 0.0010    | 0.0072 | 0.0010    | 0.016  | 0.0010     | 0.0069 | 0.0069  |      |
| Barium                    | 2.0       | 0.0025     | 0.069  | 0.0025    | 0.089  | 0.013     | 0.085  | 0.0025    | 0.099  | 0.0025    | 0.078  | 0.0025    | 0.066  | 0.0025    | 0.074  | 0.0025    | 0.090  | 0.0025     | 0.079  | 0.0025   | 0.069  | 0.0025    | 0.079  | 0.0025    | 0.084  | 0.0025     | 0.14   | 0.14    |      |
| Beryllium                 | 0.004     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  | ND   |
| Baron                     | 2.0       | 0.25       | 1.7    | 0.25      | 1.3    | 0.050     | 1.7    | 0.050     | 2.3    | 0.050     | 1.9    | 0.25      | 1.5    | 0.50      | 2.0    | 0.25      | 2.6    | 0.50       | 2.1    | 0.50     | 1.8    | 0.50      | 1.9    | 0.50      | 2.4    | 0.10       | 3.2    | 3.2     |      |
| Cadmium                   | 0.005     | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| Chloride                  | 200.0     | 10         | 93     | 10        | 370    | 10        | 200    | 10        | 160    | 10        | 130    | 10        | 160    | 10        | 160    | 10        | 150    | 10         | 150    | 10       | 150    | 10        | 190    | 10        | 170    | 10         | 150    | 150     |      |
| Chromium                  | 0.1       | 0.0050     | ND     | 0.0050    | ND     | 0.025     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.010     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  | ND   |
| Cobalt                    | 1.0       | 0.0010     | ND     | 0.0010    | ND     | 0.0050    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0020    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010  | ND   |
| Copper                    | 0.65      | 0.0020     | ND     | 0.0020    | ND     | 0.010     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND   |
| Cyanide                   | 0.2       | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010   | ND   |
| Fluoride                  | 4.0       | 0.10       | 0.61   | 0.10      | 0.55   | 0.10      | 0.57   | 0.10      | 0.64   | 0.10      | 0.61   | 0.10      | 0.52   | 0.10      | 0.60   | 0.10      | 0.65   | 0.10       | 0.58 ^ | 0.10     | 0.55 ^ | 0.10      | 0.55   | 0.10      | 0.64   | 0.10       | 0.45   | 0.45    |      |
| Iron                      | 5.0       | 0.10       | 0.48   | 0.10      | 0.38   | 0.50      | 0.76   | 0.10      | 0.46   | 0.10      | 0.68   | 0.20      | ND     | 0.10      | 0.58   | 0.10      | 0.66   | 0.10       | 0.50   | 0.10     | 0.43   | 0.10      | 0.68   | 0.10      | 1.3    | 0.10       | ND     | ND      |      |
| Lead                      | 0.0075    | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| Manganese                 | 0.15      | 0.0025     | 0.33   | 0.0025    | 0.44   | 0.013     | 0.47   | 0.0025    | 0.45   | 0.0025    | 0.40   | 0.0050    | ND     | 0.0025    | 0.36   | 0.0025    | 0.41   | 0.0025     | 0.43   | 0.0025   | 0.33   | 0.0025    | 0.47   | 0.0025    | 0.31   | 0.0025     | 0.42   | 0.42    |      |
| Mercury                   | 0.002     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020 | ND   |
| Nickel                    | 0.1       | 0.0020     | ND     | 0.0020    | ND     | 0.010     | ND     | 0.0020    | 0.0034 | 0.0020    | 0.0040 | ND        | 0.0020 | 0.0022    | 0.0020 | 0.0035    | 0.0020 | 0.0033     | 0.0020 | 0.0031   | 0.0020 | 0.0020    | ND     | 0.0020    | 0.0032 | 0.0020     | 0.0043 | 0.0043  |      |
| Nitrogen/Nitrate          | 10.0      | 0.10       | ND     | 0.10      | 0.22   | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | 0.23   | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | 0.17   | 0.17    | 0.17 |
| Nitrogen/Nitrate, Nitrate | NA        | 0.10       | ND     | 0.10      | 0.22   | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | 0.23   | 0.10     | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | 0.17   | 0.17    | 0.17 |
| Nitrogen/Nitrite          | NA        | 0.020      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   | ND   |
| Perchlorate               | 0.0049    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.004      | ND     | 0.004    | ND ^   | 0.0040    | ND     | 0.0040    | ND     | 0.0040     | ND     | 0.0040  | ND   |
| pH                        | 6.5 - 9.0 | NA         | 7.65   | NA        | 8.17   | NA        | 7.47   | NA        | 7.30   | NA        | 6.99   | NA        | 7.61   | NA        | 7.36   | NA        | 7.31   | NA         | 7.43   | NA       | 7.87   | NA        | 7.19   | NA        | 7.46   | NA         | 6.87   | 6.87    | 6.87 |
| Selenium                  | 0.05      | 0.0025     | ND     | 0.0025    | ND     | 0.013     | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025  | ND   |
| Silver                    | 0.05      | 0.00050    | ND     | 0.00050   | ND     | 0.0025    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| Sulfate                   | 400.0     | 100        | 440    | 100       | 440    | 100       | 420    | 100       | 600    | 100       | 330    | 50        | 330    | 100       | 370    | 100       | 630    | 100        | 380    | 100      | 360    | 100       | 270    | 100       | 440    | 130        | 650    | 650     |      |
| Thallium                  | 0.002     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020  | ND   |
| Total Dissolved Solids    | 1,200     | 10         | 930    | 10        | 1,200  | 10        | 1,100  | 10        | 1,300  | 10        | 980    | 10        | 910    | 10        | 1,000  | 10        | 1,200  | 10         | 1,200  | 10       | 1,000  | 10        | 1,100  | 10        | 1,100  | 10         | 1,600  | 1,600   |      |
| Vanadium                  | 0.049     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0050     | ND     | 0.0050   | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050  | ND   |
| Zinc                      | 5.0       | 0.020      | ND     | 0.020     | ND     | 0.10      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020   | ND   |
| Benzene                   | 0.005     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0005     | ND     | 0.0005   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050 | ND   |
| BETX                      | 11.705    | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | 0.0025     | ND     | 0.0025   | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025     | ND     | 0.0025  | ND   |
| Temperature               | NA        | NA         | 12.82  | NA        | 9.51   | NA        | 13.28  | NA        | 16.18  | NA        | 14.05  | NA        | 12.16  | NA        | 15.28  | NA        | 17.41  | NA         | 13.82  | NA       | 9.50   | NA        | 13.12  | NA        | 18.25  | NA         | 15.59  | 15.59   |      |
| Conductivity              | NA        | NA         | 1.43   | NA        | 1.96   | NA        | 1.76   | NA        | 1.50   | NA        | 1.13   | NA        | 1.02   | NA        | 1.23   | NA        | 1.49   | NA         | 1.27   | NA       | 1.11   | NA        | 1.09   | NA        | 1.35   | NA         | 1.73   | 1.73    |      |
| Dissolved Oxygen          | NA        | NA         | NM     | NA        | 0.51   | NA        | 0.50   | NA        | 0.76   | NA        | 0.32   | NA        | 1.15   | NA        | 0.66   | NA        | 0.94   | NA         | 0.29   | NA       | 1.35   | NA        | 0.20   | NA        | 0.30   | NA         | 0.64   | 0.64    |      |
| ORP                       | NA        | NA         | NM     | NA        | -254.6 | NA        | -62.2  | NA        | -207   | NA        | -139   | NA        | -54    | NA        | -105   | NA        | -60    | NA         | -80    | NA       | -94.1  | NA        | -111.3 | NA        | -114.8 | NA         | -145.3 | -145.3  |      |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620-410 - Groundwater Quality Standards for Class I, Potable Resource Groundwater.  
All values are in mg/L (ppm) unless otherwise noted

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured

NR - Not Required  
NS - Not Sampled  
^ - Disables instrument related QC exceeds the control limits

Temperature °C  
Conductivity mS/cm  
Dissolved Oxygen mg/L  
Oxygen Reduction Potential (ORP) mV  
degrees Celsius  
milliSiemens centimeters  
milligrams/liter  
millivolt



Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

| Sample: MW-09             |           | Date    |        | 12/13/2010 |        | 3/28/2011 |        | 6/15/2011 |        | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |        | 12/18/2012 |        | 3/5/2013 |         | 5/23/2013 |         | 8/15/2013 |         | 10/29/2013 |         |        |
|---------------------------|-----------|---------|--------|------------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|------------|--------|----------|---------|-----------|---------|-----------|---------|------------|---------|--------|
| Parameter                 | Standards | DL      | Result | DL         | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL        | Result | DL         | Result | DL       | Result  | DL        | Result  | DL        | Result  | DL         | Result  |        |
| Antimony                  | 0.006     | 0.0030  | ND^    | 0.0030     | ND     | 0.015     | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030     | ND     | 0.0030   | ND      | 0.0030    | ND      | 0.0030    | ND      | 0.0030     | ND      |        |
| Arsenic                   | 0.010     | 0.0010  | 0.0059 | 0.0010     | 0.0049 | 0.0050    | 0.0052 | 0.0010    | 0.0065 | 0.0010    | 0.0078 | 0.0010    | 0.0053 | 0.0010    | 0.0056 | 0.0010    | 0.0068 | 0.0010    | 0.0060 | 0.0010     | 0.0051 | 0.0010   | 0.0047  | 0.0010    | 0.0050  | 0.0010    | 0.0050  | 0.0010     | 0.0066  |        |
| Barium                    | 2.0       | 0.0025  | 0.025  | 0.0025     | 0.031  | 0.013     | 0.025  | 0.0025    | 0.023  | 0.0025    | 0.017  | 0.0025    | 0.023  | 0.0025    | 0.022  | 0.0025    | 0.026  | 0.0025    | 0.020  | 0.0025     | 0.016  | 0.0025   | 0.025   | 0.0025    | 0.026   | 0.0025    | 0.026   | 0.0025     | 0.023   |        |
| Beryllium                 | 0.004     | 0.0010  | ND     | 0.0010     | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND      | 0.0010    | ND      | 0.0010    | ND      | 0.0010     | ND      | 0.0010 |
| Boron                     | 2.0       | 0.25    | 2.2    | 0.25       | 1.4    | 0.050     | 1.7    | 0.050     | 2.0    | 0.050     | 1.9    | 0.25      | 1.4    | 1.0       | 1.8    | 0.25      | 2.0    | 0.50      | 1.7    | 0.50       | 1.5    | 0.50     | 1.7     | 0.50      | 1.8     | 0.10      | 2.2     | 0.10       | 2.2     |        |
| Cadmium                   | 0.005     | 0.00050 | ND     | 0.00050    | ND     | 0.0025    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND      | 0.00050   | ND      | 0.00050   | ND      | 0.00050    | ND      |        |
| Chloride                  | 200.0     | 10      | 100    | 10         | 280    | 10        | 230    | 10        | 190    | 10        | 140    | 10        | 200    | 10        | 160    | 10        | 160    | 10        | 130    | 10         | 140    | 10       | 160     | 10        | 170     | 10        | 110     | 10         | 110     |        |
| Chromium                  | 0.1       | 0.0050  | ND     | 0.0050     | ND     | 0.025     | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050     | ND     | 0.0050   | ND      | 0.0050    | ND      | 0.0050    | ND      | 0.0050     | ND      |        |
| Cobalt                    | 1.0       | 0.0010  | ND     | 0.0010     | ND     | 0.0050    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010     | ND     | 0.0010   | ND      | 0.0010    | ND      | 0.0010    | ND      | 0.0010     | ND      |        |
| Copper                    | 0.65      | 0.0020  | ND     | 0.0020     | ND     | 0.010     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND      | 0.0020    | ND      | 0.0020    | ND      | 0.0020     | ND      |        |
| Cyanide                   | 0.2       | 0.010   | ND     | 0.010      | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010     | ND     | 0.010      | ND     | 0.010    | ND      | 0.010     | ND      | 0.010     | ND      | 0.010      | ND      |        |
| Fluoride                  | 4.0       | 0.10    | 0.33   | 0.10       | 0.36   | 0.10      | 0.28   | 0.10      | 0.28   | 0.10      | 0.38   | 0.10      | 0.39   | 0.10      | 0.32   | 0.10      | 0.41   | 0.10      | 0.42^  | 0.10       | 0.43^  | 0.10     | 0.32    | 0.10      | 0.10    | 0.47      | 0.10    | 0.48       | 0.10    |        |
| Iron                      | 5.0       | 0.10    | ND     | 0.10       | ND     | 0.50      | ND     | 0.10      | ND     | 0.10      | ND^    | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10       | ND     | 0.10     | ND      | 0.10      | ND      | 0.10      | ND      | 0.10       | ND      |        |
| Lead                      | 0.0075    | 0.00050 | ND     | 0.00050    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND      | 0.00050   | ND      | 0.00050   | ND      | 0.00050    | ND      |        |
| Manganese                 | 0.15      | 0.0025  | ND     | 0.0025     | ND     | 0.013     | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | 0.0036 | 0.0025    | ND     | 0.0025     | ND     | 0.0025   | ND      | 0.0025    | ND      | 0.0025    | 0.0043  | 0.0025     | ND      |        |
| Mercury                   | 0.002     | 0.00020 | ND     | 0.00020    | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020    | ND     | 0.00020  | ND      | 0.00020   | ND      | 0.00020   | ND      | 0.00020    | ND      |        |
| Nickel                    | 0.1       | 0.0020  | ND     | 0.0020     | ND     | 0.010     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | 0.0022 | 0.0020     | 0.0022 | 0.0020   | 0.0022  | 0.0020    | 0.0022  | 0.0020    | 0.0022  | 0.0020     | ND      |        |
| Nitrogen/Nitrate          | 10.0      | 0.10    | ND     | 0.20       | 2.4    | 0.10      | 1.1    | 0.10      | ND     | 0.10      | 1.9    | 0.10      | 3.2    | 0.10      | ND     | 0.10      | ND     | 0.10      | -4.1   | 0.10       | 6.2    | 0.10     | 0.40    | 0.10      | ND      | 0.10      | 1.6     | 0.10       | 1.6     |        |
| Nitrogen/Nitrate, Nitrite | NA        | 0.10    | ND     | 0.10       | 3.6    | 0.10      | 0.94   | 0.10      | 0.18   | 0.10      | 2.0    | 0.50      | 3.3    | 0.10      | ND     | 0.10      | ND^    | 0.10      | -4.6   | 1.0        | 6.8    | 0.10     | 1.4     | 0.10      | 0.44    | 0.50      | 2.2     | 0.10       | 2.2     |        |
| Nitrogen/Nitrite          | NA        | 0.10    | 0.44   | 0.20       | 1.2    | 0.020     | 0.16   | 0.040     | 0.22   | 0.020     | 0.15   | 0.020     | 0.12   | 0.020     | 0.027  | 0.020     | 0.023  | 0.10      | 0.55   | 0.10       | 0.65   | 0.20     | 1.0     | 0.10      | 0.49    | 0.10      | 0.65    | 0.10       | 0.65    |        |
| Perchlorate               | 0.0049    | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | 0.004  | NR         | 0.004  | ND^      | 0.0040  | NR        | 0.0040  | NR        | 0.0040  | NR         | 0.0040  | NR     |
| pH                        | 6.5 - 9.0 | NA      | 10.88  | NA         | 10.87  | NA        | 10.44  | NA        | 10.27  | NA        | 9.55   | NA        | 10.56  | NA        | 10.31  | NA        | 10.23  | NA        | 10.42  | NA         | 10.39  | NA       | 9.93    | NA        | 9.86    | NA        | 10.01   | NA         | 10.01   |        |
| Selenium                  | 0.05      | 0.0025  | 0.0036 | 0.0025     | 0.0042 | 0.013     | ND     | 0.0025    | 0.0045 | 0.0025    | 0.0031 | 0.0025    | ND     | 0.0025    | 0.0026 | 0.0025    | 0.0031 | 0.0025    | 0.0039 | 0.0025     | 0.0029 | 0.0025   | 0.0027  | 0.0025    | 0.0034  | 0.0025    | 0.0053  | 0.0025     |         |        |
| Silver                    | 0.05      | 0.00050 | ND     | 0.00050    | ND     | 0.0025    | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050    | ND     | 0.00050  | ND      | 0.00050   | ND      | 0.00050   | ND      | 0.00050    | ND      |        |
| Sulfate                   | 400.0     | 100     | 410    | 100        | 320    | 100       | 410    | 50        | 400    | 50        | 270    | 50        | 340    | 100       | 340    | 100       | 380    | 50        | 310    | 50         | 250    | 50       | 320     | 50        | 310     | 50        | 310     | 50         | 310     |        |
| Thallium                  | 0.002     | 0.0020  | ND     | 0.0020     | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020     | ND     | 0.0020   | ND      | 0.0020    | ND      | 0.0020    | ND      | 0.0020     | ND      |        |
| Total Dissolved Solids    | 1,200     | 10      | 800    | 10         | 1000   | 10        | 940    | 10        | 850    | 10        | 660    | 10        | 820    | 10        | 880    | 10        | 800    | 10        | 780    | 10         | 600    | 10       | 690     | 10        | 700     | 10        | 680     | 10         | 680     |        |
| Vanadium                  | 0.049     | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | 0.0050 | 0.031      | 0.0050 | 0.024    | 0.0050  | 0.029     | 0.0050  | 0.023     | 0.0050  | 0.034      | 0.024   |        |
| Zinc                      | 5.0       | 0.020   | ND     | 0.020      | ND     | 0.10      | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020      | ND     | 0.020    | ND      | 0.020     | ND      | 0.020     | ND      | 0.020      | ND      |        |
| Benzene                   | 0.005     | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | 0.0005 | ND         | 0.0005 | ND       | 0.00050 | ND        | 0.00050 | ND        | 0.00050 | ND         | 0.00050 | ND     |
| BETX                      | 11.705    | NR      | NR     | NR         | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | 0.0025 | ND         | 0.0025 | ND       | 0.0025  | ND        | 0.0025  | ND        | 0.0025  | ND         | 0.0025  | ND     |
| Temperature               | NA        | NA      | 15.09  | NA         | 11.33  | NA        | 14.55  | NA        | 16.79  | NA        | 15.70  | NA        | 13.35  | NA        | 15.35  | NA        | 18.14  | NA        | 14.68  | NA         | 11.10  | NA       | 13.62   | NA        | 16.90   | NA        | 16.28   | NA         | 16.28   |        |
| Conductivity              | NA        | NA      | 1.33   | NA         | 1.75   | NA        | 1.52   | NA        | 1.12   | NA        | 0.90   | NA        | 1.00   | NA        | 1.06   | NA        | 1.09   | NA        | 0.90   | NA         | 0.76   | NA       | 0.83    | NA        | 0.93    | NA        | 0.85    | NA         | 0.85    |        |
| Dissolved Oxygen          | NA        | NA      | NM     | NA         | 0.27   | NA        | 0.07   | NA        | 0.03   | NA        | 0.05   | NA        | 0.30   | NA        | 0.03   | NA        | 0.06   | NA        | 0.11   | NA         | 0.52   | NA       | 0.25    | NA        | 0.48    | NA        | 0.56    | NA         | 0.56    |        |
| ORP                       | NA        | NA      | NM     | NA         | -289.3 | NA        | 79.8   | NA        | -341   | NA        | -118   | NA        | -12    | NA        | -70    | NA        | -112   | NA        | -200   | NA         | -36    | NA       | -107.1  | NA        | -91.6   | NA        | -182.7  | NA         | -182.7  |        |

Notes: Standards obtained from IAC, Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I Potable Resource Groundwater.  
All values are in mg/L (ppm) unless otherwise noted

DL - Detection Limit  
NA - Not Applicable  
ND - Not Detected  
NM - Not Measured  
NR - Not Required  
NS - Not Sampled  
^ - Denotes instrument related QC exceeds the control limits

Temperature °C  
Conductivity mu cm^-1  
Dissolved Oxygen mg/L  
Oxygen Reduction Potential (ORP) mV  
degrees Celsius  
millisiemens centimeter  
milligram/liter  
millivolt

Table 2. Groundwater Analytical Results - Midwest Generation LLC, Will County Station, Romeoville, IL

| Sample: MW-10             | Date      | 12/13/2010 |                 | 3/28/2011 |        | 6/15/2011 |       | 9/15/2011 |        | 12/8/2011 |        | 3/16/2012 |        | 6/20/2012 |        | 9/24/2012 |                 | 12/18/2012 |                   | 3/5/2013 |                   | 5/22/2013       |         | 8/15/2013 |         | 10/28/2013 |         |        |
|---------------------------|-----------|------------|-----------------|-----------|--------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|-----------------|------------|-------------------|----------|-------------------|-----------------|---------|-----------|---------|------------|---------|--------|
|                           |           | Standards  | DL              | Result    | DL     | Result    | DL    | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL     | Result    | DL              | Result     | DL                | Result   | DL                | Result          | DL      | Result    | DL      | Result     | DL      | Result |
| Antimony                  | 0.006     | 0.0030     | ND <sup>^</sup> | 0.0030    | ND     | 0.015     | ND    | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND     | 0.0030    | ND              | 0.0030     | ND                | 0.0030   | ND                | 0.0030          | ND      | 0.0030    | ND      | 0.0030     | ND      | 0.0030 |
| Arsenic                   | 0.010     | 0.0010     | 0.0041          | 0.0010    | 0.0046 | 0.0050    | ND    | 0.0010    | 0.0088 | 0.0010    | 0.0083 | 0.0010    | 0.0056 | 0.0010    | 0.0058 | 0.0010    | 0.0098          | 0.0010     | 0.0072            | 0.0010   | 0.0077            | 0.0010          | 0.0040  | 0.0010    | 0.0010  | 0.012      |         |        |
| Barium                    | 2.0       | 0.0025     | 0.098           | 0.0025    | 0.091  | 0.013     | 0.091 | 0.0025    | 0.11   | 0.0025    | 0.11   | 0.0025    | 0.10   | 0.0025    | 0.10   | 0.0025    | 0.097           | 0.0025     | 0.11              | 0.0025   | 0.098             | 0.0025          | 0.10    | 0.0025    | 0.082   | 0.0025     | 0.10    |        |
| Beryllium                 | 0.004     | 0.0010     | ND              | 0.0010    | ND     | 0.0010    | ND    | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND              | 0.0010     | ND                | 0.0010   | ND                | 0.0010          | ND      | 0.0010    | ND      | 0.0010     | ND      |        |
| Boron                     | 2.0       | 0.25       | 2.1             | 0.25      | 1.8    | 0.050     | 2.2   | 0.050     | 2.8    | 0.050     | 2.5    | 0.25      | 2.1    | 0.50      | 2.1    | 0.25      | 3.2             | 0.50       | 2.7               | 0.50     | 2.7               | 0.50            | 2.7     | 0.50      | 2.3     | 0.10       | 3.8     |        |
| Cadmium                   | 0.005     | 0.00050    | ND              | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND              | 0.00050    | ND                | 0.00050  | ND                | 0.00050         | ND      | 0.00050   | ND      | 0.00050    | ND      |        |
| Chloride                  | 200.0     | 10         | 92              | 10        | 130    | 10        | 150   | 10        | 120    | 10        | 120    | 10        | 100    | 10        | 120    | 10        | 140             | 10         | 140               | 10       | 130               | 10              | 140     | 10        | 130     | 10         | 140     |        |
| Chromium                  | 0.1       | 0.0050     | ND              | 0.0050    | ND     | 0.025     | ND    | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND     | 0.0050    | ND              | 0.0050     | ND                | 0.0050   | ND                | 0.0050          | ND      | 0.0050    | ND      | 0.0050     | ND      |        |
| Cobalt                    | 1.0       | 0.0010     | ND              | 0.0010    | ND     | 0.0050    | ND    | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND     | 0.0010    | ND              | 0.0010     | ND                | 0.0010   | ND                | 0.0010          | ND      | 0.0010    | ND      | 0.0010     | ND      |        |
| Copper                    | 0.65      | 0.0020     | ND              | 0.0020    | ND     | 0.010     | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND              | 0.0020     | ND                | 0.0020   | ND                | 0.0020          | ND      | 0.0020    | ND      | 0.0020     | ND      |        |
| Cyanide                   | 0.2       | 0.010      | ND              | 0.010     | ND     | 0.010     | 0.010 | 0.010     | ND     | 0.010     | 0.010  | 0.010     | ND     | 0.010     | ND     | 0.010     | ND              | 0.010      | ND                | 0.010    | ND                | 0.010           | ND      | 0.010     | ND      | 0.010      | ND      |        |
| Fluoride                  | 4.0       | 0.10       | 0.66            | 0.10      | 0.64   | 0.10      | 0.65  | 0.10      | 0.67   | 0.10      | 0.59   | 0.10      | 0.52   | 0.10      | 0.58   | 0.10      | 0.72            | 0.10       | 0.59 <sup>^</sup> | 0.10     | 0.57 <sup>^</sup> | 0.10            | 0.66    | 0.10      | 0.73    | 0.10       | 0.73    |        |
| Iron                      | 5.0       | 0.10       | 0.32            | 0.10      | 0.46   | 0.50      | 0.63  | 0.10      | 0.60   | 0.10      | 0.71   | 0.10      | 0.61   | 0.10      | 0.58   | 0.10      | 0.77            | 0.10       | 0.91              | 0.10     | 0.93              | 0.10            | 1.1     | 0.10      | 0.48    | 0.10       | 0.79    |        |
| Lead                      | 0.0075    | 0.00050    | ND              | 0.00050   | ND     | 0.00050   | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND              | 0.00050    | 0.00050           | 0.00050  | 0.00050           | ND              | 0.00050 | ND        | 0.00050 | ND         | 0.00050 |        |
| Manganese                 | 0.15      | 0.0025     | 0.25            | 0.0025    | 0.22   | 0.013     | 0.25  | 0.0025    | 0.27   | 0.0025    | 0.29   | 0.0025    | 0.25   | 0.0025    | 0.26   | 0.0025    | 0.23            | 0.0025     | 0.29              | 0.0025   | 0.29              | 0.0025          | 0.24    | 0.0025    | 0.14    | 0.0025     | 0.22    |        |
| Mercury                   | 0.002     | 0.00020    | ND              | 0.00020   | ND     | 0.00020   | ND    | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND     | 0.00020   | ND              | 0.00020    | ND                | 0.00020  | ND                | 0.00020         | ND      | 0.00020   | ND      | 0.00020    | ND      |        |
| Nickel                    | 0.1       | 0.0020     | ND              | 0.0020    | ND     | 0.010     | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | 0.0022          | 0.0020     | 0.0023            | 0.0020   | 0.0027            | 0.0020          | 0.0020  | 0.0020    | 0.0020  | 0.0020     | 0.0020  |        |
| Nitrogen/Nitrate          | 10.0      | 0.10       | ND              | 0.10      | ND     | 0.10      | ND    | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND              | 0.10       | ND                | 0.10     | ND                | 0.10            | ND      | 0.10      | ND      | 0.10       | ND      |        |
| Nitrogen/Nitrate, Nitrite | NA        | 0.10       | ND <sup>^</sup> | 0.10      | ND     | 0.10      | ND    | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND     | 0.10      | ND <sup>^</sup> | 0.10       | ND <sup>^</sup>   | 0.10     | ND                | 0.10            | ND      | 0.10      | ND      | 0.10       | ND      |        |
| Nitrogen/Nitrite          | NA        | 0.020      | ND              | 0.020     | ND     | 0.020     | ND    | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND              | 0.020      | ND                | 0.020    | ND                | 0.020           | ND      | 0.020     | ND      | 0.020      | ND      |        |
| Perchlorate               | 0.0049    | NR         | NR              | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR              | NR         | 0.004             | ND       | 0.004             | ND <sup>^</sup> | 0.0040  | ND        | 0.0040  | ND         | 0.0040  | ND     |
| pH                        | 6.5 - 9.0 | NA         | 7.61            | NA        | 8.14   | NA        | 7.53  | NA        | 7.45   | NA        | 7.10   | NA        | 7.59   | NA        | 7.39   | NA        | 7.60            | NA         | 7.47              | NA       | 7.54              | NA              | 7.53    | NA        | 7.38    | NA         | 7.27    |        |
| Selenium                  | 0.05      | 0.0025     | ND              | 0.0025    | ND     | 0.013     | ND    | 0.0025    | 0.0032 | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND     | 0.0025    | ND              | 0.0025     | 0.0025            | 0.0025   | 0.0025            | ND              | 0.0025  | ND        | 0.0025  | ND         |         |        |
| Silver                    | 0.05      | 0.00050    | ND              | 0.00050   | ND     | 0.0025    | ND    | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND     | 0.00050   | ND              | 0.00050    | ND                | 0.00050  | ND                | 0.00050         | ND      | 0.00050   | ND      | 0.00050    | ND      |        |
| Sulfate                   | 400.0     | 100        | 370             | 100       | 370    | 100       | 350   | 100       | 420    | 100       | 290    | 50        | 330    | 100       | 350    | 100       | 380             | 100        | 270               | 100      | 350               | 50              | 350     | 100       | 300     | 50         | 330     |        |
| Thallium                  | 0.002     | 0.0020     | ND              | 0.0020    | ND     | 0.0020    | ND    | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND     | 0.0020    | ND              | 0.0020     | ND                | 0.0020   | ND                | 0.0020          | ND      | 0.0020    | ND      | 0.0020     | ND      |        |
| Total Dissolved Solids    | 1,200     | 10         | 990             | 10        | 960    | 10        | 990   | 10        | 1090   | 10        | 1100   | 10        | 990    | 10        | 1090   | 10        | 970             | 10         | 1100              | 10       | 1090              | 10              | 1100    | 10        | 990     | 10         | 920     |        |
| Vanadium                  | 0.049     | NR         | NR              | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR              | NR         | 0.0050            | ND       | 0.0050            | ND              | 0.0050  | ND        | 0.0050  | ND         | 0.0050  | ND     |
| Zinc                      | 5.0       | 0.020      | ND              | 0.020     | ND     | 0.10      | ND    | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND     | 0.020     | ND              | 0.020      | ND                | 0.020    | ND                | 0.020           | ND      | 0.020     | ND      | 0.020      | ND      |        |
| Benzene                   | 0.005     | NR         | NR              | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR              | NR         | 0.0005            | ND       | 0.0005            | ND              | 0.00050 | ND        | 0.00050 | ND         | 0.00050 | ND     |
| BETX                      | 11.705    | NR         | NR              | NR        | NR     | NR        | NR    | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR     | NR        | NR              | NR         | 0.0025            | ND       | 0.0025            | ND              | 0.0025  | ND        | 0.0025  | ND         | 0.0025  | ND     |
| Temperature               | NA        | NA         | 15.01           | NA        | 10.51  | NA        | 13.34 | NA        | 16.84  | NA        | 14.72  | NA        | 11.27  | NA        | 16.14  | NA        | 18.45           | NA         | 14.44             | NA       | 10.50             | NA              | 13.44   | NA        | 16.41   | NA         | 16.70   |        |
| Conductivity              | NA        | NA         | 1.53            | NA        | 1.47   | NA        | 1.51  | NA        | 1.32   | NA        | 1.29   | NA        | 1.06   | NA        | 1.26   | NA        | 1.30            | NA         | 1.32              | NA       | 1.18              | NA              | 1.21    | NA        | 1.09    | NA         | 1.25    |        |
| Dissolved Oxygen          | NA        | NA         | NM              | NA        | 0.42   | NA        | 0.08  | NA        | 0.05   | NA        | 0.09   | NA        | 0.02   | NA        | 0.03   | NA        | 0.01            | NA         | 0.36              | NA       | 0.20              | NA              | 0.30    | NA        | 0.15    | NA         | 0.23    |        |
| ORP                       | NA        | NA         | NM              | NA        | -208   | NA        | -88.7 | NA        | -241   | NA        | -177   | NA        | -119   | NA        | -124   | NA        | -126            | NA         | -120              | NA       | -117.4            | NA              | -97.8   | NA        | -112.1  | NA         | -165.8  |        |

Notes: Standards obtained from IAC Title 35, Chapter I, Part 620, Subpart D, Section 620.410 - Groundwater Quality Standards for Class I, Potable Resource Groundwater  
All values are in mg/L (ppm) unless otherwise noted.

DL - Detection Limit  
NA - Not Applicable  
NR - Not Reported  
NS - Not Sampled  
ND - Not Detected  
NM - Not Measured  
^ - Denotes instrument related QC exceeds the control limit

Temperature  
Conductivity  
Dissolved Oxygen  
Oxygen Reduction Potential (ORP)

°C  
mS/cm  
mg/L  
mV

Degrees Celsius  
millisiemens centimeters  
milligrams/liter  
millivolt



**Southern Illinois  
Power Cooperative**

11543 Lake of Egypt Road  
Marion, IL 62959  
(618) 964-1448 Fax (618) 964-1867

April 3, 2013

Mr. Carl Kamp  
Illinois Environmental Protection Agency  
Hydrogeology and Compliance Unit  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

Re: Southern Illinois Power Cooperative, Marion Power Plant, Marion, IL – Groundwater Monitoring Data

Mr. Kamp,

This letter is in response to your letter dated December 13, 2012, in which IEPA requested additional groundwater sampling information on the Marion Power Plant site. As requested, Monitoring wells: C1, C2, C3, S1, S2, S3, S4, S5, and S6 at the Marion Power Plant site were all sampled for the inorganic parameters listed in 35 ILL. Adm. Code 620.410 (a) & (d). The analytical results for this round of testing are attached. If you have any questions or comments regarding this information, please feel free to contact me.

Respectfully,

A handwritten signature in black ink that reads "Jason A. McLaurin". The signature is fluid and cursive, with a long horizontal stroke at the end.

Jason McLaurin

Environmental Coordinator  
Southern Illinois Power Cooperative  
(618) 964-2446

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APR 16 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS



Touchstone Energy™  
The power of human connections



<http://www.teklabinc.com/>

April 01, 2013

Jason McLaurin  
Southern Illinois Power Cooperation  
11543 Lake of Egypt Road  
Marion, IL 62959  
TEL: (618) 964-1448  
FAX:



**RE:** Special GW Monitoring

**WorkOrder:** 13030341

Dear Jason McLaurin:

TEKLAB, INC received 9 samples on 3/11/2013 5:20:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

A handwritten signature in cursive script that reads "Shelly A. Hennessy".

Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
SHennessy@teklabinc.com

**RECEIVED**

APR 16 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS



## Definitions

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

### Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCS D Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count ( > 200 CFU )

### Qualifiers

- |  |   |
|--|---|
| # - Unknown hydrocarbon                                | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range                     | H - Holding times exceeded                      |
| M - Manual Integration used to determine area response | ND - Not Detected at the Reporting Limit        |
| R - RPD outside accepted recovery limits               | S - Spike Recovery outside recovery limits      |
| X - Value exceeds Maximum Contaminant Level            |   |



Case Narrative

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Cooler Receipt Temp: 5.8 °C

An employee of Teklab, Inc. collected the sample(s).

Perchlorate analysis was performed by Keystone Laboratories, Inc.

Radium 226/228 analysis was performed by Pace Analytical Services, Inc. See attached report (18 pages) for results.

Locations and Accreditations

| Collinsville |   | Springfield |   | Kansas City |                                      |
|--------------|---|-------------|---|-------------|--------------------------------------|
| Address      | 5445 Horseshoe Lake Road<br>Collinsville, IL 62234-7425 | Address     | 3920 Pintail Dr<br>Springfield, IL 62711-9415 | Address     | 8421 Nieman Road<br>Lenexa, KS 66214 |
| Phone        | (618) 344-1004  | Phone       | (217) 698-1004                                | Phone       | (913) 541-1998                       |
| Fax          | (618) 344-1005  | Fax         | (217) 698-1005                                | Fax         | (913) 541-1998                       |
| Email        | jhriley@teklabinc.com                                   | Email       | KKlostermann@teklabinc.com                    | Email       | dthompson@teklabinc.com              |

| State     | Dept | Cert #          | NELAP | Exp Date  | Lab          |
|-----------|------|-----------------|-------|-----------|--------------|
| Illinois  | IEPA | 100226          | NELAP | 1/31/2014 | Collinsville |
| Kansas    | KDHE | E-10374         | NELAP | 1/31/2014 | Collinsville |
| Louisiana | LDEQ | 166493          | NELAP | 6/30/2013 | Collinsville |
| Louisiana | LDEQ | 166578          | NELAP | 6/30/2013 | Springfield  |
| Texas     | TCEQ | T104704515-12-1 | NELAP | 7/31/2013 | Collinsville |
| Arkansas  | ADEQ | 88-0966         |       | 3/14/2014 | Collinsville |
| Illinois  | IDPH | 17584           |       | 4/30/2013 | Collinsville |
| Kentucky  | UST  | 0073            |       | 5/26/2013 | Collinsville |
| Missouri  | MDNR | 00930           |       | 4/13/2013 | Collinsville |
| Oklahoma  | ODEQ | 9978            |       | 8/31/2013 | Collinsville |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-001

Client Sample ID: C1

Matrix: GROUNDWATER

Collection Date: 03/11/2013 11:00

| Analyses   | Certification | RL       | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|--------------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |      |              |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 954          | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |      |              |       |    |                  |         |
| Chloride   | NELAP         | 100      |      | 252          | mg/L  | 20 | 03/16/2013 12:39 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |      |              |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |      | < 0.050      | mg/L  | 1  | 03/13/2013 13:41 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007      | mg/L  | 1  | 03/14/2013 14:07 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Sulfate  | NELAP         | 200      |      | 395          | mg/L  | 20 | 03/16/2013 12:39 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.26         | mg/L  | 1  | 03/12/2013 16:40 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |      |              |       |    |                  |         |
| Arsenic  | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Barium   | NELAP         | 5.0      |      | 24.0         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | < 1.0        | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Boron  | NELAP         | 20.0     |      | 79.3         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Chromium   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Cobalt   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Copper   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Iron   | NELAP         | 20.0     |      | 1720         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Lead   | NELAP         | 7.5      |      | < 7.5        | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Manganese  | NELAP         | 5.0      |      | 153          | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Nickel   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0       | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Silver   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Vanadium   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Zinc   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |      |              |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0        | µg/L  | 1  | 03/13/2013 16:03 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/15/2013 12:07 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20       | µg/L  | 1  | 03/13/2013 12:32 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |      |              |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND           | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |      | 106.5        | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |      | 102.7        | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |      | 101.0        | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 99.9         | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |              |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND           | µg/L  | 1  | 03/18/2013 15:12 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |      |              |       |    |                  |         |
| Radium-226   |               | 0        |      | See attached | pCi/L | 1  | 03/28/2013 8:48  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-001

Client Sample ID: C1

Matrix: GROUNDWATER

Collection Date: 03/11/2013 11:00

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |





## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-002

Client Sample ID: C2

Matrix: GROUNDWATER

Collection Date: 03/11/2013 11:35

| Analyses   | Certification | RL       | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|--------------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |      |              |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 474          | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |      |              |       |    |                  |         |
| Chloride   | NELAP         | 5        |      | < 5          | mg/L  | 1  | 03/16/2013 12:42 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |      |              |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.250    |      | 1.38         | mg/L  | 5  | 03/13/2013 13:43 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007      | mg/L  | 1  | 03/14/2013 14:11 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Sulfate  | NELAP         | 200      |      | 232          | mg/L  | 20 | 03/16/2013 12:48 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.24         | mg/L  | 1  | 03/12/2013 16:41 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |      |              |       |    |                  |         |
| Arsenic  | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Barium   | NELAP         | 5.0      |      | 72.4         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | < 1.0        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Boron  | NELAP         | 20.0     |      | 52.4         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Chromium   | NELAP         | 10       |      | 26.4         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Cobalt   | NELAP         | 10       |      | 23.5         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Copper   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Iron   | NELAP         | 20.0     |      | 13300        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Lead   | NELAP         | 7.5      |      | < 7.5        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Manganese  | NELAP         | 5.0      |      | 7960         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Nickel   | NELAP         | 10       |      | 11.5         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0       | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Silver   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Vanadium   | NELAP         | 10       |      | 18.1         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Zinc   | NELAP         | 10       |      | 25.1         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |      |              |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0        | µg/L  | 1  | 03/13/2013 16:06 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/15/2013 12:11 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20       | µg/L  | 1  | 03/13/2013 12:40 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |      |              |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |      | 105.4        | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |      | 101.9        | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |      | 100.2        | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 100          | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |              |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND           | µg/L  | 1  | 03/18/2013 15:29 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |      |              |       |    |                  |         |
| Radium-226   |               | 0        |      | See attached | pci/L | 1  | 03/28/2013 8:59  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Special GW Monitoring  
 Lab ID: 13030341-002  
 Matrix: GROUNDWATER

Work Order: 13030341  
 Report Date: 01-Apr-13  
 Client Sample ID: C2  
 Collection Date: 03/11/2013 11:35

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-003

Client Sample ID: C3

Matrix: GROUNDWATER

Collection Date: 03/11/2013 12:33

| Analyses   | Certification | RL       | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|--------------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |      |              |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 1680         | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |      |              |       |    |                  |         |
| Chloride   | NELAP         | 100      |      | 674          | mg/L  | 20 | 03/19/2013 14:08 | R174962 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |      |              |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |      | < 0.050      | mg/L  | 1  | 03/13/2013 13:59 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007      | mg/L  | 1  | 03/14/2013 14:37 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Sulfate  | NELAP         | 10       |      | 44           | mg/L  | 1  | 03/16/2013 12:50 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.23         | mg/L  | 1  | 03/12/2013 16:44 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |      |              |       |    |                  |         |
| Arsenic  | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Barium   | NELAP         | 5.0      |      | 200          | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | < 1.0        | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Boron  | NELAP         | 20.0     |      | 21.9         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Chromium   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Cobalt   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Copper   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Iron   | NELAP         | 20.0     |      | 3500         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Lead   | NELAP         | 7.5      |      | < 7.5        | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Manganese  | NELAP         | 5.0      |      | 453          | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Nickel   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0       | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Silver   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Vanadium   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Zinc   | NELAP         | 10       |      | 18.6         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |      |              |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0        | µg/L  | 1  | 03/13/2013 16:10 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/15/2013 12:14 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20       | µg/L  | 1  | 03/13/2013 12:43 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |      |              |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |      | 106.3        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |      | 101.9        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |      | 101.8        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 101.0        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |              |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND           | µg/L  | 1  | 03/18/2013 15:47 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |      |              |       |    |                  |         |
| Radium-226   |               | 0        |      | See attached | pci/L | 1  | 03/28/2013 9:35  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-003

Client Sample ID: C3

Matrix: GROUNDWATER

Collection Date: 03/11/2013 12:33

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-004

Client Sample ID: S1

Matrix: GROUNDWATER

Collection Date: 03/11/2013 14:30

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 286     | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |              | 7       | mg/L  | 1  | 03/19/2013 14:14 | R174962 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.250    |              | 0.918   | mg/L  | 5  | 03/13/2013 14:01 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 14:41 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 10       |              | 25      | mg/L  | 1  | 03/16/2013 12:58 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.22    | mg/L  | 1  | 03/12/2013 16:45 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Barium   | NELAP         | 5.0      |              | 58.1    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | < 1.0   | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Boron  | NELAP         | 20.0     |              | < 20.0  | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Chromium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Cobalt   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Copper   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Iron   | NELAP         | 20.0     |              | 2020    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Lead   | NELAP         | 7.5      |              | < 7.5   | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Manganese  | NELAP         | 5.0      |              | 55.7    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Nickel   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Vanadium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Zinc   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:14 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:17 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:46 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 105.0   | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 99.8    | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 100.5   | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 101.3   | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 16:04 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pci/L | 1  | 03/28/2013 9:35  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-004

Client Sample ID: S1

Matrix: GROUNDWATER

Collection Date: 03/11/2013 14:30

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-005

Client Sample ID: S2

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:42

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 274     | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 10       |              | 74      | mg/L  | 2  | 03/16/2013 13:09 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |              | < 0.050 | mg/L  | 1  | 03/13/2013 14:05 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 14:59 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 10       |              | 23      | mg/L  | 1  | 03/16/2013 13:04 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | < 0.10  | mg/L  | 1  | 03/12/2013 16:47 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 20.0     |              | 22.2    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Barium   | NELAP         | 10       |              | 1140    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | 3.0     | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Boron  | NELAP         | 40.0     |              | 184     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Chromium   | NELAP         | 20.0     |              | 100     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Cobalt   | NELAP         | 20.0     |              | 24.4    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Copper   | NELAP         | 20.0     |              | 70.0    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Iron   | NELAP         | 40.0     |              | 124000  | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Lead   | NELAP         | 15.0     |              | 58.4    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Manganese  | NELAP         | 10       |              | 5790    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Nickel   | NELAP         | 20.0     |              | 60.4    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Vanadium   | NELAP         | 20.0     |              | 123     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Zinc   | NELAP         | 20.0     |              | 181     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:17 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:21 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:48 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 105.1   | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 101.9   | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 101.2   | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.8    | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 16:22 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pci/L | 1  | 03/28/2013 9:35  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-005

Client Sample ID: S2

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:42

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-226                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |





## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-006

Client Sample ID: S3

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:26

| Analyses   | Certification | RL       | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|--------------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |      |              |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 304          | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |      |              |       |    |                  |         |
| Chloride   | NELAP         | 5        |      | 46           | mg/L  | 1  | 03/16/2013 13:12 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |      |              |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |      | < 0.050      | mg/L  | 1  | 03/13/2013 14:08 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007      | mg/L  | 1  | 03/14/2013 15:03 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Sulfate  | NELAP         | 10       |      | 22           | mg/L  | 1  | 03/16/2013 13:12 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.16         | mg/L  | 1  | 03/12/2013 16:50 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |      |              |       |    |                  |         |
| Arsenic  | NELAP         | 20.0     |      | 20.6         | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Barium   | NELAP         | 10       |      | 552          | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | 1.8          | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Boron  | NELAP         | 20.0     |      | < 20.0       | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Chromium   | NELAP         | 20.0     |      | 51.8         | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Cobalt   | NELAP         | 10       |      | 12.8         | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Copper   | NELAP         | 20.0     |      | 38.2         | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Iron   | NELAP         | 40.0     |      | 76200        | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Lead   | NELAP         | 15.0     |      | 34.4         | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Manganese  | NELAP         | 10       |      | 2570         | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Nickel   | NELAP         | 20.0     |      | 35.0         | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0       | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Silver   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Vanadium   | NELAP         | 20.0     |      | 74.0         | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Zinc   | NELAP         | 20.0     |      | 132          | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |      |              |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0        | µg/L  | 1  | 03/13/2013 16:21 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/15/2013 12:24 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20       | µg/L  | 1  | 03/13/2013 12:51 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |      |              |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND           | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND           | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |      | 105.3        | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |      | 101.7        | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |      | 102.1        | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 99.5         | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |              |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND           | µg/L  | 1  | 03/18/2013 16:39 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |      |              |       |    |                  |         |
| Radium-226   |               | 0        |      | See attached | pci/L | 1  | 03/28/2013 9:35  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-006

Client Sample ID: S3

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:26

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-007

Client Sample ID: S4

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:06

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 436     | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |              | 24      | mg/L  | 1  | 03/16/2013 13:31 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |              | 0.086   | mg/L  | 1  | 03/13/2013 14:12 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 15:07 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 20       |              | 49      | mg/L  | 2  | 03/16/2013 13:36 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.18    | mg/L  | 1  | 03/12/2013 16:51 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Barium   | NELAP         | 5.0      |              | 43.6    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | < 1.0   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Boron  | NELAP         | 20.0     |              | < 20.0  | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Chromium   | NELAP         | 10       |              | 13.1    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Cobalt   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Copper   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Iron   | NELAP         | 20.0     |              | 28000   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Lead   | NELAP         | 7.5      |              | < 7.5   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Manganese  | NELAP         | 5.0      |              | 40.7    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Nickel   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Vanadium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Zinc   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:25 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:28 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:54 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 105.2   | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 101.1   | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 99.7    | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.7    | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 16:56 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pci/L | 1  | 03/28/2013 9:53  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-007

Client Sample ID: S4

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:06

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Special GW Monitoring  
 Lab ID: 13030341-008  
 Matrix: GROUNDWATER

Work Order: 13030341  
 Report Date: 01-Apr-13

Client Sample ID: S5

Collection Date: 03/11/2013 12:02

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 480     | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |              | 23      | mg/L  | 1  | 03/16/2013 13:39 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.100    |              | 0.673   | mg/L  | 2  | 03/13/2013 14:14 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 15:12 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 200      |              | 289     | mg/L  | 20 | 03/16/2013 13:44 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.18    | mg/L  | 1  | 03/12/2013 16:53 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Barium   | NELAP         | 5.0      |              | 44.2    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | < 1.0   | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Boron  | NELAP         | 20.0     |              | < 20.0  | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Chromium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Cobalt   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Copper   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Iron   | NELAP         | 20.0     |              | 407     | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Lead   | NELAP         | 7.5      |              | < 7.5   | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Manganese  | NELAP         | 5.0      |              | 53.5    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Nickel   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Vanadium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Zinc   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/15/2013 14:38 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:31 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:56 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 104.5   | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 101.3   | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 101.7   | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.9    | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 17:14 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pci/L | 1  | 03/28/2013 9:53  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-008

Client Sample ID: S5

Matrix: GROUNDWATER

Collection Date: 03/11/2013 12:02

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-226                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Special GW Monitoring  
 Lab ID: 13030341-009  
 Matrix: GROUNDWATER

Work Order: 13030341  
 Report Date: 01-Apr-13

Client Sample ID: S6

Collection Date: 03/11/2013 14:10

| Analyses   | Certification | RL       | Qual | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>   |               |          |      |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 312     | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                                      |               |          |      |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |      | 25      | mg/L  | 1  | 03/16/2013 13:47 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                                     |               |          |      |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)   | NELAP         | 1.00     |      | 4.82    | mg/L  | 20 | 03/13/2013 14:18 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>  |               |          |      |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007 | mg/L  | 1  | 03/14/2013 15:16 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>   |               |          |      |         |       |    |                  |         |
| Sulfate  | NELAP         | 40       |      | 67      | mg/L  | 4  | 03/16/2013 13:52 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>   |               |          |      |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.18    | mg/L  | 1  | 03/12/2013 16:56 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>                              |               |          |      |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Barium   | NELAP         | 5.0      |      | 54.5    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | < 1.0   | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Boron  | NELAP         | 25.0     |      | < 25.0  | µg/L  | 1  | 03/14/2013 8:59  | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0   | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Chromium   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Cobalt   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Copper   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Iron   | NELAP         | 20.0     |      | 2000    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Lead   | NELAP         | 7.5      |      | < 7.5   | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Manganese  | NELAP         | 5.0      |      | 49.6    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Nickel   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0  | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Silver   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Vanadium   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Zinc   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| <i>B - Elevated reporting limit due to high levels of non-target analytes.</i> |               |          |      |         |       |    |                  |         |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>                               |               |          |      |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0   | µg/L  | 1  | 03/15/2013 14:49 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0   | µg/L  | 1  | 03/15/2013 12:48 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>  |               |          |      |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20  | µg/L  | 1  | 03/13/2013 13:05 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>                 |               |          |      |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: 1,2-Dichloroethane-d4  |               | 74.7-129 |      | 103.6   | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: 4-Bromofluorobenzene   |               | 86-119   |      | 102.2   | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: Dibromofluoromethane   |               | 81.7-123 |      | 100     | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 100     | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND      | µg/L  | 1  | 03/18/2013 17:31 | R175050 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-009

Client Sample ID: S6

Matrix: GROUNDWATER

Collection Date: 03/11/2013 14:10

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-226                      |               | 0  |      | See attached | pci/L | 1  | 03/28/2013 9:53  | R175343 |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |





Receiving Check List

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Carrier: Ricky Schmidt

Received By: TWM

Completed by:

On:

11-Mar-13

Timothy W. Mathis

Reviewed by:

On:

12-Mar-13

*Shelly A Hennessy*

Shelly A. Hennessy

Pages to follow: Chain of custody

2

Extra pages included

27

- |   |   |   |  |                                  |
|---|---|---|--|----------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             | Not Present <input type="checkbox"/>   | Temp °C 5.8                      |
| Type of thermal preservation?                           | None <input type="checkbox"/>           | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/>      | Dry Ice <input type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Reported field parameters measured:                     | Field <input type="checkbox"/>          | Lab <input type="checkbox"/>            | NA <input checked="" type="checkbox"/> |                                  |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- |   |   |                             |   |
|---|---|-----------------------------|---|
| Water – at least one vial per sample has zero headspace?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input type="checkbox"/>                 |
| Water - TOX containers have zero headspace?               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt?                       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>                |

Any No responses must be detailed below or on the COC.



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

March 28, 2013

Ms. Shelly Hennessy  
Teklab Inc.  
5445 Horseshoe Lake Road  
Collinsville, IL 62234

RE: Project: 13030341  
Pace Project No.: 3089272

Dear Ms. Hennessy:

Enclosed are the analytical results for sample(s) received by the laboratory on March 12, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

*Carin A. Ferris*

Carin Ferris

carin.ferris@pacelabs.com  
Project Manager

Enclosures

**RECEIVED**

APR 16 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS



**REPORT OF LABORATORY ANALYSIS**

Page 1 of 18

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Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

### CERTIFICATIONS

Project: 13030341  
Pace Project No.: 3089272

#### Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601  
ACLASS DOD-ELAP Accreditation #: ADE-1544  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California/TNI Certification #: 04222CA  
Colorado Certification  
Connecticut Certification #: PH-0694  
Delaware Certification  
Florida/TNI Certification #: E87683  
Guam/PADEP Certification  
Hawaii/PADEP Certification  
Idaho Certification  
Illinois/PADEP Certification  
Indiana/PADEP Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: 90133  
Louisiana/TNI Certification #: LA080002  
Louisiana/TNI Certification #: 4086  
Maine Certification #: PA0091  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification  
Missouri Certification #: 235  
Montana Certification #: Cert 0082  
Nevada Certification  
New Hampshire/TNI Certification #: 2976  
New Jersey/TNI Certification #: PA 051  
New Mexico Certification  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
Oregon/TNI Certification #: PA200002  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
South Dakota Certification  
Tennessee Certification #: TN2867  
Texas/TNI Certification #: T104704188  
Utah/TNI Certification #: ANTE  
Virgin Island/PADEP Certification  
Virginia Certification #: 00112  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia Certification #: 143  
Wisconsin/PADEP Certification  
Wyoming Certification #: 8TMS-Q

### REPORT OF LABORATORY ANALYSIS

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Greensburg, PA 15601  
(724)850-5600

### SAMPLE SUMMARY

Project: 13030341  
Pace Project No.: 3089272

| Lab ID     | Sample ID    | Matrix         | Date Collected | Date Received  |
|------------|--------------|----------------|----------------|----------------|
| 3089272001 | 13030341-001 | Drinking Water | 03/11/13 11:00 | 03/12/13 09:30 |
| 3089272002 | 13030341-002 | Drinking Water | 03/11/13 11:35 | 03/12/13 09:30 |
| 3089272003 | 13030341-003 | Drinking Water | 03/11/13 12:33 | 03/12/13 09:30 |
| 3089272004 | 13030341-004 | Drinking Water | 03/11/13 14:30 | 03/12/13 09:30 |
| 3089272005 | 13030341-005 | Drinking Water | 03/11/13 13:42 | 03/12/13 09:30 |
| 3089272006 | 13030341-006 | Drinking Water | 03/11/13 13:26 | 03/12/13 09:30 |
| 3089272007 | 13030341-007 | Drinking Water | 03/11/13 13:06 | 03/12/13 09:30 |
| 3089272008 | 13030341-008 | Drinking Water | 03/11/13 12:02 | 03/12/13 09:30 |
| 3089272009 | 13030341-009 | Drinking Water | 03/11/13 14:10 | 03/12/13 09:30 |

### REPORT OF LABORATORY ANALYSIS

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## SAMPLE ANALYTE COUNT

Project: 13030341  
 Pace Project No.: 3089272

| Lab ID     | Sample ID    | Method    | Analysts | Analytes Reported |
|------------|--------------|-----------|----------|-------------------|
| 3089272001 | 13030341-001 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272002 | 13030341-002 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272003 | 13030341-003 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272004 | 13030341-004 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272005 | 13030341-005 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272006 | 13030341-006 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272007 | 13030341-007 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272008 | 13030341-008 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272009 | 13030341-009 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |

## REPORT OF LABORATORY ANALYSIS

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## PROJECT NARRATIVE

Project: 13030341  
Pace Project No.: 3089272

---

Method: EPA 903.1  
Description: 903.1 Radium 226  
Client: Teklab Inc.  
Date: March 28, 2013

### General Information:

9 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

## REPORT OF LABORATORY ANALYSIS

Page 5 of 18

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## PROJECT NARRATIVE

Project: 13030341  
Pace Project No.: 3089272

---

**Method:** EPA 904.0  
**Description:** 904.0 Radium 228  
**Client:** Teklab Inc.  
**Date:** March 28, 2013

**General Information:**

9 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.

## REPORT OF LABORATORY ANALYSIS

Page 6 of 18

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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

| Parameters | Method    | Act ± Unc (MDC)        | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | -0.060 ± 0.313 (0.725) | pCi/L | 03/28/13 08:48 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.230 ± 0.314 (0.678)  | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |

Date: 03/28/2013 02:51 PM

## REPORT OF LABORATORY ANALYSIS

Page 7 of 18

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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-002 Lab ID: 3089272002 Collected: 03/11/13 11:35 Received: 03/12/13 09:30 Matrix: Drinking Water  
PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.421 ± 0.391 (0.558) | pCi/L | 03/28/13 08:59 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.163 ± 0.446 (0.949) | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |



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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-003 Lab ID: 3089272003 Collected: 03/11/13 12:33 Received: 03/12/13 09:30 Matrix: Drinking Water  
PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.544 ± 0.489 (0.726) | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.482 ± 0.339 (0.683) | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |

Date: 03/28/2013 02:51 PM

## REPORT OF LABORATORY ANALYSIS

Page 9 of 18

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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-004 Lab ID: 3089272004 Collected: 03/11/13 14:30 Received: 03/12/13 09:30 Matrix: Drinking Water  
PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.381 ± 0.305 (0.172) | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.224 ± 0.319 (0.691) | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |





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## ANALYTICAL RESULTS

Project: 13030341  
 Pace Project No.: 3089272

Sample: 13030341-005 Lab ID: 3089272005 Collected: 03/11/13 13:42 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)      | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 2.15 ± 0.750 (0.678) | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 1.06 ± 0.430 (0.775) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |





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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-006 Lab ID: 3089272006 Collected: 03/11/13 13:26 Received: 03/12/13 09:30 Matrix: Drinking Water  
PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.43 ± 0.595 (0.438)  | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.864 ± 0.424 (0.802) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |







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## ANALYTICAL RESULTS

Project: 13030341  
 Pace Project No.: 3089272

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.000 ± 0.355 (0.737) | pCi/L | 03/28/13 09:53 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.340 ± 0.330 (0.691) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |





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## ANALYTICAL RESULTS

Project: 13030341  
Pace Project No.: 3089272

Sample: 13030341-008 Lab ID: 3089272008 Collected: 03/11/13 12:02 Received: 03/12/13 09:30 Matrix: Drinking Water  
PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.314 ± 0.275 (0.170) | pCi/L | 03/28/13 09:53 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.210 ± 0.278 (0.596) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |



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## QUALITY CONTROL DATA

Project: 13030341  
Pace Project No.: 3089272

---

QC Batch: RADC/14999 Analysis Method: EPA 904.0  
QC Batch Method: EPA 904.0 Analysis Description: 904.0 Radium 228  
Associated Lab Samples: 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008,  
3089272009

---

METHOD BLANK: 554057 Matrix: Water  
Associated Lab Samples: 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008,  
3089272009

| Parameter  | Act ± Unc (MDC)       | Units | Analyzed       | Qualifiers |
|------------|-----------------------|-------|----------------|------------|
| Radium-228 | 0.145 ± 0.332 (0.750) | pCi/L | 03/27/13 11:19 |            |



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QUALITY CONTROL DATA

Project: 13030341  
 Pace Project No.: 3089272

QC Batch: RADC/14996 Analysis Method: EPA 903.1  
 QC Batch Method: EPA 903.1 Analysis Description: 903.1 Radium-226  
 Associated Lab Samples: 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008, 3089272009

METHOD BLANK: 554054 Matrix: Water  
 Associated Lab Samples: 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008, 3089272009

| Parameter  | Act ± Unc (MDC)        | Units | Analyzed       | Qualifiers |
|------------|------------------------|-------|----------------|------------|
| Radium-226 | -0.207 ± 0.289 (0.731) | pCi/L | 03/28/13 08:48 |            |



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Greensburg, PA 15601  
(724)850-5600

## QUALIFIERS

Project: 13030341  
Pace Project No.: 3089272

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



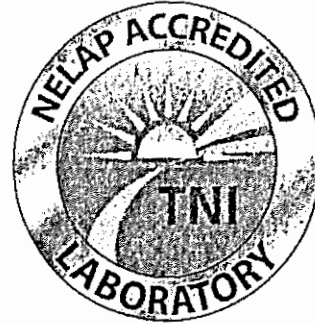
*COPY*



<http://www.teklabinc.com/>

April 01, 2013

Jason McLaurin  
Southern Illinois Power Cooperation  
11543 Lake of Egypt Road  
Marion, IL 62959  
TEL: (618) 964-1448  
FAX:



RE: Special GW Monitoring

WorkOrder: 13030341

Dear Jason McLaurin:

TEKLAB, INC received 9 samples on 3/11/2013 5:20:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Shelly A. Hennessy  
Project Manager  
(618)344-1004 ex 36  
SHennessy@teklabinc.com

RECEIVED

APR 16 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS







## Definitions

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

### Abbr Definition

- CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.
- DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilutions factors.
- DNI Did not ignite
- DUP Laboratory duplicate is an aliquot of a sample taken from the same container under laboratory conditions for independent processing and analysis independently of the original aliquot.
- ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.
- IDPH IL Dept. of Public Health
- LCS Laboratory control sample, spiked with verified known amounts of analytes, is analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system. The acceptable recovery range is in the QC Package (provided upon request).
- LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MB Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.
- MDL Method detection limit means the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.
- MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).
- MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).
- MW Molecular weight
- ND Not Detected at the Reporting Limit
- NELAP NELAP Accredited
- PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions. The acceptable recovery range is listed in the QC Package (provided upon request).
- RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.
- RPD Relative percent difference is a calculated difference between two recoveries (i.e. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).
- SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.
- Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.
- TNTC Too numerous to count ( > 200 CFU )

### Qualifiers

- |  |   |
|--|---|
| # - Unknown hydrocarbon                                | B - Analyte detected in associated Method Blank |
| E - Value above quantitation range                     | H - Holding times exceeded                      |
| M - Manual integration used to determine area response | ND - Not Detected at the Reporting Limit        |
| R - RPD outside accepted recovery limits               | S - Spike Recovery outside recovery limits      |
| X - Value exceeds Maximum Contaminant Level            |   |





Case Narrative

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Cooler Receipt Temp: 5.8 °C

An employee of Teklab, Inc. collected the sample(s).

Perchlorate analysis was performed by Keystone Laboratories, Inc.

Radium 226/228 analysis was performed by Pace Analytical Services, Inc. See attached report (18 pages) for results.

Locations and Accreditations

| Collinsville |   | Springfield |   | Kansas City |                                      |
|--------------|---|-------------|---|-------------|--------------------------------------|
| Address      | 5445 Horseshoe Lake Road<br>Collinsville, IL 62234-7425 | Address     | 3920 Pintail Dr<br>Springfield, IL 62711-9415 | Address     | 8421 Nieman Road<br>Lenexa, KS 66214 |
| Phone        | (618) 344-1004  | Phone       | (217) 698-1004                                | Phone       | (913) 541-1998                       |
| Fax          | (618) 344-1005  | Fax         | (217) 698-1005                                | Fax         | (913) 541-1998                       |
| Email        | jhriley@teklabinc.com                                   | Email       | KKlostermann@teklabinc.com                    | Email       | dthompson@teklabinc.com              |

| State     | Dept | Cert #          | NELAP | Exp Date  | Lab          |
|-----------|------|-----------------|-------|-----------|--------------|
| Illinois  | IEPA | 100226          | NELAP | 1/31/2014 | Collinsville |
| Kansas    | KDHE | E-10374         | NELAP | 1/31/2014 | Collinsville |
| Louisiana | LDEQ | 166493          | NELAP | 6/30/2013 | Collinsville |
| Louisiana | LDEQ | 166578          | NELAP | 6/30/2013 | Springfield  |
| Texas     | TCEQ | T104704515-12-1 | NELAP | 7/31/2013 | Collinsville |
| Arkansas  | ADEQ | 88-0966         |       | 3/14/2014 | Collinsville |
| Illinois  | IDPH | 17584           |       | 4/30/2013 | Collinsville |
| Kentucky  | UST  | 0073            |       | 5/26/2013 | Collinsville |
| Missouri  | MDNR | 00930           |       | 4/13/2013 | Collinsville |
| Oklahoma  | ODEQ | 9978            |       | 8/31/2013 | Collinsville |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-001

Client Sample ID: C1

Matrix: GROUNDWATER

Collection Date: 03/11/2013 11:00

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 954     | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 100      |              | 252     | mg/L  | 20 | 03/16/2013 12:39 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |              | < 0.050 | mg/L  | 1  | 03/13/2013 13:41 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 14:07 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 200      |              | 395     | mg/L  | 20 | 03/16/2013 12:39 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.26    | mg/L  | 1  | 03/12/2013 16:40 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Barium   | NELAP         | 5.0      |              | 24.0    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | < 1.0   | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Boron  | NELAP         | 20.0     |              | 79.3    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Chromium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Cobalt   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Copper   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Iron   | NELAP         | 20.0     |              | 1720    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Lead   | NELAP         | 7.5      |              | < 7.5   | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Manganese  | NELAP         | 5.0      |              | 153     | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Nickel   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Vanadium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| Zinc   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 16:46 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:03 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:07 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:32 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 106.5   | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 102.7   | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 101.0   | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.9    | %REC  | 1  | 03/12/2013 19:14 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 15:12 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pci/L | 1  | 03/28/2013 8:48  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-001

Client Sample ID: C1

Matrix: GROUNDWATER

Collection Date: 03/11/2013 11:00

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-002

Client Sample ID: C2

Matrix: GROUNDWATER

Collection Date: 03/11/2013 11:35

| Analyses   | Certification | RL       | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|--------------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |      |              |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 474          | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |      |              |       |    |                  |         |
| Chloride   | NELAP         | 5        |      | < 5          | mg/L  | 1  | 03/16/2013 12:42 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |      |              |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.250    |      | 1.38         | mg/L  | 5  | 03/13/2013 13:43 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007      | mg/L  | 1  | 03/14/2013 14:11 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Sulfate  | NELAP         | 200      |      | 232          | mg/L  | 20 | 03/16/2013 12:48 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.24         | mg/L  | 1  | 03/12/2013 16:41 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |      |              |       |    |                  |         |
| Arsenic  | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Barium   | NELAP         | 5.0      |      | 72.4         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | < 1.0        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Boron  | NELAP         | 20.0     |      | 52.4         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Chromium   | NELAP         | 10       |      | 26.4         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Cobalt   | NELAP         | 10       |      | 23.5         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Copper   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Iron   | NELAP         | 20.0     |      | 13300        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Lead   | NELAP         | 7.5      |      | < 7.5        | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Manganese  | NELAP         | 5.0      |      | 7960         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Nickel   | NELAP         | 10       |      | 11.5         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0       | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Silver   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Vanadium   | NELAP         | 10       |      | 18.1         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| Zinc   | NELAP         | 10       |      | 25.1         | µg/L  | 1  | 03/14/2013 10:20 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |      |              |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0        | µg/L  | 1  | 03/13/2013 16:06 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/15/2013 12:11 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20       | µg/L  | 1  | 03/13/2013 12:40 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |      |              |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |      | 105.4        | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |      | 101.9        | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |      | 100.2        | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 100          | %REC  | 1  | 03/12/2013 19:41 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |              |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND           | µg/L  | 1  | 03/18/2013 15:29 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |      |              |       |    |                  |         |
| Radium-226   |               | 0        |      | See attached | pci/L | 1  | 03/28/2013 8:59  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-002

Client Sample ID: C2

Matrix: GROUNDWATER

Collection Date: 03/11/2013 11:35

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |





## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-003

Client Sample ID: C3

Matrix: GROUNDWATER

Collection Date: 03/11/2013 12:33

| Analyses   | Certification | RL       | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|--------------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |      |              |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 1680         | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |      |              |       |    |                  |         |
| Chloride   | NELAP         | 100      |      | 674          | mg/L  | 20 | 03/19/2013 14:08 | R174962 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |      |              |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |      | < 0.050      | mg/L  | 1  | 03/13/2013 13:59 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007      | mg/L  | 1  | 03/14/2013 14:37 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Sulfate  | NELAP         | 10       |      | 44           | mg/L  | 1  | 03/16/2013 12:50 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |      |              |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.23         | mg/L  | 1  | 03/12/2013 16:44 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |      |              |       |    |                  |         |
| Arsenic  | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Barium   | NELAP         | 5.0      |      | 200          | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | < 1.0        | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Boron  | NELAP         | 20.0     |      | 21.9         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Chromium   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Cobalt   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Copper   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Iron   | NELAP         | 20.0     |      | 3500         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Lead   | NELAP         | 7.5      |      | < 7.5        | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Manganese  | NELAP         | 5.0      |      | 453          | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Nickel   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0       | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Silver   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Vanadium   | NELAP         | 10       |      | < 10         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| Zinc   | NELAP         | 10       |      | 18.6         | µg/L  | 1  | 03/12/2013 17:01 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |      |              |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0        | µg/L  | 1  | 03/13/2013 16:10 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0        | µg/L  | 1  | 03/15/2013 12:14 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |      |              |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20       | µg/L  | 1  | 03/13/2013 12:43 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |      |              |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND           | µg/L  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |      | 106.3        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |      | 101.9        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |      | 101.8        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 101.0        | %REC  | 1  | 03/12/2013 20:08 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |              |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND           | µg/L  | 1  | 03/18/2013 15:47 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |      |              |       |    |                  |         |
| Radium-226   |               | 0        |      | See attached | pci/L | 1  | 03/28/2013 9:35  | R175343 |



### Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
Client Project: Special GW Monitoring  
Lab ID: 13030341-003  
Matrix: GROUNDWATER

Work Order: 13030341  
Report Date: 01-Apr-13

Client Sample ID: C3

Collection Date: 03/11/2013 12:33

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-004

Client Sample ID: S1

Matrix: GROUNDWATER

Collection Date: 03/11/2013 14:30

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 286     | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |              | 7       | mg/L  | 1  | 03/19/2013 14:14 | R174962 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.250    |              | 0.918   | mg/L  | 5  | 03/13/2013 14:01 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 14:41 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 10       |              | 25      | mg/L  | 1  | 03/16/2013 12:58 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.22    | mg/L  | 1  | 03/12/2013 16:45 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Barium   | NELAP         | 5.0      |              | 58.1    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | < 1.0   | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Boron  | NELAP         | 20.0     |              | < 20.0  | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Chromium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Cobalt   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Copper   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Iron   | NELAP         | 20.0     |              | 2020    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Lead   | NELAP         | 7.5      |              | < 7.5   | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Manganese  | NELAP         | 5.0      |              | 55.7    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Nickel   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Vanadium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| Zinc   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:05 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:14 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:17 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:46 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 105.0   | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 99.8    | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 100.5   | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 101.3   | %REC  | 1  | 03/12/2013 20:35 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 16:04 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached | pci/L   |       | 1  | 03/28/2013 9:35  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

**Client:** Southern Illinois Power Cooperation  
**Client Project:** Special GW Monitoring  
**Lab ID:** 13030341-004  
**Matrix:** GROUNDWATER

**Work Order:** 13030341  
**Report Date:** 01-Apr-13

**Client Sample ID:** S1

**Collection Date:** 03/11/2013 14:30

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:10 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-005

Client Sample ID: S2

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:42

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 274     | mg/L  | 1  | 03/12/2013 17:40 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 10       |              | 74      | mg/L  | 2  | 03/16/2013 13:09 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |              | < 0.050 | mg/L  | 1  | 03/13/2013 14:05 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 14:59 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 10       |              | 23      | mg/L  | 1  | 03/16/2013 13:04 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | < 0.10  | mg/L  | 1  | 03/12/2013 16:47 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 20.0     |              | 22.2    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Barium   | NELAP         | 10       |              | 1140    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | 3.0     | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Boron  | NELAP         | 40.0     |              | 184     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Chromium   | NELAP         | 20.0     |              | 100     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Cobalt   | NELAP         | 20.0     |              | 24.4    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Copper   | NELAP         | 20.0     |              | 70.0    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Iron   | NELAP         | 40.0     |              | 124000  | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Lead   | NELAP         | 15.0     |              | 58.4    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Manganese  | NELAP         | 10       |              | 5790    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Nickel   | NELAP         | 20.0     |              | 60.4    | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/14/2013 10:33 | 86383   |
| Vanadium   | NELAP         | 20.0     |              | 123     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| Zinc   | NELAP         | 20.0     |              | 181     | µg/L  | 2  | 03/14/2013 10:52 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:17 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:21 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:48 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 105.1   | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 101.9   | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 101.2   | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.8    | %REC  | 1  | 03/12/2013 21:01 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 16:22 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached | pci/L   |       | 1  | 03/28/2013 9:35  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-005

Client Sample ID: S2

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:42

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-006

Client Sample ID: S3

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:26

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 304     | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |              | 46      | mg/L  | 1  | 03/16/2013 13:12 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |              | < 0.050 | mg/L  | 1  | 03/13/2013 14:08 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 15:03 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 10       |              | 22      | mg/L  | 1  | 03/16/2013 13:12 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.16    | mg/L  | 1  | 03/12/2013 16:50 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 20.0     |              | 20.6    | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Barium   | NELAP         | 10       |              | 552     | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | 1.8     | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Boron  | NELAP         | 20.0     |              | < 20.0  | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Chromium   | NELAP         | 20.0     |              | 51.8    | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Cobalt   | NELAP         | 10       |              | 12.8    | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Copper   | NELAP         | 20.0     |              | 38.2    | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Iron   | NELAP         | 40.0     |              | 76200   | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Lead   | NELAP         | 15.0     |              | 34.4    | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Manganese  | NELAP         | 10       |              | 2570    | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Nickel   | NELAP         | 20.0     |              | 35.0    | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/14/2013 10:36 | 86383   |
| Vanadium   | NELAP         | 20.0     |              | 74.0    | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| Zinc   | NELAP         | 20.0     |              | 132     | µg/L  | 2  | 03/14/2013 11:00 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:21 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:24 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:51 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 105.3   | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 101.7   | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 102.1   | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.5    | %REC  | 1  | 03/12/2013 21:28 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 16:39 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pci/L | 1  | 03/28/2013 9:35  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-006

Client Sample ID: S3

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:26

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |





## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-007

Client Sample ID: S4

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:06

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 436     | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |              | 24      | mg/L  | 1  | 03/16/2013 13:31 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.050    |              | 0.086   | mg/L  | 1  | 03/13/2013 14:12 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 15:07 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 20       |              | 49      | mg/L  | 2  | 03/16/2013 13:36 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.18    | mg/L  | 1  | 03/12/2013 16:51 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Barium   | NELAP         | 5.0      |              | 43.6    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | < 1.0   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Boron  | NELAP         | 20.0     |              | < 20.0  | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Chromium   | NELAP         | 10       |              | 13.1    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Cobalt   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Copper   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Iron   | NELAP         | 20.0     |              | 28000   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Lead   | NELAP         | 7.5      |              | < 7.5   | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Manganese  | NELAP         | 5.0      |              | 40.7    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Nickel   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Vanadium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| Zinc   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:16 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/13/2013 16:25 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:28 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:54 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 105.2   | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 101.1   | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 99.7    | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.7    | %REC  | 1  | 03/12/2013 21:55 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 16:56 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pCi/L | 1  | 03/28/2013 9:53  | R175343 |



Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-007

Client Sample ID: S4

Matrix: GROUNDWATER

Collection Date: 03/11/2013 13:06

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-008

Client Sample ID: S5

Matrix: GROUNDWATER

Collection Date: 03/11/2013 12:02

| Analyses   | Certification | RL       | Qual         | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|--------------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>                         |               |          |              |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |              | 480     | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                      |               |          |              |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |              | 23      | mg/L  | 1  | 03/16/2013 13:39 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                     |               |          |              |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)                                       | NELAP         | 0.100    |              | 0.673   | mg/L  | 2  | 03/13/2013 14:14 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |              | < 0.007 | mg/L  | 1  | 03/14/2013 15:12 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Sulfate  | NELAP         | 200      |              | 289     | mg/L  | 20 | 03/16/2013 13:44 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>                                     |               |          |              |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |              | 0.18    | mg/L  | 1  | 03/12/2013 16:53 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>              |               |          |              |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Barium   | NELAP         | 5.0      |              | 44.2    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Beryllium  | NELAP         | 1.0      |              | < 1.0   | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Boron  | NELAP         | 20.0     |              | < 20.0  | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Cadmium  | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Chromium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Cobalt   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Copper   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Iron   | NELAP         | 20.0     |              | 407     | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Lead   | NELAP         | 7.5      |              | < 7.5   | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Manganese  | NELAP         | 5.0      |              | 53.5    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Nickel   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Selenium   | NELAP         | 50.0     |              | < 50.0  | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Silver   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Vanadium   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| Zinc   | NELAP         | 10       |              | < 10    | µg/L  | 1  | 03/12/2013 17:19 | 86383   |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>               |               |          |              |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |              | < 5.0   | µg/L  | 1  | 03/15/2013 14:38 | 86382   |
| Thallium   | NELAP         | 2.0      |              | < 2.0   | µg/L  | 1  | 03/15/2013 12:31 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>                                    |               |          |              |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |              | < 0.20  | µg/L  | 1  | 03/13/2013 12:56 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b> |               |          |              |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Toluene  | NELAP         | 2.00     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |              | ND      | µg/L  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: 1,2-Dichloroethane-d4                                    |               | 74.7-129 |              | 104.5   | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: 4-Bromofluorobenzene                                     |               | 86-119   |              | 101.3   | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: Dibromofluoromethane                                     |               | 81.7-123 |              | 101.7   | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |              | 99.9    | %REC  | 1  | 03/12/2013 22:22 | 86437   |
| <b>EPA 314.0</b>   |               |          |              |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |              | ND      | µg/L  | 1  | 03/18/2013 17:14 | R175050 |
| <b>EPA 903.1/904.0, RADIUM 226/228</b>                         |               |          |              |         |       |    |                  |         |
| Radium-226   |               | 0        | See attached |         | pci/L | 1  | 03/28/2013 9:53  | R175343 |



**Laboratory Results**

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Special GW Monitoring  
 Lab ID: 13030341-008  
 Matrix: GROUNDWATER

Work Order: 13030341  
 Report Date: 01-Apr-13

Client Sample ID: S5

Collection Date: 03/11/2013 12:02

| Analyses                        | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|---------------------------------|---------------|----|------|--------------|-------|----|------------------|---------|
| EPA 903.1/904.0, RADIUM 226/228 |               |    |      |              |       |    |                  |         |
| Radium-228                      |               | 0  |      | See attached | pCi/L | 1  | 03/27/2013 14:11 | R175343 |



## Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation  
 Client Project: Special GW Monitoring  
 Lab ID: 13030341-009  
 Matrix: GROUNDWATER

Work Order: 13030341

Report Date: 01-Apr-13

Client Sample ID: S6

Collection Date: 03/11/2013 14:10

| Analyses   | Certification | RL       | Qual | Result  | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----------|------|---------|-------|----|------------------|---------|
| <b>STANDARD METHODS 2540 C (TOTAL)</b>   |               |          |      |         |       |    |                  |         |
| Total Dissolved Solids   | NELAP         | 20       |      | 312     | mg/L  | 1  | 03/12/2013 17:41 | R174691 |
| <b>STANDARD METHODS 4500-CL E (TOTAL)</b>                                      |               |          |      |         |       |    |                  |         |
| Chloride   | NELAP         | 5        |      | 25      | mg/L  | 1  | 03/16/2013 13:47 | R174874 |
| <b>STANDARD METHODS 4500-NO3 F (TOTAL)</b>                                     |               |          |      |         |       |    |                  |         |
| Nitrogen, Nitrate (as N)   | NELAP         | 1.00     |      | 4.82    | mg/L  | 20 | 03/13/2013 14:18 | R174759 |
| <b>SW-846 9012A (TOTAL)</b>  |               |          |      |         |       |    |                  |         |
| Cyanide  | NELAP         | 0.007    |      | < 0.007 | mg/L  | 1  | 03/14/2013 15:16 | 86464   |
| <b>SW-846 9036 (TOTAL)</b>   |               |          |      |         |       |    |                  |         |
| Sulfate  | NELAP         | 40       |      | 67      | mg/L  | 4  | 03/16/2013 13:52 | R174870 |
| <b>SW-846 9214 (TOTAL)</b>   |               |          |      |         |       |    |                  |         |
| Fluoride   | NELAP         | 0.10     |      | 0.18    | mg/L  | 1  | 03/12/2013 16:56 | R174697 |
| <b>SW-846 3005A, 6010B, METALS BY ICP (TOTAL)</b>                              |               |          |      |         |       |    |                  |         |
| Arsenic  | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Barium   | NELAP         | 5.0      |      | 54.5    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Beryllium  | NELAP         | 1.0      |      | < 1.0   | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Boron  | NELAP         | 25.0     |      | < 25.0  | µg/L  | 1  | 03/14/2013 8:59  | 86383   |
| Cadmium  | NELAP         | 2.0      |      | < 2.0   | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Chromium   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Cobalt   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Copper   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Iron   | NELAP         | 20.0     |      | 2000    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Lead   | NELAP         | 7.5      |      | < 7.5   | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Manganese  | NELAP         | 5.0      |      | 49.6    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Nickel   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Selenium   | NELAP         | 50.0     |      | < 50.0  | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Silver   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Vanadium   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| Zinc   | NELAP         | 10       |      | < 10    | µg/L  | 1  | 03/12/2013 17:23 | 86383   |
| <i>B - Elevated reporting limit due to high levels of non-target analytes.</i> |               |          |      |         |       |    |                  |         |
| <b>SW-846 3005A, 7010 METALS BY GFAA (TOTAL)</b>                               |               |          |      |         |       |    |                  |         |
| Antimony   | NELAP         | 5.0      |      | < 5.0   | µg/L  | 1  | 03/15/2013 14:49 | 86382   |
| Thallium   | NELAP         | 2.0      |      | < 2.0   | µg/L  | 1  | 03/15/2013 12:48 | 86382   |
| <b>SW-846 7470A (TOTAL)</b>  |               |          |      |         |       |    |                  |         |
| Mercury  | NELAP         | 0.20     |      | < 0.20  | µg/L  | 1  | 03/13/2013 13:05 | 86414   |
| <b>SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS</b>                 |               |          |      |         |       |    |                  |         |
| Benzene  | NELAP         | 0.50     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Ethylbenzene   | NELAP         | 1.00     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Toluene  | NELAP         | 2.00     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Xylenes, Total   | NELAP         | 1.00     |      | ND      | µg/L  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: 1,2-Dichloroethane-d4  |               | 74.7-129 |      | 103.6   | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: 4-Bromofluorobenzene   |               | 86-119   |      | 102.2   | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: Dibromofluoromethane   |               | 81.7-123 |      | 100     | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| Surr: Toluene-d8   |               | 84.3-114 |      | 100     | %REC  | 1  | 03/12/2013 22:48 | 86437   |
| <b>EPA 314.0</b>   |               |          |      |         |       |    |                  |         |
| Perchlorate  |               | 4.0      |      | ND      | µg/L  | 1  | 03/18/2013 17:31 | R175050 |



Laboratory Results

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Lab ID: 13030341-009

Client Sample ID: S6

Matrix: GROUNDWATER

Collection Date: 03/11/2013 14:10

| Analyses                               | Certification | RL | Qual | Result       | Units | DF | Date Analyzed    | Batch   |
|--|---------------|----|------|--------------|-------|----|------------------|---------|
| <b>EPA 903.1/904.0, RADIUM 226/228</b> |               |    |      |              |       |    |                  |         |
| Radium-226                             |               | 0  |      | See attached | pci/L | 1  | 03/28/2013 9:53  | R175343 |
| Radium-228                             |               | 0  |      | See attached | pci/L | 1  | 03/27/2013 14:11 | R175343 |



Receiving Check List

<http://www.teklabinc.com/>

Client: Southern Illinois Power Cooperation

Work Order: 13030341

Client Project: Special GW Monitoring

Report Date: 01-Apr-13

Carrier: Ricky Schmidt

Received By: TWM

Completed by:

*T.W. Mathis*

Reviewed by:

*Shelly A. Hennessy*

On:

11-Mar-13

Timothy W. Mathis

On:

12-Mar-13

Shelly A. Hennessy

Pages to follow: Chain of custody

Extra pages included

- |   |   |   |  |                                  |
|---|---|---|--|----------------------------------|
| Shipping container/cooler in good condition?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             | Not Present <input type="checkbox"/>   | Temp °C 5.8                      |
| Type of thermal preservation?                           | None <input type="checkbox"/>           | Ice <input checked="" type="checkbox"/> | Blue Ice <input type="checkbox"/>      | Dry Ice <input type="checkbox"/> |
| Chain of custody present?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Chain of custody signed when relinquished and received? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Chain of custody agrees with sample labels?             | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Samples in proper container/bottle?                     | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Sample containers intact?                               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Sufficient sample volume for indicated test?            | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| All samples received within holding time?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |
| Reported field parameters measured:                     | Field <input type="checkbox"/>          | Lab <input type="checkbox"/>            | NA <input checked="" type="checkbox"/> |                                  |
| Container/Temp Blank temperature in compliance?         | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/>             |  |                                  |

*When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.*

- |   |   |                             |   |
|---|---|-----------------------------|---|
| Water - at least one vial per sample has zero headspace?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | No VOA vials <input type="checkbox"/>                 |
| Water - TOX containers have zero headspace?               | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | No TOX containers <input checked="" type="checkbox"/> |
| Water - pH acceptable upon receipt?                       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| NPDES/CWA TCN interferences checked/treated in the field? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>                |

Any No responses must be detailed below or on the COC.



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

March 28, 2013

Ms. Shelly Hennessy  
Teklab Inc.  
5445 Horseshoe Lake Road  
Collinsville, IL 62234

RE: Project: 13030341  
Pace Project No.: 3089272

Dear Ms. Hennessy:

Enclosed are the analytical results for sample(s) received by the laboratory on March 12, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Carin Ferris

carin.ferris@pacelabs.com  
Project Manager

Enclosures

**RECEIVED**

APR 16 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS



**REPORT OF LABORATORY ANALYSIS**





Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

CERTIFICATIONS

Project: 13030341  
Pace Project No.: 3089272

**Pennsylvania Certification IDs**

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601  
ACCLASS DOD-ELAP Accreditation #: ADE-1544  
Alabama Certification #: 41590  
Arizona Certification #: AZ0734  
Arkansas Certification  
California/TNI Certification #: 04222CA  
Colorado Certification  
Connecticut Certification #: PH-0694  
Delaware Certification  
Florida/TNI Certification #: E87683  
Guam/PADEP Certification  
Hawaii/PADEP Certification  
Idaho Certification  
Illinois/PADEP Certification  
Indiana/PADEP Certification  
Iowa Certification #: 391  
Kansas/TNI Certification #: E-10358  
Kentucky Certification #: 90133  
Louisiana/TNI Certification #: LA080002  
Louisiana/TNI Certification #: 4086  
Maine Certification #: PA0091  
Maryland Certification #: 308  
Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification  
Missouri Certification #: 235  
Montana Certification #: Cert 0082  
Nevada Certification  
New Hampshire/TNI Certification #: 2976  
New Jersey/TNI Certification #: PA 051  
New Mexico Certification  
New York/TNI Certification #: 10888  
North Carolina Certification #: 42706  
Oregon/TNI Certification #: PA200002  
Pennsylvania/TNI Certification #: 65-00282  
Puerto Rico Certification #: PA01457  
South Dakota Certification  
Tennessee Certification #: TN2867  
Texas/TNI Certification #: T104704188  
Utah/TNI Certification #: ANTE  
Virgin Island/PADEP Certification  
Virginia Certification #: 00112  
Virginia/VELAP Certification #: 460198  
Washington Certification #: C868  
West Virginia Certification #: 143  
Wisconsin/PADEP Certification  
Wyoming Certification #: 8TMS-Q



Pace Analytical Services, Inc.  
1638 Roseytown Road - Suites 2,3,4  
Greensburg, PA 15601  
(724)850-5600

### SAMPLE SUMMARY

Project: 13030341  
Pace Project No.: 3089272

| Lab ID     | Sample ID    | Matrix         | Date Collected | Date Received  |
|------------|--------------|----------------|----------------|----------------|
| 3089272001 | 13030341-001 | Drinking Water | 03/11/13 11:00 | 03/12/13 09:30 |
| 3089272002 | 13030341-002 | Drinking Water | 03/11/13 11:35 | 03/12/13 09:30 |
| 3089272003 | 13030341-003 | Drinking Water | 03/11/13 12:33 | 03/12/13 09:30 |
| 3089272004 | 13030341-004 | Drinking Water | 03/11/13 14:30 | 03/12/13 09:30 |
| 3089272005 | 13030341-005 | Drinking Water | 03/11/13 13:42 | 03/12/13 09:30 |
| 3089272006 | 13030341-006 | Drinking Water | 03/11/13 13:26 | 03/12/13 09:30 |
| 3089272007 | 13030341-007 | Drinking Water | 03/11/13 13:06 | 03/12/13 09:30 |
| 3089272008 | 13030341-008 | Drinking Water | 03/11/13 12:02 | 03/12/13 09:30 |
| 3089272009 | 13030341-009 | Drinking Water | 03/11/13 14:10 | 03/12/13 09:30 |

### REPORT OF LABORATORY ANALYSIS

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 (724)850-5600

## SAMPLE ANALYTE COUNT

Project: 13030341

Pace Project No.: 3089272

| Lab ID     | Sample ID    | Method    | Analysts | Analytes Reported |
|------------|--------------|-----------|----------|-------------------|
| 3089272001 | 13030341-001 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272002 | 13030341-002 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272003 | 13030341-003 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272004 | 13030341-004 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272005 | 13030341-005 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272006 | 13030341-006 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272007 | 13030341-007 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272008 | 13030341-008 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |
| 3089272009 | 13030341-009 | EPA 903.1 | SLA      | 1                 |
|            |              | EPA 904.0 | MAW      | 1                 |

## REPORT OF LABORATORY ANALYSIS

Page 4 of 18

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(724)850-5600

## PROJECT NARRATIVE

Project: 13030341  
Pace Project No.: 3089272

---

Method: EPA 903.1  
Description: 903.1 Radium 226  
Client: Teklab Inc.  
Date: March 28, 2013

### General Information:

9 samples were analyzed for EPA 903.1. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:



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Greensburg, PA 15601  
(724)850-5600

## PROJECT NARRATIVE

Project: 13030341  
Pace Project No.: 3089272

---

**Method:** EPA 904.0  
**Description:** 904.0 Radium 228  
**Client:** Teklab Inc.  
**Date:** March 28, 2013

**General Information:**

9 samples were analyzed for EPA 904.0. All samples were received in acceptable condition with any exceptions noted below.

**Hold Time:**

The samples were analyzed within the method required hold times with any exceptions noted below.

**Method Blank:**

All analytes were below the report limit in the method blank with any exceptions noted below.

**Laboratory Control Spike:**

All laboratory control spike compounds were within QC limits with any exceptions noted below.

**Matrix Spikes:**

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

**Additional Comments:**

This data package has been reviewed for quality and completeness and is approved for release.



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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-001 Lab ID: 3089272001 Collected: 03/11/13 11:00 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)        | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | -0.060 ± 0.313 (0.725) | pCi/L | 03/28/13 08:48 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.230 ± 0.314 (0.678)  | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |



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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-002 Lab ID: 3089272002 Collected: 03/11/13 11:35 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.421 ± 0.391 (0.558) | pCi/L | 03/28/13 08:59 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.163 ± 0.446 (0.949) | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |



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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-003 Lab ID: 3089272003 Collected: 03/11/13 12:33 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.544 ± 0.489 (0.726) | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.482 ± 0.339 (0.683) | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |





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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-004 Lab ID: 3089272004 Collected: 03/11/13 14:30 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.381 ± 0.305 (0.172) | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.224 ± 0.319 (0.691) | pCi/L | 03/27/13 14:10 | 15262-20-1 |      |



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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-005 Lab ID: 3089272005 Collected: 03/11/13 13:42 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)      | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 2.15 ± 0.750 (0.678) | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 1.06 ± 0.430 (0.775) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |



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**ANALYTICAL RESULTS**

Project: 13030341  
 Pace Project No.: 3089272

Sample: 13030341-006 Lab ID: 3089272006 Collected: 03/11/13 13:26 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 1.43 ± 0.695 (0.438)  | pCi/L | 03/28/13 09:35 | 13982-63-3 |      |
| Radium-226 | EPA 904.0 | 0.864 ± 0.424 (0.802) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |



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## ANALYTICAL RESULTS

Project: 13030341  
 Pace Project No.: 3089272

Sample: 13030341-007 Lab ID: 3089272007 Collected: 03/11/13 13:06 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.000 ± 0.355 (0.737) | pCi/L | 03/28/13 09:53 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.340 ± 0.330 (0.691) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |



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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-008 Lab ID: 3089272008 Collected: 03/11/13 12:02 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)       | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|-----------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.314 ± 0.275 (0.170) | pCi/L | 03/28/13 09:53 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.210 ± 0.278 (0.596) | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |

Date: 03/28/2013 02:51 PM

## REPORT OF LABORATORY ANALYSIS

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## ANALYTICAL RESULTS

Project: 13030341

Pace Project No.: 3089272

Sample: 13030341-009 Lab ID: 3089272009 Collected: 03/11/13 14:10 Received: 03/12/13 09:30 Matrix: Drinking Water  
 PWS: Site ID: Sample Type:

| Parameters | Method    | Act ± Unc (MDC)        | Units | Analyzed       | CAS No.    | Qual |
|------------|-----------|------------------------|-------|----------------|------------|------|
| Radium-226 | EPA 903.1 | 0.0501 ± 0.260 (0.539) | pCi/L | 03/28/13 09:53 | 13982-63-3 |      |
| Radium-228 | EPA 904.0 | 0.406 ± 0.314 (0.635)  | pCi/L | 03/27/13 14:11 | 15262-20-1 |      |

Date: 03/28/2013 02:51 PM

## REPORT OF LABORATORY ANALYSIS

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### QUALITY CONTROL DATA

Project: 13030341  
 Pace Project No.: 3089272

---

QC Batch: RADC/14999                      Analysis Method: EPA 904.0  
 QC Batch Method: EPA 904.0              Analysis Description: 904.0 Radium 228  
 Associated Lab Samples: 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008,  
 3089272009

---

METHOD BLANK: 554057                      Matrix: Water  
 Associated Lab Samples: 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008,  
 3089272009

| Parameter  | Act ± Unc (MDC)       | Units | Analyzed       | Qualifiers |
|------------|-----------------------|-------|----------------|------------|
| Radium-228 | 0.145 ± 0.332 (0.750) | pCi/L | 03/27/13 11:19 |            |



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QUALITY CONTROL DATA

Project: 13030341  
 Pace Project No.: 3089272

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|                         |  |                       |                  |
|-------------------------|--|-----------------------|------------------|
| QC Batch:               | RADC/14996   | Analysis Method:      | EPA 903.1        |
| QC Batch Method:        | EPA 903.1  | Analysis Description: | 903.1 Radium-226 |
| Associated Lab Samples: | 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008, 3089272009 |                       |                  |

---

|                         |  |         |       |
|-------------------------|--|---------|-------|
| METHOD BLANK:           | 554054   | Matrix: | Water |
| Associated Lab Samples: | 3089272001, 3089272002, 3089272003, 3089272004, 3089272005, 3089272006, 3089272007, 3089272008, 3089272009 |         |       |

| Parameter  | Act ± Unc (MDC)        | Units | Analyzed       | Qualifiers |
|------------|------------------------|-------|----------------|------------|
| Radium-226 | -0.207 ± 0.289 (0.731) | pCi/L | 03/28/13 08:48 |            |





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## QUALIFIERS

Project: 13030341

Pace Project No.: 3089272

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Act - Activity

Unc - Uncertainty

(MDC) - Minimum Detectable Concentration

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.



OFFICE OF PUBLIC UTILITIES  
CITY OF SPRINGFIELD, ILLINOIS

J. MICHAEL HOUSTON, MAYOR

ENVIRONMENTAL HEALTH & SAFETY



September 25, 2013

Illinois Environmental Protection Agency  
Division of Water – Groundwater Section  
Attn: Carl Kamp, P.G.  
1021 N. Grand Ave., East  
PO Box 19276  
Springfield, IL 62794-9276

Dear Mr. Kamp:

Please find enclosed City Water, Light & Power's (CWLP) groundwater monitoring results for the first and second quarters of 2013. Please note that this data has not been evaluated by our consultant.

On June 21, 2013, CWLP submitted the 2012 data with a request to continue collecting groundwater data through 2013 to allow for groundwater quality to stabilize in AP-5, our upgradient well. These background concentrations continue to appear to show decreasing trends during these sampling events.

CWLP still requests to continue sampling through 2013 to obtain data representation of background conditions. Once statistically valid data has been collected, revised background concentrations will be submitted to the Illinois Environmental Protection Agency.

If you should have any questions or require any further information, please feel free to contact Sue Corcoran, of my staff, or myself at (217) 757-8610.

Sincerely,

P.J. Becker  
Environmental Health & Safety Manager

PJB/SC/gj

Cy: Christine Zeman (CWLP)

**RECEIVED**

SEP 25 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



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Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

April 03, 2013

RE 1Q13 CWLP List G20

Lab Orders:  
13020600

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

**RECEIVED**

SEP 25 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

This Report Contains 39 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

environmental laboratory and testing services  
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CLIENT: City, Water, Light & Power

Date: 4/3/2013

Project: IQ13 CWLP List G20

## CASE NARRATIVE

Lab Order: 13020600

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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CLIENT: City, Water, Light & Power

Date: 4/3/2013

Project: IQ13 CWLP List G20

## CASE NARRATIVE

Lab Order: 13020600

---

Analytical Comments for METHOD 2540C\_TDS\_W, 13020600-05BDUP: The RPD result of 7.21% is above the laboratory control limit, but it is within the EPA limits.

Analytical Comments for METHOD 9056\_IC\_GRNDWTR, LCS-R181955: Continuing CCV standard recoveries for Chloride and Nitrate within the batch had recoveries above the lab control limits, but within 20% of the target values.

Analytical Comments for METHOD 2540C\_TDS\_W, 13020600-06BDUP: RPD recovery was above the laboratory control limit.

Analytical Comments for METHOD 8270\_WNEW, 13020600-01A, 04A: Surrogate recovery was below the limits.

Analytical Comments for METHOD 8270\_WNEW, 13020600-06A: 2,4,6-Tribromophenol surrogate recovery was below the limit.

Analytical Comments for METHOD RADIATION, 13020600-01A, 02A, 03A, 04A, 05A, 06A: The Radium-226/228 analysis completed from 3/20 to 3/26/13 by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13020600  
Project: 1Q13 CWLP List G20  
Lab ID: 13020600-01

Client Sample ID: **AP-2 K**  
Report Date: 4/3/2013  
Collection Date: **2/21/2013** 11:40:00 AM  
Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units                           | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|---------------------------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b>      | <b>SM4500-H</b>                 |               |         |         |
| pH   | 7.8      |                     | pH units                        | 2/21/13 11:40 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b>      | <b>SW9056</b>                   |               |         |         |
| Chloride                                     | X 25.2   | 2.                  | mg/L                            | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L                            | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | X 0.13   | 0.05                | mg/L                            | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | X 283.   | 50.                 | mg/L                            | 2/26/13       | R182058 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b>      | <b>SW9010B/9014 BY AQUACHEM</b> |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                | mg/L                            | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b>      | <b>SM2540C</b>                  |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 932.     | 10.                 | mg/L                            | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method:</b>      | <b>SW7470A / HG PREP</b>        |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L                            | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b>      | <b>SW6020A / SW3015</b>         |               |         |         |
| Antimony                                     | < 0.006  | 0.006               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | 0.0738   | 0.05                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                  | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Boron  | 10.      | 0.687               | mg/L                            | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                 | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                  | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 87.9     | 3.5                 | mg/L                            | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075 | 0.0075              | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | 21.6     | 0.15                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                 | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |

**Qualifiers:**

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 11:40:00 AM  
Lab ID: 13020600-01 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0402 | 0.0402                           | C µg/L | 3/5/13 11:33  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0563 | 0.0563                           | C µg/L | 3/5/13 11:33  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 03:01 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/1/13 16:44  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 18:01  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:01  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:01  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 11:40:00 AM  
Lab ID: 13020600-01 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 0.13  | 0.13                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| Hexachlorocyclopentadiene                    | < 0.67  | 0.67                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| Phenol                                       | < 1.33  | 1.33                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.25  | 0.25                             | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb                                      | < 0.22  | 0.22                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol                            | < 0.26  | 0.26                             | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram                                     | < 0.22  | 0.22                             | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 200.  | 200.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,1,2-Trichloroethane                        | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,1-Dichloroethene                           | < 7.    | 7.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2,4-Trichlorobenzene                       | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2-Dichloroethane                           | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2-Dichloropropane                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,4-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Benzene                                      | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Carbon tetrachloride                         | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Chlorobenzene                                | < 100.  | 100.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| cis-1,2-Dichloroethene                       | < 70.   | 70.                              | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Ethylbenzene                                 | < 700.  | 700.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Methyl tert-butyl ether                      | < 70.   | 70.                              | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Methylene chloride                           | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Styrene                                      | < 100.  | 100.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Tetrachloroethene                            | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Toluene                                      | < 1000. | 1000.                            | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| trans-1,2-Dichloroethene                     | < 100.  | 100.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Trichloroethene                              | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Vinyl chloride                               | < 2.    | 2.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-2                 |
| <b>Lab Order:</b> 13020600                | <b>Report Date:</b> 4/3/2013                  |
| <b>Project:</b> 1Q13 CWLP List G20        | <b>Collection Date:</b> 2/21/2013 11:40:00 AM |
| <b>Lab ID:</b> 13020600-01                | <b>Matrix:</b> Groundwater                    |

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 16:12 | 80180   | JL      |
| <b>Radiation Testing</b> |          |  |       |               |         |         |
|                          |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.3      | 0.4                                      | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | ND       | 0.79                                     | pCi/L | 3/26/13       | R183278 | OUT     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13020600  
**Project:** IQ13 CWLP List G20  
**Lab ID:** 13020600-02

**Client Sample ID:** AW-3  
**Report Date:** 4/3/2013  
**Collection Date:** 2/21/2013 8:10:00 AM  
**Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b> SM4500-H                 |          |               |         |         |
| pH   | 7.68     |   | pH units | 2/21/13 08:10 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b> SW9056                   |          |               |         |         |
| Chloride                                     | X 26.2   | 2.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | X 0.1    | 0.05                                    | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | < 5.     | 5.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b> SM2540C                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 724.     | 10.                                     | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method:</b> SW7470A / HG PREP        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b> SW6020A / SW3015         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | 0.104    | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | 0.706    | 0.687                                   | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 13.      | 3.5                                     | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | 0.306    | 0.15                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 8:10:00 AM  
Lab ID: 13020600-02 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0401 | 0.0401                           | C µg/L | 3/5/13 09:40  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0562 | 0.0562                           | C µg/L | 3/5/13 09:40  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 03:45 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/1/13 17:28  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 18:49  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:49  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:49  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 8:10:00 AM  
Lab ID: 13020600-02 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 0.13  | 0.13                             | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| Hexachlorocyclopentadiene                    | < 0.67  | 0.67                             | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| Phenol                                       | < 1.33  | 1.33                             | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.25  | 0.25                             | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb                                      | < 0.22  | 0.22                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol                            | < 0.26  | 0.26                             | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram                                     | < 0.22  | 0.22                             | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 200.  | 200.                             | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,1,2-Trichloroethane                        | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,1-Dichloroethene                           | < 7.    | 7.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2,4-Trichlorobenzene                       | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2-Dichloroethane                           | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2-Dichloropropane                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,4-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Benzene                                      | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Carbon tetrachloride                         | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Chlorobenzene                                | < 100.  | 100.                             | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| cis-1,2-Dichloroethene                       | < 70.   | 70.                              | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Ethylbenzene                                 | < 700.  | 700.                             | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Methyl tert-butyl ether                      | < 70.   | 70.                              | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Methylene chloride                           | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Styrene                                      | < 100.  | 100.                             | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Tetrachloroethene                            | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Toluene                                      | < 1000. | 1000.                            | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| trans-1,2-Dichloroethene                     | < 100.  | 100.                             | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Trichloroethene                              | < 5.    | 5.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Vinyl chloride                               | < 2.    | 2.                               | µg/L   | 2/22/13 16:42 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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**Report of Laboratory Analysis**

|   |  |
|---|--|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AW-3                |
| <b>Lab Order:</b> 13020600                | <b>Report Date:</b> 4/3/2013                 |
| <b>Project:</b> 1Q13 CWLP List G20        | <b>Collection Date:</b> 2/21/2013 8:10:00 AM |
| <b>Lab ID:</b> 13020600-02                | <b>Matrix:</b> Groundwater                   |

| Analyses                 | Result   | EMT Reporting Limit | Units                            | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|---------------------|----------------------------------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.              | µg/L                             | 2/22/13 16:42 | 80180   | JL      |
| <b>Radiation Testing</b> |          |                     |                                  |               |         |         |
|                          |          | <b>Method:</b>      | <b>EPA 900/903.1/904/905/906</b> |               |         |         |
| Radium-226               | 1.1      | 0.5                 | pCi/L                            | 3/26/13       | R183278 | OUT     |
| Radium-228               | 1.       | 0.7                 | pCi/L                            | 3/26/13       | R183278 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** 1Q13 CWLP List G20 **Collection Date:** 2/21/2013 7:55:00 AM  
**Lab ID:** 13020600-03 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          |                     |          |               |         |         |
| pH   | 7.23     |                     | pH units | 2/21/13 07:55 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          |                     |          |               |         |         |
| Chloride                                     | 3.71     | 2.                  | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.29     | 0.05                | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | 83.4     | 5.                  | mg/L     | 2/22/13       | R181955 | GSB     |
| <b>Cyanide, Total</b>                        |          |                     |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 370.     | 10.                 | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          |                     |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          |                     |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | < 0.687  | 0.687               | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                 | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 62.6     | 3.5                 | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | 0.0244   | 0.0075              | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | 1.25     | 0.15                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                 | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L     | 2/27/13 13:43 | 80223   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter





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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 7:55:00 AM  
Lab ID: 13020600-03 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0397 | 0.0397                           | C µg/L | 3/5/13 12:36  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0555 | 0.0555                           | C µg/L | 3/5/13 12:36  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 07:30 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/1/13 18:55  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 19:36  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 19:36  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 19:36  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** 1Q13 CWLP List G20 **Collection Date:** 2/21/2013 7:55:00 AM  
**Lab ID:** 13020600-03 **Matrix:** Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13  | 0.13                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67  | 0.67                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| Phenol   | < 1.33  | 1.33                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb  | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol  | < 0.26  | 0.26                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram   | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 200.  | 200.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,1,2-Trichloroethane  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,1-Dichloroethene   | < 7.    | 7.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2,4-Trichlorobenzene   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2-Dichloroethane   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2-Dichloropropane  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,4-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Benzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Carbon tetrachloride   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Chlorobenzene  | < 100.  | 100.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| cis-1,2-Dichloroethene   | < 70.   | 70.                 | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Ethylbenzene   | < 700.  | 700.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Methyl tert-butyl ether  | < 70.   | 70.                 | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Methylene chloride   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Styrene  | < 100.  | 100.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Tetrachloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Toluene  | < 1000. | 1000.               | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| trans-1,2-Dichloroethene   | < 100.  | 100.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Trichloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Vinyl chloride   | < 2.    | 2.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

|   |  |
|---|--|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-5                |
| <b>Lab Order:</b> 13020600                | <b>Report Date:</b> 4/3/2013                 |
| <b>Project:</b> 1Q13 CWLP List G20        | <b>Collection Date:</b> 2/21/2013 7:55:00 AM |
| <b>Lab ID:</b> 13020600-03                | <b>Matrix:</b> Groundwater                   |

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 17:12 | 80180   | JL      |
| <b>Radiation Testing</b> |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.6      | 0.2                                      | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | 1.6      | 0.8                                      | pCi/L | 3/26/13       | R183278 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
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## Report of Laboratory Analysis

|   |  |
|---|--|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-3                |
| <b>Lab Order:</b> 13020600                | <b>Report Date:</b> 4/3/2013                 |
| <b>Project:</b> 1Q13 CWLP List G20        | <b>Collection Date:</b> 2/21/2013 9:50:00 AM |
| <b>Lab ID:</b> 13020600-04                | <b>Matrix:</b> Groundwater                   |

| Analyses                                     | Result   | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          |                     |          |               |         |         |
| pH   | 7.4      |                     | pH units | 2/21/13 09:50 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          |                     |          |               |         |         |
| Chloride                                     | 55.6     | 2.                  | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.06     | 0.05                | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | 292.     | 50.                 | mg/L     | 2/26/13       | R182058 | GSB     |
| <b>Cyanide, Total</b>                        |          |                     |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 624.     | 10.                 | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          |                     |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          |                     |          |               |         |         |
| Antimony                                     | 0.00805  | 0.006               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | 0.0784   | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | 29.1     | 0.687               | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                 | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 165      | 3.5                 | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075 | 0.0075              | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | 6.18     | 0.15                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                 | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L     | 2/27/13 13:43 | 80223   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
 E - Estimated  
 H - Holding Time Exceeded  
 C - Laboratory not accredited for this parameter  
 S - Spike Recovery outside accepted recovery limits  
 R - RPD outside accepted recovery limits  
 J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** 1Q13 CWLP List G20 **Collection Date:** 2/21/2013 9:50:00 AM  
**Lab ID:** 13020600-04 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 3/5/13 13:07  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C µg/L | 3/5/13 13:07  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 08:15 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/2/13 15:44  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 20:23  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 20:23  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 20:23  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 9:50:00 AM  
Lab ID: 13020600-04 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 0.13  | 0.13                             | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| Hexachlorocyclopentadiene                    | < 0.67  | 0.67                             | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| Phenol                                       | < 1.33  | 1.33                             | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.25  | 0.25                             | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb                                      | < 0.22  | 0.22                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol                            | < 0.27  | 0.27                             | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram                                     | < 0.22  | 0.22                             | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 200.  | 200.                             | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,1,2-Trichloroethane                        | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,1-Dichloroethene                           | < 7.    | 7.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2,4-Trichlorobenzene                       | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2-Dichloroethane                           | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2-Dichloropropane                          | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,4-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Benzene                                      | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Carbon tetrachloride                         | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Chlorobenzene                                | < 100.  | 100.                             | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| cis-1,2-Dichloroethene                       | < 70.   | 70.                              | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Ethylbenzene                                 | < 700.  | 700.                             | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Methyl tert-butyl ether                      | < 70.   | 70.                              | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Methylene chloride                           | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Styrene                                      | < 100.  | 100.                             | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Tetrachloroethene                            | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Toluene                                      | < 1000. | 1000.                            | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| trans-1,2-Dichloroethene                     | < 100.  | 100.                             | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Trichloroethene                              | < 5.    | 5.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Vinyl chloride                               | < 2.    | 2.                               | µg/L   | 2/22/13 17:42 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** 1Q13 CWLP List G20 **Collection Date:** 2/21/2013 9:50:00 AM  
**Lab ID:** 13020600-04 **Matrix:** Groundwater

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 17:42 | 80180   | JL      |
| <b>Radiation Testing</b> |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND       | 0.66                                     | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | 0.85     | 0.7                                      | pCi/L | 3/26/13       | R183278 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 9:05:00 AM  
Lab ID: 13020600-05 Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units                           | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|---------------------------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b>      | <b>SM4500-H</b>                 |               |         |         |
| pH   | 7.04     |                     | pH units                        | 2/21/13 09:05 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b>      | <b>SW9056</b>                   |               |         |         |
| Chloride                                     | 10.8     | 2.                  | mg/L                            | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L                            | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.53     | 0.05                | mg/L                            | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | < 5.     | 5.                  | mg/L                            | 2/22/13       | R181955 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b>      | <b>SW9010B/9014 BY AQUACHEM</b> |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                | mg/L                            | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b>      | <b>SM2540C</b>                  |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 460.     | 10.                 | mg/L                            | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method:</b>      | <b>SW7470A / HG PREP</b>        |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L                            | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b>      | <b>SW6020A / SW3015</b>         |               |         |         |
| Antimony                                     | < 0.006  | 0.006               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | < 0.05   | 0.05                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                  | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Boron  | < 0.687  | 0.687               | mg/L                            | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                 | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                  | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 15.9     | 3.5                 | mg/L                            | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075 | 0.0075              | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | < 0.15   | 0.15                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                 | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                | mg/L                            | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L                            | 2/27/13 13:43 | 80223   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 9:05:00 AM  
Lab ID: 13020600-05 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0403 | 0.0403                           | C µg/L | 3/5/13 13:39  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0565 | 0.0565                           | C µg/L | 3/5/13 13:39  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 08:59 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/2/13 15:00  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 21:11  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:11  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:11  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 9:05:00 AM  
Lab ID: 13020600-05 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13  | 0.13                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67  | 0.67                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| Phenol   | < 1.33  | 1.33                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb  | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol  | < 0.27  | 0.27                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram   | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 200.  | 200.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,1,2-Trichloroethane  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,1-Dichloroethene   | < 7.    | 7.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2,4-Trichlorobenzene   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2-Dichloroethane   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2-Dichloropropane  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,4-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Benzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Carbon tetrachloride   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Chlorobenzene  | < 100.  | 100.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| cis-1,2-Dichloroethene   | < 70.   | 70.                 | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Ethylbenzene   | < 700.  | 700.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Methyl tert-butyl ether  | < 70.   | 70.                 | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Methylene chloride   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Styrene  | < 100.  | 100.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Tetrachloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Toluene  | < 1000. | 1000.               | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| trans-1,2-Dichloroethene   | < 100.  | 100.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Trichloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Vinyl chloride   | < 2.    | 2.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** 1Q13 CWLP List G20 **Collection Date:** 2/21/2013 9:05:00 AM  
**Lab ID:** 13020600-05 **Matrix:** Groundwater

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 18:12 | 80180   | JL      |
| <b>Radiation Testing</b> |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND       | 0.57                                     | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | ND       | 0.83                                     | pCi/L | 3/26/13       | R183278 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

environmental laboratory and testing services

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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 11:10:00 AM  
Lab ID: 13020600-06 Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method: SM4500-H</b>                 |          |               |         |         |
| pH   | 7.41     |   | pH units | 2/21/13 11:10 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method: SW9056</b>                   |          |               |         |         |
| Chloride                                     | 43.6     | 2.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | 0.17     | 0.05                                    | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 2.86     | 0.5                                     | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | 506.     | 50.                                     | mg/L     | 2/26/13       | R182058 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 2/26/13 12:05 | 80205   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method: SM2540C</b>                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1120.    | 10.                                     | mg/L     | 2/26/13 08:55 | R182103 | TB2     |
| <b>Mercury, Total</b>                        |          | <b>Method: SW7470A / HG PREP</b>        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method: SW6020A / SW3015</b>         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Arsenic                                      | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Boron  | 3.9      | 2.                                      | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Iron   | 13.3     | 5.                                      | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Manganese                                    | 0.732    | 0.15                                    | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 2/27/13 13:43 | 80226   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 11:10:00 AM  
Lab ID: 13020600-06 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80226   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 3/5/13 14:11  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C µg/L | 3/5/13 14:11  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 09:44 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/2/13 14:17  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 21:58  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:58  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:58  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.67   | 0.67                             | µg/L   | 2/27/13       | 80175   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 11:10:00 AM  
Lab ID: 13020600-06 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13  | 0.13                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67  | 0.67                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| Phenol   | < 1.33  | 1.33                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb  | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol  | < 0.27  | 0.27                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram   | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 200.  | 200.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,1,2-Trichloroethane  | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,1-Dichloroethene   | < 7.    | 7.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2,4-Trichlorobenzene   | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2-Dichloroethane   | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2-Dichloropropane  | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,4-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Benzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Carbon tetrachloride   | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Chlorobenzene  | < 100.  | 100.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| cis-1,2-Dichloroethene   | < 70.   | 70.                 | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Ethylbenzene   | < 700.  | 700.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Methyl tert-butyl ether  | < 70.   | 70.                 | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Methylene chloride   | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Styrene  | < 100.  | 100.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Tetrachloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Toluene  | < 1000. | 1000.               | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| trans-1,2-Dichloroethene   | < 100.  | 100.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Trichloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Vinyl chloride   | < 2.    | 2.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-1                 |
| <b>Lab Order:</b> 13020600                | <b>Report Date:</b> 4/3/2013                  |
| <b>Project:</b> 1Q13 CWLP List G20        | <b>Collection Date:</b> 2/21/2013 11:10:00 AM |
| <b>Lab ID:</b> 13020600-06                | <b>Matrix:</b> Groundwater                    |

| Analyses                 | Result   | EMT Reporting Limit | Units                     | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|---------------------|---------------------------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.              | µg/L                      | 2/22/13 18:42 | 80180   | JL      |
| <b>Radiation Testing</b> |          |                     |                           |               |         |         |
|                          |          | <b>Method:</b>      | EPA 900/903.1/904/905/906 |               |         |         |
| Radium-226               | 2.       | 0.5                 | pCi/L                     | 3/26/13       | R183278 | OUT     |
| Radium-228               | ND       | 0.9                 | pCi/L                     | 3/26/13       | R183278 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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| water | soil | air | product | waste |







**ENVIRONMENTAL  
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**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|   |  |   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |
|---|--|---|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br>Project / Location: <u>CWLP List G20</u> |  | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other |  |  | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD |  |  |  |  |  |  |  |  |  | EMT USE ONLY<br><br>EMT WORKORDER<br>#13020600 |  |
| CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other  |  | PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other   |  |  |   |  |  |  |  |  |  |  |  |  |  |  |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |       | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |    |   |
|-------------|-------------|-----------|--------|-----|----------|------|---------|-------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|----|---|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH    | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |    |   |
| AP-2        | GRAB        | 12        | 4 oz   | G   | 1        | DD   | 2-21-13 | 11:40 | 7.75         | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | IC |   |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        | DD   | 2-21-13 | 11:40 | 7.78         | 4   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  |    | D |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        | DD   | 2-21-13 | 11:40 | 7.78         | 3   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  |    | E |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 3        | DD   | 2-21-13 | 11:40 | 7.78         | 5   |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  |    | F |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 2        | DD   | 2-21-13 | 11:40 | 7.86         | 1   |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  |    | G |

|                  |  |              |                        |   |  |
|------------------|--|--------------|------------------------|---|--|
| Relinquished By: | Date: <u>2-21-13</u><br>Time: <u>15:30</u> | Received By: | Date: - -<br>Time: : : | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: | Date: - -<br>Time: : :                     | Received By: | Date: - -<br>Time: : : |   |  |
| Relinquished By: | Date: - -<br>Time: : :                     | Received By: | Date: - -<br>Time: : : |   |  |

SPECIAL INSTRUCTIONS:

2/19/2013 11:41:46 AM



**ENVIRONMENTAL  
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**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013

Due Date: 02/28/2013

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COC # 504911

|  |  |  |  |
|--|--|--|--|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT WORKORDER<br>#12020000 |
|--|--|--|--|

| Sample I.D. | Sample Type | Size    | Container |     |    | Sampling |      |      |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |    |  |
|-------------|-------------|---------|-----------|-----|----|----------|------|------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|----|--|
|             |             |         | Type      | No. | By | Date     | Time | pH   | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |    |  |
| AW-3        | GRAB        | 1 liter | G         | 10  | DD | 2-21-13  | 9:10 | 7.10 | 1     |              | X | X        | X | X | X | X |   |   |   |    |  |                 |  |  |  |  | 2A |  |
| AW-3        | GRAB        | 1 liter | P         | 1   | DD | 2-21-13  | 9:10 | 7.10 | 1     |              |   |          |   |   |   |   |   | X | X | X  |  |                 |  |  |  |  | B  |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |         |           |     |    |          |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |

|                  |                      |              |           |  |   |
|------------------|----------------------|--------------|-----------|--|---|
| Relinquished By: | Date: <u>2-21-13</u> | Received By: | Date: - - | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) |
| Relinquished By: | Date: - -            | Received By: | Date: - - |  |   |
| Relinquished By: | Date: - -            | Received By: | Date: - - |  |   |
| Time: : :        | Time: : :            | Time: : :    | Time: : : |  |   |

SPECIAL INSTRUCTIONS:

2/19/2013 11:41:48 AM



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|   |  |   |   |
|---|--|---|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project/Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      6. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | EMT USE ONLY<br><br>EMT WORKORDER<br># 13020000 |
|---|--|---|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |    |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |    |
| AW-3        | GRAB        | 12        | 4 oz   | G   | 1        | DD   | 2-21-13 | 8:10 | 7.10         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  | 2A |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        | DD   | 2-21-13 | 8:10 | 7.10         | 4   |          |   | X |   |   |   |   |   |   |    |                 |  |  | D  |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        | DD   | 2-21-13 | 8:10 | 7.10         | 3   |          |   |   | X |   |   |   |   |   |    |                 |  |  | E  |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 3        | DD   | 2-21-13 | 8:10 | 7.10         | 5   |          |   |   |   | X |   |   |   |   |    |                 |  |  | F  |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 2        | DD   | 2-21-13 | 8:10 | 7.10         | 1   |          |   |   |   |   | X |   |   |   |    |                 |  |  | G  |

|                  |                      |              |           |   |   |
|------------------|----------------------|--------------|-----------|---|---|
| Relinquished By: | Date: <u>2-21-13</u> | Received By: | Date: - - | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavlonts<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE TEMPERATURE<br><input checked="" type="checkbox"/> (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: | Date: - -            | Received By: | Date: - - |   |   |
| Relinquished By: | Date: - -            | Received By: | Date: - - |   |   |

*Signature*

SPECIAL INSTRUCTIONS:

2/19/2013 11:41:48 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013

Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|   |   |  |   |
|---|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 6082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT WORKORDER<br>#131201000 |
|---|---|--|---|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling    |         |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |   |  |  |    |   |
|-------------|-------------|----------------|----------------|---------------|-------------|---------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|---|--|--|----|---|
|             |             |                |                |               | By          | Date    | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |   |  |  |    |   |
| AP-5        | GRAB        | 1 liter        | G              | 10            | [Signature] | 2/21/13 | 0755 | 7.23 | 1            |     | X        | X | X | X | X | X | X |   |   |    |                 |   |  |  | 3A |   |
| AP-5        | GRAB        | 1 liter        | P              | 1             | [Signature] | 2/21/13 | 0755 | 7.23 | 1            |     |          |   |   |   |   |   |   |   |   | X  | X               | X |  |  |    | B |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |
|             |             |                |                |               |             |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |   |  |  |    |   |

|                              |               |                          |               |  |  |
|------------------------------|---------------|--------------------------|---------------|--|--|
| Relinquished By: [Signature] | Date: 2-21-13 | Received By: [Signature] | Date: 2-21-13 | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: [Signature] | Date: 2-21-13 | Received By: [Signature] | Date: - -     |  |  |
| Relinquished By: [Signature] | Date: - -     | Received By: [Signature] | Date: - -     |  |  |



8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

### Chain of Custody Record

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

COC # 504911

|   |  |  |  |   |  |  |  |  |  |  |  |  |  |   |
|---|--|--|--|---|--|--|--|--|--|--|--|--|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other _____ |  | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD |  |  |  |  |  |  |  |  |  | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER #</b> <u>13020600</u> |
| <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other _____   |  | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other _____   |  |   |  |  |  |  |  |  |  |  |  |   |

| Sample I.D. | Sample Type | Sample Size | Container |     |    | Sampling  |         |      |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |  |           |
|-------------|-------------|-------------|-----------|-----|----|-----------|---------|------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|--|-----------|
|             |             |             | Type      | No. | By | Date      | Time    | pH   | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |  |           |
| AP-5        | GRAB        | 12          | 4 oz      | G   | 1  | <i>SA</i> | 2/21/13 | 0755 | 7.23  | 8            |    | X        |    |    |    |    |    |    |    |     |  |                 |  |  |  |  | <i>3C</i> |
| AP-5        | GRAB        | 12          | 500 ml    | P   | 1  | <i>SA</i> | 2/21/13 | 0755 | 7.23  | 4            |    |          | X  |    |    |    |    |    |    |     |  |                 |  |  |  |  | <i>D</i>  |
| AP-5        | GRAB        | 12          | 500 ml    | P   | 1  | <i>SA</i> | 2/21/13 | 0755 | 7.23  | 3            |    |          |    | X  |    |    |    |    |    |     |  |                 |  |  |  |  | <i>E</i>  |
| AP-5        | GRAB        | 12          | 44 ml     | V   | 3  | <i>SA</i> | 2/21/13 | 0755 | 7.23  | 5            |    |          |    |    | X  |    |    |    |    |     |  |                 |  |  |  |  | <i>F</i>  |
| AP-5        | GRAB        | 12          | 44 ml     | V   | 2  | <i>SA</i> | 2/21/13 | 0755 | 7.23  | 1            |    |          |    |    |    | X  |    |    |    |     |  |                 |  |  |  |  | <i>G</i>  |

|                                     |                      |                    |                                 |                      |                    |   |  |
|-------------------------------------|----------------------|--------------------|---------------------------------|----------------------|--------------------|---|--|
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Time: <u>12:01</u> | Received By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Time: <u>12:09</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Time: <u>15:30</u> | Received By: _____              | Date: _____          | Time: _____        |   |  |
| Relinquished By: _____              | Date: _____          | Time: _____        | Received By: _____              | Date: _____          | Time: _____        |   |  |

SPECIAL INSTRUCTIONS:

*PH: 7.00 => 7.01 @ 0740*

2/19/2013 11:41:48 AM



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|  |  |  |  |
|--|--|--|--|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      C - Other<br><br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <p style="text-align: center;"><b>Analysis</b></p> 1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT WORKORDER<br>#13020600 |
|--|--|--|--|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |         |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |    |   |
|-------------|-------------|----------------|----------------|---------------|----------|---------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|----|---|
|             |             |                |                |               | By       | Date    | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |    |   |
| AP-3        | GRAB        | 1 liter        | G              | 10            | SP       | 2/21/13 | 0950 | 7.40 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  |  | 4A |   |
| AP-3        | GRAB        | 1 liter        | P              | 1             | SP       | 3/21/13 | 0950 | 7.40 | 1            |     |          |   |   |   |   |   |   |   | X | X  | X               |  |  |    | B |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |   |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |   |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |   |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |   |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |   |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |   |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |   |

|                                     |                      |                                 |                      |   |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|---|---|
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Received By: <i>[Signature]</i> | Date: <u>2-21-13</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Received By: <i>[Signature]</i> | Date: - -            |   |   |
| Relinquished By: <i>[Signature]</i> | Date: - -            | Received By: <i>[Signature]</i> | Date: - -            |   |   |

SPECIAL INSTRUCTIONS:

*ph: 7.00 => 7.01 @ 0740*





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|  |  |   |   |
|--|--|---|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <p style="text-align: center;"><b>Analysis</b></p> 1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | EMT USE ONLY<br><br>EMT WORKORDER<br>#1202010 |
|--|--|---|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |    |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |    |
| AP-3        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 2/21/13 | 0950 | 7.40         | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  | AC |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 2/21/13 | 0950 | 7.40         | 4   |          | X  |    |    |    |    |    |    |    |     |                 |  |  | D  |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 2/21/13 | 0950 | 7.40         | 3   |          |    | X  |    |    |    |    |    |    |     |                 |  |  | E  |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 3        | SP   | 2/21/13 | 0950 | 7.40         | 5   |          |    |    | X  |    |    |    |    |    |     |                 |  |  | F  |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 2        | SP   | 2/21/13 | 0950 | 7.40         | 1   |          |    |    |    | X  |    |    |    |    |     |                 |  |  | G  |

|                                     |                      |                                 |                      |   |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|---|---|
| Relinquished By: <u>[Signature]</u> | Date: <u>2-21-13</u> | Received By: <u>[Signature]</u> | Date: <u>2-21-13</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <u>[Signature]</u> | Date: <u>2-21-13</u> | Received By: <u>[Signature]</u> | Date: - -            |   |   |
| Relinquished By: _____              | Date: - -            | Received By: _____              | Date: - -            |   |   |

SPECIAL INSTRUCTIONS:

*PH: 7.00 => 7.01 @ 0740*



Chain of Custody Record

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|   |  |   |  |   |
|---|--|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other _____<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tediar Bag      O - Other _____<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other _____ | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br>EMT WORKORDER<br>1020000 |
|---|--|---|--|---|

| Sample I.D. | Sample Type | Container | Sampling |      |     |        |      |      |    | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |    |  |
|-------------|-------------|-----------|----------|------|-----|--------|------|------|----|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|----|--|
|             |             |           | Size     | Type | No. | By     | Date | Time | pH | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |    |  |
| AP-4        | GRAB        | 1 liter   | G        | 10   | EG  | 2/1/13 | 0905 | 7.04 | 1  |              |     | X        | X  | X  | X  | X  | X  |    |    |    |     |                 |  |  | SA |  |
| AP-4        | GRAB        | 1 liter   | P        | 1    | EG  | 2/1/13 | 0905 | 7.04 | 1  |              |     |          |    |    |    |    |    |    | X  | X  | X   |                 |  |  | B  |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |
|             |             |           |          |      |     |        |      |      |    |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |  |

|                        |                      |                    |                      |  |   |
|------------------------|----------------------|--------------------|----------------------|--|---|
| Relinquished By:       | Date: <u>2-21-13</u> | Received By:       | Date: <u>2-21-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar/Lot No. _____ | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By:       | Date: <u>2-21-13</u> | Received By: _____ | Date: _____          |  |   |
| Relinquished By: _____ | Date: _____          | Received By: _____ | Date: _____          |  |   |

SPECIAL INSTRUCTIONS:

pH: 7.00 => 7.01 @ 0740



Chain of Custody Record

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|   |  |   |  |
|---|--|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br>EMT WORKORDER<br>#173020600 |
|   | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other  |   |  |
| <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |  |   |  |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |  |    |   |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|--|----|---|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |  |    |   |
| AP-4        | GRAB        | 12        | 4 oz   | G   | 1        | AP   | 2/21/13 | 0905 | 7.04         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  |  |  | SC |   |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        | AP   | 2/21/13 | 0905 | 7.04         | 4   |          |   | X |   |   |   |   |   |   |    |                 |  |  |  |  |    | D |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        | AP   | 2/21/13 | 0905 | 7.04         | 3   |          |   |   | X |   |   |   |   |   |    |                 |  |  |  |  |    | E |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 3        | AP   | 2/21/13 | 0905 | 7.04         | 5   |          |   |   |   | X |   |   |   |   |    |                 |  |  |  |  |    | F |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 2        | AP   | 2/21/13 | 0905 | 7.04         | 1   |          |   |   |   |   | X |   |   |   |    |                 |  |  |  |  |    | G |

|                                     |                      |                                 |                      |   |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|---|---|
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Received By: <i>[Signature]</i> | Date: <u>2-21-13</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Received By:                    | Date: - -            |   |   |
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            |   |   |

SPECIAL INSTRUCTIONS:

pH = 7.00 => 7.01 @ 0740

2/19/2013 11:41:47 AM



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|   |  |   |  |   |
|---|--|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#3020600 |
|---|--|---|--|---|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |    |
|-------------|-------------|-----------|------|-----|----------|---------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|----|
|             |             | Size      | Type | No. | By       | Date    | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |    |
| AP-1        | GRAB        | 1 liter   | G    | 10  | SP       | 2/21/13 | 1110 | 7.41 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  |  | QA |
| AP-1        | GRAB        | 1 liter   | P    | 1   | SP       | 2/21/13 | 1110 | 7.41 | 1            |     |          |   |   |   |   |   |   | X | X | X  |                 |  |  | B  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |

|   |   |   |   |
|---|---|---|---|
| Relinquished By: <u>[Signature]</u><br>Date: <u>2-21-13</u><br>Time: <u>12:01</u> | Received By: <u>[Signature]</u><br>Date: <u>2-21-13</u><br>Time: <u>12:01</u> | Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u> | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <u>[Signature]</u><br>Date: <u>2-21-13</u><br>Time: <u>15:30</u> | Received By: _____<br>Date: _____<br>Time: _____                              | Jar Lot No. _____   |   |
| Relinquished By: _____<br>Date: _____<br>Time: _____                              | Received By: _____<br>Date: _____<br>Time: _____                              |   |   |

SPECIAL INSTRUCTIONS: pH: 7.00 => 7.01 @ 0740

2/19/2013 11:41:45 AM  
Page 1



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br>EMT WORKORDER # <u>13020600</u> |
|---|---|---|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |     |   |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|-----|---|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |     |   |
| AP-1        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 2/21/13 | 1110 | 7.41  | 8            |    | X        |    |    |    |    |    |    |    |     |  |                 |  |  |  | LEC |   |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 2/21/13 | 1110 | 7.41  | 4            |    |          | X  |    |    |    |    |    |    |     |  |                 |  |  |  |     | D |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 2/21/13 | 1110 | 7.41  | 3            |    |          |    | X  |    |    |    |    |    |     |  |                 |  |  |  |     | E |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 3        | SP   | 2/21/13 | 1110 | 7.41  | 5            |    |          |    |    | X  |    |    |    |    |     |  |                 |  |  |  |     | F |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 2        | SP   | 2/21/13 | 1110 | 7.41  | 1            |    |          |    |    |    | X  |    |    |    |     |  |                 |  |  |  |     | G |

|                                     |                      |                                 |                      |  |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <u>[Signature]</u> | Date: <u>2-21-13</u> | Received By: <u>[Signature]</u> | Date: <u>2-21-13</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <u>[Signature]</u> | Date: <u>2-21-13</u> | Received By:                    | Date: - -            |  |   |
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            |  |   |

SPECIAL INSTRUCTIONS:

ph: 7.00 => 7.01 @ 0740

2/19/2013 11:41:45 AM



**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

June 27, 2013

RE CWLP List G20

Lab Orders:  
13050718

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

**RECEIVED**

SEP 25 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

This Report Contains 39 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

environmental laboratory and testing services

| water | soil | air | product | waste |



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

CLIENT: City, Water, Light & Power  
Project: CWLP List G20  
Lab Order: 13050718

**RECEIVED**

Date: 6/27/2013

**CASE NARRATIVE**

SEP 25 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

**Method References:**

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

environmental laboratory and testing services

| water | soil | air | product | waste |



# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



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**CLIENT:** City, Water, Light & Power

**Date:** 6/27/2013

**Project:** CWLP List G20

## CASE NARRATIVE

**Lab Order:** 13050718

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Analytical Comments for METHOD 9056\_IC\_GRNDWTR, LCS1-R186137: LCS1 recovery was outside of the laboratory control limit.

Analytical Comments for METHOD 8270\_WNEW, 13050718-06A: Surrogate recoveries were slightly below the laboratory limits.

Analytical Comments for METHOD 8270\_WNEW, 13050718-02A, 03A,04A, 05A: Acid surrogate recoveries were below the laboratory limits.

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-01 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |      |          |               |         |         |
| pH   | 6.95       |                     |      | pH units | 5/22/13 01:10 | R187668 | SDS     |
| <b>Method: SM4500-H</b>                      |            |                     |      |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |      |          |               |         |         |
| Chloride                                     | 44.8       | 2.00                |      | mg/L     | 5/23/13       | R186035 | GSB     |
| Fluoride                                     | 0.26       | 0.500               | J    | mg/L     | 5/23/13       | R186035 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              |      | mg/L     | 5/23/13       | R186035 | GSB     |
| Sulfate                                      | 603        | 50.0                |      | mg/L     | 5/27/13       | R186164 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |      |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |      |          |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               |      | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |      |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1,390      | 10.0                |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Method: SM2540C</b>                       |            |                     |      |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |      |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |      |          |               |         |         |
| Antimony                                     | 0.0118     | 0.00375             |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Arsenic                                      | 0.00976    | 0.00750             |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Barium                                       | 0.306      | 0.00750             |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Beryllium                                    | < 0.00375  | 0.00375             |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Boron  | 7.76       | 0.0100              |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Cadmium                                      | < 0.00125  | 0.00125             |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Chromium                                     | 0.0024     | 0.00500             | J    | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Cobalt                                       | < 0.00750  | 0.00750             |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Copper                                       | 0.0022     | 0.00375             | J    | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Iron   | 12.2       | 0.0700              |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Lead   | 0.0019     | 0.00250             | J    | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Manganese                                    | 0.182      | 0.00500             |      | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Nickel                                       | 0.0025     | 0.00375             | J    | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Selenium                                     | 0.0204     | 0.00125             | B    | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Silver                                       | 0.0014     | 0.00250             | J    | mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Thallium                                     | 0.00095    | 0.00125             | J    | mg/L     | 5/24/13 16:20 | 82036   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter



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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-01 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | < 0.0250 | 0.0250                           |      | mg/L  | 5/24/13 16:20 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| • Aldicarb                              | < 3.00   | 3.00                             | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| • Carbofuran                            | < 40.0   | 40.0                             | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| • 1,2-Dibromo-3-chloropropane           | < 0.0397 | 0.0397                           | C    | µg/L  | 5/31/13 10:42 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0555 | 0.0555                           | C    | µg/L  | 5/31/13 10:42 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| • Endothal                              | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 01:48 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 61.0     | 20-200                           |      | %REC  | 5/25/13 01:48 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| • Dalapon                               | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 13:13 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| • 2,4-Dichlorophenylacetic acid         | 82.6     | 63.8-150                         |      | %REC  | 5/29/13 13:13 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| • Alachlor                              | < 0.132  | 0.132                            |      | µg/L  | 6/5/13 00:42  | 82107   | LP      |
| • Atrazine                              | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 00:42  | 82107   | LP      |
| • Chlordane                             | < 0.0792 | 0.0792                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Endrin                                | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Heptachlor                            | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Heptachlor epoxide                    | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Simazine                              | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 00:42  | 82107   | LP      |
| • Toxaphene                             | < 0.528  | 0.528                            |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 73.3     | 5-185                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX                                    | 40.5     | 5-130                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-01 Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|----------------------------------|------|-------|---------------|-------|---------|
| Aroclor 1221                                 | < 0.165  | 0.165                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total                                   | < 0.660  | 0.660                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene                 | 40.2     | 5-116                            |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl                           | 74.9     | 40-135                           |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatiles Organic Compounds GC/MS</b> |          | <b>Method: SW8270D / SW3510C</b> |      |       |               |       |         |
| • Benzo(a)pyrene                             | < 1.33   | 1.33                             |      | µg/L  | 5/26/13 02:06 | 82074 | RYL     |
| • Bis(2-ethylhexyl)phthalate                 | < 1.33   | 1.33                             |      | µg/L  | 5/26/13 02:06 | 82074 | RYL     |
| • Hexachlorocyclopentadiene                  | < 1.33   | 1.33                             |      | µg/L  | 5/26/13 02:06 | 82074 | RYL     |
| • Phenol                                     | < 0.666  | 0.666                            |      | µg/L  | 5/26/13 02:06 | 82074 | RYL     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,6-Tribromophenol                         | 41.7     | 40-125                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| 2-Fluorobiphenyl                             | 50.0     | 50-110                           | S    | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| 2-Fluorophenol                               | 21.9     | 20-110                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| 4-Terphenyl-d14                              | 78.5     | 50-135                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| Nitrobenzene-d5                              | 50.2     | 40-110                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| Phenol-d5                                    | 12.7     | 10-115                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |          | <b>Method: SW8321A / SW3510C</b> |      |       |               |       |         |
| • 2,4,5-TP (Silvex)                          | < 50.0   | 50.0                             |      | µg/L  | 5/31/13       | 82061 | DLO     |
| • 2,4-D                                      | < 70.0   | 70.0                             |      | µg/L  | 5/31/13       | 82061 | DLO     |
| • Dinoseb                                    | < 7.00   | 7.00                             |      | µg/L  | 5/31/13       | 82061 | DLO     |
| • Pentachlorophenol                          | < 1.00   | 1.00                             | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| • Picloram                                   | < 500    | 500                              | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid                     | 56.7     | 17.7-138                         |      | %REC  | 5/31/13       | 82061 | DLO     |
| <b>Volatiles Organic Compounds by GC/MS</b>  |          | <b>Method: SW8260B / SW5030A</b> |      |       |               |       |         |
| • 1,1,1-Trichloroethane                      | < 2.00   | 2.00                             |      | µg/L  | 5/23/13 18:57 | 82106 | MNN     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-01 Matrix: Groundwater

| Analyses                          | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch   | Analyst |
|-----------------------------------|--------|---------------------|------|-------|---------------|---------|---------|
| 1,1,2-Trichloroethane             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| 1,1-Dichloroethene                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • 1,2,4-Trichlorobenzene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| 1,2-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| 1,2-Dichloroethane                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| 1,2-Dichloropropane               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| 1,4-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Benzene                         | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Carbon tetrachloride            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Chlorobenzene                   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| cis-1,2-Dichloroethene            | < 3.72 | 3.72                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Ethylbenzene                    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Methyl tert-butyl ether         | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| Methylene chloride                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Styrene                         | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Tetrachloroethene               | < 5.00 | 5.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Toluene                         | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| trans-1,2-Dichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Trichloroethene                 | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Vinyl chloride                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| • Xylenes, Total                  | < 6.00 | 6.00                |      | µg/L  | 5/23/13 18:57 | 82106   | MNN     |
| <b>Surrogates:</b>                |        |                     |      |       |               |         |         |
| 1,2-Dichloroethane-d4             | 103    | 70-120              |      | %REC  | 5/23/13 18:57 | 82106   | MNN     |
| 4-Bromofluorobenzene              | 102    | 75-120              |      | %REC  | 5/23/13 18:57 | 82106   | MNN     |
| d4-1,2-Dichlorobenzene            | 109    | 80-120              |      | %REC  | 5/23/13 18:57 | 82106   | MNN     |
| Dibromofluoromethane              | 94.9   | 85-115              |      | %REC  | 5/23/13 18:57 | 82106   | MNN     |
| Fluorobenzene                     | 104    | 80-120              |      | %REC  | 5/23/13 18:57 | 82106   | MNN     |
| Toluene-d8                        | 103    | 85-120              |      | %REC  | 5/23/13 18:57 | 82106   | MNN     |
| <b>Radiation Testing</b>          |        |                     |      |       |               |         |         |
| Method: EPA 900/903.1/904/905/906 |        |                     |      |       |               |         |         |
| • Radium-226                      | 2.     | 0.5                 |      | pCi/L | 6/7/13        | R187607 | OUT     |
| • Radium-228                      | 1.3    | 0.8                 |      | pCi/L | 6/7/13        | R187607 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-02 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |      |          |               |         |         |
| pH   | 6.83       |                     |      | pH units | 5/22/13 11:20 | R187668 | SDS     |
| <b>Anions by Ion Chromatography</b>          |            |                     |      |          |               |         |         |
| Chloride                                     | 19.8       | 2.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.43       | 0.500               | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 240        | 5.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |      |          |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               |      | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 950        | 10.0                |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Metals, Total.</b>                        |            |                     |      |          |               |         |         |
| Antimony                                     | 0.0260     | 0.00600             |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Arsenic                                      | 0.034      | 0.0500              | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Barium                                       | 0.20       | 2.00                | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Boron  | 5.01       | 2.00                |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Chromium                                     | 0.0091     | 0.100               | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Cobalt                                       | 0.0093     | 1.00                | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Copper                                       | 0.0070     | 0.650               | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Iron   | 15.8       | 5.00                |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Lead   | 0.0048     | 0.00750             | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Manganese                                    | 20.7       | 0.150               |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Nickel                                       | 0.013      | 0.100               | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Selenium                                     | 0.045      | 0.0500              | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Silver                                       | < 0.0500   | 0.0500              |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Thallium                                     | 0.0018     | 0.00200             | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-02 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | 0.022    | 5.00                             | J    | mg/L  | 5/24/13 17:03 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 3.00   | 3.00                             | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| Carbofuran                              | < 40.0   | 40.0                             | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C    | µg/L  | 5/31/13 11:13 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C    | µg/L  | 5/31/13 11:13 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 02:32 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 46.7     | 20-200                           |      | %REC  | 5/25/13 02:32 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 15:23 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 70.6     | 63.8-150                         |      | %REC  | 5/29/13 15:23 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            |      | µg/L  | 6/5/13 01:29  | 82107   | LP      |
| Atrazine                                | < 0.166  | 0.166                            |      | µg/L  | 6/5/13 01:29  | 82107   | LP      |
| Chlordane                               | < 0.0795 | 0.0795                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Endrin                                  | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Simazine                                | < 0.166  | 0.166                            |      | µg/L  | 6/5/13 01:29  | 82107   | LP      |
| Toxaphene                               | < 0.530  | 0.530                            |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 65.5     | 5-185                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX                                    | 33.7     | 5-130                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0828 | 0.0828                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-02 **Matrix:** Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|---------------------|------|-------|---------------|-------|---------|
| Aroclor 1221   | < 0.166  | 0.166               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total   | < 0.663  | 0.663               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene   | 43.3     | 5-116               |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl   | 83.0     | 40-135              |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |          |                     |      |       |               |       |         |
| Benzo(a)pyrene   | < 1.33   | 1.33                |      | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate   | 0.39     | 1.33                | J    | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| Hexachlorocyclopentadiene  | < 1.33   | 1.33                |      | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| Phenol   | < 0.666  | 0.666               |      | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,6-Tribromophenol   | 39.2     | 40-125              | S    | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| 2-Fluorobiphenyl   | 70.3     | 50-110              |      | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| 2-Fluorophenol   | 3.41     | 20-110              | S    | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| 4-Terphenyl-d14  | 116      | 50-135              |      | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| Nitrobenzene-d5  | 65.5     | 40-110              |      | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| Phenol-d5  | 1.45     | 10-115              | S    | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |          |                     |      |       |               |       |         |
| 2,4,5-TP (Silvex)  | < 50.0   | 50.0                |      | µg/L  | 5/31/13       | 82061 | DLO     |
| 2,4-D  | < 70.0   | 70.0                |      | µg/L  | 5/31/13       | 82061 | DLO     |
| Dinoseb  | < 7.00   | 7.00                |      | µg/L  | 5/31/13       | 82061 | DLO     |
| Pentachlorophenol  | < 1.00   | 1.00                | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| Picloram   | < 500    | 500                 | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid   | 63.1     | 17.7-138            |      | %REC  | 5/31/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |          |                     |      |       |               |       |         |
| 1,1,1-Trichloroethane  | < 2.00   | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13050718  
Project: CWLP List G20  
Lab ID: 13050718-02

Client Sample ID: AP-2  
Report Date: 6/27/2013  
Collection Date: 5/23/2013  
Matrix: Groundwater

| Analyses                 | Result | EMT Reporting Limit | Qual | Units                             | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|---------------------|------|-----------------------------------|---------------|---------|---------|
| 1,1,2-Trichloroethane    | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| 1,1-Dichloroethene       | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| 1,2,4-Trichlorobenzene   | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| 1,2-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| 1,2-Dichloroethane       | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| 1,2-Dichloropropane      | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| 1,4-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Benzene                  | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Carbon tetrachloride     | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Chlorobenzene            | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Ethylbenzene             | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Methyl tert-butyl ether  | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Methylene chloride       | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Styrene                  | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Tetrachloroethene        | < 5.00 | 5.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Toluene                  | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| trans-1,2-Dichloroethene | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Trichloroethene          | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Vinyl chloride           | < 2.00 | 2.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| Xylenes, Total           | < 6.00 | 6.00                |      | µg/L                              | 5/23/13 20:03 | 82106   | MNN     |
| <b>Surrogates:</b>       |        |                     |      |                                   |               |         |         |
| 1,2-Dichloroethane-d4    | 112    | 70-120              |      | %REC                              | 5/23/13 20:03 | 82106   | MNN     |
| 4-Bromofluorobenzene     | 99.6   | 75-120              |      | %REC                              | 5/23/13 20:03 | 82106   | MNN     |
| d4-1,2-Dichlorobenzene   | 111    | 80-120              |      | %REC                              | 5/23/13 20:03 | 82106   | MNN     |
| Dibromofluoromethane     | 100    | 85-115              |      | %REC                              | 5/23/13 20:03 | 82106   | MNN     |
| Fluorobenzene            | 101    | 80-120              |      | %REC                              | 5/23/13 20:03 | 82106   | MNN     |
| Toluene-d8               | 105    | 85-120              |      | %REC                              | 5/23/13 20:03 | 82106   | MNN     |
| <b>Radiation Testing</b> |        |                     |      |                                   |               |         |         |
|                          |        |                     |      | Method: EPA 900/903.1/904/905/906 |               |         |         |
| Radium-226               | 2.7    | 0.9                 |      | pCi/L                             | 6/7/13        | R187607 | OUT     |
| Radium-228               | 1.5    | 1.                  |      | pCi/L                             | 6/7/13        | R187607 | OUT     |

### Qualifiers:

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-03 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |      |          |               |         |         |
| pH   | 7.07       |                     |      | pH units | 5/22/13 10:40 | R187668 | SDS     |
| <b>Method: SM4500-H</b>                      |            |                     |      |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |      |          |               |         |         |
| Chloride                                     | 47.5       | 2.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.32       | 0.500               | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 347        | 50.0                |      | mg/L     | 5/29/13       | R186268 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |      |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |      |          |               |         |         |
| Cyanide                                      | 0.0032     | 0.200               | J    | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |      |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1,040      | 10.0                |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Method: SM2540C</b>                       |            |                     |      |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |      |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |      |          |               |         |         |
| Antimony                                     | 0.0161     | 0.00600             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Arsenic                                      | 0.016      | 0.0500              | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Barium                                       | 0.095      | 2.00                | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Boron  | 18.7       | 2.00                |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Chromium                                     | < 0.100    | 0.100               |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Cobalt                                       | < 1.00     | 1.00                |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Copper                                       | < 0.650    | 0.650               |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Iron   | 14.0       | 5.00                |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Lead   | < 0.00750  | 0.00750             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Manganese                                    | 8.90       | 0.150               |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Nickel                                       | 0.0077     | 0.100               | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Selenium                                     | 0.013      | 0.0500              | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Silver                                       | < 0.0500   | 0.0500              |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-03 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             |      | mg/L  | 5/24/13 17:08 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0402 | 0.0402                           | C    | µg/L  | 5/31/13 12:16 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0563 | 0.0563                           | C    | µg/L  | 5/31/13 12:16 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 03:16 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 57.8     | 20-200                           |      | %REC  | 5/25/13 03:16 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 16:06 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 78.0     | 63.8-150                         |      | %REC  | 5/29/13 16:06 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.132  | 0.132                            |      | µg/L  | 6/5/13 02:16  | 82107   | LP      |
| Atrazine                                | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 02:16  | 82107   | LP      |
| Chlordane                               | < 0.0791 | 0.0791                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Endrin                                  | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Simazine                                | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 02:16  | 82107   | LP      |
| Toxaphene                               | < 0.527  | 0.527                            |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 77.9     | 5-185                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX                                    | 39.6     | 5-130                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-03 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|----------------------------------|------|-------|---------------|-------|---------|
| Aroclor 1221                                 | < 0.165  | 0.165                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total                                   | < 0.659  | 0.659                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene                 | 42.4     | 5-116                            |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl                           | 83.0     | 40-135                           |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS</b>  |          | <b>Method: SW8270D / SW3510C</b> |      |       |               |       |         |
| Benzo(a)pyrene                               | < 1.33   | 1.33                             |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33   | 1.33                             |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| Hexachlorocyclopentadiene                    | < 1.33   | 1.33                             |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| Phenol                                       | < 0.667  | 0.667                            |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,6-Tribromophenol                         | 38.5     | 40-125                           | S    | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| 2-Fluorobiphenyl                             | 64.5     | 50-110                           |      | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| 2-Fluorophenol                               | 4.65     | 20-110                           | S    | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| 4-Terphenyl-d14                              | 106      | 50-135                           |      | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| Nitrobenzene-d5                              | 62.5     | 40-110                           |      | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| Phenol-d5                                    | 2.18     | 10-115                           | S    | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |          | <b>Method: SW8321A / SW3510C</b> |      |       |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.249  | 0.249                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D  | < 0.234  | 0.234                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb                                      | < 0.219  | 0.219                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol                            | < 0.264  | 0.264                            | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram                                     | < 0.216  | 0.216                            | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid                     | 61.2     | 17.7-138                         |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |          | <b>Method: SW8260B / SW5030A</b> |      |       |               |       |         |
| 1,1,1-Trichloroethane                        | < 2.00   | 2.00                             |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-03 Matrix: Groundwater

| Analyses                          | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch   | Analyst |
|-----------------------------------|--------|---------------------|------|-------|---------------|---------|---------|
| 1,1,2-Trichloroethane             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| 1,1-Dichloroethene                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| 1,2,4-Trichlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| 1,2-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| 1,2-Dichloroethane                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| 1,2-Dichloropropane               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| 1,4-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Benzene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Carbon tetrachloride              | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Chlorobenzene                     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| cis-1,2-Dichloroethene            | < 3.72 | 3.72                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Ethylbenzene                      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Methyl tert-butyl ether           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Methylene chloride                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Styrene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Tetrachloroethene                 | < 5.00 | 5.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Toluene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| trans-1,2-Dichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Trichloroethene                   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Vinyl chloride                    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| Xylenes, Total                    | < 6.00 | 6.00                |      | µg/L  | 5/23/13 21:09 | 82106   | MNN     |
| <b>Surrogates:</b>                |        |                     |      |       |               |         |         |
| 1,2-Dichloroethane-d4             | 107    | 70-120              |      | %REC  | 5/23/13 21:09 | 82106   | MNN     |
| 4-Bromofluorobenzene              | 104    | 75-120              |      | %REC  | 5/23/13 21:09 | 82106   | MNN     |
| d4-1,2-Dichlorobenzene            | 111    | 80-120              |      | %REC  | 5/23/13 21:09 | 82106   | MNN     |
| Dibromofluoromethane              | 101    | 85-115              |      | %REC  | 5/23/13 21:09 | 82106   | MNN     |
| Fluorobenzene                     | 101    | 80-120              |      | %REC  | 5/23/13 21:09 | 82106   | MNN     |
| Toluene-d8                        | 101    | 85-120              |      | %REC  | 5/23/13 21:09 | 82106   | MNN     |
| <b>Radiation Testing</b>          |        |                     |      |       |               |         |         |
| Method: EPA 900/903.1/904/905/906 |        |                     |      |       |               |         |         |
| Radium-226                        | ND     | 0.9                 |      | pCi/L | 6/7/13        | R187607 | OUT     |
| Radium-228                        | ND     | 0.83                |      | pCi/L | 6/7/13        | R187607 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-04 Matrix: Groundwater

| Analyses                                     | Result.    | EMT<br>Reporting<br>Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                           |      |          |               |         |         |
| pH   | 7.23       |                           |      | pH units | 5/22/13 10:00 | R187668 | SDS     |
| <b>Method: SM4500-H</b>                      |            |                           |      |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                           |      |          |               |         |         |
| Chloride                                     | 11.0       | 2.00                      |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.20       | 0.500                     | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500                    |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 0.30       | 5.00                      | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| <b>Method: SW9056</b>                        |            |                           |      |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                           |      |          |               |         |         |
| Cyanide                                      | < 0.200    | 0.200                     |      | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                           |      |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                           |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 578        | 10.0                      |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Method: SM2540C</b>                       |            |                           |      |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                           |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500                  |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                           |      |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                           |      |          |               |         |         |
| Antimony                                     | 0.0152     | 0.00600                   |      | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Arsenic                                      | 0.025      | 0.0500                    | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Barium                                       | 0.37       | 2.00                      | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400                   |      | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Boron  | 0.75       | 2.00                      | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500                   |      | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Chromium                                     | 0.0039     | 0.100                     | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Cobalt                                       | < 1.00     | 1.00                      |      | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Copper                                       | 0.0040     | 0.650                     | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Iron   | 20.0       | 5.00                      |      | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Lead   | 0.0036     | 0.00750                   | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Manganese                                    | 0.324      | 0.150                     |      | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Nickel                                       | 0.0057     | 0.100                     | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Selenium                                     | 0.0079     | 0.0500                    | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Silver                                       | 0.0021     | 0.0500                    | J    | mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200                   |      | mg/L     | 5/24/13 17:14 | 82036   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-04 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             |      | mg/L  | 5/24/13 17:14 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C    | µg/L  | 5/31/13 12:48 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C    | µg/L  | 5/31/13 12:48 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 04:00 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 67.6     | 20-200                           |      | %REC  | 5/25/13 04:00 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 16:49 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 89.6     | 63.8-150                         |      | %REC  | 5/29/13 16:49 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            |      | µg/L  | 6/5/13 03:04  | 82107   | LP      |
| Atrazine                                | < 0.167  | 0.167                            |      | µg/L  | 6/5/13 03:04  | 82107   | LP      |
| Chlordane                               | < 0.0799 | 0.0799                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Endrin                                  | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Simazine                                | < 0.167  | 0.167                            |      | µg/L  | 6/5/13 03:04  | 82107   | LP      |
| Toxaphene                               | < 0.533  | 0.533                            |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 90.0     | 5-185                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX                                    | 38.7     | 5-130                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0833 | 0.0833                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-04 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|----------------------------------|------|-------|---------------|-------|---------|
| Aroclor 1221                                 | < 0.167  | 0.167                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232                                 | < 0.0833 | 0.0833                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242                                 | < 0.0833 | 0.0833                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248                                 | < 0.0833 | 0.0833                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254                                 | < 0.0833 | 0.0833                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260                                 | < 0.0833 | 0.0833                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total                                   | < 0.666  | 0.666                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene                 | 37.8     | 5-116                            |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl                           | 77.0     | 40-135                           |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS</b>  |          | <b>Method: SW8270D / SW3510C</b> |      |       |               |       |         |
| Benzo(a)pyrene                               | < 1.33   | 1.33                             |      | µg/L  | 5/26/13       | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33   | 1.33                             |      | µg/L  | 5/26/13       | 82074 | RYL     |
| Hexachlorocyclopentadiene                    | < 1.33   | 1.33                             |      | µg/L  | 5/26/13       | 82074 | RYL     |
| Phenol                                       | < 0.665  | 0.665                            |      | µg/L  | 5/26/13       | 82074 | RYL     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,6-Tribromophenol                         | 53.9     | 40-125                           |      | %REC  | 5/26/13       | 82074 | RYL     |
| 2-Fluorobiphenyl                             | 40.8     | 50-110                           | S    | %REC  | 5/26/13       | 82074 | RYL     |
| 2-Fluorophenol                               | 15.9     | 20-110                           | S    | %REC  | 5/26/13       | 82074 | RYL     |
| 4-Terphenyl-d14                              | 108      | 50-135                           |      | %REC  | 5/26/13       | 82074 | RYL     |
| Nitrobenzene-d5                              | 35.5     | 40-110                           | S    | %REC  | 5/26/13       | 82074 | RYL     |
| Phenol-d5                                    | 9.32     | 10-115                           | S    | %REC  | 5/26/13       | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |          | <b>Method: SW8321A / SW3510C</b> |      |       |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.249  | 0.249                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D  | < 0.234  | 0.234                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb                                      | < 0.219  | 0.219                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol                            | < 0.264  | 0.264                            | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram                                     | < 0.215  | 0.215                            | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid                     | 61.0     | 17.7-138                         |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |          | <b>Method: SW8260B / SW5030A</b> |      |       |               |       |         |
| 1,1,1-Trichloroethane                        | < 2.00   | 2.00                             |      | µg/L  | 5/23/13 22:15 | 82106 | MNN     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-04 Matrix: Groundwater

| Analyses                          | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch   | Analyst |
|-----------------------------------|--------|---------------------|------|-------|---------------|---------|---------|
| 1,1,2-Trichloroethane             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| 1,1-Dichloroethene                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| 1,2,4-Trichlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| 1,2-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| 1,2-Dichloroethane                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| 1,2-Dichloropropane               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| 1,4-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Benzene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Carbon tetrachloride              | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Chlorobenzene                     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| cis-1,2-Dichloroethene            | < 3.72 | 3.72                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Ethylbenzene                      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Methyl tert-butyl ether           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Methylene chloride                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Styrene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Tetrachloroethene                 | < 5.00 | 5.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Toluene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| trans-1,2-Dichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Trichloroethene                   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Vinyl chloride                    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| Xylenes, Total                    | < 6.00 | 6.00                |      | µg/L  | 5/23/13 22:15 | 82106   | MNN     |
| <b>Surrogates:</b>                |        |                     |      |       |               |         |         |
| 1,2-Dichloroethane-d4             | 115    | 70-120              |      | %REC  | 5/23/13 22:15 | 82106   | MNN     |
| 4-Bromofluorobenzene              | 99.0   | 75-120              |      | %REC  | 5/23/13 22:15 | 82106   | MNN     |
| d4-1,2-Dichlorobenzene            | 113    | 80-120              |      | %REC  | 5/23/13 22:15 | 82106   | MNN     |
| Dibromofluoromethane              | 106    | 85-115              |      | %REC  | 5/23/13 22:15 | 82106   | MNN     |
| Fluorobenzene                     | 101    | 80-120              |      | %REC  | 5/23/13 22:15 | 82106   | MNN     |
| Toluene-d8                        | 101    | 85-120              |      | %REC  | 5/23/13 22:15 | 82106   | MNN     |
| <b>Radiation Testing</b>          |        |                     |      |       |               |         |         |
| Method: EPA 900/903.1/904/905/906 |        |                     |      |       |               |         |         |
| Radium-226                        | 0.84   | 0.83                |      | pCi/L | 6/7/13        | R187607 | OUT     |
| Radium-228                        | 0.69   | 0.65                |      | pCi/L | 6/7/13        | R187607 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-05 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |      |          |               |         |         |
| pH   | 7.46       |                     |      | pH units | 5/22/13 09:00 | R187668 | SDS     |
| <b>Method: SM4500-H</b>                      |            |                     |      |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |      |          |               |         |         |
| Chloride                                     | 2.61       | 2.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.43       | 0.500               | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.637      | 0.500               |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 55.3       | 5.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |      |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |      |          |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               |      | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |      |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 410        | 10.0                |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Method: SM2540C</b>                       |            |                     |      |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |      |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |      |          |               |         |         |
| Antimony                                     | 0.0160     | 0.00600             |      | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Arsenic                                      | 0.0094     | 0.0500              | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Barium                                       | 0.13       | 2.00                | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             |      | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Boron  | 0.22       | 2.00                | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             |      | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Chromium                                     | 0.016      | 0.100               | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Cobalt                                       | 0.0086     | 1.00                | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Copper                                       | 0.013      | 0.650               | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Iron   | 20.7       | 5.00                |      | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Lead   | 0.0104     | 0.00750             |      | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Manganese                                    | 0.356      | 0.150               |      | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Nickel                                       | 0.021      | 0.100               | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Selenium                                     | 0.0046     | 0.0500              | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Silver                                       | 0.0030     | 0.0500              | J    | mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             |      | mg/L     | 5/24/13 17:19 | 82036   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-05 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | 0.048    | 5.00                             | J    | mg/L  | 5/24/13 17:19 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0397 | 0.0397                           | C    | µg/L  | 5/31/13 13:19 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0555 | 0.0555                           | C    | µg/L  | 5/31/13 13:19 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 04:44 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 52.2     | 20-200                           |      | %REC  | 5/25/13 04:44 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 17:33 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 86.9     | 63.8-150                         |      | %REC  | 5/29/13 17:33 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.132  | 0.132                            |      | µg/L  | 6/5/13 03:51  | 82107   | LP      |
| Atrazine                                | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 03:51  | 82107   | LP      |
| Chlordane                               | < 0.0794 | 0.0794                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Endrin                                  | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Simazine                                | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 03:51  | 82107   | LP      |
| Toxaphene                               | < 0.530  | 0.530                            |      | µg/L  | 6/4/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 89.9     | 5-185                            |      | %REC  | 6/4/13        | 82107   | MNN     |
| TCMX                                    | 46.0     | 5-130                            |      | %REC  | 6/4/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0827 | 0.0827                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-05 Matrix: Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|---------------------|------|-------|---------------|-------|---------|
| Aroclor 1221   | < 0.165  | 0.165               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total   | < 0.662  | 0.662               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene   | 43.9     | 5-116               |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl   | 81.4     | 40-135              |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |          |                     |      |       |               |       |         |
| Benzo(a)pyrene   | < 1.33   | 1.33                |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33   | 1.33                |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| Hexachlorocyclopentadiene  | < 1.33   | 1.33                |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| Phenol   | < 0.666  | 0.666               |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,6-Tribromophenol   | 47.5     | 40-125              |      | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| 2-Fluorobiphenyl   | 35.0     | 50-110              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| 2-Fluorophenol   | 14.0     | 20-110              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| 4-Terphenyl-d14  | 88.2     | 50-135              |      | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| Nitrobenzene-d5  | 32.5     | 40-110              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| Phenol-d5  | 7.90     | 10-115              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |          |                     |      |       |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.249  | 0.249               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D  | < 0.234  | 0.234               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb  | < 0.219  | 0.219               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol  | < 0.264  | 0.264               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram   | < 0.216  | 0.216               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid   | 65.4     | 17.7-138            |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |          |                     |      |       |               |       |         |
| 1,1,1-Trichloroethane  | < 2.00   | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13050718  
Project: CWLP List G20  
Lab ID: 13050718-05

Client Sample ID: AP-5  
Report Date: 6/27/2013  
Collection Date: 5/23/2013  
Matrix: Groundwater

| Analyses                          | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch   | Analyst |
|-----------------------------------|--------|---------------------|------|-------|---------------|---------|---------|
| 1,1,2-Trichloroethane             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| 1,1-Dichloroethene                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| 1,2,4-Trichlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| 1,2-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| 1,2-Dichloroethane                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| 1,2-Dichloropropane               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| 1,4-Dichlorobenzene               | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Benzene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Carbon tetrachloride              | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Chlorobenzene                     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| cis-1,2-Dichloroethene            | < 3.72 | 3.72                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Ethylbenzene                      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Methyl tert-butyl ether           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Methylene chloride                | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Styrene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Tetrachloroethene                 | < 5.00 | 5.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Toluene                           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| trans-1,2-Dichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Trichloroethene                   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Vinyl chloride                    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| Xylenes, Total                    | < 6.00 | 6.00                |      | µg/L  | 5/23/13 22:48 | 82106   | MNN     |
| <b>Surrogates:</b>                |        |                     |      |       |               |         |         |
| 1,2-Dichloroethane-d4             | 117    | 70-120              |      | %REC  | 5/23/13 22:48 | 82106   | MNN     |
| 4-Bromofluorobenzene              | 102    | 75-120              |      | %REC  | 5/23/13 22:48 | 82106   | MNN     |
| d4-1,2-Dichlorobenzene            | 114    | 80-120              |      | %REC  | 5/23/13 22:48 | 82106   | MNN     |
| Dibromofluoromethane              | 105    | 85-115              |      | %REC  | 5/23/13 22:48 | 82106   | MNN     |
| Fluorobenzene                     | 101    | 80-120              |      | %REC  | 5/23/13 22:48 | 82106   | MNN     |
| Toluene-d8                        | 102    | 85-120              |      | %REC  | 5/23/13 22:48 | 82106   | MNN     |
| <b>Radiation Testing</b>          |        |                     |      |       |               |         |         |
| Method: EPA 900/903.1/904/905/906 |        |                     |      |       |               |         |         |
| Radium-226                        | 1.1    | 0.8                 |      | pCi/L | 6/7/13        | R187607 | OUT     |
| Radium-228                        | ND     | 0.68                |      | pCi/L | 6/7/13        | R187607 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-06 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            | <b>Method:</b>      |      |          |               |         |         |
| pH   | 7.63       | SM4500-H            |      | pH units | 5/22/13 11:10 | R187668 | SDS     |
| <b>Anions by Ion Chromatography</b>          |            | <b>Method:</b>      |      |          |               |         |         |
| Chloride                                     | 28.9       | 2.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.42       | 0.500               | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 40.8       | 5.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| <b>Cyanide, Total</b>                        |            | <b>Method:</b>      |      |          |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               |      | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Total Dissolved Solids</b>                |            | <b>Method:</b>      |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 436        | 10.0                |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Mercury, Total</b>                        |            | <b>Method:</b>      |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Metals, Total.</b>                        |            | <b>Method:</b>      |      |          |               |         |         |
| Antimony                                     | 0.0128     | 0.00600             |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Arsenic                                      | 0.015      | 0.0500              | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Barium                                       | 0.059      | 2.00                | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Boron  | 0.22       | 2.00                | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Chromium                                     | < 0.100    | 0.100               |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Cobalt                                       | < 1.00     | 1.00                |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Copper                                       | 0.0025     | 0.650               | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Iron   | 1.2        | 5.00                | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Lead   | < 0.00750  | 0.00750             |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Manganese                                    | 0.045      | 0.150               | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Nickel                                       | 0.0026     | 0.100               | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Selenium                                     | 0.0025     | 0.0500              | J    | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Silver                                       | < 0.0500   | 0.0500              |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             |      | mg/L     | 5/24/13 17:24 | 82036   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-06

**Client Sample ID:** AW-3  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|------|-------|---------------|---------|---------|
| Zinc   | < 5.00   | 5.00                |      | mg/L  | 5/24/13 17:24 | 82036   | AG      |
| <b>Carbamates</b> Method: E531.1                                 |          |                     |      |       |               |         |         |
| Aldicarb   | < 2.00   | 2.00                | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran   | < 2.00   | 2.00                | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b> Method: E504.1 / E504.1    |          |                     |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane                                      | < 0.0395 | 0.0395              | C    | µg/L  | 5/31/13 13:51 | 82263   | LP      |
| 1,2-Dibromoethane  | < 0.0554 | 0.0554              | C    | µg/L  | 5/31/13 13:51 | 82263   | LP      |
| <b>Endothal</b> Method: E548.1 / E548.1                          |          |                     |      |       |               |         |         |
| Endothal   | < 15.5   | 15.5                | C    | µg/L  | 5/25/13 06:55 | 82054   | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |         |         |
| 2,4,6-Tribromophenol   | 49.2     | 20-200              |      | %REC  | 5/25/13 06:55 | 82054   | RYL     |
| <b>Haloacetic Acids</b> Method: E552.2 / E552.1                  |          |                     |      |       |               |         |         |
| Dalapon  | < 0.500  | 0.500               | C    | µg/L  | 6/3/13 23:40  | 82231   | LP      |
| <b>Surrogates:</b>   |          |                     |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid                                    | 74.0     | 63.8-150            |      | %REC  | 6/3/13 23:40  | 82231   | LP      |
| <b>Organochlorine Pesticides</b> Method: SW8081A / SW3510C       |          |                     |      |       |               |         |         |
| Alachlor   | < 0.131  | 0.131               |      | µg/L  | 6/5/13 04:38  | 82107   | LP      |
| Atrazine   | < 0.164  | 0.164               |      | µg/L  | 6/5/13 04:38  | 82107   | LP      |
| Chlordane  | < 0.0786 | 0.0786              |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Endrin   | < 0.0131 | 0.0131              |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor   | < 0.0131 | 0.0131              |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor epoxide   | < 0.0131 | 0.0131              |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Methoxychlor   | < 0.0131 | 0.0131              |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Simazine   | < 0.164  | 0.164               |      | µg/L  | 6/5/13 04:38  | 82107   | LP      |
| Toxaphene  | < 0.524  | 0.524               |      | µg/L  | 6/4/13        | 82107   | MNN     |
| <b>Surrogates:</b>   |          |                     |      |       |               |         |         |
| Decachlorobiphenyl   | 75.6     | 5-185               |      | %REC  | 6/4/13        | 82107   | MNN     |
| TCMX   | 31.9     | 5-130               |      | %REC  | 6/4/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> Method: SW8082 / SW3510C |          |                     |      |       |               |         |         |
| Aroclor 1016   | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108   | NCH     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-06

**Client Sample ID:** AW-3  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|---------------------|------|-------|---------------|-------|---------|
| Aroclor 1221   | < 0.164  | 0.164               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232   | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242   | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248   | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254   | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260   | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total   | < 0.655  | 0.655               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene   | 33.7     | 5-116               |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl   | 76.4     | 40-135              |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |          |                     |      |       |               |       |         |
| Benzo(a)pyrene   | < 1.33   | 1.33                |      | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate   | 0.63     | 1.33                | J    | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| Hexachlorocyclopentadiene  | < 1.33   | 1.33                |      | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| Phenol   | < 0.664  | 0.664               |      | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,6-Tribromophenol   | 38.1     | 40-125              | S    | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| 2-Fluorobiphenyl   | 49.2     | 50-110              | S    | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| 2-Fluorophenol   | 17.8     | 20-110              | S    | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| 4-Terphenyl-d14  | 81.2     | 50-135              |      | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| Nitrobenzene-d5  | 43.3     | 40-110              |      | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| Phenol-d5  | 12.6     | 10-115              |      | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |          |                     |      |       |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.249  | 0.249               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D  | < 0.234  | 0.234               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb  | < 0.220  | 0.220               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol  | < 0.264  | 0.264               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram   | < 0.216  | 0.216               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid   | 59.9     | 17.7-138            |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |          |                     |      |       |               |       |         |
| 1,1,1-Trichloroethane  | < 2.00   | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13050718  
Project: CWLP List G20  
Lab ID: 13050718-06

Client Sample ID: AW-3  
Report Date: 6/27/2013  
Collection Date: 5/23/2013  
Matrix: Groundwater

| Analyses                 | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--------------------------|--------|---------------------|------|-------|---------------|-------|---------|
| 1,1,2-Trichloroethane    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,1-Dichloroethene       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2,4-Trichlorobenzene   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2-Dichloroethane       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2-Dichloropropane      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,4-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Benzene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Carbon tetrachloride     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Chlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Ethylbenzene             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Methyl tert-butyl ether  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Methylene chloride       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Styrene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Tetrachloroethene        | < 5.00 | 5.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Toluene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| trans-1,2-Dichloroethene | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Trichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Vinyl chloride           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Xylenes, Total           | < 6.00 | 6.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| <b>Surrogates:</b>       |        |                     |      |       |               |       |         |
| 1,2-Dichloroethane-d4    | 114    | 70-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| 4-Bromofluorobenzene     | 104    | 75-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| d4-1,2-Dichlorobenzene   | 114    | 80-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| Dibromofluoromethane     | 99.8   | 85-115              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| Fluorobenzene            | 100    | 80-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| Toluene-d8               | 102    | 85-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |

### Radiation Testing

Method: EPA 900/903.1/904/905/906

|            |    |       |       |        |         |     |
|------------|----|-------|-------|--------|---------|-----|
| Radium-226 | ND | -0.08 | pCi/L | 6/7/13 | R187607 | OUT |
| Radium-228 | ND | 0.76  | pCi/L | 6/7/13 | R187607 | OUT |

### Qualifiers:

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S - Spike Recovery outside accepted recovery limits  
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J - Analyte detected below quantitation limits

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### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water                      2. Drinking Water                      3. Soil<br>4. Extract                          5. Wastewater                          6. Oil<br>7. Sludge                            8. Solid                                  9. Air<br>10. Chemical Waste              11. Wipe                                12. Groundwater<br>13. eProduct                      13. Solid                                14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic                          V - VOC Vial                          G - Glass<br>B - Tedlar Bag                      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None                                2. H2SO4                                3. HNO3<br>4. NaOH                                5. HCL                                    6. NaOH<br>7. Zn Ace                                8. Na2S2O3                                9. Na2HSO4<br>10. Other | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="10">Analysis</th> </tr> <tr> <td>1. Endothal</td><td>2. Dalapon</td><td>3. Herbicides</td><td>4. PCBs in Groundwater, Method 8082</td><td>5. Pesticides in Groundwater by Method 8081</td><td>6. Radiation Testing, Subcontracted</td><td>7. Semivolatile Organic Compounds by GCMS</td><td>8. Solids, Total Dissolved (TDS)</td><td>9. pH, Field tested</td><td>10. Anions by Ion Chromatography</td> </tr> </table> | Analysis                            |   |                                     |   |                                  |                     |                                  |  |  |  | 1. Endothal | 2. Dalapon | 3. Herbicides | 4. PCBs in Groundwater, Method 8082 | 5. Pesticides in Groundwater by Method 8081 | 6. Radiation Testing, Subcontracted | 7. Semivolatile Organic Compounds by GCMS | 8. Solids, Total Dissolved (TDS) | 9. pH, Field tested | 10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13050218 |
|---|---|---|-------------------------------------|---|-------------------------------------|---|----------------------------------|---------------------|----------------------------------|--|--|--|-------------|------------|---------------|-------------------------------------|---|-------------------------------------|---|----------------------------------|---------------------|----------------------------------|--|
| Analysis  |   |   |                                     |   |                                     |   |                                  |                     |                                  |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |  |
| 1. Endothal   | 2. Dalapon  | 3. Herbicides   | 4. PCBs in Groundwater, Method 8082 | 5. Pesticides in Groundwater by Method 8081 | 6. Radiation Testing, Subcontracted | 7. Semivolatile Organic Compounds by GCMS | 8. Solids, Total Dissolved (TDS) | 9. pH, Field tested | 10. Anions by Ion Chromatography |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |  |

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |       |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |  |  |     |  |
|-------------|-------------|-----------|------|-----|----------|---------|-------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|--|--|-----|--|
|             |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |  |  |     |  |
| AP-1        | GRAB        | 1 liter   | G    | 10  | KE       | 5/22/13 | 12:10 | 6.95 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  |  |  |  |  | O1A |  |
| AP-1        | GRAB        | 1 liter   | P    | 1   | ↓        | ↓       | ↓     | ↓    | 1            |     |          |   |   |   |   |   |   | X | X | X  |                 |  |  |  |  |  | O1B |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |

|                  |                      |              |                      |  |   |
|------------------|----------------------|--------------|----------------------|--|---|
| Relinquished By: | Date: <u>5-22-13</u> | Received By: | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br><br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: | Date: <u>5-22-13</u> | Received By: | Date: <u>5-22-13</u> |  |   |
| Relinquished By: | Date: <u>- -</u>     | Received By: | Date: <u>5-22-13</u> |  |   |
|                  | Time: <u>13:30</u>   |              | Time: <u>13:30</u>   |  |   |
|                  | Time: <u>16:30</u>   |              | Time: <u>16:30</u>   |  |   |
|                  | Time: <u>: :</u>     |              | Time: <u>16:30</u>   |  |   |

SPECIAL INSTRUCTIONS: pH 7.00 = 7.00 @ 68.3°  
Time: 08:32

JP



**Chain of Custody Record**

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |   |  |  |
|---|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water                      2. Drinking Water                      3. Soil<br>4. Extract                              5. Wastewater                              6. Oil<br>7. Sludge                                  8. Solid                                      9. Air<br>10. Chemical Waste                      11. Wipe                                      12. Groundwater<br>13. eProduct                              13. Solid                                      14. Groundwater(Filter)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic                              V - VOC Vial                              G - Glass<br>B - Tedlar Bag                              O - Other<br><b>PRESERVATIVE:</b><br>1. None                                      2. H2SO4                                      3. HNO3<br>4. NaOH                                      5. HCL    6. MeOH<br>7. Zn Ace                                      8. Na2S2O3                                      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbarnates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13050718 |
|---|---|--|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |       | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |     |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|-------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|-----|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH    | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |     |     |
| AP-1        | GRAB        | 12        | 4 oz   | G   | 1        | AE   | 5/22/13 | 12:10 | 6.25         | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  |  | OIC |     |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓     | ↓            | 4   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  |  |     | OIE |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓     | ↓            | 3   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  |  |     | OIE |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 3        | ↓    | ↓       | ↓     | ↓            | 5   |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  |  |     | OIF |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 2        | ↓    | ↓       | ↓     | ↓            | 1   |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  |  |     | OIG |

|                                      |                      |                                 |                      |   |   |
|--------------------------------------|----------------------|---------------------------------|----------------------|---|---|
| Relinquished By: <u>Austin Green</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 8 hrs. prior to sample receipt) <u>2</u> |
| Relinquished By: <u>[Signature]</u>  | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |   |   |
| Relinquished By: _____               | Date: _____          | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |   |   |

SPECIAL INSTRUCTIONS:

5/17/2013 9:00:41 AM

JP



Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |   |  |   |
|---|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br><u>#13052718</u> |
|---|---|--|---|

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |  |
|-------------|-------------|-----------|---------|-----|----------|------|---------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|--|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |  |
| AP-2        | GRAB        | 12        | 1 liter | G   | 10       | AE   | 5/22/13 | 1120 | 68.3         | 1   |          | X | X | X | X | X | X |   |   |    |                 |  |  |  | 02A |  |
| AP-2        | GRAB        | 12        | 1 liter | P   | 1        | ↓    | ↓       | ↓    | ↓            | 1   |          |   |   |   |   |   |   | X | X | X  |                 |  |  |  | 02B |  |
|             |             |           |         |     |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |

|   |   |  |  |
|---|---|--|--|
| Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>17:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>17:30</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>2</u> |
| Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> |  |  |
| Relinquished By: _____<br>Date: _____<br>Time: _____                              | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:50</u> |  |  |

SPECIAL INSTRUCTIONS: PH 7.00 @ 68.3°C  
Time = 08:32

JP



### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013

Due Date: 06/14/2013

COC # 505052

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

**Company:** City, Water, Light & Power  
**Contact:**  
**Address:** 201 East Lake Shore Drive  
Springfield, IL 62707  
**Phone:** (217) 757-8610  
**P.O. #:** \_\_\_\_\_ **Proj. #:** \_\_\_\_\_  
**Project /Location:** CWLP List G20

- SAMPLE TYPE:**  
 1. Oil Water  
 2. Drinking Water  
 3. Soil  
 4. Extract  
 5. Wastewater  
 6. Oil  
 7. Sludge  
 8. Solid  
 9. Air  
 10. Chemical Waste  
 11. Wipe  
 12. Groundwater  
 13. eProduct  
 13. Solid  
 14. Groundwater(Filter)  
 15. Other
- CONTAINER TYPE:**  
 P - Plastic  
 V - VOC Vial  
 G - Glass  
 B - Tedlar Bag  
 O - Other
- PRESERVATIVE:**  
 1. None  
 2. H2SO4  
 3. HNO3  
 4. NaOH  
 5. HCL  
 6. MeOH  
 7. Zn Ace  
 8. Na2S2O3  
 9. Na2HSO4  
 10. Other

- Analysis**
- Carbamates
  - Cyanide, Total
  - Total RCRA Metals on a Liquid Sample
  - Volatile Organic Compounds, Method 8260
  - EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

**EMT WORKORDER**  
 #13055715

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |         |       |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |  |  |     |
|-------------|-------------|----------------|----------------|---------------|----------|---------|-------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|--|--|-----|
|             |             |                |                |               | By       | Date    | Time  | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |  |  |     |
| AP-2        | GRAB        | 4 oz           | G              | 1             | KE       | 5/22/13 | 11:20 | 6.95 | 8            |     |          | X |   |   |   |   |   |   |   |    |                 |  |  |  |  |  | C2C |
| AP-2        | GRAB        | 500 ml         | P              | 1             |          |         |       |      | 4            |     |          |   | X |   |   |   |   |   |   |    |                 |  |  |  |  |  | C2D |
| AP-2        | GRAB        | 500 ml         | P              | 1             |          |         |       |      | 3            |     |          |   |   | X |   |   |   |   |   |    |                 |  |  |  |  |  | C2B |
| AP-2        | GRAB        | 44 ml          | V              | 3             |          |         |       |      | 5            |     |          |   |   |   | X |   |   |   |   |    |                 |  |  |  |  |  | C2F |
| AP-2        | GRAB        | 44 ml          | V              | 2             |          |         |       |      | 1            |     |          |   |   |   |   | X |   |   |   |    |                 |  |  |  |  |  | C2G |

|                                   |               |                              |               |  |  |
|-----------------------------------|---------------|------------------------------|---------------|--|--|
| Relinquished By: <i>Austin...</i> | Date: 5-22-13 | Received By: <i>Emily...</i> | Date: 5-22-13 | <b>EMT USE ONLY</b><br>Client ID: <b>SPRING</b><br>Client Contact: <b>Joe Pavilonis</b><br>EMT Project ID: <b>CWLP List G20</b><br>Jar Lot No. _____ | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <b>2</b> |
| Relinquished By: <i>Emily...</i>  | Date: 5-22-13 | Received By: <i>Joe...</i>   | Date: 5-22-13 |  |  |
| Relinquished By: _____            | Date: - -     | Received By: <i>Sever...</i> | Date: 5-22-13 |  |  |
|                                   | Time: 13:30   | Time: 17:30                  | Time: 16:30   |  |  |
|                                   | Time: 16:30   | Time: 16:30                  | Time: 16:30   |  |  |
|                                   | Time: : :     | Time: 16:30                  | Time: 16:30   |  |  |



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

JP

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |   |  |  |
|---|--|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br># <u>13670718</u> |
|---|--|---|--|--|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |       |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |     |  |
|-------------|-------------|-----------|------|-----|----------|---------|-------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|-----|--|
|             |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |     |  |
| AP-3        | GRAB        | 1 liter   | G    | 10  | AE       | 5/22/13 | 10:40 | 7.07 | 1            |     | X        | X  | X  | X  | X  | X  |    |    |    |     |                 |  |  |  | 03A |  |
| AP-3        | GRAB        | 1 liter   | P    | 1   | ↓        | ↓       | ↓     | 7.07 | 1            |     |          |    |    |    |    |    | X  | X  | X  |     |                 |  |  |  | 03B |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |

|  |                      |                                 |                      |  |   |
|--|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <u>Austin [Signature]</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) |
| Relinquished By: <u>[Signature]</u>        | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |
| Relinquished By: _____                     | Date: _____          | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |

SPECIAL INSTRUCTIONS: PH 7.00 ± 7.00 @ 68.3°  
TIME = 0832



JP



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

Company: City, Water, Light & Power

Contact:

Address: 201 East Lake Shore Drive  
Springfield, IL 62707

Phone: (217) 757-8610

P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_

Project /Location: CWLP List G20

**SAMPLE TYPE:**  
1. Oil Water      2. Drinking Water      3. Soil  
4. Extract      5. Wastewater      6. Oil  
7. Sludge      8. Sand      9. Air  
10. Chemical Waste      11. Wipe      12. Groundwater  
13. eProduct      13. Solid      14. Groundwater(Filter)  
15. Other

**CONTAINER TYPE:**  
P - Plastic      V - VGC Vial      G - Glass  
B - Teflon Bag      O - Other

**PRESERVATIVE:**  
1. None      2. H2SO4      3. HNO3  
4. NaOH      6. HCL      6. MeOH  
7. Zn Ac      8. Na2S2O3      9. NaHSO4  
10. Other

**Analysis**

- Carbamates
- Cyanide, Total
- Total RCRA Metals on a Liquid Sample
- Volatile Organic Compounds, Method 8260
- EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

**EMT WORKORDER**  
# 1305076

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |       |      |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |     |     |
|-------------|-------------|-----------|------|-----|----------|---------|-------|------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|-----|-----|
|             |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |     |     |
| AP-3        | GRAB        | 4 oz      | G    | 1   | AE       | 5/22/13 | 10:40 | 7.07 | 8     |              | X  |          |    |    |    |    |    |    |    |     |  |                 |  |  |  | O3C |     |
| AP-3        | GRAB        | 500 ml    | P    | 1   |          |         |       |      | 4     |              |    | X        |    |    |    |    |    |    |    |     |  |                 |  |  |  |     | O3D |
| AP-3        | GRAB        | 500 ml    | P    | 1   |          |         |       |      | 3     |              |    |          | X  |    |    |    |    |    |    |     |  |                 |  |  |  |     | O3E |
| AP-3        | GRAB        | 44 ml     | V    | 3   |          |         |       |      | 5     |              |    |          |    | X  |    |    |    |    |    |     |  |                 |  |  |  |     | O3F |
| AP-3        | GRAB        | 44 ml     | V    | 2   |          |         |       |      | 1     |              |    |          |    |    | X  |    |    |    |    |     |  |                 |  |  |  |     | O3G |

|                                      |                      |                                 |                      |  |   |
|--------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <u>Austin Green</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>2</u> |
| Relinquished By: <u>[Signature]</u>  | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |
| Relinquished By: <u>[Signature]</u>  | Date: <u>- -</u>     | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |

SPECIAL INSTRUCTIONS:

5/17/2013 9:00:45 AM

JP



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |   |  |  |
|---|--|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13050718 |
|---|--|---|--|--|

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |       | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |     |  |  |
|-------------|-------------|-----------|---------|-----|----------|------|---------|-------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|-----|--|--|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH    | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |     |  |  |
| AP-4        | GRAB        | 12        | 1 liter | G   | 10       | AE   | 5/22/13 | 10:00 | 7.23         | 1   |          | X  | X  | X  | X  | X  | X  |    |    |     |                 |  |  |  | 07A |  |  |
| AP-4        | GRAB        | 12        | 1 liter | P   | 1        | ↓    | ↓       | ↓     | ↓            | 1   |          |    |    |    |    |    |    | X  | X  | X   |                 |  |  |  | 07B |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |  |

|                                     |               |                                 |               |  |   |
|-------------------------------------|---------------|---------------------------------|---------------|--|---|
| Relinquished By: <i>[Signature]</i> | Date: 5-22-13 | Received By: <i>[Signature]</i> | Date: 5-22-13 | <b>EMT USE ONLY</b><br>ClientID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 8 hrs prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: 5-22-13 | Received By: <i>[Signature]</i> | Date: 5-22-13 |  |   |
| Relinquished By: <i>[Signature]</i> | Date: - -     | Received By: <i>[Signature]</i> | Date: 5-22-13 |  |   |

SPECIAL INSTRUCTIONS: pH cal 7.00 → 7.00 @ 68.35"  
TIME = 18:32

JP



Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

Company: City, Water, Light & Power  
 Contact:  
 Address: 201 East Lake Shore Drive  
Springfield, IL 62707  
 Phone: (217) 757-8610  
 P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_  
 Project /Location: CWLP List G20

SAMPLE TYPE:  
 1. DI Water 2. Drinking Water 3. Soil  
 4. Extract 5. Wastewater 6. Oil  
 7. Sludge 8. Solid 9. Air  
 10. Chemical Waste 11. Wipe 12. Groundwater  
 13. eProduct 13. Solid 14. Groundwater(Filler)  
 15. Other

CONTAINER TYPE:  
 P - Plastic V - VOC Vial G - Glass  
 B - Tedlar Bag O - Other

PRESERVATIVE:  
 1. None 2. H2SO4 3. HNO3  
 4. NaOH 5. HCL 6. MeOH  
 7. Zn Ace 8. Na2S2O3 9. Na2HSO4  
 10. Other

**Analysis**

1. Carbamates  
 2. Cyanide, Total  
 3. Total RCRA Metals on a Liquid Sample  
 4. Volatile Organic Compounds, Method 8260  
 5. EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

EMT WORKORDER #13050718

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |       |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |     |
|-------------|-------------|-----------|------|-----|----------|---------|-------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|-----|
|             |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |     |
| AP-4        | GRAB        | 4 oz      | G    | 1   | AE       | 5/22/13 | 10:00 | 7.23 | 8            |     | X        |    |    |    |    |    |    |    |    |     |                 |  | 04C |
| AP-4        | GRAB        | 500 ml    | P    | 1   |          |         |       |      | 4            |     |          | X  |    |    |    |    |    |    |    |     |                 |  | 04D |
| AP-4        | GRAB        | 500 ml    | P    | 1   |          |         |       |      | 3            |     |          |    | X  |    |    |    |    |    |    |     |                 |  | 04E |
| AP-4        | GRAB        | 44 ml     | V    | 3   |          |         |       |      | 5            |     |          |    |    | X  |    |    |    |    |    |     |                 |  | 04F |
| AP-4        | GRAB        | 44 ml     | V    | 2   |          |         |       |      | 1            |     |          |    |    |    | X  |    |    |    |    |     |                 |  | 04G |

|                                     |                      |                                   |                      |  |  |
|-------------------------------------|----------------------|-----------------------------------|----------------------|--|--|
| Relinquished By: <u>Austin Owen</u> | Date: <u>5-22-13</u> | Received By: <u>E. Davis</u>      | Date: <u>5-22-13</u> | <p><b>EMT USE ONLY</b></p> <p>Client ID: <u>SPRING</u><br/>                 Client Contact: <u>Joe Pavlonis</u><br/>                 EMT Project ID: <u>CWLP List G20</u><br/>                 Jar Lot No. _____</p> | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>2</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u>   | Date: <u>5-22-13</u> |  |  |
| Relinquished By: _____              | Date: _____          | Received By: <u>Sarah Stender</u> | Date: <u>5-22-13</u> |  |  |

SPECIAL INSTRUCTIONS:

5/17/2013 9:00:46 AM



JP



Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |  |   |
|---|--|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#1305078 |
|   | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other  |  |   |
| <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |  |  |   |

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |     |  |
|-------------|-------------|-----------|---------|-----|----------|------|---------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|-----|--|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |     |  |
| AP-5        | GRAB        | 12        | 1 liter | G   | 10       | KE   | 5/22/13 | 0900 | 7.46         | 1   |          | X  | X  | X  | X  | X  | X  |    |    |     |                 |  |  |  |  | 05A |  |
| AP-5        | GRAB        | 12        | 1 liter | P   | 1        | KE   | 5/22/13 | 0900 | 7.46         | 1   |          |    |    |    |    |    |    | X  | X  | X   |                 |  |  |  |  | 05B |  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |     |  |

|                                     |                      |                                 |                      |  |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <u>Austin</u>      | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>2</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |
| Relinquished By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |

SPECIAL INSTRUCTIONS: ph cal 7.00 = 7.00 @ 68.35°  
Time = 08:32

JP



Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DLWater      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13050718 |
|   | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other   |   |  |
|   | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |   |  |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |      |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|------|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |      |
| AP-5        | GRAB        | 12        | 4 oz   | G   | 1        | AE   | 5/22/13 | 0900 | 7.46         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  | 65 C |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 4   |          |   | X |   |   |   |   |   |   |    |                 |  |  | 65 D |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 3   |          |   |   | X |   |   |   |   |   |    |                 |  |  | 65 E |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 3        |      |         |      |              | 5   |          |   |   | X |   |   |   |   |   |    |                 |  |  | 65 F |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 2        |      |         |      |              | 1   |          |   |   |   | X |   |   |   |   |    |                 |  |  | 65 G |

|  |   |   |   |  |  |
|--|---|---|---|--|--|
| Relinquished By: <u>Austin Green</u><br>Date: <u>5-22-13</u><br>Time: <u>13:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>15:30</u> | Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>2</u> |
| Relinquished By:<br>Date:<br>Time:   | Received By:<br>Date: <u>5-22-13</u><br>Time: <u>16:58</u>                    |   |   |  |  |

SPECIAL INSTRUCTIONS:

JP



### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |   |  |   |
|---|--|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#1305076 |
|---|--|---|--|---|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |      |         |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |  |  |  |  |     |  |
|-------------|-------------|----------------|----------------|---------------|----------|------|---------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|--|--|--|--|-----|--|
|             |             |                |                |               | By       | Date | Time    | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |  |  |  |  |     |  |
| AW-3        | GRAB        | 12             | 1 liter        | G             | 10       | JD   | 5/22/13 | 1110 | 7.63         | 1   |          | X | X | X | X | X | X |   |   |    |                 |  |  |  |  |  |  |  | 06A |  |
| AW-3        | GRAB        | 12             | 1 liter        | P             | 1        | JD   | 5/22/13 | 1110 | 7.63         | 1   |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  | 06B |  |
|             |             |                |                |               |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  |     |  |
|             |             |                |                |               |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  |     |  |
|             |             |                |                |               |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  |     |  |
|             |             |                |                |               |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  |     |  |
|             |             |                |                |               |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  |     |  |
|             |             |                |                |               |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  |     |  |
|             |             |                |                |               |          |      |         |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |  |  |     |  |

|                                     |                      |                                 |                      |   |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|---|---|
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <b>SPRING</b><br>Client Contact: <b>Joe Pavlonis</b><br>EMT Project ID: <b>CWLP List G20</b><br>Jar Lot No. | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <u>5-22-13</u> | Received By: <i>[Signature]</i> | Date: <u>5-22-13</u> |   |   |
| Relinquished By:                    | Date: - -            | Received By:                    | Date: <u>5-22-13</u> |   |   |
|                                     | Time: : :            |                                 | Time: : :            |   |   |
|                                     | Time: <u>6:30</u> :  |                                 | Time: <u>6:30</u> :  |   |   |
|                                     | Time: : :            |                                 | Time: <u>16:30</u> : |   |   |

JP



**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 05/17/2013

Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |   |  |  |   |  |  |  |  |  |  |  |  |  |   |  |
|---|--|---|--|--|---|--|--|--|--|--|--|--|--|--|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. Oil Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other |  |  | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds: Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD |  |  |  |  |  |  |  |  |  | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br># <u>136 57711</u> |  |
| <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other   |  |   | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other |  |   |  |  |  |  |  |  |  |  |  |   |  |

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |         |      |      |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|----------------|----------------|---------------|----------|---------|------|------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|-----|
|             |             |                |                |               | By       | Date    | Time | pH   | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |     |
| AW-3        | GRAB        | 4 oz           | G              | 1             | SP       | 5/22/13 | 1110 | 7.63 | 8     |              | X |          |   |   |   |   |   |   |   |    |  |                 |  |  |  | 01C |
| AW-3        | GRAB        | 500 ml         | P              | 1             | SP       | 5/22/13 | 1110 | 7.63 | 4     |              |   | X        |   |   |   |   |   |   |   |    |  |                 |  |  |  | 01D |
| AW-3        | GRAB        | 500 ml         | P              | 1             | SP       | 5/22/13 | 1110 | 7.63 | 3     |              |   |          | X |   |   |   |   |   |   |    |  |                 |  |  |  | 01E |
| AW-3        | GRAB        | 44 ml          | V              | 3             | SP       | 5/22/13 | 1110 | 7.63 | 5     |              |   |          |   | X |   |   |   |   |   |    |  |                 |  |  |  | 01F |
| AW-3        | GRAB        | 44 ml          | V              | 2             | SP       | 5/22/13 | 1110 | 7.63 | 1     |              |   |          |   |   | X |   |   |   |   |    |  |                 |  |  |  | 01G |

|                                     |                      |                                 |                      |  |  |  |  |  |                    |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|--|--|--|--|--------------------|
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u> |  |  |  | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) <u>2</u> |                    |
| Relinquished By: <i>[Signature]</i> | Date: <u>5-22-13</u> | Received By: <i>[Signature]</i> | Date: <u>5-22-13</u> |  |  |  |  | Time: <u>16:30</u>   | Time: <u>16:30</u> |
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            | Jar Lot No.  |  |  |  |  |                    |
| Time: : :                           | Time: : :            | Time: : :                       | Time: : :            |  |  |  |  |  |                    |

SPECIAL INSTRUCTIONS:

*ph: 7.00 => 7.01 @ 0845*

5/17/2013 9:00:51 AM



OFFICE OF PUBLIC UTILITIES  
CITY OF SPRINGFIELD, ILLINOIS

J. MICHAEL HOUSTON, MAYOR

ENVIRONMENTAL HEALTH & SAFETY



October 31, 2013

Illinois Environmental Protection Agency  
Division of Water – Groundwater Section  
Attn: Carl Kamp, P.G.  
1021 N. Grand Ave. East  
PO Box 19276  
Springfield, IL 62794-9276

Dear Mr. Kamp:

Please find enclosed City Water, Light & Power's (CWLP) groundwater monitoring results for the third quarter of 2013. Please note that this data has not been evaluated by our consultant.

On June 21, 2013, CWLP submitted the 2012 data with a request to continue collecting groundwater data through 2013 to allow for groundwater quality to stabilize in AP-5, our upgradient well. These background concentrations continue to appear to show decreasing trends during these sampling events.

CWLP still requests to continue sampling through 2013 to obtain data representation of background conditions. Once statistically valid data has been collected, revised background concentrations will be submitted to the Illinois Environmental Protection Agency.

If you should have any questions or require any further information, please feel free to contact Sue Corcoran, of my staff, or myself at (217) 757-8610.

Sincerely,

P.J. Becker  
Environmental Health & Safety Manager

PJB/SC/gj

Cy: Christine Zeman (CWLP)

**RECEIVED**

NOV 1 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

October 09, 2013

RE CWLP List G20

Lab Orders:  
13080822

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

This Report Contains 40 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

environmental laboratory and testing services  
| water | soil | air | product | waste |



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CLIENT: City, Water, Light & Power

Date: 10/9/2013

Project: CWLP List G20

## CASE NARRATIVE

Lab Order: 13080822

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

environmental laboratory and testing services

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CLIENT: City, Water, Light & Power

Date: 10/9/2013

Project: CWLP List G20

## CASE NARRATIVE

Lab Order: 13080822

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCS-84491: The Se recovery in the standard level LCS was below the lab control limits and within limits for the low level LCS.

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCSLLMS-84491: The Zn recovery in the low level LCS was above the lab control limits and within limits for the standard level LCS.

Analytical Comments for METHOD 8270\_wnew, 13080822-02A, 03A, 06A: Surrogate recoveries were below the limits.

Analytical Comments for METHOD RADIATION, 13080822-01A, 02A, 03A, 04A, 05A, 06A: The Radium-226/228 analysis by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.

### Sampling comments:

- 13080822-01B - Sample was obtained at 10:10am on September 16th, 2013.
- 13080822-02B - Sample was obtained at 9:40am on September 16th, 2013.
- 13080822-03B - Sample was obtained at 9:15am on September 16th, 2013.
- 13080822-04B - Sample was obtained at 8:55am on September 16th, 2013.
- 13080822-05B - Sample was obtained at 8:25am on September 16th, 2013.





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## Report of Laboratory Analysis

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-1                 |
| <b>Lab Order:</b> 13080822                | <b>Report Date:</b> 10/9/2013                 |
| <b>Project:</b> CWLP List G20             | <b>Collection Date:</b> 8/28/2013 12:55:00 PM |
| <b>Lab ID:</b> 13080822-01                | <b>Matrix:</b> Groundwater                    |

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |               |         |         |
| pH   | 7.13       |                     | pH units | 8/25/13 12:55 | R191114 | DD1     |
| <b>Method: SM4500-H</b>                      |            |                     |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |               |         |         |
| Chloride                                     | 45.9       | 2.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 597        | 50.0                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 9/5/13 12:09  | 84478   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1,380      | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Method: SM2540C</b>                       |            |                     |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |          |               |         |         |
| <b>Method: SW6020A / SW3015</b>              |            |                     |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.639      | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 14.7       | 0.200               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | < 0.0100   | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | < 0.00750  | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 25.8       | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 0.447      | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | < 0.00750  | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | 0.00274    | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank      S - Spike Recovery outside accepted recovery limits  
 E - Estimated      R - RPD outside accepted recovery limits  
 H - Holding Time Exceeded      J - Analyte detected below quantitation limits  
 C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 12:55:00 PM  
Lab ID: 13080822-01 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0402 | 0.0402                           | C µg/L | 9/6/13 12:15  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0563 | 0.0563                           | C µg/L | 9/6/13 12:15  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/6/13 19:33  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/7/13 22:55  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.132  | 0.132                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Atrazine                                | < 0.165  | 0.165                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Chlordane                               | < 0.198  | 0.198                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Endrin                                  | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Heptachlor                              | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Methoxychlor                            | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Simazine                                | < 0.165  | 0.165                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Toxaphene                               | < 0.396  | 0.396                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.165  | 0.165                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.660  | 0.660                            | µg/L   | 9/3/13        | 84400   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 12:55:00 PM  
Lab ID: 13080822-01 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| Phenol                                       | < 0.666 | 0.666                            | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.250 | 0.250                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.235 | 0.235                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.220 | 0.220                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.265 | 0.265                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.217 | 0.217                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |

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H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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**Report of Laboratory Analysis**

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-1                 |
| <b>Lab Order:</b> 13080822                | <b>Report Date:</b> 10/9/2013                 |
| <b>Project:</b> CWLP List G20             | <b>Collection Date:</b> 8/28/2013 12:55:00 PM |
| <b>Lab ID:</b> 13080822-01                | <b>Matrix:</b> Groundwater                    |

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 00:32  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 0.94    | 0.2                                      | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | 0.64    | 0.52                                     | pCi/L | 9/23/13       | R192426 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
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| E - Estimated                                       | R - RPD outside accepted recovery limits            |
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 12:10:00 PM  
**Lab ID:** 13080822-02 **Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |               |         |         |
| pH   | 6.94       |                     | pH units | 8/25/13 12:10 | R191114 | DD1     |
| <b>Method: SM4500-H</b>                      |            |                     |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |               |         |         |
| Chloride                                     | 18.9       | 2.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | 0.523      | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.534      | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 280        | 5.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 9/5/13 12:09  | 84478   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1,000      | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Method: SM2540C</b>                       |            |                     |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |          |               |         |         |
| <b>Method: SW6020A / SW3015</b>              |            |                     |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | 0.0224     | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.282      | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 5.46       | 0.0200              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | 0.0180     | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | 0.0141     | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 25.1       | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | 0.0104     | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 20.4       | 0.100               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | 0.0188     | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 12:10:00 PM  
Lab ID: 13080822-02 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0397 | 0.0397                           | C µg/L | 9/6/13 12:46  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0555 | 0.0555                           | C µg/L | 9/6/13 12:46  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/6/13 20:17  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/7/13 23:38  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Alrazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Endrin                                  | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Heptachlor                              | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Methoxychlor                            | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Toxaphene                               | < 0.398  | 0.398                            | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0828 | 0.0828                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.166  | 0.166                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0828 | 0.0828                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0828 | 0.0828                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0828 | 0.0828                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0828 | 0.0828                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0828 | 0.0828                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.663  | 0.663                            | µg/L   | 9/3/13        | 84400   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 12:10:00 PM  
Lab ID: 13080822-02 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.32  | 1.32                             | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.32  | 1.32                             | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.32  | 1.32                             | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| Phenol                                       | < 0.662 | 0.662                            | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.249 | 0.249                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.234 | 0.234                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.219 | 0.219                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.264 | 0.264                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.215 | 0.215                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,1-Dichloroethane                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 12:10:00 PM  
**Lab ID:** 13080822-02 **Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 01:02  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 0.66    | 0.26                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | ND      | 0.63                                     | pCi/L | 9/23/13       | R192426 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 11:10:00 AM  
Lab ID: 13080822-03 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |               |         |         |
| pH   | 6.98       |                     | pH units | 8/25/13 11:10 | R191114 | DD1     |
| <b>Method: SM4500-H</b>                      |            |                     |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |               |         |         |
| Chloride                                     | 43.4       | 2.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 353        | 50.0                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 9/5/13 12:09  | 84478   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 992        | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Method: SM2540C</b>                       |            |                     |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.125      | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 21.3       | 0.200               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | < 0.0100   | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | < 0.00750  | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 12.2       | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 7.61       | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | 0.00833    | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 11:10:00 AM  
Lab ID: 13080822-03 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0394 | 0.0394                           | C µg/L | 9/6/13 13:51  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0552 | 0.0552                           | C µg/L | 9/6/13 13:51  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/6/13 21:01  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/8/13 00:21  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Endrin                                  | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Heptachlor                              | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Methoxychlor                            | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Toxaphene                               | < 0.398  | 0.398                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.166  | 0.166                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.664  | 0.664                            | µg/L   | 9/3/13        | 84400   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 11:10:00 AM  
Lab ID: 13080822-03 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| Phenol                                       | < 0.665 | 0.665                            | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.250 | 0.250                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.235 | 0.235                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.220 | 0.220                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.265 | 0.265                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.216 | 0.216                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 11:10:00 AM  
**Lab ID:** 13080822-03 **Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 01:32  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND      | 0.32                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | ND      | 0.66                                     | pCi/L | 9/23/13       | R192426 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 10:30:00 AM  
**Lab ID:** 13080822-04 **Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |               |         |         |
| pH   | 7.04       |                     | pH units | 8/25/13 10:30 | R191114 | DD1     |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |               |         |         |
| Chloride                                     | 10.7       | 2.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | < 5.00     | 5.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 9/10/13 11:40 | 84590   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 548        | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Mercury, Total</b>                        |            |                     |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Metals, Total.</b>                        |            |                     |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | 0.0193     | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.385      | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 0.665      | 0.0200              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | < 0.0100   | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | < 0.00750  | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 12.8       | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 0.379      | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | < 0.00750  | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 10:30:00 AM  
Lab ID: 13080822-04 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0398 | 0.0398                           | C µg/L | 9/6/13 14:24  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0557 | 0.0557                           | C µg/L | 9/6/13 14:24  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/6/13 21:45  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/7/13 20:45  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Endrin                                  | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Heptachlor                              | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Methoxychlor                            | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Toxaphene                               | < 0.398  | 0.398                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.166  | 0.166                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.664  | 0.664                            | µg/L   | 9/3/13        | 84400   | NCH     |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 10:30:00 AM  
Lab ID: 13080822-04 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| Phenol                                       | < 0.667 | 0.667                            | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.247 | 0.247                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.232 | 0.232                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.218 | 0.218                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.262 | 0.262                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.214 | 0.214                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 10:30:00 AM  
**Lab ID:** 13080822-04 **Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 02:02  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND      | 0.57                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | ND      | 1.4                                      | pCi/L | 9/23/13       | R192426 | OUT     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 9:40:00 AM  
**Lab ID:** 13080822-05 **Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            | <b>Method:</b> SM4500-H                 |          |               |         |         |
| pH   | 7.15       |   | pH units | 8/25/13 09:40 | R191114 | DD1     |
| <b>Anions by Ion Chromatography</b>          |            | <b>Method:</b> SW9056                   |          |               |         |         |
| Chloride                                     | 1.95       | 0.200                                   | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500                                   | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | 1.03       | 0.500                                   | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 66.8       | 5.00                                    | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Cyanide, Total</b>                        |            | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100                                  | mg/L     | 9/10/13 11:40 | 84590   | JZ1     |
| <b>Total Dissolved Solids</b>                |            | <b>Method:</b> SM2540C                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 428        | 10.0                                    | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Mercury, Total</b>                        |            | <b>Method:</b> SW7470A / HG PREP        |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500                                | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Metals, Total.</b>                        |            | <b>Method:</b> SW6020A / SW3015         |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | < 0.0150   | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.228      | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 0.0954     | 0.0200                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | 0.0431     | 0.0100                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | 0.0223     | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | 0.0341     | 0.00750                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 49.4       | 0.140                                   | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | 0.0312     | 0.00500                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 1.05       | 0.0100                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | 0.0566     | 0.00750                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | 0.00523    | 0.00250                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 9:40:00 AM  
Lab ID: 13080822-05 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | 0.109    | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0397 | 0.0397                           | C µg/L | 9/6/13 14:55  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0555 | 0.0555                           | C µg/L | 9/6/13 14:55  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/7/13 00:40  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/8/13 01:04  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.132  | 0.132                            | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Atrazine                                | < 0.164  | 0.164                            | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Chlordane                               | < 0.197  | 0.197                            | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Endrin                                  | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Heptachlor                              | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Methoxychlor                            | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Simazine                                | < 0.164  | 0.164                            | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Toxaphene                               | < 0.395  | 0.395                            | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0822 | 0.0822                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.164  | 0.164                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0822 | 0.0822                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0822 | 0.0822                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0822 | 0.0822                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0822 | 0.0822                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0822 | 0.0822                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.658  | 0.658                            | µg/L   | 9/3/13        | 84400   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 9:40:00 AM  
Lab ID: 13080822-05 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| Phenol                                       | < 0.664 | 0.664                            | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.248 | 0.248                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.233 | 0.233                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.218 | 0.218                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.263 | 0.263                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.215 | 0.215                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power      **Client Sample ID:** AP-5  
**Lab Order:** 13080822      **Report Date:** 10/9/2013  
**Project:** CWLP List G20      **Collection Date:** 8/28/2013 9:40:00 AM  
**Lab ID:** 13080822-05      **Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 02:32  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.      | 0.3                                      | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | 0.81    | 0.52                                     | pCi/L | 9/23/13       | R192426 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank      S - Spike Recovery outside accepted recovery limits  
E - Estimated      R - RPD outside accepted recovery limits  
H - Holding Time Exceeded      J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 1:45:00 PM  
Lab ID: 13080822-06 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            | <b>Method: SM4500-H</b>                 |          |               |         |         |
| pH   | 7.30       |   | pH units | 8/25/13 13:45 | R191114 | DD1     |
| <b>Anions by Ion Chromatography</b>          |            | <b>Method: SW9056</b>                   |          |               |         |         |
| Chloride                                     | 27.8       | 2.00                                    | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500                                   | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.551      | 0.500                                   | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 25.8       | 5.00                                    | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Cyanide, Total</b>                        |            | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100                                  | mg/L     | 9/10/13 11:40 | 84590   | JZ1     |
| <b>Total Dissolved Solids</b>                |            | <b>Method: SM2540C</b>                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 652        | 10.0                                    | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Mercury, Total</b>                        |            | <b>Method: SW7470A / HG PREP</b>        |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500                                | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Metals, Total.</b>                        |            | <b>Method: SW6020A / SW3015</b>         |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | < 0.0150   | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.0843     | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 0.187      | 0.0200                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | < 0.0100   | 0.0100                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | < 0.00750  | 0.00750                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 1.08       | 0.140                                   | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | < 0.00500  | 0.00500                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 0.0460     | 0.0100                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | < 0.00750  | 0.00750                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 1:45:00 PM  
Lab ID: 13080822-06 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0395 | 0.0395                           | C µg/L | 9/6/13 15:26  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0554 | 0.0554                           | C µg/L | 9/6/13 15:26  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/7/13 01:24  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/8/13 01:47  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Endrin                                  | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Heptachlor                              | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Methoxychlor                            | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Toxaphene                               | < 0.399  | 0.399                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.166  | 0.166                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.665  | 0.665                            | µg/L   | 9/3/13        | 84400   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 1:45:00 PM  
Lab ID: 13080822-06 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 1.33  | 1.33                | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| Hexachlorocyclopentadiene  | < 1.33  | 1.33                | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| Phenol   | < 0.666 | 0.666               | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.249 | 0.249               | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.234 | 0.234               | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb  | < 0.219 | 0.219               | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol  | < 0.263 | 0.263               | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram   | < 0.215 | 0.215               | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,1,2-Trichloroethane  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,1-Dichloroethane   | < 0.800 | 0.800               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2,4-Trichlorobenzene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2-Dichlorobenzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2-Dichloroethane   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2-Dichloropropane  | < 0.800 | 0.800               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,4-Dichlorobenzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Benzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Carbon tetrachloride   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Chlorobenzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| cis-1,2-Dichloroethene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Ethylbenzene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Methyl tert-butyl ether  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Methylene chloride   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Styrene  | < 0.800 | 0.800               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Tetrachloroethene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Toluene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| trans-1,2-Dichloroethene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Trichloroethene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Vinyl chloride   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AW-3  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 1:45:00 PM  
**Lab ID:** 13080822-06 **Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 03:02  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND      | 0.26                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | 0.77    | 0.77                                     | pCi/L | 9/23/13       | R192426 | OUT     |

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**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

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COC # 505103

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Wasta      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br>EMT<br>WORKORDER<br>#13080822 |
|---|---|---|--|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |         |       |     | Preservation |     |    |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |    |
|-------------|-------------|----------------|----------------|---------------|----------|---------|-------|-----|--------------|-----|----|----|----|----|----|----|----|----|----|-----|-----------------|--|--|----|
|             |             |                |                |               | By       | Date    | Time  | pH  | Field        | Lab | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |    |
| AP-1        | GRAB        | 12 4 oz        | G              | 1             | JP       | 8/29/13 | 12:35 | 7.3 | 8            |     |    |    |    |    |    |    |    |    |    |     |                 |  |  | OK |
| AP-1        | GRAB        | 12 500 ml      | P              | 2             |          |         |       |     | 4            |     |    |    |    |    |    |    |    |    |    |     |                 |  |  | D  |
| AP-1        | GRAB        | 12 500 ml      | P              | 1             |          |         |       |     | 3            |     |    |    |    |    |    |    |    |    |    |     |                 |  |  | E  |
| AP-1        | GRAB        | 12 44 ml       | V              | 3             |          |         |       |     | 5            |     |    |    |    |    |    |    |    |    |    |     |                 |  |  | F  |
| AP-1        | GRAB        | 12 44 ml       | V              | 2             |          |         |       |     | 1            |     |    |    |    |    |    |    |    |    |    |     |                 |  |  | VG |

|                  |  |                                 |  |   |   |
|------------------|--|---------------------------------|--|---|---|
| Relinquished By: | Date: <u>8-29-13</u><br>Time: <u>17:00</u> | Received By:                    | Date: - -<br>Time: : :                     | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>3</u> |
| Relinquished By: | Date: - -<br>Time: : :                     | Received By:                    | Date: - -<br>Time: : :                     |   |   |
| Relinquished By: | Date: - -<br>Time: : :                     | Received By: <u>Sandra H...</u> | Date: <u>8/28/13</u><br>Time: <u>17:08</u> |   |   |

SPECIAL INSTRUCTIONS:

*pH 7.00 @ 82.2°F  
Time: 09:15*









**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013

Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |   |   |   |
|---|---|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <p style="text-align: center;"><b>Analysis</b></p> 1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br># <u>1361082</u> |
|---|---|---|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |         |       |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |     |     |
|-------------|-------------|-----------|--------|-----|----------|---------|-------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|-----|-----|
|             |             | Size      | Type   | No. | BZ       | Date    | Time  | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |     |     |
| AP-2        | GRAB        | 12        | 4 oz   | G   | 1        | 8/29/13 | 12:10 | 6.94 | 8            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  | 02C |     |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        |         |       |      | 4            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |     | 02D |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        |         |       |      | 3            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |     | 02E |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 3        |         |       |      | 5            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |     | 02F |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 2        |         |       |      | 1            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |     | 02G |

|                  |                      |                                       |                      |  |  |
|------------------|----------------------|---------------------------------------|----------------------|--|--|
| Relinquished By: | Date: <u>8-29-13</u> | Received By:                          | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <b>SPRING</b><br>Client Contact: <b>Joe Pavilanis</b><br>EMT Project ID: <b>CWLP List G20</b><br>Jar Lot No. | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) <u>3</u> |
| Relinquished By: | Date: - -            | Received By:                          | Date: - -            |  |  |
| Relinquished By: | Date: - -            | Received By: <u>Sarah [Signature]</u> | Date: <u>8-29-13</u> |  |  |
|                  | Time: <u>17:00</u>   |                                       | Time: : :            |  |  |
|                  | Time: : :            |                                       | Time: : :            |  |  |
|                  | Time: : :            |                                       | Time: <u>17:00</u>   |  |  |

SPECIAL INSTRUCTIONS:

8/14/2013 11:19:57 AM







### Chain of Custody Record

Scheduled Sampling Date: 08/14/2013  
 Due Date: 08/30/2013

COC # 505103

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

Company: City, Water, Light & Power  
 Contact:  
 Address: 201 East Lake Shore Drive  
Springfield, IL 62707  
 Phone: (217) 757-8610  
 P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_  
 Project /Location: CWLP List G20

**SAMPLE TYPE:**  
 1. DI Water      2. Drinking Water      3. Soil  
 4. Extract      5. Wastewater      6. Oil  
 7. Sludge      8. Solid      9. Air  
 10. Chemical Waste      11. Wipe      12. Groundwater  
 13. eProduct      13. Solid      14. Groundwater(Filter)  
 15. Other

**CONTAINER TYPE:**  
 P - Plastic      V - VOC Vial      G - Glass  
 B - Tedlar Bag      O - Other

**PRESERVATIVE:**  
 1. None      2. H2SO4      3. HNO3  
 4. NaOH      5. HCL      6. MeOH  
 7. Zn Ace      8. Na2S2O3      9. Na2HSO4  
 10. Other

| Analysis                                    |  |
|---|--|
| 1. Endothal                                 |  |
| 2. Dalapon                                  |  |
| 3. Herbicides                               |  |
| 4. PCBs in Groundwater, Method 8082         |  |
| 5. Pesticides in Groundwater by Method 8081 |  |
| 6. Radiation Testing, Subcontracted         |  |
| 7. Semivolatile Organic Compounds by GCMS   |  |
| 8. Solids, Total Dissolved (TDS)            |  |
| 9. pH, Field tested                         |  |
| 10. Anions by Ion Chromatography            |  |

**EMT USE ONLY**

**EMT WORKORDER**  
 # 13280820

| Sample I.D. | Sample Type | Container |         |     | Sampling |           |                |              |             | Preservation |    |    |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |  |  |            |
|-------------|-------------|-----------|---------|-----|----------|-----------|----------------|--------------|-------------|--------------|----|----|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|--|--|------------|
|             |             | Size      | Type    | No. | By       | Date      | Time           | pH           | Field       | Lab          | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |  |  |            |
| AP-3        | GRAB        | 12        | 1 liter | G   | 10       | <u>JK</u> | <u>8/23/13</u> | <u>11:10</u> | <u>6.95</u> | 1            |    |    | X  | X  | X  | X  | X  |    |    |     |  |                 |  |  |  |  |  | <u>G3A</u> |
| AP-3        | GRAB        | 12        | 1 liter | P   | 1        | <u>JK</u> | <u>8/23/13</u> | <u>11:10</u> | <u>6.95</u> | 1            |    |    |    |    |    |    |    | X  | X  | X   |  |                 |  |  |  |  |  | <u>LB</u>  |
|             |             |           |         |     |          |           |                |              |             |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |            |
|             |             |           |         |     |          |           |                |              |             |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |            |
|             |             |           |         |     |          |           |                |              |             |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |            |
|             |             |           |         |     |          |           |                |              |             |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |            |
|             |             |           |         |     |          |           |                |              |             |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |            |
|             |             |           |         |     |          |           |                |              |             |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |            |

|                                     |                      |                                 |                      |  |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <u>[Signature]</u> | Date: <u>8-29-13</u> | Received By:                    | Date: - -            | <p align="center"><b>EMT USE ONLY</b></p> ClientID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 8 hrs. prior to sample receipt) <u>3</u> |
| Relinquished By: <u>[Signature]</u> | Date: - -            | Received By:                    | Date: - -            |  |   |
| Relinquished By:                    | Date: - -            | Received By: <u>[Signature]</u> | Date: <u>8-29-13</u> |  |   |
|                                     | Time: <u>17:00</u>   |                                 | Time: : :            |  |   |
|                                     | Time: : :            |                                 | Time: : :            |  |   |
|                                     | Time: : :            |                                 | Time: <u>17:00</u>   |  |   |

SPECIAL INSTRUCTIONS:





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

**COC # 505103**

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Teclor Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT<br/>WORKORDER</b><br># <u>13050822</u> |
|---|---|---|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |             |         |       |       | Preservation |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Lab Sample I.D. |     |
|-------------|-------------|-----------|--------|-----|----------|-------------|---------|-------|-------|--------------|--|---|---|---|---|---|---|---|---|---|----|-----------------|-----|
|             |             | Size      | Type   | No. | By       | Date        | Time    | pH    | Field | Lab          |  |   |   |   |   |   |   |   |   |   |    |                 |     |
| AP-3        | GRAB        | 12        | 4 oz   | G   | 1        | [Signature] | 8/28/13 | 11:10 | 6.98  | 8            |  |   |   |   |   |   |   |   |   |   |    |                 | O3C |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | [Signature] |         |       |       | 4            |  |   |   |   |   |   |   |   |   |   |    |                 | D   |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | [Signature] |         |       |       | 3            |  |   |   |   |   |   |   |   |   |   |    |                 | E   |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 3        | [Signature] |         |       |       | 5            |  |   |   |   |   |   |   |   |   |   |    |                 | F   |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 2        | [Signature] |         |       |       | 1            |  |   |   |   |   |   |   |   |   |   |    |                 | G   |

|                              |                      |                                 |                      |                                      |  |
|------------------------------|----------------------|---------------------------------|----------------------|--------------------------------------|--|
| Relinquished By: [Signature] | Date: <u>8-29-13</u> | Received By:                    | Date: - -            | <b>EMT USE ONLY</b>                  | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE                     |
|                              | Time: <u>17:00</u>   |                                 | Time: : :            | Client ID: <b>SPRING</b>             | <input type="checkbox"/> TEMPERATURE   |
| Relinquished By:             | Date: - -            | Received By:                    | Date: - -            | Client Contact: <u>Joe Pavilonis</u> | (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
|                              | Time: : :            |                                 | Time: : :            | EMT Project ID: <u>CWLP List G20</u> |  |
| Relinquished By:             | Date: - -            | Received By: <u>[Signature]</u> | Date: <u>8 29 13</u> | Jar Lot No.                          |  |
|                              | Time: : :            |                                 | Time: <u>17:00</u>   |                                      |  |

**SPECIAL INSTRUCTIONS:**  
*pH 7.00 @ 82.2°F  
Time: 09:15*





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013

Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other |  |  | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography |  |  |  |  |  |  |  |  |  | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13480822 |
| <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tediar Bag      O - Other   |  | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other   |  |  |  |  |  |  |  |  |  |  |  |  |  |

| Sample I.D. | Sample Type | Container |         |     | Sampling |             |             |             |             | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |  |     |  |
|-------------|-------------|-----------|---------|-----|----------|-------------|-------------|-------------|-------------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|--|-----|--|
|             |             | Size      | Type    | No. | By       | Date        | Time        | pH          | Field       | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |  |     |  |
| AP-4        | GRAB        | 12        | 1 liter | G   | 10       | [Signature] | 8/29/13     | 10:30       | 7.04        | 1            |    | X        | X  | X  | X  | X  | X  |    |    |     |  |                 |  |  |  |  | 04A |  |
| AP-4        | GRAB        | 12        | 1 liter | P   | 1        | [Signature] | [Signature] | [Signature] | [Signature] | 1            |    |          |    |    |    |    |    | X  | X  | X   |  |                 |  |  |  |  | 04B |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |
|             |             |           |         |     |          |             |             |             |             |              |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |     |  |

|                              |                      |                          |                      |   |  |
|------------------------------|----------------------|--------------------------|----------------------|---|--|
| Relinquished By: [Signature] | Date: <u>8-28-13</u> | Received By: [Signature] | Date: <u>8-28-13</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: [Signature] | Date: - -            | Received By: [Signature] | Date: - -            |   |  |
| Relinquished By: [Signature] | Date: - -            | Received By: [Signature] | Date: <u>8-28-13</u> |   |  |
|                              | Time: 13:00          |                          | Time: 13:00          |   |  |
|                              | Time: : :            |                          | Time: : :            |   |  |
|                              | Time: : :            |                          | Time: 18:15          |   |  |

SPECIAL INSTRUCTIONS: pH 7.00 = 7.00 @ 82.2°F  
Time = 09:15





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|  |   |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
|--|---|-------------------------|-------------------|---------|------------|---------------|--------|-----------|----------|--------|--------------------|----------|-----------------|--------------|-----------|-------------------------|-----------|--|--|-------------|--------------|-----------|----------------|-----------|--|---------|----------|---------|---------|--------|---------|-----------|------------|------------|-----------|--|--|---|
| <p><b>Company:</b> <u>City, Water, Light &amp; Power</u></p> <p><b>Contact:</b></p> <p><b>Address:</b> <u>201 East Lake Shore Drive</u><br/><u>Springfield, IL 62707</u></p> <p><b>Phone:</b> <u>(217) 757-8610</u></p> <p><b>P.O. #:</b> _____ <b>Proj. #:</b> _____</p> <p><b>Project /Location:</b> <u>CWL P List G20</u></p> | <p><b>SAMPLE TYPE:</b></p> <table style="width:100%;"> <tr> <td>1. DI Water</td> <td>2. Drinking Water</td> <td>3. Soil</td> </tr> <tr> <td>4. Extract</td> <td>5. Wastewater</td> <td>6. Oil</td> </tr> <tr> <td>7. Sludge</td> <td>8. Solid</td> <td>9. Air</td> </tr> <tr> <td>10. Chemical Waste</td> <td>11. Wipe</td> <td>12. Groundwater</td> </tr> <tr> <td>13. eProduct</td> <td>13. Solid</td> <td>14. Groundwater(Filler)</td> </tr> <tr> <td>15. Other</td> <td></td> <td></td> </tr> </table> <p><b>CONTAINER TYPE:</b></p> <table style="width:100%;"> <tr> <td>P - Plastic</td> <td>V - VOC Vial</td> <td>G - Glass</td> </tr> <tr> <td>B - Tedlar Bag</td> <td>O - Other</td> <td></td> </tr> </table> <p><b>PRESERVATIVE:</b></p> <table style="width:100%;"> <tr> <td>1. None</td> <td>2. H2SO4</td> <td>3. HNO3</td> </tr> <tr> <td>4. NaOH</td> <td>5. HCL</td> <td>6. MeOH</td> </tr> <tr> <td>7. Zn Ace</td> <td>8. Na2S2O3</td> <td>9. Na2HSO4</td> </tr> <tr> <td>10. Other</td> <td></td> <td></td> </tr> </table> | 1. DI Water             | 2. Drinking Water | 3. Soil | 4. Extract | 5. Wastewater | 6. Oil | 7. Sludge | 8. Solid | 9. Air | 10. Chemical Waste | 11. Wipe | 12. Groundwater | 13. eProduct | 13. Solid | 14. Groundwater(Filler) | 15. Other |  |  | P - Plastic | V - VOC Vial | G - Glass | B - Tedlar Bag | O - Other |  | 1. None | 2. H2SO4 | 3. HNO3 | 4. NaOH | 5. HCL | 6. MeOH | 7. Zn Ace | 8. Na2S2O3 | 9. Na2HSO4 | 10. Other |  |  | <p style="text-align: center;"><b>Analysis</b></p> <ol style="list-style-type: none"> <li>1. Carbamates</li> <li>2. Cyanide, Total</li> <li>3. Total RCRA Metals on a Liquid Sample</li> <li>4. Volatile Organic Compounds, Method 8260</li> <li>5. EDB, DBCP and 123TCP by GC/ECD</li> </ol> |
| 1. DI Water  | 2. Drinking Water   | 3. Soil                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 4. Extract   | 5. Wastewater   | 6. Oil                  |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 7. Sludge  | 8. Solid  | 9. Air                  |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 10. Chemical Waste   | 11. Wipe  | 12. Groundwater         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 13. eProduct   | 13. Solid   | 14. Groundwater(Filler) |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 15. Other  |   |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| P - Plastic  | V - VOC Vial  | G - Glass               |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| B - Tedlar Bag   | O - Other   |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 1. None  | 2. H2SO4  | 3. HNO3                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 4. NaOH  | 5. HCL  | 6. MeOH                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 7. Zn Ace  | 8. Na2S2O3  | 9. Na2HSO4              |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| 10. Other  |   |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |
| <p><b>EMT USE ONLY</b></p> <p><b>EMT WORKORDER</b></p> <p>#13080820</p>  |   |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |       |       | Preservation |    |    |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |  |  |     |  |
|-------------|-------------|-----------|--------|-----|----------|------|---------|-------|-------|--------------|----|----|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|--|--|-----|--|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH    | Field | Lab          | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |  |  |     |  |
| AP-4        | GRAB        | 12        | 4 oz   | G   | 1        | JK   | 8/28/13 | 10:30 | 7.04  | 8            |    |    | X  |    |    |    |    |    |    |     |  |                 |  |  |  |  |  | 04C |  |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        | JK   |         |       |       | 4            |    |    | X  |    |    |    |    |    |    |     |  |                 |  |  |  |  |  | D   |  |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        | JK   |         |       |       | 3            |    |    | X  |    |    |    |    |    |    |     |  |                 |  |  |  |  |  | E   |  |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 3        | JK   |         |       |       | 5            |    |    | X  |    |    |    |    |    |    |     |  |                 |  |  |  |  |  | F   |  |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 2        | JK   |         |       |       | 1            |    |    | X  |    |    |    |    |    |    |     |  |                 |  |  |  |  |  | G   |  |
|             |             |           |        |     |          |      |         |       |       |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |     |  |
|             |             |           |        |     |          |      |         |       |       |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |     |  |
|             |             |           |        |     |          |      |         |       |       |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |     |  |
|             |             |           |        |     |          |      |         |       |       |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |     |  |
|             |             |           |        |     |          |      |         |       |       |              |    |    |    |    |    |    |    |    |    |     |  |                 |  |  |  |  |  |     |  |

|                        |                      |              |                      |   |   |
|------------------------|----------------------|--------------|----------------------|---|---|
| Relinquished By:       | Date: <u>8-28-13</u> | Received By: | Date: <u>8-28-13</u> | <p><b>EMT USE ONLY</b></p> <p>Client ID: <u>SPRING</u></p> <p>Client Contact: <u>Joe Pavilonis</u></p> <p>EMT Project ID: <u>CWLP List G20</u></p> <p>Jar Lot No. _____</p> | <p><input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE</p> <p><input type="checkbox"/> TEMPERATURE</p> <p>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)</p> |
| Relinquished By:       | Date: - -            | Received By: | Date: - -            |   |   |
| Relinquished By: _____ | Date: - -            | Received By: | Date: <u>8-28-13</u> |   |   |

SPECIAL INSTRUCTIONS:

8/14/2013 11:19:58 AM







**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |   |  |  |
|---|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <p style="text-align: center;"><b>Analysis</b></p> 1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13080822 |
|---|---|--|--|

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |       | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |      |  |
|-------------|-------------|-----------|---------|-----|----------|------|---------|-------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|------|--|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH    | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |      |  |
| AP-5        | GRAB        | 12        | 1 liter | G   | 10       | MC   | 8/28/13 | 09:46 | 7.15         | 1   |          | X | X | X | X | X | X |   |   |    |                 |  |  |  | 05A  |  |
| AP-5        | GRAB        | 12        | 1 liter | P   | 1        | ↓    | ↓       | ↓     | ↓            | 1   |          |   |   |   |   |   |   |   | X | X  |                 |  |  |  | ↓, B |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |      |  |

|                        |                      |                    |                      |   |   |
|------------------------|----------------------|--------------------|----------------------|---|---|
| Relinquished By:       | Date: <u>8-28-13</u> | Received By:       | Date: <u>8-28-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) |
| Relinquished By: _____ | Date: - -            | Received By: _____ | Date: - -            |   |   |
| Relinquished By: _____ | Date: - -            | Received By:       | Date: <u>8-28-13</u> |   |   |

**SPECIAL INSTRUCTIONS:**  
 pH 7.00 = 7.00 @ 82.2°F  
 Time = 09:15





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13080822 |
|---|---|---|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |     |
| AP-5        | GRAB        | 12        | 4 oz   | G   | 1        | UC   | 8/28/13 | 0940 | 7.15         | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | OSC |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓    | ↓            | 4   |          |    | +  |    |    |    |    |    |    |     |                 |  |  |  | D   |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓    | ↓            | 3   |          |    |    | +  |    |    |    |    |    |     |                 |  |  |  | E   |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 3        | ↓    | ↓       | ↓    | ↓            | 5   |          |    |    | +  |    |    |    |    |    |     |                 |  |  |  | F   |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 2        | ↓    | ↓       | ↓    | ↓            | 1   |          |    |    |    | +  |    |    |    |    |     |                 |  |  |  | G   |

|                        |                      |                    |                      |  |  |
|------------------------|----------------------|--------------------|----------------------|--|--|
| Relinquished By:       | Date: <u>8-28-13</u> | Received By:       | Date: <u>8-28-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonia</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No: _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: _____ | Date: - -            | Received By: _____ | Date: - -            |  |  |
| Relinquished By: _____ | Date: - -            | Received By:       | Date: <u>8-28-13</u> |  |  |

SPECIAL INSTRUCTIONS:

8/14/2013 11:19:59 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |   |   |   |
|---|---|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <p style="text-align: center;"><b>Analysis</b></p> 1. Endothial<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#1340822 |
|---|---|---|---|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |     |
|-------------|-------------|-----------|------|-----|----------|---------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|-----|
|             |             | Size      | Type | No. | By       | Date    | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |     |
| AW-3        | GRAB        | 1 liter   | G    | 10  | SP       | 8/28/13 | 1:45 | 7.30 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  | 06A |
| AW-3        | GRAB        | 1 liter   | P    | 1   | ↓        | ↓       | ↓    | ↓    | 1            |     |          |   |   |   |   |   |   | X | X | X  |                 |  | ↓ B |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |

|                  |                      |              |                      |  |   |
|------------------|----------------------|--------------|----------------------|--|---|
| Relinquished By: | Date: - -            | Received By: | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <b>SPRING</b><br>Client Contact: <b>Joe Pavilonis</b><br>EMT Project ID: <b>CWLP List G20</b><br>Jar Lot No. | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <b>3</b> |
| Relinquished By: | Date: <u>8-29-13</u> | Received By: | Date: <u>8-29-13</u> |  |   |
| Relinquished By: | Date: <u>8-29-13</u> | Received By: | Date: <u>8-29-13</u> |  |   |
|                  | Time: : :            |              | Time: : :            |  |   |
|                  | Time: <u>14:00</u>   |              | Time: <u>14:00</u>   |  |   |
|                  | Time: <u>17:00</u>   |              | Time: <u>12:00</u>   |  |   |





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br># <u>13010822</u> |
|---|---|---|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |      | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|------|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab. | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |     |
| AW-3        | GRAB        | 12        | 4 oz   | G   | 1        | EQ   | 8/29/13 | 1345 | 7.30         | 8    |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | 06C |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 4    |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  | D   |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 3    |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  | E   |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 3        |      |         |      |              | 5    |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  | F   |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 2        |      |         |      |              | 1    |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  | G   |

|                                     |                      |                                 |                      |   |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|---|---|
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>3</u> |
| Relinquished By: <i>[Signature]</i> | Date: <u>8-29-13</u> | Received By: <i>[Signature]</i> | Date: <u>8-29-13</u> |   |   |
| Relinquished By: <i>[Signature]</i> | Date: <u>8-29-13</u> | Received By: <i>[Signature]</i> | Date: <u>8-29-13</u> |   |   |

SPECIAL INSTRUCTIONS:

ph: 7.00 = 7.00 @ 0925

8/14/2013 11:20:00 AM







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8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203

**Chain of Custody Record**

847-967-6666  
FAX: 847-967-6735  
www.emt.com

Due Date: \_\_\_\_\_ COC #: **125300**

TURNAROUND TIME:  
 RUSH  
 \_\_\_\_\_ day turnaround  
 ROUTINE

Company: CWLP  
 Address: 201 E Lake Shore Dr.  
Springfield IL  
 Phone #: (217) 757-8610 Fax #: ( ) \_\_\_\_\_  
 P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_  
 Client Contact: Sue Corcoran  
 Project ID / Location: CWLP FLDS / CWLP Spring Field

Sample Type:  
 1. Waste Water 4. Sludge 7. Groundwater (filtered)  
 2. Drinking Water 5. Oil 8. Other  
 3. Soil 6. Groundwater \_\_\_\_\_  
 Container Type:  
 P - Plastic V - VOC Vial O - Other  
 G - Glass B - Tedlar Bag \_\_\_\_\_  
 Preservative:  
 1. None 4. NaOH 7. Zn Ace  
 2. H<sub>2</sub>SO<sub>4</sub> 5. HCl 8. Other  
 3. HNO<sub>3</sub> 6. MeOH \_\_\_\_\_

| Analyses              |                                 |
|-----------------------|---------------------------------|
| EMT USE ONLY          | EMT WORKORDER # <u>13680823</u> |
| TOTAL <u>12/14/13</u> |                                 |

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |      |       | Preservation |     | EMT USE ONLY |     |
|-------------|-------------|-----------|------|-----|----------|---------|------|------|-------|--------------|-----|--------------|-----|
|             |             | Size      | Type | No. | By       | Date    | Time | pH   | Temp. | Field        | Lab |              |     |
| AP-5        | G           | PT        | P    | 1   | SP       | 9/14/13 | 0825 | 6.95 | 56.2  | 1            |     | X            | 05B |
| AP-4        | G           | PT        | P    | 1   | SP       | 9/14/13 | 0855 | 7.08 | 64.6  | 1            |     | X            | 04B |
| AP-3        | G           | PT        | P    | 1   | SP       | 9/14/13 | 0915 | 7.01 | 63.7  | 1            |     | X            | 03B |
| AP-2        | G           | PT        | P    | 1   | SP       | 9/14/13 | 0940 | 6.91 | 64.8  | 1            |     | X            | 02B |
| AP-1        | G           | PT        | P    | 1   | SP       | 9/14/13 | 1010 | 7.01 | 60.2  | 1            |     | X            | 01B |

|                                     |  |   |  |                              |   |
|-------------------------------------|--|---|--|------------------------------|---|
| Relinquished By: <u>40</u>          | Date: - -<br>Time: :                       | Received By:                            | Date: - -<br>Time: :                       | EMT USE ONLY                 | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE  |
| Relinquished By: <u>[Signature]</u> | Date: <u>9-16-13</u><br>Time: <u>10:30</u> | Received By: <u>[Signature]</u>         | Date: <u>9-16-13</u><br>Time: <u>10:30</u> | Client Code: <u>Spring</u>   | <input type="checkbox"/> TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <u>[Signature]</u> | Date: <u>9-16-13</u><br>Time: <u>16:08</u> | Received For Lab By: <u>Sachit Shah</u> | Date: <u>9-16-13</u><br>Time: <u>16:08</u> | EMT Project I.D. <u>CWLP</u> | EMT SAMPLE RETURN POLICY ON BACK  |
|                                     |  |   |  | FLDS Routine GW              |   |
|                                     |  |   |  | Jar Lot No.                  | 2   |

SPECIAL INSTRUCTIONS: pH: 7.00 → 7.02 @ 0805



RECEIVED

JAN 16 2014



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DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

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Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

January 06, 2014

RE CWLP 4Q13 List G20

Lab Orders:  
13110665

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

This Report Contains 39 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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CLIENT: City, Water, Light & Power

Date: 1/6/2014

Project: CWLP 4Q13 List G20

## CASE NARRATIVE

Lab Order: 13110665

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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**CLIENT:** City, Water, Light & Power

**Date:** 1/6/2014

**Project:** CWLP 4Q13 List G20

**CASE NARRATIVE**

**Lab Order:** 13110665

Analytical Comments for METHOD 8082\_W, LCSD-86273: LCS/LCSD RPDs are outside of the laboratory control limits.

Analytical Comments for METHOD 8270\_wnew, 13110665-02a: Acid surrogate recovery was below the limit.

Analytical Comments for METHOD 8270\_wnew, 13110665-03a: Acid surrogate recovery was below the limit.

Analytical Comments for METHOD 552.1\_W, LCS-86473: LCS recovery was above the laboratory control limit.

Analytical Comments for METHOD 552.1\_W, 13110665-01AMS: MS recovery was above the laboratory control limit. Analytical Comments for METHOD 552.1\_W, 13110665-01AMSD: MSD recovery was above the laboratory control limit.

Analytical Comments for METHOD 504\_W, LCS-86477: LCS recovery was above the limit.

Analytical Comments for METHOD 504\_W, LCSD-86477: LCSD recoveries were above the limits.

Analytical Comments for METHOD RADIATION, 13110665-01A, 02A, 03A, 04A, 05A, 06A: The Radium-226/228 analysis by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-1  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 1:35:00 PM  
**Lab ID:** 13110665-01 **Matrix:** Groundwater

| Analyses                                       | Result     | EMT Reporting Limit | Units    | Date Analyzed  | Batch   | Analyst |
|--|------------|---------------------|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b>   |            |                     |          |                |         |         |
| pH   | 6.92       |                     | pH units | 11/20/13 13:30 | R195716 | JC      |
| <b>Method: SM4500-H</b>                        |            |                     |          |                |         |         |
| <b>Anions by Ion Chromatography</b>            |            |                     |          |                |         |         |
| Chloride                                       | 44.7       | 2.00                | mg/L     | 11/21/13       | R194546 | SG      |
| Fluoride                                       | < 0.500    | 0.500               | mg/L     | 11/21/13       | R194546 | SG      |
| Nitrogen, Nitrate (As N)                       | 0.886      | 0.500               | mg/L     | 11/21/13       | R194546 | SG      |
| X Sulfate                                      | 561        | 50.0                | mg/L     | 11/21/13       | R194546 | SG      |
| <b>Method: SW9056</b>                          |            |                     |          |                |         |         |
| <b>Cyanide, Total</b>                          |            |                     |          |                |         |         |
| Cyanide  | < 0.0100   | 0.0100              | mg/L     | 11/27/13 10:47 | 88348   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>        |            |                     |          |                |         |         |
| <b>Total Dissolved Solids</b>                  |            |                     |          |                |         |         |
| X Total Dissolved Solids (Residue, Filterable) | 1,250      | 10.0                | mg/L     | 11/26/13 07:25 | R194881 | TB2     |
| <b>Method: SM2540C</b>                         |            |                     |          |                |         |         |
| <b>Mercury, Total</b>                          |            |                     |          |                |         |         |
| Mercury  | < 0.000500 | 0.000500            | mg/L     | 11/22/13 12:34 | 86268   | IG      |
| <b>Method: SW7470A / HG PREP</b>               |            |                     |          |                |         |         |
| <b>Metals, Total.</b>                          |            |                     |          |                |         |         |
| <b>Method: SW6020A / SW3015</b>                |            |                     |          |                |         |         |
| Antimony                                       | < 0.00600  | 0.00600             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Arsenic  | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Barium   | < 2.00     | 2.00                | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Beryllium                                      | < 0.00400  | 0.00400             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Boron  | 18.9       | 0.0312              | mg/L     | 12/2/13 11:46  | 86266   | CS2     |
| Cadmium  | < 0.00500  | 0.00500             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Chromium                                       | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Cobalt   | < 1.00     | 1.00                | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Copper   | < 0.650    | 0.650               | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Iron   | 27.1       | 5.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Lead   | < 0.00750  | 0.00750             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Manganese                                    | 0.466      | 0.150               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Nickel   | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Selenium                                       | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Silver   | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Thallium                                       | < 0.00200  | 0.00200             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 1:35:00 PM  
Lab ID: 13110665-01 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             | mg/L   | 11/27/13 10:23 | 86266   | CS2     |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 11/29/13 18:50 | 86477   | LP      |
| 1,2-Dibromocethane                      | < 0.0558 | 0.0558                           | C µg/L | 11/29/13 18:50 | 86477   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/4/13 17:42  | 86282   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 12/3/13        | 86473   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 11/29/13       | 86271   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 11/29/13 20:22 | 86271   | LP      |
| Endrin                                  | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 20:22 | 86271   | LP      |
| Heptachlor                              | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 20:22 | 86271   | LP      |
| Heptachlor epoxide                      | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 20:22 | 86271   | LP      |
| Methoxychlor                            | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 20:22 | 86271   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Toxaphene                               | < 0.532  | 0.532                            | µg/L   | 11/29/13 20:22 | 86271   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1221                            | < 0.332  | 0.332                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1232                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1242                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1246                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1254                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1260                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| PCB, Total                              | < 1.33   | 1.33                             | µg/L   | 11/25/13       | 86273   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 1:35:00 PM  
Lab ID: 13110665-01 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed  | Batch | Analyst |
|--|---------|---------------------|--------|----------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |         |                     |        |                |       |         |
| Benzo(a)pyrene   | < 1.33  | 1.33                | µg/L   | 11/27/13 12:06 | 86278 | SJ1     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 11/27/13 12:06 | 86278 | SJ1     |
| Hexachlorocyclopentadiene  | < 1.33  | 1.33                | µg/L   | 11/27/13 12:06 | 86278 | SJ1     |
| Phenol   | < 0.664 | 0.664               | µg/L   | 11/27/13 12:06 | 86278 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |         |                     |        |                |       |         |
| 2,4,5-TP (Silvex)  | < 0.248 | 0.248               | µg/L   | 12/4/13        | 86263 | MNN     |
| 2,4-D  | < 0.234 | 0.234               | µg/L   | 12/4/13        | 86263 | MNN     |
| Dinoseb  | < 0.219 | 0.219               | µg/L   | 12/4/13        | 86263 | MNN     |
| Pentachlorophenol  | < 0.283 | 0.263               | C µg/L | 12/4/13        | 86263 | MNN     |
| Picloram   | < 0.215 | 0.215               | C µg/L | 12/4/13        | 86263 | MNN     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8280B / SW5030A</b>   |         |                     |        |                |       |         |
| 1,1,1-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,1,2-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,1-Dichloroethane   | < 4.00  | 4.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,2,4-Trichlorobenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,2-Dibromo-3-chloropropane  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,2-Dibromoethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,2-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,2-Dichloropropane  | < 4.00  | 4.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| 1,4-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Benzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Carbon tetrachloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Chlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| cis-1,2-Dichloroethene   | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Ethylbenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Methyl tert-butyl ether  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Methylene chloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Styrene  | < 4.00  | 4.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Tetrachloroethene  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| Toluene  | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |
| trans-1,2-Dichloroethene   | < 2.00  | 2.00                | µg/L   | 11/23/13 00:33 | 86289 | XN      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-1  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 1:35:00 PM  
**Lab ID:** 13110665-01 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed  | Batch   | Analyst |
|--------------------------|--------|--|-------|----------------|---------|---------|
| Trichloroethene          | < 2.00 | 2.00                                     | µg/L  | 11/23/13 00:33 | 86289   | XN      |
| Vinyl chloride           | < 2.00 | 2.00                                     | µg/L  | 11/23/13 00:33 | 86289   | XN      |
| Xylenes, Total           | < 6.00 | 6.00                                     | µg/L  | 11/23/13 00:33 | 88289   | XN      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |                |         |         |
| Radium-226               | 0.89   | 0.23                                     | pCi/L | 12/20/13       | R196112 | OUT     |
| Radium-228               | 1.4    | 1.2                                      | pCi/L | 12/20/13       | R196112 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 12:55:00 PM  
**Lab ID:** 13110665-02 **Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed  | Batch   | Analyst |
|--|------------|---------------------|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |                |         |         |
| pH   | 6.76       |                     | pH units | 11/20/13 12:55 | R195718 | JC      |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |                |         |         |
| Chloride                                     | 34.8       | 2.00                | mg/L     | 11/21/13       | R194546 | SG      |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 11/21/13       | R194546 | SG      |
| Nitrogen, Nitrate (As N)                     | 0.290      | 0.0500              | mg/L     | 11/21/13       | R194546 | SG      |
| Sulfate                                      | < 5.00     | 5.00                | mg/L     | 11/21/13       | R194546 | SG      |
| <b>Cyanide, Total</b>                        |            |                     |          |                |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 11/27/13 10:47 | 86348   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 748        | 10.0                | mg/L     | 11/26/13 07:25 | R194881 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |          |                |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 11/22/13 12:34 | 86268   | IG      |
| <b>Metals, Total.</b>                        |            |                     |          |                |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Arsenic                                      | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Barium                                       | < 2.00     | 2.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Boron  | 4.78       | 2.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Cadmium                                      | < 0.00500  | 0.00500             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Chromium                                     | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Cobalt                                       | < 1.00     | 1.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Copper                                       | < 0.650    | 0.650               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Iron   | 33.9       | 5.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Lead   | 0.0150     | 0.00750             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Manganese                                    | 20.3       | 0.0625              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Nickel                                       | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Selenium                                     | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Silver                                       | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20. **Collection Date:** 11/20/2013 12:55:00 PM  
**Lab ID:** 13110665-02 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             | mg/L   | 11/27/13 10:23 | 86266   | CS2     |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0401 | 0.0401                           | C µg/L | 11/29/13 19:21 | 86477   | LP      |
| 1,2-Dibromoethane                       | < 0.0562 | 0.0562                           | C µg/L | 11/29/13 19:21 | 86477   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/4/13 14:48  | 86282   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 12/3/13        | 86473   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 11/29/13       | 86271   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 11/29/13 21:09 | 86271   | LP      |
| Endrin                                  | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:09 | 86271   | LP      |
| Heptachlor                              | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:09 | 86271   | LP      |
| Heptachlor epoxide                      | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:09 | 86271   | LP      |
| Methoxychlor                            | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:09 | 86271   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Toxaphene                               | < 0.531  | 0.531                            | µg/L   | 11/29/13 21:09 | 86271   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1221                            | < 0.332  | 0.332                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1232                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1242                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1248                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1254                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1260                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| PCB, Total                              | < 1.33   | 1.33                             | µg/L   | 11/25/13       | 86273   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 12:55:00 PM  
Lab ID: 13110665-02 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit | Units  | Date Analyzed  | Batch | Analyst |
|--|---------|---------------------|--------|----------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         |                     |        |                |       |         |
|  |         |                     |        |                |       |         |
| Method: SW8270D / SW3510C                    |         |                     |        |                |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                | µg/L   | 11/27/13 12:51 | 86315 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                | µg/L   | 11/27/13 12:51 | 86315 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                | µg/L   | 11/27/13 12:51 | 86315 | SJ1     |
| Phenol                                       | < 0.663 | 0.663               | µg/L   | 11/27/13 12:51 | 86315 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         |                     |        |                |       |         |
|  |         |                     |        |                |       |         |
| Method: SW8321A / SW3510C                    |         |                     |        |                |       |         |
| 2,4,5-TP (Silvex)                            | < 0.248 | 0.248               | µg/L   | 12/4/13        | 86263 | MNN     |
| 2,4-D  | < 0.233 | 0.233               | µg/L   | 12/4/13        | 86263 | MNN     |
| Dinoseb                                      | < 0.218 | 0.218               | µg/L   | 12/4/13        | 86263 | MNN     |
| Pentachlorophenol                            | < 0.263 | 0.263               | C µg/L | 12/4/13        | 86263 | MNN     |
| Picloram                                     | < 0.215 | 0.215               | C µg/L | 12/4/13        | 86263 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         |                     |        |                |       |         |
|  |         |                     |        |                |       |         |
| Method: SW8260B / SW5030A                    |         |                     |        |                |       |         |
| 1,1,1-Trichloroethane                        | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,1,2-Trichloroethane                        | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,1-Dichloroethane                           | < 4.00  | 4.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,2,4-Trichlorobenzene                       | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,2-Dibromo-3-chloropropane                  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,2-Dibromoethane                            | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,2-Dichlorobenzene                          | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,2-Dichloroethane                           | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,2-Dichloropropane                          | < 4.00  | 4.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| 1,4-Dichlorobenzene                          | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Benzene                                      | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Carbon tetrachloride                         | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Chlorobenzene                                | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| cis-1,2-Dichloroethene                       | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Ethylbenzene                                 | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Methyl tert-butyl ether                      | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Methylene chloride                           | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Styrene                                      | < 4.00  | 4.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Tetrachloroethene                            | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| Toluene                                      | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |
| trans-1,2-Dichloroethene                     | < 2.00  | 2.00                | µg/L   | 11/23/13 01:03 | 86289 | XN      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 12:55:00 PM  
**Lab ID:** 13110665-02 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed  | Batch   | Analyst |
|--------------------------|--------|--|-------|----------------|---------|---------|
| Trichloroethene          | < 2.00 | 2.00                                     | µg/L  | 11/23/13 01:03 | 86289   | XN      |
| Vinyl chloride           | < 2.00 | 2.00                                     | µg/L  | 11/23/13 01:03 | 86289   | XN      |
| Xylenes, Total           | < 6.00 | 6.00                                     | µg/L  | 11/23/13 01:03 | 86289   | XN      |
| <b>Radiation Testing</b> |        | <b>Method:</b> EPA 900/903.1/904/905/908 |       |                |         |         |
| Radium-226               | 1.4    | 0.2                                      | pCi/L | 12/20/13       | R196112 | OUT     |
| Radium-228               | 0.89   | 0.82                                     | pCi/L | 12/20/13       | R196112 | OUT     |

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 12:20:00 PM  
**Lab ID:** 13110665-03 **Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed  | Batch   | Analyst |
|--|------------|---------------------|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |                |         |         |
| pH   | 6.88       |                     | pH units | 11/20/13 12:20 | R195716 | JC      |
| <b>Method: SM4500-H</b>                      |            |                     |          |                |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |                |         |         |
| Chloride                                     | 46.8       | 2.00                | mg/L     | 11/21/13       | R194546 | SG      |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 11/21/13       | R194546 | SG      |
| Nitrogen, Nitrate (As N)                     | 0.0860     | 0.0500              | mg/L     | 11/21/13       | R194546 | SG      |
| Sulfate                                      | 338        | 50.0                | mg/L     | 11/21/13       | R194546 | SG      |
| <b>Method: SW9056</b>                        |            |                     |          |                |         |         |
| <b>Cyanide, Total</b>                        |            |                     |          |                |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 12/2/13 13:53  | 86392   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |          |                |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 670        | 10.0                | mg/L     | 11/28/13 07:25 | R194861 | TB2     |
| <b>Method: SM2540C</b>                       |            |                     |          |                |         |         |
| <b>Mercury, Total</b>                        |            |                     |          |                |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 11/22/13 12:34 | 86268   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |          |                |         |         |
| <b>Metals, Total.</b>                        |            |                     |          |                |         |         |
| <b>Method: SW6020A / SW3015</b>              |            |                     |          |                |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Arsenic                                      | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Barium                                       | < 2.00     | 2.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| X Boron                                      | < 0.00500  | 0.0312              | mg/L     | 12/2/13 11:46  | 86266   | CS2     |
| Cadmium                                      | < 0.00500  | 0.00500             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Chromium                                     | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Cobalt                                       | < 1.00     | 1.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Copper                                       | < 0.650    | 0.650               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Y Iron                                       | 18.1       | 5.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Lead   | < 0.00750  | 0.00750             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| X Manganese                                  | 8.99       | 0.0625              | mg/L     | 12/2/13 11:46  | 86266   | CS2     |
| Nickel                                       | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Selenium                                     | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Silver                                       | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 12:20:00 PM  
**Lab ID:** 13110665-03 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             | mg/L   | 11/27/13 10:23 | 86266   | CS2     |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 11/28/13       | R194751 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0400 | 0.0400                           | C µg/L | 11/29/13 19:53 | 86477   | LP      |
| 1,2-Dibromoethane                       | < 0.0580 | 0.0580                           | C µg/L | 11/29/13 19:53 | 86477   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/4/13 15:30  | 88282   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 12/3/13        | 86473   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 11/29/13       | 86271   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Chlordane                               | < 0.200  | 0.200                            | µg/L   | 11/29/13 21:58 | 86271   | LP      |
| Endrin                                  | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:58 | 86271   | LP      |
| Heptachlor                              | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:58 | 86271   | LP      |
| Heptachlor epoxide                      | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:58 | 86271   | LP      |
| Methoxychlor                            | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 21:56 | 86271   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Toxaphene                               | < 0.532  | 0.532                            | µg/L   | 11/29/13 21:58 | 86271   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1221                            | < 0.333  | 0.333                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1232                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1242                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1248                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1254                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1280                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| PCB, Total                              | < 1.33   | 1.33                             | µg/L   | 11/25/13       | 86273   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 12:20:00 PM  
Lab ID: 13110665-03 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed  | Batch | Analyst |
|--|---------|---------------------|--------|----------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |                |       |         |
| Benzo(a)pyrene   | < 1.33  | 1.33                | µg/L   | 12/4/13 10:24  | 88315 | SJ1     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 12/4/13 10:24  | 88315 | SJ1     |
| Hexachlorocyclopentadiene  | < 1.33  | 1.33                | µg/L   | 12/4/13 10:24  | 88315 | SJ1     |
| Phenol   | < 0.663 | 0.663               | µg/L   | 12/4/13 10:24  | 88315 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |                |       |         |
| 2,4,5-TP (Silvex)  | < 0.250 | 0.250               | µg/L   | 12/4/13        | 88263 | MNN     |
| 2,4-D  | < 0.235 | 0.235               | µg/L   | 12/4/13        | 88263 | MNN     |
| Dinoseb  | < 0.220 | 0.220               | µg/L   | 12/4/13        | 88263 | MNN     |
| Pentachlorophenol  | < 0.265 | 0.265               | C µg/L | 12/4/13        | 88263 | MNN     |
| Picloram   | < 0.218 | 0.218               | C µg/L | 12/4/13        | 88263 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8280B / SW5030A   |         |                     |        |                |       |         |
| 1,1,1-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,1,2-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,1-Dichloroethane   | < 4.00  | 4.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,2,4-Trichlorobenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,2-Dibromo-3-chloropropane  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,2-Dibromoethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,2-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,2-Dichloropropane  | < 4.00  | 4.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| 1,4-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Benzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Carbon tetrachloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Chlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| cis-1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Ethylbenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Methyl tert-butyl ether  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Methylene chloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Styrene  | < 4.00  | 4.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Tetrachloroethene  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| Toluene  | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |
| trans-1,2-Dichloroethene   | < 2.00  | 2.00                | µg/L   | 11/23/13 01:33 | 88289 | XN      |

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**Report of Laboratory Analysis**

|                   |                            |                          |                        |
|-------------------|----------------------------|--------------------------|------------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AP-3                   |
| <b>Lab Order:</b> | 13110665                   | <b>Report Date:</b>      | 1/6/2014               |
| <b>Project:</b>   | CWLP 4Q13 List G20         | <b>Collection Date:</b>  | 11/20/2013 12:20:00 PM |
| <b>Lab ID:</b>    | 13110665-03                | <b>Matrix:</b>           | Groundwater            |

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed  | Batch   | Analyst |
|--------------------------|--------|--|-------|----------------|---------|---------|
| Trichloroethene          | < 2.00 | 2.00                                     | µg/L  | 11/23/13 01:33 | 86289   | XN      |
| Vinyl chloride           | < 2.00 | 2.00                                     | µg/L  | 11/23/13 01:33 | 86289   | XN      |
| Xylenes, Total           | < 6.00 | 6.00                                     | µg/L  | 11/23/13 01:33 | 86289   | XN      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/908</b> |       |                |         |         |
| Radium-226               | 0.51   | 0.23                                     | pCi/L | 12/20/13       | R196112 | OUT     |
| Radium-228               | ND     | 1.15                                     | pCi/L | 12/20/13       | R196112 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
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| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 11:50:00 AM  
Lab ID: 13110665-04 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed  | Batch   | Analyst |
|--|------------|---------------------|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |                |         |         |
| pH   | 7.10       |                     | pH units | 11/20/13 11:50 | R195716 | JC      |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |                |         |         |
| Chloride                                     | 10.8       | 2.00                | mg/L     | 11/21/13       | R194548 | SG      |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 11/21/13       | R194548 | SG      |
| Nitrogen, Nitrate (As N)                     | 0.0970     | 0.0500              | mg/L     | 11/21/13       | R194548 | SG      |
| Sulfate                                      | < 5.00     | 5.00                | mg/L     | 11/21/13       | R194548 | SG      |
| <b>Cyanide, Total</b>                        |            |                     |          |                |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 12/2/13 13:53  | 88392   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 316        | 10.0                | mg/L     | 11/26/13 07:25 | R194881 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |          |                |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 11/22/13 12:34 | 86268   | IG      |
| <b>Metals, Total.</b>                        |            |                     |          |                |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Arsenic                                      | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Barium                                       | < 2.00     | 2.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Boron  | < 2.00     | 2.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Cadmium                                      | < 0.00500  | 0.00500             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Chromium                                     | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Cobalt                                       | < 1.00     | 1.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Copper                                       | < 0.650    | 0.650               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| ✓ Iron                                       | 11.8       | 5.00                | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Lead   | < 0.00750  | 0.00750             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| X Manganese                                  | 0.159      | 0.150               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Nickel                                       | < 0.100    | 0.100               | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Selenium                                     | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Silver                                       | < 0.0500   | 0.0500              | mg/L     | 11/27/13 10:23 | 86266   | CS2     |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 11/27/13 10:23 | 86266   | CS2     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 11:50:00 AM  
Lab ID: 13110665-04 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             | mg/L   | 11/27/13 10:23 | 86268   | CS2     |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 11/29/13 20:24 | 86477   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C µg/L | 11/29/13 20:24 | 86477   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/5/13 13:29  | 86282   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 12/3/13        | 86473   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 11/29/13       | 86271   | LP      |
| Atrazine                                | < 0.168  | 0.168                            | µg/L   | 11/29/13       | 86271   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 11/29/13 22:44 | 86271   | LP      |
| Endrin                                  | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 22:44 | 86271   | LP      |
| Heptachlor                              | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 22:44 | 86271   | LP      |
| Heptachlor epoxide                      | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 22:44 | 86271   | LP      |
| Methoxychlor                            | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 22:44 | 86271   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Toxaphene                               | < 0.532  | 0.532                            | µg/L   | 11/29/13 22:44 | 86271   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1221                            | < 0.332  | 0.332                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1232                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1242                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1248                            | < 0.168  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1254                            | < 0.168  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| Aroclor 1260                            | < 0.166  | 0.166                            | µg/L   | 11/25/13       | 86273   | NCH     |
| PCB, Total                              | < 1.33   | 1.33                             | µg/L   | 11/25/13       | 86273   | NCH     |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 11:50:00 AM  
Lab ID: 13110665-04 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed  | Batch | Analyst |
|--|---------|---------------------|--------|----------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |                |       |         |
| Benzo(a)pyrene   | < 1.33  | 1.33                | µg/L   | 11/27/13 14:22 | 86315 | SJ1     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 11/27/13 14:22 | 86315 | SJ1     |
| Hexachlorocyclopentadiene  | < 1.33  | 1.33                | µg/L   | 11/27/13 14:22 | 86315 | SJ1     |
| Phenol   | < 0.665 | 0.665               | µg/L   | 11/27/13 14:22 | 86315 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |                |       |         |
| 2,4,5-TP (Silvex)  | < 0.250 | 0.250               | µg/L   | 12/4/13        | 86263 | MNN     |
| 2,4-D  | < 0.235 | 0.235               | µg/L   | 12/4/13        | 86263 | MNN     |
| Dinoseb  | < 0.220 | 0.220               | µg/L   | 12/4/13        | 86263 | MNN     |
| Pentachlorophenol  | < 0.265 | 0.265               | C µg/L | 12/4/13        | 86263 | MNN     |
| Picloram   | < 0.216 | 0.216               | C µg/L | 12/4/13        | 86263 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |                |       |         |
| 1,1,1-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,1,2-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,1-Dichloroethane   | < 4.00  | 4.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,2,4-Trichlorobenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,2-Dibromo-3-chloropropane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,2-Dibromoethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,2-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,2-Dichloropropane  | < 4.00  | 4.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| 1,4-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Benzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Carbon tetrachloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Chlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| cis-1,2-Dichloroethene   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Ethylbenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Methyl tert-butyl ether  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Methylene chloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Styrene  | < 4.00  | 4.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Tetrachloroethene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| Toluene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |
| trans-1,2-Dichloroethene   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:03 | 86289 | XN      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 11:50:00 AM  
**Lab ID:** 13110665-04 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed  | Batch   | Analyst |
|--------------------------|--------|--|-------|----------------|---------|---------|
| Trichloroethene          | < 2.00 | 2.00                                     | µg/L  | 11/23/13 02:03 | 86289   | XN      |
| Vinyl chloride           | < 2.00 | 2.00                                     | µg/L  | 11/23/13 02:03 | 86289   | XN      |
| Xylenes, Total           | < 6.00 | 6.00                                     | µg/L  | 11/23/13 02:03 | 86289   | XN      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |                |         |         |
| Radium-226               | 0.48   | 0.2                                      | pCi/L | 12/20/13       | R196112 | OUT     |
| Radium-228               | ND     | 0.52                                     | pCi/L | 12/20/13       | R196112 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 10:50:00 AM  
Lab ID: 13110665-05 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit                     | Units    | Date Analyzed  | Batch   | Analyst |
|--|------------|---|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            | <b>Method: SM4500-H</b>                 |          |                |         |         |
| pH   | 7.32       |   | pH units | 11/20/13 10:50 | R195716 | JC      |
| <b>Anions by Ion Chromatography</b>          |            | <b>Method: SW9056</b>                   |          |                |         |         |
| Chloride                                     | 2.07       | 2.00                                    | mg/L     | 11/21/13       | R194548 | SG      |
| Fluoride                                     | < 0.500    | 0.500                                   | mg/L     | 11/21/13       | R194548 | SG      |
| Nitrogen, Nitrate (As N)                     | 1.13       | 0.500                                   | mg/L     | 11/21/13       | R194548 | SG      |
| Sulfate                                      | 59.5       | 5.00                                    | mg/L     | 11/21/13       | R194548 | SG      |
| <b>Cyanide, Total</b>                        |            | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |                |         |         |
| Cyanide                                      | < 0.0100   | 0.0100                                  | mg/L     | 12/2/13 13:53  | 86392   | JZ1     |
| <b>Total Dissolved Solids</b>                |            | <b>Method: SM2540C</b>                  |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 384        | 10.0                                    | mg/L     | 11/26/13 07:25 | R194881 | TB2     |
| <b>Mercury, Total</b>                        |            | <b>Method: SW7470A / HG PREP</b>        |          |                |         |         |
| Mercury                                      | < 0.000500 | 0.000500                                | mg/L     | 11/22/13 12:34 | 86268   | IG      |
| <b>Metals, Total.</b>                        |            | <b>Method: SW6020A / SW3015</b>         |          |                |         |         |
| Antimony                                     | < 0.00600  | 0.00600                                 | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Arsenic                                      | < 0.0500   | 0.0500                                  | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Barium                                       | < 2.00     | 2.00                                    | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Beryllium                                    | < 0.00400  | 0.00400                                 | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Boron  | < 2.00     | 2.00                                    | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Cadmium                                      | < 0.00500  | 0.00500                                 | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Chromium                                   | X 0.113    | 0.100                                   | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Cobalt                                       | < 1.00     | 1.00                                    | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Copper                                       | < 0.650    | 0.650                                   | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Iron   | 134        | 0.825                                   | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| ● Lead                                       | 0.0838     | 0.00750                                 | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Manganese                                  | X 5.98     | 0.0125                                  | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Nickel                                     | X 0.163    | 0.100                                   | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Selenium                                     | < 0.0500   | 0.0500                                  | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Silver                                       | < 0.0500   | 0.0500                                  | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Thallium                                     | < 0.00200  | 0.00200                                 | mg/L     | 11/27/13 10:23 | 86268   | CS2     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 10:50:00 AM  
**Lab ID:** 13110665-05 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             | mg/L   | 11/27/13 10:23 | 86266   | CS2     |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 11/26/13       | R194751 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0398 | 0.0398                           | C µg/L | 11/29/13 20:55 | 86477   | LP      |
| 1,2-Dibromoethane                       | < 0.0557 | 0.0557                           | C µg/L | 11/29/13 20:55 | 86477   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/4/13 16:58  | 86282   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 12/3/13        | 86473   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 11/29/13       | 86271   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Chlordane                               | < 0.200  | 0.200                            | µg/L   | 11/29/13 23:31 | 86271   | LP      |
| Endrin                                  | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 23:31 | 86271   | LP      |
| Heptachlor                              | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 23:31 | 86271   | LP      |
| Heptachlor epoxide                      | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 23:31 | 86271   | LP      |
| Methoxychlor                            | < 0.0213 | 0.0213                           | µg/L   | 11/29/13 23:31 | 86271   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Toxaphene                               | < 0.532  | 0.532                            | µg/L   | 11/29/13 23:31 | 86271   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1221                            | < 0.333  | 0.333                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1232                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1242                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1246                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1254                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1260                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| PCB, Total                              | < 1.33   | 1.33                             | µg/L   | 11/26/13       | 86273   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 10:50:00 AM  
Lab ID: 13110665-05 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed  | Batch | Analyst |
|--|---------|---------------------|--------|----------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3610C  |         |                     |        |                |       |         |
| Benzo(a)pyrene   | < 1.33  | 1.33                | µg/L   | 11/27/13 15:08 | 86315 | SJ1     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 11/27/13 15:08 | 86315 | SJ1     |
| Hexachlorocyclopentadiene  | < 1.33  | 1.33                | µg/L   | 11/27/13 15:08 | 86315 | SJ1     |
| Phenol   | < 0.664 | 0.664               | µg/L   | 11/27/13 15:08 | 86315 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3610C |         |                     |        |                |       |         |
| 2,4,5-TP (Silvex)  | < 0.250 | 0.250               | µg/L   | 12/4/13        | 86263 | MNN     |
| 2,4-D  | < 0.235 | 0.235               | µg/L   | 12/4/13        | 86263 | MNN     |
| Dinoseb  | < 0.220 | 0.220               | µg/L   | 12/4/13        | 86263 | MNN     |
| Pentachlorophenol  | < 0.265 | 0.265               | C µg/L | 12/4/13        | 86263 | MNN     |
| Picloram   | < 0.218 | 0.218               | C µg/L | 12/4/13        | 86263 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |                |       |         |
| 1,1,1-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,1,2-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,1-Dichloroethane   | < 4.00  | 4.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,2,4-Trichlorobenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,2-Dibromo-3-chloropropane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,2-Dibromoethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,2-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,2-Dichloropropane  | < 4.00  | 4.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| 1,4-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Benzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Carbon tetrachloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Chlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| cis-1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Ethylbenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Methyl tert-butyl ether  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Methylene chloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Styrene  | < 4.00  | 4.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Tetrachloroethene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| Toluene  | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |
| trans-1,2-Dichloroethene   | < 2.00  | 2.00                | µg/L   | 11/23/13 02:33 | 86289 | XN      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 10:50:00 AM  
**Lab ID:** 13110665-05 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed  | Batch   | Analyst |
|--------------------------|--------|--|-------|----------------|---------|---------|
| Trichloroethene          | < 2.00 | 2.00                                     | µg/L  | 11/23/13 02:33 | 86289   | XN      |
| Vinyl chloride           | < 2.00 | 2.00                                     | µg/L  | 11/23/13 02:33 | 86289   | XN      |
| Xylenes, Total           | < 6.00 | 6.00                                     | µg/L  | 11/23/13 02:33 | 86289   | XN      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |                |         |         |
| Radium-226               | 1.8    | 0.1                                      | pCi/L | 12/20/13       | R196112 | OUT     |
| Radium-228               | 1.7    | 0.7                                      | pCi/L | 12/20/13       | R196112 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 9:10:00 AM  
Lab ID: 13110665-06 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit              | Units    | Date Analyzed  | Batch   | Analyst |
|--|------------|----------------------------------|----------|----------------|---------|---------|
| On-site pH by Ion Selective Electrode        |            | Method: SM4500-H                 |          |                |         |         |
| pH   | 7.31       |                                  | pH units | 11/20/13 09:10 | R195716 | JC      |
| Anions by Ion Chromatography                 |            | Method: SW9056                   |          |                |         |         |
| Chloride                                     | 27.0       | 2.00                             | mg/L     | 11/21/13       | R194546 | SG      |
| Fluoride                                     | < 0.500    | 0.500                            | mg/L     | 11/21/13       | R194546 | SG      |
| Nitrogen, Nitrate (As N)                     | 0.122      | 0.0500                           | mg/L     | 11/21/13       | R194546 | SG      |
| Sulfate                                      | 15.0       | 5.00                             | mg/L     | 11/21/13       | R194546 | SG      |
| Cyanide, Total                               |            | Method: SW9010B/9014 BY AQUACHEM |          |                |         |         |
| Cyanide                                      | < 0.200    | 0.200                            | mg/L     | 11/21/13 13:02 | 86210   | JZ1     |
| Total Dissolved Solids                       |            | Method: SM2540C                  |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 408        | 10.0                             | mg/L     | 11/26/13 07:25 | R194881 | TB2     |
| Mercury, Total                               |            | Method: SW7470A / HG PREP        |          |                |         |         |
| Mercury                                      | < 0.000500 | 0.000500                         | mg/L     | 11/22/13 12:34 | 86268   | IG      |
| Metals, Total.                               |            | Method: SW6020A / SW3015         |          |                |         |         |
| Antimony                                     | < 0.00800  | 0.00800                          | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Arsenic                                      | 0.134      | 0.0500                           | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Barium                                       | < 2.00     | 2.00                             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Beryllium                                    | < 0.00400  | 0.00400                          | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Boron  | < 2.00     | 2.00                             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Cadmium                                      | < 0.00500  | 0.00500                          | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Chromium                                     | < 0.100    | 0.100                            | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Cobalt                                       | < 1.00     | 1.00                             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Copper                                       | < 0.650    | 0.650                            | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Iron                                       | X 14.3     | 5.00                             | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Lead   | < 0.00750  | 0.00750                          | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| X Manganese                                  | X 0.434    | 0.0125                           | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Nickel                                       | < 0.100    | 0.100                            | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Selenium                                     | < 0.0500   | 0.0500                           | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Silver                                       | < 0.0500   | 0.0500                           | mg/L     | 11/27/13 10:23 | 86268   | CS2     |
| Thallium                                     | < 0.00200  | 0.00200                          | mg/L     | 11/27/13 10:23 | 86268   | CS2     |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AW-3  
**Lab Order:** 13110665 **Report Date:** 1/6/2014  
**Project:** CWLP 4Q13 List G20 **Collection Date:** 11/20/2013 9:10:00 AM  
**Lab ID:** 13110665-06 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             | mg/L   | 11/27/13 10:23 | 86268   | CS2     |
| <b>Carbamates</b>                       |          | <b>Method: E631.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 11/28/13       | R194751 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 11/28/13       | R194751 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E604.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0400 | 0.0400                           | C µg/L | 11/29/13 21:27 | 86477   | LP      |
| 1,2-Dibromoethane                       | < 0.0560 | 0.0560                           | C µg/L | 11/29/13 21:27 | 86477   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E648.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/4/13 19:55  | 86282   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 12/3/13        | 86473   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 11/29/13       | 86271   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 12/2/13 18:39  | 86271   | LP      |
| Endrin                                  | < 0.0213 | 0.0213                           | µg/L   | 12/2/13 18:39  | 86271   | LP      |
| Heptachlor                              | < 0.0213 | 0.0213                           | µg/L   | 12/2/13 18:39  | 86271   | LP      |
| Heptachlor epoxide                      | < 0.0213 | 0.0213                           | µg/L   | 12/2/13 18:39  | 86271   | LP      |
| Methoxychlor                            | < 0.0213 | 0.0213                           | µg/L   | 12/2/13 18:39  | 86271   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 11/29/13       | 86271   | LP      |
| Toxaphene                               | < 0.532  | 0.532                            | µg/L   | 12/2/13 18:39  | 86271   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3610C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1221                            | < 0.332  | 0.332                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1232                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1242                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1246                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1254                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| Aroclor 1260                            | < 0.166  | 0.166                            | µg/L   | 11/26/13       | 86273   | NCH     |
| PCB, Total                              | < 1.33   | 1.33                             | µg/L   | 11/26/13       | 86273   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 9:10:00 AM  
Lab ID: 13110665-06 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed  | Batch | Analyst |
|--|---------|---------------------|--------|----------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |         |                     |        |                |       |         |
| Benzo(a)pyrene   | < 1.33  | 1.33                | µg/L   | 11/27/13 15:53 | 86315 | SJ1     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 11/27/13 15:53 | 86315 | SJ1     |
| Hexachlorocyclopentadiene  | < 1.33  | 1.33                | µg/L   | 11/27/13 15:53 | 86315 | SJ1     |
| Phenol   | < 0.665 | 0.665               | µg/L   | 11/27/13 15:53 | 86315 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |         |                     |        |                |       |         |
| 2,4,5-TP (Silvex)  | < 0.248 | 0.248               | µg/L   | 12/4/13        | 86263 | MNN     |
| 2,4-D  | < 0.233 | 0.233               | µg/L   | 12/4/13        | 86263 | MNN     |
| Dinoseb  | < 0.219 | 0.219               | µg/L   | 12/4/13        | 86263 | MNN     |
| Pentachlorophenol  | < 0.263 | 0.263               | C µg/L | 12/4/13        | 86263 | MNN     |
| Picloram   | < 0.215 | 0.215               | C µg/L | 12/4/13        | 86263 | MNN     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |         |                     |        |                |       |         |
| 1,1,1-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,1,2-Trichloroethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,1-Dichloroethane   | < 4.00  | 4.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,2,4-Trichlorobenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,2-Dibromo-3-chloropropane  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,2-Dibromoethane  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,2-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,2-Dichloropropane  | < 4.00  | 4.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| 1,4-Dichlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Benzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Carbon tetrachloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Chlorobenzene  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| cis-1,2-Dichloroethane   | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Ethylbenzene   | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Methyl tert-butyl ether  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Methylene chloride   | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Styrene  | < 4.00  | 4.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Tetrachloroethene  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| Toluene  | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |
| trans-1,2-Dichloroethene   | < 2.00  | 2.00                | µg/L   | 11/23/13 05:05 | 86310 | JL      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13110665 Report Date: 1/6/2014  
Project: CWLP 4Q13 List G20 Collection Date: 11/20/2013 9:10:00 AM  
Lab ID: 13110665-06 Matrix: Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed  | Batch   | Analyst |
|--------------------------|--------|--|-------|----------------|---------|---------|
| Trichloroethene          | < 2.00 | 2.00                                     | µg/L  | 11/23/13 05:05 | 86310   | JL      |
| Vinyl chloride           | < 2.00 | 2.00                                     | µg/L  | 11/23/13 05:05 | 86310   | JL      |
| Xylenes, Total           | < 6.00 | 6.00                                     | µg/L  | 11/23/13 05:05 | 86310   | JL      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |                |         |         |
| Radium-226               | 1.     | 0.3                                      | pCi/L | 12/20/13       | R196112 | OUT     |
| Radium-228               | ND     | 1.8                                      | pCi/L | 12/20/13       | R196112 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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Chain of Custody Record

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505355

|  |  |   |   |
|--|--|---|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br>CONTAINER TYPE:<br>P- Plastic      V- VOC/Vol      G- Glass<br>B- Tedlar Bag      O- Other<br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GC/MS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT WORKORDER # <u>13116605</u> |
|--|--|---|---|

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |          |      |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |  |     |  |
|-------------|-------------|-----------|---------|-----|----------|------|----------|------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|--|-----|--|
|             |             | Size      | Type    | No. | By       | Date | Time     | pH   | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |  |     |  |
| AP-1        | GRAB        | 12        | 1 liter | G   | 10       | CWLP | 11/20/13 | 3:35 | 6.92  | 1            |   | X        | X | X | X | X | X |   |   |    |  |                 |  |  |  |  |  | 01A |  |
| AP-1        | GRAB        | 12        | 1 liter | P   | 1        |      |          |      |       | 1            |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  | 01B |  |
|             |             |           |         |     |          |      |          |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |           |         |     |          |      |          |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |           |         |     |          |      |          |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |           |         |     |          |      |          |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |           |         |     |          |      |          |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |           |         |     |          |      |          |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |           |         |     |          |      |          |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |

|                                     |                       |                                 |                       |   |   |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|---|---|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> | EMT USE ONLY<br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | X SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>4</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>  -  -  </u> |   |   |
| Relinquished By: <u>[Signature]</u> | Date: <u>  -  -  </u> | Received By: <u>[Signature]</u> | Date: <u>11-21-13</u> |   |   |
|                                     | Time: <u>15:00</u>    |                                 | Time: <u>15:00</u>    |   |   |
|                                     | Time: <u>20:05</u>    |                                 | Time: <u>  :  :  </u> |   |   |
|                                     | Time: <u>  :  :  </u> |                                 | Time: <u>9:00</u>     |   |   |

SPECIAL INSTRUCTIONS:

11/12/2013 8:50:51 AM





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**Chain of Custody Record**

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

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COC # 505355

|  |  |   |   |  |
|--|--|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project / Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      4. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other | <b>Analysis</b><br>1. Carbanals<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ED | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tectar Bag      O - Other | <b>EMT USE ONLY</b><br><br>EMT<br>WORKORDER<br>#13110665 |
| <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ac      8. Na2S2O3      9. Na2HSO4<br>10. Other  |  |   |   |  |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |       |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|----------|-------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH    | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |     |
| AP-1        | GRAB        | 12        | 4 oz   | G   | 1        | CYL  | 11/20/13 | 13:35 | 6.92  | 8            |   | X        |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | OLC |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |       | 4            |   |          | X |   |   |   |   |   |   |    |  |                 |  |  |  |  | D   |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |       | 3            |   |          |   |   | X |   |   |   |   |    |  |                 |  |  |  |  | E   |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 3        |      |          |       |       | 5            |   |          |   |   | X |   |   |   |   |    |  |                 |  |  |  |  | F   |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 2        |      |          |       |       | 1            |   |          |   |   |   | X |   |   |   |    |  |                 |  |  |  |  | G   |

|                                     |                       |                                 |                       |   |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|---|--|
| Relinquished By: <i>[Signature]</i> | Date: <u>11-20-13</u> | Received By: <i>[Signature]</i> | Date: <u>11-20-13</u> | <b>EMT USE ONLY:</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No: _____ | SAMPLE RECEIVED ON ICE<br>TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>4</u> |
| Relinquished By: <i>[Signature]</i> | Date: <u>11-20-13</u> | Received By: <i>[Signature]</i> | Date: - -             |   |  |
| Relinquished By: <i>[Signature]</i> | Date: - -             | Received By: <i>[Signature]</i> | Date: <u>11-21-13</u> |   |  |
|                                     | Time: <u>15:00</u>    |                                 | Time: <u>15:00</u>    |   |  |
|                                     | Time: <u>20:05</u>    |                                 | Time: : :             |   |  |
|                                     | Time: : :             |                                 | Time: <u>9:00</u>     |   |  |

SPECIAL INSTRUCTIONS:

pH = 7.00 = 7.00 @ 12:16  
Temp = 45.2° F

11/12/2013 8:50:52 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 505355

|  |  |  |  |  |  |
|--|--|--|--|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project / Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      6. Wastewater      8. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC/Vol      G - Glass<br>B - Tedlar Bag      O - Other | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ac      8. Na2S2O3      9. Na2-ESCI<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br><u>#1310665</u> |
|--|--|--|--|--|--|

| Sample I.D. | Sample Type | Sample No. | Container |      |     | Sampling |          |       |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |  |  |     |  |
|-------------|-------------|------------|-----------|------|-----|----------|----------|-------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|--|--|-----|--|
|             |             |            | Size      | Type | No. | By       | Date     | Time  | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |  |  |     |  |
| AP-2        | GRAB        | 12         | 1 liter   | G    | 10  | CW       | 11/20/13 | 12:55 | 6.76 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  |  |  |  |  | 02A |  |
| AP-2        | GRAB        | 12         | 1 liter   | P    | 1   |          |          |       |      | 1            |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  | 6B  |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |  |     |  |

|                                     |                       |                                 |                       |   |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|---|--|
| Relinquished By: <i>[Signature]</i> | Date: <u>11-20-13</u> | Received By: <i>[Signature]</i> | Date: <u>11-20-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | SAMPLE RECEIVED ON ICE TEMPERATURE:<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>4</u> |
| Relinquished By: <i>[Signature]</i> | Date: <u>11-20-13</u> | Received By: <i>[Signature]</i> | Date: - -             |   |  |
| Relinquished By: <i>[Signature]</i> | Date: - -             | Received By: <i>[Signature]</i> | Date: <u>11-20-13</u> |   |  |
|                                     | Time: <u>15:00</u>    |                                 | Time: <u>15:00</u>    |   |  |
|                                     | Time: <u>20:05</u>    |                                 | Time: : :             |   |  |
|                                     | Time: : :             |                                 | Time: <u>9:00</u>     |   |  |

SPECIAL INSTRUCTIONS:





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/12/2013

Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 505355

|   |  |                         |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
|---|--|-------------------------|-------------------|---------|------------|---------------|-------|-----------|----------|--------|--------------------|----------|-----------------|--------------|-----------|-------------------------|-----------|--|--|------------|------------|----------|---------------|----------|--|---------|----------|---------|---------|--------|---------|-----------|------------|-------------|-----------|--|--|---|
| <p>Company: <u>City, Water, Light &amp; Power</u></p> <p>Contact:</p> <p>Address: <u>201 East Lake Shore Drive</u><br/><u>Springfield, IL 62707</u></p> <p>Phone: <u>(217) 757-8610</u></p> <p>P.O. #: _____ Proj. #: _____</p> <p>Project / Location: <u>CWLP List G20</u></p> | <p><b>SAMPLE TYPE:</b></p> <table border="0" style="width:100%;"> <tr> <td>1. DI Water</td> <td>2. Drinking Water</td> <td>3. Soil</td> </tr> <tr> <td>4. Extract</td> <td>5. Wastewater</td> <td>6. CI</td> </tr> <tr> <td>7. Sludge</td> <td>8. Solid</td> <td>9. Air</td> </tr> <tr> <td>10. Chemical Waste</td> <td>11. Wipe</td> <td>12. Groundwater</td> </tr> <tr> <td>13. eProduct</td> <td>13. Solid</td> <td>14. Groundwater(Filler)</td> </tr> <tr> <td>15. Other</td> <td></td> <td></td> </tr> </table> <p><b>CONTAINER TYPE:</b></p> <table border="0" style="width:100%;"> <tr> <td>P- Plastic</td> <td>V- VOC/Vol</td> <td>G- Glass</td> </tr> <tr> <td>B- Tedlar Bag</td> <td>O- Other</td> <td></td> </tr> </table> <p><b>PRESERVATIVE:</b></p> <table border="0" style="width:100%;"> <tr> <td>1. None</td> <td>2. H2SO4</td> <td>3. HNO3</td> </tr> <tr> <td>4. NaOH</td> <td>5. HCL</td> <td>6. MeOH</td> </tr> <tr> <td>7. Zn Aca</td> <td>8. Na2S2O3</td> <td>9. NaOH-SO4</td> </tr> <tr> <td>10. Other</td> <td></td> <td></td> </tr> </table> | 1. DI Water             | 2. Drinking Water | 3. Soil | 4. Extract | 5. Wastewater | 6. CI | 7. Sludge | 8. Solid | 9. Air | 10. Chemical Waste | 11. Wipe | 12. Groundwater | 13. eProduct | 13. Solid | 14. Groundwater(Filler) | 15. Other |  |  | P- Plastic | V- VOC/Vol | G- Glass | B- Tedlar Bag | O- Other |  | 1. None | 2. H2SO4 | 3. HNO3 | 4. NaOH | 5. HCL | 6. MeOH | 7. Zn Aca | 8. Na2S2O3 | 9. NaOH-SO4 | 10. Other |  |  | <p style="text-align: center;"><b>Analysis</b></p> <ol style="list-style-type: none"> <li>1. Carbamates</li> <li>2. Cyanide, Total</li> <li>3. Total RCRA Metals on a Liquid Sample</li> <li>4. Volatile Organic Compounds, Method 8260</li> <li>5. EDB, DBCP and 123TCP by GC/ECD</li> </ol> <div style="text-align: right; border: 1px solid black; padding: 5px;"> <p>EMT USE ONLY</p> <p>EMT<br/>WORKORDER<br/># <u>73110665</u></p> </div> |
| 1. DI Water   | 2. Drinking Water  | 3. Soil                 |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 4. Extract  | 5. Wastewater  | 6. CI                   |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 7. Sludge   | 8. Solid   | 9. Air                  |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 10. Chemical Waste  | 11. Wipe   | 12. Groundwater         |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 13. eProduct  | 13. Solid  | 14. Groundwater(Filler) |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 15. Other   |  |                         |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| P- Plastic  | V- VOC/Vol   | G- Glass                |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| B- Tedlar Bag   | O- Other   |                         |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 1. None   | 2. H2SO4   | 3. HNO3                 |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 4. NaOH   | 5. HCL   | 6. MeOH                 |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 7. Zn Aca   | 8. Na2S2O3   | 9. NaOH-SO4             |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |
| 10. Other   |  |                         |                   |         |            |               |       |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |               |          |  |         |          |         |         |        |         |           |            |             |           |  |  |   |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |       | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|----------|-------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH    | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |     |
| AP-2        | GRAB        | 12        | 4 oz   | G   | 1        | CIL  | 11/20/13 | 12:55 | 6.70         | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | 02C |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓        | ↓     | ↓            | 4   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  | D   |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓        | ↓     | ↓            | 3   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  | E   |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 3        | ↓    | ↓        | ↓     | ↓            | 5   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  | F   |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 2        | ↓    | ↓        | ↓     | ↓            | 1   |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  | G   |
|             |             |           |        |     |          |      |          |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |
|             |             |           |        |     |          |      |          |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |
|             |             |           |        |     |          |      |          |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |
|             |             |           |        |     |          |      |          |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |
|             |             |           |        |     |          |      |          |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |

|                  |                       |              |                       |                               |  |
|------------------|-----------------------|--------------|-----------------------|-------------------------------|--|
| Relinquished By: | Date: <u>11-20-13</u> | Received By: | Date: <u>11-20-13</u> | <b>EMT USE ONLY</b>           | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>4</u> |
| Time: 15:00      |                       | Time: 15:00  |                       | Client ID: SPRING             |  |
| Relinquished By: | Date: <u>11-20-13</u> | Received By: | Date:                 | Client Contact: Joe Pavlitis  |  |
| Time: 20:05      |                       | Time:        |                       | EMT Project ID: CWLP List G20 |  |
| Relinquished By: | Date: - -             | Received By: | Date: <u>11-21-13</u> | Jar Lot No:                   |  |
| Time: : :        |                       | Time: 9:06   |                       |                               |  |

SPECIAL INSTRUCTIONS:

pH = 7.00 = 7.00 @ 12:10  
Temp = 45.2°

11/12/2013 8:50:53 AM







**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 F.IX:(847) 967-6735 www.emt.com

COC # 505355

|   |  |   |   |
|---|--|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8062<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GC/MS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT WORKORDER # <u>13112065</u> |
| <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other   | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other   |   |   |

| Sample I.D. | Sample Type | Container |         | Sampling |    |      |          | Preservation |       | Analysis |    |    |    |    |    |    |    |    |    | Lab Sample I.D. |     |  |  |  |  |     |
|-------------|-------------|-----------|---------|----------|----|------|----------|--------------|-------|----------|----|----|----|----|----|----|----|----|----|-----------------|-----|--|--|--|--|-----|
|             |             | Size      | Type    | No.      | By | Date | Time     | pH           | Field | Lab      | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |                 | 10. |  |  |  |  |     |
| AP-3        | GRAB        | 12        | 1 liter | G        | 10 | CL   | 11/20/13 | 12:20        | 6.88  | 1        |    | X  | X  | X  | X  | X  | X  |    |    |                 |     |  |  |  |  | 03A |
| AP-3        | GRAB        | 12        | 1 liter | P        | 1  |      |          |              |       | 1        |    |    |    |    |    |    |    | X  | X  | X               |     |  |  |  |  | ↓ B |

|  |  |  |   |
|--|--|--|---|
| Relinquished By: <u>[Signature]</u><br>Date: <u>11-20-13</u><br>Time: <u>15:00</u> | Received By: <u>[Signature]</u><br>Date: <u>11-20-13</u><br>Time: <u>15:00</u> | Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u> | EMT USE ONLY<br><br>SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>2</u> |
| Relinquished By: <u>[Signature]</u><br>Date: <u>11-20-13</u><br>Time: <u>20:05</u> | Received By: <u>[Signature]</u><br>Date: <u>11-21-13</u><br>Time: <u>9:00</u>  | Jar/Lot No: _____  |   |

SPECIAL INSTRUCTIONS:

11/12/2013 8:50:53 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 505355

|  |  |  |  |  |   |
|--|--|--|--|--|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater (Filter)<br>15. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. ELB, DBCP and 123TCP by GC/ED | CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other | PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2SO4<br>10. Other | EMT USE ONLY<br><br>EMT<br>WORKORDER<br># <u>13110665</u> |
|--|--|--|--|--|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |       | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|----------|-------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH    | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |
| AP-3        | GRAB        | 12        | 4 oz   | G   | 1        | CP   | 11/29/13 | 12:20 | 6.88         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  |  | 03C |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |              | 4   |          | Y |   |   |   |   |   |   |   |    |                 |  |  |  | D   |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |              | 3   |          |   | X |   |   |   |   |   |   |    |                 |  |  |  | E   |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 3        |      |          |       |              | 5   |          |   |   | Y |   |   |   |   |   |    |                 |  |  |  | F   |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 2        |      |          |       |              | 1   |          |   |   |   | X |   |   |   |   |    |                 |  |  |  | G   |

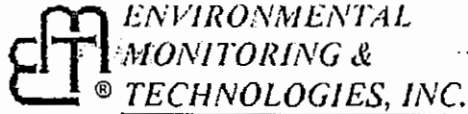
|                                     |                       |                                 |                       |  |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|--|--|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar/Lot No: | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>4</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: _____           |  |  |
| Relinquished By: _____              | Date: _____           | Received By: <u>[Signature]</u> | Date: <u>11-21-13</u> |  |  |

SPECIAL INSTRUCTIONS:

pH = 7.00 = 7.00 @ 12:10  
Temp = 45.2°F

11/12/2013 8:50:54 AM





Chain of Custody Record

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6733 www.emt.com

COC # 505355

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| Company: <u>City, Water, Light &amp; Power</u>                            | SAMPLE TYPE:<br>1. DI Water<br>4. Extract<br>7. Sludge<br>10. Chemical Waste<br>13. eProduct<br>15. Other | 2. Drinking Water<br>5. Wastewater<br>8. Solid<br>11. Wipe<br>13. Solid | 3. Soil<br>6. Oil<br>9. Air<br>12. Groundwater<br>14. Groundwater(Filler) | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GC/MS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT WORKORDER # <u>13110605</u> |
| Contact:  | CONTAINER TYPE:<br>P- Plastic<br>B- Tedar Bag   | V- VOC/Vol<br>O- Other  | G- Glass  |   |   |
| Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u> | PRESERVATIVE:<br>1. None<br>4. NaOH<br>7. Zn Ace<br>10. Other   | 2. H2SO4<br>5. HCL<br>8. Na2S2O8  | 3. HNO3<br>6. MeOH<br>9. NaOH-SOI   |   |   |
| Phone: <u>(217) 757-8610</u>  | P.O. #: _____ Proj. #: _____  | Project /Location: <u>CWLP List G20</u>                                 |   |   |   |

| Sample I.D. | Sample Type | Sample No. | Container |      |     | Sampling |          |       |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |  |
|-------------|-------------|------------|-----------|------|-----|----------|----------|-------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|--|
|             |             |            | Size      | Type | No. | By       | Date     | Time  | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |  |
| AP-4        | GRAB        | 12         | 1 liter   | G    | 10  | CPE      | 11/20/13 | 11:50 | 7.10 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  |  |  | 04A |  |
| AP-4        | GRAB        | 12         | 1 liter   | P    | 1   | ↓        | ↓        | ↓     | ↓    | 1            |     |          |   |   |   |   |   | X | X | X |    |                 |  |  |  | ↓B  |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |            |           |      |     |          |          |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |

|                                     |                       |                                 |                       |  |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|--|--|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) <u>4</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>- - - -</u>  |  |  |
| Relinquished By: <u>[Signature]</u> | Date: <u>- - - -</u>  | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> |  |  |

SPECIAL INSTRUCTIONS:

11/12/2013 8:50:54 AM





Chain of Custody Record

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

5100 North Austin Avenue - Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 505355

|   |   |   |  |
|---|---|---|--|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project / Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filtr)<br>15. Other<br>CONTAINER TYPE:<br>P- Plastic      V- VOC/Vol      G- Glass<br>B- Teflon Bag      O- Other<br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCl      6. MeOH<br>7. ZnAc      8. Na2S2O3      9. Na2-SO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total PCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | EMT USE ONLY<br>EMT WORKORDER # <u>131161665</u> |
|---|---|---|--|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |          |       |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|----------------|----------------|---------------|----------|----------|-------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|
|             |             |                |                |               | By       | Date     | Time  | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |
| AP-4        | GRAB        | 4 oz           | G              | 1             | CPL      | 11/20/13 | 11:50 | 7.10 | 8            |     | X        |   |   |   |   |   |   |   |   |    |                 |  |  |  | 04C |
| AP-4        | GRAB        | 500 ml         | P              | 1             |          |          |       |      | 4            |     |          | X |   |   |   |   |   |   |   |    |                 |  |  |  | D   |
| AP-4        | GRAB        | 500 ml         | P              | 1             |          |          |       |      | 3            |     |          |   | X |   |   |   |   |   |   |    |                 |  |  |  | E   |
| AP-4        | GRAB        | 44 ml          | V              | 3             |          |          |       |      | 5            |     |          |   |   | X |   |   |   |   |   |    |                 |  |  |  | F   |
| AP-4        | GRAB        | 44 ml          | V              | 2             |          |          |       |      | 1            |     |          |   |   |   | X |   |   |   |   |    |                 |  |  |  | G   |

|                                     |                       |                                 |                       |  |   |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|--|---|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> | EMT USE ONLY<br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No: _____ | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>4</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: _____              | Date: _____           |  |   |
| Relinquished By: _____              | Date: _____           | Received By: <u>[Signature]</u> | Date: <u>11-21-13</u> |  |   |

SPECIAL INSTRUCTIONS:

pH = 7.00 = 7.00 @ 08:00  
Temp = 68.5F

11/12/2013 8:50:54 AM







**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505355

|   |  |   |   |
|---|--|---|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br><br>Project / Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater (Filter)<br>15. Other<br><br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vol      G - Glass<br>B - Tectar Bag      O - Other<br><br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HPO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GC/MS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT<br>WORKORDER<br>#13110665 |
|---|--|---|---|

| Sample I.D. | Sample Type | Container | Sampling |      |     |          | Preservation |      | Analysis |       |     |    |    |    |    |    |    |    | Lab Sample I.D. |    |    |     |     |    |
|-------------|-------------|-----------|----------|------|-----|----------|--------------|------|----------|-------|-----|----|----|----|----|----|----|----|-----------------|----|----|-----|-----|----|
|             |             |           | Size     | Type | No. | By       | Date         | Time | pH       | Field | Lab | 1. | 2. | 3. | 4. | 5. | 6. | 7. |                 | 8. | 9. | 10. |     |    |
| AP-5        | GRAB        | 1 liter   | G        | 10   | CL  | 11/20/13 | 10:50        | 7.3  | 1        |       | X   | X  | X  | X  | X  | X  |    |    |                 |    |    |     | 05A |    |
| AP-5        | GRAB        | 1 liter   | P        | 1    |     |          |              |      | 1        |       |     |    |    |    |    |    |    |    | X               | X  | X  |     |     | 13 |

|                                     |                |                                 |                |   |  |
|-------------------------------------|----------------|---------------------------------|----------------|---|--|
| Relinquished By: <i>[Signature]</i> | Date: 11-20-13 | Received By: <i>[Signature]</i> | Date: 11-20-13 | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: 11-20-13 | Received By: <i>[Signature]</i> | Date: -        |   |  |
| Relinquished By: <i>[Signature]</i> | Date: -        | Received By: <i>[Signature]</i> | Date: 11-21-13 |   |  |

SPECIAL INSTRUCTIONS:

pH = 7.00 = 7.00 @ 08:00  
T<sub>air</sub> = 68.5 °F

11/12/2013 8:50:54 AM





Chain of Custody Record

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue, Moram Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6733 www.emt.com

COC # 505355

|  |  |  |   |
|--|--|--|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br>CONTAINER TYPE:<br>P - Plastic      V - VOC/Vol      G - Glass<br>B - Tedlar Bag      O - Other<br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ac      8. Na2S2O3      9. Na2-SO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECOD | EMT USE ONLY<br><br>EMT WORKORDER # <u>13110665</u> |
|--|--|--|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |       |       | Preservation |   |   |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|----------|-------|-------|--------------|---|---|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH    | Field | Lab          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |  |     |
| AP-5        | GRAB        | 12        | 4 oz   | G   | 1        | CH   | 11/20/13 | 10:50 | 7.32  | 8            |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  | 05C |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |       | 4            |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  | D   |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |       | 3            |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  | E   |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 3        |      |          |       |       | 5            |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  | F   |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 2        |      |          |       |       | 1            |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  | G   |

|                                     |                       |                                 |                       |   |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|---|--|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar/Lot No: | SAMPLE RECEIVED ON ICE TEMPERATURE:<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>4</u> |
| Relinquished By: <u>[Signature]</u> | Date: - -             | Received By:                    | Date: - -             |   |  |
| Relinquished By:                    | Date: - -             | Received By: <u>[Signature]</u> | Date: <u>11-21-13</u> |   |  |
|                                     | Time: 15:00           |                                 | Time: 15:00           |   |  |
|                                     | Time: : :             |                                 | Time: : :             |   |  |
|                                     | Time: : :             |                                 | Time: 9:00            |   |  |

SPECIAL INSTRUCTIONS:

11/12/2013 8:50:54 AM





Chain of Custody Record

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6733 www.emt.com

COC # 505355

|   |   |  |  |  |   |
|---|---|--|--|--|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project / Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Endothal<br>2. Deltapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GC/MS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | CONTAINER TYPE:<br>P- Plastic      V- VOC/Vol      G- Glass<br>B- Tedlar Bag      O- Other | PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn/Ace      8. Na2S2O3      9. Na2SO4<br>10. Other | EMT USE ONLY<br><br>EMT WORKORDER # <u>13116665</u> |
|---|---|--|--|--|---|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |          |       |     |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |  |     |  |
|-------------|-------------|----------------|----------------|---------------|----------|----------|-------|-----|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|--|-----|--|
|             |             |                |                |               | By       | Date     | Time  | pH  | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |  |     |  |
| AW-3        | GRAB        | 1 liter        | G              | 10            | CWLP     | 11/20/13 | 09:10 | 7.3 | 1     |              | X | X        | X | X | X | X | X |   |   |    |  |                 |  |  |  |  |  | 06A |  |
| AW-3        | GRAB        | 1 liter        | P              | 1             |          |          |       |     |       | 1            |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  | 06B |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |
|             |             |                |                |               |          |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |     |  |

|                                     |                       |                                 |                       |  |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|--|--|
| Relinquished By: <i>[Signature]</i> | Date: <u>11-20-13</u> | Received By: <i>[Signature]</i> | Date: <u>11-20-13</u> | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavlontis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>3</u> |
| Relinquished By: <i>[Signature]</i> | Date: <u>11-20-13</u> | Received By: <i>[Signature]</i> | Date: _____           |  |  |
| Relinquished By: <i>[Signature]</i> | Date: _____           | Received By: <i>[Signature]</i> | Date: <u>11-20-13</u> |  |  |

SPECIAL INSTRUCTIONS: pH = 7.00 = 7.00 @ 08:00  
Temp = 68.50





ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.

Chain of Custody Record

Scheduled Sampling Date: 11/12/2013  
Due Date: 11/26/2013

8100 North Austin Avenue, Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 505355

|  |  |   |   |
|--|--|---|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vol      G - Glass<br>B - Teflon Bag      O - Other<br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2SO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds; Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | EMT USE ONLY<br><br>EMT<br>WORKORDER<br># <u>13110665</u> |
|--|--|---|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |       |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |      |
|-------------|-------------|-----------|--------|-----|----------|------|----------|-------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|------|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH    | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |      |
| AW-3        | GRAB        | 12        | 4 oz   | G   | 1        | Cd   | 11/20/13 | 09:16 | 7.31  | 8            |   | X        |   |   |   |   |   |   |   |    |  |                 |  |  |  | 066C |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |       | 4            |   |          | X |   |   |   |   |   |   |    |  |                 |  |  |  | D    |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        |      |          |       |       | 3            |   |          |   | X |   |   |   |   |   |    |  |                 |  |  |  | E    |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 3        |      |          |       |       | 5            |   |          |   |   | X |   |   |   |   |    |  |                 |  |  |  | F    |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 2        |      |          |       |       | 1            |   |          |   |   |   | X |   |   |   |    |  |                 |  |  |  | G    |

|                                     |                       |                                 |                       |   |   |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|---|---|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> | EMT USE ONLY<br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No: _____ | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>3</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>11-20-13</u> | Received By: <u>[Signature]</u> | Date: _____           |   |   |
| Relinquished By: _____              | Date: _____           | Received By: <u>[Signature]</u> | Date: <u>11-20-13</u> |   |   |

SPECIAL INSTRUCTIONS:

11/12/2013 8:50:55 AM





**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



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Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

June 27, 2013

RE CWLP List G20

Lab Orders:  
13050718

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

**RECEIVED**

SEP 25 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

This Report Contains 39 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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CLIENT: City, Water, Light & Power  
Project: CWLP List G20  
Lab Order: 13050718

**RECEIVED**

Date: 6/27/2013  
**CASE NARRATIVE**

SEP 25 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

**Method References:**

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13050718  
Project: CWLP List G20  
Lab ID: 13050718-01

Client Sample ID: AP-1  
Report Date: 6/27/2013  
Collection Date: 5/23/2013  
Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual Units | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |            |               |         |         |
| pH   | 6.95       |                     | pH units   | 5/22/13 01:10 | R187668 | SDS     |
| <b>Anions by Ion Chromatography</b>          |            |                     |            |               |         |         |
| Chloride                                     | 44.8       | 2.00                | mg/L       | 5/23/13       | R186035 | GSB     |
| Fluoride                                     | 0.28       | 0.500               | J mg/L     | 5/23/13       | R186035 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L       | 5/23/13       | R186035 | GSB     |
| Sulfate                                      | 603        | 50.0                | mg/L       | 5/27/13       | R186164 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |            |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               | mg/L       | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |            |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1,390      | 10.0                | mg/L       | 5/24/13 11:00 | R186173 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |            |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L       | 5/30/13 11:48 | 82163   | IG      |
| <b>Metals, Total.</b>                        |            |                     |            |               |         |         |
| Antimony                                     | 0.0118     | 0.00375             | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Arsenic                                      | 0.00976    | 0.00750             | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Barium                                       | 0.308      | 0.00750             | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Beryllium                                    | < 0.00375  | 0.00375             | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Boron  | 7.78       | 0.0100              | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Cadmium                                      | < 0.00125  | 0.00125             | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Chromium                                     | 0.0024     | 0.00500             | J mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Cobalt                                       | < 0.00750  | 0.00750             | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Copper                                       | 0.0022     | 0.00375             | J mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Iron   | 12.2       | 0.0700              | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Lead   | 0.0019     | 0.00250             | J mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Manganese                                    | 0.182      | 0.00500             | mg/L       | 5/24/13 16:20 | 82036   | AG      |
| Nickel                                       | 0.0025     | 0.00375             | J mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Selenium                                     | 0.0204     | 0.00125             | B mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Silver                                       | 0.0014     | 0.00250             | J mg/L     | 5/24/13 16:20 | 82036   | AG      |
| Thallium                                     | 0.00095    | 0.00125             | J mg/L     | 5/24/13 16:20 | 82036   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank

E - Estimated

H - Holding Time Exceeded

C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-01 Matrix: Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|------|-------|---------------|---------|---------|
| Zinc   | < 0.0250 | 0.0250              |      | mg/L  | 5/24/13 16:20 | 82036   | AG      |
| <b>Carbamates</b> Method: E531.1                                 |          |                     |      |       |               |         |         |
| • Aldicarb   | < 3.00   | 3.00                | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| • Carbofuran   | < 40.0   | 40.0                | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b> Method: E504.1 / E504.1    |          |                     |      |       |               |         |         |
| * 1,2-Dibromo-3-chloropropane                                    | < 0.0397 | 0.0397              | C    | µg/L  | 5/31/13 10:42 | 82263   | LP      |
| 1,2-Dibromoethane  | < 0.0555 | 0.0555              | C    | µg/L  | 5/31/13 10:42 | 82263   | LP      |
| <b>Endothal</b> Method: E548.1 / E548.1                          |          |                     |      |       |               |         |         |
| * Endothal   | < 15.5   | 15.5                | C    | µg/L  | 5/25/13 01:48 | 82011   | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |         |         |
| 2,4,6-Tribromophenol   | 61.0     | 20-200              |      | %REC  | 5/25/13 01:48 | 82011   | RYL     |
| <b>Haloacetic Acids</b> Method: E552.2 / E552.1                  |          |                     |      |       |               |         |         |
| • Dalapon  | < 0.500  | 0.500               | C    | µg/L  | 5/29/13 13:13 | 82109   | LP      |
| <b>Surrogates:</b>   |          |                     |      |       |               |         |         |
| * 2,4-Dichlorophenylacetic acid                                  | 82.6     | 63.8-150            |      | %REC  | 5/29/13 13:13 | 82109   | LP      |
| <b>Organochlorine Pesticides</b> Method: SW8081A / SW3510C       |          |                     |      |       |               |         |         |
| • Alachlor   | < 0.132  | 0.132               |      | µg/L  | 6/5/13 00:42  | 82107   | LP      |
| • Atrazine   | < 0.165  | 0.165               |      | µg/L  | 6/5/13 00:42  | 82107   | LP      |
| • Chlordane  | < 0.0792 | 0.0792              |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Endrin   | < 0.0132 | 0.0132              |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Heptachlor   | < 0.0132 | 0.0132              |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Heptachlor epoxide   | < 0.0132 | 0.0132              |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor   | < 0.0132 | 0.0132              |      | µg/L  | 6/3/13        | 82107   | MNN     |
| • Simazine   | < 0.165  | 0.165               |      | µg/L  | 6/5/13 00:42  | 82107   | LP      |
| • Toxaphene  | < 0.528  | 0.528               |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>   |          |                     |      |       |               |         |         |
| Decachlorobiphenyl   | 73.3     | 5-185               |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX   | 40.5     | 5-130               |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> Method: SW8082 / SW3510C |          |                     |      |       |               |         |         |
| Aroclor 1016   | < 0.0825 | 0.0825              |      | µg/L  | 5/30/13       | 82108   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-01 Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|----------------------------------|------|-------|---------------|-------|---------|
| Aroclor 1221                                 | < 0.165  | 0.165                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260                                 | < 0.0825 | 0.0825                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total                                   | < 0.660  | 0.660                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene                 | 40.2     | 5-116                            |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl                           | 74.9     | 40-135                           |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS</b>  |          | <b>Method: SW8270D / SW3510C</b> |      |       |               |       |         |
| • Benzo(a)pyrene                             | < 1.33   | 1.33                             |      | µg/L  | 5/26/13 02:06 | 82074 | RYL     |
| • Bis(2-ethylhexyl)phthalate                 | < 1.33   | 1.33                             |      | µg/L  | 5/26/13 02:06 | 82074 | RYL     |
| • Hexachlorocyclopentadiene                  | < 1.33   | 1.33                             |      | µg/L  | 5/26/13 02:06 | 82074 | RYL     |
| • Phenol                                     | < 0.666  | 0.666                            |      | µg/L  | 5/26/13 02:08 | 82074 | RYL     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,6-Tribromophenol                         | 41.7     | 40-125                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| 2-Fluorobiphenyl                             | 50.0     | 50-110                           | S    | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| 2-Fluorophenol                               | 21.9     | 20-110                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| 4-Terphenyl-d14                              | 78.5     | 50-135                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| Nitrobenzene-d5                              | 50.2     | 40-110                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| Phenol-d5                                    | 12.7     | 10-115                           |      | %REC  | 5/26/13 02:06 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |          | <b>Method: SW8321A / SW3510C</b> |      |       |               |       |         |
| • 2,4,5-TP (Silvex)                          | < 50.0   | 50.0                             |      | µg/L  | 5/31/13       | 82061 | DLO     |
| • 2,4-D                                      | < 70.0   | 70.0                             |      | µg/L  | 5/31/13       | 82061 | DLO     |
| • Dinoseb                                    | < 7.00   | 7.00                             |      | µg/L  | 5/31/13       | 82061 | DLO     |
| • Pentachlorophenol                          | < 1.00   | 1.00                             | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| • Picloram                                   | < 500    | 500                              | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid                     | 56.7     | 17.7-138                         |      | %REC  | 5/31/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |          | <b>Method: SW8260B / SW5030A</b> |      |       |               |       |         |
| • 1,1,1-Trichloroethane                      | < 2.00   | 2.00                             |      | µg/L  | 5/23/13 18:57 | 82106 | MNN     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13050718  
Project: CWLP List G20  
Lab ID: 13050718-01

Client Sample ID: AP-1  
Report Date: 6/27/2013  
Collection Date: 5/23/2013  
Matrix: Groundwater

| Analyses                          | Result | EMT Reporting Limit | Qual Units | Date Analyzed | Batch   | Analyst |
|-----------------------------------|--------|---------------------|------------|---------------|---------|---------|
| 1,1,2-Trichloroethane             | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| 1,1-Dichloroethene                | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • 1,2,4-Trichlorobenzene          | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| 1,2-Dichlorobenzene               | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| 1,2-Dichloroethane                | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| 1,2-Dichloropropane               | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| 1,4-Dichlorobenzene               | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Benzene                         | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Carbon tetrachloride            | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Chlorobenzene                   | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| cis-1,2-Dichloroethene            | < 3.72 | 3.72                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Ethylbenzene                    | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Methyl tert-butyl ether         | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| Methylene chloride                | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Styrene                         | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Tetrachloroethene               | < 5.00 | 5.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Toluene                         | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| trans-1,2-Dichloroethene          | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Trichloroethene                 | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Vinyl chloride                  | < 2.00 | 2.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| • Xylenes, Total                  | < 6.00 | 6.00                | µg/L       | 5/23/13 18:57 | 82106   | MNN     |
| <b>Surrogates:</b>                |        |                     |            |               |         |         |
| 1,2-Dichloroethane-d4             | 103    | 70-120              | %REC       | 5/23/13 18:57 | 82106   | MNN     |
| 4-Bromofluorobenzene              | 102    | 75-120              | %REC       | 5/23/13 18:57 | 82106   | MNN     |
| d4-1,2-Dichlorobenzene            | 109    | 80-120              | %REC       | 5/23/13 18:57 | 82106   | MNN     |
| Dibromofluoromethane              | 94.9   | 85-115              | %REC       | 5/23/13 18:57 | 82106   | MNN     |
| Fluorobenzene                     | 104    | 80-120              | %REC       | 5/23/13 18:57 | 82106   | MNN     |
| Toluene-d8                        | 103    | 85-120              | %REC       | 5/23/13 18:57 | 82106   | MNN     |
| <b>Radiation Testing</b>          |        |                     |            |               |         |         |
| Method: EPA 900/903.1/904/905/906 |        |                     |            |               |         |         |
| • Radium-226                      | 2.     | 0.5                 | pCi/L      | 6/7/13        | R187607 | OUT     |
| • Radium-228                      | 1.3    | 0.8                 | pCi/L      | 6/7/13        | R187607 | OUT     |

**Qualifiers:**  
B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-02

**Client Sample ID:** AP-2  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |      |          |               |         |         |
| pH   | 6.83       |                     |      | pH units | 5/22/13 11:20 | R187668 | SDS     |
| <b>Anions by Ion Chromatography</b>          |            |                     |      |          |               |         |         |
| Chloride                                     | 19.8       | 2.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.43       | 0.500               | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 240        | 5.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |      |          |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               |      | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 950        | 10.0                |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Metals, Total.</b>                        |            |                     |      |          |               |         |         |
| Antimony                                     | 0.0260     | 0.00600             |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Arsenic                                      | 0.034      | 0.0500              | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Barium                                       | 0.20       | 2.00                | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Boron  | 5.01       | 2.00                |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Chromium                                     | 0.0091     | 0.100               | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Cobalt                                       | 0.0093     | 1.00                | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Copper                                       | 0.0070     | 0.650               | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Iron   | 15.8       | 5.00                |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Lead   | 0.0048     | 0.00750             | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Manganese                                    | 20.7       | 0.150               |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Nickel                                       | 0.013      | 0.100               | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Selenium                                     | 0.045      | 0.0500              | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Silver                                       | < 0.0500   | 0.0500              |      | mg/L     | 5/24/13 17:03 | 82036   | AG      |
| Thallium                                     | 0.0018     | 0.00200             | J    | mg/L     | 5/24/13 17:03 | 82036   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
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H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-02 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | 0.022    | 5.00                             | J    | mg/L  | 5/24/13 17:03 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 3.00   | 3.00                             | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| Carbofuran                              | < 40.0   | 40.0                             | C    | µg/L  | 5/29/13       | R186228 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C    | µg/L  | 5/31/13 11:13 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C    | µg/L  | 5/31/13 11:13 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 02:32 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 46.7     | 20-200                           |      | %REC  | 5/25/13 02:32 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 15:23 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 70.6     | 63.8-150                         |      | %REC  | 5/29/13 15:23 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            |      | µg/L  | 6/5/13 01:29  | 82107   | LP      |
| Atrazine                                | < 0.166  | 0.166                            |      | µg/L  | 6/5/13 01:29  | 82107   | LP      |
| Chlordane                               | < 0.0795 | 0.0795                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Endrin                                  | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Simazine                                | < 0.166  | 0.166                            |      | µg/L  | 6/5/13 01:29  | 82107   | LP      |
| Toxaphene                               | < 0.530  | 0.530                            |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 65.5     | 5-185                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX                                    | 33.7     | 5-130                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0828 | 0.0828                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-02

**Client Sample ID:** AP-2  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|---------------------|------|-------|---------------|-------|---------|
| Aroclor 1221   | < 0.166  | 0.166               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260   | < 0.0828 | 0.0828              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total   | < 0.663  | 0.663               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene   | 43.3     | 5-116               |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl   | 83.0     | 40-135              |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |          |                     |      |       |               |       |         |
| Benzo(a)pyrene   | < 1.33   | 1.33                |      | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate   | 0.39     | 1.33                | J    | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| Hexachlorocyclopentadiene  | < 1.33   | 1.33                |      | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| Phenol   | < 0.666  | 0.666               |      | µg/L  | 5/26/13 01:24 | 82074 | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,6-Tribromophenol   | 39.2     | 40-125              | S    | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| 2-Fluorobiphenyl   | 70.3     | 50-110              |      | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| 2-Fluorophenol   | 3.41     | 20-110              | S    | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| 4-Terphenyl-d14  | 116      | 50-135              |      | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| Nitrobenzene-d5  | 65.5     | 40-110              |      | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| Phenol-d5  | 1.45     | 10-115              | S    | %REC  | 5/26/13 01:24 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |          |                     |      |       |               |       |         |
| 2,4,5-TP (Silvex)  | < 50.0   | 50.0                |      | µg/L  | 5/31/13       | 82061 | DLO     |
| 2,4-D  | < 70.0   | 70.0                |      | µg/L  | 5/31/13       | 82061 | DLO     |
| Dinoseb  | < 7.00   | 7.00                |      | µg/L  | 5/31/13       | 82061 | DLO     |
| Pentachlorophenol  | < 1.00   | 1.00                | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| Picloram   | < 500    | 500                 | C    | µg/L  | 5/31/13       | 82061 | DLO     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid   | 63.1     | 17.7-138            |      | %REC  | 5/31/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |          |                     |      |       |               |       |         |
| 1,1,1-Trichloroethane  | < 2.00   | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
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H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-02

**Client Sample ID:** AP-2  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--------------------------|--------|---------------------|------|-------|---------------|-------|---------|
| 1,1,2-Trichloroethane    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| 1,1-Dichloroethene       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| 1,2,4-Trichlorobenzene   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| 1,2-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| 1,2-Dichloroethane       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| 1,2-Dichloropropane      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| 1,4-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Benzene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Carbon tetrachloride     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Chlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Ethylbenzene             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Methyl tert-butyl ether  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Methylene chloride       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Styrene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Tetrachloroethene        | < 5.00 | 5.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Toluene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| trans-1,2-Dichloroethene | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Trichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Vinyl chloride           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| Xylenes, Total           | < 6.00 | 6.00                |      | µg/L  | 5/23/13 20:03 | 82106 | MNN     |
| <b>Surrogates:</b>       |        |                     |      |       |               |       |         |
| 1,2-Dichloroethane-d4    | 112    | 70-120              |      | %REC  | 5/23/13 20:03 | 82106 | MNN     |
| 4-Bromofluorobenzene     | 99.6   | 75-120              |      | %REC  | 5/23/13 20:03 | 82106 | MNN     |
| d4-1,2-Dichlorobenzene   | 111    | 80-120              |      | %REC  | 5/23/13 20:03 | 82106 | MNN     |
| Dibromofluoromethane     | 100    | 85-115              |      | %REC  | 5/23/13 20:03 | 82106 | MNN     |
| Fluorobenzene            | 101    | 80-120              |      | %REC  | 5/23/13 20:03 | 82106 | MNN     |
| Toluene-d8               | 105    | 85-120              |      | %REC  | 5/23/13 20:03 | 82106 | MNN     |

### Radiation Testing

**Method:** EPA 900/903.1/904/905/906

|            |     |     |       |        |         |     |
|------------|-----|-----|-------|--------|---------|-----|
| Radium-226 | 2.7 | 0.9 | pCi/L | 6/7/13 | R187607 | OUT |
| Radium-228 | 1.5 | 1.  | pCi/L | 6/7/13 | R187607 | OUT |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter  
S - Spike Recovery outside accepted recovery limits  
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J - Analyte detected below quantitation limits

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-03

**Client Sample ID:** AP-3  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |      |          |               |         |         |
| pH   | 7.07       |                     |      | pH units | 5/22/13 10:40 | R187668 | SDS     |
| <b>Anions by Ion Chromatography</b>          |            |                     |      |          |               |         |         |
| Chloride                                     | 47.5       | 2.00                |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.32       | 0.500               | J    | mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              |      | mg/L     | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 347        | 50.0                |      | mg/L     | 5/29/13       | R186268 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |      |          |               |         |         |
| Cyanide                                      | 0.0032     | 0.200               | J    | mg/L     | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |      |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1,040      | 10.0                |      | mg/L     | 5/24/13 11:00 | R186173 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |      |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            |      | mg/L     | 5/30/13 11:46 | 82163   | IG      |
| <b>Metals, Total.</b>                        |            |                     |      |          |               |         |         |
| Antimony                                     | 0.0161     | 0.00600             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Arsenic                                      | 0.016      | 0.0500              | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Barium                                       | 0.095      | 2.00                | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Boron  | 18.7       | 2.00                |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Chromium                                     | < 0.100    | 0.100               |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Cobalt                                       | < 1.00     | 1.00                |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Copper                                       | < 0.650    | 0.650               |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Iron   | 14.0       | 5.00                |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Lead   | < 0.00750  | 0.00750             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Manganese                                    | 8.90       | 0.150               |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Nickel                                       | 0.0077     | 0.100               | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Selenium                                     | 0.013      | 0.0500              | J    | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Silver                                       | < 0.0500   | 0.0500              |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             |      | mg/L     | 5/24/13 17:08 | 82036   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits





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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-03 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             |      | mg/L  | 5/24/13 17:08 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186276 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0402 | 0.0402                           | C    | µg/L  | 5/31/13 12:16 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0563 | 0.0563                           | C    | µg/L  | 5/31/13 12:16 | 82283   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 03:18 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 57.8     | 20-200                           |      | %REC  | 5/25/13 03:18 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 16:06 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 78.0     | 63.8-150                         |      | %REC  | 5/29/13 16:06 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.132  | 0.132                            |      | µg/L  | 6/5/13 02:16  | 82107   | LP      |
| Alazine                                 | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 02:16  | 82107   | LP      |
| Chlordane                               | < 0.0791 | 0.0791                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Endrin                                  | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0132 | 0.0132                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Simazine                                | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 02:16  | 82107   | LP      |
| Toxaphene                               | < 0.527  | 0.527                            |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 77.9     | 5-185                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX                                    | 39.6     | 5-130                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-03 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|----------------------------------|------|-------|---------------|-------|---------|
| Aroclor 1221                                 | < 0.165  | 0.165                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260                                 | < 0.0824 | 0.0824                           |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total                                   | < 0.659  | 0.659                            |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene                 | 42.4     | 5-116                            |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl                           | 83.0     | 40-135                           |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS</b>  |          | <b>Method: SW8270D / SW3510C</b> |      |       |               |       |         |
| Benzo(a)pyrene                               | < 1.33   | 1.33                             |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33   | 1.33                             |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| Hexachlorocyclopentadiene                    | < 1.33   | 1.33                             |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| Phenol                                       | < 0.667  | 0.667                            |      | µg/L  | 5/25/13 22:36 | 82074 | RYL     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 2,4,6-Tribromophenol                         | 38.5     | 40-125                           | S    | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| 2-Fluorobiphenyl                             | 64.5     | 50-110                           |      | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| 2-Fluorophenol                               | 4.65     | 20-110                           | S    | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| 4-Terphenyl-d14                              | 106      | 50-135                           |      | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| Nitrobenzene-d5                              | 62.5     | 40-110                           |      | %REC  | 5/25/13 22:38 | 82074 | RYL     |
| Phenol-d5                                    | 2.18     | 10-115                           | S    | %REC  | 5/25/13 22:36 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |          | <b>Method: SW8321A / SW3510C</b> |      |       |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.249  | 0.249                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D  | < 0.234  | 0.234                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb                                      | < 0.219  | 0.219                            |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol                            | < 0.264  | 0.264                            | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram                                     | < 0.216  | 0.216                            | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>                           |          |                                  |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid                     | 61.2     | 17.7-138                         |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |          | <b>Method: SW8260B / SW5030A</b> |      |       |               |       |         |
| 1,1,1-Trichloroethane                        | < 2.00   | 2.00                             |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power

Client Sample ID: AP-3

Lab Order: 13050718

Report Date: 6/27/2013

Project: CWLP List G20

Collection Date: 5/23/2013

Lab ID: 13050718-03

Matrix: Groundwater

| Analyses                 | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--------------------------|--------|---------------------|------|-------|---------------|-------|---------|
| 1,1,2-Trichloroethane    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| 1,1-Dichloroethene       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| 1,2,4-Trichlorobenzene   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| 1,2-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| 1,2-Dichloroethane       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| 1,2-Dichloropropane      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| 1,4-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Benzene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Carbon tetrachloride     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82108 | MNN     |
| Chlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Ethylbenzene             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Methyl tert-butyl ether  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Methylene chloride       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Styrene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Tetrachloroethene        | < 5.00 | 5.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Toluene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| trans-1,2-Dichloroethene | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Trichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Vinyl chloride           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| Xylenes, Total           | < 6.00 | 6.00                |      | µg/L  | 5/23/13 21:09 | 82106 | MNN     |
| <b>Surrogates:</b>       |        |                     |      |       |               |       |         |
| 1,2-Dichloroethane-d4    | 107    | 70-120              |      | %REC  | 5/23/13 21:09 | 82106 | MNN     |
| 4-Bromofluorobenzene     | 104    | 75-120              |      | %REC  | 5/23/13 21:09 | 82106 | MNN     |
| d4-1,2-Dichlorobenzene   | 111    | 80-120              |      | %REC  | 5/23/13 21:09 | 82106 | MNN     |
| Dibromofluoromethane     | 101    | 85-115              |      | %REC  | 5/23/13 21:09 | 82106 | MNN     |
| Fluorobenzene            | 101    | 80-120              |      | %REC  | 5/23/13 21:09 | 82106 | MNN     |
| Toluene-d8               | 101    | 85-120              |      | %REC  | 5/23/13 21:09 | 82106 | MNN     |

### Radiation Testing

Method: EPA 900/903.1/904/905/906

|            |    |      |       |        |         |     |
|------------|----|------|-------|--------|---------|-----|
| Radium-226 | ND | 0.9  | pCi/L | 6/7/13 | R187607 | OUT |
| Radium-228 | ND | 0.83 | pCi/L | 6/7/13 | R187607 | OUT |

### Qualifiers:

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-04

**Client Sample ID:** AP-4  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses                                     | Result.    | EMT Reporting Limit | Qual Units | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |            |               |         |         |
| pH   | 7.23       |                     | pH units   | 5/22/13 10:00 | R187668 | SDS     |
| <b>Method: SM4500-H</b>                      |            |                     |            |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |            |               |         |         |
| Chloride                                     | 11.0       | 2.00                | mg/L       | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.20       | 0.500               | J mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L       | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 0.30       | 5.00                | J mg/L     | 5/25/13       | R186137 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |            |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |            |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               | mg/L       | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |            |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |            |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 578        | 10.0                | mg/L       | 5/24/13 11:00 | R186173 | TB2     |
| <b>Method: SM2540C</b>                       |            |                     |            |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |            |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L       | 5/30/13 11:46 | 82163   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |            |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |            |               |         |         |
| Antimony                                     | 0.0152     | 0.00600             | mg/L       | 5/24/13 17:14 | 82036   | AG      |
| Arsenic                                      | 0.025      | 0.0500              | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Barium                                       | 0.37       | 2.00                | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L       | 5/24/13 17:14 | 82036   | AG      |
| Boron  | 0.75       | 2.00                | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             | mg/L       | 5/24/13 17:14 | 82036   | AG      |
| Chromium                                     | 0.0039     | 0.100               | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Cobalt                                       | < 1.00     | 1.00                | mg/L       | 5/24/13 17:14 | 82036   | AG      |
| Copper                                       | 0.0040     | 0.650               | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Iron   | 20.0       | 5.00                | mg/L       | 5/24/13 17:14 | 82036   | AG      |
| Lead   | 0.0036     | 0.00750             | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Manganese                                    | 0.324      | 0.150               | mg/L       | 5/24/13 17:14 | 82036   | AG      |
| Nickel                                       | 0.0057     | 0.100               | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Selenium                                     | 0.0079     | 0.0500              | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Silver                                       | 0.0021     | 0.0500              | J mg/L     | 5/24/13 17:14 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L       | 5/24/13 17:14 | 82036   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits





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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power

Client Sample ID: AP-4

Lab Order: 13050718

Report Date: 6/27/2013

Project: CWLP List G20

Collection Date: 5/23/2013

Lab ID: 13050718-04

Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             |      | mg/L  | 5/24/13 17:14 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C    | µg/L  | 5/31/13 12:48 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C    | µg/L  | 5/31/13 12:48 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 04:00 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 67.6     | 20-200                           |      | %REC  | 5/25/13 04:00 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 16:49 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 89.6     | 63.8-150                         |      | %REC  | 5/29/13 16:49 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            |      | µg/L  | 6/5/13 03:04  | 82107   | LP      |
| Atrazine                                | < 0.167  | 0.167                            |      | µg/L  | 6/5/13 03:04  | 82107   | LP      |
| Chlordane                               | < 0.0799 | 0.0799                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Endrin                                  | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0133 | 0.0133                           |      | µg/L  | 6/3/13        | 82107   | MNN     |
| Simazine                                | < 0.167  | 0.167                            |      | µg/L  | 6/5/13 03:04  | 82107   | LP      |
| Toxaphene                               | < 0.533  | 0.533                            |      | µg/L  | 6/3/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 90.0     | 5-185                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| TCMX                                    | 38.7     | 5-130                            |      | %REC  | 6/3/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0833 | 0.0833                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

Qualifiers: B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-04 Matrix: Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|---------------------|------|-------|---------------|-------|---------|
| Aroclor 1221   | < 0.167  | 0.167               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232   | < 0.0833 | 0.0833              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242   | < 0.0833 | 0.0833              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248   | < 0.0833 | 0.0833              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254   | < 0.0833 | 0.0833              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260   | < 0.0833 | 0.0833              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total   | < 0.666  | 0.666               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene   | 37.8     | 5-116               |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl   | 77.0     | 40-135              |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |          |                     |      |       |               |       |         |
| Benzo(a)pyrene   | < 1.33   | 1.33                |      | µg/L  | 5/26/13       | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33   | 1.33                |      | µg/L  | 5/26/13       | 82074 | RYL     |
| Hexachlorocyclopentadiene  | < 1.33   | 1.33                |      | µg/L  | 5/26/13       | 82074 | RYL     |
| Phenol   | < 0.665  | 0.665               |      | µg/L  | 5/26/13       | 82074 | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,6-Tribromophenol   | 53.9     | 40-125              |      | %REC  | 5/26/13       | 82074 | RYL     |
| 2-Fluorobiphenyl   | 40.8     | 50-110              | S    | %REC  | 5/26/13       | 82074 | RYL     |
| 2-Fluorophenol   | 15.9     | 20-110              | S    | %REC  | 5/26/13       | 82074 | RYL     |
| 4-Terphenyl-d14  | 108      | 50-135              |      | %REC  | 5/26/13       | 82074 | RYL     |
| Nitrobenzene-d5  | 35.5     | 40-110              | S    | %REC  | 5/26/13       | 82074 | RYL     |
| Phenol-d5  | 9.32     | 10-115              | S    | %REC  | 5/26/13       | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |          |                     |      |       |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.249  | 0.249               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D  | < 0.234  | 0.234               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb  | < 0.219  | 0.219               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol  | < 0.264  | 0.264               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram   | < 0.215  | 0.215               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid   | 61.0     | 17.7-138            |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |          |                     |      |       |               |       |         |
| 1,1,1-Trichloroethane  | < 2.00   | 2.00                |      | µg/L  | 5/23/13 22:15 | 82106 | MNN     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-04 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit | Qual | Units                                    | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|---------------------|------|--|---------------|---------|---------|
| 1,1,2-Trichloroethane    | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| 1,1-Dichloroethene       | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| 1,2,4-Trichlorobenzene   | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| 1,2-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| 1,2-Dichloroethane       | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| 1,2-Dichloropropane      | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| 1,4-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Benzene                  | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Carbon tetrachloride     | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Chlorobenzene            | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Ethylbenzene             | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Methyl tert-butyl ether  | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Methylene chloride       | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Styrene                  | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Tetrachloroethene        | < 5.00 | 5.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Toluene                  | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| trans-1,2-Dichloroethene | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Trichloroethene          | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Vinyl chloride           | < 2.00 | 2.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| Xylenes, Total           | < 6.00 | 6.00                |      | µg/L                                     | 5/23/13 22:15 | 82106   | MNN     |
| <b>Surrogates:</b>       |        |                     |      |  |               |         |         |
| 1,2-Dichloroethane-d4    | 115    | 70-120              |      | %REC                                     | 5/23/13 22:15 | 82106   | MNN     |
| 4-Bromofluorobenzene     | 99.0   | 75-120              |      | %REC                                     | 5/23/13 22:15 | 82106   | MNN     |
| d4-1,2-Dichlorobenzene   | 113    | 80-120              |      | %REC                                     | 5/23/13 22:15 | 82106   | MNN     |
| Dibromofluoromethane     | 106    | 85-115              |      | %REC                                     | 5/23/13 22:15 | 82106   | MNN     |
| Fluorobenzene            | 101    | 80-120              |      | %REC                                     | 5/23/13 22:15 | 82106   | MNN     |
| Toluene-d8               | 101    | 85-120              |      | %REC                                     | 5/23/13 22:15 | 82106   | MNN     |
| <b>Radiation Testing</b> |        |                     |      |  |               |         |         |
|                          |        |                     |      | <b>Method: EPA 900/903.1/904/905/906</b> |               |         |         |
| Radium-226               | 0.84   | 0.83                |      | pCi/L                                    | 6/7/13        | R187607 | OUT     |
| Radium-228               | 0.69   | 0.65                |      | pCi/L                                    | 6/7/13        | R187607 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13050718  
Project: CWLP List G20  
Lab ID: 13050718-05

Client Sample ID: AP-3  
Report Date: 6/27/2013  
Collection Date: 5/23/2013  
Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual Units | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |            |               |         |         |
| pH   | 7.46       |                     | pH units   | 5/22/13 09:00 | R187668 | SDS     |
| <b>Anions by Ion Chromatography</b>          |            |                     |            |               |         |         |
| Chloride                                     | 2.61       | 2.00                | mg/L       | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.43       | 0.500               | J mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.637      | 0.500               | mg/L       | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 55.3       | 5.00                | mg/L       | 5/25/13       | R186137 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |            |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               | mg/L       | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |            |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 410        | 10.0                | mg/L       | 5/24/13 11:00 | R186173 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |            |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L       | 5/30/13 11:46 | 82163   | IG      |
| <b>Metals, Total.</b>                        |            |                     |            |               |         |         |
| Antimony                                     | 0.0160     | 0.00600             | mg/L       | 5/24/13 17:19 | 82036   | AG      |
| Arsenic                                      | 0.0094     | 0.0500              | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Barium                                       | 0.13       | 2.00                | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L       | 5/24/13 17:19 | 82036   | AG      |
| Boron  | 0.22       | 2.00                | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             | mg/L       | 5/24/13 17:19 | 82036   | AG      |
| Chromium                                     | 0.016      | 0.100               | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Cobalt                                       | 0.0086     | 1.00                | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Copper                                       | 0.013      | 0.650               | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Iron   | 20.7       | 5.00                | mg/L       | 5/24/13 17:19 | 82036   | AG      |
| Lead   | 0.0104     | 0.00750             | mg/L       | 5/24/13 17:19 | 82036   | AG      |
| Manganese                                    | 0.356      | 0.150               | mg/L       | 5/24/13 17:19 | 82036   | AG      |
| Nickel                                       | 0.021      | 0.100               | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Selenium                                     | 0.0046     | 0.0500              | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Silver                                       | 0.0030     | 0.0500              | J mg/L     | 5/24/13 17:19 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L       | 5/24/13 17:19 | 82036   | AG      |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-05 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | 0.048    | 5.00                             | J    | mg/L  | 5/24/13 17:19 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0397 | 0.0397                           | C    | µg/L  | 5/31/13 13:19 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0555 | 0.0555                           | C    | µg/L  | 5/31/13 13:19 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 04:44 | 82011   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 52.2     | 20-200                           |      | %REC  | 5/25/13 04:44 | 82011   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 5/29/13 17:33 | 82109   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 86.9     | 63.8-150                         |      | %REC  | 5/29/13 17:33 | 82109   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.132  | 0.132                            |      | µg/L  | 6/5/13 03:51  | 82107   | LP      |
| Atrazine                                | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 03:51  | 82107   | LP      |
| Chlordane                               | < 0.0794 | 0.0794                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Endrin                                  | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0132 | 0.0132                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Simazine                                | < 0.165  | 0.165                            |      | µg/L  | 6/5/13 03:51  | 82107   | LP      |
| Toxaphene                               | < 0.530  | 0.530                            |      | µg/L  | 6/4/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 89.9     | 5-185                            |      | %REC  | 6/4/13        | 82107   | MNN     |
| TCMX                                    | 46.0     | 5-130                            |      | %REC  | 6/4/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0827 | 0.0827                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-05

**Client Sample ID:** AP-5  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses   | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--|----------|---------------------|------|-------|---------------|-------|---------|
| Aroclor 1221   | < 0.165  | 0.165               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260   | < 0.0827 | 0.0827              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total   | < 0.662  | 0.662               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene   | 43.9     | 5-116               |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl   | 81.4     | 40-135              |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |          |                     |      |       |               |       |         |
| Benzo(a)pyrene   | < 1.33   | 1.33                |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33   | 1.33                |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| Hexachlorocyclopentadiene  | < 1.33   | 1.33                |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| Phenol   | < 0.666  | 0.666               |      | µg/L  | 5/25/13 23:18 | 82074 | RYL     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 2,4,6-Tribromophenol   | 47.5     | 40-125              |      | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| 2-Fluorobiphenyl   | 35.0     | 50-110              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| 2-Fluorophenol   | 14.0     | 20-110              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| 4-Terphenyl-d14  | 88.2     | 50-135              |      | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| Nitrobenzene-d5  | 32.5     | 40-110              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| Phenol-d5  | 7.90     | 10-115              | S    | %REC  | 5/25/13 23:18 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |          |                     |      |       |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.249  | 0.249               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D  | < 0.234  | 0.234               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb  | < 0.219  | 0.219               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol  | < 0.264  | 0.264               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram   | < 0.216  | 0.216               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>   |          |                     |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid   | 65.4     | 17.7-138            |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |          |                     |      |       |               |       |         |
| 1,1,1-Trichloroethane  | < 2.00   | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |

**Qualifiers:** B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-05

**Client Sample ID:** AP-5  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--------------------------|--------|---------------------|------|-------|---------------|-------|---------|
| 1,1,2-Trichloroethane    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| 1,1-Dichloroethene       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| 1,2,4-Trichlorobenzene   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| 1,2-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| 1,2-Dichloroethane       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| 1,2-Dichloropropane      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| 1,4-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Benzene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Carbon tetrachloride     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Chlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Ethylbenzene             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Methyl tert-butyl ether  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82108 | MNN     |
| Methylene chloride       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82108 | MNN     |
| Styrene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Tetrachloroethene        | < 5.00 | 5.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Toluene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| trans-1,2-Dichloroethene | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Trichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Vinyl chloride           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 22:48 | 82106 | MNN     |
| Xylenes, Total           | < 6.00 | 6.00                |      | µg/L  | 5/23/13 22:48 | 82108 | MNN     |
| <b>Surrogates:</b>       |        |                     |      |       |               |       |         |
| 1,2-Dichloroethane-d4    | 117    | 70-120              |      | %REC  | 5/23/13 22:48 | 82106 | MNN     |
| 4-Bromofluorobenzene     | 102    | 75-120              |      | %REC  | 5/23/13 22:48 | 82106 | MNN     |
| d4-1,2-Dichlorobenzene   | 114    | 80-120              |      | %REC  | 5/23/13 22:48 | 82106 | MNN     |
| Dibromofluoromethane     | 105    | 85-115              |      | %REC  | 5/23/13 22:48 | 82106 | MNN     |
| Fluorobenzene            | 101    | 80-120              |      | %REC  | 5/23/13 22:48 | 82106 | MNN     |
| Toluene-d8               | 102    | 85-120              |      | %REC  | 5/23/13 22:48 | 82106 | MNN     |

### Radiation Testing

Method: EPA 900/903.1/904/905/906

|            |     |      |       |        |         |     |
|------------|-----|------|-------|--------|---------|-----|
| Radium-226 | 1.1 | 0.8  | pCi/L | 6/7/13 | R187607 | OUT |
| Radium-228 | ND  | 0.68 | pCi/L | 6/7/13 | R187607 | OUT |

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13050718  
Project: CWLP List G20  
Lab ID: 13050718-06

Client Sample ID: AW-3  
Report Date: 6/27/2013  
Collection Date: 5/23/2013  
Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Qual Units | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |            |               |         |         |
| pH   | 7.63       |                     | pH units   | 5/22/13 11:10 | R187668 | SDS     |
| <b>Anions by Ion Chromatography</b>          |            |                     |            |               |         |         |
| Chloride                                     | 28.9       | 2.00                | mg/L       | 5/25/13       | R186137 | GSB     |
| Fluoride                                     | 0.42       | 0.500               | J mg/L     | 5/25/13       | R186137 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L       | 5/25/13       | R186137 | GSB     |
| Sulfate                                      | 40.8       | 5.00                | mg/L       | 5/25/13       | R186137 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |            |               |         |         |
| Cyanide                                      | < 0.200    | 0.200               | mg/L       | 5/23/13 14:43 | 82027   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |            |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 436        | 10.0                | mg/L       | 5/24/13 11:00 | R186173 | TB2     |
| <b>Mercury, Total</b>                        |            |                     |            |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L       | 5/30/13 11:46 | 82163   | IG      |
| <b>Metals, Total.</b>                        |            |                     |            |               |         |         |
| Antimony                                     | 0.0128     | 0.00600             | mg/L       | 5/24/13 17:24 | 82036   | AG      |
| Arsenic                                      | 0.015      | 0.0500              | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Barium                                       | 0.059      | 2.00                | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L       | 5/24/13 17:24 | 82036   | AG      |
| Boron  | 0.22       | 2.00                | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Cadmium                                      | < 0.00500  | 0.00500             | mg/L       | 5/24/13 17:24 | 82036   | AG      |
| Chromium                                     | < 0.100    | 0.100               | mg/L       | 5/24/13 17:24 | 82036   | AG      |
| Cobalt                                       | < 1.00     | 1.00                | mg/L       | 5/24/13 17:24 | 82036   | AG      |
| Copper                                       | 0.0025     | 0.650               | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Iron   | 1.2        | 5.00                | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Lead   | < 0.00750  | 0.00750             | mg/L       | 5/24/13 17:24 | 82036   | AG      |
| Manganese                                    | 0.045      | 0.150               | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Nickel                                       | 0.0026     | 0.100               | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Selenium                                     | 0.0025     | 0.0500              | J mg/L     | 5/24/13 17:24 | 82036   | AG      |
| Silver                                       | < 0.0500   | 0.0500              | mg/L       | 5/24/13 17:24 | 82036   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L       | 5/24/13 17:24 | 82036   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13050718 Report Date: 6/27/2013  
Project: CWLP List G20 Collection Date: 5/23/2013  
Lab ID: 13050718-06 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Qual | Units | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|------|-------|---------------|---------|---------|
| Zinc                                    | < 5.00   | 5.00                             |      | mg/L  | 5/24/13 17:24 | 82036   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |      |       |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C    | µg/L  | 5/30/13       | R186278 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |      |       |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0395 | 0.0395                           | C    | µg/L  | 5/31/13 13:51 | 82263   | LP      |
| 1,2-Dibromoethane                       | < 0.0554 | 0.0554                           | C    | µg/L  | 5/31/13 13:51 | 82263   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |      |       |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C    | µg/L  | 5/25/13 06:55 | 82054   | RYL     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4,6-Tribromophenol                    | 49.2     | 20-200                           |      | %REC  | 5/25/13 06:55 | 82054   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |      |       |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C    | µg/L  | 6/3/13 23:40  | 82231   | LP      |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| 2,4-Dichlorophenylacetic acid           | 74.0     | 63.8-150                         |      | %REC  | 6/3/13 23:40  | 82231   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |      |       |               |         |         |
| Alachlor                                | < 0.131  | 0.131                            |      | µg/L  | 6/5/13 04:38  | 82107   | LP      |
| Atrazine                                | < 0.164  | 0.164                            |      | µg/L  | 6/5/13 04:38  | 82107   | LP      |
| Chlordane                               | < 0.0786 | 0.0786                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Endrin                                  | < 0.0131 | 0.0131                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor                              | < 0.0131 | 0.0131                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Heptachlor epoxide                      | < 0.0131 | 0.0131                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Methoxychlor                            | < 0.0131 | 0.0131                           |      | µg/L  | 6/4/13        | 82107   | MNN     |
| Simazine                                | < 0.164  | 0.164                            |      | µg/L  | 6/5/13 04:38  | 82107   | LP      |
| Toxaphene                               | < 0.524  | 0.524                            |      | µg/L  | 6/4/13        | 82107   | MNN     |
| <b>Surrogates:</b>                      |          |                                  |      |       |               |         |         |
| Decachlorobiphenyl                      | 75.6     | 5-185                            |      | %REC  | 6/4/13        | 82107   | MNN     |
| TCMX                                    | 31.9     | 5-130                            |      | %REC  | 6/4/13        | 82107   | MNN     |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |      |       |               |         |         |
| Aroclor 1016                            | < 0.0819 | 0.0819                           |      | µg/L  | 5/30/13       | 82108   | NCH     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AW-3  
**Lab Order:** 13050718 **Report Date:** 6/27/2013  
**Project:** CWLP List G20 **Collection Date:** 5/23/2013  
**Lab ID:** 13050718-06 **Matrix:** Groundwater

| Analyses  | Result   | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|---|----------|---------------------|------|-------|---------------|-------|---------|
| Aroclor 1221  | < 0.164  | 0.164               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1232  | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1242  | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1248  | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1254  | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| Aroclor 1260  | < 0.0819 | 0.0819              |      | µg/L  | 5/30/13       | 82108 | NCH     |
| PCB, Total  | < 0.655  | 0.655               |      | µg/L  | 5/30/13       | 82108 | NCH     |
| <b>Surrogates:</b>  |          |                     |      |       |               |       |         |
| 2,4,5,6-Tetrachloro-m-xylene  | 33.7     | 5-116               |      | %REC  | 5/30/13       | 82108 | NCH     |
| Decachlorobiphenyl  | 76.4     | 40-135              |      | %REC  | 5/30/13       | 82108 | NCH     |
| <b>Semivolatile Organic Compounds GC/MS</b> <b>Method:</b> SW8270D / SW3510C  |          |                     |      |       |               |       |         |
| Benzo(a)pyrene  | < 1.33   | 1.33                |      | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| Bis(2-ethylhexyl)phthalate  | 0.63     | 1.33                | J    | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| Hexachlorocyclopentadiene   | < 1.33   | 1.33                |      | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| Phenol  | < 0.664  | 0.664               |      | µg/L  | 5/26/13 21:27 | 82074 | RYL     |
| <b>Surrogates:</b>  |          |                     |      |       |               |       |         |
| 2,4,6-Tribromophenol  | 38.1     | 40-125              | S    | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| 2-Fluorobiphenyl  | 49.2     | 50-110              | S    | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| 2-Fluorophenol  | 17.8     | 20-110              | S    | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| 4-Terphenyl-d14   | 81.2     | 50-135              |      | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| Nitrobenzene-d5   | 43.3     | 40-110              |      | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| Phenol-d5   | 12.6     | 10-115              |      | %REC  | 5/26/13 21:27 | 82074 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> <b>Method:</b> SW8321A / SW3510C |          |                     |      |       |               |       |         |
| 2,4,5-TP (Silvex)   | < 0.249  | 0.249               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| 2,4-D   | < 0.234  | 0.234               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Dinoseb   | < 0.220  | 0.220               |      | µg/L  | 5/28/13       | 82061 | DLO     |
| Pentachlorophenol   | < 0.264  | 0.264               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| Picloram  | < 0.216  | 0.216               | C    | µg/L  | 5/28/13       | 82061 | DLO     |
| <b>Surrogates:</b>  |          |                     |      |       |               |       |         |
| 3,5-Dichlorobenzoic Acid  | 59.9     | 17.7-138            |      | %REC  | 5/28/13       | 82061 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> <b>Method:</b> SW8260B / SW5030A   |          |                     |      |       |               |       |         |
| 1,1,1-Trichloroethane   | < 2.00   | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 13050718  
**Project:** CWLP List G20  
**Lab ID:** 13050718-06

**Client Sample ID:** AW-3  
**Report Date:** 6/27/2013  
**Collection Date:** 5/23/2013  
**Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit | Qual | Units | Date Analyzed | Batch | Analyst |
|--------------------------|--------|---------------------|------|-------|---------------|-------|---------|
| 1,1,2-Trichloroethane    | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,1-Dichloroethene       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2,4-Trichlorobenzene   | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2-Dichloroethane       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,2-Dichloropropane      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| 1,4-Dichlorobenzene      | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Benzene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Carbon tetrachloride     | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Chlorobenzene            | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                |      | µg/L  | 5/23/13 23:21 | 82108 | MNN     |
| Ethylbenzene             | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Methyl tert-butyl ether  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Methylene chloride       | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Styrene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Tetrachloroethene        | < 5.00 | 5.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Toluene                  | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| trans-1,2-Dichloroethene | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Trichloroethene          | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Vinyl chloride           | < 2.00 | 2.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| Xylenes, Total           | < 6.00 | 6.00                |      | µg/L  | 5/23/13 23:21 | 82106 | MNN     |
| <b>Surrogates:</b>       |        |                     |      |       |               |       |         |
| 1,2-Dichloroethane-d4    | 114    | 70-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| 4-Bromofluorobenzene     | 104    | 75-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| d4-1,2-Dichlorobenzene   | 114    | 80-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| Dibromofluoromethane     | 99.8   | 85-115              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| Fluorobenzene            | 100    | 80-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |
| Toluene-d8               | 102    | 85-120              |      | %REC  | 5/23/13 23:21 | 82106 | MNN     |

### Radiation Testing

Method: EPA 900/903.1/904/905/906

|            |    |       |       |        |         |     |
|------------|----|-------|-------|--------|---------|-----|
| Radium-226 | ND | -0.08 | pCi/L | 6/7/13 | R187607 | OUT |
| Radium-228 | ND | 0.76  | pCi/L | 6/7/13 | R187607 | OUT |

### Qualifiers:

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

C - Laboratory not accredited for this parameter

environmental laboratory and testing services

| water | soil | air | product | waste |







### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
 Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|  |   |   |   |
|--|---|---|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | Analysis<br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br>EMT WORKORDER # <u>13052218</u> |
|  | CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other  |   |   |
| PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |   |   |   |

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |       |      |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |     |
|-------------|-------------|-----------|------|-----|----------|---------|-------|------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|-----|
|             |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |     |
| AP-1        | GRAB        | 1 liter   | G    | 10  | AK       | 5/22/13 | 12:10 | 6.95 | 1     |              | X | X        | X | X | X | X |   |   |   |    |  |                 |  |  | OTA |
| AP-1        | GRAB        | 1 liter   | P    | 1   | J        |         |       |      |       | 1            |   |          |   |   |   |   | X | X | X |    |  |                 |  |  | O1B |

|  |  |   |  |   |
|--|--|---|--|---|
| Relinquished By: <u>[Signature]</u><br>Date: 5-22-13<br>Time: 13:30: | Received By: <u>[Signature]</u><br>Date: 5-22-13<br>Time: 13:30: | EMT USE ONLY<br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u> |  | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <u>[Signature]</u><br>Date: 5-22-13<br>Time: 16:30: | Received By: <u>[Signature]</u><br>Date: 5-22-13<br>Time: 16:30: | Jar Lot No.   |  |   |

SPECIAL INSTRUCTIONS: pH 7.00 = 7.00 @ 68.3°  
 Time: 08:32



JP



Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |   |   |   |
|---|--|---|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br><u>3050718</u> |
|---|--|---|---|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |       |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|-------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH    | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |     |
| AP-1        | GRAB        | 12        | 4 oz   | G   | 1        | KE   | 5/22/13 | 12:10 | 6.95  | 8            |   | X        |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | 01C |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        |      |         |       |       | 4            |   |          | X |   |   |   |   |   |   |    |  |                 |  |  |  |  | 01D |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        |      |         |       |       | 3            |   |          |   | X |   |   |   |   |   |    |  |                 |  |  |  |  | 01E |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 3        |      |         |       |       | 5            |   |          |   |   | X |   |   |   |   |    |  |                 |  |  |  |  | 01F |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 2        |      |         |       |       | 1            |   |          |   |   |   | X |   |   |   |    |  |                 |  |  |  |  | 01G |

|   |   |   |   |  |   |
|---|---|---|---|--|---|
| Relinquished By: <u>Austin E...</u><br>Date: <u>5-22-13</u><br>Time: <u>13:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>13:30</u> | Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joc Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br><br>Jar Lot No. | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 8 hrs. prior to sample receipt) <u>2</u> |
|---|---|---|---|--|---|

SPECIAL INSTRUCTIONS:

5/17/2013 9:00:41 AM





JP



### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013

Due Date: 06/14/2013

8110 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |   |   |  |
|---|--|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semi-volatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#1305A718 |
|---|--|---|---|--|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |       |      |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |     |  |
|-------------|-------------|-----------|------|-----|----------|---------|-------|------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|-----|--|
|             |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |     |  |
| AP-2        | GRAB        | 1 liter   | G    | 10  | AZ       | 5/22/13 | 11:20 | 6.83 | 1     |              | X | X        | X | X | X | X |   |   |   |    |  |                 |  |  |  | 02A |  |
| AP-2        | GRAB        | 1 liter   | P    | 1   | ↓        | ↓       | ↓     | ↓    | 1     |              |   |          |   |   |   |   |   | X | X | X  |  |                 |  |  |  | 02B |  |
|             |             |           |      |     |          |         |       |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |     |  |
|             |             |           |      |     |          |         |       |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |     |  |

|                                      |                      |                                 |                      |  |  |
|--------------------------------------|----------------------|---------------------------------|----------------------|--|--|
| Relinquished By: <u>Austin Sauer</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlikous</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>2</u> |
| Relinquished By: <u>[Signature]</u>  | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |  |
| Relinquished By: _____               | Date: _____          | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |  |

SPECIAL INSTRUCTIONS: AH 700 = 7.00 @ 68.3°C  
Time = 08:32



JP



### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 505052

|   |  |   |   |
|---|--|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u>                               | <b>SAMPLE TYPE:</b><br>1. DI Water<br>2. Drinking Water<br>3. Soil<br>4. Extract<br>5. Wastewater<br>6. Oil<br>7. Sludge<br>8. Solid<br>9. Air<br>10. Chemical Waste<br>11. Wipe<br>12. Groundwater<br>13. eProduct<br>13. Solid<br>14. Groundwater(Filter)<br>15. Other | <b>Analysis</b>   | <b>EMT USE ONLY</b><br><br>EMT WORKORDER<br>#13055718 |
| <b>Contact:</b>   | <b>CONTAINER TYPE:</b><br>P - Plastic<br>V - VOC Vial<br>G - Glass<br>B - Tediar Bag<br>O - Other  |   |   |
| <b>Address:</b><br><u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u> | <b>PRESERVATIVE:</b><br>1. None<br>2. H2SO4<br>3. HNO3<br>4. NaOH<br>5. HCL<br>6. MeOH<br>7. Zn Ace<br>8. Na2S2O3<br>9. Na2HSO4<br>10. Other   |   |   |
| <b>Phone:</b> <u>(217) 757-8610</u>   | <b>P.O. #:</b> _____ <b>Proj. #:</b> _____   | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD |   |
| <b>Project /Location:</b> <u>CWLP List G20</u>                                      |  |   |   |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |       | Preservation |     | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Lab Sample I.D. |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|-------|--------------|-----|---|---|---|---|---|---|---|---|---|----|-----------------|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH    | Field        | Lab |   |   |   |   |   |   |   |   |   |    |                 |     |
| AP-2        | GRAB        | 12        | 4 oz   | G   | 1        | KE   | 5/22/13 | 11:20 | 6.85         | 8   |   | X |   |   |   |   |   |   |   |    |                 | O2C |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓     | ↓            | 4   |   |   | X |   |   |   |   |   |   |    |                 | O2D |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓     | ↓            | 3   |   |   |   | X |   |   |   |   |   |    |                 | O2B |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 3        | ↓    | ↓       | ↓     | ↓            | 5   |   |   |   | X |   |   |   |   |   |    |                 | O2F |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 2        | ↓    | ↓       | ↓     | ↓            | 1   |   |   |   |   | X |   |   |   |   |    |                 | O2G |
|             |             |           |        |     |          |      |         |       |              |     |   |   |   |   |   |   |   |   |   |    |                 |     |
|             |             |           |        |     |          |      |         |       |              |     |   |   |   |   |   |   |   |   |   |    |                 |     |
|             |             |           |        |     |          |      |         |       |              |     |   |   |   |   |   |   |   |   |   |    |                 |     |
|             |             |           |        |     |          |      |         |       |              |     |   |   |   |   |   |   |   |   |   |    |                 |     |

|  |  |   |  |  |  |
|--|--|---|--|--|--|
| <b>Relinquished By:</b><br><i>Austin Green</i> | Date: <u>5-22-13</u><br>Time: <u>13:30</u> | <b>Received By:</b><br><i>Emily Jones</i> | Date: <u>5-22-13</u><br>Time: <u>17:30</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) <u>2</u> |
| <b>Relinquished By:</b><br><i>Emily Jones</i>  | Date: <u>5-22-13</u><br>Time: <u>16:30</u> | <b>Received By:</b><br><i>[Signature]</i> | Date: <u>5-22-13</u><br>Time: <u>16:30</u> |  |  |
| <b>Relinquished By:</b>                        | Date: _____<br>Time: _____                 | <b>Received By:</b><br><i>[Signature]</i> | Date: <u>5-22-13</u><br>Time: <u>16:30</u> |  |  |

SPECIAL INSTRUCTIONS:



JP



Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|  |  |  |   |
|--|--|--|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List Q20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Aca      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br>EMT WORKORDER # <u>13670718</u> |
|--|--|--|---|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |         |       |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |  |
|-------------|-------------|----------------|----------------|---------------|----------|---------|-------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|--|
|             |             |                |                |               | By       | Date    | Time  | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |  |
| AP-3        | GRAB        | 1 liter        | G              | 10            | AE       | 5/22/13 | 10:40 | 7.07 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  |  |  | 03A |  |
| AP-3        | GRAB        | 1 liter        | P              | 1             | ↓        | ↓       | ↓     | 7.07 | 1            |     |          |   |   |   |   |   |   | X | X | X  |                 |  |  |  | 03B |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |
|             |             |                |                |               |          |         |       |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |

|   |   |                                      |  |
|---|---|--------------------------------------|--|
| Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>13:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>13:30</u> | Client ID: <u>SPRING</u>             | EMT USE ONLY<br><input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | Client Contact: <u>Joe Pavlonis</u>  |  |
| Relinquished By: <u>[Signature]</u><br>Date: <u>-</u><br>Time: <u>:</u>           | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | EMT Project ID: <u>CWLP List Q20</u> |  |
|   |   | Jar Lot No. _____                    |  |

SPECIAL INSTRUCTIONS: PH 7.00 = 7.00 @ 68.3°  
TIME = 0832



JP



### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

Company: City, Water, Light & Power  
 Contact:  
 Address: 201 East Lake Shore Drive  
Springfield, IL 62707  
 Phone: (217) 757-8610  
 P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_  
 Project/Location: CWLP List G20

**SAMPLE TYPE:**  
 1 DI Water 2 Drinking Water 3 Soil  
 4 Extract 5 Wastewater 6 Oil  
 7 Sludge 8 Solid 9 Air  
 10 Chemical Waste 11 Wipe 12 Groundwater  
 13 eProduct 13 Solid 14 Groundwater(Filler)  
 15 Other

**CONTAINER TYPE:**  
 P - Plastic V - VOC Vol G - Glass  
 B - Tearable Bag O - Other

**PRESERVATIVE:**  
 1 None 2 H2SO4 3 HNO3  
 4 NaOH 5 HCL 6 MeOH  
 7 Zn Ac 8 Na2S2O3 9 Na2HSO4  
 10 Other

**Analysis**

- Carbamates
- Cyanide, Total
- Total RCRA Metals on a Liquid Sample
- Volatile Organic Compounds, Method 8260
- EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**  
 EMT WORKORDER # 13056718

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |       | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|-------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH    | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |
| AP-3        | GRAB        | 12        | 4 oz   | G   | 1        | NE   | 5/22/13 | 10:40 | 7.04         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  |  | 03C |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓     | ↓            | 4   |          |   | X |   |   |   |   |   |   |    |                 |  |  |  | 03D |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | ↓    | ↓       | ↓     | ↓            | 3   |          |   |   | X |   |   |   |   |   |    |                 |  |  |  | 03E |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 3        | ↓    | ↓       | ↓     | ↓            | 5   |          |   |   | X |   |   |   |   |   |    |                 |  |  |  | 03F |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 2        | ↓    | ↓       | ↓     | ↓            | 1   |          |   |   |   | X |   |   |   |   |    |                 |  |  |  | 03G |

|                                      |                      |                                 |                      |  |  |
|--------------------------------------|----------------------|---------------------------------|----------------------|--|--|
| Relinquished By: <u>Austin Green</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. _____ | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>2</u> |
| Relinquished By: <u>[Signature]</u>  | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |  |
| Relinquished By: _____               | Date: _____          | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |  |

SPECIAL INSTRUCTIONS:

5/17/2013 9:00:45 AM





JP



Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |   |  |  |
|---|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13050718 |
|---|---|--|--|

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |       | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |  |  |
|-------------|-------------|-----------|---------|-----|----------|------|---------|-------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|--|--|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH    | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |  |  |
| AP-4        | GRAB        | 12        | 1 liter | G   | 10       | AE   | 5/22/13 | 10:00 | 7.23         | 1   |          | X | X | X | X | X | X |   |   |    |                 |  |  |  | 07A |  |  |
| AP-4        | GRAB        | 12        | 1 liter | P   | 1        | ↓    | ↓       | ↓     | ↓            | 1   |          |   |   |   |   |   |   | X | X | X  |                 |  |  |  | 07B |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |     |  |  |

|   |   |   |   |   |   |
|---|---|---|---|---|---|
| Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>13:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>13:30</u> | Relinquished By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | Received By: <u>[Signature]</u><br>Date: <u>5-22-13</u><br>Time: <u>16:30</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Jog Pavlouis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No: _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) |
|---|---|---|---|---|---|

SPECIAL INSTRUCTIONS: pH cal 7.00 → 7.00 @ 68.35"  
TIME = 18:32



JP



**Chain of Custody Record**

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Aca      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13056718 |
|---|---|---|--|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |       |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |     |
|-------------|-------------|-----------|------|-----|----------|---------|-------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|-----|
|             |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |     |
| AP-4        | GRAB        | 4 oz      | G    | 1   | AE       | 5/22/13 | 10:00 | 7.23 | 8            |     | X        |    |    |    |    |    |    |    |    |     |                 |  | 04C |
| AP-4        | GRAB        | 500 ml    | P    | 1   | ↓        | ↓       | ↓     | ↓    | 4            |     |          | X  |    |    |    |    |    |    |    |     |                 |  | 04D |
| AP-4        | GRAB        | 500 ml    | P    | 1   | ↓        | ↓       | ↓     | ↓    | 3            |     |          |    | X  |    |    |    |    |    |    |     |                 |  | 04E |
| AP-4        | GRAB        | 44 ml     | V    | 3   | ↓        | ↓       | ↓     | ↓    | 5            |     |          |    |    | X  |    |    |    |    |    |     |                 |  | 04F |
| AP-4        | GRAB        | 44 ml     | V    | 2   | ↓        | ↓       | ↓     | ↓    | 1            |     |          |    |    |    | X  |    |    |    |    |     |                 |  | 04G |

|                                     |               |                                 |               |   |   |   |
|-------------------------------------|---------------|---------------------------------|---------------|---|---|---|
| Relinquished By: <i>[Signature]</i> | Date: 5-22-13 | Received By: <i>[Signature]</i> | Date: 5-22-13 | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |   |
| Relinquished By: <i>[Signature]</i> | Date: 5-22-13 | Received By: <i>[Signature]</i> | Date: 5-22-13 |   |   | 2 |
| Relinquished By: <i>[Signature]</i> | Date: - -     | Received By: <i>[Signature]</i> | Date: 5-22-13 |   |   |   |

SPECIAL INSTRUCTIONS:

5/17/2013 9:00:46 AM



JP



**Chain of Custody Record**

Scheduled Sampling Date: 05/17/2013

Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

|   |  |   |  |  |
|---|--|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Aca      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br># <u>13050718</u> |
|---|--|---|--|--|

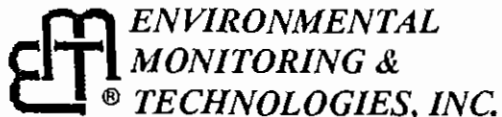
| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |     | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |     |  |  |
|-------------|-------------|-----------|------|-----|----------|---------|------|-----|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|-----|--|--|
|             |             | Size      | Type | No. | By       | Date    | Time | pH  | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |     |  |  |
| AP-5        | GRAB        | 1 liter   | G    | 10  | KE       | 5/22/13 | 0900 | 7.4 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  | 05A |  |  |
| AP-5        | GRAB        | 1 liter   | P    | 1   | KE       | 5/22/13 | 0900 | 7.4 | 1            |     |          |   |   |   |   |   |   | X | X | X  |                 |  | 05B |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |
|             |             |           |      |     |          |         |      |     |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |     |  |  |

|                                     |                      |                                 |                      |  |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar/Lot No. _____ | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <u>2</u> |
| Relinquished By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |
| Relinquished By: _____              | Date: _____          | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> |  |   |

SPECIAL INSTRUCTIONS: ph Cal 7.00 = 7.00 @ 68.35°  
Time = 08:32

5/17/2013 9:00:47 AM





ENVIRONMENTAL

MONITORING &

TECHNOLOGIES, INC.

Chain of Custody Record

Scheduled Sampling Date: 05/17/2013

Due Date: 06/14/2013

JP

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505052

Company: City, Water, Light & Power

Contact:

Address: 201 East Lake Shore Drive  
Springfield, IL 62707

Phone: (217) 757-8610

P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_

Project /Location: CWLP List G20

SAMPLE TYPE:

|                    |                   |                         |
|--------------------|-------------------|-------------------------|
| 1. DL Water        | 2. Drinking Water | 3. Soil                 |
| 4. Extract         | 5. Wastewater     | 6. Oil                  |
| 7. Sludge          | 8. Solid          | 9. Air                  |
| 10. Chemical Waste | 11. Wipe          | 12. Groundwater         |
| 13. eProduct       | 13. Solid         | 14. Groundwater(Filter) |
| 15. Other          |                   |                         |

CONTAINER TYPE:

|                |              |           |
|----------------|--------------|-----------|
| P - Plastic    | V - VOC Vial | G - Glass |
| B - Tedlar Bag | O - Other    |           |

PRESERVATIVE:

|           |            |            |
|-----------|------------|------------|
| 1. None   | 2. H2SO4   | 3. HNO3    |
| 4. NaOH   | 5. HCL     | 6. MeOH    |
| 7. Zn Ace | 8. Na2S2O3 | 9. Na2HSO4 |
| 10. Other |            |            |

**Analysis**

1. Carbamates
2. Cyanide, Total
3. Total RCRA Metals on a Liquid Sample
4. Volatile Organic Compounds, Method 8260
5. EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

**EMT WORKORDER**

13050718

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |      |      |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|------|------|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |      |      |
| AP-5        | GRAB        | 12        | 4 oz   | G   | 1        | AE   | 5/22/13 | 0900 | 7.46         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  | 65 C |      |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 4   |          |   | X |   |   |   |   |   |   |    |                 |  |  |      | 05 D |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 3   |          |   |   | X |   |   |   |   |   |    |                 |  |  |      | 65 E |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 3        |      |         |      |              | 5   |          |   |   |   | X |   |   |   |   |    |                 |  |  |      | 65 F |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 2        |      |         |      |              | 1   |          |   |   |   |   | X |   |   |   |    |                 |  |  |      | 05 G |

|                                       |                      |                                 |                      |                    |                    |  |   |
|---------------------------------------|----------------------|---------------------------------|----------------------|--------------------|--------------------|--|---|
| Relinquished By: <u>Austin Gorman</u> | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Time: <u>13:30</u> | Time: <u>15:30</u> | <p><b>EMT USE ONLY</b></p> <p>Client ID: <u>SPRING</u></p> <p>Client Contact: <u>Joe Pavlonts</u></p> <p>EMT Project ID: <u>CWLP List G20</u></p> <p>Jar Lot No. _____</p> | <p><input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE</p> <p><input type="checkbox"/> TEMPERATURE</p> <p>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)</p> <p><u>2</u></p> |
| Relinquished By: <u>[Signature]</u>   | Date: <u>5-22-13</u> | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Time: <u>16:30</u> | Time: <u>16:30</u> |  |   |
| Relinquished By: _____                | Date: _____          | Received By: <u>[Signature]</u> | Date: <u>5-22-13</u> | Time: _____        | Time: <u>16:30</u> |  |   |

SPECIAL INSTRUCTIONS:

5/17/2013 9:00:49 AM





JP



### Chain of Custody Record

Scheduled Sampling Date: 05/17/2013  
Due Date: 06/14/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 505052

|   |   |  |   |
|---|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT<br>WORKORDER<br><u>#1305076</u> |
|---|---|--|---|

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |         |      |      |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |  |  |  |  |  |     |     |
|-------------|-------------|----------------|----------------|---------------|----------|---------|------|------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|--|--|--|--|--|-----|-----|
|             |             |                |                |               | By       | Date    | Time | pH   | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |  |  |  |  |  |     |     |
| AW-3        | GRAB        | 1 liter        | G              | 10            | JD       | 5/22/13 | 1110 | 7.63 | 1     |              | X | X        | X | X | X | X |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  |     | 06A |
| AW-3        | GRAB        | 1 liter        | P              | 1             | J        | 5/22/13 | 1110 | 7.63 | 1     |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  | 01B |     |
|             |             |                |                |               |          |         |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  |     |     |
|             |             |                |                |               |          |         |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  |     |     |
|             |             |                |                |               |          |         |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  |     |     |
|             |             |                |                |               |          |         |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  |     |     |
|             |             |                |                |               |          |         |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  |     |     |
|             |             |                |                |               |          |         |      |      |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |  |  |  |  |     |     |

|                                     |               |                                 |               |  |  |  |  |  |  |  |  |  |  |  |
|-------------------------------------|---------------|---------------------------------|---------------|--|--|--|--|--|--|--|--|--|--|--|
| Relinquished By:                    | Date: - -     | Received By:                    | Date: - -     | <b>EMT USE ONLY</b>  |  |  |  |  |  |  |  |  |  | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: 5-22-13 | Received By: <i>[Signature]</i> | Date: 5-22-13 | Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No.: |  |  |  |  |  |  |  |  |  |  |
| Relinquished By: <i>[Signature]</i> | Date: - -     | Received By: <i>[Signature]</i> | Date: 5-22-13 |  |  |  |  |  |  |  |  |  |  |  |
|                                     | Time: 6:30    |                                 | Time: 16:36   |  |  |  |  |  |  |  |  |  |  |  |

SPECIAL INSTRUCTIONS:

ph: 7.00 → 7.01 @ 0845









June 21, 2013

Alan Keller, P.E., Manager, Permit Section  
Illinois Environmental Protection Agency  
Division of Water Pollution Control  
Compliance Assurance Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, IL 62794-9276

**RECEIVED**  
JUN 21 2013  
IEPA  
BOW/WPC/PERMIT SECTION

Re: City Water, Light and Power  
Power Plant Ash Impoundment  
Background Groundwater Concentrations

**RECEIVED**

JUN 25 2013

**IEPA/CAS**

Dear Mr. Keller:

On behalf of City Water, Light and Power, City of Springfield, Illinois (CWLP), submitted herein are the statistical background concentrations for the groundwater monitoring wells pursuant to the Groundwater Monitoring Program submitted November 18, 2011 and subsequent Illinois EPA correspondence dated December 29, 2011.

The monitor well network consists of six wells, two upgradient (AP-4 and AP-5), and four downgradient wells (AW-3, AP-1, AP-2, and AP-3). Four quarters of data were collected from first quarter 2012 through fourth quarter 2012. The analytical results from each well were evaluated to ensure the data from the upgradient wells would represent background conditions. Based on variations in concentrations, it was determined the groundwater quality in the upgradient wells would represent background conditions. Therefore, four quarters of data from both wells AP-4 and AP-5 were combined for purposes of statistical derivation of the background concentrations.

The statistical method used in determining the background calculations was provided in Appendix A to the Groundwater Monitoring Program. The 95 percent confidence limit was calculated utilizing data collected from first quarter 2012 through fourth quarter 2012 from upgradient wells AP-4 and AP-5. The results from the two wells were pooled together in order to calculate the confidence limit. The statistical calculations are provided in Attachment 1 to this correspondence.

Several parameters in upgradient well AP-5 exhibited significant decreasing trends during the background sampling events. The parameters included cadmium, chromium, iron, lead, and nickel. Trend graphs for the subject parameters are provided in Attachment 2. Utilizing this data would artificially elevate the background concentrations due to a large standard deviation within the statistical formula. Since the groundwater quality in well AP-5 has not stabilized, additional quarterly data for the subject parameters shall be collected through fourth quarter 2013 in order to obtain data representative of background conditions. Once statistically valid



Alan Keller, P.E., Manager, Permit Section  
Illinois Environmental Protection Agency

June 21, 2013  
Page 2

data has been collected, revised background concentrations for the referenced parameters shall be submitted to the Illinois EPA Bureau of Water.

The laboratory results for five quarters of data for all six wells are provided in Attachment 3. A compact disc containing a list of the background concentrations and quarterly results is provided in Attachment 4. There are two inorganic parameters, total cyanide and total silver, that have not been detected in five quarters of sampling. Therefore, it is requested to remove these parameters from the quarterly monitoring list for the facility. These parameters will only be tested on an annual frequency during second quarter of each year. Additionally, no organic parameters have been detected in any of the monitoring wells. A list of the organic parameters that have not been detected in the monitoring wells is provided in Attachment 5. It is requested to remove these parameters from the quarterly monitoring list and test them on an annual frequency during second quarter of each year.

If you have any questions or require further information, please contact me.

Sincerely,



Kim E. Van Pelt  
Environmental Scientist

KEV:kev:slm

Enclosures

cc: Sue Corcoran – Environmental Health and Safety, City Water Light and Power, City of Springfield  
Illinois EPA DWPC Springfield Region  
Illinois EPA Hydrogeology and Compliance Unit





**Attachment 1**  
**Statistical Calculations**



CWLP Ash Ponds  
Interwell AGQS Statistics  
Distribution Summary

| Well | Parameter        | Units | 1Q12     | 2Q12     | 3Q12     | 4Q12     | Distribution*   | Proposed Interwell |
|------|------------------|-------|----------|----------|----------|----------|---|--------------------|
| AP-4 | Antimony, total  | mg/l  | < 0.006  | < 0.006  | < 0.006  | < 0.006  | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 0.0063             |
| AP-5 | Antimony, total  | mg/l  | < 0.006  | < 0.006  | 0.0063   | < 0.0096 |   |                    |
| AP-4 | Arsenic, total   | mg/l  | < 0.05   | < 0.05   | 0.0294   | 0.0061   | Normal - Calculate Interwell AGQS                                     | 0.16               |
| AP-5 | Arsenic, total   | mg/l  | < 0.05   | 0.076    | 0.102    | 0.0243   |   |                    |
| AP-4 | Barium, total    | mg/l  | < 2      | < 2      | 0.366    | < 2      | Normal - Calculate Interwell AGQS                                     | 5.24               |
| AP-5 | Barium, total    | mg/l  | 5.24     | < 2      | 2.76     | < 3.2    |   |                    |
| AP-4 | Beryllium, total | mg/l  | < 0.004  | < 0.004  | < 0.004  | < 0.004  | Normal - Calculate Interwell AGQS                                     | 0.02               |
| AP-5 | Beryllium, total | mg/l  | 0.0142   | 0.0128   | 0.0092   | 0.0164   |   |                    |
| AP-4 | Boron, total     | mg/l  | 0.119    | 0.123    | 0.787    | < 2      | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 0.787              |
| AP-5 | Boron, total     | mg/l  | < 1      | < 0.625  | 0.782    | < 3.2    |   |                    |
| AP-4 | Cadmium, total   | mg/l  | < 0.005  | < 0.005  | < 0.005  | < 0.005  | Normal - Calculate Interwell AGQS                                     | 0.0128             |
| AP-5 | Cadmium, total   | mg/l  | 0.0078   | 0.0128   | 0.0058   | < 0.008  |   |                    |
| AP-4 | Chloride, total  | mg/l  | 10.1     | 9.85     | 11       | 10.5     | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 24.2               |
| AP-5 | Chloride, total  | mg/l  | 24.2     | 7.23     | 3.32     | 3.76     |   |                    |
| AP-4 | Chromium, total  | mg/l  | < 0.1    | < 0.1    | < 0.0175 | < 0.1    | Normal - Calculate Interwell AGQS                                     | 0.99               |
| AP-5 | Chromium, total  | mg/l  | 0.811    | 0.328    | 0.449    | 0.42     |   |                    |
| AP-4 | Cobalt, total    | mg/l  | < 1      | < 1      | < 0.0175 | < 1      | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 0.297              |
| AP-5 | Cobalt, total    | mg/l  | < 1      | < 1      | 0.297    | < 1.6    |   |                    |
| AP-4 | Copper, total    | mg/l  | < 0.65   | < 0.65   | < 0.01   | < 0.65   | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 0.401              |
| AP-5 | Copper, total    | mg/l  | < 0.65   | < 0.65   | 0.401    | < 1.04   |   |                    |
| AP-4 | Cyanide, total   | mg/l  | < 0.01   | < 0.2    | < 0.2    | < 0.01   | 100% ND - Propose PQL   | 0.01               |
| AP-5 | Cyanide, total   | mg/l  | < 0.01   | < 0.2    | < 0.01   | < 0.01   |   |                    |
| AP-4 | Fluoride, total  | mg/l  | < 0.5    | < 0.5    | < 0.5    | < 0.5    | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 0.62               |
| AP-5 | Fluoride, total  | mg/l  | 0.62     | < 0.5    | < 0.5    | < 0.5    |   |                    |
| AP-4 | Iron, total      | mg/l  | 11       | 9.22     | 10.8     | < 5      | Normal - Calculate Interwell AGQS                                     | 1832               |
| AP-5 | Iron, total      | mg/l  | 1140     | 435      | 430      | 576      |   |                    |
| AP-4 | Lead, total      | mg/l  | < 0.0075 | < 0.0075 | < 0.005  | < 0.0075 | Normal - Calculate Interwell AGQS                                     | 0.78               |
| AP-5 | Lead, total      | mg/l  | 0.638    | 0.236    | 0.312    | 0.277    |   |                    |
| AP-4 | Manganese, total | mg/l  | 0.254    | 0.186    | 0.162    | < 0.15   | Normal - Calculate Interwell AGQS                                     | 44.6               |
| AP-5 | Manganese, total | mg/l  | 21.4     | 7.91     | 12.3     | 23.2     |   |                    |
| AP-4 | Mercury, total   | mg/l  | < 0.0005 | < 0.0005 | < 0.0005 | < 0.0005 | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 0.0008             |
| AP-5 | Mercury, total   | mg/l  | 0.0008   | < 0.0005 | 0.0007   | < 0.0005 |   |                    |
| AP-4 | Nickel, total    | mg/l  | < 0.1    | < 0.1    | < 0.01   | < 0.1    | Normal - Calculate Interwell AGQS                                     | 0.89               |
| AP-5 | Nickel, total    | mg/l  | 0.358    | 0.539    | 0.7      | 0.321    |   |                    |
| AP-4 | Nitrate, total   | mg/l  | 0.12     | < 0.05   | < 0.5    | 0.26     | Normal - Calculate Interwell AGQS                                     | 0.4                |
| AP-5 | Nitrate, total   | mg/l  | 0.15     | < 0.05   | < 0.5    | 0.25     |   |                    |
| AP-4 | pH (field)       | units | 6.81     | 7.07     | 7.63     | 7.09     | Normal - Calculate Interwell AGQS                                     | 6.61 - 7.81        |
| AP-5 | pH (field)       | units | 7.33     | 7.19     | 7.27     | 7.29     |   |                    |
| AP-4 | Selenium, total  | mg/l  | < 0.05   | < 0.05   | 0.005    | < 0.05   | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 0.0059             |
| AP-5 | Selenium, total  | mg/l  | < 0.05   | < 0.05   | 0.0059   | < 0.08   |   |                    |
| AP-4 | Silver, total    | mg/l  | < 0.05   | < 0.05   | < 0.005  | < 0.05   | 100% ND - Propose PQL   | 0.05               |
| AP-5 | Silver, total    | mg/l  | < 0.05   | < 0.05   | < 0.005  | < 0.08   |   |                    |



CWLP Ash Ponds  
Interwell AGQS Statistics  
Distribution Summary

| Well | Parameter              | Units | 1Q12     | 2Q12    | 3Q12    | 4Q12     | Distribution*   | Proposed Interwell |
|------|------------------------|-------|----------|---------|---------|----------|---|--------------------|
| AP-4 | Sulfate, total         | mg/l  | < 5      | < 5     | < 5     | < 5      | Normal - Calculate Interwell AGQS                                     | 125.8              |
| AP-5 | Sulfate, total         | mg/l  | 82.3     | 43.5    | 76.8    | 84.5     |   |                    |
| AP-4 | Thallium, total        | mg/l  | < 0.002  | < 0.002 | < 0.002 | < 0.002  | Normal - Calculate Interwell AGQS                                     | 0.0056             |
| AP-5 | Thallium, total        | mg/l  | 0.0056   | 0.0026  | 0.003   | < 0.0032 |   |                    |
| AP-4 | Total Dissolved Solids | mg/l  | 490      | 560     | 448     | 574      | Normal - Calculate Interwell AGQS                                     | 772.8              |
| AP-5 | Total Dissolved Solids | mg/l  | 414      | 404     | 316     | 404      |   |                    |
| AP-4 | Zinc, total            | mg/l  | < 0.0575 | < 5     | < 0.025 | < 5      | Not Normal - Propose Highest Detected Concentration as Interwell AGQS | 1.35               |
| AP-5 | Zinc, total            | mg/l  | 0.822    | < 5     | 1.35    | < 8      |   |                    |

Notes:

\*Shapiro-Wilk utilized to test for normality



CWLP Ash Ponds  
 Interwell AGQS Statistics  
 Distribution Summary

| Parameter Name         | Units | AP-4     |          |          |          | AP-5    |         |         |          |
|------------------------|-------|----------|----------|----------|----------|---------|---------|---------|----------|
|                        |       | 1Q12     | 2Q12     | 3Q12     | 4Q12     | 1Q12    | 2Q12    | 3Q12    | 4Q12     |
| pH (field)             | units | 6.81     | 7.07     | 7.63     | 7.09     | 7.33    | 7.19    | 7.27    | 7.29     |
| Nitrate, total         | mg/l  | 0.12     | < 0.05   | < 0.5    | 0.26     | 0.15    | < 0.05  | < 0.5   | 0.25     |
| Sulfate, total         | mg/l  | < 5      | < 5      | < 5      | < 5      | 82.3    | 43.5    | 76.8    | 84.5     |
| Total Dissolved Solids | mg/l  | 490      | 560      | 448      | 574      | 414     | 404     | 316     | 404      |
| Arsenic, total         | mg/l  | < 0.05   | < 0.05   | 0.0294   | 0.00608  | < 0.05  | 0.076   | 0.102   | 0.0243   |
| Barium, total          | mg/l  | < 2      | < 2      | 0.366    | < 2      | 5.24    | < 2     | 2.76    | < 3.2    |
| Beryllium, total       | mg/l  | < 0.004  | < 0.004  | < 0.004  | < 0.004  | 0.0142  | 0.0128  | 0.0092  | 0.0164   |
| Cadmium, total         | mg/l  | < 0.005  | < 0.005  | < 0.005  | < 0.005  | 0.00776 | 0.0128  | 0.00575 | < 0.008  |
| Chromium, total        | mg/l  | < 0.1    | < 0.1    | < 0.0175 | < 0.1    | 0.811   | 0.328   | 0.449   | 0.42     |
| Iron, total            | mg/l  | 11       | 9.22     | 10.8     | < 5      | 1140    | 435     | 430     | 576      |
| Lead, total            | mg/l  | < 0.0075 | < 0.0075 | < 0.005  | < 0.0075 | 0.638   | 0.236   | 0.312   | 0.277    |
| Manganese, total       | mg/l  | 0.254    | 0.186    | 0.162    | < 0.15   | 21.4    | 7.91    | 12.3    | 23.2     |
| Nickel, total          | mg/l  | < 0.1    | < 0.1    | < 0.01   | < 0.1    | 0.358   | 0.539   | 0.7     | 0.321    |
| Thallium, total        | mg/l  | < 0.002  | < 0.002  | < 0.002  | < 0.002  | 0.00556 | 0.00258 | 0.00302 | < 0.0032 |





CWLP Ash Ponds  
Interwell AGQS Statistics  
Outlier Testing

| Parameter Name         | Units | AP-4     |          |          |          | AP-5    |         |         |          | Number of Samples | Mean     | Standard Deviation | Critical Values |
|------------------------|-------|----------|----------|----------|----------|---------|---------|---------|----------|-------------------|----------|--------------------|-----------------|
|                        |       | 1Q12     | 2Q12     | 3Q12     | 4Q12     | 1Q12    | 2Q12    | 3Q12    | 4Q12     |                   |          |                    |                 |
| pH (field)             | units | 6.81     | 7.07     | 7.63     | 7.09     | 7.33    | 7.19    | 7.27    | 7.29     | 8                 | 7.21     | 0.237607           | 2.221           |
| Nitrate, total         | mg/l  | 0.12     | < 0.05   | < 0.5    | 0.26     | 0.15    | < 0.05  | < 0.5   | 0.25     | 8                 | 0.235    | 0.181344           | 2.221           |
| Sulfate, total         | mg/l  | < 5      | < 5      | < 5      | < 5      | 82.3    | 43.5    | 76.8    | 84.5     | 8                 | 38.3875  | 37.82522           | 2.221           |
| Total Dissolved Solids | mg/l  | 490      | 560      | 448      | 574      | 414     | 404     | 316     | 404      | 8                 | 451.25   | 86.64501           | 2.221           |
| Arsenic, total         | mg/l  | < 0.05   | < 0.05   | 0.0294   | 0.00608  | < 0.05  | 0.076   | 0.102   | 0.0243   | 8                 | 0.048473 | 0.030178           | 2.221           |
| Barium, total          | mg/l  | < 2      | < 2      | 0.366    | < 2      | 5.24    | < 2     | 2.76    | < 3.2    | 8                 | 2.44575  | 1.393639           | 2.221           |
| Beryllium, total       | mg/l  | < 0.004  | < 0.004  | < 0.004  | < 0.004  | 0.0142  | 0.0128  | 0.0092  | 0.0164   | 8                 | 0.008575 | 0.005276           | 2.221           |
| Cadmium, total         | mg/l  | < 0.005  | < 0.005  | < 0.005  | < 0.005  | 0.00776 | 0.0128  | 0.00575 | < 0.008  | 8                 | 0.006789 | 0.002737           | 2.221           |
| Chromium, total        | mg/l  | < 0.1    | < 0.1    | < 0.0175 | < 0.1    | 0.811   | 0.328   | 0.449   | 0.42     | 8                 | 0.290688 | 0.266624           | 2.221           |
| Iron, total            | mg/l  | 11       | 9.22     | 10.8     | < 5      | 1140    | 435     | 430     | 576      | 8                 | 327.1275 | 405.2776           | 2.221           |
| Lead, total            | mg/l  | < 0.0075 | < 0.0075 | < 0.005  | < 0.0075 | 0.638   | 0.236   | 0.312   | 0.277    | 8                 | 0.186313 | 0.226561           | 2.221           |
| Manganese, total       | mg/l  | 0.254    | 0.186    | 0.162    | < 0.15   | 21.4    | 7.91    | 12.3    | 23.2     | 8                 | 8.19525  | 9.804583           | 2.221           |
| Nickel, total          | mg/l  | < 0.1    | < 0.1    | < 0.01   | < 0.1    | 0.358   | 0.539   | 0.7     | 0.321    | 8                 | 0.2785   | 0.245336           | 2.221           |
| Thallium, total        | mg/l  | < 0.002  | < 0.002  | < 0.002  | < 0.002  | 0.00556 | 0.00258 | 0.00302 | < 0.0032 | 8                 | 0.002795 | 0.001221           | 2.221           |

$T = (X - X_{mean}) / SD$ , where X = sample result

| Parameter Name         | Units | AP-4     |          |          |          | AP-5     |          |          |          |
|------------------------|-------|----------|----------|----------|----------|----------|----------|----------|----------|
|                        |       | 1Q12     | 2Q12     | 3Q12     | 4Q12     | 1Q12     | 2Q12     | 3Q12     | 4Q12     |
| pH (field)             | units | -1.68345 | -0.58921 | 1.767624 | -0.50504 | 0.505035 | -0.08417 | 0.252518 | 0.33669  |
| Nitrate, total         | mg/l  | -0.63415 | -1.02016 | 1.46131  | 0.137859 | -0.46872 | -1.02016 | 1.46131  | 0.082716 |
| Sulfate, total         | mg/l  | -0.88268 | -0.88268 | -0.88268 | -0.88268 | 1.160932 | 0.135161 | 1.015526 | 1.219094 |
| Total Dissolved Solids | mg/l  | 0.447227 | 1.255121 | -0.03751 | 1.4167   | -0.42992 | -0.54533 | -1.56097 | -0.54533 |
| Arsenic, total         | mg/l  | 0.050616 | 0.050616 | -0.63199 | -1.40473 | 0.050616 | 0.912159 | 1.773702 | -0.80099 |
| Barium, total          | mg/l  | -0.31985 | -0.31985 | -1.49232 | -0.31985 | 2.005002 | -0.31985 | 0.225489 | 0.541209 |
| Beryllium, total       | mg/l  | -0.86717 | -0.86717 | -0.86717 | -0.86717 | 1.066198 | 0.800834 | 0.118466 | 1.483201 |
| Cadmium, total         | mg/l  | -0.65364 | -0.65364 | -0.65364 | -0.65364 | 0.35491  | 2.196608 | -0.37958 | 0.44261  |
| Chromium, total        | mg/l  | -0.71519 | -0.71519 | -1.02462 | -0.71519 | 1.951484 | 0.139944 | 0.593767 | 0.484999 |
| Iron, total            | mg/l  | -0.78003 | -0.78442 | -0.78052 | -0.79483 | 2.005718 | 0.266169 | 0.253832 | 0.614079 |
| Lead, total            | mg/l  | -0.78925 | -0.78925 | -0.80028 | -0.78925 | 1.993672 | 0.219312 | 0.554763 | 0.400279 |
| Manganese, total       | mg/l  | -0.80995 | -0.81689 | -0.81934 | -0.82056 | 1.346794 | -0.02909 | 0.418656 | 1.530381 |
| Nickel, total          | mg/l  | -0.72757 | -0.72757 | -1.09442 | -0.72757 | 0.324045 | 1.061809 | 1.718053 | 0.173232 |
| Thallium, total        | mg/l  | -0.65116 | -0.65116 | -0.65116 | -0.65116 | 2.28472  | -0.1761  | 0.18429  | 0.331722 |

Outlier =  $T > T_n$

| Parameter Name         | Units | AP-4 |      |      |      | AP-5 |      |      |      |
|------------------------|-------|------|------|------|------|------|------|------|------|
|                        |       | 1Q12 | 2Q12 | 3Q12 | 4Q12 | 1Q12 | 2Q12 | 3Q12 | 4Q12 |
| pH (field)             | units | --   | --   | --   | --   | --   | --   | --   | --   |
| Nitrate, total         | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Sulfate, total         | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Total Dissolved Solids | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Arsenic, total         | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Barium, total          | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Beryllium, total       | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Cadmium, total         | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Chromium, total        | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Iron, total            | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Lead, total            | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Manganese, total       | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Nickel, total          | mg/l  | --   | --   | --   | --   | --   | --   | --   | --   |
| Thallium, total        | mg/l  | --   | --   | --   | --   | x    | --   | --   | --   |

Note: A shaded box indicates an outlier. The outlier was not removed from the dataset.



CWLP Ash Ponds  
Interwell AGQS Statistics  
Non Detect Analysis

| Parameter Name         | Units | AP-4     |          |          |          | AP-5    |         |         |          | Number of Samples | Number of ND's | % ND  | ND Treatment               |
|------------------------|-------|----------|----------|----------|----------|---------|---------|---------|----------|-------------------|----------------|-------|----------------------------|
|                        |       | 1Q12     | 2Q12     | 3Q12     | 4Q12     | 1Q12    | 2Q12    | 3Q12    | 4Q12     |                   |                |       |                            |
| pH (field)             | units | 6.81     | 7.07     | 7.63     | 7.09     | 7.33    | 7.19    | 7.27    | 7.29     | 8                 | 0              | 0.0%  | NO ADJ                     |
| Nitrate, total         | mg/l  | 0.12     | < 0.05   | < 0.5    | 0.26     | 0.15    | < 0.05  | < 0.5   | 0.25     | 8                 | 4              | 50.0% | Cohen's ADJ / Kaplan-Meier |
| Sulfate, total         | mg/l  | < 5      | < 5      | < 5      | < 5      | 82.3    | 43.5    | 76.8    | 84.5     | 8                 | 4              | 50.0% | Cohen's ADJ / Kaplan-Meier |
| Total Dissolved Solids | mg/l  | 490      | 560      | 448      | 574      | 414     | 404     | 316     | 404      | 8                 | 0              | 0.0%  | NO ADJ                     |
| Arsenic, total         | mg/l  | < 0.05   | < 0.05   | 0.0294   | 0.00608  | < 0.05  | 0.076   | 0.102   | 0.0243   | 8                 | 3              | 37.5% | Cohen's ADJ / Kaplan-Meier |
| Barium, total          | mg/l  | < 2      | < 2      | 0.366    | < 2      | 5.24    | < 2     | 2.76    | < 3.2    | 8                 | 5              | 62.5% | Highest Conc.              |
| Beryllium, total       | mg/l  | < 0.004  | < 0.004  | < 0.004  | < 0.004  | 0.0142  | 0.0128  | 0.0092  | 0.0164   | 8                 | 4              | 50.0% | Cohen's ADJ / Kaplan-Meier |
| Cadmium, total         | mg/l  | < 0.005  | < 0.005  | < 0.005  | < 0.005  | 0.00776 | 0.0128  | 0.00575 | < 0.008  | 8                 | 5              | 62.5% | Highest Conc.              |
| Chromium, total        | mg/l  | < 0.1    | < 0.1    | < 0.0175 | < 0.1    | 0.811   | 0.328   | 0.449   | 0.42     | 8                 | 4              | 50.0% | Cohen's ADJ / Kaplan-Meier |
| Iron, total            | mg/l  | 11       | 9.22     | 10.8     | < 5      | 1140    | 435     | 430     | 576      | 8                 | 1              | 12.5% | 1/2 MDL                    |
| Lead, total            | mg/l  | < 0.0075 | < 0.0075 | < 0.005  | < 0.0075 | 0.638   | 0.236   | 0.312   | 0.277    | 8                 | 4              | 50.0% | Cohen's ADJ / Kaplan-Meier |
| Manganese, total       | mg/l  | 0.254    | 0.186    | 0.162    | < 0.15   | 21.4    | 7.91    | 12.3    | 23.2     | 8                 | 1              | 12.5% | 1/2 MDL                    |
| Nickel, total          | mg/l  | < 0.1    | < 0.1    | < 0.01   | < 0.1    | 0.358   | 0.539   | 0.7     | 0.321    | 8                 | 4              | 50.0% | Cohen's ADJ / Kaplan-Meier |
| Thallium, total        | mg/l  | < 0.002  | < 0.002  | < 0.002  | < 0.002  | 0.00556 | 0.00258 | 0.00302 | < 0.0032 | 8                 | 5              | 62.5% | Highest Conc.              |

Notes:

1. For datasets with a fraction of non-detect values from 25% to 50%, adjustments to the mean and standard deviation (SD) are required.
2. For datasets with a single censoring point (RL), Cohen's Adjustment may be used to adjust the mean and SD or a substitution of 1/2 the RL may be used for small datasets (<5) in accordance with Section 15.2 of the March 2009 Unified Guidance (Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities).
3. Kaplan-Meier may be used to adjust the mean and SD for datasets with single or multiple censoring points (RL). The Kaplan-Meier adjusted mean and SD were calculated using ProUCL 4.0.
2. For datasets that do not include non-detect values, no adjustment to the mean and standard deviation are required prior to calculating the prediction limit.



CWLP Ash Ponds  
Interwell AGQS Statistics  
Prediction Limits

Confidence Limit =  $x + st[1+(1/n)]^{0.5}$   
Confidence Level = 95%

| Parameter Name         | Units | AP-4     |          |          |          | AP-5   |        |        |        | ND Treatment | Mean   | Standard Deviation | Number of Samples | T Value | Confidence Limit |
|------------------------|-------|----------|----------|----------|----------|--------|--------|--------|--------|--------------|--------|--------------------|-------------------|---------|------------------|
|                        |       | 1Q12     | 2Q12     | 3Q12     | 4Q12     | 1Q12   | 2Q12   | 3Q12   | 4Q12   |              |        |                    |                   |         |                  |
| pH (field)             | units | 6.81     | 7.07     | 7.63     | 7.09     | 7.33   | 7.19   | 7.27   | 7.29   | NO ADJ       | 7.21   | 0.2376             | 8                 | 2.3650  | 6.6140   7.8060  |
| Nitrate, total         | mg/l  | 0.12     | < 0.05   | < 0.5    | 0.26     | 0.15   | < 0.05 | < 0.5  | 0.25   | Kaplan-Meier | 0.17   | 0.0611             | 8                 | 3.4990  | 0.3968           |
| Sulfate, total         | mg/l  | < 5      | < 5      | < 5      | < 5      | 82.3   | 43.5   | 76.8   | 84.5   | Kaplan-Meier | 57.65  | 18.3600            | 8                 | 3.4990  | 125.7885         |
| Total Dissolved Solids | mg/l  | 490      | 560      | 448      | 574      | 414    | 404    | 316    | 404    | NO ADJ       | 451.25 | 86.6450            | 8                 | 3.4990  | 772.8113         |
| Arsenic, total         | mg/l  | < 0.05   | < 0.05   | 0.0294   | 0.00608  | < 0.05 | 0.076  | 0.102  | 0.0243 | Kaplan-Meier | 0.0372 | 0.0318             | 8                 | 3.4990  | 0.1552           |
| Beryllium, total       | mg/l  | < 0.004  | < 0.004  | < 0.004  | < 0.004  | 0.0142 | 0.0128 | 0.0092 | 0.0164 | Kaplan-Meier | 0.0112 | 0.0027             | 8                 | 3.4990  | 0.0213           |
| Chromium, total        | mg/l  | < 0.1    | < 0.1    | < 0.0175 | < 0.1    | 0.811  | 0.328  | 0.449  | 0.42   | Kaplan-Meier | 0.42   | 0.1560             | 8                 | 3.4990  | 0.9940           |
| Iron, total            | mg/l  | 11       | 9.22     | 10.8     | < 2.5    | 1140   | 435    | 430    | 576    | 1/2 MDL      | 326.82 | 405.5623           | 8                 | 3.4990  | 1831.9581        |
| Lead, total            | mg/l  | < 0.0075 | < 0.0075 | < 0.005  | < 0.0075 | 0.638  | 0.236  | 0.312  | 0.277  | Kaplan-Meier | 0.30   | 0.1300             | 8                 | 3.4990  | 0.7835           |
| Manganese, total       | mg/l  | 0.254    | 0.186    | 0.162    | < 0.075  | 21.4   | 7.91   | 12.3   | 23.2   | 1/2 MDL      | 8.19   | 9.8134             | 8                 | 3.4990  | 44.6059          |
| Nickel, total          | mg/l  | < 0.1    | < 0.1    | < 0.01   | < 0.1    | 0.358  | 0.539  | 0.7    | 0.321  | Kaplan-Meier | 0.40   | 0.1330             | 8                 | 3.4990  | 0.8936           |

Note:

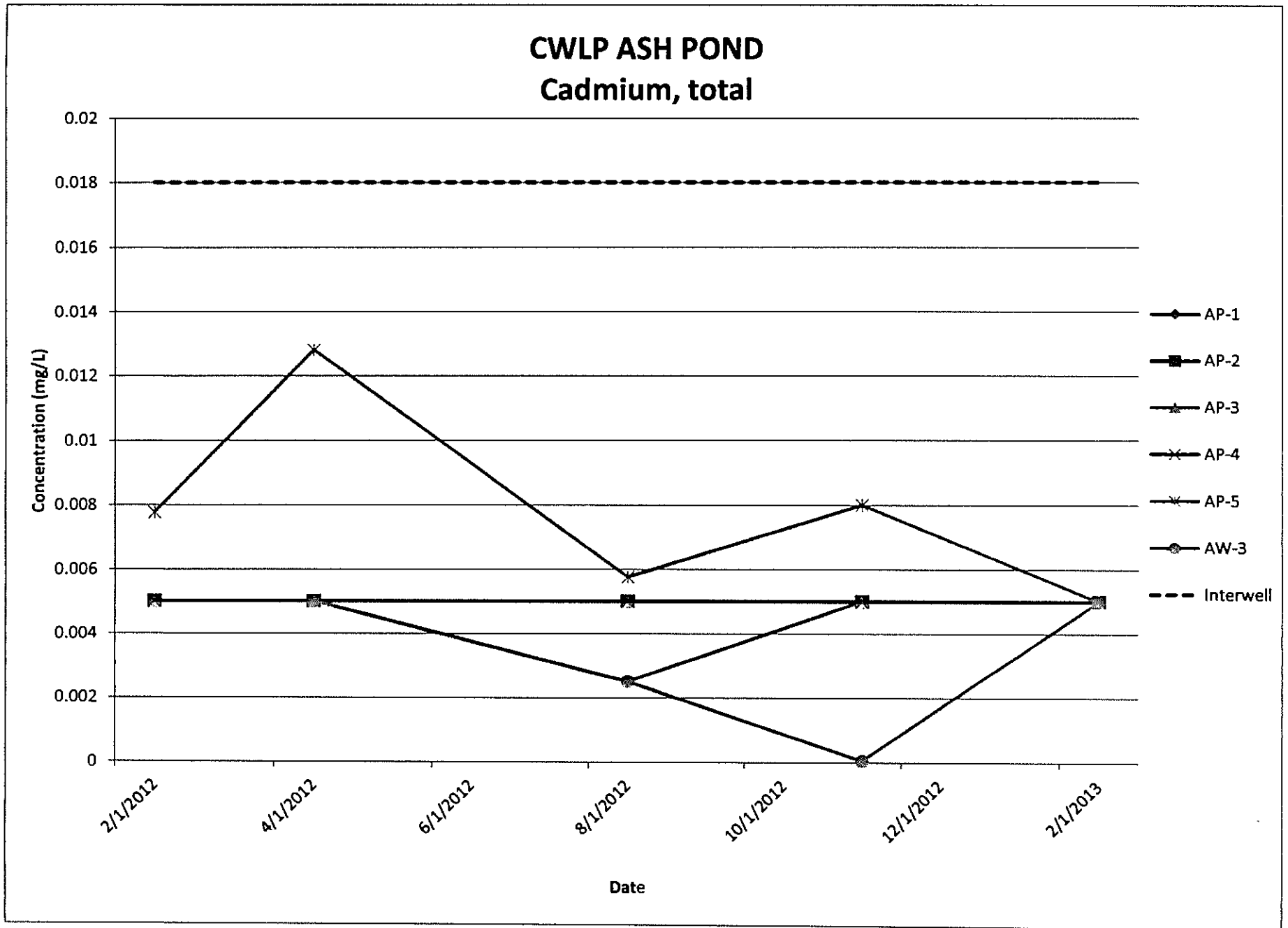
1. Multiple censoring points (RL's) were observed for several parameters. Therefore, Kaplan-Meier was utilized to adjust the mean and SD.



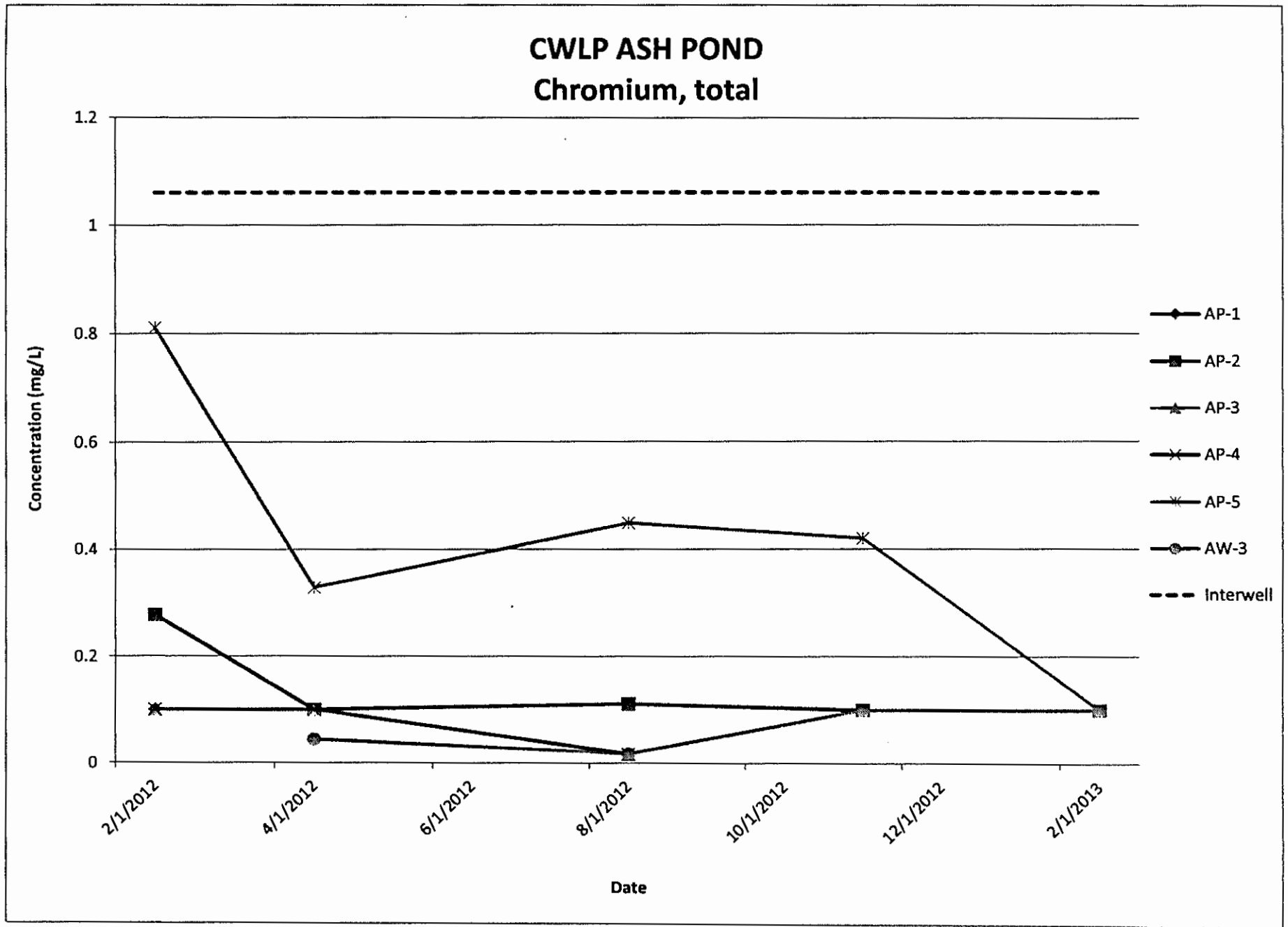
**Attachment 2  
Trend Graphs**



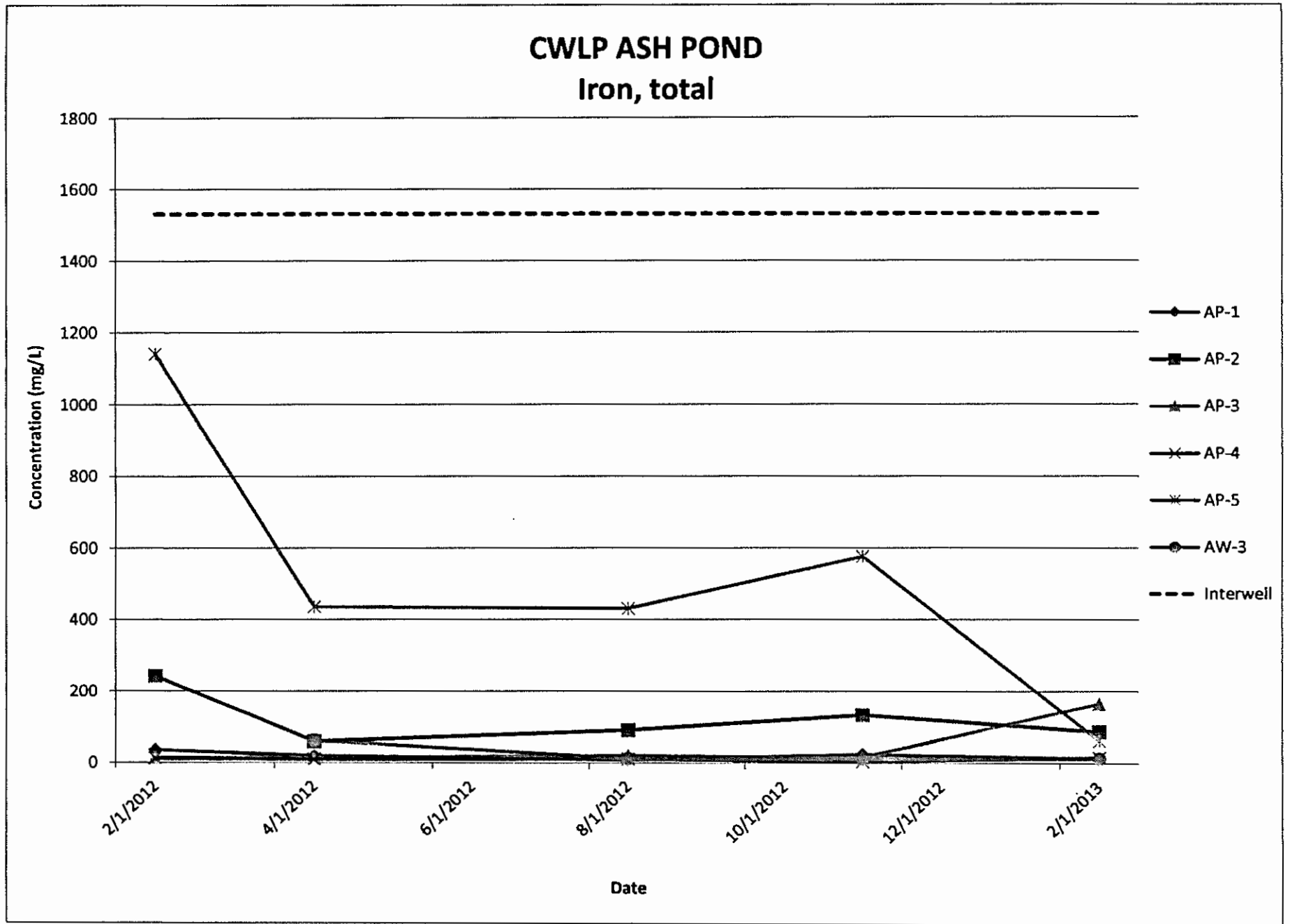




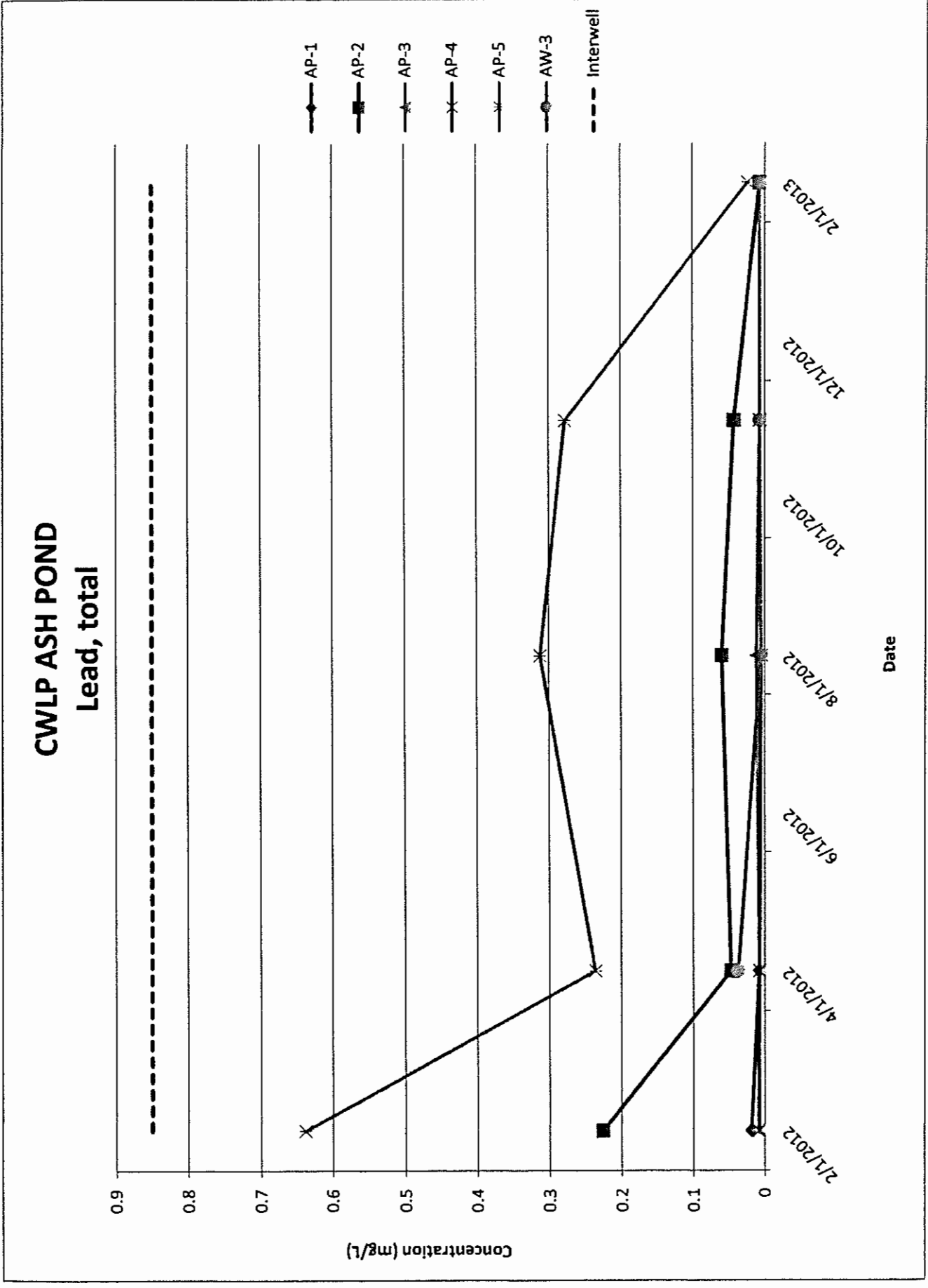






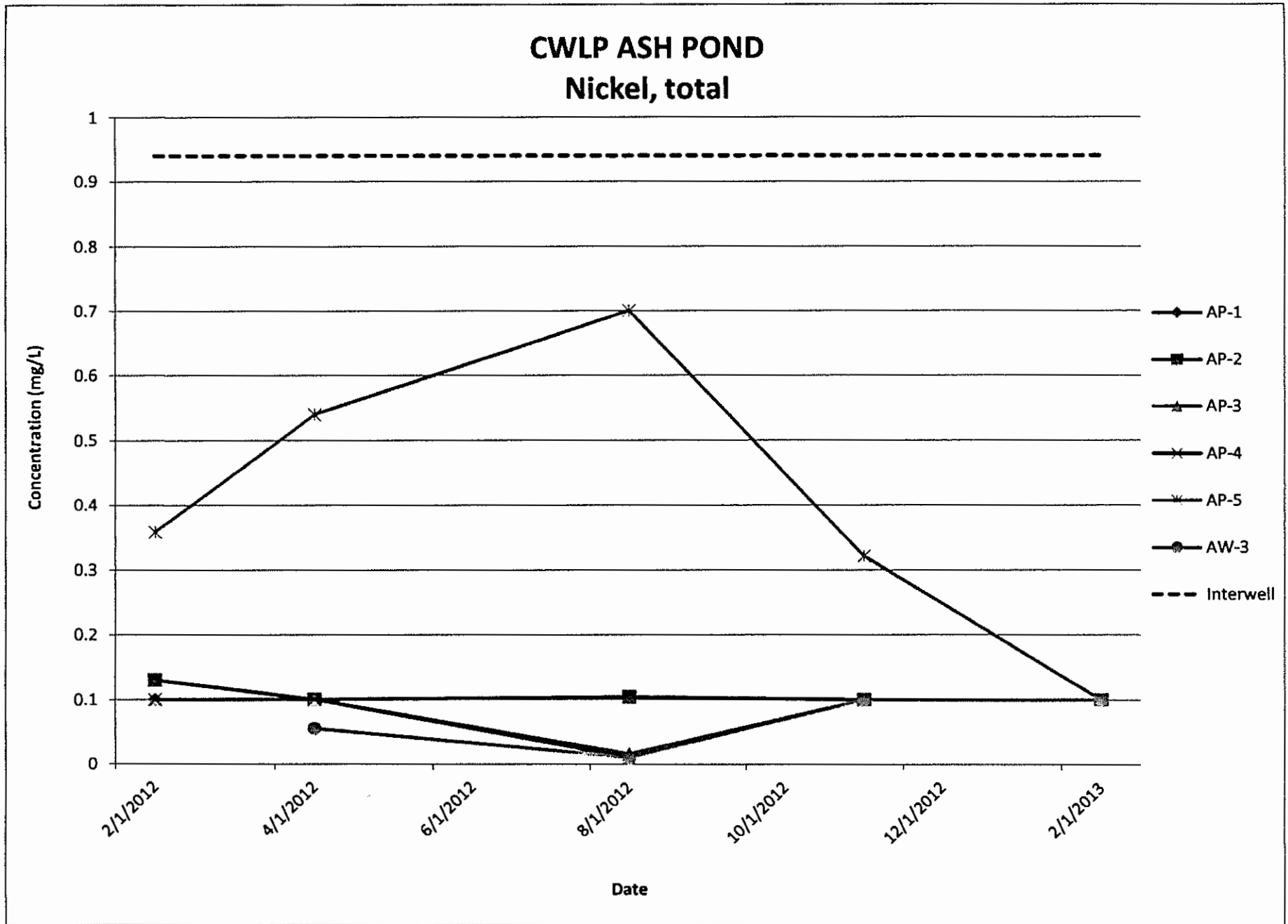














**Attachment 3**  
**Quarterly Laboratory Results**



**ENVIRONMENTAL  
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TECHNOLOGIES, INC.**



8100 North Austin • Morton Grove, IL 60053-3203  
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Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

April 12, 2012

RE CWLP AP Wells

Lab Orders:  
12020654

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Mitchell Ostrowski  
Laboratory Director

This Report Contains 18 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois Chemical Analysis in Drinking Water Accredited Lab. No. 100256  
State of Wisconsin Wastewater and Hazardous Waste No. 999888890

environmental laboratory and testing services  
| water | soil | air | product | waste |





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CLIENT: City, Water, Light & Power

Date: 4/12/2012

Project: CWLP AP Wells

## CASE NARRATIVE

Lab Order: 12020654

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

environmental laboratory and testing services

water | soil | air | product | waste







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**CLIENT:** City, Water, Light & Power

**Date:** 4/12/2012

**Project:** CWLP AP Wells

**CASE NARRATIVE**

**Lab Order:** 12020654

---

Analytical Comments for METHOD 7470A\_GRNDWTR, 12020654-02EDUP: The sample was run in duplicate to confirm the mercury result.

Analytical Comments for METHOD 7470A\_GRNDWTR, 12020654-05EDUP: The sample was run in duplicate to confirm the mercury result.

Analytical Comments for METHOD RADIATION, 12020654-01A, 02A, 03A, 04A, 05A: The Radium by Methods 7500-Ra B and 7500-Ra D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.





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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12020654  
**Project:** CWLP AP Wells  
**Lab ID:** 12020654-01

**Client Sample ID:** AP-1 *R*  
**Report Date:** 4/12/2012  
**Collection Date:** 2/22/2012 12:20:00 PM  
**Matrix:** Groundwater

| Analyses                                     | Result        | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|---------------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |               | <b>Method:</b> SM4500-H                 |          |               |         |         |
| pH   | 7.01          |   | pH units | 2/22/12 12:20 | R168104 | JC      |
| <b>Anions by Ion Chromatography</b>          |               | <b>Method:</b> SW9056                   |          |               |         |         |
| Chloride                                     | 42.7          | 2.                                      | mg/L     | 2/23/12       | R166064 | GSB     |
| Fluoride                                     | < 0.5         | 0.5                                     | mg/L     | 2/23/12       | R166064 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.05        | 0.05                                    | mg/L     | 2/23/12       | R166064 | GSB     |
| <b>Sulfate</b>                               | <b>521</b>    | 50.                                     | mg/L     | 2/23/12       | R166064 | GSB     |
| <b>Cyanide, Total</b>                        |               | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |               |         |         |
| Cyanide                                      | < 0.01        | 0.01                                    | mg/L     | 2/24/12 10:24 | 72204   | CS2     |
| <b>Total Dissolved Solids</b>                |               | <b>Method:</b> SM2540C                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1070.         | 10.                                     | mg/L     | 2/23/12 12:00 | R166105 | LS3     |
| <b>ICP Metals, Groundwater Total</b>         |               | <b>Method:</b> SW6010C / SW3015         |          |               |         |         |
| <b>Boron</b>                                 | <b>14.6</b>   | 0.063                                   | C mg/L   | 2/24/12 10:25 | 72216   | AG      |
| <b>Iron</b>                                  | <b>35.3</b>   | 0.125                                   | mg/L     | 2/24/12 10:25 | 72216   | AG      |
| <b>Manganese</b>                             | <b>0.702</b>  | 0.063                                   | mg/L     | 2/24/12 10:25 | 72216   | AG      |
| <b>Mercury, Total</b>                        |               | <b>Method:</b> SW7470A / HG PREP        |          |               |         |         |
| Mercury                                      | < 0.0005      | 0.0005                                  | mg/L     | 2/23/12 12:49 | 72231   | IG      |
| <b>Metals, Total.</b>                        |               | <b>Method:</b> SW6020A / SW3015         |          |               |         |         |
| Antimony                                     | < 0.006       | 0.006                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Arsenic                                      | < 0.05        | 0.05                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Barium                                       | < 2.          | 2.                                      | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Beryllium                                    | < 0.004       | 0.004                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Cadmium                                      | < 0.005       | 0.005                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Chromium                                     | < 0.1         | 0.1                                     | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Cobalt                                       | < 1.          | 1.                                      | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Copper                                       | < 0.65        | 0.65                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| <b>Lead</b>                                  | <b>0.0184</b> | 0.0075                                  | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Nickel                                       | < 0.1         | 0.1                                     | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Selenium                                     | < 0.05        | 0.05                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank      S - Spike Recovery outside accepted recovery limits  
E - Estimated      R - RPD outside accepted recovery limits  
H - Holding Time Exceeded      J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter





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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12020654  
**Project:** CWLP AP Wells  
**Lab ID:** 12020654-01

**Client Sample ID:** AP-1  
**Report Date:** 4/12/2012  
**Collection Date:** 2/22/2012 12:20:00 PM  
**Matrix:** Groundwater

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Silver                   | < 0.05   | 0.05                                     | mg/L  | 2/27/12 12:22 | 72216   | AG      |
| Thallium                 | < 0.002  | 0.002                                    | mg/L  | 2/27/12 12:22 | 72216   | AG      |
| Zinc                     | < 0.0575 | 0.0575                                   | mg/L  | 2/28/12 12:06 | 72216   | AG      |
| <b>Radiation Testing</b> |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.2      | 0.5                                      | pCi/L | 3/21/12       | R167933 | OUT     |
| Radium-228               | 1.9      | 0.9                                      | pCi/L | 3/21/12       | R167933 | OUT     |

**Qualifiers:**

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-2                 |
| <b>Lab Order:</b> 12020654                | <b>Report Date:</b> 4/12/2012                 |
| <b>Project:</b> CWLP AP Wells             | <b>Collection Date:</b> 2/22/2012 12:05:00 PM |
| <b>Lab ID:</b> 12020654-02                | <b>Matrix:</b> Groundwater                    |

| Analyses                                     | Result  | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|---------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |         | <b>Method:</b> SM4500-H                 |          |               |         |         |
| pH   | 6.65    |   | pH units | 2/22/12 12:05 | R168104 | JC      |
| <b>Anions by Ion Chromatography</b>          |         | <b>Method:</b> SW9056                   |          |               |         |         |
| Chloride                                     | 19.3    | 2.                                      | mg/L     | 2/23/12       | R166064 | GSB     |
| Fluoride                                     | < 5.    | 5.                                      | mg/L     | 2/23/12       | R166064 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.05  | 0.05                                    | mg/L     | 2/23/12       | R166064 | GSB     |
| Sulfate                                      | 211.    | 50.                                     | mg/L     | 2/23/12       | R166064 | GSB     |
| <b>Cyanide, Total</b>                        |         | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |               |         |         |
| Cyanide                                      | < 0.01  | 0.01                                    | mg/L     | 2/24/12 10:24 | 72204   | CS2     |
| <b>Total Dissolved Solids</b>                |         | <b>Method:</b> SM2540C                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 770.    | 10.                                     | mg/L     | 2/23/12 12:00 | R166105 | LS3     |
| <b>ICP Metals, Groundwater Total</b>         |         | <b>Method:</b> SW6010C / SW3015         |          |               |         |         |
| Boron  | 0.625   | C                                       | mg/L     | 2/27/12 11:05 | 72216   | CS2     |
| Iron   | 1.25    |   | mg/L     | 2/27/12 11:05 | 72216   | CS2     |
| Manganese                                    | 0.063   |   | mg/L     | 2/24/12 10:25 | 72216   | AG      |
| <b>Mercury, Total</b>                        |         | <b>Method:</b> SW7470A / HG PREP        |          |               |         |         |
| Mercury                                      | 0.0006  | 0.0005                                  | mg/L     | 2/23/12 12:49 | 72231   | IG      |
| <b>Metals, Total.</b>                        |         | <b>Method:</b> SW6020A / SW3015         |          |               |         |         |
| Antimony                                     | < 0.006 | 0.006                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Arsenic                                      | < 0.05  | 0.05                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Barium                                       | < 2.    | 2.                                      | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Beryllium                                    | 0.00675 | 0.004                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Cadmium                                      | < 0.005 | 0.005                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Chromium                                     | 0.277   | 0.1                                     | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Cobalt                                       | < 1.    | 1.                                      | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Copper                                       | < 0.65  | 0.65                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Lead   | 0.226   | 0.0075                                  | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Nickel                                       | 0.13    | 0.1                                     | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Selenium                                     | < 0.05  | 0.05                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank      S - Spike Recovery outside accepted recovery limits  
 E - Estimated      R - RPD outside accepted recovery limits  
 H - Holding Time Exceeded      J - Analyte detected below quantitation limits  
 C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12020654  
**Project:** CWLP AP Wells  
**Lab ID:** 12020654-02

**Client Sample ID:** AP-2  
**Report Date:** 4/12/2012  
**Collection Date:** 2/22/2012 12:05:00 PM  
**Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Silver                   | < 0.05  | 0.05                                     | mg/L  | 2/27/12 12:22 | 72216   | AG      |
| Thallium                 | 0.00225 | 0.002                                    | mg/L  | 2/27/12 12:22 | 72216   | AG      |
| Zinc                     | 0.408   | 0.0575                                   | mg/L  | 2/28/12 12:06 | 72216   | AG      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 2.7     | 0.4                                      | pCi/L | 3/21/12       | R167933 | OUT     |
| Radium-228               | 7.5     | 1.5                                      | pCi/L | 3/21/12       | R167933 | OUT     |

**Qualifiers:**

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 12020654 **Report Date:** 4/12/2012  
**Project:** CWLP AP Wells **Collection Date:** 2/22/2012 11:45:00 AM  
**Lab ID:** 12020654-03 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b> SM4500-H                 |          |               |         |         |
| pH   | 6.58     |   | pH units | 2/22/12 11:45 | R168104 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b> SW9056                   |          |               |         |         |
| Chloride                                     | 52.5     | 2.                                      | mg/L     | 2/23/12       | R166064 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 2/23/12       | R166064 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.23     | 0.05                                    | mg/L     | 2/23/12       | R166064 | GSB     |
| Sulfate                                      | 281.     | 5.                                      | mg/L     | 2/23/12       | R166064 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 2/24/12 10:24 | 72204   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b> SM2540C                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 852.     | 10.                                     | mg/L     | 2/23/12 12:00 | R166105 | LS3     |
| <b>ICP Metals, Groundwater Total</b>         |          | <b>Method:</b> SW6010C / SW3015         |          |               |         |         |
| Boron  | 17.7     | 0.063                                   | C mg/L   | 2/24/12 10:25 | 72216   | AG      |
| Iron   | 13.6     | 0.125                                   | mg/L     | 2/24/12 10:25 | 72216   | AG      |
| Manganese                                    | 10.6     | 0.063                                   | mg/L     | 2/24/12 10:25 | 72216   | AG      |
| <b>Mercury, Total</b>                        |          | <b>Method:</b> SW7470A / HG PREP        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 2/23/12 12:49 | 72231   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b> SW6020A / SW3015         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Arsenic                                      | < 0.05   | 0.05                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Lead   | 0.0084   | 0.0075                                  | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 2/27/12 12:22 | 72216   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 2/27/12 12:22 | 72216   | AG      |

### Qualifiers:

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

|                   |                            |                          |                       |
|-------------------|----------------------------|--------------------------|-----------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AP-3                  |
| <b>Lab Order:</b> | 12020654                   | <b>Report Date:</b>      | 4/12/2012             |
| <b>Project:</b>   | CWLP AP Wells              | <b>Collection Date:</b>  | 2/22/2012 11:45:00 AM |
| <b>Lab ID:</b>    | 12020654-03                | <b>Matrix:</b>           | Groundwater           |

| Analyses | Result   | EMT Reporting Limit | Units | Date Analyzed | Batch | Analyst |
|----------|----------|---------------------|-------|---------------|-------|---------|
| Silver   | < 0.05   | 0.05                | mg/L  | 2/27/12 12:22 | 72216 | AG      |
| Thallium | < 0.002  | 0.002               | mg/L  | 2/27/12 12:22 | 72216 | AG      |
| Zinc     | < 0.0575 | 0.0575              | mg/L  | 2/28/12 12:06 | 72216 | AG      |

### Radiation Testing

**Method:** EPA 900/903.1/904/905/906

|            |      |     |       |         |         |     |
|------------|------|-----|-------|---------|---------|-----|
| Radium-226 | 0.68 | 0.4 | pCi/L | 3/21/12 | R167933 | OUT |
| Radium-228 | 4.   | 1.1 | pCi/L | 3/21/12 | R167933 | OUT |

### Qualifiers:

B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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**Chain of Custody Record**

Scheduled Sampling Date: 04/25/2012  
Due Date: 05/02/2012

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COC # 504526

|   |   |  |   |
|---|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP AP Wells</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      14. Groundwater(Filter)      15. Other | <b>Analysis</b><br>1. Radiation Testing, Subcontracted<br>2. Anions by Ion Chromatography<br>3. Cyanide, Total<br>4. Solids, Total Dissolved (TDS)<br>5. pH, Field tested<br>6. Total RCRA Metals on a Liquid Sample | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>120A0127 |
| <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other   | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |  |   |

| Sample I.D. | Sample Type | Container |      |     | Sampling |          |       |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |    |
|-------------|-------------|-----------|------|-----|----------|----------|-------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|----|
|             |             | Size      | Type | No. | By       | Date     | Time  | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |    |
| AP-5        | GRAB        | 1 liter   | G    | 2   | JL       | 04/25/12 | 10:40 | 7.19 | 1            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  | JA |
| AP-5        | GRAB        | 1 liter   | P    | 1   | JL       | 04/25/12 | 10:40 | 7.19 | 1            |     |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | B  |
| AP-5        | GRAB        | 500 ml    | P    | 1   | JL       | 04/25/12 | 10:40 | 7.19 | 4            |     |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  | C  |
| AP-5        | GRAB        | 500 ml    | P    | 1   | JL       | 04/25/12 | 10:40 | 7.19 | 1            |     |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  | D  |
| AP-5        | GRAB        | 500 ml    | P    | 1   | JL       | 04/25/12 | 10:40 | 7.19 | 3            |     |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  | E  |

|                                     |                      |                                 |                      |  |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <i>[Signature]</i> | Date: <u>4-25-12</u> | Received By:                    | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP AP Wells</u><br>Jar Lot No. _____ | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: - -            | Received By:                    | Date: - -            |  |   |
| Relinquished By: <i>[Signature]</i> | Date: - -            | Received By: <i>[Signature]</i> | Date: <u>4-25-12</u> |  |   |
|                                     | Time: <u>19:30</u>   |                                 | Time: : :            |  |   |
|                                     | Time: : :            |                                 | Time: : :            |  |   |
|                                     | Time: : :            |                                 | Time: <u>19:30</u>   |  |   |

SPECIAL INSTRUCTIONS:

cal pH = 6.99 @ 68.4°F

4/17/2012 2:50:12 PM





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Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

October 10, 2012

RE CWLP AP Wells

Lab Orders:  
12080743 12080764

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Orders listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Joe Pavilonis  
Project Manager

Approved by,

Marilyn Krueding  
Laboratory Director

This Report Contains 21 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 99988890

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CLIENT: City, Water, Light & Power

Date: 10/10/2012

Project: CWLP AP Wells

## CASE NARRATIVE

Lab Orders: 12080743 12080764

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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**CLIENT:** City, Water, Light & Power

**Date:** 10/10/2012

**Project:** CWLP AP Wells

## CASE NARRATIVE

**Lab Orders:** 12080743 12080764

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCSLLMS-76306: The low level LCS recoveris for As, B,Cr, Fe, and Se were outside of the lab control limits (where applicable).

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCSLOES-76318: The low level LCS recoveris for As, Ni, Se, and Ag were outside of the lab control limits (where applicable).

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCSLLMS-76306: The low level LCS recoveris for As, B,Cr, Fe, and Se were outside of the lab control limits (where applicable).

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, MB-76318: The Ni CCB was just below the lab control limits.

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCSLOES-76318: The low level LCS recoveris for As, Ni, Se, and Ag were outside of the lab control limits (where applicable).

Analytical Comments for METHOD RADIATION, 12080764-01A, 02A, 03A: The Radium-226/228 analysis by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.





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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-1  
**Lab Order:** 12080743 **Report Date:** 10/10/2012  
**Project:** CWLP AP Wells **Collection Date:** 8/23/2012 11:05:00 AM  
**Lab ID:** 12080743-01 **Matrix:** Groundwater

| Analyses   | Result   | EMT Reporting Limit | Units | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|-------|---------------|---------|---------|
| <b>Anions by Ion Chromatography</b> Method: SW9056     |          |                     |       |               |         |         |
| Chloride   | 39.3     | 2.                  | mg/L  | 8/24/12       | R174166 | GSB     |
| Fluoride   | < 0.5    | 0.5                 | mg/L  | 8/24/12       | R174166 | GSB     |
| Nitrogen, Nitrate (As N)                               | 0.65     | 0.5                 | mg/L  | 8/24/12       | R174166 | GSB     |
| Sulfate  | 469.     | 50.                 | mg/L  | 8/28/12       | R174260 | GSB     |
| <b>Cyanide, Total</b> Method: SW9010B/9014 BY AQUACHEM |          |                     |       |               |         |         |
| Cyanide  | < 0.01   | 0.01                | mg/L  | 8/29/12 15:37 | 76375   | CS2     |
| <b>Total Dissolved Solids</b> Method: SM2540C          |          |                     |       |               |         |         |
| Total Dissolved Solids (Residue, Filterable)           | 788.     | 10.                 | mg/L  | 8/28/12 11:30 | R174349 | SW      |
| <b>Mercury, Total</b> Method: SW7470A / HG PREP        |          |                     |       |               |         |         |
| Mercury  | < 0.0005 | 0.0005              | mg/L  | 8/30/12 11:36 | 76413   | ML3     |
| <b>Metals, Total.</b> Method: SW6020A / SW3015         |          |                     |       |               |         |         |
| Antimony   | 0.0073   | 0.006               | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Arsenic  | 0.0141   | 0.0125              | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Barium   | 0.255    | 0.0125              | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Beryllium  | < 0.004  | 0.004               | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Boron  | 15.2     | 0.275               | mg/L  | 8/29/12 12:19 | 76306   | AG      |
| Cadmium  | < 0.0025 | 0.0025              | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Chromium   | < 0.0175 | 0.0175              | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Cobalt   | < 0.0175 | 0.0175              | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Copper   | < 0.01   | 0.01                | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Iron   | 9.22     | 0.14                | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Lead   | < 0.005  | 0.005               | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Manganese  | 0.564    | 0.0375              | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Nickel   | < 0.01   | 0.01                | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Selenium   | < 0.0025 | 0.0025              | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Silver   | < 0.005  | 0.005               | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Thallium   | < 0.002  | 0.002               | mg/L  | 8/29/12 02:19 | 76306   | AG      |
| Zinc   | < 0.025  | 0.025               | mg/L  | 8/29/12 02:19 | 76306   | AG      |

### Radiation Testing

Method: EPA 900/903.1/904/905/906

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits

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**Report of Laboratory Analysis**

|                   |                            |                          |                       |
|-------------------|----------------------------|--------------------------|-----------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AP-1                  |
| <b>Lab Order:</b> | 12080743                   | <b>Report Date:</b>      | 10/10/2012            |
| <b>Project:</b>   | CWLP AP Wells              | <b>Collection Date:</b>  | 8/23/2012 11:05:00 AM |
| <b>Lab ID:</b>    | 12080743-01                | <b>Matrix:</b>           | Groundwater           |

| Analyses   | Result | EMT Reporting Limit | Units | Date Analyzed | Batch   | Analyst |
|------------|--------|---------------------|-------|---------------|---------|---------|
| Radium-226 | 1.2    | 0.9                 | pCi/L | 9/10/12       | R175958 | OUT     |
| Radium-228 | ND     | 0.7                 | pCi/L | 9/10/12       | R175958 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 12080743 Report Date: 10/10/2012  
Project: CWLP AP Wells Collection Date: 8/23/2012 10:25:00 AM  
Lab ID: 12080743-02 Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units                            | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|----------------------------------|---------------|---------|---------|
| <b>Anions by Ion Chromatography</b>          |          |                     |                                  |               |         |         |
|  |          | <b>Method:</b>      | <b>SW9056</b>                    |               |         |         |
| Chloride                                     | 23.7     | 2.                  | mg/L                             | 8/24/12       | R174166 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L                             | 8/24/12       | R174166 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.5    | 0.5                 | mg/L                             | 8/24/12       | R174166 | GSB     |
| Sulfate                                      | 5.99     | 5.                  | mg/L                             | 8/24/12       | R174166 | GSB     |
| <b>Cyanide, Total</b>                        |          |                     |                                  |               |         |         |
|  |          | <b>Method:</b>      | <b>SW9010B/9014 BY AQUACHEM</b>  |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                | mg/L                             | 8/29/12 15:37 | 76375   | CS2     |
| <b>Total Dissolved Solids</b>                |          |                     |                                  |               |         |         |
|  |          | <b>Method:</b>      | <b>SM2540C</b>                   |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 422.     | 10.                 | mg/L                             | 8/28/12 11:30 | R174349 | SW      |
| <b>Mercury, Total</b>                        |          |                     |                                  |               |         |         |
|  |          | <b>Method:</b>      | <b>SW7470A / HG PREP</b>         |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L                             | 8/30/12 11:36 | 76413   | ML3     |
| <b>Metals, Total.</b>                        |          |                     |                                  |               |         |         |
|  |          | <b>Method:</b>      | <b>SW6020A / SW3015</b>          |               |         |         |
| Antimony                                     | 0.0067   | 0.006               | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Arsenic                                      | 0.131    | 0.0125              | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Barium                                       | 0.202    | 0.0125              | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Boron  | 0.689    | 0.275               | mg/L                             | 8/29/12 12:19 | 76306   | AG      |
| Cadmium                                      | < 0.0025 | 0.0025              | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Chromium                                     | < 0.0175 | 0.0175              | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Cobalt                                       | < 0.0175 | 0.0175              | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Copper                                       | < 0.01   | 0.01                | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Iron   | 11.5     | 0.14                | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Lead   | < 0.005  | 0.005               | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Manganese                                    | 0.329    | 0.0375              | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Nickel                                       | < 0.01   | 0.01                | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Selenium                                     | < 0.0025 | 0.0025              | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Silver                                       | < 0.005  | 0.005               | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| Zinc   | < 0.025  | 0.025               | mg/L                             | 8/29/12 02:25 | 76306   | AG      |
| <b>Radiation Testing</b>                     |          |                     |                                  |               |         |         |
|  |          | <b>Method:</b>      | <b>EPA 900/903.1/904/905/906</b> |               |         |         |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12080743  
**Project:** CWLP AP Wells  
**Lab ID:** 12080743-02

**Client Sample ID:** AW-3  
**Report Date:** 10/10/2012  
**Collection Date:** 8/23/2012 10:25:00 AM  
**Matrix:** Groundwater

| Analyses   | Result | EMT Reporting Limit | Units | Date Analyzed | Batch   | Analyst |
|------------|--------|---------------------|-------|---------------|---------|---------|
| Radium-226 | ND     | 0.89                | pCi/L | 9/10/12       | R175958 | OUT     |
| Radium-228 | ND     | 0.6                 | pCi/L | 9/10/12       | R175958 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits





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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12080743  
**Project:** CWLP AP Wells  
**Lab ID:** 12080743-03

**Client Sample ID:** AP-5  
**Report Date:** 10/10/2012  
**Collection Date:** 8/23/2012 10:55:00 AM  
**Matrix:** Groundwater

| Analyses                                     | Result  | EMT Reporting Limit                     | Units | Date Analyzed | Batch   | Analyst |
|--|---------|---|-------|---------------|---------|---------|
| <b>Anions by Ion Chromatography</b>          |         | <b>Method: SW9056</b>                   |       |               |         |         |
| Chloride                                     | 3.32    | 2.                                      | mg/L  | 8/24/12       | R174166 | GSB     |
| Fluoride                                     | < 0.5   | 0.5                                     | mg/L  | 8/24/12       | R174166 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.5   | 0.5                                     | mg/L  | 8/24/12       | R174166 | GSB     |
| Sulfate                                      | 76.8    | 5.                                      | mg/L  | 8/24/12       | R174166 | GSB     |
| <b>Cyanide, Total</b>                        |         | <b>Method: SW9010B/9014 BY AQUACHEM</b> |       |               |         |         |
| Cyanide                                      | < 0.01  | 0.01                                    | mg/L  | 8/29/12 15:37 | 76375   | CS2     |
| <b>Total Dissolved Solids</b>                |         | <b>Method: SM2540C</b>                  |       |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 316.    | 10.                                     | mg/L  | 8/28/12 11:30 | R174349 | SW      |
| <b>Mercury, Total</b>                        |         | <b>Method: SW7470A / HG PREP</b>        |       |               |         |         |
| Mercury                                      | 0.0007  | 0.0005                                  | mg/L  | 9/4/12 00:22  | 76492   | ML3     |
| <b>Metals, Total.</b>                        |         | <b>Method: SW6020A / SW3015</b>         |       |               |         |         |
| Antimony                                     | 0.0063  | 0.006                                   | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Arsenic                                      | 0.102   | 0.0125                                  | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Barium                                       | 2.76    | 0.0125                                  | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Beryllium                                    | 0.0092  | 0.004                                   | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Boron  | 0.782   | 0.687                                   | mg/L  | 8/29/12 12:19 | 76306   | AG      |
| Cadmium                                      | 0.00575 | 0.0025                                  | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Chromium                                     | 0.449   | 0.0175                                  | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Cobalt                                       | 0.297   | 0.0175                                  | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Copper                                       | 0.401   | 0.01                                    | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Iron   | 430.    | 3.5                                     | mg/L  | 8/29/12 12:19 | 76306   | AG      |
| Lead   | 0.312   | 0.005                                   | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Manganese                                    | 12.3    | 0.0375                                  | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Nickel                                       | 0.7     | 0.01                                    | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Selenium                                     | 0.00585 | 0.0025                                  | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Silver                                       | < 0.005 | 0.005                                   | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Thallium                                     | 0.00302 | 0.002                                   | mg/L  | 8/29/12 02:30 | 76306   | AG      |
| Zinc   | 1.35    | 0.025                                   | mg/L  | 8/29/12 02:30 | 76306   | AG      |

### Radiation Testing

**Method: EPA 900/903.1/904/905/906**

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12080743  
**Project:** CWLP AP Wells  
**Lab ID:** 12080743-03

**Client Sample ID:** AP-5  
**Report Date:** 10/10/2012  
**Collection Date:** 8/23/2012 10:55:00 AM  
**Matrix:** Groundwater

| Analyses   | Result | EMT Reporting Limit | Units | Date Analyzed | Batch   | Analyst |
|------------|--------|---------------------|-------|---------------|---------|---------|
| Radium-226 | 7.1    | 0.2                 | pCi/L | 9/10/12       | R175958 | OUT     |
| Radium-228 | 5.1    | 0.7                 | pCi/L | 9/10/12       | R175958 | OUT     |

**Qualifiers:**  
B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 12080764 **Report Date:** 10/10/2012  
**Project:** CWLP AP Wells **Collection Date:** 8/24/2012 12:35:00 PM  
**Lab ID:** 12080764-01 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b> SM4500-H                 |          |               |         |         |
| pH   | 7.       |   | pH units | 8/24/12 12:35 | R174101 | EP1     |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b> SW9056                   |          |               |         |         |
| Chloride                                     | 19.9     | 2.                                      | mg/L     | 8/24/12       | R174166 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 8/24/12       | R174166 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.5    | 0.5                                     | mg/L     | 8/24/12       | R174166 | GSB     |
| Sulfate                                      | 250.     | 5.                                      | mg/L     | 8/24/12       | R174166 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 8/29/12 15:37 | 76375   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b> SM2540C                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 836.     | 10.                                     | mg/L     | 8/28/12 11:30 | R174349 | SW      |
| <b>Mercury, Total</b>                        |          | <b>Method:</b> SW7470A / HG PREP        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 8/30/12 11:36 | 76413   | ML3     |
| <b>Metals, Total.</b>                        |          | <b>Method:</b> SW6020A / SW3015         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Arsenic                                      | 0.0331   | 0.0125                                  | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Barium                                       | 0.731    | 0.0125                                  | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Boron  | 6.88     | 0.275                                   | mg/L     | 8/29/12 12:19 | 76318   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Chromium                                     | 0.111    | 0.0175                                  | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Cobalt                                       | 0.0528   | 0.0175                                  | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Copper                                       | 0.0942   | 0.01                                    | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Iron   | 90.8     | 1.4                                     | mg/L     | 8/29/12 12:19 | 76318   | AG      |
| Lead   | 0.0599   | 0.005                                   | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Manganese                                    | 22.5     | 0.0375                                  | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Nickel                                       | 0.104    | 0.01                                    | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Selenium                                     | < 0.0025 | 0.0025                                  | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Silver                                       | < 0.005  | 0.005                                   | mg/L     | 8/28/12 23:08 | 76318   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 8/28/12 23:08 | 76318   | AG      |

### Qualifiers:

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

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**Report of Laboratory Analysis**

|                   |                            |                          |                       |
|-------------------|----------------------------|--------------------------|-----------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AP-2                  |
| <b>Lab Order:</b> | 12080764                   | <b>Report Date:</b>      | 10/10/2012            |
| <b>Project:</b>   | CWLP AP Wells              | <b>Collection Date:</b>  | 8/24/2012 12:35:00 PM |
| <b>Lab ID:</b>    | 12080764-01                | <b>Matrix:</b>           | Groundwater           |

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Zinc                     | 0.281  | 0.025                                    | mg/L  | 8/28/12 23:08 | 76318   | AG      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.6    | 0.8                                      | pCi/L | 9/10/12       | R176218 | OUT     |
| Radium-228               | 1.3    | 0.7                                      | pCi/L | 9/10/12       | R176218 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |





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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 12080764 Report Date: 10/10/2012  
Project: CWLP AP Wells Collection Date: 8/24/2012 12:20:00 PM  
Lab ID: 12080764-02 Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          |                     |          |               |         |         |
| pH   | 6.88     |                     | pH units | 8/24/12 12:20 | R174101 | EP1     |
| <b>Anions by Ion Chromatography</b>          |          |                     |          |               |         |         |
| Chloride                                     | 47.7     | 2.                  | mg/L     | 8/24/12       | R174166 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L     | 8/24/12       | R174166 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.5    | 0.5                 | mg/L     | 8/24/12       | R174166 | GSB     |
| Sulfate                                      | 315.     | 50.                 | mg/L     | 8/28/12       | R174260 | GSB     |
| <b>Cyanide, Total</b>                        |          |                     |          |               |         |         |
| Cyanide                                      | < 0.2    | 0.2                 | mg/L     | 8/30/12 13:23 | 76403   | CS2     |
| <b>Total Dissolved Solids</b>                |          |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1000.    | 10.                 | mg/L     | 8/28/12 11:30 | R174349 | SW      |
| <b>Mercury, Total</b>                        |          |                     |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L     | 8/30/12 11:36 | 76413   | ML3     |
| <b>Metals, Total.</b>                        |          |                     |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006               | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Arsenic                                      | 0.0254   | 0.0125              | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Barium                                       | 0.16     | 0.0125              | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Boron  | 20.9     | 0.275               | mg/L     | 8/29/12 12:19 | 76318   | AG      |
| Cadmium                                      | < 0.005  | 0.005               | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Chromium                                     | < 0.0175 | 0.0175              | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Cobalt                                       | < 0.0175 | 0.0175              | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Copper                                       | 0.0274   | 0.01                | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Iron   | 19.2     | 0.14                | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Lead   | 0.0118   | 0.005               | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Manganese                                    | 8.15     | 0.0375              | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Nickel                                       | 0.0156   | 0.01                | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Selenium                                     | < 0.0025 | 0.0025              | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Silver                                       | < 0.005  | 0.005               | mg/L     | 8/28/12 23:13 | 76318   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L     | 8/28/12 23:13 | 76318   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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water | soil | air | product | waste

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**ENVIRONMENTAL  
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8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 12080764 **Report Date:** 10/10/2012  
**Project:** CWLP AP Wells **Collection Date:** 8/24/2012 12:20:00 PM  
**Lab ID:** 12080764-02 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Zinc                     | 0.0326 | 0.025                                    | mg/L  | 8/28/12 23:13 | 76318   | AG      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.3    | 1.                                       | pCi/L | 9/10/12       | R176218 | OUT     |
| Radium-228               | ND     | 0.73                                     | pCi/L | 9/10/12       | R176218 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits



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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 12080764 **Report Date:** 10/10/2012  
**Project:** CWLP AP Wells **Collection Date:** 8/24/2012 12:10:00 PM  
**Lab ID:** 12080764-03 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units                           | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|---------------------------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b>      | <b>SM4500-H</b>                 |               |         |         |
| pH   | 7.63     |                     | pH units                        | 8/24/12 12:10 | R174101 | EP1     |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b>      | <b>SW9056</b>                   |               |         |         |
| Chloride                                     | 11.      | 2.                  | mg/L                            | 8/24/12       | R174166 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L                            | 8/24/12       | R174166 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.5    | 0.5                 | mg/L                            | 8/24/12       | R174166 | GSB     |
| Sulfate                                      | < 5.     | 5.                  | mg/L                            | 8/24/12       | R174166 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b>      | <b>SW9010B/9014 BY AQUACHEM</b> |               |         |         |
| Cyanide                                      | < 0.2    | 0.2                 | mg/L                            | 8/30/12 13:23 | 76403   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b>      | <b>SM2540C</b>                  |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 448.     | 10.                 | mg/L                            | 8/28/12 11:30 | R174349 | SW      |
| <b>Mercury, Total</b>                        |          | <b>Method:</b>      | <b>SW7470A / HG PREP</b>        |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L                            | 8/30/12 11:36 | 76413   | ML3     |
| <b>Metals, Total.</b>                        |          | <b>Method:</b>      | <b>SW6020A / SW3015</b>         |               |         |         |
| Antimony                                     | < 0.006  | 0.006               | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Arsenic                                      | 0.0294   | 0.0125              | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Barium                                       | 0.366    | 0.0125              | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Boron  | 0.787    | 0.275               | mg/L                            | 8/29/12 12:19 | 76318   | AG      |
| Cadmium                                      | < 0.005  | 0.005               | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Chromium                                     | < 0.0175 | 0.0175              | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Cobalt                                       | < 0.0175 | 0.0175              | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Copper                                       | < 0.01   | 0.01                | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Iron   | 10.8     | 0.14                | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Lead   | < 0.005  | 0.005               | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Manganese                                    | 0.162    | 0.0375              | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Nickel                                       | < 0.01   | 0.01                | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Selenium                                     | 0.00497  | 0.0025              | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Silver                                       | < 0.005  | 0.005               | mg/L                            | 8/28/12 23:19 | 76318   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L                            | 8/28/12 23:19 | 76318   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits

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**ENVIRONMENTAL  
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**Report of Laboratory Analysis**

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-4                 |
| <b>Lab Order:</b> 12080764                | <b>Report Date:</b> 10/10/2012                |
| <b>Project:</b> CWLP AP Wells             | <b>Collection Date:</b> 8/24/2012 12:10:00 PM |
| <b>Lab ID:</b> 12080764-03                | <b>Matrix:</b> Groundwater                    |

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Zinc                     | < 0.025 | 0.025                                    | mg/L  | 8/28/12 23:19 | 76318   | AG      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND      | 0.97                                     | pCi/L | 9/10/12       | R176218 | OUT     |
| Radium-228               | ND      | 0.71                                     | pCi/L | 9/10/12       | R176218 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |

environmental laboratory and testing services

water | soil | air | product | waste







**ENVIRONMENTAL  
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TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2012  
Due Date: 08/28/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504719

|   |  |  |
|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP AP Wells</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      14. Groundwater(Filler)      15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Radiation Testing, Subcontracted<br>2. Anions by Ion Chromatography<br>3. Cyanide, Total<br>4. Solids, Total Dissolved (TDS)<br>5. pH, Field tested<br>6. Total RCRA Metals on a Liquid Sample<br>EMT USE ONLY<br>EMT WORKORDER<br>2080743 |
|---|--|--|

| Sample I.D. | Sample Type | Sample No. | Container |      |     | Sampling |         |      |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |    |
|-------------|-------------|------------|-----------|------|-----|----------|---------|------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|----|
|             |             |            | Size      | Type | No. | By       | Date    | Time | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |    |
| AP-1        | GRAB        | 12         | 1 liter   | G    | 2   | SP       | 8/23/12 | 1105 | 6:20 | 1            |     | X        |    |    |    |    |    |    |    |    |     |                 |  |  |  |  | 1A |
| AP-1        | GRAB        | 12         | 1 liter   | P    | 1   | SP       | 8/23/12 | 1105 | 6:20 | 1            |     |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  |  | B  |
| AP-1        | GRAB        | 12         | 500 ml    | P    | 1   | SP       | 8/23/12 | 1105 | 6:20 | 4            |     |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  |  | C  |
| AP-1        | GRAB        | 12         | 500 ml    | P    | 1   | SP       | 8/23/12 | 1105 | 6:20 | 1            |     |          |    | X  | X  |    |    |    |    |    |     |                 |  |  |  |  | D  |
| AP-1        | GRAB        | 12         | 500 ml    | P    | 1   | SP       | 8/23/12 | 1105 | 6:20 | 3            |     |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  |  | E  |

|                                     |               |                                 |               |   |   |
|-------------------------------------|---------------|---------------------------------|---------------|---|---|
| Relinquished By:                    | Date: - -     | Received By:                    | Date: - -     | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP AP Wells<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: 8-23-12 | Received By: <i>[Signature]</i> | Date: 8-23-12 |   |   |
| Relinquished By: <i>[Signature]</i> | Date: 8-23-12 | Received By: <i>[Signature]</i> | Date: 8-23-12 |   |   |

SPECIAL INSTRUCTIONS:

814:7.00 = 7.00 @ 0935







**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2012  
Due Date: 08/28/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504719

|  |   |  |  |  |   |
|--|---|--|--|--|---|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP AP Wells</u> | SAMPLE TYPE:<br>1. DI Water<br>4. Extract<br>7. Sludge<br>10. Chemical Waste<br>13. eProduct<br>CONTAINER TYPE:<br>P - Plastic<br>B - Tedlar Bag<br>PRESERVATIVE:<br>1. None<br>4. NaOH<br>7. Zn Ace<br>10. Other | 2. Drinking Water<br>5. Wastewater<br>8. Solid<br>11. Wipe<br>14. Groundwater(Filter)<br>V - VOC Vial<br>O - Other<br>2. H2SO4<br>5. HCL<br>8. Na2S2O3 | 3. Soil<br>6. Oil<br>9. Air<br>12. Groundwater<br>15. Other<br>G - Glass<br>3. HNO3<br>6. MeOH<br>9. Na2HSO4 | <b>Analysis</b><br>1. Radiation Testing, Subcontracted<br>2. Anions by Ion Chromatography<br>3. Cyanide, Total<br>4. Solids, Total Dissolved (TDS)<br>5. pH, Field tested<br>6. Total RCRA Metals on a Liquid Sample | EMT USE ONLY<br>EMT WORKORDER<br>#2080743 |
|--|---|--|--|--|---|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |      |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |    |
|-------------|-------------|-----------|------|-----|----------|---------|------|------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|----|
|             |             | Size      | Type | No. | By       | Date    | Time | pH   | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |    |
| AW-3        | GRAB        | 1 liter   | G    | 2   | SP       | 8/23/12 | 1025 | 6.29 | 1     |              | X  |          |    |    |    |    |    |    |    |     |  |                 |  |  |  | BA |
| AW-3        | GRAB        | 1 liter   | P    | 1   | SP       | 8/23/12 | 1025 | 6.29 | 1     |              |    | X        |    |    |    |    |    |    |    |     |  |                 |  |  |  | B  |
| AW-3        | GRAB        | 500 ml    | P    | 1   | SP       | 8/23/12 | 1025 | 6.29 | 4     |              |    |          | X  |    |    |    |    |    |    |     |  |                 |  |  |  | C  |
| AW-3        | GRAB        | 500 ml    | P    | 1   | SP       | 8/23/12 | 1025 | 6.29 | 1     |              |    |          |    | X  | X  |    |    |    |    |     |  |                 |  |  |  | D  |
| AW-3        | GRAB        | 500 ml    | P    | 1   | SP       | 8/23/12 | 1025 | 6.29 | 3     |              |    |          |    |    |    | X  |    |    |    |     |  |                 |  |  |  | E  |

|                                     |               |                                 |               |                     |               |  |  |  |  |
|-------------------------------------|---------------|---------------------------------|---------------|---------------------|---------------|--|--|--|--|
| Relinquished By:                    | Date: - -     | Received By:                    | Date: - -     | <b>EMT USE ONLY</b> |               |  |  | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |  |
| Relinquished By: <i>[Signature]</i> | Date: 8-23-12 | Received By: <i>[Signature]</i> | Date: 8-23-12 | Client ID:          | SPRING        |  |  | Jar Lot No.  |  |
| Time: 11:30                         |               | Time: 11:30                     |               | Client Contact:     | Joe Pavilonis |  |  |  |  |
| Relinquished By: <i>[Signature]</i> | Date: 8-23-12 | Received By: <i>[Signature]</i> | Date: 8-23-12 | EMT Project ID:     | CWLP AP Wells |  |  | AC   |  |
| Time: 5:30                          |               | Time: 5:30                      |               |                     |               |  |  |  |  |

SPECIAL INSTRUCTIONS:

PH: 7.00 = 7.00 @ 0935









### Chain of Custody Record

Scheduled Sampling Date: 08/14/2012  
 Due Date: 08/28/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504719

|   |   |  |  |
|---|---|--|--|
| Company: <u>City, Water, Light &amp; Power</u>                            | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      14. Groundwater(Filter)      15. Other | <b>Analysis</b><br>1. Radiation Testing, Subcontracted<br>2. Anions by Ion Chromatography<br>3. Cyanide, Total<br>4. Solids, Total Dissolved (TDS)<br>5. pH, Field tested<br>6. Total RCRA Metals on a Liquid Sample |  |
| Contact:  |   |  |  |
| Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u> | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other   |  |  |
| Phone: <u>(217) 757-8610</u>  | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |  |  |
| P.O. #: _____ Proj. #: _____  |   |  |  |
| Project /Location: <u>CWLP AP Wells</u>                                   |   |  |  |

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |  |      |      |
|-------------|-------------|-----------|---------|-----|----------|------|---------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|--|------|------|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |  |      |      |
| AP-2        | GRAB        | 12        | 1 liter | G   | 2        | SP   | 8/23/12 | 1235 | 7.00         | 1   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  |  |  | -01A |      |
| AP-2        | GRAB        | 12        | 1 liter | P   | 1        | SP   | 8/23/12 | 1235 | 7.00         | 1   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  |  |  |      | -01B |
| AP-2        | GRAB        | 12        | 500 ml  | P   | 1        | SP   | 8/24/12 | 1235 | 7.00         | 4   |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  |  |  |      | -01C |
| AP-2        | GRAB        | 12        | 500 ml  | P   | 1        | SP   | 8/23/12 | 1235 | 7.00         | 1   |          |    |    |    | X  | X  |    |    |    |     |                 |  |  |  |  |  |      | -01D |
| AP-2        | GRAB        | 12        | 500 ml  | P   | 1        | SP   | 8/23/12 | 1235 | 7.00         | 3   |          |    |    |    |    |    | X  |    |    |     |                 |  |  |  |  |  |      | -01E |

|                  |               |              |               |  |   |
|------------------|---------------|--------------|---------------|--|---|
| Relinquished By: | Date: - -     | Received By: | Date: - -     | <b>EMT USE ONLY</b><br>Client ID: <b>SPRING</b><br>Client Contact: <b>Joe Pavilonis</b><br>EMT Project ID: <b>CWLP AP Wells</b><br>Jar Lot No: | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE 3°C<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: | Date: 8-23-12 | Received By: | Date: 8-23-12 |  |   |
| Time: 17:30:     |               | Time: 17:30: |               |  |   |

SPECIAL INSTRUCTIONS:

PH: 7.00 = 7.00 @ 0935





Chain of Custody Record

Scheduled Sampling Date: 08/14/2012  
Due Date: 08/28/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504719

|   |  |  |  |
|---|--|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP AP Wells</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      14. Groundwater(Filter)      15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Radiation Testing, Subcontracted<br>2. Anions by Ion Chromatography<br>3. Cyanide, Total<br>4. Solids, Total Dissolved (TDS)<br>5. pH, Field tested<br>6. Total RCRA Metals on a Liquid Sample | <b>EMT USE ONLY</b><br>EMT WORKORDER # <u>12080764</u> |
|---|--|--|--|

| Sample I.D. | Sample Type | Size | Container |     | Sampling |      |         |       | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |     |  |
|-------------|-------------|------|-----------|-----|----------|------|---------|-------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|-----|--|
|             |             |      | Type      | No. | By       | Date | Time    | pH    | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |     |  |
| AP-3        | GRAB        | 12   | 1 liter   | G   | 2        | DD   | 8-23-12 | 12:20 | 6.88         | 1   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | 02A |  |
| AP-3        | GRAB        | 12   | 1 liter   | P   | 1        | DD   | 8-23-12 | 12:20 | 6.88         | 1   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  | 02B |  |
| AP-3        | GRAB        | 12   | 500 ml    | P   | 1        | DD   | 8-23-12 | 12:20 | 6.88         | 4   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  | 02C |  |
| AP-3        | GRAB        | 12   | 500 ml    | P   | 1        | DD   | 8-23-12 | 12:20 | 6.88         | 1   |          |    |    | X  | X  |    |    |    |    |     |                 |  |  |  | 02D |  |
| AP-3        | GRAB        | 12   | 500 ml    | P   | 1        | DD   | 8-23-12 | 12:20 | 6.88         | 3   |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  | 02E |  |
|             |             |      |           |     |          |      |         |       |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |     |  |

|                        |                      |                    |                      |   |   |
|------------------------|----------------------|--------------------|----------------------|---|---|
| Relinquished By:       | Date: <u>8-23-12</u> | Received By:       | Date: <u>8-23-12</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP AP Wells<br>Jar Lot No. | SAMPLE RECEIVED ON ICE<br>TEMPERATURE 3°C<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By:       | Date: <u>8-28-12</u> | Received By:       | Date: <u>8-29-12</u> |   |   |
| Relinquished By: _____ | Date: - -            | Received By: _____ | Date: - -            |   |   |







# Chain of Custody Record

Scheduled Sampling Date: 08/14/2012  
 Due Date: 08/28/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emi.com

COC # 504719

|   |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
|---|---|-----------------|-------------------|---------|------------|---------------|--------|-----------|----------|--------|--------------------|----------|-----------------|--------------|-------------------------|-----------|-------------|--------------|-----------|----------------|-----------|--|---------|----------|---------|---------|--------|---------|-----------|------------|------------|-----------|--|--|---|-------------------------------------|--|---------------------------------|--|-------------------|--|----------------------------------|--|---------------------|--|---|--|
| <p>Company: <u>City, Water, Light &amp; Power</u></p> <p>Contact:</p> <p>Address: <u>201 East Lake Shore Drive</u><br/><u>Springfield, IL 62707</u></p> <p>Phone: <u>(217) 757-8610</u></p> <p>P.O. #: _____ Proj. #: _____</p> <p>Project Location: <u>CWLP AP Wells</u></p> | <p><b>SAMPLE TYPE:</b></p> <table style="width:100%; font-size: small;"> <tr> <td>1. DI Water</td> <td>2. Drinking Water</td> <td>3. Soil</td> </tr> <tr> <td>4. Extract</td> <td>5. Wastewater</td> <td>6. Oil</td> </tr> <tr> <td>7. Sludge</td> <td>8. Solid</td> <td>9. Air</td> </tr> <tr> <td>10. Chemical Waste</td> <td>11. Wipe</td> <td>12. Groundwater</td> </tr> <tr> <td>13. eProduct</td> <td>14. Groundwater(Filter)</td> <td>15. Other</td> </tr> </table> <p><b>CONTAINER TYPE:</b></p> <table style="width:100%; font-size: small;"> <tr> <td>P - Plastic</td> <td>V - VOC Vial</td> <td>G - Glass</td> </tr> <tr> <td>B - Tedlar Bag</td> <td>O - Other</td> <td></td> </tr> </table> <p><b>PRESERVATIVE:</b></p> <table style="width:100%; font-size: small;"> <tr> <td>1. None</td> <td>2. H2SO4</td> <td>3. HNO3</td> </tr> <tr> <td>4. NaOH</td> <td>5. HCL</td> <td>6. MeOH</td> </tr> <tr> <td>7. Zn Ace</td> <td>8. Na2S2O3</td> <td>9. Na2HSO4</td> </tr> <tr> <td>10. Other</td> <td></td> <td></td> </tr> </table> | 1. DI Water     | 2. Drinking Water | 3. Soil | 4. Extract | 5. Wastewater | 6. Oil | 7. Sludge | 8. Solid | 9. Air | 10. Chemical Waste | 11. Wipe | 12. Groundwater | 13. eProduct | 14. Groundwater(Filter) | 15. Other | P - Plastic | V - VOC Vial | G - Glass | B - Tedlar Bag | O - Other |  | 1. None | 2. H2SO4 | 3. HNO3 | 4. NaOH | 5. HCL | 6. MeOH | 7. Zn Ace | 8. Na2S2O3 | 9. Na2HSO4 | 10. Other |  |  | <p style="text-align: center;"><b>Analysis</b></p> <table style="width:100%; font-size: small;"> <tr> <td>1. Radiation Testing, Subcontracted</td> <td></td> </tr> <tr> <td>2. Anions by Ion Chromatography</td> <td></td> </tr> <tr> <td>3. Cyanide, Total</td> <td></td> </tr> <tr> <td>4. Solids, Total Dissolved (TDS)</td> <td></td> </tr> <tr> <td>5. pH, Field tested</td> <td></td> </tr> <tr> <td>6. Total RCRA Metals on a Liquid Sample</td> <td></td> </tr> </table> <p style="text-align: right; font-weight: bold;">EMT USE ONLY</p> <p style="text-align: right; font-weight: bold;">EMT WORKORDER # <u>12480764</u></p> | 1. Radiation Testing, Subcontracted |  | 2. Anions by Ion Chromatography |  | 3. Cyanide, Total |  | 4. Solids, Total Dissolved (TDS) |  | 5. pH, Field tested |  | 6. Total RCRA Metals on a Liquid Sample |  |
| 1. DI Water   | 2. Drinking Water   | 3. Soil         |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 4. Extract  | 5. Wastewater   | 6. Oil          |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 7. Sludge   | 8. Solid  | 9. Air          |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 10. Chemical Waste  | 11. Wipe  | 12. Groundwater |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 13. eProduct  | 14. Groundwater(Filter)   | 15. Other       |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| P - Plastic   | V - VOC Vial  | G - Glass       |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| B - Tedlar Bag  | O - Other   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 1. None   | 2. H2SO4  | 3. HNO3         |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 4. NaOH   | 5. HCL  | 6. MeOH         |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 7. Zn Ace   | 8. Na2S2O3  | 9. Na2HSO4      |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 10. Other   |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 1. Radiation Testing, Subcontracted   |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 2. Anions by Ion Chromatography   |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 3. Cyanide, Total   |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 4. Solids, Total Dissolved (TDS)  |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 5. pH, Field tested   |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |
| 6. Total RCRA Metals on a Liquid Sample   |   |                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |                         |           |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |   |                                     |  |                                 |  |                   |  |                                  |  |                     |  |   |  |

| Sample I.D.          | Sample Type | Container |         |     | Sampling |      |         |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |  |          |  |
|----------------------|-------------|-----------|---------|-----|----------|------|---------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|--|----------|--|
|                      |             | Size      | Type    | No. | By       | Date | Time    | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |  |          |  |
| AP-4                 | GRAB        | 12        | 1 liter | G   | 2        | SP   | 8/23/12 | 1210 | 7.63         | 1   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  |  |  | -07A 03A |  |
| AP-4                 | GRAB        | 12        | 1 liter | P   | 1        | SP   | 8/23/12 | 1210 | 7.63         | 1   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  |  |  | -08 03B  |  |
| AP-4                 | GRAB        | 12        | 500 ml  | P   | 1        | SP   | 8/23/12 | 1210 | 7.63         | 4   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  |  |  | -04 03C  |  |
| AP-4                 | GRAB        | 12        | 500 ml  | P   | 1        | SP   | 8/23/12 | 1210 | 7.63         | 1   |          |    |    | X  | X  |    |    |    |    |     |                 |  |  |  |  |  | -03D     |  |
| AP-4                 | GRAB        | 12        | 500 ml  | P   | 1        | SP   | 8/23/12 | 1210 | 7.63         | 3   |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  |  |  | -03E     |  |
| <del>AP-4</del> AP-1 | GRAB        | 12        | 500ml   | P   | 1        | SP   | 8/23/12 | 1105 | 6.20         | 1   |          |    |    | X  | X  |    |    |    |    |     |                 |  |  |  |  |  | -04A     |  |
|                      |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |          |  |
|                      |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |          |  |
|                      |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |          |  |

|                                     |                      |                                 |                      |  |  |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|--|
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            | <p><b>EMT USE ONLY</b></p> <p>ClientID: <b>SPRING</b></p> <p>Client Contact: <b>Joe Pavilonis</b></p> <p>EMT Project ID: <b>CWLP AP Wells</b></p> <p>Jar Lot No. _____</p> | <p><input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE</p> <p><input checked="" type="checkbox"/> TEMPERATURE 3°C</p> <p>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)</p> |
| Time: : :                           | Time: : :            | Time: : :                       | Time: : :            |  |  |
| Relinquished By: <i>[Signature]</i> | Date: <u>8-23-12</u> | Received By: <i>[Signature]</i> | Date: <u>8-23-12</u> |  |  |
| Time: <u>17:30</u>                  | Time: <u>17:30</u>   | Time: : :                       | Time: : :            |  |  |
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            |  |  |
| Time: : :                           | Time: : :            | Time: : :                       | Time: : :            |  |  |

SPECIAL INSTRUCTIONS:

PH: 7.00 = 7.00 @ 0935



**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

January 31, 2013

RE CWLP List G20

Lab Orders:  
12110767

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

This Report Contains 39 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

environmental laboratory and testing services

| water | soil | air | product | waste |





# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



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847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

CLIENT: City, Water, Light & Power

Date: 1/31/2013

Project: CWLP List G20

## CASE NARRATIVE

Lab Order: 12110767

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

environmental laboratory and testing services

water | soil | air | product | waste





**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



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847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

**CLIENT:** City, Water, Light & Power

**Date:** 1/31/2013

**Project:** CWLP List G20

**CASE NARRATIVE**

**Lab Order:** 12110767

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Analytical Comments for METHOD 8270\_WNEW, 12110767-01A, 03A, 04A, 05A, 06A: Acid surrogate recovery was below the limit.

For the Radium analysis on splits 03A and 06A, the sample was decanted to remove the sediment so the analysis could be performed.

Analytical Comments for METHOD RADIATION, 12110767-01A, 02A, 04A, 05A: The Radium-226/228 analysis by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.

Analytical Comments for METHOD RADIATION, 12110767-03A, 06A: The Radium-226/228 analysis by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001. The sample was decanted to remove sediment prior to analysis.







# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



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847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AW-3  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 8:25:00 AM  
**Lab ID:** 12110767-01 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units    | Date Analyzed  | Batch   | Analyst |
|--|----------|---------------------|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          |                     |          |                |         |         |
| pH   | 7.05     |                     | pH units | 11/28/12 08:25 | R179410 | DD1     |
| <b>Anions by Ion Chromatography</b>          |          |                     |          |                |         |         |
| Chloride                                     | 23.5     | 0.2                 | mg/L     | 11/30/12       | R178588 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                 | mg/L     | 11/30/12       | R178588 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.22     | 0.05                | mg/L     | 11/30/12       | R178588 | GSB     |
| Sulfate                                      | < 5.     | 5.                  | mg/L     | 11/30/12       | R178588 | GSB     |
| <b>Cyanide, Total</b>                        |          |                     |          |                |         |         |
| Cyanide                                      | < 0.01   | 0.01                | mg/L     | 12/4/12 12:34  | 78543   | CS2     |
| <b>Total Dissolved Solids</b>                |          |                     |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 570.     | 10.                 | mg/L     | 11/30/12 13:50 | R178673 | LS3     |
| <b>Mercury, Total</b>                        |          |                     |          |                |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L     | 12/3/12 13:08  | 78542   | IG      |
| <b>Metals, Total.</b>                        |          |                     |          |                |         |         |
| Antimony                                     | < 0.006  | 0.006               | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Arsenic                                      | 0.121    | 0.005               | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Barium                                       | < 2.     | 2.                  | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Boron  | < 2.     | 2.                  | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Cadmium                                      | < 0.0005 | 0.0005              | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Chromium                                     | < 0.1    | 0.1                 | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Cobalt                                       | < 1.     | 1.                  | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Copper                                       | < 0.65   | 0.65                | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Iron   | 12.3     | 5.                  | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Lead   | < 0.0075 | 0.0075              | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Manganese                                    | 0.334    | 0.15                | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Nickel                                       | < 0.1    | 0.1                 | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Selenium                                     | < 0.05   | 0.05                | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Silver                                       | < 0.05   | 0.05                | mg/L     | 12/12/12 13:20 | 78529   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L     | 12/12/12 13:20 | 78529   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12110767  
**Project:** CWLP List G20  
**Lab ID:** 12110767-01

**Client Sample ID:** AW-3  
**Report Date:** 1/31/2013  
**Collection Date:** 11/28/2012 8:25:00 AM  
**Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 12/12/12 13:20 | 78529   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 12/11/12 10:27 | 78746   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C µg/L | 12/11/12 10:27 | 78746   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/10/12 06:14 | 78562   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 12/12/12 09:43 | 78751   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 12/3/12 19:15  | 78503   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| PCB, Total                              | < 0.68   | 0.66                             | µg/L   | 12/4/12        | 78504   | NCH     |

### Qualifiers:

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

E - Estimated

R - RPD outside accepted recovery limits

H - Holding Time Exceeded

J - Analyte detected below quantitation limits

C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AW-3  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 8:25:00 AM  
**Lab ID:** 12110767-01 **Matrix:** Groundwater

| Analyses   | Result | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|--------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |        |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13 | 0.13                | µg/L   | 12/6/12 04:12 | 78450 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33 | 1.33                | µg/L   | 12/6/12 04:12 | 78450 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67 | 0.67                | µg/L   | 12/6/12 04:12 | 78450 | RYL     |
| Phenol   | < 1.33 | 1.33                | µg/L   | 12/6/12 04:12 | 78450 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |        |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25 | 0.25                | µg/L   | 12/3/12       | 78467 | DLO     |
| 2,4-D  | < 0.23 | 0.23                | µg/L   | 12/3/12       | 78467 | DLO     |
| Dinoseb  | < 0.22 | 0.22                | µg/L   | 12/3/12       | 78467 | DLO     |
| Pentachlorophenol  | < 0.26 | 0.26                | C µg/L | 12/3/12       | 78467 | DLO     |
| Picloram   | < 0.22 | 0.22                | C µg/L | 12/3/12       | 78467 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |        |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| 1,1,2-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| 1,1-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| 1,2,4-Trichlorobenzene   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| 1,2-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| 1,2-Dichloroethane   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| 1,2-Dichloropropane  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| 1,4-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Benzene  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Carbon tetrachloride   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Chlorobenzene  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Ethylbenzene   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Methyl tert-butyl ether  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Methylene chloride   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Styrene  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Tetrachloroethene  | < 10.  | 10.                 | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Toluene  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| trans-1,2-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Trichloroethene  | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |
| Vinyl chloride   | < 2.   | 2.                  | µg/L   | 12/3/12 20:45 | 78559 | XN      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AW-3  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 8:25:00 AM  
**Lab ID:** 12110767-01 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 6.   | 6.                                       | µg/L  | 12/3/12 20:45 | 78559   | XN      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 0.48   | 0.3                                      | pCi/L | 1/11/13       | R180319 | OUT     |
| Radium-228               | 1.3    | 0.7                                      | pCi/L | 1/11/13       | R180319 | OUT     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-1  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 10:45:00 AM  
**Lab ID:** 12110767-02 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed  | Batch   | Analyst |
|--|----------|---|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b> SM4500-H                 |          |                |         |         |
| pH   | 7.23     |   | pH units | 11/28/12 10:45 | R179410 | DD1     |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b> SW9056                   |          |                |         |         |
| Chloride                                     | 40.3     | 0.2                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.22     | 0.05                                    | mg/L     | 11/30/12       | R178588 | GSB     |
| Sulfate                                      | 488.     | 50.                                     | mg/L     | 12/3/12        | R178685 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |                |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 12/4/12 12:34  | 78543   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b> SM2540C                  |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1160.    | 10.                                     | mg/L     | 11/30/12 13:50 | R178673 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method:</b> SW7470A / HG PREP        |          |                |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 12/3/12 13:08  | 78542   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b> SW6020A / SW3015         |          |                |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Arsenic                                      | 0.00572  | 0.005                                   | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Boron  | 4.3      | 2.                                      | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Iron   | 23.4     | 5.                                      | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Manganese                                    | 0.744    | 0.15                                    | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:26 | 78529   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 12/12/12 13:26 | 78529   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-1  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 10:45:00 AM  
**Lab ID:** 12110767-02 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 12/12/12 13:26 | 78529   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0401 | 0.0401                           | C µg/L | 12/11/12 11:30 | 78746   | LP      |
| 1,2-Dibromoethane                       | < 0.0562 | 0.0562                           | C µg/L | 12/11/12 11:30 | 78746   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/10/12 06:58 | 78562   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 12/12/12 11:10 | 78751   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 12/4/12        | 78504   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 12110767 Report Date: 1/31/2013  
Project: CWLP List G20 Collection Date: 11/28/2012 10:45:00 AM  
Lab ID: 12110767-02 Matrix: Groundwater

| Analyses                                     | Result | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|--------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |        |                                  |        |               |       |         |
|  |        | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 0.13 | 0.13                             | µg/L   | 12/6/12 04:56 | 78450 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33 | 1.33                             | µg/L   | 12/6/12 04:56 | 78450 | RYL     |
| Hexachlorocyclopentadiene                    | < 0.67 | 0.67                             | µg/L   | 12/6/12 04:56 | 78450 | RYL     |
| Phenol                                       | < 1.33 | 1.33                             | µg/L   | 12/6/12 04:56 | 78450 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |        |                                  |        |               |       |         |
|  |        | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.25 | 0.25                             | µg/L   | 12/3/12       | 78467 | DLO     |
| 2,4-D  | < 0.23 | 0.23                             | µg/L   | 12/3/12       | 78467 | DLO     |
| Dinoseb                                      | < 0.22 | 0.22                             | µg/L   | 12/3/12       | 78467 | DLO     |
| Pentachlorophenol                            | < 0.27 | 0.27                             | C µg/L | 12/3/12       | 78467 | DLO     |
| Picloram                                     | < 0.22 | 0.22                             | C µg/L | 12/3/12       | 78467 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |        |                                  |        |               |       |         |
|  |        | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 2.   | 2.                               | µg/L   | 12/6/12 16:18 | 78646 | JL      |
| 1,1,2-Trichloroethane                        | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| 1,1-Dichloroethene                           | < 2.   | 2.                               | µg/L   | 12/6/12 16:18 | 78646 | JL      |
| 1,2,4-Trichlorobenzene                       | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| 1,2-Dichlorobenzene                          | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| 1,2-Dichloroethane                           | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| 1,2-Dichloropropane                          | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| 1,4-Dichlorobenzene                          | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Benzene                                      | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Carbon tetrachloride                         | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Chlorobenzene                                | < 2.   | 2.                               | µg/L   | 12/6/12 16:18 | 78646 | JL      |
| cis-1,2-Dichloroethene                       | < 3.72 | 3.72                             | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Ethylbenzene                                 | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Methyl tert-butyl ether                      | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Methylene chloride                           | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Styrene                                      | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Tetrachloroethene                            | < 10.  | 10.                              | µg/L   | 12/6/12 16:18 | 78646 | JL      |
| Toluene                                      | < 2.   | 2.                               | µg/L   | 12/6/12 16:18 | 78646 | JL      |
| trans-1,2-Dichloroethene                     | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |
| Trichloroethene                              | < 2.   | 2.                               | µg/L   | 12/6/12 16:18 | 78646 | JL      |
| Vinyl chloride                               | < 2.   | 2.                               | µg/L   | 12/4/12 02:14 | 78559 | XN      |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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**Report of Laboratory Analysis**

|                   |                            |                          |                        |
|-------------------|----------------------------|--------------------------|------------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AP-1                   |
| <b>Lab Order:</b> | 12110767                   | <b>Report Date:</b>      | 1/31/2013              |
| <b>Project:</b>   | CWLP List G20              | <b>Collection Date:</b>  | 11/28/2012 10:45:00 AM |
| <b>Lab ID:</b>    | 12110767-02                | <b>Matrix:</b>           | Groundwater            |

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 6.   | 6.                                       | µg/L  | 12/4/12 02:14 | 78559   | XN      |
| <b>Radiation Testing</b> |        |  |       |               |         |         |
|                          |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.1    | 0.2                                      | pCi/L | 1/11/13       | R180319 | OUT     |
| Radium-228               | 1.4    | 0.8                                      | pCi/L | 1/11/13       | R180319 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 10:00:00 AM  
**Lab ID:** 12110767-03 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed  | Batch   | Analyst |
|--|----------|---|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b> SM4500-H                 |          |                |         |         |
| pH   | 7.58     |   | pH units | 11/28/12 10:00 | R179410 | DD1     |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b> SW9056                   |          |                |         |         |
| Chloride                                     | 22.8     | 0.2                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.22     | 0.05                                    | mg/L     | 11/30/12       | R178588 | GSB     |
| Sulfate                                      | 293.     | 5.                                      | mg/L     | 11/30/12       | R178588 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |                |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 12/4/12 12:34  | 78543   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b> SM2540C                  |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1100.    | 10.                                     | mg/L     | 11/30/12 13:50 | R178673 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method:</b> SW7470A / HG PREP        |          |                |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 12/3/12 13:08  | 78542   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b> SW6020A / SW3015         |          |                |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Arsenic                                      | 0.0156   | 0.005                                   | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Boron  | 6.24     | 2.                                      | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Iron   | 134.     | 50.                                     | mg/L     | 12/12/12 11:03 | 78529   | AG      |
| Lead   | 0.0433   | 0.0075                                  | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Manganese                                    | 46.      | 1.5                                     | mg/L     | 12/12/12 11:03 | 78529   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:31 | 78529   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 12/12/12 13:31 | 78529   | AG      |

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H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 12110767 Report Date: 1/31/2013  
Project: CWLP List G20 Collection Date: 11/28/2012 10:00:00 AM  
Lab ID: 12110767-03 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 12/12/12 13:31 | 78529   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0403 | 0.0403                           | C µg/L | 12/11/12 12:33 | 78746   | LP      |
| 1,2-Dibromoethane                       | < 0.0565 | 0.0565                           | C µg/L | 12/11/12 12:33 | 78746   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/10/12 07:42 | 78562   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 12/12/12 11:54 | 78751   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 12/4/12 22:22  | 78503   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 22:22  | 78503   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 22:22  | 78503   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 12/4/12        | 78504   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 12110767 Report Date: 1/31/2013  
Project: CWLP List G20 Collection Date: 11/28/2012 10:00:00 AM  
Lab ID: 12110767-03 Matrix: Groundwater

| Analyses   | Result | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|--------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |        |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13 | 0.13                | µg/L   | 12/6/12 05:40 | 78450 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33 | 1.33                | µg/L   | 12/6/12 05:40 | 78450 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67 | 0.67                | µg/L   | 12/6/12 05:40 | 78450 | RYL     |
| Phenol   | < 1.33 | 1.33                | µg/L   | 12/6/12 05:40 | 78450 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |        |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25 | 0.25                | µg/L   | 12/3/12       | 78467 | DLO     |
| 2,4-D  | < 0.23 | 0.23                | µg/L   | 12/3/12       | 78467 | DLO     |
| Dinoseb  | < 0.22 | 0.22                | µg/L   | 12/3/12       | 78467 | DLO     |
| Pentachlorophenol  | < 0.26 | 0.26                | C µg/L | 12/3/12       | 78467 | DLO     |
| Picloram   | < 0.22 | 0.22                | C µg/L | 12/3/12       | 78467 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |        |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/6/12 16:51 | 78646 | JL      |
| 1,1,2-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| 1,1-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/6/12 16:51 | 78646 | JL      |
| 1,2,4-Trichlorobenzene   | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| 1,2-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| 1,2-Dichloroethane   | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| 1,2-Dichloropropane  | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| 1,4-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Benzene  | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Carbon tetrachloride   | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Chlorobenzene  | < 2.   | 2.                  | µg/L   | 12/6/12 16:51 | 78646 | JL      |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Ethylbenzene   | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Methyl tert-butyl ether  | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Methylene chloride   | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Styrene  | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Tetrachloroethene  | < 10.  | 10.                 | µg/L   | 12/6/12 16:51 | 78646 | JL      |
| Toluene  | < 2.   | 2.                  | µg/L   | 12/6/12 16:51 | 78646 | JL      |
| trans-1,2-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |
| Trichloroethene  | < 2.   | 2.                  | µg/L   | 12/6/12 16:51 | 78646 | JL      |
| Vinyl chloride   | < 2.   | 2.                  | µg/L   | 12/4/12 02:47 | 78559 | XN      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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**Report of Laboratory Analysis**

|   |  |
|---|--|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-2                  |
| <b>Lab Order:</b> 12110767                | <b>Report Date:</b> 1/31/2013                  |
| <b>Project:</b> CWLP List G20             | <b>Collection Date:</b> 11/28/2012 10:00:00 AM |
| <b>Lab ID:</b> 12110767-03                | <b>Matrix:</b> Groundwater                     |

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 6.   | 6.                                       | µg/L  | 12/4/12 02:47 | 78559   | XN      |
| <b>Radiation Testing</b> |        |  |       |               |         |         |
|                          |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND     | 0.74                                     | pCi/L | 1/29/13       | R180984 | OUT     |
| Radium-228               | 0.92   | 0.85                                     | pCi/L | 1/29/13       | R180984 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 12110767 Report Date: 1/31/2013  
Project: CWLP List G20 Collection Date: 11/28/2012 9:15:00 AM  
Lab ID: 12110767-04 Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed  | Batch   | Analyst |
|--|----------|---|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method: SM4500-H</b>                 |          |                |         |         |
| pH   | 7.35     |   | pH units | 11/28/12 08:25 | R179410 | DD1     |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method: SW9056</b>                   |          |                |         |         |
| Chloride                                     | 54.6     | 0.2                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.05   | 0.05                                    | mg/L     | 11/30/12       | R178588 | GSB     |
| Sulfate                                      | 318.     | 50.                                     | mg/L     | 12/3/12        | R178685 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |                |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 12/4/12 12:34  | 78543   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method: SM2540C</b>                  |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 928.     | 10.                                     | mg/L     | 11/30/12 13:50 | R178673 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method: SW7470A / HG PREP</b>        |          |                |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 12/3/12 13:08  | 78542   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method: SW6020A / SW3015</b>         |          |                |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Arsenic                                      | 0.0136   | 0.005                                   | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Boron  | 8.03     | 2.                                      | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Iron   | 15.5     | 5.                                      | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Manganese                                    | 8.64     | 0.15                                    | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:36 | 78529   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 12/12/12 13:36 | 78529   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 12110767 Report Date: 1/31/2013  
Project: CWLP List G20 Collection Date: 11/28/2012 9:15:00 AM  
Lab ID: 12110767-04 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 12/12/12 13:36 | 78529   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0406 | 0.0406                           | C µg/L | 12/11/12 13:05 | 78746   | LP      |
| 1,2-Dibromoethane                       | < 0.0568 | 0.0568                           | C µg/L | 12/11/12 13:05 | 78746   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/10/12 08:25 | 78562   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 12/12/12 12:37 | 78751   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 12/4/12 20:00  | 78503   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 20:00  | 78503   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 20:00  | 78503   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 12/3/12 20:02  | 78503   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| PCB, Total                              | < 0.67   | 0.67                             | µg/L   | 12/4/12        | 78504   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 9:15:00 AM  
**Lab ID:** 12110767-04 **Matrix:** Groundwater

| Analyses   | Result | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|--------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |        |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13 | 0.13                | µg/L   | 12/6/12 06:23 | 78450 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33 | 1.33                | µg/L   | 12/6/12 06:23 | 78450 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67 | 0.67                | µg/L   | 12/6/12 06:23 | 78450 | RYL     |
| Phenol   | < 1.33 | 1.33                | µg/L   | 12/6/12 06:23 | 78450 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |        |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25 | 0.25                | µg/L   | 12/3/12       | 78467 | DLO     |
| 2,4-D  | < 0.23 | 0.23                | µg/L   | 12/3/12       | 78467 | DLO     |
| Dinoseb  | < 0.22 | 0.22                | µg/L   | 12/3/12       | 78467 | DLO     |
| Pentachlorophenol  | < 0.26 | 0.26                | C µg/L | 12/3/12       | 78467 | DLO     |
| Picloram   | < 0.22 | 0.22                | C µg/L | 12/3/12       | 78467 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |        |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/6/12 17:23 | 78646 | JL      |
| 1,1,2-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| 1,1-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/6/12 17:23 | 78646 | JL      |
| 1,2,4-Trichlorobenzene   | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| 1,2-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| 1,2-Dichloroethane   | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| 1,2-Dichloropropane  | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| 1,4-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Benzene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Carbon tetrachloride   | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Chlorobenzene  | < 2.   | 2.                  | µg/L   | 12/6/12 17:23 | 78646 | JL      |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Ethylbenzene   | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Methyl tert-butyl ether  | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Methylene chloride   | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Styrene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Tetrachloroethene  | < 10.  | 10.                 | µg/L   | 12/6/12 17:23 | 78646 | JL      |
| Toluene  | < 2.   | 2.                  | µg/L   | 12/6/12 17:23 | 78646 | JL      |
| trans-1,2-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |
| Trichloroethene  | < 2.   | 2.                  | µg/L   | 12/6/12 17:23 | 78646 | JL      |
| Vinyl chloride   | < 2.   | 2.                  | µg/L   | 12/4/12 03:20 | 78559 | XN      |

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 9:15:00 AM  
**Lab ID:** 12110767-04 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 6.   | 6.                                       | µg/L  | 12/4/12 03:20 | 78559   | XN      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 0.45   | 0.19                                     | pCi/L | 1/11/13       | R180319 | OUT     |
| Radium-228               | 1.6    | 0.9                                      | pCi/L | 1/11/13       | R180319 | OUT     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 8:25:00 AM  
**Lab ID:** 12110767-05 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed  | Batch   | Analyst |
|--|----------|---|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b> SM4500-H                 |          |                |         |         |
| pH   | 7.09     |   | pH units | 11/28/12 08:25 | R179410 | DD1     |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b> SW9056                   |          |                |         |         |
| Chloride                                     | 10.5     | 0.2                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.26     | 0.05                                    | mg/L     | 11/30/12       | R178588 | GSB     |
| Sulfate                                      | < 5.     | 5.                                      | mg/L     | 11/30/12       | R178588 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |                |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 12/4/12 12:34  | 78543   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b> SM2540C                  |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 574.     | 10.                                     | mg/L     | 11/30/12 13:50 | R178673 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method:</b> SW7470A / HG PREP        |          |                |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 12/3/12 13:08  | 78542   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b> SW6020A / SW3015         |          |                |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Arsenic                                      | 0.00608  | 0.005                                   | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Boron  | < 2.     | 2.                                      | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Iron   | < 5.     | 5.                                      | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Manganese                                    | < 0.15   | 0.15                                    | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 12/12/12 13:42 | 78529   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 12/12/12 13:42 | 78529   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power  
**Lab Order:** 12110767  
**Project:** CWLP List G20  
**Lab ID:** 12110767-05

**Client Sample ID:** AP-4  
**Report Date:** 1/31/2013  
**Collection Date:** 11/28/2012 8:25:00 AM  
**Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 12/12/12 13:42 | 78529   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 12/11/12 13:36 | 78746   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C µg/L | 12/11/12 13:36 | 78746   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/10/12 09:08 | 78562   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 12/12/12 14:03 | 78751   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 12/4/12 20:47  | 78503   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 20:47  | 78503   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 20:47  | 78503   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 12/3/12 20:49  | 78503   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 12/4/12        | 78504   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 8:25:00 AM  
**Lab ID:** 12110767-05 **Matrix:** Groundwater

| Analyses   | Result | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|--------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |        |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13 | 0.13                | µg/L   | 12/6/12 07:07 | 78450 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33 | 1.33                | µg/L   | 12/6/12 07:07 | 78450 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67 | 0.67                | µg/L   | 12/6/12 07:07 | 78450 | RYL     |
| Phenol   | < 1.33 | 1.33                | µg/L   | 12/6/12 07:07 | 78450 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |        |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25 | 0.25                | µg/L   | 12/3/12       | 78467 | DLO     |
| 2,4-D  | < 0.23 | 0.23                | µg/L   | 12/3/12       | 78467 | DLO     |
| Dinoseb  | < 0.22 | 0.22                | µg/L   | 12/3/12       | 78467 | DLO     |
| Pentachlorophenol  | < 0.26 | 0.26                | C µg/L | 12/3/12       | 78467 | DLO     |
| Picloram   | < 0.22 | 0.22                | C µg/L | 12/3/12       | 78467 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |        |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/6/12 17:56 | 78646 | JL      |
| 1,1,2-Trichloroethane  | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| 1,1-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/6/12 17:56 | 78646 | JL      |
| 1,2,4-Trichlorobenzene   | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| 1,2-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| 1,2-Dichloroethane   | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| 1,2-Dichloropropane  | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| 1,4-Dichlorobenzene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Benzene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Carbon tetrachloride   | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Chlorobenzene  | < 2.   | 2.                  | µg/L   | 12/6/12 17:56 | 78646 | JL      |
| cis-1,2-Dichloroethene   | < 3.72 | 3.72                | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Ethylbenzene   | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Methyl tert-butyl ether  | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Methylene chloride   | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Styrene  | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Tetrachloroethene  | < 10.  | 10.                 | µg/L   | 12/6/12 17:56 | 78646 | JL      |
| Toluene  | < 2.   | 2.                  | µg/L   | 12/6/12 17:56 | 78646 | JL      |
| trans-1,2-Dichloroethene   | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |
| Trichloroethene  | < 2.   | 2.                  | µg/L   | 12/6/12 17:56 | 78646 | JL      |
| Vinyl chloride   | < 2.   | 2.                  | µg/L   | 12/4/12 03:52 | 78559 | XN      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-4                 |
| <b>Lab Order:</b> 12110767                | <b>Report Date:</b> 1/31/2013                 |
| <b>Project:</b> CWLP List G20             | <b>Collection Date:</b> 11/28/2012 8:25:00 AM |
| <b>Lab ID:</b> 12110767-05                | <b>Matrix:</b> Groundwater                    |

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 6.   | 6.                                       | µg/L  | 12/4/12 03:52 | 78559   | XN      |
| <b>Radiation Testing</b> |        |  |       |               |         |         |
|                          |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 0.41   | 0.3                                      | pCi/L | 1/11/13       | R180319 | OUT     |
| Radium-228               | 2.3    | 0.8                                      | pCi/L | 1/11/13       | R180319 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 11:35:00 AM  
**Lab ID:** 12110767-06 **Matrix:** Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed  | Batch   | Analyst |
|--|----------|---|----------|----------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method:</b> SM4500-H                 |          |                |         |         |
| pH   | 7.29     |   | pH units | 11/28/12 11:35 | R179410 | DD1     |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method:</b> SW9056                   |          |                |         |         |
| Chloride                                     | 3.76     | 0.2                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 11/30/12       | R178588 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.25     | 0.05                                    | mg/L     | 11/30/12       | R178588 | GSB     |
| Sulfate                                      | 84.5     | 5.                                      | mg/L     | 11/30/12       | R178588 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method:</b> SW9010B/9014 BY AQUACHEM |          |                |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 12/4/12 12:34  | 78543   | CS2     |
| <b>Total Dissolved Solids</b>                |          | <b>Method:</b> SM2540C                  |          |                |         |         |
| Total Dissolved Solids (Residue, Filterable) | 404.     | 10.                                     | mg/L     | 11/30/12 13:50 | R178673 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method:</b> SW7470A / HG PREP        |          |                |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 12/3/12 13:08  | 78542   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method:</b> SW6020A / SW3015         |          |                |         |         |
| Antimony                                     | < 0.0096 | 0.0096                                  | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Arsenic                                      | 0.0243   | 0.008                                   | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Barium                                       | < 3.2    | 3.2                                     | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Beryllium                                    | 0.0164   | 0.0064                                  | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Boron  | < 3.2    | 3.2                                     | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Cadmium                                      | < 0.008  | 0.008                                   | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Chromium                                     | 0.42     | 0.16                                    | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Cobalt                                       | < 1.6    | 1.6                                     | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Copper                                       | < 1.04   | 1.04                                    | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Iron   | 576.     | 11.2                                    | mg/L     | 12/12/12 11:03 | 78529   | AG      |
| Lead   | 0.277    | 0.012                                   | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Manganese                                    | 23.2     | 0.6                                     | mg/L     | 12/12/12 11:03 | 78529   | AG      |
| Nickel                                       | 0.321    | 0.16                                    | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Selenium                                     | < 0.08   | 0.08                                    | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Silver                                       | < 0.08   | 0.08                                    | mg/L     | 12/12/12 13:47 | 78529   | AG      |
| Thallium                                     | < 0.0032 | 0.0032                                  | mg/L     | 12/12/12 13:47 | 78529   | AG      |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 11:35:00 AM  
**Lab ID:** 12110767-06 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed  | Batch   | Analyst |
|---|----------|----------------------------------|--------|----------------|---------|---------|
| Zinc                                    | < 8.     | 8.                               | mg/L   | 12/12/12 13:47 | 78529   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |                |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 12/4/12        | R178715 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |                |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0394 | 0.0394                           | C µg/L | 12/11/12 14:08 | 78746   | LP      |
| 1,2-Dibromoethane                       | < 0.0552 | 0.0552                           | C µg/L | 12/11/12 14:08 | 78746   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |                |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 12/10/12 09:52 | 78562   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |                |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 12/12/12 13:20 | 78751   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |                |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 12/4/12 21:34  | 78503   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 21:34  | 78503   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 12/3/12 21:37  | 78503   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 12/3/12 21:37  | 78503   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 12/3/12 21:37  | 78503   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 12/3/12 21:37  | 78503   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 12/3/12 21:37  | 78503   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 12/4/12 21:34  | 78503   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 12/3/12 21:37  | 78503   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |                |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 12/4/12        | 78504   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 12/4/12        | 78504   | NCH     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 11:35:00 AM  
**Lab ID:** 12110767-06 **Matrix:** Groundwater

| Analyses                                     | Result | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|--------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |        | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 0.13 | 0.13                             | µg/L   | 12/6/12 07:51 | 78450 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33 | 1.33                             | µg/L   | 12/6/12 07:51 | 78450 | RYL     |
| Hexachlorocyclopentadiene                    | < 0.67 | 0.67                             | µg/L   | 12/6/12 07:51 | 78450 | RYL     |
| Phenol                                       | < 1.33 | 1.33                             | µg/L   | 12/6/12 07:51 | 78450 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |        | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.25 | 0.25                             | µg/L   | 12/3/12       | 78467 | DLO     |
| 2,4-D  | < 0.23 | 0.23                             | µg/L   | 12/3/12       | 78467 | DLO     |
| Dinoseb                                      | < 0.22 | 0.22                             | µg/L   | 12/3/12       | 78467 | DLO     |
| Pentachlorophenol                            | < 0.27 | 0.27                             | C µg/L | 12/3/12       | 78467 | DLO     |
| Picloram                                     | < 0.22 | 0.22                             | C µg/L | 12/3/12       | 78467 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |        | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 2.   | 2.                               | µg/L   | 12/6/12 18:29 | 78646 | JL      |
| 1,1,2-Trichloroethane                        | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| 1,1-Dichloroethene                           | < 2.   | 2.                               | µg/L   | 12/6/12 18:29 | 78646 | JL      |
| 1,2,4-Trichlorobenzene                       | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| 1,2-Dichlorobenzene                          | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| 1,2-Dichloroethane                           | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| 1,2-Dichloropropane                          | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| 1,4-Dichlorobenzene                          | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Benzene                                      | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Carbon tetrachloride                         | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Chlorobenzene                                | < 2.   | 2.                               | µg/L   | 12/6/12 18:29 | 78646 | JL      |
| cis-1,2-Dichloroethene                       | < 3.72 | 3.72                             | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Ethylbenzene                                 | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Methyl tert-butyl ether                      | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Methylene chloride                           | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Styrene                                      | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Tetrachloroethene                            | < 10.  | 10.                              | µg/L   | 12/6/12 18:29 | 78646 | JL      |
| Toluene                                      | < 2.   | 2.                               | µg/L   | 12/6/12 18:29 | 78646 | JL      |
| trans-1,2-Dichloroethene                     | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |
| Trichloroethene                              | < 2.   | 2.                               | µg/L   | 12/6/12 18:29 | 78646 | JL      |
| Vinyl chloride                               | < 2.   | 2.                               | µg/L   | 12/4/12 04:25 | 78559 | XN      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 12110767 **Report Date:** 1/31/2013  
**Project:** CWLP List G20 **Collection Date:** 11/28/2012 11:35:00 AM  
**Lab ID:** 12110767-06 **Matrix:** Groundwater

| Analyses                 | Result | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|--------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 6.   | 6.                                       | µg/L  | 12/4/12 04:25 | 78559   | XN      |
| <b>Radiation Testing</b> |        | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND     | 0.74                                     | pCi/L | 1/29/13       | R180984 | OUT     |
| Radium-228               | ND     | 1.28                                     | pCi/L | 1/29/13       | R180984 | OUT     |

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**Chain of Custody Record**

Scheduled Sampling Date: 11/15/2012  
Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504844

| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br><br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br>CONTAINER TYPE:<br>P- Plastic      V- VOC Val      G- Glass<br>B- Tedar Bag      O- Other<br><br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2-BO4<br>10. Other | <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th colspan="10" style="text-align: center;">Analysis</th> </tr> <tr> <td>1. Carbamates</td> <td>2. Cyanide, Total</td> <td>3. Total RCRA Metals on a Liquid Sample</td> <td>4. Volatile Organic Compounds, Method 8260</td> <td>5. EDB, DBCP and 123TCP by GC/ECD</td> <td colspan="5"></td> <td rowspan="5" style="text-align: center; vertical-align: middle;">                     EMT USE ONLY<br/><br/>                     EMT WORKORDER # <u>410747</u> </td> </tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td colspan="5"> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td colspan="5"> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td colspan="5"> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td colspan="5"> </td></tr> </table> | Analysis                                   |                                   |  |  |  |  |  |   |  |  | 1. Carbamates | 2. Cyanide, Total | 3. Total RCRA Metals on a Liquid Sample | 4. Volatile Organic Compounds, Method 8260 | 5. EDB, DBCP and 123TCP by GC/ECD |  |  |  |  |  | EMT USE ONLY<br><br>EMT WORKORDER # <u>410747</u> |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|--|---|---|--|-----------------------------------|--|--|--|--|--|---|--|--|---------------|-------------------|---|--|-----------------------------------|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Analysis   |   |   |  |                                   |  |  |  |  |  |   |  |  |               |                   |   |  |                                   |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 1. Carbamates  | 2. Cyanide, Total   | 3. Total RCRA Metals on a Liquid Sample   | 4. Volatile Organic Compounds, Method 8260 | 5. EDB, DBCP and 123TCP by GC/ECD |  |  |  |  |  | EMT USE ONLY<br><br>EMT WORKORDER # <u>410747</u> |  |  |               |                   |   |  |                                   |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |   |   |  |                                   |  |  |  |  |  |   |  |  |               |                   |   |  |                                   |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |   |   |  |                                   |  |  |  |  |  |   |  |  |               |                   |   |  |                                   |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |   |   |  |                                   |  |  |  |  |  |   |  |  |               |                   |   |  |                                   |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |   |   |  |                                   |  |  |  |  |  |   |  |  |               |                   |   |  |                                   |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

| Sample I.D. | Sample Type | Sample Size | Container |     |    | Sampling |          |      |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |  |   |
|-------------|-------------|-------------|-----------|-----|----|----------|----------|------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|--|---|
|             |             |             | Type      | No. | By | Date     | Time     | pH   | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |  |   |
| AW-3        | GRAB        | 12          | 4 oz      | G   | 1  | DD       | 11-28-12 | 8:25 | 7.05  | 8            |    | X        |    |    |    |    |    |    |    |     |  |                 |  |  |  |  | C |
| AW-3        | GRAB        | 12          | 500 ml    | P   | 1  | DD       | 11-28-12 | 8:35 | 7.05  | 4            |    |          | N  |    |    |    |    |    |    |     |  |                 |  |  |  |  | D |
| AW-3        | GRAB        | 12          | 500 ml    | P   | 1  | DD       | 11-28-12 | 8:25 | 7.05  | 3            |    |          |    | A  |    |    |    |    |    |     |  |                 |  |  |  |  | E |
| AW-3        | GRAB        | 12          | 44 ml     | V   | 3  | DD       | 11-28-12 | 8:25 | 7.05  | 5            |    |          |    |    | B  |    |    |    |    |     |  |                 |  |  |  |  | F |
| AW-3        | GRAB        | 12          | 44 ml     | V   | 2  | DD       | 11-28-12 | 8:25 | 7.05  | 1            |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  |  | G |

|                                     |                       |                                 |                       |   |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|---|--|
| Relinquished By: <i>[Signature]</i> | Date: <u>11-28-12</u> | Received By: <i>[Signature]</i> | Date: <u>11-28-12</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br><br>Jar Lot No. | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <u>11-28-12</u> | Received By: <i>[Signature]</i> | Date: - - -           |   |  |
| Relinquished By: <i>[Signature]</i> | Date: - - -           | Received By: <i>[Signature]</i> | Date: <u>11-28-12</u> |   |  |

SPECIAL INSTRUCTIONS:

11/15/2012 9:51:57 AM





Chain of Custody Record

Scheduled Sampling Date: 11/15/2012

Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504844

|   |   |  |   |   |   |
|---|---|--|---|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water            2. Drinking Water    3. Soil<br>4. Extract            5. Wastewater        6. Oil<br>7. Sludge              8. Solid                9. Air<br>10. Chemical Waste   11. Wipe               12. Groundwater<br>13. eProduct         13. Solid              14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>CONTAINER TYPE:</b><br>P- Plastic            V- VOC/Vol            G- Glass<br>B- Tedlar Bag        O- Other | <b>PRESERVATIVE:</b><br>1. None                2. H2SO4              3. HNO3<br>4. NaOH               5. HCL                 6. MeOH<br>7. Zn Ace             8. Na2S2O3            9. Na2-SO4<br>10. Other | EMT USE ONLY<br><br>EMT WORKORDER # <u>12110167</u> |
|---|---|--|---|---|---|

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |          |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |  |  |    |  |
|-------------|-------------|-----------|---------|-----|----------|------|----------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|--|--|----|--|
|             |             | Size      | Type    | No. | By       | Date | Time     | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |  |  |    |  |
| AP-1        | GRAB        | 12        | 1 liter | G   | 10       | SP   | 11/28/12 | 1045 | 7.22         | 1   |          | X  | X  | X  | X  | X  | X  |    |    |     |                 |  |  |  |  |  |  | 2A |  |
| AP-1        | GRAB        | 12        | 1 liter | P   | 1        | SP   | 11/28/12 | 1045 | 7.22         | 1   |          |    |    |    |    |    |    |    | X  | X   | X               |  |  |  |  |  |  | B  |  |
|             |             |           |         |     |          |      |          |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |  |    |  |
|             |             |           |         |     |          |      |          |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |  |    |  |
|             |             |           |         |     |          |      |          |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |  |    |  |
|             |             |           |         |     |          |      |          |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |  |    |  |
|             |             |           |         |     |          |      |          |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |  |    |  |
|             |             |           |         |     |          |      |          |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |  |    |  |
|             |             |           |         |     |          |      |          |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |  |  |    |  |

|                        |                       |                                |                       |   |  |
|------------------------|-----------------------|--------------------------------|-----------------------|---|--|
| Relinquished By:       | Date: <u>11-28-12</u> | Received By: <u>L.H.S.</u>     | Date: <u>11-28-12</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. _____ | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br> |
| Relinquished By: _____ | Date: - -             | Received By: _____             | Date: - -             |   |  |
| Relinquished By: _____ | Date: - -             | Received By: <u>N. F. Watt</u> | Date: <u>11-28-12</u> |   |  |

SPECIAL INSTRUCTIONS:

pH 7.00 => 7.00 @ 0800

11/15/2012 9:51:53 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/15/2012

Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504844

|  |   |  |
|--|---|--|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br><br>Project /Location: <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P- Plastic      V- VOC/Vol      G- Glass<br>B- Tedlar Bag      O- Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HPO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD<br><br>EMT USE ONLY<br><br>EMT WORKORDER<br><u>2110747</u> |
|--|---|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |    |
|-------------|-------------|-----------|--------|-----|----------|------|----------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|----|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |    |
| AP-1        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 11/28/12 | 1045 | 7.22         | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | LC |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 1045 | 7.22         | 4   |          |    | A  |    |    |    |    |    |    |     |                 |  |  |  | D  |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 1045 | 7.22         | 3   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  | E  |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 3        | SP   | 11/29/12 | 1045 | 7.22         | 5   |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  | F  |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 2        | SP   | 11/29/12 | 1045 | 7.22         | 1   |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  | G  |

|                                     |                       |                               |                       |  |  |
|-------------------------------------|-----------------------|-------------------------------|-----------------------|--|--|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-28-12</u> | Received By: <u>LAB</u>       | Date: <u>11-28-12</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>SC</u> |
| Relinquished By: _____              | Date: - -             | Received By: _____            | Date: - -             |  |  |
| Relinquished By: _____              | Date: - -             | Received By: <u>Martina H</u> | Date: <u>11/28/12</u> |  |  |

SPECIAL INSTRUCTIONS:

PH: 7.00 => 7.00 @ 0900

11/15/2012 9:51:54 AM











Chain of Custody Record

Scheduled Sampling Date: 11/15/2012  
Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emi.com

COC # 504844

|   |  |  |  |   |  |  |
|---|--|--|--|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water                    2. Drinking Water            3. Soil<br>4. Extract                    5. Wastewater                6. Oil<br>7. Sludge                     8. Solid                        9. Air<br>10. Chemical Waste        11. Wipe                       12. Groundwater<br>13. eProduct                13. Solid                      14. Groundwater(Filter)<br>15. Other |  | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD |  | EMT USE ONLY<br><br>EMT WORKORDER<br>1211014 |
| <b>CONTAINER TYPE:</b><br>P - Plastic                    V - VOC/Vol                    G - Glass<br>B - Tedlar Bag              O - Other  |  | <b>PRESERVATIVE:</b><br>1. None                        2. H2SO4                        3. HNO3<br>4. NaOH                      5. HCL                         6. MeOH<br>7. Zn Ace                    8. Na2S2O3                    9. Na2HPO4<br>10. Other  |  |   |  |  |

| Sample I.D. | Sample Type | Sample Type | Container |      |     | Sampling |          |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |  |    |
|-------------|-------------|-------------|-----------|------|-----|----------|----------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|--|----|
|             |             |             | Size      | Type | No. | By       | Date     | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |  |    |
| AP-2        | GRAB        | 12          | 4 oz      | G    | 1   | SP       | 11/28/12 | 1000 | 7.58 | 8            |     | X        |   |   |   |   |   |   |   |   |    |                 |  |  |  |  | 30 |
| AP-2        | GRAB        | 12          | 500 ml    | P    | 1   | SP       | 11/29/12 | 1000 | 7.78 | 4            |     |          | X |   |   |   |   |   |   |   |    |                 |  |  |  |  | D  |
| AP-2        | GRAB        | 12          | 500 ml    | P    | 1   | SP       | 11/28/12 | 1000 | 7.58 | 3            |     |          |   | X |   |   |   |   |   |   |    |                 |  |  |  |  | E  |
| AP-2        | GRAB        | 12          | 44 ml     | V    | 3   | SP       | 11/28/12 | 1000 | 7.58 | 5            |     |          |   |   | X |   |   |   |   |   |    |                 |  |  |  |  | F  |
| AP-2        | GRAB        | 12          | 44 ml     | V    | 2   | SP       | 11/28/12 | 1000 | 7.58 | 1            |     |          |   |   |   | X |   |   |   |   |    |                 |  |  |  |  | G  |

|                                     |                |                                 |                |  |   |
|-------------------------------------|----------------|---------------------------------|----------------|--|---|
| Relinquished By: <i>[Signature]</i> | Date: 11-25-12 | Received By: LAB                | Date: 11-28-12 | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><i>[Signature]</i> |
| Relinquished By:                    | Date: - - -    | Received By:                    | Date: - - -    |  |   |
| Relinquished By:                    | Date: - - -    | Received By: <i>[Signature]</i> | Date: 11/28/12 |  |   |

SPECIAL INSTRUCTIONS:

PH: 7.00 => 7.00 @ 0800





### Chain of Custody Record

Scheduled Sampling Date: 11/15/2012

Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504844

|   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
|---|--|-------------------------|-------------------|---------|------------|---------------|--------|-----------|----------|--------|--------------------|----------|-----------------|--------------|-----------|-------------------------|-----------|--|--|------------|------------|----------|--------------|----------|--|---------|----------|---------|---------|--------|---------|-----------|------------|------------|-----------|--|--|---|-------------|------------|---------------|-------------------------------------|---|-------------------------------------|---|----------------------------------|---------------------|----------------------------------|
| <p><b>Company:</b> <u>City, Water, Light &amp; Power</u></p> <p><b>Contact:</b></p> <p><b>Address:</b> <u>201 East Lake Shore Drive</u><br/><u>Springfield, IL 62707</u></p> <p><b>Phone:</b> <u>(217) 757-8610</u></p> <p><b>P.O. #:</b> _____ <b>Proj. #:</b> _____</p> <p><b>Project /Location:</b> <u>CWLP List G20</u></p> | <p><b>SAMPLE TYPE:</b></p> <table style="width:100%; font-size: small;"> <tr> <td>1. DI Water</td> <td>2. Drinking Water</td> <td>3. Soil</td> </tr> <tr> <td>4. Extract</td> <td>5. Wastewater</td> <td>6. Oil</td> </tr> <tr> <td>7. Sludge</td> <td>8. Solid</td> <td>9. Air</td> </tr> <tr> <td>10. Chemical Waste</td> <td>11. Wipe</td> <td>12. Groundwater</td> </tr> <tr> <td>13. eProduct</td> <td>13. Solid</td> <td>14. Groundwater(Filter)</td> </tr> <tr> <td>15. Other</td> <td></td> <td></td> </tr> </table> <p><b>CONTAINER TYPE:</b></p> <table style="width:100%; font-size: small;"> <tr> <td>P- Plastic</td> <td>V- VOC/Vol</td> <td>G- Glass</td> </tr> <tr> <td>B- Tedar Bag</td> <td>O- Other</td> <td></td> </tr> </table> <p><b>PRESERVATIVE:</b></p> <table style="width:100%; font-size: small;"> <tr> <td>1. None</td> <td>2. H2SO4</td> <td>3. HNO3</td> </tr> <tr> <td>4. NaOH</td> <td>5. HCL</td> <td>6. MeOH</td> </tr> <tr> <td>7. Zn Ace</td> <td>8. Na2S2O3</td> <td>9. Na2-EO4</td> </tr> <tr> <td>10. Other</td> <td></td> <td></td> </tr> </table> | 1. DI Water             | 2. Drinking Water | 3. Soil | 4. Extract | 5. Wastewater | 6. Oil | 7. Sludge | 8. Solid | 9. Air | 10. Chemical Waste | 11. Wipe | 12. Groundwater | 13. eProduct | 13. Solid | 14. Groundwater(Filter) | 15. Other |  |  | P- Plastic | V- VOC/Vol | G- Glass | B- Tedar Bag | O- Other |  | 1. None | 2. H2SO4 | 3. HNO3 | 4. NaOH | 5. HCL | 6. MeOH | 7. Zn Ace | 8. Na2S2O3 | 9. Na2-EO4 | 10. Other |  |  | <p style="text-align: center;"><b>Analysis</b></p> <table style="width:100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px dashed black;">1. Endothal</td></tr> <tr><td style="border-bottom: 1px dashed black;">2. Dalapon</td></tr> <tr><td style="border-bottom: 1px dashed black;">3. Herbicides</td></tr> <tr><td style="border-bottom: 1px dashed black;">4. PCBs in Groundwater, Method 8082</td></tr> <tr><td style="border-bottom: 1px dashed black;">5. Pesticides in Groundwater by Method 8081</td></tr> <tr><td style="border-bottom: 1px dashed black;">6. Radiation Testing, Subcontracted</td></tr> <tr><td style="border-bottom: 1px dashed black;">7. Semivolatile Organic Compounds by GOMS</td></tr> <tr><td style="border-bottom: 1px dashed black;">8. Solids, Total Dissolved (TDS)</td></tr> <tr><td style="border-bottom: 1px dashed black;">9. pH, Field tested</td></tr> <tr><td style="border-bottom: 1px dashed black;">10. Anions by Ion Chromatography</td></tr> </table> | 1. Endothal | 2. Dalapon | 3. Herbicides | 4. PCBs in Groundwater, Method 8082 | 5. Pesticides in Groundwater by Method 8081 | 6. Radiation Testing, Subcontracted | 7. Semivolatile Organic Compounds by GOMS | 8. Solids, Total Dissolved (TDS) | 9. pH, Field tested | 10. Anions by Ion Chromatography |
| 1. DI Water   | 2. Drinking Water  | 3. Soil                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 4. Extract  | 5. Wastewater  | 6. Oil                  |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 7. Sludge   | 8. Solid   | 9. Air                  |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 10. Chemical Waste  | 11. Wipe   | 12. Groundwater         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 13. eProduct  | 13. Solid  | 14. Groundwater(Filter) |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 15. Other   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| P- Plastic  | V- VOC/Vol   | G- Glass                |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| B- Tedar Bag  | O- Other   |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 1. None   | 2. H2SO4   | 3. HNO3                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 4. NaOH   | 5. HCL   | 6. MeOH                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 7. Zn Ace   | 8. Na2S2O3   | 9. Na2-EO4              |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 10. Other   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 1. Endothal   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 2. Dalapon  |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 3. Herbicides   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 4. PCBs in Groundwater, Method 8082   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 5. Pesticides in Groundwater by Method 8081   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 6. Radiation Testing, Subcontracted   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 7. Semivolatile Organic Compounds by GOMS   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 8. Solids, Total Dissolved (TDS)  |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 9. pH, Field tested   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 10. Anions by Ion Chromatography  |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |            |            |          |              |          |  |         |          |         |         |        |         |           |            |            |           |  |  |   |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |

**EMT USE ONLY**

**EMT WORKORDER**  
# 211076

| Sample I.D. | Sample Type | Container |      |     | Sampling |          |      |     | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |    |
|-------------|-------------|-----------|------|-----|----------|----------|------|-----|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|----|
|             |             | Size      | Type | No. | By       | Date     | Time | pH  | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |    |
| AP-3        | GRAB        | 1 liter   | G    | 10  | SP       | 11/28/12 | 6:15 | 7.5 | 1            |     | X        | X  | X  | X  | X  | X  |    |    |    |     |                 |  | 4A |
| AP-3        | GRAB        | 1 liter   | P    | 1   | SP       | 11/28/12 | 6:25 | 7.5 | 1            |     |          |    |    |    |    |    |    | X  | X  |     |                 |  | B  |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |
|             |             |           |      |     |          |          |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |    |

|                        |                       |                           |                       |  |  |
|------------------------|-----------------------|---------------------------|-----------------------|--|--|
| Relinquished By:       | Date: <u>11-28-12</u> | Received By: <u>LFB</u>   | Date: <u>11-28-12</u> | <p><b>EMT USE ONLY</b></p> <p>ClientID: <u>SPRING</u></p> <p>Client Contact: <u>Joe Pavilonis</u></p> <p>EMT Project ID: <u>CWLP List G20</u></p> <p>Jar Lot No. _____</p> | <input type="checkbox"/> <b>SAMPLE RECEIVED ON ICE TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br> |
| Relinquished By: _____ | Date: _____           | Received By: _____        | Date: _____           |  |  |
| Relinquished By: _____ | Date: _____           | Received By: <u>Maana</u> | Date: <u>12/02/12</u> |  |  |

**SPECIAL INSTRUCTIONS:** pH: 7.00 = 7. 7.00 @ 0800





Chain of Custody Record

Scheduled Sampling Date: 11/15/2012  
Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504844

|   |  |   |   |
|---|--|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P- Plastic      V- VOC/Vol      G- Glass<br>B- Tedar Bag      O- Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2-EO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total PCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | EMT USE ONLY<br><br>EMT WORKORDER<br><u>1210707</u> |
|---|--|---|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |         | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |    |
|-------------|-------------|-----------|--------|-----|----------|------|----------|---------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|----|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH      | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |    |
| AP-3        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 11/28/12 | 4:09:15 | 7.35         | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  | AC |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 4:09:25 | 7.35         | 4   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  | D  |
| AP-3        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 4:09:25 | 7.35         | 3   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  | E  |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 3        | SP   | 11/28/12 | 4:09:25 | 7.35         | 5   |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  | F  |
| AP-3        | GRAB        | 12        | 44 ml  | V   | 2        | SP   | 11/28/12 | 4:09:25 | 7.35         | 1   |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  | O  |

|                                     |                       |                                 |                       |  |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|--|--|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-28-12</u> | Received By: <u>[Signature]</u> | Date: <u>11-28-12</u> | <b>EMT USE ONLY</b><br>ClientID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>[Signature]</u> |
| Relinquished By:                    | Date: - -             | Received By:                    | Date: - -             |  |  |
| Relinquished By:                    | Date: - -             | Received By: <u>[Signature]</u> | Date: <u>11/28/12</u> |  |  |

SPECIAL INSTRUCTIONS: PH: 7.00 => 7.00 @ 0800







Chain of Custody Record

Scheduled Sampling Date: 11/15/2012  
Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504844

|   |   |                 |            |               |                                     |   |                                     |   |                                  |                     |                                  |   |
|---|---|-----------------|------------|---------------|-------------------------------------|---|-------------------------------------|---|----------------------------------|---------------------|----------------------------------|---|
| Company: <u>City, Water, Light &amp; Power</u>                            | <b>SAMPLE TYPE:</b><br>1. Di Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P- Plastic      V- VOC/Vol      G- Glass<br>B- Tedlar Bag      O- Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b> |            |               |                                     |   |                                     |   |                                  |                     |                                  | EMT USE ONLY<br><br>EMT WORKORDER #12110767 |
| Contact:  |   | 1. Endothal     | 2. Dalapon | 3. Herbicides | 4. PCBs in Groundwater, Method 8062 | 5. Pesticides in Groundwater by Method 8061 | 6. Radiation Testing, Subcontracted | 7. Semivolatile Organic Compounds by GOMS | 8. Solids, Total Dissolved (TDS) | 9. pH, Field tested | 10. Anions by Ion Chromatography |   |
| Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u> |   |                 |            |               |                                     |   |                                     |   |                                  |                     |                                  |   |
| Phone: <u>(217) 757-8610</u>  |   |                 |            |               |                                     |   |                                     |   |                                  |                     |                                  |   |
| P.O. #: _____ Proj. #: _____  |   |                 |            |               |                                     |   |                                     |   |                                  |                     |                                  |   |
| Project /Location: <u>CWLP List G20</u>                                   |   |                 |            |               |                                     |   |                                     |   |                                  |                     |                                  |   |

| Sample I.D. | Sample Type | Container |      |     | Sampling |          |      |      |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |    |  |
|-------------|-------------|-----------|------|-----|----------|----------|------|------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|----|--|
|             |             | Size      | Type | No. | By       | Date     | Time | pH   | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |    |  |
| AP-4        | GRAB        | 1 liter   | G    | 10  | SP       | 11/28/12 | 0825 | 7.09 | 1     |              | X  | X        | X  | X  | X  | X  |    |    |    |     |  |                 | SA |  |
| AP-4        | GRAB        | 1 liter   | P    | 1   | SP       | 11/28/12 | 0825 | 7.09 | 1     |              |    |          |    |    |    |    |    | X  | X  | X   |  |                 | B  |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |
|             |             |           |      |     |          |          |      |      |       |              |    |          |    |    |    |    |    |    |    |     |  |                 |    |  |

|                  |                       |                            |                       |  |  |
|------------------|-----------------------|----------------------------|-----------------------|--|--|
| Relinquished By: | Date: <u>11-28-12</u> | Received By: <u>CAA</u>    | Date: <u>11-28-12</u> | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: | Date: - -             | Received By:               | Date: - -             |  |  |
| Relinquished By: | Date: - -             | Received By: <u>Murphy</u> | Date: <u>11/28/12</u> |  |  |

SPECIAL INSTRUCTIONS: pH: 7.00 => 7.00 @ 0800





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/15/2012  
Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504844

| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br>Phone: <u>(217) 757-8610</u><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br>CONTAINER TYPE:<br>P- Plastic      V- VOC/Vol      G- Glass<br>B- Tedlar Bag      O- Other<br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2-ISO4<br>10. Other | <table border="1"> <tr> <th colspan="10">Analysis</th> </tr> <tr> <td>1. Carbamates</td> <td>2. Cyanide, Total</td> <td>3. Total RCRA Metals on a Liquid Sample</td> <td>4. Volatile Organic Compounds, Method 8260</td> <td>5. EDB, DBCP and 123TCP by GC/ECD</td> <td colspan="5"></td> </tr> </table> | Analysis                                   |                                   |  |  |  |  |  |  |  |  | 1. Carbamates | 2. Cyanide, Total | 3. Total RCRA Metals on a Liquid Sample | 4. Volatile Organic Compounds, Method 8260 | 5. EDB, DBCP and 123TCP by GC/ECD |  |  |  |  |  | EMT USE ONLY<br><br>EMT WORKORDER<br>#12110767 |
|--|---|--|--|-----------------------------------|--|--|--|--|--|--|--|--|---------------|-------------------|---|--|-----------------------------------|--|--|--|--|--|--|
| Analysis   |   |  |  |                                   |  |  |  |  |  |  |  |  |               |                   |   |  |                                   |  |  |  |  |  |  |
| 1. Carbamates  | 2. Cyanide, Total   | 3. Total RCRA Metals on a Liquid Sample  | 4. Volatile Organic Compounds, Method 8260 | 5. EDB, DBCP and 123TCP by GC/ECD |  |  |  |  |  |  |  |  |               |                   |   |  |                                   |  |  |  |  |  |  |

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |    |   |
|-------------|-------------|-----------|--------|-----|----------|------|----------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|----|---|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |    |   |
| AP-4        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 11/28/12 | 0825 | 7.09         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  | SC |   |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 0825 | 7.09         | 4   |          |   | X |   |   |   |   |   |   |    |                 |  |  |    | D |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 0825 | 7.09         | 3   |          |   |   | X |   |   |   |   |   |    |                 |  |  |    | E |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 3        | SP   | 11/28/12 | 0825 | 7.09         | 5   |          |   |   |   | X |   |   |   |   |    |                 |  |  |    | F |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 2        | SP   | 11/28/12 | 0825 | 7.09         | 1   |          |   |   |   |   | X |   |   |   |    |                 |  |  |    | G |

|                  |                      |                            |                       |   |  |
|------------------|----------------------|----------------------------|-----------------------|---|--|
| Relinquished By: | Date: <u>1-28-12</u> | Received By:               | Date: <u>1-28-12</u>  | EMT USE ONLY<br>ClientID: <b>SPRING</b><br>Client Contact: <b>Joe Pavlonis</b><br>EMT Project ID: <b>CWLP List G20</b><br>Jar Lot No: | SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br> |
| Relinquished By: | Date: - -            | Received By:               | Date: - -             |   |  |
| Relinquished By: | Date: - -            | Received By: <u>Markus</u> | Date: <u>11/20/12</u> |   |  |





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 11/15/2012  
Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504844

|   |   |  |  |
|---|---|--|--|
| Company: <u>City, Water, Light &amp; Power</u>                            | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wpe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Endothel<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8062<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | EMT USE ONLY<br><br>EMT WORKORDER<br>#12010767 |
| Contact:  |   |  |  |
| Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u> | <b>CONTAINER TYPE:</b><br>P- Plastic      V- VOC/Vial      G- Glass<br>B- Tedlar Bag      O- Other  |  |  |
| Phone: <u>(217) 757-8610</u>  | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2-ISO4<br>10. Other   |  |  |
| P.O. #: _____ Proj. #: _____  |   |  |  |
| Project /Location: <u>CWLP List G20</u>                                   |   |  |  |

| Sample I.D. | Sample Type | Container |      |     | Sampling    |          |      |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |    |
|-------------|-------------|-----------|------|-----|-------------|----------|------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|----|
|             |             | Size      | Type | No. | By          | Date     | Time | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |    |
| AP-5        | GRAB        | 1 liter   | G    | 10  | [Signature] | 11/28/12 | 1135 | 7.29 | 1            |     | X        | X  | X  | X  | X  | X  |    |    |    |     |                 |  |  | QA |
| AP-5        | GRAB        | 1 liter   | P    | 1   | [Signature] | 11/29/12 | 1135 | 7.29 | 1            |     |          |    |    |    |    |    |    | X  | X  | X   |                 |  |  | B  |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |             |          |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |

|                              |                |                          |                |   |   |
|------------------------------|----------------|--------------------------|----------------|---|---|
| Relinquished By: [Signature] | Date: 11-28-12 | Received By: LAB         | Date: 11-28-12 | <b>EMT USE ONLY</b><br>ClientID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br>[Signature] |
| Time: 16:15                  | Time: 16:15    | Received By: [Signature] | Date: - -      |   |   |
| Time: : :                    | Time: : :      | Received By: [Signature] | Date: - -      |   |   |
| Relinquished By:             | Date: - -      | Received By: [Signature] | Date: 11/28/12 |   |   |
| Time: : :                    | Time: : :      | Time: 16:15              | Time: 16:15    |   |   |

SPECIAL INSTRUCTIONS:

pk: 7.00 => 7.00 @ 0800

11/15/2012 9:51:56 AM





### Chain of Custody Record

Scheduled Sampling Date: 11/15/2012  
Due Date: 11/29/2012

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504844

|   |   |   |  |
|---|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P- Plastic      V- VOC Vol      G- Glass<br>B- Tedlar Bag      C- Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbenates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br>EMT<br>WORKORDER<br># <u>12110767</u> |
|---|---|---|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |          |      |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |    |
|-------------|-------------|-----------|--------|-----|----------|------|----------|------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|----|
|             |             | Size      | Type   | No. | By       | Date | Time     | pH   | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |    |
| AP-5        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 11/28/12 | 1135 | 7.29  | 8            |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  | QC |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 1135 | 7.29  | 4            |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  | D  |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 11/28/12 | 1135 | 7.29  | 3            |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  | E  |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 3        | SP   | 11/28/12 | 1135 | 7.29  | 5            |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  | F  |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 2        | SP   | 11/28/12 | 1135 | 7.29  | 1            |    |          |    |    |    |    |    |    |    |     |  |                 |  |  |  | G  |

|                                     |                       |                                 |                       |   |  |
|-------------------------------------|-----------------------|---------------------------------|-----------------------|---|--|
| Relinquished By: <u>[Signature]</u> | Date: <u>11-28-12</u> | Received By: <u>[Signature]</u> | Date: <u>11-28-12</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By:                    | Date: - -             | Received By:                    | Date: - -             |   |  |
| Relinquished By:                    | Date: - -             | Received By: <u>[Signature]</u> | Date: <u>11/28/12</u> |   |  |

SPECIAL INSTRUCTIONS: pH: 7.00 => 7.00 @ 0800







OFFICE OF PUBLIC UTILITIES  
CITY OF SPRINGFIELD, ILLINOIS

J. MICHAEL HOUSTON, MAYOR

ENVIRONMENTAL HEALTH & SAFETY



September 25, 2013

Illinois Environmental Protection Agency  
Division of Water – Groundwater Section  
Attn: Carl Kamp, P.G.  
1021 N. Grand Ave., East  
PO Box 19276  
Springfield, IL 62794-9276

Dear Mr. Kamp:

Please find enclosed City Water, Light & Power's (CWLP) groundwater monitoring results for the first and second quarters of 2013. Please note that this data has not been evaluated by our consultant.

On June 21, 2013, CWLP submitted the 2012 data with a request to continue collecting groundwater data through 2013 to allow for groundwater quality to stabilize in AP-5, our upgradient well. These background concentrations continue to appear to show decreasing trends during these sampling events.

CWLP still requests to continue sampling through 2013 to obtain data representation of background conditions. Once statistically valid data has been collected, revised background concentrations will be submitted to the Illinois Environmental Protection Agency.

If you should have any questions or require any further information, please feel free to contact Sue Corcoran, of my staff, or myself at (217) 757-8610.

Sincerely,

P.J. Becker  
Environmental Health & Safety Manager

PJB/SC/gj

Cy: Christine Zeman (CWLP)

RECEIVED

SEP 25 2013

DIVISION OF PUBLIC UTILITIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS



**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

April 03, 2013

RE 1Q13 CWLP List G20

Lab Orders:  
13020600

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

**RECEIVED**

SEP 25 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS

This Report Contains 39 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

environmental laboratory and testing services  
| water | soil | air | product | waste |





# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

CLIENT: City, Water, Light & Power

Date: 4/3/2013

Project: IQ13 CWLP List G20

## CASE NARRATIVE

Lab Order: 13020600

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

environmental laboratory and testing services

| water | soil | air | product | waste |





# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

CLIENT: City, Water, Light & Power

Date: 4/3/2013

Project: IQ13 CWLP List G20

## CASE NARRATIVE

Lab Order: 13020600

Analytical Comments for METHOD 2540C\_TDS\_W, 13020600-05BDUP: The RPD result of 7.21% is above the laboratory control limit, but it is within the EPA limits.

Analytical Comments for METHOD 9056\_IC\_GRNDWTR, LCS-R181955: Continuing CCV standard recoveries for Chloride and Nitrate within the batch had recoveries above the lab control limits, but within 20% of the target values.

Analytical Comments for METHOD 2540C\_TDS\_W, 13020600-06BDUP: RPD recovery was above the laboratory control limit.

Analytical Comments for METHOD 8270\_WNEW, 13020600-01A, 04A: Surrogate recovery was below the limits.

Analytical Comments for METHOD 8270\_WNEW, 13020600-06A: 2,4,6-Tribromophenol surrogate recovery was below the limit.

Analytical Comments for METHOD RADIATION, 13020600-01A, 02A, 03A, 04A, 05A, 06A: The Radium-226/228 analysis completed from 3/20 to 3/26/13 by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.







# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13020600  
Project: 1Q13 CWLP List G20  
Lab ID: 13020600-01

Client Sample ID: AP-2 R  
Report Date: 4/3/2013  
Collection Date: 2/21/2013 11:40:00 AM  
Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method: SM4500-H</b>                 |          |               |         |         |
| pH   | 7.8      |   | pH units | 2/21/13 11:40 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method: SW9056</b>                   |          |               |         |         |
| Chloride                                     | X 25.2   | 2.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | X 0.13   | 0.05                                    | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | X 283.   | 50.                                     | mg/L     | 2/26/13       | R182058 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method: SM2540C</b>                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 932.     | 10.                                     | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method: SW7470A / HG PREP</b>        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method: SW6020A / SW3015</b>         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | 0.0738   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | 10.      | 0.687                                   | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 87.9     | 3.5                                     | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | 21.6     | 0.15                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 11:40:00 AM  
Lab ID: 13020600-01 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0402 | 0.0402                           | C µg/L | 3/5/13 11:33  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0563 | 0.0563                           | C µg/L | 3/5/13 11:33  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 03:01 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/1/13 16:44  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 18:01  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:01  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:01  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 16:34 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 11:40:00 AM  
Lab ID: 13020600-01 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 0.13  | 0.13                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| Hexachlorocyclopentadiene                    | < 0.67  | 0.67                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| Phenol                                       | < 1.33  | 1.33                             | µg/L   | 2/26/13 19:21 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.25  | 0.25                             | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb                                      | < 0.22  | 0.22                             | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol                            | < 0.26  | 0.26                             | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram                                     | < 0.22  | 0.22                             | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 200.  | 200.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,1,2-Trichloroethane                        | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,1-Dichloroethene                           | < 7.    | 7.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2,4-Trichlorobenzene                       | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2-Dichloroethane                           | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,2-Dichloropropane                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| 1,4-Dichlorobenzene                          | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Benzene                                      | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Carbon tetrachloride                         | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Chlorobenzene                                | < 100.  | 100.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| cis-1,2-Dichloroethene                       | < 70.   | 70.                              | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Ethylbenzene                                 | < 700.  | 700.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Methyl tert-butyl ether                      | < 70.   | 70.                              | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Methylene chloride                           | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Styrene                                      | < 100.  | 100.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Tetrachloroethene                            | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Toluene                                      | < 1000. | 1000.                            | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| trans-1,2-Dichloroethene                     | < 100.  | 100.                             | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Trichloroethene                              | < 5.    | 5.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |
| Vinyl chloride                               | < 2.    | 2.                               | µg/L   | 2/22/13 16:12 | 80180 | JL      |

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** 1Q13 CWLP List G20 **Collection Date:** 2/21/2013 11:40:00 AM  
**Lab ID:** 13020600-01 **Matrix:** Groundwater

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 16:12 | 80180   | JL      |
| <b>Radiation Testing</b> |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.3      | 0.4                                      | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | ND       | 0.79                                     | pCi/L | 3/26/13       | R183278 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13020600  
Project: IQ13 CWLP List G20  
Lab ID: 13020600-02

Client Sample ID: AW-3  
Report Date: 4/3/2013  
Collection Date: 2/21/2013 8:10:00 AM  
Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method: SM4500-H</b>                 |          |               |         |         |
| pH   | 7.68     |   | pH units | 2/21/13 08:10 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method: SW9056</b>                   |          |               |         |         |
| Chloride                                     | X 26.2   | 2.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | X 0.1    | 0.05                                    | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | < 5.     | 5.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method: SM2540C</b>                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 724.     | 10.                                     | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method: SW7470A / HG PREP</b>        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method: SW6020A / SW3015</b>         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | ✓ 0.104  | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | 0.706    | 0.687                                   | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 13.      | 3.5                                     | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | 0.306    | 0.15                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |

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C - Laboratory not accredited for this parameter

S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AW-3  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** IQ13 CWLP List G20 **Collection Date:** 2/21/2013 8:10:00 AM  
**Lab ID:** 13020600-02 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0401 | 0.0401                           | C µg/L | 3/5/13 09:40  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0562 | 0.0562                           | C µg/L | 3/5/13 09:40  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 03:45 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/1/13 17:28  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 18:49  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:49  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 18:49  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 17:24 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 8:10:00 AM  
Lab ID: 13020600-02 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13  | 0.13                | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67  | 0.67                | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| Phenol   | < 1.33  | 1.33                | µg/L   | 2/26/13 20:06 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb  | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol  | < 0.26  | 0.26                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram   | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 200.  | 200.                | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,1,2-Trichloroethane  | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,1-Dichloroethene   | < 7.    | 7.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2,4-Trichlorobenzene   | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2-Dichloroethane   | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,2-Dichloropropane  | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| 1,4-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Benzene  | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Carbon tetrachloride   | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Chlorobenzene  | < 100.  | 100.                | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| cis-1,2-Dichloroethene   | < 70.   | 70.                 | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Ethylbenzene   | < 700.  | 700.                | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Methyl tert-butyl ether  | < 70.   | 70.                 | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Methylene chloride   | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Styrene  | < 100.  | 100.                | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Tetrachloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Toluene  | < 1000. | 1000.               | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| trans-1,2-Dichloroethene   | < 100.  | 100.                | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Trichloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |
| Vinyl chloride   | < 2.    | 2.                  | µg/L   | 2/22/13 16:42 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

|                   |                            |                          |                      |
|-------------------|----------------------------|--------------------------|----------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AW-3                 |
| <b>Lab Order:</b> | 13020600                   | <b>Report Date:</b>      | 4/3/2013             |
| <b>Project:</b>   | 1Q13 CWLP List G20         | <b>Collection Date:</b>  | 2/21/2013 8:10:00 AM |
| <b>Lab ID:</b>    | 13020600-02                | <b>Matrix:</b>           | Groundwater          |

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 16:42 | 80180   | JL      |
| <b>Radiation Testing</b> |          |  |       |               |         |         |
|                          |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.1      | 0.5                                      | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | 1.       | 0.7                                      | pCi/L | 3/26/13       | R183278 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power      Client Sample ID: AP-5  
Lab Order: 13020600      Report Date: 4/3/2013  
Project: IQ13 CWLP List G20      Collection Date: 2/21/2013 7:55:00 AM  
Lab ID: 13020600-03      Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method: SM4500-H</b>                 |          |               |         |         |
| pH   | 7.23     |   | pH units | 2/21/13 07:55 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method: SW9056</b>                   |          |               |         |         |
| Chloride                                     | 3.71     | 2.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.29     | 0.05                                    | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | 83.4     | 5.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method: SM2540C</b>                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 370.     | 10.                                     | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method: SW7470A / HG PREP</b>        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method: SW6020A / SW3015</b>         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | < 0.687  | 0.687                                   | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 62.6     | 3.5                                     | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | 0.0244   | 0.0075                                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | 1.25     | 0.15                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |

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E - Estimated      R - RPD-outside accepted recovery limits  
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C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 7:55:00 AM  
Lab ID: 13020600-03 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0397 | 0.0397                           | C µg/L | 3/5/13 12:36  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0555 | 0.0555                           | C µg/L | 3/5/13 12:36  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 07:30 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/1/13 18:55  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 19:36  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 19:36  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 19:36  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 18:12 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** IQ13 CWLP List G20 **Collection Date:** 2/21/2013 7:55:00 AM  
**Lab ID:** 13020600-03 **Matrix:** Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13  | 0.13                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67  | 0.67                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| Phenol   | < 1.33  | 1.33                | µg/L   | 2/26/13 20:52 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb  | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol  | < 0.26  | 0.26                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram   | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 200.  | 200.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,1,2-Trichloroethane  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,1-Dichloroethene   | < 7.    | 7.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2,4-Trichlorobenzene   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2-Dichloroethane   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,2-Dichloropropane  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| 1,4-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Benzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Carbon tetrachloride   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Chlorobenzene  | < 100.  | 100.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| cis-1,2-Dichloroethene   | < 70.   | 70.                 | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Ethylbenzene   | < 700.  | 700.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Methyl tert-butyl ether  | < 70.   | 70.                 | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Methylene chloride   | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Styrene  | < 100.  | 100.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Tetrachloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Toluene  | < 1000. | 1000.               | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| trans-1,2-Dichloroethene   | < 100.  | 100.                | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Trichloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |
| Vinyl chloride   | < 2.    | 2.                  | µg/L   | 2/22/13 17:12 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power      Client Sample ID: AP-5  
Lab Order: 13020600      Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20      Collection Date: 2/21/2013 7:55:00 AM  
Lab ID: 13020600-03      Matrix: Groundwater

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 17:12 | 80180   | JL      |
| <b>Radiation Testing</b> |          |  |       |               |         |         |
|                          |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 1.6      | 0.2                                      | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | 1.6      | 0.8                                      | pCi/L | 3/26/13       | R183278 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank      S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
 Lab Order: 13020600 Report Date: 4/3/2013  
 Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 9:50:00 AM  
 Lab ID: 13020600-04 Matrix: Groundwater

| Analyses                                     | Result         | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|----------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |                |                     |          |               |         |         |
| pH   | 7.4            |                     | pH units | 2/21/13 09:50 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |                |                     |          |               |         |         |
| Chloride                                     | 55.6           | 2.                  | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5          | 0.5                 | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.06           | 0.05                | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | 292.           | 50.                 | mg/L     | 2/26/13       | R182058 | GSB     |
| <b>Cyanide, Total</b>                        |                |                     |          |               |         |         |
| Cyanide                                      | < 0.01         | 0.01                | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |                |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 624.           | 10.                 | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |                |                     |          |               |         |         |
| Mercury                                      | < 0.0005       | 0.0005              | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |                |                     |          |               |         |         |
| Antimony                                     | <u>0.00805</u> | 0.006               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | <u>0.0784</u>  | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.           | 2.                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004        | 0.004               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | <u>29.1</u>    | 0.687               | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005        | 0.005               | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1          | 0.1                 | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.           | 1.                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65         | 0.65                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | <u>165</u>     | 3.5                 | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075       | 0.0075              | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | <u>6.18</u>    | 0.15                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1          | 0.1                 | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05         | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05         | 0.05                | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002        | 0.002               | mg/L     | 2/27/13 13:43 | 80223   | AG      |

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 E - Estimated R - RPD outside accepted recovery limits  
 H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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# ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.



8100 North Austin • Morton Grove, IL 60053-3203  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 9:50:00 AM  
Lab ID: 13020600-04 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 3/5/13 13:07  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C µg/L | 3/5/13 13:07  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 08:15 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/2/13 15:44  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 20:23  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 20:23  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 20:23  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 18:59 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** IQ13 CWLP List G20 **Collection Date:** 2/21/2013 9:50:00 AM  
**Lab ID:** 13020600-04 **Matrix:** Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13  | 0.13                | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67  | 0.67                | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| Phenol   | < 1.33  | 1.33                | µg/L   | 2/26/13 21:37 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb  | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol  | < 0.27  | 0.27                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram   | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 200.  | 200.                | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,1,2-Trichloroethane  | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,1-Dichloroethene   | < 7.    | 7.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2,4-Trichlorobenzene   | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2-Dichloroethane   | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,2-Dichloropropane  | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| 1,4-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Benzene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Carbon tetrachloride   | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Chlorobenzene  | < 100.  | 100.                | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| cis-1,2-Dichloroethene   | < 70.   | 70.                 | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Ethylbenzene   | < 700.  | 700.                | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Methyl tert-butyl ether  | < 70.   | 70.                 | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Methylene chloride   | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Styrene  | < 100.  | 100.                | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Tetrachloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Toluene  | < 1000. | 1000.               | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| trans-1,2-Dichloroethene   | < 100.  | 100.                | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Trichloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |
| Vinyl chloride   | < 2.    | 2.                  | µg/L   | 2/22/13 17:42 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

|   |  |
|---|--|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-3                |
| <b>Lab Order:</b> 13020600                | <b>Report Date:</b> 4/3/2013                 |
| <b>Project:</b> 1Q13 CWLP List G20        | <b>Collection Date:</b> 2/21/2013 9:50:00 AM |
| <b>Lab ID:</b> 13020600-04                | <b>Matrix:</b> Groundwater                   |

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 17:42 | 80180   | JL      |
| <b>Radiation Testing</b> |          |  |       |               |         |         |
|                          |          | <b>Method:</b> EPA 900/903.1/904/905/906 |       |               |         |         |
| Radium-226               | ND       | 0.66                                     | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | 0.85     | 0.7                                      | pCi/L | 3/26/13       | R183278 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13020600  
Project: IQ13 CWLP List G20  
Lab ID: 13020600-05

Client Sample ID: AP-4  
Report Date: 4/3/2013  
Collection Date: 2/21/2013 9:05:00 AM  
Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          | <b>Method: SM4500-H</b>                 |          |               |         |         |
| pH   | 7.04     |   | pH units | 2/21/13 09:05 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          | <b>Method: SW9056</b>                   |          |               |         |         |
| Chloride                                     | 10.8     | 2.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | < 0.5    | 0.5                                     | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.53     | 0.05                                    | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | < 5.     | 5.                                      | mg/L     | 2/22/13       | R181955 | GSB     |
| <b>Cyanide, Total</b>                        |          | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                                    | mg/L     | 2/25/13 16:30 | 80190   | JZ1     |
| <b>Total Dissolved Solids</b>                |          | <b>Method: SM2540C</b>                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 460.     | 10.                                     | mg/L     | 2/22/13 12:55 | R181948 | LS3     |
| <b>Mercury, Total</b>                        |          | <b>Method: SW7470A / HG PREP</b>        |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005                                  | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          | <b>Method: SW6020A / SW3015</b>         |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Arsenic                                      | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Barium                                       | < 2.     | 2.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Beryllium                                    | < 0.004  | 0.004                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Boron  | < 0.687  | 0.687                                   | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Cadmium                                      | < 0.005  | 0.005                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Chromium                                     | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Cobalt                                       | < 1.     | 1.                                      | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Copper                                       | < 0.65   | 0.65                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Iron   | 15.9     | 3.5                                     | mg/L     | 2/28/13 10:43 | 80223   | AG      |
| Lead   | < 0.0075 | 0.0075                                  | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Manganese                                    | < 0.15   | 0.15                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Nickel                                       | < 0.1    | 0.1                                     | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Selenium                                     | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Silver                                       | < 0.05   | 0.05                                    | mg/L     | 2/27/13 13:43 | 80223   | AG      |
| Thallium                                     | < 0.002  | 0.002                                   | mg/L     | 2/27/13 13:43 | 80223   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 9:05:00 AM  
Lab ID: 13020600-05 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80223   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0403 | 0.0403                           | C µg/L | 3/5/13 13:39  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0565 | 0.0565                           | C µg/L | 3/5/13 13:39  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 08:59 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/2/13 15:00  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 21:11  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:11  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:11  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 19:46 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.66   | 0.66                             | µg/L   | 2/27/13       | 80175   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 9:05:00 AM  
Lab ID: 13020600-05 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatife Organic Compounds GC/MS Method: SW8270D / SW3510C</b>  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 0.13  | 0.13                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| Hexachlorocyclopentadiene  | < 0.67  | 0.67                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| Phenol   | < 1.33  | 1.33                | µg/L   | 2/26/13 22:23 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC Method: SW8321A / SW3510C</b> |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb  | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol  | < 0.27  | 0.27                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram   | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS Method: SW8260B / SW5030A</b>   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 200.  | 200.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,1,2-Trichloroethane  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,1-Dichloroethene   | < 7.    | 7.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2,4-Trichlorobenzene   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2-Dichloroethane   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,2-Dichloropropane  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| 1,4-Dichlorobenzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Benzene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Carbon tetrachloride   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Chlorobenzene  | < 100.  | 100.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| cis-1,2-Dichloroethene   | < 70.   | 70.                 | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Ethylbenzene   | < 700.  | 700.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Methyl tert-butyl ether  | < 70.   | 70.                 | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Methylene chloride   | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Styrene  | < 100.  | 100.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Tetrachloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Toluene  | < 1000. | 1000.               | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| trans-1,2-Dichloroethene   | < 100.  | 100.                | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Trichloroethene  | < 5.    | 5.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |
| Vinyl chloride   | < 2.    | 2.                  | µg/L   | 2/22/13 18:12 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13020600 **Report Date:** 4/3/2013  
**Project:** 1Q13 CWLP List G20 **Collection Date:** 2/21/2013 9:05:00 AM  
**Lab ID:** 13020600-05 **Matrix:** Groundwater

| Analyses                 | Result   | EMT Reporting Limit | Units                            | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|---------------------|----------------------------------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.              | µg/L                             | 2/22/13 18:12 | 80180   | JL      |
| <b>Radiation Testing</b> |          |                     |                                  |               |         |         |
|                          |          | <b>Method:</b>      | <b>EPA 900/903.1/904/905/906</b> |               |         |         |
| Radium-226               | ND       | 0.57                | pCi/L                            | 3/26/13       | R183278 | OUT     |
| Radium-228               | ND       | 0.83                | pCi/L                            | 3/26/13       | R183278 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13020600  
Project: IQ13 CWLP List G20  
Lab ID: 13020600-06

Client Sample ID: AP-1  
Report Date: 4/3/2013  
Collection Date: 2/21/2013 11:10:00 AM  
Matrix: Groundwater

| Analyses                                     | Result   | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |          |                     |          |               |         |         |
| pH   | 7.41     |                     | pH units | 2/21/13 11:10 | R182087 | JC      |
| <b>Anions by Ion Chromatography</b>          |          |                     |          |               |         |         |
| Chloride                                     | 43.6     | 2.                  | mg/L     | 2/22/13       | R181955 | GSB     |
| Fluoride                                     | 0.17     | 0.05                | mg/L     | 2/22/13       | R181955 | GSB     |
| Nitrogen, Nitrate (As N)                     | 2.86     | 0.5                 | mg/L     | 2/22/13       | R181955 | GSB     |
| Sulfate                                      | 506.     | 50.                 | mg/L     | 2/26/13       | R182058 | GSB     |
| <b>Cyanide, Total</b>                        |          |                     |          |               |         |         |
| Cyanide                                      | < 0.01   | 0.01                | mg/L     | 2/26/13 12:05 | 80205   | JZ1     |
| <b>Total Dissolved Solids</b>                |          |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1120.    | 10.                 | mg/L     | 2/26/13 08:55 | R182103 | TB2     |
| <b>Mercury, Total</b>                        |          |                     |          |               |         |         |
| Mercury                                      | < 0.0005 | 0.0005              | mg/L     | 2/25/13 11:44 | 80203   | IG      |
| <b>Metals, Total.</b>                        |          |                     |          |               |         |         |
| Antimony                                     | < 0.006  | 0.006               | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Arsenic                                      | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Barium                                       | < 2.     | 2.                  | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Beryllium                                    | < 0.004  | 0.004               | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Boron  | 3.9      | 2.                  | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Cadmium                                      | < 0.005  | 0.005               | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Chromium                                     | < 0.1    | 0.1                 | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Cobalt                                       | < 1.     | 1.                  | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Copper                                       | < 0.65   | 0.65                | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Iron   | 13.3     | 5.                  | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Lead   | < 0.0075 | 0.0075              | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Manganese                                    | 0.732    | 0.15                | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Nickel                                       | < 0.1    | 0.1                 | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Selenium                                     | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Silver                                       | < 0.05   | 0.05                | mg/L     | 2/27/13 13:43 | 80226   | AG      |
| Thallium                                     | < 0.002  | 0.002               | mg/L     | 2/27/13 13:43 | 80226   | AG      |

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S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: 1Q13 CWLP List G20 Collection Date: 2/21/2013 11:10:00 AM  
Lab ID: 13020600-06 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 5.     | 5.                               | mg/L   | 2/27/13 13:43 | 80226   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| Carbofuran                              | < 2.     | 2.                               | C µg/L | 2/28/13       | R182150 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0399 | 0.0399                           | C µg/L | 3/5/13 14:11  | 80376   | LP      |
| 1,2-Dibromoethane                       | < 0.0558 | 0.0558                           | C µg/L | 3/5/13 14:11  | 80376   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 2/28/13 09:44 | 80216   | RYL     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.5    | 0.5                              | C µg/L | 3/2/13 14:17  | 80277   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.13   | 0.13                             | µg/L   | 3/6/13 21:58  | 80174   | LP      |
| Atrazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:58  | 80174   | LP      |
| Chlordane                               | < 0.08   | 0.08                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Endrin                                  | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Heptachlor                              | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Heptachlor epoxide                      | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Methoxychlor                            | < 0.01   | 0.01                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| Simazine                                | < 0.17   | 0.17                             | µg/L   | 3/6/13 21:58  | 80174   | LP      |
| Toxaphene                               | < 0.53   | 0.53                             | µg/L   | 2/27/13 20:34 | 80174   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1221                            | < 0.17   | 0.17                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1232                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1242                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1248                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1254                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| Aroclor 1260                            | < 0.08   | 0.08                             | µg/L   | 2/27/13       | 80175   | NCH     |
| PCB, Total                              | < 0.67   | 0.67                             | µg/L   | 2/27/13       | 80175   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13020600 Report Date: 4/3/2013  
Project: IQ13 CWLP List G20 Collection Date: 2/21/2013 11:10:00 AM  
Lab ID: 13020600-06 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         |                     |        |               |       |         |
| Method: SW8270D / SW3510C                    |         |                     |        |               |       |         |
| Benzo(a)pyrene                               | < 0.13  | 0.13                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| Hexachlorocyclopentadiene                    | < 0.67  | 0.67                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| Phenol                                       | < 1.33  | 1.33                | µg/L   | 2/27/13 18:00 | 80170 | RYL     |
| <b>Solvent Extractable Compounds by HPLC</b> |         |                     |        |               |       |         |
| Method: SW8321A / SW3510C                    |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.25  | 0.25                | µg/L   | 2/25/13       | 80166 | DLO     |
| 2,4-D  | < 0.23  | 0.23                | µg/L   | 2/25/13       | 80166 | DLO     |
| Dinoseb                                      | < 0.22  | 0.22                | µg/L   | 2/25/13       | 80166 | DLO     |
| Pentachlorophenol                            | < 0.27  | 0.27                | C µg/L | 2/25/13       | 80166 | DLO     |
| Picloram                                     | < 0.22  | 0.22                | C µg/L | 2/25/13       | 80166 | DLO     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         |                     |        |               |       |         |
| Method: SW8260B / SW5030A                    |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 200.  | 200.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,1,2-Trichloroethane                        | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,1-Dichloroethene                           | < 7.    | 7.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2,4-Trichlorobenzene                       | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2-Dichlorobenzene                          | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2-Dichloroethane                           | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,2-Dichloropropane                          | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| 1,4-Dichlorobenzene                          | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Benzene                                      | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Carbon tetrachloride                         | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Chlorobenzene                                | < 100.  | 100.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| cis-1,2-Dichloroethene                       | < 70.   | 70.                 | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Ethylbenzene                                 | < 700.  | 700.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Methyl tert-butyl ether                      | < 70.   | 70.                 | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Methylene chloride                           | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Styrene                                      | < 100.  | 100.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Tetrachloroethene                            | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Toluene                                      | < 1000. | 1000.               | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| trans-1,2-Dichloroethene                     | < 100.  | 100.                | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Trichloroethene                              | < 5.    | 5.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |
| Vinyl chloride                               | < 2.    | 2.                  | µg/L   | 2/22/13 18:42 | 80180 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-1                 |
| <b>Lab Order:</b> 13020600                | <b>Report Date:</b> 4/3/2013                  |
| <b>Project:</b> 1Q13 CWLP List G20        | <b>Collection Date:</b> 2/21/2013 11:10:00 AM |
| <b>Lab ID:</b> 13020600-06                | <b>Matrix:</b> Groundwater                    |

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 10000. | 10000.                                   | µg/L  | 2/22/13 18:42 | 80180   | JL      |
| <b>Radiation Testing</b> |          |  |       |               |         |         |
|                          |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 2.       | 0.5                                      | pCi/L | 3/26/13       | R183278 | OUT     |
| Radium-228               | ND       | 0.9                                      | pCi/L | 3/26/13       | R183278 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
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**ENVIRONMENTAL  
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**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

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**COC # 504911**

|   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
|---|--|-------------------------|-------------------|---------|------------|---------------|--------|-----------|----------|--------|--------------------|----------|-----------------|--------------|-----------|-------------------------|-----------|--|--|-------------|--------------|-----------|----------------|-----------|--|---------|----------|---------|---------|--------|---------|-----------|------------|------------|-----------|--|--|--|-------------|------------|---------------|-------------------------------------|---|-------------------------------------|---|----------------------------------|---------------------|----------------------------------|
| <p><b>Company:</b> <u>City, Water, Light &amp; Power</u></p> <p><b>Contact:</b></p> <p><b>Address:</b> <u>201 East Lake Shore Drive</u><br/><u>Springfield, IL 62707</u></p> <p><b>Phone:</b> <u>(217) 757-8610</u></p> <p><b>P.O. #:</b> _____ <b>Proj. #:</b> _____</p> <p><b>Project /Location:</b> <u>CWLP List G20</u></p> | <p><b>SAMPLE TYPE:</b></p> <table border="0"> <tr> <td>1. DI Water</td> <td>2. Drinking Water</td> <td>3. Soil</td> </tr> <tr> <td>4. Extract</td> <td>5. Wastewater</td> <td>6. Oil</td> </tr> <tr> <td>7. Sludge</td> <td>8. Solid</td> <td>9. Air</td> </tr> <tr> <td>10. Chemical Waste</td> <td>11. Wipe</td> <td>12. Groundwater</td> </tr> <tr> <td>13. eProduct</td> <td>13. Solid</td> <td>14. Groundwater(Filter)</td> </tr> <tr> <td>15. Other</td> <td></td> <td></td> </tr> </table> <p><b>CONTAINER TYPE:</b></p> <table border="0"> <tr> <td>P - Plastic</td> <td>V - VOC Vial</td> <td>G - Glass</td> </tr> <tr> <td>B - Tedlar Bag</td> <td>O - Other</td> <td></td> </tr> </table> <p><b>PRESERVATIVE:</b></p> <table border="0"> <tr> <td>1. None</td> <td>2. H2SO4</td> <td>3. HNO3</td> </tr> <tr> <td>4. NaOH</td> <td>5. HCL</td> <td>6. MeOH</td> </tr> <tr> <td>7. Zn Ace</td> <td>8. Na2S2O3</td> <td>9. Na2HSO4</td> </tr> <tr> <td>10. Other</td> <td></td> <td></td> </tr> </table> | 1. DI Water             | 2. Drinking Water | 3. Soil | 4. Extract | 5. Wastewater | 6. Oil | 7. Sludge | 8. Solid | 9. Air | 10. Chemical Waste | 11. Wipe | 12. Groundwater | 13. eProduct | 13. Solid | 14. Groundwater(Filter) | 15. Other |  |  | P - Plastic | V - VOC Vial | G - Glass | B - Tedlar Bag | O - Other |  | 1. None | 2. H2SO4 | 3. HNO3 | 4. NaOH | 5. HCL | 6. MeOH | 7. Zn Ace | 8. Na2S2O3 | 9. Na2HSO4 | 10. Other |  |  | <p style="text-align: center;"><b>Analysis</b></p> <table border="1" style="width:100%; border-collapse: collapse;"> <tr><td>1. Endothal</td></tr> <tr><td>2. Dalapon</td></tr> <tr><td>3. Herbicides</td></tr> <tr><td>4. PCBs in Groundwater, Method 8082</td></tr> <tr><td>5. Pesticides in Groundwater by Method 8081</td></tr> <tr><td>6. Radiation Testing, Subcontracted</td></tr> <tr><td>7. Semivolatile Organic Compounds by GCMS</td></tr> <tr><td>8. Solids, Total Dissolved (TDS)</td></tr> <tr><td>9. pH, Field tested</td></tr> <tr><td>10. Anions by Ion Chromatography</td></tr> </table> | 1. Endothal | 2. Dalapon | 3. Herbicides | 4. PCBs in Groundwater, Method 8082 | 5. Pesticides in Groundwater by Method 8081 | 6. Radiation Testing, Subcontracted | 7. Semivolatile Organic Compounds by GCMS | 8. Solids, Total Dissolved (TDS) | 9. pH, Field tested | 10. Anions by Ion Chromatography |
| 1. DI Water   | 2. Drinking Water  | 3. Soil                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 4. Extract  | 5. Wastewater  | 6. Oil                  |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 7. Sludge   | 8. Solid   | 9. Air                  |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 10. Chemical Waste  | 11. Wipe   | 12. Groundwater         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 13. eProduct  | 13. Solid  | 14. Groundwater(Filter) |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 15. Other   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| P - Plastic   | V - VOC Vial   | G - Glass               |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| B - Tedlar Bag  | O - Other  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 1. None   | 2. H2SO4   | 3. HNO3                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 4. NaOH   | 5. HCL   | 6. MeOH                 |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 7. Zn Ace   | 8. Na2S2O3   | 9. Na2HSO4              |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 10. Other   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 1. Endothal   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 2. Dalapon  |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 3. Herbicides   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 4. PCBs in Groundwater, Method 8082   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 5. Pesticides in Groundwater by Method 8081   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 6. Radiation Testing, Subcontracted   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 7. Semivolatile Organic Compounds by GCMS   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 8. Solids, Total Dissolved (TDS)  |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 9. pH, Field tested   |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |
| 10. Anions by Ion Chromatography  |  |                         |                   |         |            |               |        |           |          |        |                    |          |                 |              |           |                         |           |  |  |             |              |           |                |           |  |         |          |         |         |        |         |           |            |            |           |  |  |  |             |            |               |                                     |   |                                     |   |                                  |                     |                                  |

**EMT USE ONLY**

**EMT  
WORKORDER**  
#13020000

| Sample I.D. | Sample Type | Container Size | Container |     |    | Sampling |       |     |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |    |  |
|-------------|-------------|----------------|-----------|-----|----|----------|-------|-----|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|----|--|
|             |             |                | Type      | No. | By | Date     | Time  | pH  | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |    |  |
| AP-2        | GRAB        | 1 liter        | G         | 10  | DD | 2-21-13  | 11:40 | 7.8 | 1     |              |   | Y        | Y | Y | Y | Y | Y |   |   |    |  |                 |  |  |  |  | 11 |  |
| AP-2        | GRAB        | 1 liter        | P         | 1   | DD | 2-21-13  | 11:40 | 7.8 | 1     |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | 12 |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |
|             |             |                |           |     |    |          |       |     |       |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |    |  |

|                  |  |                              |  |   |   |
|------------------|--|------------------------------|--|---|---|
| Relinquished By: | Date: <u>2-21-13</u><br>Time: <u>15:30</u> | Received By:                 | Date: - - -<br>Time: : : :                 | <p><b>EMT USE ONLY</b></p> <p>Client ID: <u>SPRING</u></p> <p>Client Contact: <u>Joe Pavilonis</u></p> <p>EMT Project ID: <u>CWLP List G20</u></p> <p>Jar/Lot No: _____</p> | <input type="checkbox"/> SAMPLE RECEIVED ON ICE TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><br> |
| Relinquished By: | Date: - - -<br>Time: : : :                 | Received By:                 | Date: - - -<br>Time: : : :                 |   |   |
| Relinquished By: | Date: - - -<br>Time: : : :                 | Received By: <u>Morrison</u> | Date: <u>2-21-13</u><br>Time: <u>15:30</u> |   |   |









Chain of Custody Record

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|   |  |   |  |   |
|---|--|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Aca      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br>EMT<br>WORKORDER<br>12020000 |
|---|--|---|--|---|

| Sample I.D. | Sample Type | Container | Sampling |      |     |         |      | Preservation |    | Analysis |     |    |    |    |    |    |    |    |    | Lab Sample I.D. |    |     |    |
|-------------|-------------|-----------|----------|------|-----|---------|------|--------------|----|----------|-----|----|----|----|----|----|----|----|----|-----------------|----|-----|----|
|             |             |           | Size     | Type | No. | By      | Date | Time         | pH | Field    | Lab | 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. |                 | 9. | 10. |    |
| AW-3        | GRAB        | 1 liter   | G        | 10   | DD  | 2-21-13 | 9:10 | 7.10         | 1  |          | X   | X  | X  | X  | X  | X  |    |    |    |                 |    |     | 2A |
| AW-3        | GRAB        | 1 liter   | P        | 1    | DD  | 2-21-13 | 8:10 | 7.10         | 1  |          |     |    |    |    |    |    |    | X  | X  | Y               |    |     | B  |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |
|             |             |           |          |      |     |         |      |              |    |          |     |    |    |    |    |    |    |    |    |                 |    |     |    |

|                  |                      |              |           |   |  |
|------------------|----------------------|--------------|-----------|---|--|
| Relinquished By: | Date: <u>2-21-13</u> | Received By: | Date: - - | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlanic</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: | Date: - -            | Received By: | Date: - - |   |  |
| Relinquished By: | Date: - -            | Received By: | Date: - - |   |  |

SPECIAL INSTRUCTIONS:

2/19/2013 11:41:48 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|   |   |  |   |   |  |
|---|---|--|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water                      2. Drinking Water                      3. Soil<br>4. Extract                        5. Wastewater                        6. Oil<br>7. Sludge                         8. Solid                                 9. Air<br>10. Chemical Waste             11. Wipe                                12. Groundwater<br>13. eProduct                      13. Solid                                14. Groundwater(Filter)<br>15. Other | <b>CONTAINER TYPE:</b><br>P - Plastic                         V - VOC Vial                            G - Glass<br>B - Tedlar Bag                    O - Other | <b>PRESERVATIVE:</b><br>1. None                                2. H2SO4                                3. HNO3<br>4. NaOH                                5. HCL                                    6. MeOH<br>7. Zn Ace                               8. Na2S2O3                            9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | EMT USE ONLY<br><br>EMT WORKORDER # 13020600 |
|---|---|--|---|---|--|

| Sample I.D. | Sample Type | Sample No. | Container |      |     | Sampling |         |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |    |   |
|-------------|-------------|------------|-----------|------|-----|----------|---------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|----|---|
|             |             |            | Size      | Type | No. | By       | Date    | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |    |   |
| AW-3        | GRAB        | 12         | 4 oz      | G    | 1   | DD       | 2-21-13 | 8:10 | 7.10 | 8            |     | X        |   |   |   |   |   |   |   |   |    |                 |  |  |  | ZA |   |
| AW-3        | GRAB        | 12         | 500 ml    | P    | 1   | DD       | 2-21-13 | 8:10 | 7.10 | 4            |     |          | X |   |   |   |   |   |   |   |    |                 |  |  |  |    | D |
| AW-3        | GRAB        | 12         | 500 ml    | P    | 1   | DD       | 2-21-13 | 8:10 | 7.10 | 3            |     |          |   | X |   |   |   |   |   |   |    |                 |  |  |  |    | E |
| AW-3        | GRAB        | 12         | 44 ml     | V    | 3   | DD       | 2-21-13 | 8:10 | 7.10 | 5            |     |          |   |   | X |   |   |   |   |   |    |                 |  |  |  |    | F |
| AW-3        | GRAB        | 12         | 44 ml     | V    | 2   | DD       | 2-21-13 | 8:10 | 7.10 | 1            |     |          |   |   |   | X |   |   |   |   |    |                 |  |  |  |    | G |

|                  |               |              |           |   |  |
|------------------|---------------|--------------|-----------|---|--|
| Relinquished By: | Date: 2-21-13 | Received By: | Date: - - | EMT USE ONLY<br>Client ID: SPRING<br>Client Contact: Joe Pavlitoris<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input checked="" type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 8 hrs. prior to sample receipt) |
| Relinquished By: | Date: - -     | Received By: | Date: - - |   |  |
| Relinquished By: | Date: - -     | Received By: | Date: - - |   |  |

SPECIAL INSTRUCTIONS:







**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|   |  |  |  |   |  |
|---|--|--|--|---|--|
| <b>Company:</b> City, Water, Light & Power<br><b>Contact:</b><br><b>Address:</b> 201 East Lake Shore Drive<br>Springfield, IL 62707<br><br><b>Phone:</b> (217) 757-8610<br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project / Location:</b> CWLP List G20 |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13020000 |
| <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |  |  |  |   |  |

| Sample I.D. | Sample Type | Container Size | Container Type | Container No. | Sampling |         |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |    |  |  |
|-------------|-------------|----------------|----------------|---------------|----------|---------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|----|--|--|
|             |             |                |                |               | By       | Date    | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |    |  |  |
| AP-5        | GRAB        | 1 liter        | G              | 10            | SP       | 2/21/13 | 0755 | 7.23 | 1            |     | X        | X | X | X | X | X | X |   |   |    |                 |  |  | 3A |  |  |
| AP-5        | GRAB        | 1 liter        | P              | 1             | SP       | 2/21/13 | 0755 | 7.23 | 1            |     |          |   |   |   |   |   |   |   | X | X  | X               |  |  | B  |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |
|             |             |                |                |               |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |    |  |  |

|                                     |               |                                 |               |   |  |
|-------------------------------------|---------------|---------------------------------|---------------|---|--|
| Relinquished By: <i>[Signature]</i> | Date: 2-21-13 | Received By: <i>[Signature]</i> | Date: 2-21-13 | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: 2-21-13 | Received By:                    | Date: - -     |   |  |
| Relinquished By:                    | Date: - -     | Received By:                    | Date: - -     |   |  |
|                                     | Time: 12:01   |                                 | Time: 12:01   |   |  |
|                                     | Time: 15:30   |                                 | Time: : :     |   |  |
|                                     | Time: : :     |                                 | Time: : :     |   |  |

SPECIAL INSTRUCTIONS:

*pk: 7.00 => 7.01 @ 0740*





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|  |  |   |  |
|--|--|---|--|
| Company: <u>City, Water, Light &amp; Power</u><br>Contact:<br>Address: <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br>Phone: <u>(217) 757-8610</u><br><br>P.O. #: _____ Proj. #: _____<br>Project /Location: <u>CWLP List G20</u> | SAMPLE TYPE:<br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br>CONTAINER TYPE:<br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br>PRESERVATIVE:<br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <p style="text-align: center;"><b>Analysis</b></p> 1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | EMT USE ONLY<br><br>EMT<br>WORKORDER<br># 13020600 |
|--|--|---|--|

| Sample I.D. | Sample Type | Container Size | Container Type | No. | Sampling |         |      |      |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |    |
|-------------|-------------|----------------|----------------|-----|----------|---------|------|------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|----|
|             |             |                |                |     | By       | Date    | Time | pH   | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |    |
| AP-5        | GRAB        | 4 oz           | G              | 1   | SA       | 2/21/13 | 0755 | 7.23 | 8     |              | X |          |   |   |   |   |   |   |   |    |  |                 |  |  | 3C |
| AP-5        | GRAB        | 500 ml         | P              | 1   | SA       | 2/21/13 | 0755 | 7.23 | 4     |              |   | X        |   |   |   |   |   |   |   |    |  |                 |  |  | D  |
| AP-5        | GRAB        | 500 ml         | P              | 1   | SA       | 2/21/13 | 0755 | 7.23 | 3     |              |   |          | X |   |   |   |   |   |   |    |  |                 |  |  | E  |
| AP-5        | GRAB        | 44 ml          | V              | 3   | SA       | 2/21/13 | 0755 | 7.23 | 5     |              |   |          |   | X |   |   |   |   |   |    |  |                 |  |  | F  |
| AP-5        | GRAB        | 44 ml          | V              | 2   | SA       | 2/21/13 | 0755 | 7.23 | 1     |              |   |          |   |   | X |   |   |   |   |    |  |                 |  |  | G  |

|                  |               |              |               |   |  |
|------------------|---------------|--------------|---------------|---|--|
| Relinquished By: | Date: 2-21-13 | Received By: | Date: 2-21-13 | EMT USE ONLY<br><br>Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | SAMPLE RECEIVED ON ICE<br>TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) |
| Relinquished By: | Date: 2-21-13 | Received By: | Date: - -     |   |  |
| Relinquished By: | Date: - -     | Received By: | Date: - -     |   |  |

SPECIAL INSTRUCTIONS:

pH: 7.00 => 7.01 @ 0740

2/19/2013 11:41:48 AM

Page 10





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013

Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emi.com

COC # 504911

|  |  |  |   |  |  |
|--|--|--|---|--|--|
| <b>Company:</b> City, Water, Light & Power<br><b>Contact:</b><br><b>Address:</b> 201 East Lake Shore Drive<br>Springfield, IL 62707<br><b>Phone:</b> (217) 757-8610<br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> CWLP List G20 | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other | <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13020000 |
|--|--|--|---|--|--|

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |    |
|-------------|-------------|-----------|---------|-----|----------|------|---------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|----|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |    |
| AP-3        | GRAB        | 12        | 1 liter | G   | 10       | SP   | 2/21/13 | 0950 | 7.40         | 1   |          | X  | X  | X  | X  | X  | X  |    |    |     |                 |  |  |  |  | 4A |
| AP-3        | GRAB        | 12        | 1 liter | P   | 1        | SP   | 3/21/13 | 0950 | 7.40         | 1   |          |    |    |    |    |    |    | X  | X  | X   |                 |  |  |  |  | B  |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |    |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |    |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |    |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |    |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |    |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |    |
|             |             |           |         |     |          |      |         |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |  |    |

|                                     |               |                                 |               |   |   |
|-------------------------------------|---------------|---------------------------------|---------------|---|---|
| Relinquished By: <i>[Signature]</i> | Date: 2-21-13 | Received By: <i>[Signature]</i> | Date: 2-21-13 | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No: | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: 2-21-13 | Received By:                    | Date: - -     |   |   |
| Relinquished By:                    | Date: - -     | Received By:                    | Date: - -     |   |   |

SPECIAL INSTRUCTIONS:

*ph: 7.00 => 7.01 @ 0740*

2/19/2013 11:41:47 AM





ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.

### Chain of Custody Record

Scheduled Sampling Date: 02/19/2013

Due Date: 02/28/2013

COC # 504911

8100 North Austin Avenue Marton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

Company: City, Water, Light & Power

Contact:

Address: 201 East Lake Shore Drive  
Springfield, IL 62707

Phone: (217) 757-8610

P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_

Project /Location: CWLP List G20

**SAMPLE TYPE:**

|                    |                   |                         |
|--------------------|-------------------|-------------------------|
| 1. DI Water        | 2. Drinking Water | 3. Soil                 |
| 4. Extract         | 5. Wastewater     | 6. Oil                  |
| 7. Sludge          | 8. Solid          | 9. Air                  |
| 10. Chemical Waste | 11. Wipe          | 12. Groundwater         |
| 13. eProduct       | 13. Solid         | 14. Groundwater(Filter) |
| 15. Other          |                   |                         |

**CONTAINER TYPE:**

|                |              |           |
|----------------|--------------|-----------|
| P - Plastic    | V - VOC Vial | G - Glass |
| B - Tedlar Bag | O - Other    |           |

**PRESERVATIVE:**

|           |            |            |
|-----------|------------|------------|
| 1. None   | 2. H2SO4   | 3. HNO3    |
| 4. NaOH   | 5. HCL     | 6. MeOH    |
| 7. Zn Ace | 8. Na2S2O3 | 9. Na2HSO4 |
| 10. Other |            |            |

**Analysis**

|  |
|--|
| 1. Carbamates                              |
| 2. Cyanide, Total                          |
| 3. Total RCRA Metals on a Liquid Sample    |
| 4. Volatile Organic Compounds, Method 8260 |
| 5. EDB, DBCP and 123TCP by GC/ECD          |

EMT USE ONLY

EMT WORKORDER

*130200*

| Sample I.D. | Sample Type | Container Size | Container Type | No. | Sampling |           |                |             |             | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |           |          |
|-------------|-------------|----------------|----------------|-----|----------|-----------|----------------|-------------|-------------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|-----------|----------|
|             |             |                |                |     | By       | Date      | Time           | pH          | Field       | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |           |          |
| AP-3        | GRAB        | 12             | 4 oz           | G   | 1        | <i>SP</i> | <i>2/21/13</i> | <i>0950</i> | <i>7.40</i> | 8            |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  | <i>DC</i> |          |
| AP-3        | GRAB        | 12             | 500 ml         | P   | 1        | <i>SP</i> | <i>2/21/13</i> | <i>0950</i> | <i>7.40</i> | 4            |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |           | <i>D</i> |
| AP-3        | GRAB        | 12             | 500 ml         | P   | 1        | <i>SP</i> | <i>2/21/13</i> | <i>0950</i> | <i>7.40</i> | 3            |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |           | <i>E</i> |
| AP-3        | GRAB        | 12             | 44 ml          | V   | 3        | <i>SP</i> | <i>2/21/13</i> | <i>0950</i> | <i>7.40</i> | 5            |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |           | <i>F</i> |
| AP-3        | GRAB        | 12             | 44 ml          | V   | 2        | <i>SP</i> | <i>2/21/13</i> | <i>0950</i> | <i>7.40</i> | 1            |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |           | <i>G</i> |

|                                     |                      |                                 |                      |  |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <i>[Signature]</i> | Date: <i>2-24-13</i> | Received By: <i>[Signature]</i> | Date: <i>2-21-13</i> | <p>EMT USE ONLY</p> <p>Client ID: <b>SPRING</b></p> <p>Client Contact: <b>Joe Pavilonis</b></p> <p>EMT Project ID: <b>CWLP List G20</b></p> <p>Jar Lot No:</p> | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <i>2-21-13</i> | Received By:                    | Date: - -            |  |   |
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            |  |   |

SPECIAL INSTRUCTIONS:

*pH: 7.00 => 7.01 @ 0740*

2/19/2013 11:41:47 AM







**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|   |  |   |  |  |
|---|--|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br>EMT WORKORDER<br>504911 |
|---|--|---|--|--|

| Sample I.D. | Sample Type | Sample No. | Container |      |     | Sampling    |         |      |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |    |
|-------------|-------------|------------|-----------|------|-----|-------------|---------|------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|----|
|             |             |            | Size      | Type | No. | By          | Date    | Time | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |    |
| AP-4        | GRAB        | 12         | 1 liter   | G    | 10  | [Signature] | 2/19/13 | 0905 | 7.04 | 1            |     | X        | X  | X  | X  | X  | X  |    |    |    |     |                 |  |  |  | SA |
| AP-4        | GRAB        | 12         | 1 liter   | P    | 1   | [Signature] | 2/19/13 | 0905 | 7.04 | 1            |     |          |    |    |    |    |    |    | X  | X  | X   |                 |  |  |  | B  |
|             |             |            |           |      |     |             |         |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |    |
|             |             |            |           |      |     |             |         |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |    |
|             |             |            |           |      |     |             |         |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |    |
|             |             |            |           |      |     |             |         |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |    |
|             |             |            |           |      |     |             |         |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |    |
|             |             |            |           |      |     |             |         |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |    |
|             |             |            |           |      |     |             |         |      |      |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |  |    |

|                              |               |                          |               |   |   |
|------------------------------|---------------|--------------------------|---------------|---|---|
| Relinquished By: [Signature] | Date: 2-21-13 | Received By: [Signature] | Date: 2-21-13 | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: [Signature] | Date: 2-21-13 | Received By: [Signature] | Date: - - -   |   |   |
| Relinquished By: [Signature] | Date: - - -   | Received By: [Signature] | Date: - - -   |   |   |

SPECIAL INSTRUCTIONS:

pH: 7.00 => 7.01 @ 0740





ENVIRONMENTAL MONITORING & TECHNOLOGIES, INC.

Chain of Custody Record

Scheduled Sampling Date: 02/19/2013

Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

Company: City, Water, Light & Power
Contact:
Address: 201 East Lake Shore Drive
Springfield, IL 62707
Phone: (217) 757-8610
Project /Location: CWLP List G20

- SAMPLE TYPE:
1. DI Water
2. Drinking Water
3. Soil
4. Extract
5. Wastewater
6. Oil
7. Sludge
8. Solid
9. Air
10. Chemical Waste
11. Wipe
12. Groundwater
13. eProduct
13. Solid
14. Groundwater(Filter)
15. Other
CONTAINER TYPE:
P - Plastic
B - Tedlar Bag
V - VOC Vial
O - Other
G - Glass
PRESERVATIVE:
1. None
2. H2SO4
3. HNO3
4. NaOH
5. HCL
6. MeOH
7. Zn Ace
8. Na2S2O3
9. Na2HSO4
10. Other

Analysis:

- 1. Carbamates
2. Cyanide, Total
3. Total RCRA Metals on a Liquid Sample
4. Volatile Organic Compounds, Method 8260
5. EDB, DBCP and 123TCP by GC/ECD

EMT USE ONLY
EMT WORKORDER
13020600

Table with columns: Sample I.D., Sample Type, Container (Size, Type, No.), Sampling (By, Date, Time, pH), Preservation (Field, Lab), and 10 numbered columns for analysis results. Includes handwritten data for AP-4 samples.

Relinquished By: [Signature] Date: 2-21-13 Time: 12:01
Received By: [Signature] Date: 2-21-13 Time: 12:01

EMT USE ONLY
Client ID: SPRING
Client Contact: Joe Pavilonis
EMT Project ID: CWLP List G20
Jar Lot No:

Input fields for: SAMPLE RECEIVED ON ICE, TEMPERATURE. Note: (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)

SPECIAL INSTRUCTIONS:

ph - 7.00 => 7.01 @ 0740

2/19/2013 11:41:47 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 504911

|   |  |   |  |  |
|---|--|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Datapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#302060 |
|---|--|---|--|--|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |     | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |    |
|-------------|-------------|-----------|------|-----|----------|---------|------|-----|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|----|
|             |             | Size      | Type | No. | By       | Date    | Time | pH  | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |    |
| AP-1        | GRAB        | 1 liter   | G    | 10  | SP       | 2/21/13 | 1110 | 7.4 | 1            |     | X        | X  | X  | X  | X  | X  |    |    |    |     |                 |  |  | QA |
| AP-1        | GRAB        | 1 liter   | P    | 1   | SP       | 2/21/13 | 1110 | 7.4 | 1            |     |          |    |    |    |    |    |    | X  | X  | X   |                 |  |  | B  |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |
|             |             |           |      |     |          |         |      |     |              |     |          |    |    |    |    |    |    |    |    |     |                 |  |  |    |

|                                     |                      |                                 |                      |  |   |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|---|
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Received By: <i>[Signature]</i> | Date: <u>2-21-13</u> | <b>EMT USE ONLY</b><br>Client ID: SPRING<br>Client Contact: Joe Pavlonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <u>2-21-13</u> | Received By: <i>[Signature]</i> | Date: - -            |  |   |
| Relinquished By: _____              | Date: - -            | Received By: _____              | Date: - -            |  |   |

SPECIAL INSTRUCTIONS:

*ph: 7.00 => 7.01 @ 0740*

2/19/2013 11:41:45 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 02/19/2013  
Due Date: 02/28/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX: (847) 967-6735 www.emt.com

COC # 504911

|  |   |   |  |
|--|---|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><b>Phone:</b> <u>(217) 757-8610</u><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><b>Project / Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br># <u>13020600</u> |
|--|---|---|--|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      |       |     |   | Preservation |   | Analysis |   |   |   |   |   |    |  |  |  | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|-------|-----|---|--------------|---|----------|---|---|---|---|---|----|--|--|--|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field | Lab | 1 | 2            | 3 | 4        | 5 | 6 | 7 | 8 | 9 | 10 |  |  |  |                 |  |  |  |     |
| AP-1        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 2/21/13 | 1110 | 7.41  | 8   |   | X            |   |          |   |   |   |   |   |    |  |  |  |                 |  |  |  | LEC |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 2/21/13 | 1110 | 7.41  | 4   |   |              | X |          |   |   |   |   |   |    |  |  |  |                 |  |  |  | P   |
| AP-1        | GRAB        | 12        | 500 ml | P   | 1        | SP   | 2/21/13 | 1110 | 7.41  | 3   |   |              |   | X        |   |   |   |   |   |    |  |  |  |                 |  |  |  | E   |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 3        | SP   | 2/21/13 | 1110 | 7.41  | 5   |   |              |   |          | X |   |   |   |   |    |  |  |  |                 |  |  |  | F   |
| AP-1        | GRAB        | 12        | 44 ml  | V   | 2        | SP   | 2/21/13 | 1110 | 7.41  | 1   |   |              |   |          |   | X |   |   |   |    |  |  |  |                 |  |  |  | G   |

|                        |                      |                    |                      |  |   |
|------------------------|----------------------|--------------------|----------------------|--|---|
| Relinquished By:       | Date: <u>2-21-13</u> | Received By:       | Date: <u>2-21-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No.: _____ | <input type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By:       | Date: <u>2-21-13</u> | Received By: _____ | Date: - -            |  |   |
| Relinquished By: _____ | Date: - -            | Received By: _____ | Date: - -            |  |   |

SPECIAL INSTRUCTIONS:

pH: 7.00 => 7.01 @ 0740



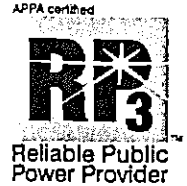




OFFICE OF PUBLIC UTILITIES  
CITY OF SPRINGFIELD, ILLINOIS

J. MICHAEL HOUSTON, MAYOR

ENVIRONMENTAL HEALTH & SAFETY



October 31, 2013

Illinois Environmental Protection Agency  
Division of Water – Groundwater Section  
Attn: Carl Kamp, P.G.  
1021 N. Grand Ave. East  
PO Box 19276  
Springfield, IL 62794-9276

Dear Mr. Kamp:

Please find enclosed City Water, Light & Power's (CWLP) groundwater monitoring results for the third quarter of 2013. Please note that this data has not been evaluated by our consultant.

On June 21, 2013, CWLP submitted the 2012 data with a request to continue collecting groundwater data through 2013 to allow for groundwater quality to stabilize in AP-5, our upgradient well. These background concentrations continue to appear to show decreasing trends during these sampling events.

CWLP still requests to continue sampling through 2013 to obtain data representation of background conditions. Once statistically valid data has been collected, revised background concentrations will be submitted to the Illinois Environmental Protection Agency.

If you should have any questions or require any further information, please feel free to contact Sue Corcoran, of my staff, or myself at (217) 757-8610.

Sincerely,

A handwritten signature in black ink, appearing to read "P.J. Becker".

P.J. Becker  
Environmental Health & Safety Manager

Handwritten initials "PJB/SC/gj" in black ink.  
PJB/SC/gj

Cy: Christine Zeman (CWLP)

**RECEIVED**

NOV 1 2013

DIVISION OF PUBLIC WATER SUPPLIES  
ENVIRONMENTAL PROTECTION AGENCY  
STATE OF ILLINOIS



**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**



8100 North Austin • Morton Grove, IL 60053-3203  
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

Sue Corcoran  
City, Water, Light & Power  
201 East Lake Shore Drive  
Springfield, IL 62707

October 09, 2013

RE CWLP List G20

Lab Orders:  
13080822

Dear Sue Corcoran:

Enclosed are the analytical reports for the EMT Lab Order listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

Approved by,

A handwritten signature in black ink, appearing to read 'Joe Pavilonis'.

A handwritten signature in black ink, appearing to read 'Marilyn Krueding'.

Joe Pavilonis  
Project Manager

Marilyn Krueding  
Laboratory Director

This Report Contains 40 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

State of Illinois, NELAC Accredited Lab. No. 100256  
State of Wisconsin, WDNR Accredited Lab No. 999888890

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CLIENT: City, Water, Light & Power

Date: 10/9/2013

Project: CWLP List G20

## CASE NARRATIVE

Lab Order: 13080822

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation, please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

### Method References:

SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.

E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.

SM= APHA, Standard Methods for the Examination of Water and Wastewater.

D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exclusively numerals indicate a preparation batch.

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**CLIENT:** City, Water, Light & Power

**Date:** 10/9/2013

**Project:** CWLP List G20

## CASE NARRATIVE

**Lab Order:** 13080822

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Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCS-84491: The Se recovery in the standard level LCS was below the lab control limits and within limits for the low level LCS.

Analytical Comments for METHOD 6020\_GRNDWTR\_LIST, LCSLLMS-84491: The Zn recovery in the low level LCS was above the lab control limits and within limits for the standard level LCS.

Analytical Comments for METHOD 8270\_wnew, 13080822-02A, 03A, 06A: Surrogate recoveries were below the limits.

Analytical Comments for METHOD RADIATION, 13080822-01A, 02A, 03A, 04A, 05A, 06A: The Radium-226/228 analysis by Method 7500-Ra B and D was performed by the subcontracted laboratory Underwriters Laboratories, IL NELAC #200001.

### Sampling comments:

- 13080822-01B - Sample was obtained at 10:10am on September 16th, 2013.
- 13080822-02B - Sample was obtained at 9:40am on September 16th, 2013.
- 13080822-03B - Sample was obtained at 9:15am on September 16th, 2013.
- 13080822-04B - Sample was obtained at 8:55am on September 16th, 2013.
- 13080822-05B - Sample was obtained at 8:25am on September 16th, 2013.

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power  
Lab Order: 13080822  
Project: CWLP List G20  
Lab ID: 13080822-01

Client Sample ID: AP-1  
Report Date: 10/9/2013  
Collection Date: 8/28/2013 12:55:00 PM  
Matrix: Groundwater

| Analyses                                     | Result              | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|---------------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |                     |                     |          |               |         |         |
| pH   | 7.13                |                     | pH units | 8/25/13 12:55 | R191114 | DD1     |
| <b>Method: SM4500-H</b>                      |                     |                     |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |                     |                     |          |               |         |         |
| Chloride                                     | 200<br>45.9         | 2.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | 4.0<br>< 0.500      | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | 10<br>< 0.0500      | 0.0500              | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 400<br>597          | 50.0                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Method: SW9056</b>                        |                     |                     |          |               |         |         |
| <b>Cyanide, Total</b>                        |                     |                     |          |               |         |         |
| Cyanide                                      | 0.12<br>< 0.0100    | 0.0100              | mg/L     | 9/5/13 12:09  | 84478   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |                     |                     |          |               |         |         |
| <b>Total Dissolved Solids</b>                |                     |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1200<br>1,380       | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Method: SM2540C</b>                       |                     |                     |          |               |         |         |
| <b>Mercury, Total</b>                        |                     |                     |          |               |         |         |
| Mercury                                      | 1.002<br>< 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |                     |                     |          |               |         |         |
| <b>Metals, Total.</b>                        |                     |                     |          |               |         |         |
| <b>Method: SW6020A / SW3015</b>              |                     |                     |          |               |         |         |
| Antimony                                     | 1.006<br>< 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | 0.010<br>< 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 2.0<br>0.639        | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | 0.004<br>< 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 14.7                | 0.200               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | 0.005<br>< 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | 0.1<br>< 0.0100     | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | 1.0<br>< 0.0150     | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | 0.65<br>< 0.00750   | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 5.0<br>25.8         | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | 0.0075<br>< 0.00500 | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 0.15<br>0.447       | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | 0.1<br>< 0.00750    | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | 0.05<br>0.00274     | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | 0.005<br>< 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | 0.002<br>< 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

**Qualifiers:** B - Analyte detected in the associated Method Blank  
E - Estimated  
H - Holding Time Exceeded  
C - Laboratory not accredited for this parameter  
S - Spike Recovery outside accepted recovery limits  
R - RPD outside accepted recovery limits  
J - Analyte detected below quantitation limits

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-1  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 12:55:00 PM  
**Lab ID:** 13080822-01 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0402 | 0.0402                           | C µg/L | 9/6/13 12:15  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0563 | 0.0563                           | C µg/L | 9/6/13 12:15  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/6/13 19:33  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/7/13 22:55  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.132  | 0.132                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Atrazine                                | < 0.165  | 0.165                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Chlordane                               | < 0.198  | 0.198                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Endrin                                  | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Heptachlor                              | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Methoxychlor                            | < 0.0132 | 0.0132                           | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Simazine                                | < 0.165  | 0.165                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| Toxaphene                               | < 0.398  | 0.398                            | µg/L   | 9/5/13 17:36  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.165  | 0.165                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0825 | 0.0825                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.660  | 0.660                            | µg/L   | 9/3/13        | 84400   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-1  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 12:55:00 PM  
Lab ID: 13080822-01 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| Phenol                                       | < 0.666 | 0.666                            | µg/L   | 9/3/13 11:22  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.250 | 0.250                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.235 | 0.235                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.220 | 0.220                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.265 | 0.265                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.217 | 0.217                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 00:32  | 84518 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-1  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 12:55:00 PM  
**Lab ID:** 13080822-01 **Matrix:** Groundwater

| Analyses                 | Result   | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|----------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800  | 0.800                                    | µg/L  | 9/6/13 00:32  | 84518   | JL      |
| <b>Radiation Testing</b> |          | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 20, 0.94 | 0.2                                      | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | 20, 0.64 | 0.52                                     | pCi/L | 9/23/13       | R192426 | OUT     |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-2  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 12:10:00 PM  
**Lab ID:** 13080822-02 **Matrix:** Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |               |         |         |
| pH   | 6.94       |                     | pH units | 8/25/13 12:10 | R191114 | DD1     |
| <b>Method: SM4500-H</b>                      |            |                     |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |               |         |         |
| Chloride                                     | 18.9       | 2.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | 0.523      | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.534      | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 280        | 5.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 9/5/13 12:09  | 84478   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 1,000      | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Method: SM2540C</b>                       |            |                     |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| ✓ Arsenic                                    | 0.0224     | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.282      | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| ✓ Boron                                      | 5.45       | 0.0200              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | 0.0180     | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | 0.0141     | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| ✓ Iron                                       | 25.1       | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| ✓ Lead                                       | 0.0104     | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| ✓ Manganese                                  | 20.4       | 0.100               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | 0.0188     | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 12:10:00 PM  
Lab ID: 13080822-02 Matrix: Groundwater

| Analyses   | Result   | EMT Reporting Limit | Units  | Date Analyzed | Batch   | Analyst |
|--|----------|---------------------|--------|---------------|---------|---------|
| Zinc   | < 0.0500 | 0.0500              | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b> Method: E531.1                                 |          |                     |        |               |         |         |
| Aldicarb   | < 2.00   | 2.00                | C µg/L | 9/9/13        | R191240 | LBI     |
| Carbofuran   | < 2.00   | 2.00                | C µg/L | 9/9/13        | R191240 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b> Method: E504.1 / E504.1    |          |                     |        |               |         |         |
| 1,2-Dibromo-3-chloropropane                                      | < 0.0397 | 0.0397              | C µg/L | 9/6/13 12:46  | 84648   | LP      |
| 1,2-Dibromoethane  | < 0.0555 | 0.0555              | C µg/L | 9/6/13 12:46  | 84648   | LP      |
| <b>Endothal</b> Method: E548.1 / E548.1                          |          |                     |        |               |         |         |
| Endothal   | < 15.5   | 15.5                | C µg/L | 9/6/13 20:17  | 84462   | SJ1     |
| <b>Haloacetic Acids</b> Method: E552.2 / E552.1                  |          |                     |        |               |         |         |
| Dalapon  | < 0.500  | 0.500               | C µg/L | 9/7/13 23:38  | 84555   | LP      |
| <b>Organochlorine Pesticides</b> Method: SW8081A / SW3510C       |          |                     |        |               |         |         |
| Alachlor   | < 0.133  | 0.133               | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Atrazine   | < 0.166  | 0.166               | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Chlordane  | < 0.199  | 0.199               | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Endrin   | < 0.0133 | 0.0133              | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Heptachlor   | < 0.0133 | 0.0133              | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Heptachlor epoxide   | < 0.0133 | 0.0133              | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Methoxychlor   | < 0.0133 | 0.0133              | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Simazine   | < 0.166  | 0.166               | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| Toxaphene  | < 0.398  | 0.398               | µg/L   | 9/5/13 18:23  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> Method: SW8082 / SW3510C |          |                     |        |               |         |         |
| Aroclor 1016   | < 0.0828 | 0.0828              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221   | < 0.166  | 0.166               | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232   | < 0.0828 | 0.0828              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242   | < 0.0828 | 0.0828              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248   | < 0.0828 | 0.0828              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254   | < 0.0828 | 0.0828              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260   | < 0.0828 | 0.0828              | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total   | < 0.663  | 0.663               | µg/L   | 9/3/13        | 84400   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-2  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 12:10:00 PM  
Lab ID: 13080822-02 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.32  | 1.32                             | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.32  | 1.32                             | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.32  | 1.32                             | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| Phenol                                       | < 0.662 | 0.662                            | µg/L   | 9/3/13 12:04  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.249 | 0.249                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.234 | 0.234                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.219 | 0.219                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.264 | 0.264                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.215 | 0.215                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:02  | 84518 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
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**Report of Laboratory Analysis**

|   |   |
|---|---|
| <b>CLIENT:</b> City, Water, Light & Power | <b>Client Sample ID:</b> AP-2                 |
| <b>Lab Order:</b> 13080822                | <b>Report Date:</b> 10/9/2013                 |
| <b>Project:</b> CWLP List G20             | <b>Collection Date:</b> 8/28/2013 12:10:00 PM |
| <b>Lab ID:</b> 13080822-02                | <b>Matrix:</b> Groundwater                    |

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 01:02  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | 0.66    | 0.28                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | ND      | 0.63                                     | pCi/L | 9/23/13       | R192426 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
 Lab Order: 13080822 Report Date: 10/9/2013  
 Project: CWLP List G20 Collection Date: 8/28/2013 11:10:00 AM  
 Lab ID: 13080822-03 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units                           | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|---------------------------------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            | <b>Method:</b>      | <b>SM4500-H</b>                 |               |         |         |
| pH   | 6.98       |                     | pH units                        | 8/25/13 11:10 | R191114 | DD1     |
| <b>Anions by Ion Chromatography</b>          |            | <b>Method:</b>      | <b>SW9056</b>                   |               |         |         |
| Chloride                                     | 43.4       | 2.00                | mg/L                            | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500               | mg/L                            | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L                            | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 353        | 50.0                | mg/L                            | 9/16/13       | R191602 | GSB     |
| <b>Cyanide, Total</b>                        |            | <b>Method:</b>      | <b>SW9010B/9014 BY AQUACHEM</b> |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L                            | 9/5/13 12:09  | 84478   | JZ1     |
| <b>Total Dissolved Solids</b>                |            | <b>Method:</b>      | <b>SM2540C</b>                  |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 992        | 10.0                | mg/L                            | 9/4/13 15:00  | R191110 | SL1     |
| <b>Mercury, Total</b>                        |            | <b>Method:</b>      | <b>SW7470A / HG PREP</b>        |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L                            | 9/6/13 10:44  | 84542   | IG      |
| <b>Metals, Total.</b>                        |            | <b>Method:</b>      | <b>SW6020A / SW3015</b>         |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | < 0.0150   | 0.0150              | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.125      | 0.0150              | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 21.3       | 0.200               | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | < 0.0100   | 0.0100              | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150              | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | < 0.00750  | 0.00750             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 12.2       | 0.140               | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Lead   | < 0.00500  | 0.00500             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 7.61       | 0.0100              | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | 0.00833    | 0.00750             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L                            | 9/5/13 14:40  | 84491   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
 E - Estimated R - RPD outside accepted recovery limits  
 H - Holding Time Exceeded J - Analyte detected below quantitation limits  
 C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-3  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 11:10:00 AM  
**Lab ID:** 13080822-03 **Matrix:** Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/9/13        | R191240 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0394 | 0.0394                           | C µg/L | 9/6/13 13:51  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0552 | 0.0552                           | C µg/L | 9/6/13 13:51  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/6/13 21:01  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/8/13 00:21  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Endrin                                  | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Heptachlor                              | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Methoxychlor                            | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| Toxaphene                               | < 0.398  | 0.398                            | µg/L   | 9/5/13 19:11  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.166  | 0.166                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.664  | 0.664                            | µg/L   | 9/3/13        | 84400   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 11:10:00 AM  
Lab ID: 13080822-03 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| Phenol                                       | < 0.665 | 0.665                            | µg/L   | 9/3/13 12:45  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.250 | 0.250                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.235 | 0.235                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.220 | 0.220                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.265 | 0.265                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.216 | 0.216                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 01:32  | 84518 | JL      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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**Report of Laboratory Analysis**

|                   |                            |                          |                       |
|-------------------|----------------------------|--------------------------|-----------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AP-3                  |
| <b>Lab Order:</b> | 13080822                   | <b>Report Date:</b>      | 10/9/2013             |
| <b>Project:</b>   | CWLP List G20              | <b>Collection Date:</b>  | 8/28/2013 11:10:00 AM |
| <b>Lab ID:</b>    | 13080822-03                | <b>Matrix:</b>           | Groundwater           |

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 01:32  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND      | 0.32                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | ND      | 0.66                                     | pCi/L | 9/23/13       | R192426 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 10:30:00 AM  
Lab ID: 13080822-04 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |               |         |         |
| pH   | 7.04       |                     | pH units | 8/25/13 10:30 | R191114 | DD1     |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |               |         |         |
| Chloride                                     | 10.7       | 2.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | < 0.0500   | 0.0500              | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | < 5.00     | 5.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Cyanide, Total</b>                        |            |                     |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 9/10/13 11:40 | 84590   | JZ1     |
| <b>Total Dissolved Solids</b>                |            |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 548        | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Mercury, Total</b>                        |            |                     |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Metals, Total.</b>                        |            |                     |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | 0.0193     | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.385      | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 0.665      | 0.0200              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | < 0.0100   | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | < 0.00750  | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| ✓ Iron                                       | 12.8       | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| ✓ Manganese                                  | 0.379      | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | < 0.00750  | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-4  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 10:30:00 AM  
Lab ID: 13080822-04 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0398 | 0.0398                           | C µg/L | 9/6/13 14:24  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0557 | 0.0557                           | C µg/L | 9/6/13 14:24  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/6/13 21:45  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/7/13 20:45  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Endrin                                  | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Heptachlor                              | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Methoxychlor                            | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| Toxaphene                               | < 0.398  | 0.398                            | µg/L   | 9/5/13 19:58  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.166  | 0.166                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0830 | 0.0830                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.664  | 0.664                            | µg/L   | 9/3/13        | 84400   | NCH     |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 10:30:00 AM  
**Lab ID:** 13080822-04 **Matrix:** Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| Phenol                                       | < 0.667 | 0.667                            | µg/L   | 9/3/13 13:27  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.247 | 0.247                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.232 | 0.232                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.218 | 0.218                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.262 | 0.262                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.214 | 0.214                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,1-Dichloroethene                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:02  | 84518 | JL      |

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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-4  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 10:30:00 AM  
**Lab ID:** 13080822-04 **Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 02:02  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND      | 0.57                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | ND      | 1.4                                      | pCi/L | 9/23/13       | R192426 | OUT     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power      Client Sample ID: AP-5  
Lab Order: 13080822      Report Date: 10/9/2013  
Project: CWLP List G20      Collection Date: 8/28/2013 9:40:00 AM  
Lab ID: 13080822-05      Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---------------------|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            |                     |          |               |         |         |
| pH   | 7.15       |                     | pH units | 8/25/13 09:40 | R191114 | DD1     |
| <b>Method: SM4500-H</b>                      |            |                     |          |               |         |         |
| <b>Anions by Ion Chromatography</b>          |            |                     |          |               |         |         |
| Chloride                                     | 1.95       | 0.200               | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | 1.03       | 0.500               | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 66.8       | 5.00                | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Method: SW9056</b>                        |            |                     |          |               |         |         |
| <b>Cyanide, Total</b>                        |            |                     |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100              | mg/L     | 9/10/13 11:40 | 84590   | JZ1     |
| <b>Method: SW9010B/9014 BY AQUACHEM</b>      |            |                     |          |               |         |         |
| <b>Total Dissolved Solids</b>                |            |                     |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 428        | 10.0                | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Method: SM2540C</b>                       |            |                     |          |               |         |         |
| <b>Mercury, Total</b>                        |            |                     |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500            | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Method: SW7470A / HG PREP</b>             |            |                     |          |               |         |         |
| <b>Metals, Total.</b>                        |            |                     |          |               |         |         |
| <b>Method: SW6020A / SW3015</b>              |            |                     |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | < 0.0150   | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.228      | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 0.0954     | 0.0200              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | 0.0431     | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | 0.0223     | 0.0150              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | 0.0341     | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 49.4       | 0.140               | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | 0.0312     | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 1.05       | 0.0100              | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | 0.0566     | 0.00750             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | 0.00523    | 0.00250             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500             | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200             | mg/L     | 9/5/13 14:40  | 84491   | AG      |

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## Report of Laboratory Analysis

**CLIENT:** City, Water, Light & Power **Client Sample ID:** AP-5  
**Lab Order:** 13080822 **Report Date:** 10/9/2013  
**Project:** CWLP List G20 **Collection Date:** 8/28/2013 9:40:00 AM  
**Lab ID:** 13080822-05 **Matrix:** Groundwater

| Analyses  | Result   | EMT Reporting Limit | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|---------------------|--------|---------------|---------|---------|
| Zinc  | 0.109    | 0.0500              | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b> <b>Method: E531.1</b>                                 |          |                     |        |               |         |         |
| Aldicarb  | < 2.00   | 2.00                | C µg/L | 9/10/13       | R191291 | LBI     |
| Carbofuran  | < 2.00   | 2.00                | C µg/L | 9/10/13       | R191291 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b> <b>Method: E504.1 / E504.1</b>    |          |                     |        |               |         |         |
| 1,2-Dibromo-3-chloropropane   | < 0.0397 | 0.0397              | C µg/L | 9/6/13 14:55  | 84648   | LP      |
| 1,2-Dibromoethane   | < 0.0555 | 0.0555              | C µg/L | 9/6/13 14:55  | 84648   | LP      |
| <b>Endothal</b> <b>Method: E548.1 / E548.1</b>                          |          |                     |        |               |         |         |
| Endothal  | < 15.5   | 15.5                | C µg/L | 9/7/13 00:40  | 84462   | SJ1     |
| <b>Haloacetic Acids</b> <b>Method: E552.2 / E552.1</b>                  |          |                     |        |               |         |         |
| Dalapon   | < 0.500  | 0.500               | C µg/L | 9/8/13 01:04  | 84555   | LP      |
| <b>Organochlorine Pesticides</b> <b>Method: SW8081A / SW3510C</b>       |          |                     |        |               |         |         |
| Alachlor  | < 0.132  | 0.132               | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Atrazine  | < 0.164  | 0.164               | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Chlordane   | < 0.197  | 0.197               | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Endrin  | < 0.0132 | 0.0132              | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Heptachlor  | < 0.0132 | 0.0132              | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Heptachlor epoxide  | < 0.0132 | 0.0132              | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Methoxychlor  | < 0.0132 | 0.0132              | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Simazine  | < 0.164  | 0.164               | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| Toxaphene   | < 0.395  | 0.395               | µg/L   | 9/5/13 20:45  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> <b>Method: SW8082 / SW3510C</b> |          |                     |        |               |         |         |
| Aroclor 1016  | < 0.0822 | 0.0822              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221  | < 0.164  | 0.164               | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232  | < 0.0822 | 0.0822              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242  | < 0.0822 | 0.0822              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248  | < 0.0822 | 0.0822              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254  | < 0.0822 | 0.0822              | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260  | < 0.0822 | 0.0822              | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total  | < 0.658  | 0.658               | µg/L   | 9/3/13        | 84400   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AP-5  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 9:40:00 AM  
Lab ID: 13080822-05 Matrix: Groundwater

| Analyses                                     | Result  | EMT Reporting Limit              | Units  | Date Analyzed | Batch | Analyst |
|--|---------|----------------------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b>  |         | <b>Method: SW8270D / SW3510C</b> |        |               |       |         |
| Benzo(a)pyrene                               | < 1.33  | 1.33                             | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate                   | < 1.33  | 1.33                             | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| Hexachlorocyclopentadiene                    | < 1.33  | 1.33                             | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| Phenol                                       | < 0.664 | 0.664                            | µg/L   | 9/3/13 14:09  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> |         | <b>Method: SW8321A / SW3510C</b> |        |               |       |         |
| 2,4,5-TP (Silvex)                            | < 0.248 | 0.248                            | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.233 | 0.233                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb                                      | < 0.218 | 0.218                            | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol                            | < 0.263 | 0.263                            | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram                                     | < 0.215 | 0.215                            | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b>   |         | <b>Method: SW8260B / SW5030A</b> |        |               |       |         |
| 1,1,1-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,1,2-Trichloroethane                        | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,1-Dichloroethane                           | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2,4-Trichlorobenzene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2-Dichloroethane                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,2-Dichloropropane                          | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| 1,4-Dichlorobenzene                          | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Benzene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Carbon tetrachloride                         | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Chlorobenzene                                | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| cis-1,2-Dichloroethene                       | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Ethylbenzene                                 | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Methyl tert-butyl ether                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Methylene chloride                           | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Styrene                                      | < 0.800 | 0.800                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Tetrachloroethene                            | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Toluene                                      | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| trans-1,2-Dichloroethene                     | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Trichloroethene                              | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |
| Vinyl chloride                               | < 0.400 | 0.400                            | µg/L   | 9/6/13 02:32  | 84518 | JL      |

**Qualifiers:** B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
H - Holding Time Exceeded J - Analyte detected below quantitation limits  
C - Laboratory not accredited for this parameter

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**Report of Laboratory Analysis**

|                   |                            |                          |                      |
|-------------------|----------------------------|--------------------------|----------------------|
| <b>CLIENT:</b>    | City, Water, Light & Power | <b>Client Sample ID:</b> | AP-5                 |
| <b>Lab Order:</b> | 13080822                   | <b>Report Date:</b>      | 10/9/2013            |
| <b>Project:</b>   | CWLP List G20              | <b>Collection Date:</b>  | 8/28/2013 9:40:00 AM |
| <b>Lab ID:</b>    | 13080822-05                | <b>Matrix:</b>           | Groundwater          |

| Analyses                 | Result  | EMT Reporting Limit | Units                     | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|---------------------|---------------------------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800               | µg/L                      | 9/6/13 02:32  | 84518   | JL      |
| <b>Radiation Testing</b> |         |                     |                           |               |         |         |
|                          |         | <b>Method:</b>      | EPA 900/903.1/904/905/906 |               |         |         |
| Radium-226               | 1.      | 0.3                 | pCi/L                     | 9/23/13       | R192426 | OUT     |
| Radium-228               | 0.81    | 0.52                | pCi/L                     | 9/23/13       | R192426 | OUT     |

**Qualifiers:**

|   |   |
|---|---|
| B - Analyte detected in the associated Method Blank | S - Spike Recovery outside accepted recovery limits |
| E - Estimated                                       | R - RPD outside accepted recovery limits            |
| H - Holding Time Exceeded                           | J - Analyte detected below quantitation limits      |
| C - Laboratory not accredited for this parameter    |   |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 1:45:00 PM  
Lab ID: 13080822-06 Matrix: Groundwater

| Analyses                                     | Result     | EMT Reporting Limit                     | Units    | Date Analyzed | Batch   | Analyst |
|--|------------|---|----------|---------------|---------|---------|
| <b>On-site pH by Ion Selective Electrode</b> |            | <b>Method: SM4500-H</b>                 |          |               |         |         |
| pH   | 7.30       |   | pH units | 8/25/13 13:45 | R191114 | DD1     |
| <b>Anions by Ion Chromatography</b>          |            | <b>Method: SW9056</b>                   |          |               |         |         |
| Chloride                                     | 27.8       | 2.00                                    | mg/L     | 9/16/13       | R191602 | GSB     |
| Fluoride                                     | < 0.500    | 0.500                                   | mg/L     | 9/16/13       | R191602 | GSB     |
| Nitrogen, Nitrate (As N)                     | 0.551      | 0.500                                   | mg/L     | 9/16/13       | R191602 | GSB     |
| Sulfate                                      | 25.8       | 5.00                                    | mg/L     | 9/16/13       | R191602 | GSB     |
| <b>Cyanide, Total</b>                        |            | <b>Method: SW9010B/9014 BY AQUACHEM</b> |          |               |         |         |
| Cyanide                                      | < 0.0100   | 0.0100                                  | mg/L     | 9/10/13 11:40 | 84590   | JZ1     |
| <b>Total Dissolved Solids</b>                |            | <b>Method: SM2540C</b>                  |          |               |         |         |
| Total Dissolved Solids (Residue, Filterable) | 652        | 10.0                                    | mg/L     | 9/4/13 15:00  | R191110 | SL1     |
| <b>Mercury, Total</b>                        |            | <b>Method: SW7470A / HG PREP</b>        |          |               |         |         |
| Mercury                                      | < 0.000500 | 0.000500                                | mg/L     | 9/6/13 10:44  | 84542   | IG      |
| <b>Metals, Total.</b>                        |            | <b>Method: SW6020A / SW3015</b>         |          |               |         |         |
| Antimony                                     | < 0.00600  | 0.00600                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Arsenic                                      | < 0.0150   | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Barium                                       | 0.0843     | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Beryllium                                    | < 0.00400  | 0.00400                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Boron  | 0.187      | 0.0200                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cadmium                                      | < 0.00250  | 0.00250                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Chromium                                     | < 0.0100   | 0.0100                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Cobalt                                       | < 0.0150   | 0.0150                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Copper                                       | < 0.00750  | 0.00750                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Iron   | 1.08       | 0.140                                   | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Lead   | < 0.00500  | 0.00500                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Manganese                                    | 0.0460     | 0.0100                                  | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Nickel                                       | < 0.00750  | 0.00750                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Selenium                                     | < 0.00250  | 0.00250                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Silver                                       | < 0.00500  | 0.00500                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |
| Thallium                                     | < 0.00200  | 0.00200                                 | mg/L     | 9/5/13 14:40  | 84491   | AG      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 1:45:00 PM  
Lab ID: 13080822-06 Matrix: Groundwater

| Analyses                                | Result   | EMT Reporting Limit              | Units  | Date Analyzed | Batch   | Analyst |
|---|----------|----------------------------------|--------|---------------|---------|---------|
| Zinc                                    | < 0.0500 | 0.0500                           | mg/L   | 9/5/13 14:40  | 84491   | AG      |
| <b>Carbamates</b>                       |          | <b>Method: E531.1</b>            |        |               |         |         |
| Aldicarb                                | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| Carbofuran                              | < 2.00   | 2.00                             | C µg/L | 9/10/13       | R191291 | LBI     |
| <b>EDB, DBCP and 123TCP by GC/ECD</b>   |          | <b>Method: E504.1 / E504.1</b>   |        |               |         |         |
| 1,2-Dibromo-3-chloropropane             | < 0.0395 | 0.0395                           | C µg/L | 9/6/13 15:26  | 84648   | LP      |
| 1,2-Dibromoethane                       | < 0.0554 | 0.0554                           | C µg/L | 9/6/13 15:26  | 84648   | LP      |
| <b>Endothal</b>                         |          | <b>Method: E548.1 / E548.1</b>   |        |               |         |         |
| Endothal                                | < 15.5   | 15.5                             | C µg/L | 9/7/13 01:24  | 84462   | SJ1     |
| <b>Haloacetic Acids</b>                 |          | <b>Method: E552.2 / E552.1</b>   |        |               |         |         |
| Dalapon                                 | < 0.500  | 0.500                            | C µg/L | 9/8/13 01:47  | 84555   | LP      |
| <b>Organochlorine Pesticides</b>        |          | <b>Method: SW8081A / SW3510C</b> |        |               |         |         |
| Alachlor                                | < 0.133  | 0.133                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Atrazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Chlordane                               | < 0.199  | 0.199                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Endrin                                  | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Heptachlor                              | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Heptachlor epoxide                      | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Methoxychlor                            | < 0.0133 | 0.0133                           | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Simazine                                | < 0.166  | 0.166                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| Toxaphene                               | < 0.399  | 0.399                            | µg/L   | 9/5/13 21:32  | 84354   | LP      |
| <b>Polychlorinated biphenyls (PCBs)</b> |          | <b>Method: SW8082 / SW3510C</b>  |        |               |         |         |
| Aroclor 1016                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1221                            | < 0.166  | 0.166                            | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1232                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1242                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1248                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1254                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| Aroclor 1260                            | < 0.0831 | 0.0831                           | µg/L   | 9/3/13        | 84400   | NCH     |
| PCB, Total                              | < 0.665  | 0.665                            | µg/L   | 9/3/13        | 84400   | NCH     |

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## Report of Laboratory Analysis

CLIENT: City, Water, Light & Power Client Sample ID: AW-3  
Lab Order: 13080822 Report Date: 10/9/2013  
Project: CWLP List G20 Collection Date: 8/28/2013 1:45:00 PM  
Lab ID: 13080822-06 Matrix: Groundwater

| Analyses   | Result  | EMT Reporting Limit | Units  | Date Analyzed | Batch | Analyst |
|--|---------|---------------------|--------|---------------|-------|---------|
| <b>Semivolatile Organic Compounds GC/MS</b> Method: SW8270D / SW3510C  |         |                     |        |               |       |         |
| Benzo(a)pyrene   | < 1.33  | 1.33                | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| Bis(2-ethylhexyl)phthalate   | < 1.33  | 1.33                | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| Hexachlorocyclopentadiene  | < 1.33  | 1.33                | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| Phenol   | < 0.666 | 0.666               | µg/L   | 9/3/13 14:53  | 84413 | SJ1     |
| <b>Solvent Extractable Compounds by HPLC</b> Method: SW8321A / SW3510C |         |                     |        |               |       |         |
| 2,4,5-TP (Silvex)  | < 0.249 | 0.249               | µg/L   | 9/9/13        | 84387 | MNN     |
| 2,4-D  | < 0.234 | 0.234               | µg/L   | 9/9/13        | 84387 | MNN     |
| Dinoseb  | < 0.219 | 0.219               | µg/L   | 9/9/13        | 84387 | MNN     |
| Pentachlorophenol  | < 0.263 | 0.263               | C µg/L | 9/9/13        | 84387 | MNN     |
| Picloram   | < 0.215 | 0.215               | C µg/L | 9/9/13        | 84387 | MNN     |
| <b>Volatile Organic Compounds by GC/MS</b> Method: SW8260B / SW5030A   |         |                     |        |               |       |         |
| 1,1,1-Trichloroethane  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,1,2-Trichloroethane  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,1-Dichloroethane   | < 0.800 | 0.800               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2,4-Trichlorobenzene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2-Dichlorobenzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2-Dichloroethane   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,2-Dichloropropane  | < 0.800 | 0.800               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| 1,4-Dichlorobenzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Benzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Carbon tetrachloride   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Chlorobenzene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| cis-1,2-Dichloroethene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Ethylbenzene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Methyl tert-butyl ether  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Methylene chloride   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Styrene  | < 0.800 | 0.800               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Tetrachloroethene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Toluene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| trans-1,2-Dichloroethene   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Trichloroethene  | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |
| Vinyl chloride   | < 0.400 | 0.400               | µg/L   | 9/6/13 03:02  | 84518 | JL      |

Qualifiers: B - Analyte detected in the associated Method Blank S - Spike Recovery outside accepted recovery limits  
E - Estimated R - RPD outside accepted recovery limits  
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**Report of Laboratory Analysis**

**CLIENT:** City, Water, Light & Power      **Client Sample ID:** AW-3  
**Lab Order:** 13080822      **Report Date:** 10/9/2013  
**Project:** CWLP List G20      **Collection Date:** 8/28/2013 1:45:00 PM  
**Lab ID:** 13080822-06      **Matrix:** Groundwater

| Analyses                 | Result  | EMT Reporting Limit                      | Units | Date Analyzed | Batch   | Analyst |
|--------------------------|---------|--|-------|---------------|---------|---------|
| Xylenes, Total           | < 0.800 | 0.800                                    | µg/L  | 9/6/13 03:02  | 84518   | JL      |
| <b>Radiation Testing</b> |         | <b>Method: EPA 900/903.1/904/905/906</b> |       |               |         |         |
| Radium-226               | ND      | 0.26                                     | pCi/L | 9/23/13       | R192426 | OUT     |
| Radium-228               | 0.77    | 0.77                                     | pCi/L | 9/23/13       | R192426 | OUT     |

**Qualifiers:** B - Analyte detected in the associated Method Blank      S - Spike Recovery outside accepted recovery limits  
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**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

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COC # 505103

|   |   |  |   |
|---|---|--|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br><u>#13080722</u> |
|---|---|--|---|

| Sample I.D. | Sample Type | Container |         | Sampling |    |                    |         |       |       | Preservation |   | Analysis |   |   |   |   |   |   |   |    |   | Lab Sample I.D. |  |  |  |  |  |     |  |
|-------------|-------------|-----------|---------|----------|----|--------------------|---------|-------|-------|--------------|---|----------|---|---|---|---|---|---|---|----|---|-----------------|--|--|--|--|--|-----|--|
|             |             | Size      | Type    | No.      | By | Date               | Time    | pH    | Field | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |   |                 |  |  |  |  |  |     |  |
| AP-1        | GRAB        | 12        | 1 liter | G        | 10 | <i>[Signature]</i> | 8/25/13 | 12:55 | 7.13  | 1            |   | X        | X | X | X | X | X |   |   |    |   |                 |  |  |  |  |  | 01A |  |
| AP-1        | GRAB        | 12        | 1 liter | P        | 1  | <i>[Signature]</i> |         |       |       |              | 1 |          |   |   |   |   |   |   | X | X  | X |                 |  |  |  |  |  | 01B |  |
|             |             |           |         |          |    |                    |         |       |       |              |   |          |   |   |   |   |   |   |   |    |   |                 |  |  |  |  |  |     |  |
|             |             |           |         |          |    |                    |         |       |       |              |   |          |   |   |   |   |   |   |   |    |   |                 |  |  |  |  |  |     |  |
|             |             |           |         |          |    |                    |         |       |       |              |   |          |   |   |   |   |   |   |   |    |   |                 |  |  |  |  |  |     |  |
|             |             |           |         |          |    |                    |         |       |       |              |   |          |   |   |   |   |   |   |   |    |   |                 |  |  |  |  |  |     |  |
|             |             |           |         |          |    |                    |         |       |       |              |   |          |   |   |   |   |   |   |   |    |   |                 |  |  |  |  |  |     |  |
|             |             |           |         |          |    |                    |         |       |       |              |   |          |   |   |   |   |   |   |   |    |   |                 |  |  |  |  |  |     |  |
|             |             |           |         |          |    |                    |         |       |       |              |   |          |   |   |   |   |   |   |   |    |   |                 |  |  |  |  |  |     |  |

|                                     |   |                                 |   |   |  |
|-------------------------------------|---|---------------------------------|---|---|--|
| Relinquished By: <i>[Signature]</i> | Date: <u>8-29-13</u><br>Time: <u>17:00:</u> | Received By:                    | Date: - -<br>Time: : :                      | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) <u>3</u> |
| Relinquished By:                    | Date: - -<br>Time: : :                      | Received By:                    | Date: - -<br>Time: : :                      |   |  |
| Relinquished By:                    | Date: - -<br>Time: : :                      | Received By: <i>[Signature]</i> | Date: <u>8-29-13</u><br>Time: <u>17:00:</u> |   |  |

SPECIAL INSTRUCTIONS:













**ENVIRONMENTAL  
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**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013

Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

Company: City, Water, Light & Power  
 Contact:  
 Address: 201 East Lake Shore Drive  
Springfield, IL 62707  
 Phone: (217) 757-8610  
 P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_  
 Project /Location: CWLP List G20

**SAMPLE TYPE:**  
 1. DI Water 2. Drinking Water 3. Soil  
 4. Extract 5. Wastewater 6. Oil  
 7. Sludge 8. Solid 9. Air  
 10. Chemical Waste 11. Wipe 12. Groundwater  
 13. eProduct 13. Solid 14. Groundwater(Filter)  
 15. Other

**CONTAINER TYPE:**  
 P - Plastic V - VOC Vial G - Glass  
 B - Tedlar Bag O - Other

**PRESERVATIVE:**  
 1. None 2. H2SO4 3. HNO3  
 4. NaOH 5. HCL 6. MeOH  
 7. Zn Ace 8. Na2S2O3 9. Na2HSO4  
 10. Other

**Analysis**

1. Carbamates
2. Cyanide, Total
3. Total RCRA Metals on a Liquid Sample
4. Volatile Organic Compounds, Method 8260
5. EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

EMT WORKORDER  
 13510822

| Sample I.D. | Sample Type | Container |        |     | Sampling |         |       |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|---------|-------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date    | Time  | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |     |
| AP-2        | GRAB        | 12        | 4 oz   | G   | 1        | 8/28/13 | 12:40 | 6.94 | 8            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  | 02C |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        |         |       |      | 4            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  | 02D |
| AP-2        | GRAB        | 12        | 500 ml | P   | 1        |         |       |      | 3            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  | 02E |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 3        |         |       |      | 5            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  | 02F |
| AP-2        | GRAB        | 12        | 44 ml  | V   | 2        |         |       |      | 1            |     |          |    |    |    |    |    |    |    |    |     |                 |  |  | 02G |

|                  |               |              |               |   |   |
|------------------|---------------|--------------|---------------|---|---|
| Relinquished By: | Date: 8-29-13 | Received By: | Date: - -     | <p><b>EMT USE ONLY</b></p> Client ID: SPRING<br>Client Contact: Joe Pavilonis<br>EMT Project ID: CWLP List G20<br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt) 3 |
| Time: 17:00      |               |              | Time: : :     |   |   |
| Relinquished By: | Date: - -     | Received By: | Date: - -     |   |   |
| Time: : :        |               |              | Time: : :     |   |   |
| Relinquished By: | Date: - -     | Received By: | Date: 8-29-13 |   |   |
| Time: : :        |               |              | Time: 17:00   |   |   |

SPECIAL INSTRUCTIONS:

8/14/2013 11:19:57 AM







### Chain of Custody Record

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |  |   |  |  |  |  |  |  |  |  |  |  |  |  |   |  |
|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|---|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> |  | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other |  |  | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography |  |  |  |  |  |  |  |  |  | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br># <u>1380822</u> |  |
|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|---|--|

| Sample I.D. | GRAB | Sample Type | Container |      |     | Sampling |         |       |      |       | Preservation |   | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Lab Sample I.D. |  |     |
|-------------|------|-------------|-----------|------|-----|----------|---------|-------|------|-------|--------------|---|---|---|---|---|---|---|---|---|---|----|-----------------|--|-----|
|             |      |             | Size      | Type | No. | By       | Date    | Time  | pH   | Field | Lab          |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
| AP-3        |      | 12          | 1 liter   | G    | 10  | JP       | 8/28/13 | 11:10 | 6.98 | 1     |              | X | X | X | X | X | X |   |   |   |   |    |                 |  | G3A |
| AP-3        |      | 12          | 1 liter   | P    | 1   | J        |         |       |      | 1     |              |   |   |   |   |   |   |   |   | X | X | X  |                 |  | J.B |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |
|             |      |             |           |      |     |          |         |       |      |       |              |   |   |   |   |   |   |   |   |   |   |    |                 |  |     |

|                  |                      |                               |                      |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |
|------------------|----------------------|-------------------------------|----------------------|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|
| Relinquished By: | Date: <u>8-29-13</u> | Received By:                  | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. |  |  |  |  |  |  |  |  |  | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 8 hrs. prior to sample receipt) <u>3</u> |  |  |  |  |  |  |  |  |  |  |
| Relinquished By: | Date: - -            | Received By:                  | Date: - -            |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |
| Relinquished By: | Date: - -            | Received By: <u>Sandra...</u> | Date: <u>8-29-13</u> |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |
|                  | Time: 17:00:         |                               | Time: : :            |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |
|                  | Time: : :            |                               | Time: : :            |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |
|                  | Time: : :            |                               | Time: 17:00:         |   |  |  |  |  |  |  |  |  |  |   |  |  |  |  |  |  |  |  |  |  |

SPECIAL INSTRUCTIONS:





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

Company: City, Water, Light & Power

Contact:

Address: 201 East Lake Shore Drive  
Springfield, IL 62707

Phone: (217) 757-8610

P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_

Project /Location: CWLP List G20

**SAMPLE TYPE:**  
1. DI Water      2. Drinking Water      3. Soil  
4. Extract      5. Wastewater      6. Oil  
7. Sludge      8. Solid      9. Air  
10. Chemical Waste      11. Wipe      12. Groundwater  
13. eProduct      13. Solid      14. Groundwater(Filter)  
15. Other

**CONTAINER TYPE:**  
P - Plastic      V - VOC Vial      G - Glass  
B - Tedlar Bag      O - Other

**PRESERVATIVE:**  
1. None      2. H2SO4      3. HNO3  
4. NaOH      5. HCL      6. MeOH  
7. Zn Ace      8. Na2S2O3      9. Na2HSO4  
10. Other

**Analysis**

1. Carbamates  
2. Cyanide, Total  
3. Total RCRA Metals on a Liquid Sample  
4. Volatile Organic Compounds, Method 8260  
5. EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

**EMT WORKORDER**  
#13650822

| Sample I.D. | Sample Type | Container Size | Container Type | No. | Sampling    |         |       |      |       | Preservation |   |   |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |     |
|-------------|-------------|----------------|----------------|-----|-------------|---------|-------|------|-------|--------------|---|---|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|-----|
|             |             |                |                |     | By          | Date    | Time  | pH   | Field | Lab          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |     |
| AP-3        | GRAB        | 12 4 oz        | G              | 1   | [Signature] | 8/28/13 | 11:10 | 7.98 | 8     |              |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | O3C |
| AP-3        | GRAB        | 12 500 ml      | P              | 1   |             |         |       |      | 4     |              |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | D   |
| AP-3        | GRAB        | 12 500 ml      | P              | 1   |             |         |       |      | 3     |              |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | E   |
| AP-3        | GRAB        | 12 44 ml       | V              | 3   |             |         |       |      | 5     |              |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | F   |
| AP-3        | GRAB        | 12 44 ml       | V              | 2   |             |         |       |      | 1     |              |   |   |   |   |   |   |   |   |   |    |  |                 |  |  |  |  | G   |

Relinquished By: [Signature] Date: 8-29-13 Time: 17:00

Received By: [Signature] Date: 8-29-13 Time: 17:00

**EMT USE ONLY**

Client ID: SPRING

Client Contact: Joe Pavilonis

EMT Project ID: CWLP List G20

Jar Lot No.:

SAMPLE RECEIVED ON ICE

TEMPERATURE

(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) 3

SPECIAL INSTRUCTIONS: pH 7.00 @ 82.2°F  
Time: 09:15





8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013

Due Date: 08/30/2013

COC # 505103

|   |   |  |  |
|---|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filter)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13480822 |
|---|---|--|--|

| Sample I.D. | Sample Type | Container |         |     | Sampling |             |             |             |             | Preservation |   | Analysis |   |   |   |   |   |   |   |    |  | Lab Sample I.D. |  |  |  |  |  |      |  |
|-------------|-------------|-----------|---------|-----|----------|-------------|-------------|-------------|-------------|--------------|---|----------|---|---|---|---|---|---|---|----|--|-----------------|--|--|--|--|--|------|--|
|             |             | Size      | Type    | No. | By       | Date        | Time        | pH          | Field       | Lab          | 1 | 2        | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |  |                 |  |  |  |  |  |      |  |
| AP-4        | GRAB        | 12        | 1 liter | G   | 10       | [Signature] | 8/28/13     | 10:30       | 7.04        | 1            |   | X        | X | X | X | X | X |   |   |    |  |                 |  |  |  |  |  | 0-1A |  |
| AP-4        | GRAB        | 12        | 1 liter | P   | 1        | [Signature] | [Signature] | [Signature] | [Signature] | 1            |   |          |   |   |   |   |   | X | X | X  |  |                 |  |  |  |  |  | 041B |  |
|             |             |           |         |     |          |             |             |             |             |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |      |  |
|             |             |           |         |     |          |             |             |             |             |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |      |  |
|             |             |           |         |     |          |             |             |             |             |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |      |  |
|             |             |           |         |     |          |             |             |             |             |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |      |  |
|             |             |           |         |     |          |             |             |             |             |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |      |  |
|             |             |           |         |     |          |             |             |             |             |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |      |  |
|             |             |           |         |     |          |             |             |             |             |              |   |          |   |   |   |   |   |   |   |    |  |                 |  |  |  |  |  |      |  |

|                              |                      |                          |                      |   |  |
|------------------------------|----------------------|--------------------------|----------------------|---|--|
| Relinquished By: [Signature] | Date: <u>8-28-13</u> | Received By: [Signature] | Date: <u>8-28-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: _____       | Date: - -            | Received By: _____       | Date: - -            |   |  |
| Relinquished By: _____       | Date: - -            | Received By: [Signature] | Date: <u>8-28-13</u> |   |  |

SPECIAL INSTRUCTIONS: pH 7.00 = 7.00 @ 82.2°F  
Time = 09:15





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013

Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

**COC # 505103**

**Company:** City, Water, Light & Power

**Contact:**

**Address:** 201 East Lake Shore Drive  
Springfield, IL 62707

**Phone:** (217) 757-8610

**P.O. #:** \_\_\_\_\_ **Proj. #:** \_\_\_\_\_

**Project /Location:** CWLP List G20

**SAMPLE TYPE:**  
 1. DI Water      2. Drinking Water      3. Soil  
 4. Extract      5. Wastewater      6. Oil  
 7. Sludge      8. Solid      9. Air  
 10. Chemical Waste      11. Wipe      12. Groundwater  
 13. eProduct      13. Solid      14. Groundwater(Filtr)  
 15. Other

**CONTAINER TYPE:**  
 P - Plastic      V - VOC Vial      G - Glass  
 B - Tedlar Bag      O - Other

**PRESERVATIVE:**  
 1. None      2. H2SO4      3. HNO3  
 4. NaOH      5. HCL      6. MeOH  
 7. Zn Ace      8. Na2S2O3      9. Na2HSO4  
 10. Other

**Analysis**

1. Carbamates

2. Cyanide, Total

3. Total RCRA Metals on a Liquid Sample

4. Volatile Organic Compounds, Method 8260

5. EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

**EMT WORKORDER**  
13050820

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |       |       | Preservation |    | Analysis |    |    |    |    |    |    |    |     |  | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|-------|-------|--------------|----|----------|----|----|----|----|----|----|----|-----|--|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH    | Field | Lab          | 1. | 2.       | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |  |                 |  |  |  |     |
| AP-4        | GRAB        | 12        | 4 oz   | G   | 1        | MC   | 8/28/13 | 10:30 | 7.04  | 8            |    |          | X  |    |    |    |    |    |    |     |  |                 |  |  |  | 04C |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        |      |         |       |       | 4            |    |          |    | X  |    |    |    |    |    |     |  |                 |  |  |  | D   |
| AP-4        | GRAB        | 12        | 500 ml | P   | 1        |      |         |       |       | 3            |    |          |    |    | X  |    |    |    |    |     |  |                 |  |  |  | E   |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 3        |      |         |       |       | 5            |    |          |    |    |    | X  |    |    |    |     |  |                 |  |  |  | F   |
| AP-4        | GRAB        | 12        | 44 ml  | V   | 2        |      |         |       |       | 1            |    |          |    |    |    |    | X  |    |    |     |  |                 |  |  |  | G   |

|                              |                      |                          |                      |   |  |
|------------------------------|----------------------|--------------------------|----------------------|---|--|
| Relinquished By: [Signature] | Date: <u>8-28-13</u> | Received By: [Signature] | Date: <u>8-28-13</u> | <p><b>EMT USE ONLY</b></p> <p>Client ID: <u>SPRING</u></p> <p>Client Contact: <u>Joe Pavilonis</u></p> <p>EMT Project ID: <u>CWLP List G20</u></p> <p>Jar Lot No. _____</p> | <p><input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b></p> <p><input type="checkbox"/> <b>TEMPERATURE</b></p> <p>(Must be recorded if sampling was greater than 6 hrs prior to sample receipt)</p> |
| Relinquished By: [Signature] | Date: - -            | Received By:             | Date: - -            |   |  |
| Relinquished By:             | Date: - -            | Received By: [Signature] | Date: <u>8-28-13</u> |   |  |

**SPECIAL INSTRUCTIONS:**

8/14/2013 11:19:58 AM







**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |  |  |  |
|---|--|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13080822 |
| <b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other   |  |  |  |
| <b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other  |  |  |  |

| Sample I.D. | Sample Type | Container |         |     | Sampling |      |         |       | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |  |      |  |
|-------------|-------------|-----------|---------|-----|----------|------|---------|-------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|--|------|--|
|             |             | Size      | Type    | No. | By       | Date | Time    | pH    | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |  |      |  |
| AP-5        | GRAB        | 12        | 1 liter | G   | 10       | MC   | 8/28/13 | 09:40 | 7.15         | 1   |          | X | X | X | X | X | X |   |   |    |                 |  |  |  |  | 05A  |  |
| AP-5        | GRAB        | 12        | 1 liter | P   | 1        | ↓    | ↓       | ↓     | ↓            | 1   |          |   |   |   |   |   |   |   | X | X  | X               |  |  |  |  | V, B |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |
|             |             |           |         |     |          |      |         |       |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |  |  |      |  |

|                        |                      |                    |                      |   |  |
|------------------------|----------------------|--------------------|----------------------|---|--|
| Relinquished By:       | Date: <u>8-28-13</u> | Received By:       | Date: <u>8-28-13</u> | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Paylonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No: _____ | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: _____ | Date: - -            | Received By: _____ | Date: - -            |   |  |
| Relinquished By: _____ | Date: - -            | Received By:       | Date: <u>8-28-13</u> |   |  |

SPECIAL INSTRUCTIONS:

*pH 7.00 = 7.00 @ 82.2°F  
Time = 09:15*

8/14/2013 11:19:59 AM





Chain of Custody Record

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

Company: City, Water, Light & Power  
 Contact:  
 Address: 201 East Lake Shore Drive  
Springfield, IL 62707  
 Phone: (217) 757-8610  
 P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_  
 Project /Location: CWLP List G20

**SAMPLE TYPE:**  
 1. DI Water 2. Drinking Water 3. Soil  
 4. Extract 5. Wastewater 6. Oil  
 7. Sludge 8. Solid 9. Air  
 10. Chemical Waste 11. Wipe 12. Groundwater  
 13. eProduct 13. Solid 14. Groundwater(Filler)  
 15. Other

**CONTAINER TYPE:**  
 P - Plastic V - VOC Vial G - Glass  
 B - Tedlar Bag O - Other

**PRESERVATIVE:**  
 1. None 2. H2SO4 3. HNO3  
 4. NaOH 5. HCL 6. MeOH  
 7. Zn Ace 8. Na2S2O3 9. Na2HSO4  
 10. Other

**Analysis**

1. Carbamates  
 2. Cyanide, Total  
 3. Total RCRA Metals on a Liquid Sample  
 4. Volatile Organic Compounds, Method 8260  
 5. EDB, DBCP and 123TCP by GC/ECD

**EMT USE ONLY**

EMT WORKORDER  
 13080822

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |  |     |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|--|-----|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |  |     |
| AP-5        | GRAB        | 12        | 4 oz   | G   | 1        | U    | 8/28/13 | 0940 | 7.15         | 8   |          | X |   |   |   |   |   |   |   |    |                 |  |  |  | OSC |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        | U    |         |      |              | 4   |          | X |   |   |   |   |   |   |   |    |                 |  |  |  | D   |
| AP-5        | GRAB        | 12        | 500 ml | P   | 1        | U    |         |      |              | 3   |          |   | X |   |   |   |   |   |   |    |                 |  |  |  | F   |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 3        | U    |         |      |              | 5   |          |   |   | X |   |   |   |   |   |    |                 |  |  |  | F   |
| AP-5        | GRAB        | 12        | 44 ml  | V   | 2        | U    |         |      |              | 1   |          |   |   | X |   |   |   |   |   |    |                 |  |  |  | G   |

|                                     |                      |                                 |                      |   |  |
|-------------------------------------|----------------------|---------------------------------|----------------------|---|--|
| Relinquished By: <u>[Signature]</u> | Date: <u>8-28-13</u> | Received By: <u>[Signature]</u> | Date: <u>8-28-13</u> | <p><b>EMT USE ONLY</b></p> Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavlonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. _____ | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: _____              | Date: - -            | Received By: _____              | Date: - -            |   |  |
| Relinquished By: _____              | Date: - -            | Received By: <u>[Signature]</u> | Date: <u>8-28-13</u> |   |  |

SPECIAL INSTRUCTIONS:

8/14/2013 11:19:59 AM





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |   |  |  |
|---|---|--|--|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Endothal<br>2. Dalapon<br>3. Herbicides<br>4. PCBs in Groundwater, Method 8082<br>5. Pesticides in Groundwater by Method 8081<br>6. Radiation Testing, Subcontracted<br>7. Semivolatile Organic Compounds by GCMS<br>8. Solids, Total Dissolved (TDS)<br>9. pH, Field tested<br>10. Anions by Ion Chromatography | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#13020822 |
|---|---|--|--|

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |      | Preservation |     | Analysis |   |   |   |   |   |   |   |   |    | Lab Sample I.D. |  |  |     |  |
|-------------|-------------|-----------|------|-----|----------|---------|------|------|--------------|-----|----------|---|---|---|---|---|---|---|---|----|-----------------|--|--|-----|--|
|             |             | Size      | Type | No. | By       | Date    | Time | pH   | Field        | Lab | 1        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                 |  |  |     |  |
| AW-3        | GRAB        | 1 liter   | G    | 10  | SP       | 8/28/13 | 1:45 | 7.30 | 1            |     | X        | X | X | X | X | X |   |   |   |    |                 |  |  | 06A |  |
| AW-3        | GRAB        | 1 liter   | P    | 1   | ↓        | ↓       | ↓    | ↓    | 1            |     |          |   |   |   |   |   |   | X | X | X  |                 |  |  | ↓ B |  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |     |  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |     |  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |     |  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |     |  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |     |  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |     |  |
|             |             |           |      |     |          |         |      |      |              |     |          |   |   |   |   |   |   |   |   |    |                 |  |  |     |  |

|                  |                      |              |                      |  |   |
|------------------|----------------------|--------------|----------------------|--|---|
| Relinquished By: | Date: - -            | Received By: | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <b>SPRING</b><br>Client Contact: <b>Joe Pavilonis</b><br>EMT Project ID: <b>CWLR List G20</b><br>Jar Lot No. | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE<br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) <b>3</b> |
| Relinquished By: | Date: <u>8-29-13</u> | Received By: | Date: <u>8-29-13</u> |  |   |
| Time: 14:00:     |                      | Time: 14:00: |                      |  |   |
| Relinquished By: | Date: <u>8-29-13</u> | Received By: | Date: <u>8-29-13</u> |  |   |
| Time: 17:00:     |                      | Time: 12:00: |                      |  |   |

SPECIAL INSTRUCTIONS:





**ENVIRONMENTAL  
MONITORING &  
TECHNOLOGIES, INC.**

**Chain of Custody Record**

Scheduled Sampling Date: 08/14/2013  
Due Date: 08/30/2013

8100 North Austin Avenue Morton Grove, IL 60053-3203 (847) 967-6666 FAX:(847) 967-6735 www.emt.com

COC # 505103

|   |   |   |   |
|---|---|---|---|
| <b>Company:</b> <u>City, Water, Light &amp; Power</u><br><b>Contact:</b><br><b>Address:</b> <u>201 East Lake Shore Drive</u><br><u>Springfield, IL 62707</u><br><br><b>Phone:</b> <u>(217) 757-8610</u><br><br><b>P.O. #:</b> _____ <b>Proj. #:</b> _____<br><br><b>Project /Location:</b> <u>CWLP List G20</u> | <b>SAMPLE TYPE:</b><br>1. DI Water      2. Drinking Water      3. Soil<br>4. Extract      5. Wastewater      6. Oil<br>7. Sludge      8. Solid      9. Air<br>10. Chemical Waste      11. Wipe      12. Groundwater<br>13. eProduct      13. Solid      14. Groundwater(Filler)<br>15. Other<br><br><b>CONTAINER TYPE:</b><br>P - Plastic      V - VOC Vial      G - Glass<br>B - Tedlar Bag      O - Other<br><br><b>PRESERVATIVE:</b><br>1. None      2. H2SO4      3. HNO3<br>4. NaOH      5. HCL      6. MeOH<br>7. Zn Ace      8. Na2S2O3      9. Na2HSO4<br>10. Other | <b>Analysis</b><br>1. Carbamates<br>2. Cyanide, Total<br>3. Total RCRA Metals on a Liquid Sample<br>4. Volatile Organic Compounds, Method 8260<br>5. EDB, DBCP and 123TCP by GC/ECD | <b>EMT USE ONLY</b><br><br><b>EMT WORKORDER</b><br>#1301022 |
|---|---|---|---|

| Sample I.D. | Sample Type | Container |        |     | Sampling |      |         |      | Preservation |     | Analysis |    |    |    |    |    |    |    |    |     | Lab Sample I.D. |  |  |  |  |  |      |
|-------------|-------------|-----------|--------|-----|----------|------|---------|------|--------------|-----|----------|----|----|----|----|----|----|----|----|-----|-----------------|--|--|--|--|--|------|
|             |             | Size      | Type   | No. | By       | Date | Time    | pH   | Field        | Lab | 1.       | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. | 10. |                 |  |  |  |  |  |      |
| AW-3        | GRAB        | 12        | 4 oz   | G   | 1        | SP   | 8/29/13 | 1945 | 7.0          | 8   |          | X  |    |    |    |    |    |    |    |     |                 |  |  |  |  |  | 060C |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 4   |          |    | X  |    |    |    |    |    |    |     |                 |  |  |  |  |  | D    |
| AW-3        | GRAB        | 12        | 500 ml | P   | 1        |      |         |      |              | 3   |          |    |    | X  |    |    |    |    |    |     |                 |  |  |  |  |  | E    |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 3        |      |         |      |              | 5   |          |    |    |    | X  |    |    |    |    |     |                 |  |  |  |  |  | F    |
| AW-3        | GRAB        | 12        | 44 ml  | V   | 2        |      |         |      |              | 1   |          |    |    |    |    | X  |    |    |    |     |                 |  |  |  |  |  | G    |

|                                     |                      |                                 |                      |  |  |
|-------------------------------------|----------------------|---------------------------------|----------------------|--|--|
| Relinquished By:                    | Date: - -            | Received By:                    | Date: - -            | <b>EMT USE ONLY</b><br>Client ID: <u>SPRING</u><br>Client Contact: <u>Joe Pavilonis</u><br>EMT Project ID: <u>CWLP List G20</u><br>Jar Lot No. | <input checked="" type="checkbox"/> <b>SAMPLE RECEIVED ON ICE</b><br><input type="checkbox"/> <b>TEMPERATURE</b><br>(Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) |
| Relinquished By: <i>[Signature]</i> | Date: <u>8-29-13</u> | Received By: <i>[Signature]</i> | Date: <u>8-29-13</u> |  |  |
| Relinquished By: <i>[Signature]</i> | Date: <u>8-29-13</u> | Received By: <i>[Signature]</i> | Date: <u>8-29-13</u> |  |  |

SPECIAL INSTRUCTIONS: pH: 7.00 = 7.04 @ 0925

8/14/2013 11:20:00 AM  
Page 12







**ENVIRONMENTAL  
MONITORING AND  
TECHNOLOGIES, INC.**

8100 North Austin Avenue  
Morton Grove, Illinois 60053-3203

847-967-6666  
FAX: 847-967-6735  
www.emt.com

**Chain of Custody Record**

TURNAROUND TIME:  
 RUSH  
 \_\_\_ day turnaround  
 ROUTINE

Due Date: \_\_\_ - \_\_\_ - \_\_\_ COC #: **125300**

Company: CWLP  
 Address: 201 E Lake Shore Dr  
Springfield IL  
 Phone #: (217) 757-8610 Fax #: ( ) - -  
 P.O. #: \_\_\_\_\_ Proj. #: \_\_\_\_\_  
 Client Contact: Sue Corcoran  
 Project ID / Location: CWLP FGDS / CWLP Spring field

**Sample Type:**  
 1. Waste Water 4. Sludge 7. Groundwater (filtered)  
 2. Drinking Water 5. Oil 8. Other  
 3. Soil 6. Groundwater \_\_\_\_\_

**Container Type:**  
 P - Plastic V - VOC Vial O - Other  
 G - Glass B - Tedlar Bag \_\_\_\_\_

**Preservative:**  
 1. None 4. NaOH 7. Zn Ace  
 2. H<sub>2</sub>SO<sub>4</sub> 5. HCl 8. Other  
 3. HNO<sub>3</sub> 6. MeOH \_\_\_\_\_

| Analyses               |                                       |
|------------------------|---------------------------------------|
| EMT<br>USE<br>ONLY     | EMT<br>WORKORDER<br># <u>13680820</u> |
| TOTAL VIALS: <u>14</u> |                                       |

| Sample I.D. | Sample Type | Container |      |     | Sampling |         |      |      |       | Preservation |     | EMT USE ONLY |
|-------------|-------------|-----------|------|-----|----------|---------|------|------|-------|--------------|-----|--------------|
|             |             | Size      | Type | No. | By       | Date    | Time | pH   | Temp. | Field        | Lab |              |
| AP-5        | G           | PT        | P    | 1   | SP       | 9/16/13 | 0825 | 6.95 | 56.2  | 1            |     | X            |
| AP-4        | G           | PT        | P    | 1   | SP       | 9/16/13 | 0855 | 7.08 | 64.6  | 1            |     | X            |
| AP-3        | G           | PT        | P    | 1   | SP       | 9/16/13 | 0915 | 7.01 | 63.7  | 1            |     | X            |
| AP-2        | G           | PT        | P    | 1   | SP       | 9/16/13 | 0940 | 6.91 | 64.8  | 1            |     | X            |
| AP-1        | G           | PT        | P    | 1   | SP       | 9/16/13 | 1010 | 7.01 | 60.2  | 1            |     | X            |

|                                     |                      |   |                      |  |  |
|-------------------------------------|----------------------|---|----------------------|--|--|
| Relinquished By: <u>40</u>          | Date: - -            | Received By:                            | Date: - -            | EMT USE ONLY                                 | <input checked="" type="checkbox"/> SAMPLE RECEIVED ON ICE<br><input type="checkbox"/> TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)<br><u>2</u><br><b>EMT SAMPLE RETURN POLICY ON BACK</b> |
| Relinquished By: <u>[Signature]</u> | Date: <u>9-16-13</u> | Received By: <u>[Signature]</u>         | Date: <u>9-16-13</u> | Client Code: <u>Spring</u>                   |  |
| Relinquished By: <u>[Signature]</u> | Date: <u>9-16-13</u> | Received For Lab By: <u>[Signature]</u> | Date: <u>9-16-13</u> | EMT Project I.D. <u>CWLP FGDS Routine GW</u> |  |
|                                     | Time: 16:08          |   | Time: 16:08          | Jar Lot No.                                  |  |

SPECIAL INSTRUCTIONS: ph: 7.00 → 7.02 @ 0805



