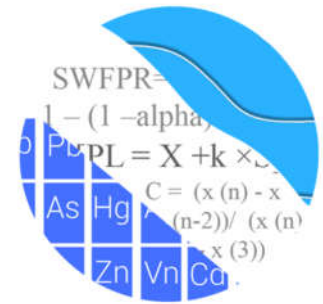


GROUNDWATER STATS CONSULTING



October 11, 2018

HR Green, Inc.
Attn: Mr. Greg Brennan
8710 Earhart Ln, SW
Cedar Rapids, Iowa 52404

Dear Mr. Brennan,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the June 2018 sample event at the Muscatine Power & Water for the Coal Combustion Residuals (CCR) program. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the USEPA Unified Guidance (2009).

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed by Dr. Jim Loftis, professor emeritus of Civil and Environmental Engineering at Colorado State University and consultant to Groundwater Stats Consulting.

The monitoring well network at Muscatine Power & Water consists of the following: upgradient wells MW-08 and MW-10 as well as MW-22 which was installed this year; and downgradient wells MW-4A, MW-5B, MW-6A, MW-13, MW-14A, MW-15A, MW-18A, and MW-21. Sampling began for the CCR program in June 2016 and a total of 8 background sample events were completed for all wells except newly installed well MW-22.

The following Appendix III constituents were evaluated using prediction limits: boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids (TDS). The following Appendix IV parameters were evaluated using confidence intervals: antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium and thallium.

Background Screening

Background data were screened in October 2017 for all parameters at each well for the constituents listed above, and the results of the screening were submitted during that time. A summary of those findings was submitted with that report, and discussed below.

Outlier Screening and Trend Tests

Time series plots were used to initially screen for suspected outliers, trends, and seasonal patterns. Outliers and trends in background data result in increased variation and statistical limits that are not conservative from a regulatory perspective, if not addressed.

Box plots provide visual representation of variation within individual wells and between all wells. Data were further evaluated through the Analysis of Variance test to determine whether observed variation is statistically significant, and guide the decision logic for determining an appropriate statistical limit as discussed below.

A handful of possible outliers were identified and formally tested using Tukey's box plot method. When outliers were confirmed, these values were flagged in the computer database with "o" in order to deselect prior to construction of statistical limits. Flagged values appear as a disconnected, lighter symbol on the time series graphs.

No seasonal patterns were visually apparent in the any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be optionally deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

The Sen's Slope/Mann Kendall trend test was used to evaluate all proposed background data through August 2017 to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses showed a statistically significant decreasing trend for chloride in upgradient well MW-08. This trend was relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets. No other statistically significant trends were identified for any of the Appendix III parameters.

Natural systems continuously evolve due to physical changes made to the environment and unrelated to the site. To accommodate these types of changes, data for all wells and constituents are re-evaluated for the purpose of updating statistical limits. Improved sample size results in statistical limits that provide better representation of the true background population. In the case of interwell prediction limits, when a minimum of 2 new data points are available at each upgradient well, data will be evaluated to determine whether newer measurements are representative of earlier measurements in which case they may be incorporated into background.

Determination of Statistical Method

The Analysis of Variance (ANOVA) was used to identify the most appropriate statistical approach for Muscatine Power & Water. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameters.

In cases where downgradient concentrations are elevated relative to upgradient concentrations, an independent study and hydrogeological investigation would be required to identify local geochemical conditions and expected groundwater quality for the region to justify an intrawell approach. Such an assessment is beyond the scope of services provided by Groundwater Stats Consulting.

The ANOVA noted no variation in groundwater among upgradient wells for fluoride and pH. Boron contained 100% nondetects in upgradient wells; therefore, the ANOVA test could not be performed. As a result, interwell tests are recommended for boron, fluoride and pH. The ANOVA identified spatial variation in groundwater upgradient of the site for calcium, chloride, sulfate and TDS, indicating intrawell methods should be considered for these parameters if no pre-existing contamination from the site is

suspected downgradient wells. Additional testing was conducted as described below to determine intrawell eligibility.

Intrawell limits constructed from carefully screened background data from within each well serve to provide statistical limits that are conservative (i.e. lower) from a regulatory perspective, and that will rapidly identify a change in more recent compliance data from within a given well. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for a release from the facility. Prior to performing intrawell prediction limits, it is necessary to demonstrate that water at downgradient wells is not suspected to have existing impacts from the practices of the facility.

First, to establish baseline upgradient concentrations, tolerance limits (either parametric or nonparametric as appropriate) were constructed using pooled upgradient well data for each of the Appendix III parameters recommended for intrawell analyses. Parametric tolerance limits were constructed with a target of 99% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As more data are collected, the background population is better represented and the confidence and coverage levels increase.

Next, to determine whether average downgradient concentrations are elevated relative to the upgradient well baseline concentrations established by the tolerance limits above, confidence intervals were constructed on downgradient wells for each of the Appendix III parameters exhibiting spatial variation. The results showed that at least one confidence interval exceeded its respective limit for each of the parameters tested.

When the entire confidence interval exceeds a background standard, it is an indication that downgradient concentrations are elevated above background levels. Therefore, interwell methods are recommended initially in lieu of intrawell methods until further research identifies whether the elevated downgradient concentrations are likely the result of natural geological conditions, an off-site source, or may be the result of the facility. After such a study, data would be re-evaluated to determine the most appropriate statistical Detection Monitoring method.

Prediction Limits – Appendix III Parameters June 2018

Interwell prediction limits were constructed as recommended in the CCR Rule (2015) and in the EPA Unified Guidance (2009), based on a 1-of-2 resample plan using pooled upgradient well data for all Appendix III parameters. In the event of an initial exceedance of compliance well data, a resample will be collected to determine whether the initial

exceedance is confirmed, in which case a statistically significant increase (SSI) is identified. If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no further action is necessary.

Parametric prediction limits were constructed when background data followed a normal or transformed-normal distribution. Non-parametric prediction limits are provided for data sets with greater than 50% nondetects, and for data sets which do not follow a normal or transformed-normal distribution. Downgradient measurements were compared to these background limits. A summary table of well/constituent pairs found to exceed their respective limits follows this letter.

The Sen's Slope/Mann Kendall trend test was performed on the exceedances noted above to determine whether concentrations are increasing, decreasing or stabilizing over time. No statistically significant increasing trends were noted. Well MW-18A showed statistically significant decreasing trends for calcium and sulfate.

Confidence Intervals – Appendix IV Parameters

Confidence intervals were constructed at all downgradient wells for detected Appendix IV parameters. A minimum of 4 samples is required to construct confidence intervals; however, 8 samples are generally recommended for better representation of the true average population. Established Maximum Contaminant Levels (MCLs) are used as the GWPS comparisons, unless background limits are higher as discussed below. For parameters without MCLs (cobalt, lithium, and molybdenum), the Regional Screening Level (RSL) was used unless background was higher. Parametric confidence intervals are constructed with 99% confidence when data follow a normal or transformed-normal distribution. For all other cases, nonparametric confidence intervals are constructed, with the confidence level based on the number of samples available.

Background limits are established for the Appendix IV parameters using upper tolerance limits constructed with 95% confidence/95% coverage using pooled upgradient well data, for comparison against established MCLs. When background limits, or Alternate Contaminant Levels (ACLs), are higher than established MCLs or RSLs, the CCR Rule recommends using these as the GWPS for the confidence interval comparisons. The GWPS is exceeded only when the entire confidence interval exceeds its respective GWPS. None of the confidence intervals exceeded their respective standard.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Muscatine Power & Water. If you have any questions or comments, please feel free to contact me.

For Groundwater Stats Consulting,

A handwritten signature in black ink that reads "Kristina Rayner". The signature is written in a cursive, flowing style.

Kristina L. Rayner
Groundwater Statistician

| MUSCATINE POWER & WATER GWPS | | | |
|---|------------|------------|-------------------------|
| Constituent Name | MCL | RSL | Background Limit |
| Antimony, Total (mg/L) | 0.006 | | 0.001 |
| Arsenic, Total (mg/L) | 0.01 | | 0.0037 |
| Barium, Total (mg/L) | 2 | | 0.22 |
| Beryllium, Total (mg/L) | 0.004 | | 0.001 |
| Cadmium, Total (mg/L) | 0.005 | | 0.0005 |
| Chromium, Total (mg/L) | 0.1 | | 0.005 |
| Cobalt, Total (mg/L) | n/a | 0.006 | 0.0015 |
| Combined Radium, Total (pCi/L) | 5 | | 0.94 |
| Fluoride, Total (mg/L) | 4 | | 0.83 |
| Lead, Total (mg/L) | 0.015 | | 0.0005 |
| Lithium, Total (mg/L) | n/a | 0.04 | 0.01 |
| Mercury, Total (mg/L) | 0.002 | | 0.0002 |
| Molybdenum, Total (mg/L) | n/a | 0.1 | 0.0057 |
| Selenium, Total (mg/L) | 0.05 | | 0.005 |
| Thallium, Total (mg/L) | 0.002 | | 0.001 |

**MCL = Maximum Contaminant Level*

**RSL = Regional Screening Level*

Interwell Prediction Limit Summary - Significant Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:17 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | Bg Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-------------------------------|--------|------------|------------|-----------|---------|------|------|---------|-----------|-------|---------|-----------|-----------|-----------------------------|
| Boron (mg/L) | MW-13 | 0.2 | n/a | 6/20/2018 | 1.34 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-14A | 0.2 | n/a | 6/20/2018 | 15 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-15A | 0.2 | n/a | 6/20/2018 | 10.5 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-18A | 0.2 | n/a | 6/20/2018 | 13.3 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-21 | 0.2 | n/a | 6/19/2018 | 6.84 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Calcium (mg/L) | MW-5B | 134.4 | n/a | 6/21/2018 | 147 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-14A | 134.4 | n/a | 6/20/2018 | 297 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-18A | 134.4 | n/a | 6/20/2018 | 264 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-21 | 134.4 | n/a | 6/19/2018 | 159 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Chloride (mg/L) | MW-5B | 30 | n/a | 6/21/2018 | 65 | Yes | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-13 | 7.9 | 7.04 | 6/20/2018 | 8.03 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-14A | 366 | n/a | 6/20/2018 | 1090 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-18A | 366 | n/a | 6/20/2018 | 709 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-21 | 366 | n/a | 6/19/2018 | 489 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-5B | 773.4 | n/a | 6/21/2018 | 828 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-14A | 773.4 | n/a | 6/20/2018 | 1800 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-18A | 773.4 | n/a | 6/20/2018 | 1890 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-21 | 773.4 | n/a | 6/19/2018 | 952 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |

Trend Tests Summary Table

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/11/2018, 7:05 AM

| <u>Constituent</u> | <u>Well</u> | <u>Slope</u> | <u>Calc.</u> | <u>Critical</u> | <u>Sig.</u> | <u>N</u> | <u>%NDs</u> | <u>Normality</u> | <u>Xform</u> | <u>Alpha</u> | <u>Method</u> |
|-------------------------------|---------------|---------------|--------------|-----------------|-------------|-----------|-------------|------------------|--------------|--------------|---------------|
| Boron (mg/L) | MW-13 | -3.238 | -13 | -30 | No | 10 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-14A | -1.943 | -22 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-15A | -4.336 | -37 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-18A | -2.07 | -28 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-21 | -2.001 | -20 | -38 | No | 12 | 8.333 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MW-14A | -6.832 | -15 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MW-15A | -6.217 | -3 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MW-18A | -41.32 | -43 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Chloride (mg/L) | MW-5B | 0.7598 | 7 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Chloride (mg/L) | MW-14A | 1.45 | 15 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Sulfate (mg/L) | MW-14A | 32.27 | 12 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Sulfate (mg/L) | MW-15A | -11.41 | -2 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Sulfate (mg/L) | MW-18A | -151.2 | -46 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Total Dissolved Solids (mg/L) | MW-14A | -83.5 | -5 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Total Dissolved Solids (mg/L) | MW-15A | -166.9 | -15 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Total Dissolved Solids (mg/L) | MW-18A | -241.9 | -15 | -34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |

Confidence Interval Summary Table - All Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:14 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. N | Mean | Std. Dev. | %NDs | ND Adj | Transform | Alpha | Method |
|-----------------------------------|--------|------------|------------|------------|--------|-----------|------------|-------|---------|-----------|-------|----------------|
| Antimony (mg/L) | MW-4A | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-5B | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-6A | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-13 | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-14A | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-15A | 0.001 | 0.001 | 0.006 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-18A | 0.00195 | 0.001 | 0.006 | No 10 | 0.005995 | 0.01546 | 90 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-4A | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-5B | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-6A | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-13 | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-14A | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-15A | 0.002 | 0.002 | 0.01 | No 10 | 0.0118 | 0.03099 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-18A | 0.00265 | 0.002 | 0.01 | No 10 | 0.01187 | 0.03097 | 90 | None | No | 0.011 | NP (NDs) |
| Barium (mg/L) | MW-4A | 0.1437 | 0.1221 | 2 | No 10 | 0.1329 | 0.01209 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-5B | 0.3293 | 0.2995 | 2 | No 10 | 0.3144 | 0.01667 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-6A | 0.2154 | 0.1814 | 2 | No 10 | 0.1984 | 0.01906 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-13 | 0.1071 | 0.05108 | 2 | No 10 | 0.07911 | 0.03141 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-14A | 0.03968 | 0.03058 | 2 | No 10 | 0.03513 | 0.005098 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-15A | 0.04176 | 0.03364 | 2 | No 9 | 0.0377 | 0.004209 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-18A | 0.0403 | 0.0281 | 2 | No 10 | 0.04141 | 0.02103 | 10 | None | No | 0.011 | NP (normality) |
| Beryllium (mg/L) | MW-4A | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-5B | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-6A | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-13 | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-14A | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-15A | 0.001 | 0.001 | 0.004 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-18A | 0.001 | 0.001 | 0.004 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-4A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-5B | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-6A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-13 | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-14A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-15A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-18A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-4A | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-5B | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-6A | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-13 | 0.00658 | 0.005 | 0.1 | No 9 | 0.005176 | 0.0005267 | 88.89 | None | No | 0.002 | NP (NDs) |
| Chromium (mg/L) | MW-14A | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-15A | 0.005 | 0.005 | 0.1 | No 10 | 0.0295 | 0.07748 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-18A | 0.005 | 0.005 | 0.1 | No 10 | 0.0295 | 0.07748 | 100 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-4A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005181 | 0.00005724 | 90 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-5B | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-6A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-13 | 0.0008038 | 0.0005536 | 0.006 | No 9 | 0.0006787 | 0.0001374 | 22.22 | Kapla.. | No | 0.01 | Param. |
| Cobalt (mg/L) | MW-14A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005 | 0 | 100 | Kapla.. | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-15A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.00295 | 0.007748 | 100 | Kapla.. | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-18A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.00295 | 0.007748 | 100 | Kapla.. | No | 0.011 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MW-4A | 0.7583 | 0.3735 | 5 | No 9 | 0.5659 | 0.1992 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-5B | 1.031 | 0.5925 | 5 | No 9 | 0.8118 | 0.2271 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-6A | 0.7309 | 0.3134 | 5 | No 9 | 0.5211 | 0.2298 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-13 | 0.5607 | 0.1772 | 5 | No 8 | 0.363 | 0.2029 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-14A | 0.4542 | 0.1302 | 5 | No 9 | 0.2922 | 0.1678 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-15A | 0.2876 | 0.1315 | 5 | No 9 | 0.2095 | 0.08085 | 0 | None | No | 0.01 | Param. |

Confidence Interval Summary Table - All Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:14 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. N | Mean | Std. Dev. | %NDs | ND Adj | Transform | Alpha | Method |
|-----------------------------------|--------|------------|------------|------------|--------|----------|-----------|-------|--------|-----------|-------|----------------|
| Combined Radium 226 + 228 (pCi/L) | MW-18A | 0.5629 | 0.2171 | 5 | No 9 | 0.39 | 0.1791 | 0 | None | No | 0.01 | Param. |
| Fluoride (mg/L) | MW-4A | 0.664 | 0.5 | 4 | No 11 | 0.5423 | 0.09891 | 81.82 | None | No | 0.006 | NP (NDs) |
| Fluoride (mg/L) | MW-5B | 1.88 | 0.5 | 4 | No 11 | 0.7861 | 0.6091 | 72.73 | None | No | 0.006 | NP (normality) |
| Fluoride (mg/L) | MW-6A | 1.89 | 0.5 | 4 | No 11 | 0.7931 | 0.5828 | 72.73 | None | No | 0.006 | NP (normality) |
| Fluoride (mg/L) | MW-13 | 1.21 | 0.5 | 4 | No 10 | 0.7815 | 0.5224 | 60 | None | No | 0.011 | NP (normality) |
| Fluoride (mg/L) | MW-14A | 0.684 | 0.5 | 4 | No 10 | 0.5551 | 0.1239 | 80 | None | No | 0.011 | NP (NDs) |
| Fluoride (mg/L) | MW-15A | 0.5 | 0.5 | 4 | No 10 | 0.5049 | 0.0155 | 90 | None | No | 0.011 | NP (NDs) |
| Fluoride (mg/L) | MW-18A | 0.5 | 0.5 | 4 | No 10 | 0.5291 | 0.09202 | 90 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-4A | 0.0005 | 0.0005 | 0.015 | No 9 | 0.0005 | 0 | 100 | None | No | 0.002 | NP (NDs) |
| Lead (mg/L) | MW-5B | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-6A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-13 | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-14A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-15A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-18A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-4A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-5B | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-6A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-13 | 0.1 | 0.01 | 0.04 | No 11 | 0.05293 | 0.04127 | 90.91 | None | No | 0.006 | NP (NDs) |
| Lithium (mg/L) | MW-14A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-15A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-18A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-4A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-5B | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-6A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-13 | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-14A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-15A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-18A | 0.0002 | 0.0002 | 0.002 | No 9 | 0.0002 | 0 | 100 | None | No | 0.002 | NP (NDs) |
| Molybdenum (mg/L) | MW-4A | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-5B | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-6A | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-13 | 0.00684 | 0.002985 | 0.1 | No 9 | 0.004903 | 0.002122 | 0 | None | sqrt(x) | 0.01 | Param. |
| Molybdenum (mg/L) | MW-14A | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-15A | 0.002 | 0.002 | 0.1 | No 10 | 0.0118 | 0.03099 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-18A | 0.002 | 0.002 | 0.1 | No 10 | 0.0118 | 0.03099 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-4A | 0.005 | 0.005 | 0.05 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-5B | 0.005 | 0.005 | 0.05 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-6A | 0.005 | 0.005 | 0.05 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-13 | 0.0195 | 0.005 | 0.05 | No 9 | 0.006611 | 0.004833 | 88.89 | None | No | 0.002 | NP (NDs) |
| Selenium (mg/L) | MW-14A | 0.008302 | 0.00699 | 0.05 | No 10 | 0.007578 | 0.001006 | 10 | None | x^4 | 0.01 | Param. |
| Selenium (mg/L) | MW-15A | 0.00502 | 0.005 | 0.05 | No 10 | 0.0295 | 0.07748 | 90 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-18A | 0.005 | 0.005 | 0.05 | No 10 | 0.0295 | 0.07748 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-4A | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-5B | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-6A | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-13 | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-14A | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-15A | 0.001 | 0.001 | 0.002 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-18A | 0.001 | 0.001 | 0.002 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |

Prediction Limits

Interwell Prediction Limit Summary - Significant Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:17 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | Bg Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-------------------------------|--------|------------|------------|-----------|---------|------|------|---------|-----------|-------|---------|-----------|-----------|-----------------------------|
| Boron (mg/L) | MW-13 | 0.2 | n/a | 6/20/2018 | 1.34 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-14A | 0.2 | n/a | 6/20/2018 | 15 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-15A | 0.2 | n/a | 6/20/2018 | 10.5 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-18A | 0.2 | n/a | 6/20/2018 | 13.3 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-21 | 0.2 | n/a | 6/19/2018 | 6.84 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Calcium (mg/L) | MW-5B | 134.4 | n/a | 6/21/2018 | 147 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-14A | 134.4 | n/a | 6/20/2018 | 297 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-18A | 134.4 | n/a | 6/20/2018 | 264 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-21 | 134.4 | n/a | 6/19/2018 | 159 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Chloride (mg/L) | MW-5B | 30 | n/a | 6/21/2018 | 65 | Yes | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-13 | 7.9 | 7.04 | 6/20/2018 | 8.03 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-14A | 366 | n/a | 6/20/2018 | 1090 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-18A | 366 | n/a | 6/20/2018 | 709 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-21 | 366 | n/a | 6/19/2018 | 489 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-5B | 773.4 | n/a | 6/21/2018 | 828 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-14A | 773.4 | n/a | 6/20/2018 | 1800 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-18A | 773.4 | n/a | 6/20/2018 | 1890 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-21 | 773.4 | n/a | 6/19/2018 | 952 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |

Interwell Prediction Limit Summary - All Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:17 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | Bg Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|--------------------------------------|---------------|--------------|-------------|------------------|-------------|------------|-----------|--------------|---------------|--------------|-------------|----------------|------------------|------------------------------------|
| Boron (mg/L) | MW-4A | 0.2 | n/a | 6/21/2018 | 0.2ND | No | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-5B | 0.2 | n/a | 6/21/2018 | 0.2ND | No | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-6A | 0.2 | n/a | 6/21/2018 | 0.2ND | No | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-13 | 0.2 | n/a | 6/20/2018 | 1.34 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-14A | 0.2 | n/a | 6/20/2018 | 15 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-15A | 0.2 | n/a | 6/20/2018 | 10.5 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-18A | 0.2 | n/a | 6/20/2018 | 13.3 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Boron (mg/L) | MW-21 | 0.2 | n/a | 6/19/2018 | 6.84 | Yes | 24 | n/a | n/a | 100 | n/a | n/a | 0.002865 | NP Inter (NDs) 1 of 2 |
| Calcium (mg/L) | MW-4A | 134.4 | n/a | 6/21/2018 | 91.4 | No | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-5B | 134.4 | n/a | 6/21/2018 | 147 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-6A | 134.4 | n/a | 6/21/2018 | 80.1 | No | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-13 | 134.4 | n/a | 6/20/2018 | 89.5 | No | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-14A | 134.4 | n/a | 6/20/2018 | 297 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-15A | 134.4 | n/a | 6/20/2018 | 102 | No | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-18A | 134.4 | n/a | 6/20/2018 | 264 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Calcium (mg/L) | MW-21 | 134.4 | n/a | 6/19/2018 | 159 | Yes | 24 | 4.514 | 0.2844 | 0 | None | x^(1/3) | 0.0009403 | Param Inter 1 of 2 |
| Chloride (mg/L) | MW-4A | 30 | n/a | 6/21/2018 | 15.3 | No | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MW-5B | 30 | n/a | 6/21/2018 | 65 | Yes | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MW-6A | 30 | n/a | 6/21/2018 | 5ND | No | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MW-13 | 30 | n/a | 6/20/2018 | 5.84 | No | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MW-14A | 30 | n/a | 6/20/2018 | 29 | No | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MW-15A | 30 | n/a | 6/20/2018 | 5ND | No | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MW-18A | 30 | n/a | 6/20/2018 | 25.6 | No | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Chloride (mg/L) | MW-21 | 30 | n/a | 6/19/2018 | 10.9 | No | 24 | n/a | n/a | 41.67 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Fluoride (mg/L) | MW-4A | 0.826 | n/a | 6/21/2018 | 0.5ND | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| Fluoride (mg/L) | MW-5B | 0.826 | n/a | 6/21/2018 | 0.5ND | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| Fluoride (mg/L) | MW-6A | 0.826 | n/a | 6/21/2018 | 0.5ND | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| Fluoride (mg/L) | MW-13 | 0.826 | n/a | 6/20/2018 | 0.528 | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| Fluoride (mg/L) | MW-14A | 0.826 | n/a | 6/20/2018 | 0.684 | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| Fluoride (mg/L) | MW-15A | 0.826 | n/a | 6/20/2018 | 0.5ND | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| Fluoride (mg/L) | MW-18A | 0.826 | n/a | 6/20/2018 | 0.5ND | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| Fluoride (mg/L) | MW-21 | 0.826 | n/a | 6/19/2018 | 0.5ND | No | 23 | n/a | n/a | 82.61 | n/a | n/a | 0.00311 | NP Inter (NDs) 1 of 2 |
| pH (SU) | MW-4A | 7.9 | 7.04 | 6/21/2018 | 7.53 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-5B | 7.9 | 7.04 | 6/21/2018 | 7.3 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-6A | 7.9 | 7.04 | 6/21/2018 | 7.58 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-13 | 7.9 | 7.04 | 6/20/2018 | 8.03 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-14A | 7.9 | 7.04 | 6/20/2018 | 7.26 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-15A | 7.9 | 7.04 | 6/20/2018 | 7.5 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-18A | 7.9 | 7.04 | 6/20/2018 | 7.19 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| pH (SU) | MW-21 | 7.9 | 7.04 | 6/19/2018 | 7.25 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.00573 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-4A | 366 | n/a | 6/21/2018 | 51.3 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-5B | 366 | n/a | 6/21/2018 | 119 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-6A | 366 | n/a | 6/21/2018 | 5ND | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-13 | 366 | n/a | 6/20/2018 | 62.1 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-14A | 366 | n/a | 6/20/2018 | 1090 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-15A | 366 | n/a | 6/20/2018 | 210 | No | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-18A | 366 | n/a | 6/20/2018 | 709 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Sulfate (mg/L) | MW-21 | 366 | n/a | 6/19/2018 | 489 | Yes | 24 | n/a | n/a | 0 | n/a | n/a | 0.002865 | NP Inter (normality) 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-4A | 773.4 | n/a | 6/21/2018 | 440 | No | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-5B | 773.4 | n/a | 6/21/2018 | 828 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-6A | 773.4 | n/a | 6/21/2018 | 368 | No | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-13 | 773.4 | n/a | 6/20/2018 | 472 | No | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-14A | 773.4 | n/a | 6/20/2018 | 1800 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-15A | 773.4 | n/a | 6/20/2018 | 676 | No | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |
| Total Dissolved Solids (mg/L) | MW-18A | 773.4 | n/a | 6/20/2018 | 1890 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |

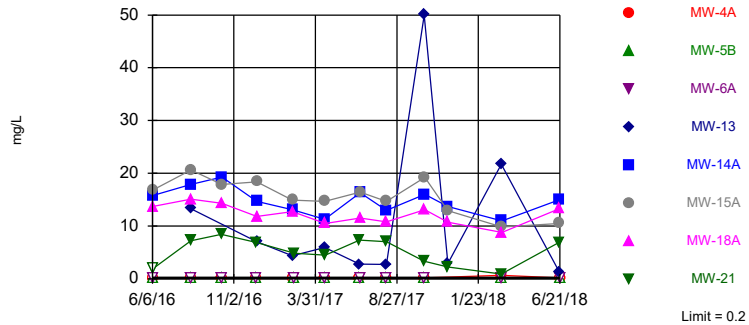
Interwell Prediction Limit Summary - All Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:17 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Date | Observ. | Sig. | Bg N | Bg Mean | Std. Dev. | %NDs | ND Adj. | Transform | Alpha | Method |
|-------------------------------|-------|------------|------------|-----------|---------|------|------|---------|-----------|------|---------|-----------|-----------|--------------------|
| Total Dissolved Solids (mg/L) | MW-21 | 773.4 | n/a | 6/19/2018 | 952 | Yes | 24 | 512 | 122.2 | 0 | None | No | 0.0009403 | Param Inter 1 of 2 |

Exceeds Limit: MW-13, MW-14A, MW-15A, MW-18A, MW-21

Prediction Limit
Interwell Non-parametric

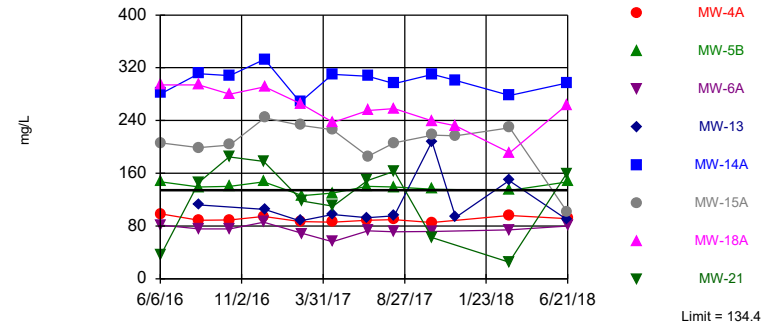


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. All background values (n = 24) were censored; limit is most recent reporting limit. Annual per-constituent alpha = 0.04487. Individual comparison alpha = 0.002865 (1 of 2). Comparing 8 points to limit.

Constituent: Boron Analysis Run 10/10/2018 6:15 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Exceeds Limit: MW-5B, MW-14A, MW-18A, MW-21

Prediction Limit
Interwell Parametric

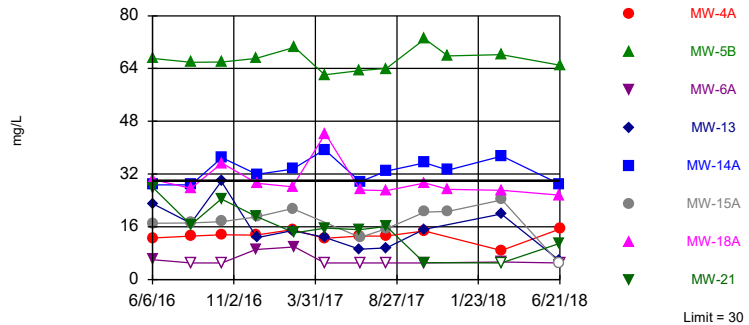


Background Data Summary (based on cube root transformation): Mean=4.514, Std. Dev.=0.2844, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8881, critical = 0.884. Kappa = 2.139 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0009403. Comparing 8 points to limit.

Constituent: Calcium Analysis Run 10/10/2018 6:15 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Exceeds Limit: MW-5B

Prediction Limit
Interwell Non-parametric

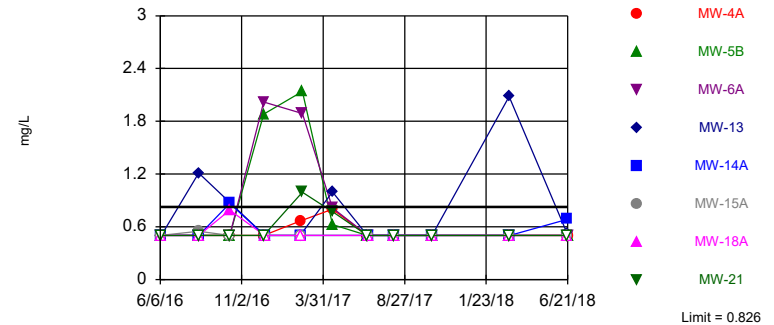


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. 41.67% NDs. Annual per-constituent alpha = 0.04487. Individual comparison alpha = 0.002865 (1 of 2). Comparing 8 points to limit.

Constituent: Chloride Analysis Run 10/10/2018 6:15 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Within Limit

Prediction Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 23 background values. 82.61% NDs. Annual per-constituent alpha = 0.04861. Individual comparison alpha = 0.00311 (1 of 2). Comparing 8 points to limit.

Constituent: Fluoride Analysis Run 10/10/2018 6:15 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-15A | MW-18A | MW-10 (bg) | MW-08 (bg) | MW-5B | MW-4A | MW-6A | MW-21 | MW-14A |
|------------|----------|----------|------------|------------|-------|-------|-------|----------|----------|
| 6/6/2016 | 16.8 | 13.7 | <0.2 | | | | | | |
| 6/7/2016 | | | | <0.2 | <0.2 | <0.2 | <0.2 | | |
| 6/8/2016 | | | | | | | | <2 | 15.8 |
| 8/15/2016 | 20.6 | 15.1 | <0.2 | | | | | 7.23 | 17.9 |
| 8/16/2016 | | | | <0.2 | <0.2 | <0.2 | <0.2 | | |
| 10/10/2016 | | | <0.2 | <0.2 | | | | 8.45 | |
| 10/11/2016 | 17.9 | 14.3 | | | <0.2 | <0.2 | <0.2 | | 19.3 |
| 12/12/2016 | | | | | <0.2 | <0.2 | <0.2 | 6.93 | |
| 12/14/2016 | 18.4 | 11.8 | <0.2 | <0.2 | | | | | 14.7 |
| 2/17/2017 | 14.9 | 12.7 | <0.2 | | | <0.2 | | | 13.1 |
| 2/21/2017 | | | | <0.2 | <0.2 | | <0.2 | 4.87 | |
| 4/17/2017 | 14.7 | | <0.2 | <0.2 | <0.2 | <0.2 | <0.2 | | 11.3 |
| 4/18/2017 | | 10.5 | | | | | | 4.49 | |
| 6/19/2017 | | | <0.2 | <0.2 | | | | | |
| 6/20/2017 | | | | | <0.2 | <0.2 | | 7.36 | |
| 6/21/2017 | 16.4 | 11.5 | | | | | <0.2 | | 16.3 |
| 8/7/2017 | | | <0.2 | <0.2 | | <0.2 | | | |
| 8/8/2017 | 14.7 | 10.8 | | | <0.2 | | <0.2 | 7.05 | 13 |
| 10/16/2017 | | | <0.2 | <0.2 | | <0.2 | | 3.33 | |
| 10/17/2017 | 19.2 | 13.1 | | | <0.2 | | <0.2 | | 16 |
| 11/28/2017 | 12.9 (R) | 10.7 (R) | | | | | | 2.24 (R) | 13.7 (R) |
| 3/5/2018 | | | <0.2 | | | | | | |
| 3/6/2018 | | | | <0.2 | <0.2 | 0.66 | <0.2 | 0.885 | |
| 3/7/2018 | 9.8 | 8.81 | | | | | | | 11 |
| 6/19/2018 | | | <0.2 | <0.2 | | | | 6.84 | |
| 6/20/2018 | 10.5 | 13.3 | | | | | | | 15 |
| 6/21/2018 | | | | | <0.2 | <0.2 | <0.2 | | |

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-13 | MW-22 (bg) |
|------------|----------|------------|
| 6/6/2016 | | |
| 6/7/2016 | | |
| 6/8/2016 | 47.2 (o) | |
| 8/15/2016 | 13.3 | |
| 8/16/2016 | | |
| 10/10/2016 | 74.8 (o) | |
| 10/11/2016 | | |
| 12/12/2016 | | |
| 12/14/2016 | 7.03 | |
| 2/17/2017 | 4.35 | |
| 2/21/2017 | | |
| 4/17/2017 | 5.93 | |
| 4/18/2017 | | |
| 6/19/2017 | | |
| 6/20/2017 | 2.77 | |
| 6/21/2017 | | |
| 8/7/2017 | | |
| 8/8/2017 | 2.72 | |
| 10/16/2017 | 50 | |
| 10/17/2017 | | |
| 11/28/2017 | 2.92 (R) | |
| 3/5/2018 | | |
| 3/6/2018 | 21.7 | <0.2 |
| 3/7/2018 | | |
| 6/19/2018 | | <0.2 |
| 6/20/2018 | 1.34 | |
| 6/21/2018 | | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-15A | MW-10 (bg) | MW-18A | MW-6A | MW-4A | MW-5B | MW-08 (bg) | MW-14A | MW-21 |
|------------|---------|------------|---------|-------|-------|-------|------------|---------|-------|
| 6/6/2016 | 206 | 89.3 | 294 | | | | | | |
| 6/7/2016 | | | | 81.4 | 98.2 | 147 | 152 | | |
| 6/8/2016 | | | | | | | | 281 | 37.2 |
| 8/15/2016 | 199 | 80.7 | 294 | | | | | 311 | 146 |
| 8/16/2016 | | | | 75.4 | 88.8 | 139 | 117 | | |
| 10/10/2016 | | 83.3 | | | | | 118 | | 185 |
| 10/11/2016 | 203 | | 280 | 75.7 | 89.3 | 140 | | 308 | |
| 12/12/2016 | | | | 85.6 | 94.5 | 147 | | | 178 |
| 12/14/2016 | 244 | 86.5 | 291 | | | | 109 | 333 | |
| 2/17/2017 | 233 | 81.2 | 266 | | 86.8 | | | 268 | |
| 2/21/2017 | | | | 68.8 | | 126 | 89.9 | | 118 |
| 4/17/2017 | 226 | 79.2 | | 56.3 | 85.9 | 130 | 96.5 | 310 | |
| 4/18/2017 | | | 237 | | | | | | 110 |
| 6/19/2017 | | 83.6 | | | | | 113 | | |
| 6/20/2017 | | | | | 88.7 | 140 | | | 149 |
| 6/21/2017 | 186 | | 255 | 72.9 | | | | 307 | |
| 8/7/2017 | | 85.5 | | | 89.7 | | 91.3 | | |
| 8/8/2017 | 206 | | 258 | 71.2 | | 139 | | 296 | 163 |
| 10/16/2017 | | 83.3 | | | 85.3 | | 77 | | 62.3 |
| 10/17/2017 | 218 | | 239 | 71.9 | | 136 | | 310 | |
| 11/28/2017 | 217 (R) | | 232 (R) | | | | | 301 (R) | |
| 3/5/2018 | | 77.3 | | | | | | | |
| 3/6/2018 | | | | 74.1 | 95.8 | 134 | 74.7 | | 25.1 |
| 3/7/2018 | 229 | | 191 | | | | | 278 | |
| 6/19/2018 | | 88.5 | | | | | 115 | | 159 |
| 6/20/2018 | 102 | | 264 | | | | | 297 | |
| 6/21/2018 | | | | 80.1 | 91.4 | 147 | | | |

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-13 | MW-22 (bg) |
|------------|----------|------------|
| 6/6/2016 | | |
| 6/7/2016 | | |
| 6/8/2016 | 218 (o) | |
| 8/15/2016 | 112 | |
| 8/16/2016 | | |
| 10/10/2016 | 276 (o) | |
| 10/11/2016 | | |
| 12/12/2016 | | |
| 12/14/2016 | 105 | |
| 2/17/2017 | 87.6 | |
| 2/21/2017 | | |
| 4/17/2017 | 97.5 | |
| 4/18/2017 | | |
| 6/19/2017 | | |
| 6/20/2017 | 92.8 | |
| 6/21/2017 | | |
| 8/7/2017 | | |
| 8/8/2017 | 95.4 | |
| 10/16/2017 | 208 | |
| 10/17/2017 | | |
| 11/28/2017 | 93.2 (R) | |
| 3/5/2018 | | |
| 3/6/2018 | 149 | 69.8 |
| 3/7/2018 | | |
| 6/19/2018 | | 91.5 |
| 6/20/2018 | 89.5 | |
| 6/21/2018 | | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-18A | MW-15A | MW-10 (bg) | MW-08 (bg) | MW-6A | MW-5B | MW-4A | MW-21 | MW-14A |
|------------|----------|----------|------------|------------|-------|----------|-------|-------|----------|
| 6/6/2016 | 30.4 | 17.1 | 6.22 | | | | | | |
| 6/7/2016 | | | | 19.8 | 5.97 | 67 | 12.6 | | |
| 6/8/2016 | | | | | | | | 27.7 | 28.7 |
| 8/15/2016 | 27.6 | 17.2 | <5 | | | | | 16.6 | 28.7 |
| 8/16/2016 | | | | 17.8 | <5 | 65.9 | 13.2 | | |
| 10/10/2016 | | | <5 | 16.2 | | | | 24.4 | |
| 10/11/2016 | 35.3 | 17.6 | | | <5 | 66 | 13.6 | | 37 |
| 12/12/2016 | | | | | 9.08 | 67 | 13.5 | 19.2 | |
| 12/14/2016 | 29.2 | 19 | <5 | 17.2 | | | | | 31.9 |
| 2/17/2017 | 28.1 | 21.5 | <5 | | | | 15.1 | | 33.5 |
| 2/21/2017 | | | | 15.4 | 9.93 | 70.4 | | 14.2 | |
| 4/17/2017 | | 47.4 (o) | <5 | 17.1 | <5 | 62.1 | 12.5 | | 39.4 |
| 4/18/2017 | 44.2 | | | | | | | 15.6 | |
| 6/19/2017 | | | <5 | 14.1 | | | | | |
| 6/20/2017 | | | | | | 63.4 | 13.2 | 15.1 | |
| 6/21/2017 | 27.2 | 12.8 | | | <5 | | | | 29.7 |
| 8/7/2017 | | | <5 | 14 | | | 13.2 | | |
| 8/8/2017 | 27 | 15.4 | | | <5 | 64 | | 16.1 | 32.9 |
| 10/16/2017 | | | <5 | 14.4 | | | 14.7 | 5.09 | |
| 10/17/2017 | 29.3 | 20.5 | | | <5 | 73 | | | 35.4 |
| 11/28/2017 | 27.4 (R) | 20.7 (R) | | | | 67.8 (R) | | | 33.2 (R) |
| 3/5/2018 | | | <5 | | | | | | |
| 3/6/2018 | | | | 14.5 | 5.33 | 68.2 | 8.81 | <5 | |
| 3/7/2018 | 27.1 | 24.2 | | | | | | | 37.4 |
| 6/19/2018 | | | <5 | 14.9 | | | | 10.9 | |
| 6/20/2018 | 25.6 | <5 | | | | | | | 29 |
| 6/21/2018 | | | | | <5 | 65 | 15.3 | | |

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-13 | MW-22 (bg) |
|------------|-------|------------|
| 6/6/2016 | | |
| 6/7/2016 | | |
| 6/8/2016 | 22.9 | |
| 8/15/2016 | 17.1 | |
| 8/16/2016 | | |
| 10/10/2016 | 29.8 | |
| 10/11/2016 | | |
| 12/12/2016 | | |
| 12/14/2016 | 12.7 | |
| 2/17/2017 | 14.8 | |
| 2/21/2017 | | |
| 4/17/2017 | 12.8 | |
| 4/18/2017 | | |
| 6/19/2017 | | |
| 6/20/2017 | 9.17 | |
| 6/21/2017 | | |
| 8/7/2017 | | |
| 8/8/2017 | 9.62 | |
| 10/16/2017 | 15.2 | |
| 10/17/2017 | | |
| 11/28/2017 | | |
| 3/5/2018 | | |
| 3/6/2018 | 19.9 | 30 |
| 3/7/2018 | | |
| 6/19/2018 | | 27.2 |
| 6/20/2018 | 5.84 | |
| 6/21/2018 | | |

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-10 (bg) | MW-18A | MW-15A | MW-08 (bg) | MW-5B | MW-6A | MW-4A | MW-14A | MW-13 |
|------------|------------|-----------|---------|------------|-------|-------|-------|----------|----------|
| 6/6/2016 | 0.731 | <0.5 | <0.5 | | | | | | |
| 6/7/2016 | | | | <0.5 | <0.5 | <0.5 | <0.5 | | |
| 6/8/2016 | | | | | | | | <0.5 | <0.5 |
| 8/15/2016 | <0.5 | <0.5 | 0.549 | | | | | <0.5 | 1.21 |
| 8/16/2016 | | | | <0.5 | <0.5 | <0.5 | <0.5 | | |
| 10/10/2016 | <0.5 | | | <0.5 | | | | | 3.25 (o) |
| 10/11/2016 | | 0.791 | <0.5 | | <0.5 | <0.5 | <0.5 | 0.867 | |
| 12/12/2016 | | | | | 1.88 | 2.02 | <0.5 | | |
| 12/14/2016 | <0.5 | <0.5 (F2) | <0.5 | 0.72 | | | | <0.5 | <0.5 |
| 2/17/2017 | <0.5 | <0.5 | <0.5 | | | | 0.664 | <0.5 | <0.5 |
| 2/21/2017 | | | | <0.5 | 2.14 | 1.89 | | | |
| 4/17/2017 | 0.774 | | 6.7 (o) | 1.69 (F1o) | 0.627 | 0.814 | 0.801 | 1.93 (o) | 0.997 |
| 4/18/2017 | | 3.16 (o) | | | | | | | |
| 6/19/2017 | <0.5 | | | <0.5 | | | | | |
| 6/20/2017 | | | | | <0.5 | | <0.5 | | <0.5 |
| 6/21/2017 | | <0.5 | <0.5 | | | <0.5 | | <0.5 | |
| 8/7/2017 | <0.5 | | | <0.5 | | | <0.5 | | |
| 8/8/2017 | | <0.5 | <0.5 | | <0.5 | <0.5 | | <0.5 | <0.5 |
| 10/16/2017 | <0.5 | | | <0.5 | | | <0.5 | | <0.5 |
| 10/17/2017 | | <0.5 | <0.5 | | <0.5 | <0.5 | | <0.5 | |
| 3/5/2018 | <0.5 | | | | | | | | |
| 3/6/2018 | | | | <0.5 | <0.5 | <0.5 | <0.5 | | 2.08 |
| 3/7/2018 | | <0.5 | <0.5 | | | | | <0.5 | |
| 6/19/2018 | <0.5 | | | 0.826 | | | | | |
| 6/20/2018 | | <0.5 | <0.5 | | | | | 0.684 | 0.528 |
| 6/21/2018 | | | | | <0.5 | <0.5 | <0.5 | | |

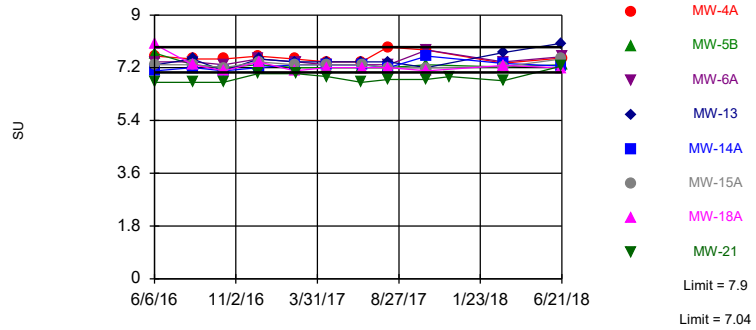
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-21 | MW-22 (bg) |
|------------|-------|------------|
| 6/6/2016 | | |
| 6/7/2016 | | |
| 6/8/2016 | <0.5 | |
| 8/15/2016 | <0.5 | |
| 8/16/2016 | | |
| 10/10/2016 | <0.5 | |
| 10/11/2016 | | |
| 12/12/2016 | <0.5 | |
| 12/14/2016 | | |
| 2/17/2017 | | |
| 2/21/2017 | 0.993 | |
| 4/17/2017 | | |
| 4/18/2017 | 0.768 | |
| 6/19/2017 | | |
| 6/20/2017 | <0.5 | |
| 6/21/2017 | | |
| 8/7/2017 | | |
| 8/8/2017 | <0.5 | |
| 10/16/2017 | <0.5 | |
| 10/17/2017 | | |
| 3/5/2018 | | |
| 3/6/2018 | <0.5 | <0.5 |
| 3/7/2018 | | |
| 6/19/2018 | <0.5 | <0.5 |
| 6/20/2018 | | |
| 6/21/2018 | | |

Exceeds Limits: MW-13

Prediction Limit
Interwell Non-parametric



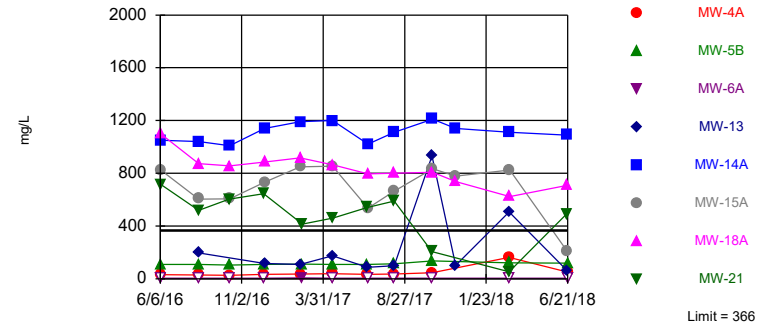
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 24 background values. Annual per-constituent alpha = 0.08974. Individual comparison alpha = 0.00573 (1 of 2). Comparing 8 points to limit.

Constituent: pH Analysis Run 10/10/2018 6:15 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Hollow symbols indicate censored values.

Exceeds Limit: MW-14A, MW-18A, MW-21

Prediction Limit
Interwell Non-parametric

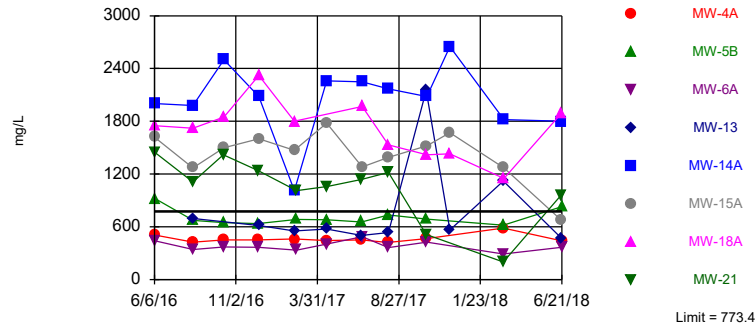


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 24 background values. Annual per-constituent alpha = 0.04487. Individual comparison alpha = 0.002865 (1 of 2). Comparing 8 points to limit.

Constituent: Sulfate Analysis Run 10/10/2018 6:15 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Exceeds Limit: MW-5B, MW-14A, MW-18A, MW-21

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=512, Std. Dev.=122.2, n=24. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9352, critical = 0.884. Kappa = 2.139 (c=7, w=8, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0009403. Comparing 8 points to limit.

Constituent: Total Dissolved Solids Analysis Run 10/10/2018 6:15 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Prediction Limit

Constituent: pH (SU) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-18A | MW-15A | MW-10 (bg) | MW-08 (bg) | MW-6A | MW-5B | MW-4A | MW-21 | MW-14A |
|------------|--------|--------|------------|------------|-------|-------|-------|---------|--------|
| 6/6/2016 | 8 | 7.3 | 7.4 | | | | | | |
| 6/7/2016 | | | | 7.2 | 7.4 | 7.7 | 7.6 | | |
| 6/8/2016 | | | | | | | | 6.7 | 7.1 |
| 8/15/2016 | 7.3 | 7.3 | 7.3 | | | | | 6.7 | 7.2 |
| 8/16/2016 | | | | 7.3 | 7.4 | 7.3 | 7.5 | | |
| 10/10/2016 | | | 7.2 | 7.1 | | | | 6.7 | |
| 10/11/2016 | 7.1 | 7.2 | | | 7.3 | 7.2 | 7.5 | | 7.1 |
| 12/12/2016 | | | | | 7.5 | 7.3 | 7.6 | 7 | |
| 12/14/2016 | 7.4 | 7.4 | 7.3 | 7.3 | | | | | 7.2 |
| 2/17/2017 | 7.1 | 7.3 | 7.2 | | | | 7.5 | | 7.3 |
| 2/21/2017 | | | | 7.3 | 7.4 | 7.2 | | 7 | |
| 4/17/2017 | | 7.3 | 7.3 | 7.1 | 7.3 | 7.2 | 7.4 | | 7.3 |
| 4/18/2017 | 7.2 | | | | | | | 6.9 | |
| 6/19/2017 | | | 7.2 | 7.1 | | | | | |
| 6/20/2017 | | | | | | 7.2 | 7.4 | 6.7 | |
| 6/21/2017 | 7.2 | 7.3 | | | 7.3 | | | | 7.3 |
| 8/7/2017 | | | 7.9 | 7.3 | | | 7.9 | | |
| 8/8/2017 | 7.2 | 7.2 | | | 7.3 | 7.2 | | 6.8 | 7.2 |
| 10/16/2017 | | | 7.3 | 7.4 | | | 7.8 | 6.8 | |
| 10/17/2017 | 7.1 | 7.2 | | | 7.8 | 7.3 | | | 7.6 |
| 11/28/2017 | | | | | | | | 6.9 (R) | |
| 3/5/2018 | | | 7.04 | | | | | | |
| 3/6/2018 | | | | 7.3 | 7.4 | 7.23 | 7.36 | 6.76 | |
| 3/7/2018 | 7.28 | 7.24 | | | | | | | 7.35 |
| 6/19/2018 | | | 7.72 | 7.56 | | | | 7.25 | |
| 6/20/2018 | 7.19 | 7.5 | | | | | | | 7.26 |
| 6/21/2018 | | | | | 7.58 | 7.3 | 7.53 | | |

Prediction Limit

Constituent: pH (SU) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-13 | MW-22 (bg) |
|------------|-------|------------|
| 6/6/2016 | | |
| 6/7/2016 | | |
| 6/8/2016 | 7.3 | |
| 8/15/2016 | 7.5 | |
| 8/16/2016 | | |
| 10/10/2016 | 7.1 | |
| 10/11/2016 | | |
| 12/12/2016 | | |
| 12/14/2016 | 7.5 | |
| 2/17/2017 | 7.4 | |
| 2/21/2017 | | |
| 4/17/2017 | 7.4 | |
| 4/18/2017 | | |
| 6/19/2017 | | |
| 6/20/2017 | 7.4 | |
| 6/21/2017 | | |
| 8/7/2017 | | |
| 8/8/2017 | 7.4 | |
| 10/16/2017 | 7.2 | |
| 10/17/2017 | | |
| 11/28/2017 | | |
| 3/5/2018 | | |
| 3/6/2018 | 7.72 | 7.36 |
| 3/7/2018 | | |
| 6/19/2018 | | 7.9 |
| 6/20/2018 | 8.03 | |
| 6/21/2018 | | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-15A | MW-10 (bg) | MW-18A | MW-6A | MW-4A | MW-5B | MW-08 (bg) | MW-14A | MW-21 |
|------------|---------|------------|---------|-------|-------|-------|------------|----------|-------|
| 6/6/2016 | 827 | 42.1 | 1100 | | | | | | |
| 6/7/2016 | | | | <5 | 32.2 | 109 | 366 | | |
| 6/8/2016 | | | | | | | | 1050 | 713 |
| 8/15/2016 | 605 | 33.8 | 874 | | | | | 1040 | 520 |
| 8/16/2016 | | | | <5 | 28.4 | 109 | 187 | | |
| 10/10/2016 | | 36.4 | | | | | 187 | | 603 |
| 10/11/2016 | 607 | | 855 | <5 | 27.2 | 105 | | 1010 | |
| 12/12/2016 | | | | <5 | 32.7 | 109 | | | 645 |
| 12/14/2016 | 732 | 38.4 | 886 | | | | 149 | 1140 | |
| 2/17/2017 | 849 | 47.3 | 917 | | 36 | | | 1190 | |
| 2/21/2017 | | | | 5.94 | | 111 | 145 | | 415 |
| 4/17/2017 | 853 | 38.3 | | <5 | 39.5 | 108 | 145 | 1200 | |
| 4/18/2017 | | | 863 | | | | | | 461 |
| 6/19/2017 | | 35.4 | | | | | 190 | | |
| 6/20/2017 | | | | | 33 | 108 | | | 541 |
| 6/21/2017 | 537 | | 796 | <5 | | | | 1020 | |
| 8/7/2017 | | 39 | | | 35.3 | | 119 | | |
| 8/8/2017 | 664 | | 801 | <5 | | 114 | | 1110 | 590 |
| 10/16/2017 | | 46.9 | | | 45.4 | | 106 | | 206 |
| 10/17/2017 | 835 | | 808 | <5 | | 135 | | 1210 | |
| 11/28/2017 | 779 (R) | | 737 (R) | | | | | 1140 (R) | |
| 3/5/2018 | | 51.4 | | | | | | | |
| 3/6/2018 | | | | <5 | 162 | 122 | 87.3 | | 53.7 |
| 3/7/2018 | 824 | | 624 | | | | | 1110 | |
| 6/19/2018 | | 37.3 | | | | | 136 | | 489 |
| 6/20/2018 | 210 | | 709 | | | | | 1090 | |
| 6/21/2018 | | | | <5 | 51.3 | 119 | | | |

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-13 | MW-22 (bg) |
|------------|----------|------------|
| 6/6/2016 | | |
| 6/7/2016 | | |
| 6/8/2016 | 975 (o) | |
| 8/15/2016 | 197 | |
| 8/16/2016 | | |
| 10/10/2016 | 1170 (o) | |
| 10/11/2016 | | |
| 12/12/2016 | | |
| 12/14/2016 | 117 | |
| 2/17/2017 | 110 | |
| 2/21/2017 | | |
| 4/17/2017 | 174 | |
| 4/18/2017 | | |
| 6/19/2017 | | |
| 6/20/2017 | 86.7 | |
| 6/21/2017 | | |
| 8/7/2017 | | |
| 8/8/2017 | 99.4 | |
| 10/16/2017 | 931 | |
| 10/17/2017 | | |
| 11/28/2017 | 102 (R) | |
| 3/5/2018 | | |
| 3/6/2018 | 506 | 123 |
| 3/7/2018 | | |
| 6/19/2018 | | 134 |
| 6/20/2018 | 62.1 | |
| 6/21/2018 | | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-15A | MW-10 (bg) | MW-18A | MW-6A | MW-4A | MW-5B | MW-08 (bg) | MW-14A | MW-21 |
|------------|----------|------------|----------|-------|-------|-------|------------|----------|-------|
| 6/6/2016 | 1620 | 468 | 1750 | | | | | | |
| 6/7/2016 | | | | 440 | 507 | 920 | 836 | | |
| 6/8/2016 | | | | | | | | 2000 | 1440 |
| 8/15/2016 | 1270 | 412 | 1720 | | | | | 1980 | 1110 |
| 8/16/2016 | | | | 340 | 426 | 672 | 664 | | |
| 10/10/2016 | | 444 | | | | | 708 | | 1420 |
| 10/11/2016 | 1500 | | 1850 | 370 | 450 | 646 | | 2500 | |
| 12/12/2016 | | | | 368 | 450 | 636 | | | 1240 |
| 12/14/2016 | 1600 | 428 | 2320 | | | | 634 | 2080 | |
| 2/17/2017 | 1470 | 498 | 1800 | | 460 | | | 1010 | |
| 2/21/2017 | | | | 336 | | 684 | 578 | | 1010 |
| 4/17/2017 | 1780 | 538 | | 402 | 442 | 680 | 624 | 2260 | |
| 4/18/2017 | | | 4160 (o) | | | | | | 1060 |
| 6/19/2017 | | 524 | | | | | 656 | | |
| 6/20/2017 | | | | | 452 | 656 | | | 1140 |
| 6/21/2017 | 1280 | | 1970 | 486 | | | | 2250 | |
| 8/7/2017 | | 458 | | | 420 | | 488 | | |
| 8/8/2017 | 1390 | | 1530 | 364 | | 734 | | 2170 | 1220 |
| 10/16/2017 | | 414 | | | 466 | | 470 | | 514 |
| 10/17/2017 | 1520 | | 1420 | 424 | | 688 | | 2080 | |
| 11/28/2017 | 1670 (R) | | 1430 (R) | | | | | 2650 (R) | |
| 3/5/2018 | | 314 | | | | | | | |
| 3/6/2018 | | | | 292 | 586 | 620 | 376 | | 200 |
| 3/7/2018 | 1270 | | 1150 | | | | | 1820 | |
| 6/19/2018 | | 396 | | | | | 502 | | 952 |
| 6/20/2018 | 676 | | 1890 | | | | | 1800 | |
| 6/21/2018 | | | | 368 | 440 | 828 | | | |

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 10/10/2018 6:17 PM View: Interwell PLs
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

| | MW-13 | MW-22 (bg) |
|------------|----------|------------|
| 6/6/2016 | | |
| 6/7/2016 | | |
| 6/8/2016 | 1970 (o) | |
| 8/15/2016 | 694 | |
| 8/16/2016 | | |
| 10/10/2016 | 2740 (o) | |
| 10/11/2016 | | |
| 12/12/2016 | | |
| 12/14/2016 | 616 | |
| 2/17/2017 | 554 | |
| 2/21/2017 | | |
| 4/17/2017 | 574 | |
| 4/18/2017 | | |
| 6/19/2017 | | |
| 6/20/2017 | 502 | |
| 6/21/2017 | | |
| 8/7/2017 | | |
| 8/8/2017 | 536 | |
| 10/16/2017 | 2150 | |
| 10/17/2017 | | |
| 11/28/2017 | 562 (R) | |
| 3/5/2018 | | |
| 3/6/2018 | 1120 | 424 |
| 3/7/2018 | | |
| 6/19/2018 | | 434 |
| 6/20/2018 | 472 | |
| 6/21/2018 | | |

Trend Tests

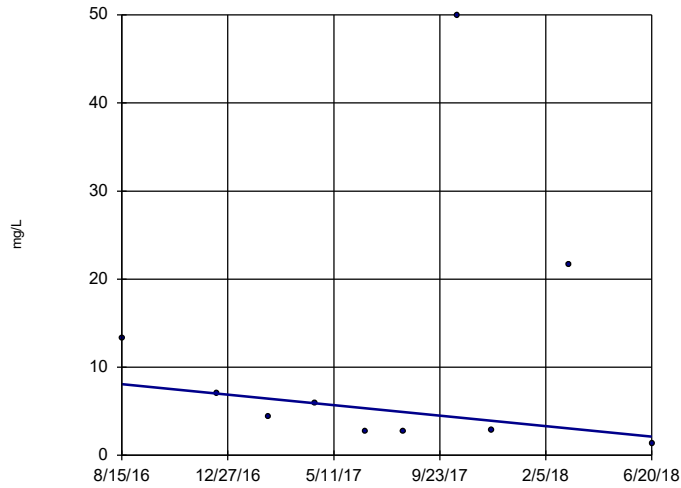
Trend Tests Summary Table

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/11/2018, 7:05 AM

| <u>Constituent</u> | <u>Well</u> | <u>Slope</u> | <u>Calc.</u> | <u>Critical</u> | <u>Sig.</u> | <u>N</u> | <u>%NDs</u> | <u>Normality</u> | <u>Xform</u> | <u>Alpha</u> | <u>Method</u> |
|-------------------------------|---------------|---------------|--------------|-----------------|-------------|-----------|-------------|------------------|--------------|--------------|---------------|
| Boron (mg/L) | MW-13 | -3.238 | -13 | -30 | No | 10 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-14A | -1.943 | -22 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-15A | -4.336 | -37 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-18A | -2.07 | -28 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Boron (mg/L) | MW-21 | -2.001 | -20 | -38 | No | 12 | 8.333 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MW-14A | -6.832 | -15 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MW-15A | -6.217 | -3 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Calcium (mg/L) | MW-18A | -41.32 | -43 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Chloride (mg/L) | MW-5B | 0.7598 | 7 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Chloride (mg/L) | MW-14A | 1.45 | 15 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Sulfate (mg/L) | MW-14A | 32.27 | 12 | 38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Sulfate (mg/L) | MW-15A | -11.41 | -2 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Sulfate (mg/L) | MW-18A | -151.2 | -46 | -38 | Yes | 12 | 0 | n/a | n/a | 0.01 | NP |
| Total Dissolved Solids (mg/L) | MW-14A | -83.5 | -5 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Total Dissolved Solids (mg/L) | MW-15A | -166.9 | -15 | -38 | No | 12 | 0 | n/a | n/a | 0.01 | NP |
| Total Dissolved Solids (mg/L) | MW-18A | -241.9 | -15 | -34 | No | 11 | 0 | n/a | n/a | 0.01 | NP |

Sen's Slope Estimator

MW-13

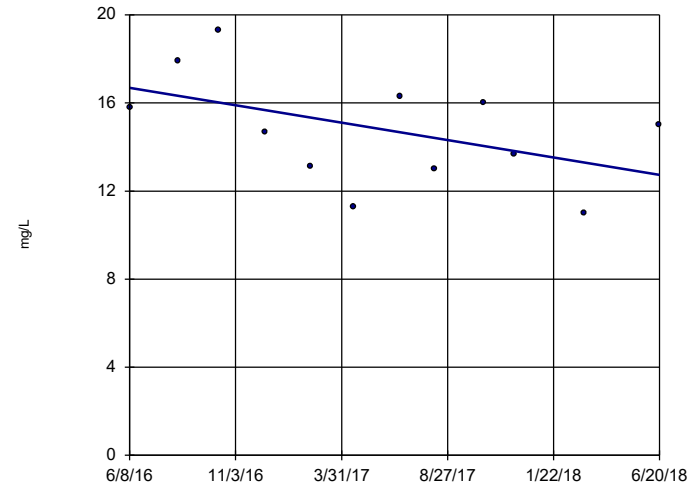


n = 10
 Slope = -3.238
 units per year.
 Mann-Kendall
 statistic = -13
 critical = -30
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

MW-14A

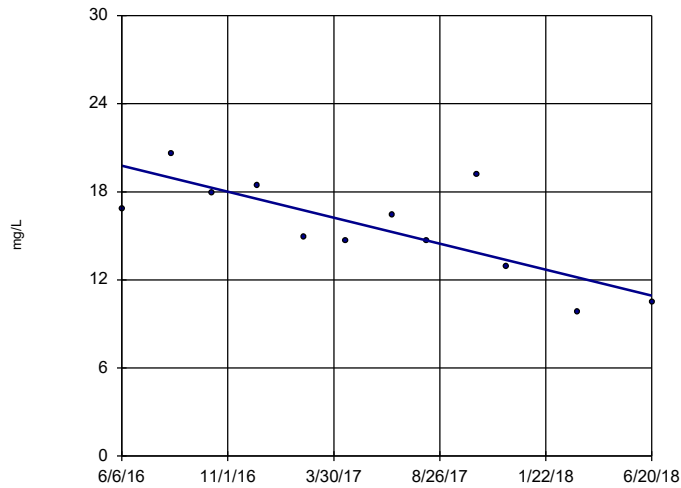


n = 12
 Slope = -1.943
 units per year.
 Mann-Kendall
 statistic = -22
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

MW-15A

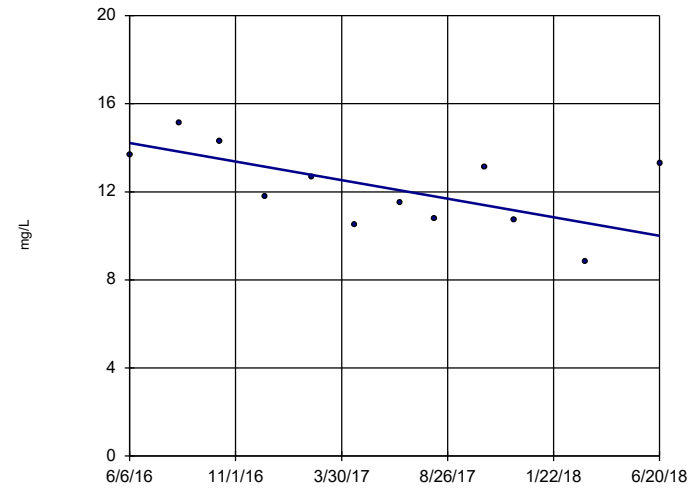


n = 12
 Slope = -4.336
 units per year.
 Mann-Kendall
 statistic = -37
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

MW-18A

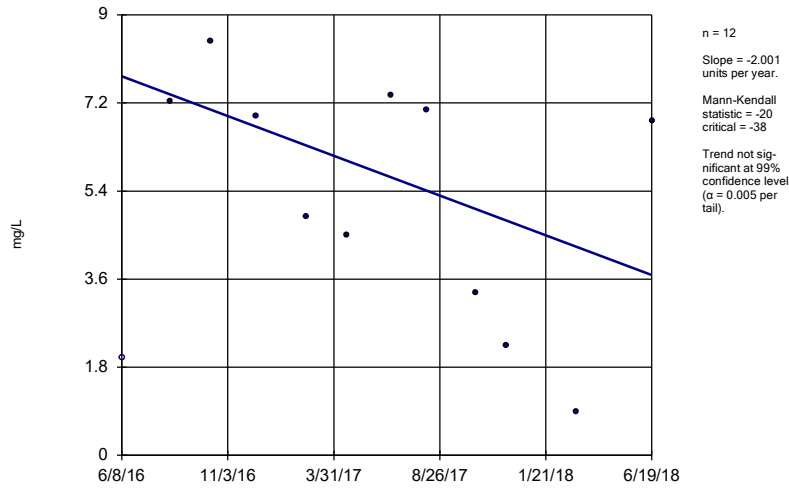


n = 12
 Slope = -2.07
 units per year.
 Mann-Kendall
 statistic = -28
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Boron Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

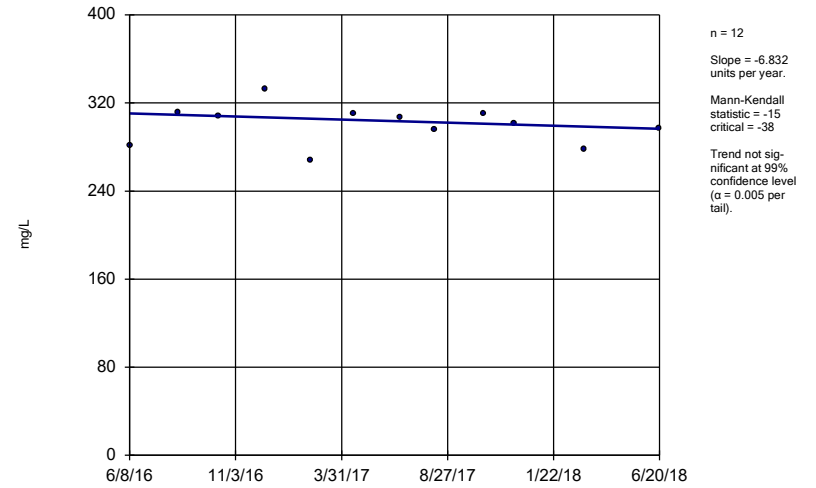
MW-21



Constituent: Boron Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

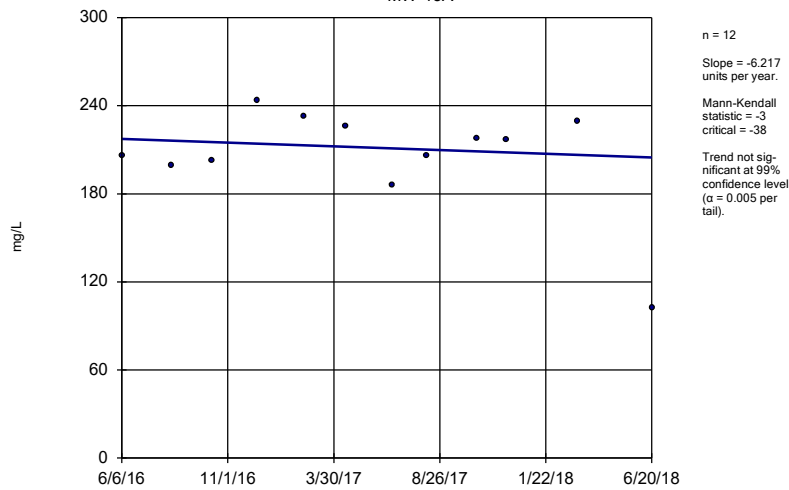
MW-14A



Constituent: Calcium Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

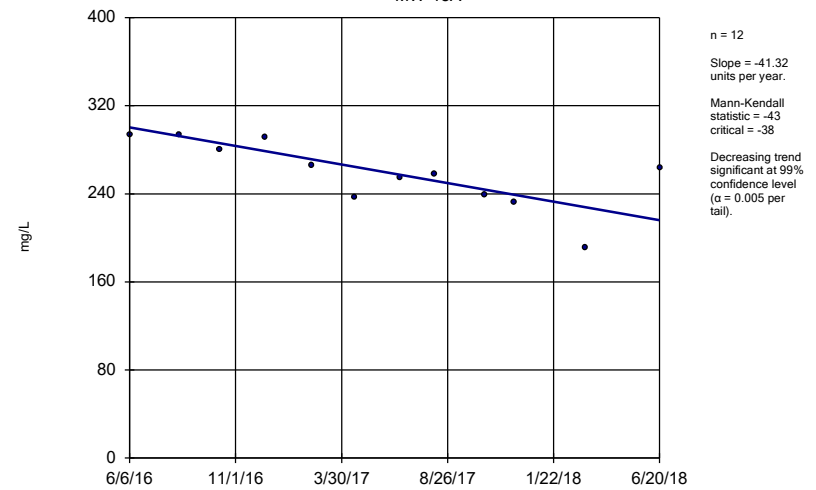
MW-15A



Constituent: Calcium Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

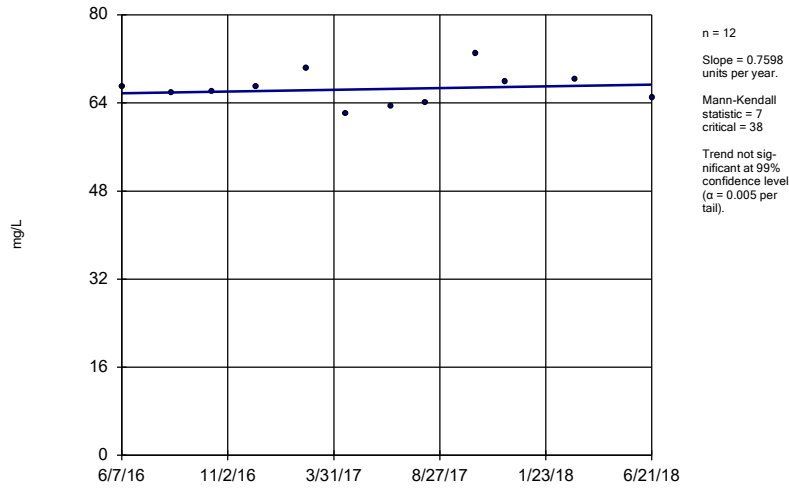
MW-18A



Constituent: Calcium Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

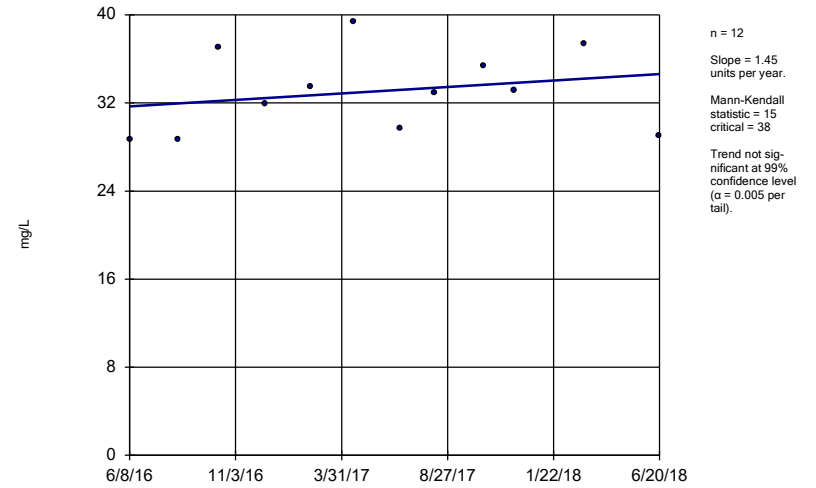
MW-5B



Constituent: Chloride Analysis Run 10/11/2018 7:03 AM View: Trend Tests
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

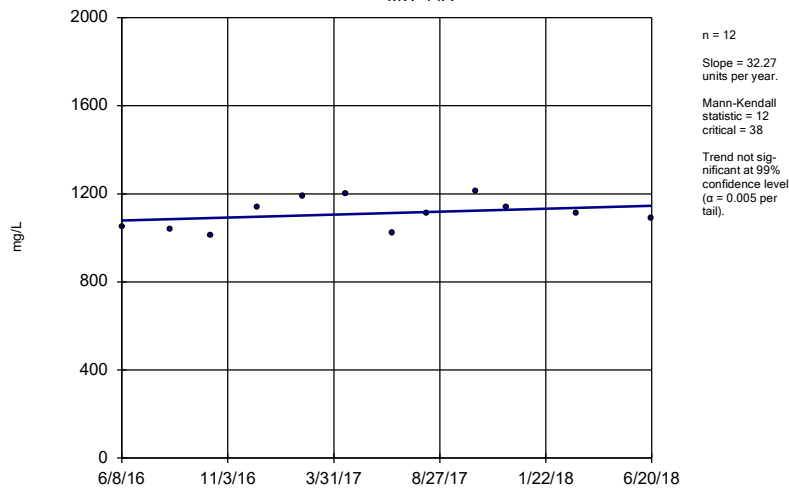
MW-14A



Constituent: Chloride Analysis Run 10/11/2018 7:03 AM View: Trend Tests
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

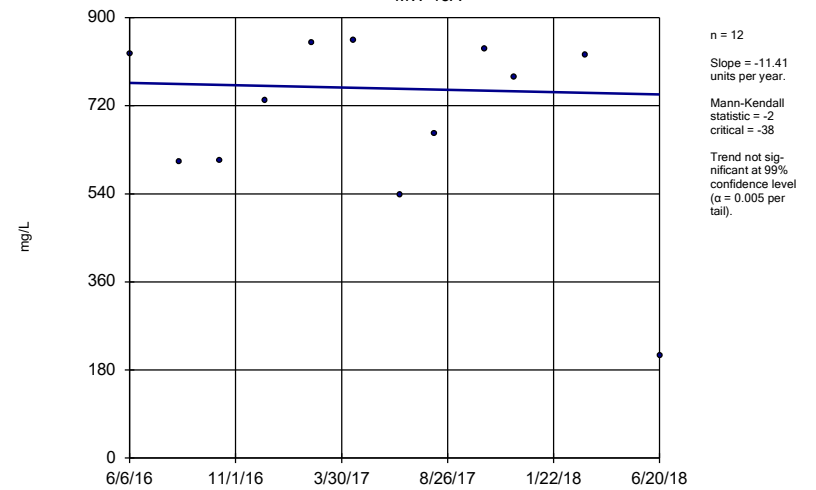
MW-14A



Constituent: Sulfate Analysis Run 10/11/2018 7:03 AM View: Trend Tests
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

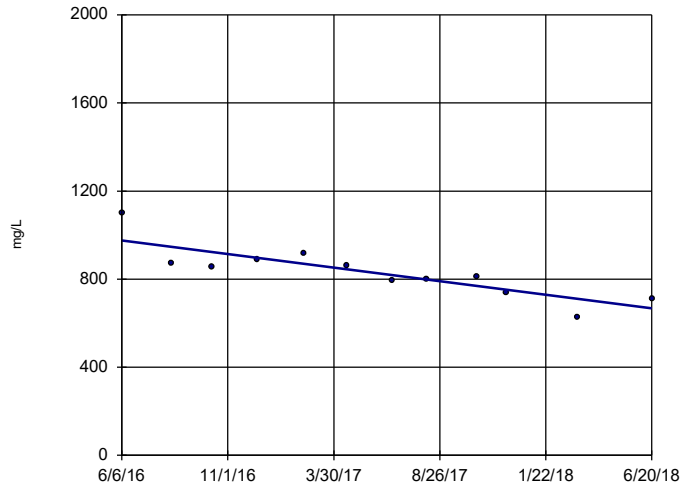
MW-15A



Constituent: Sulfate Analysis Run 10/11/2018 7:03 AM View: Trend Tests
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

MW-18A

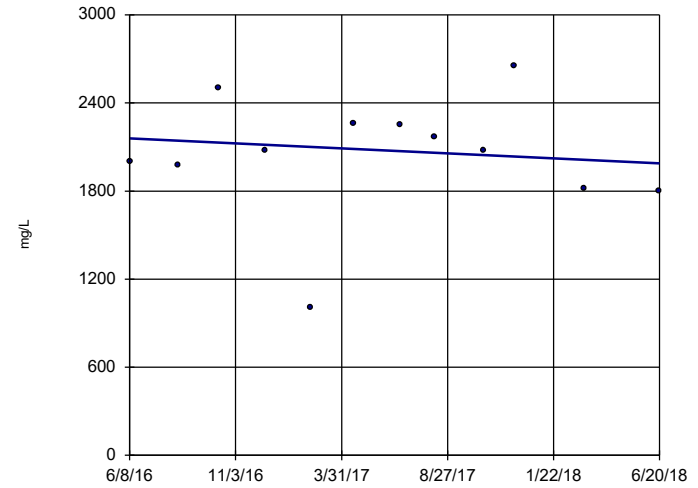


n = 12
 Slope = -151.2
 units per year.
 Mann-Kendall
 statistic = -46
 critical = -38
 Decreasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Sulfate Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

MW-14A

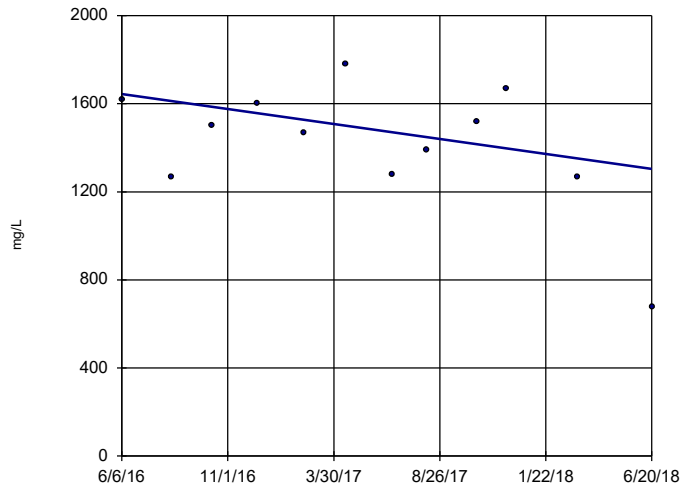


n = 12
 Slope = -83.5
 units per year.
 Mann-Kendall
 statistic = -5
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

MW-15A

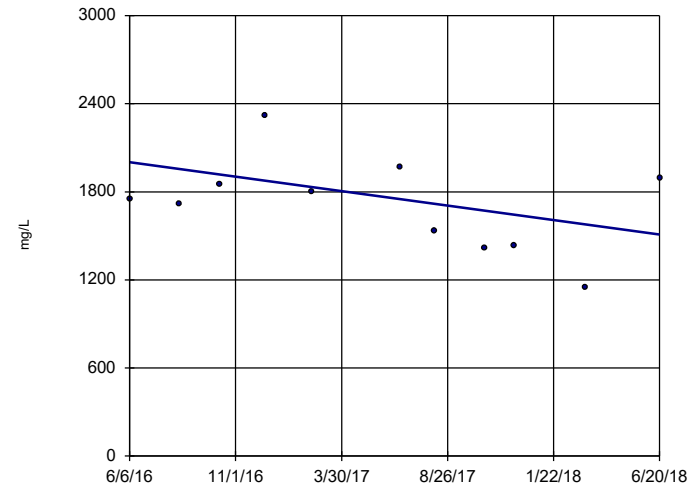


n = 12
 Slope = -166.9
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -38
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Sen's Slope Estimator

MW-18A

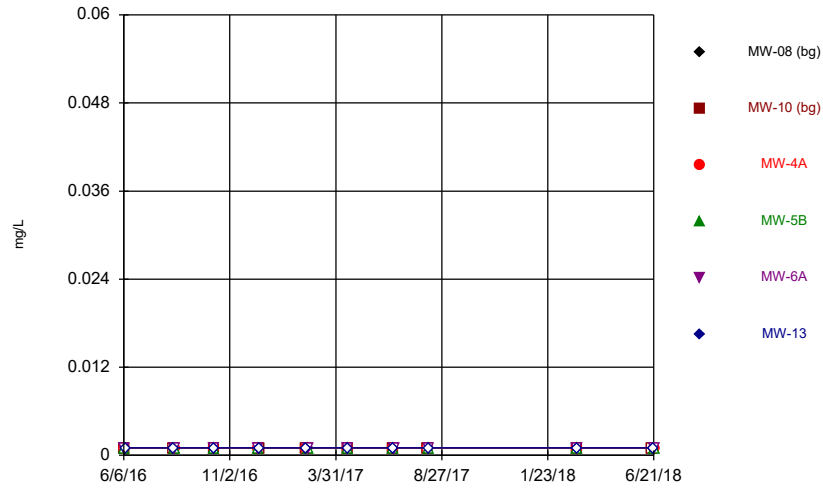


n = 11
 Slope = -241.9
 units per year.
 Mann-Kendall
 statistic = -15
 critical = -34
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Total Dissolved Solids Analysis Run 10/11/2018 7:03 AM View: Trend Tests
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

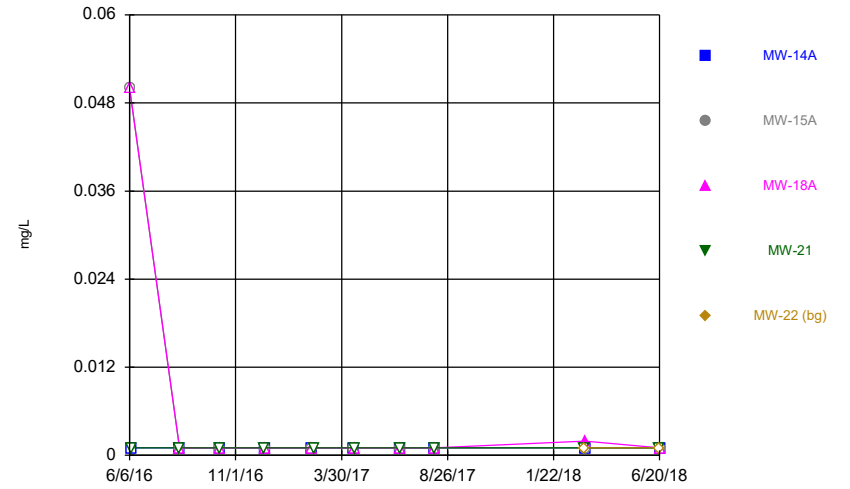
Time Series

Time Series



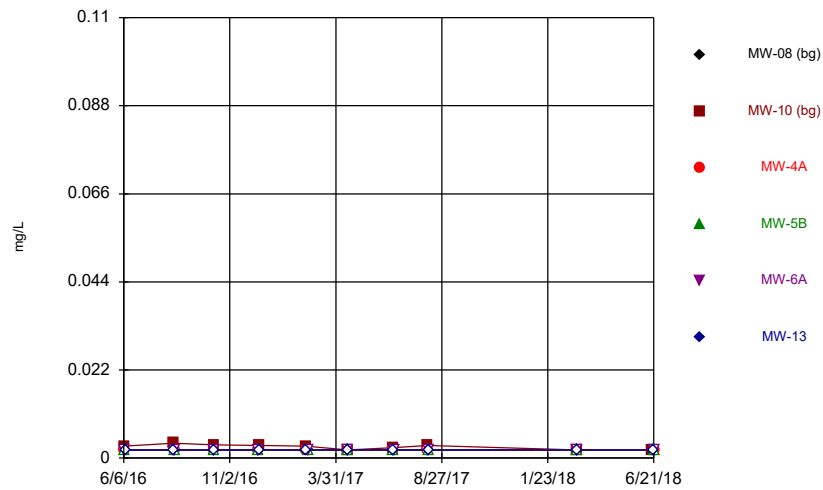
Constituent: Antimony Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



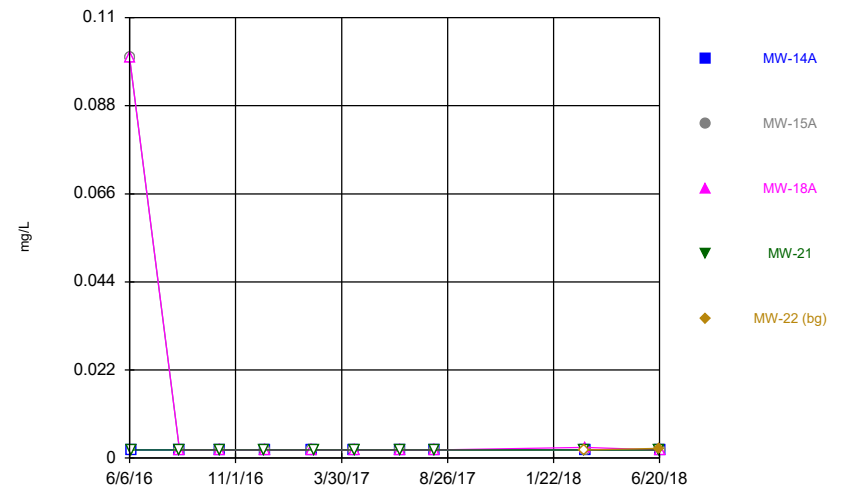
Constituent: Antimony Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



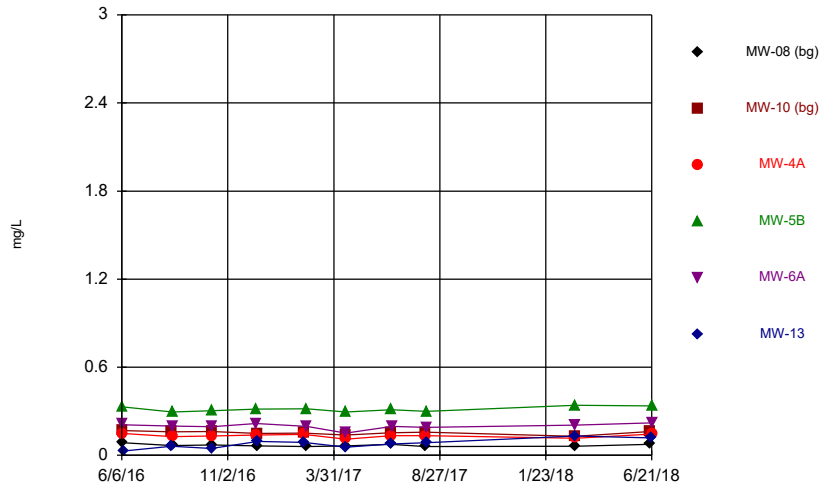
Constituent: Arsenic Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



Constituent: Arsenic Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

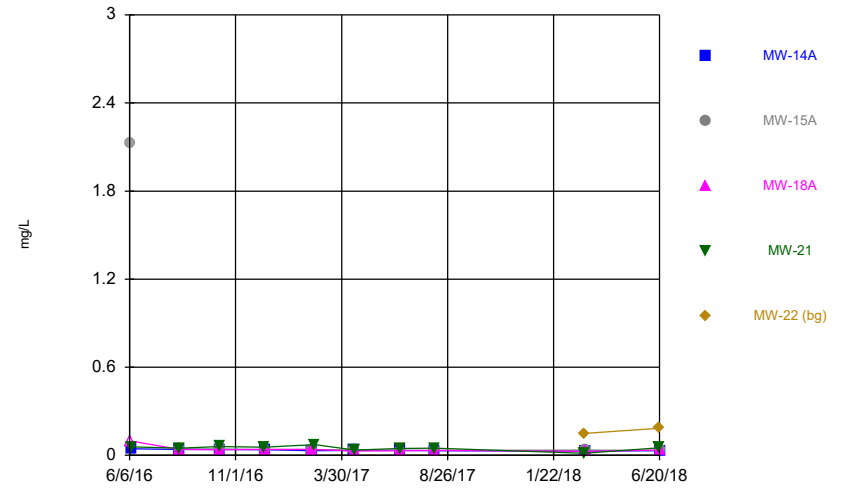
Time Series



Constituent: Barium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Hollow symbols indicate censored values.

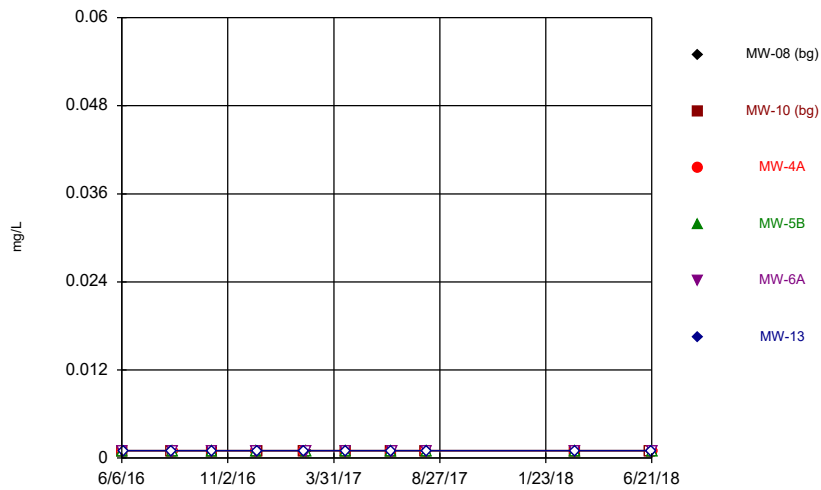
Time Series



Constituent: Barium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Hollow symbols indicate censored values.

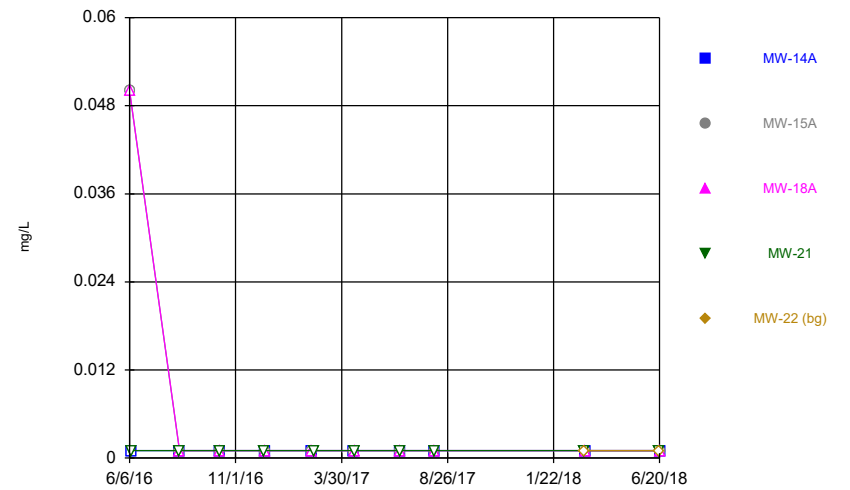
Time Series



Constituent: Beryllium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

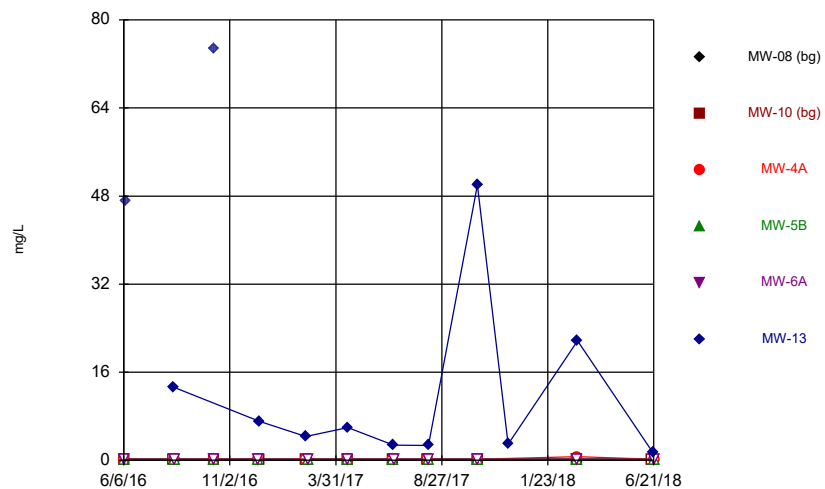
Hollow symbols indicate censored values.

Time Series



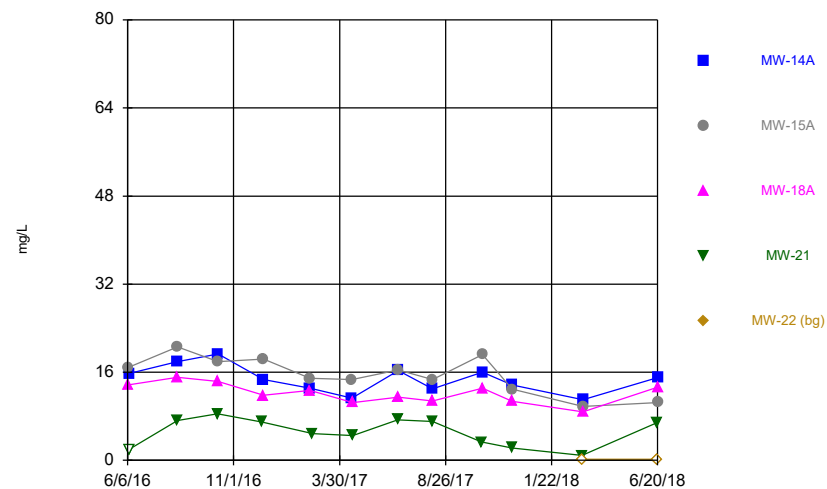
Constituent: Beryllium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



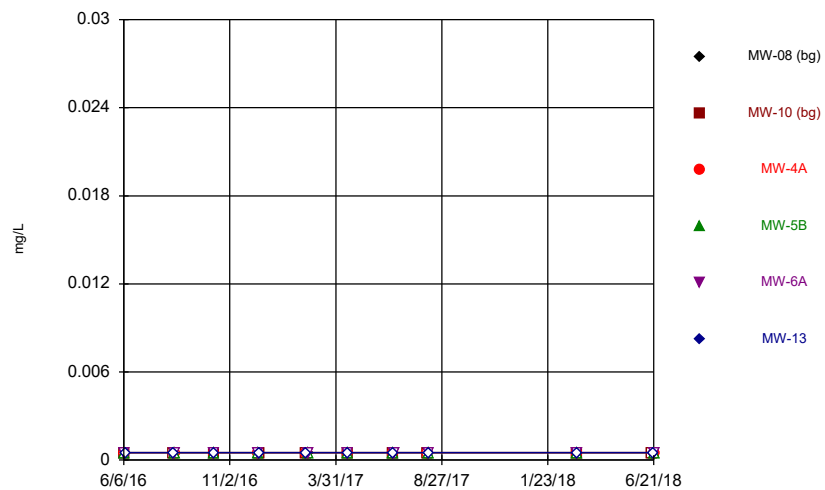
Constituent: Boron Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



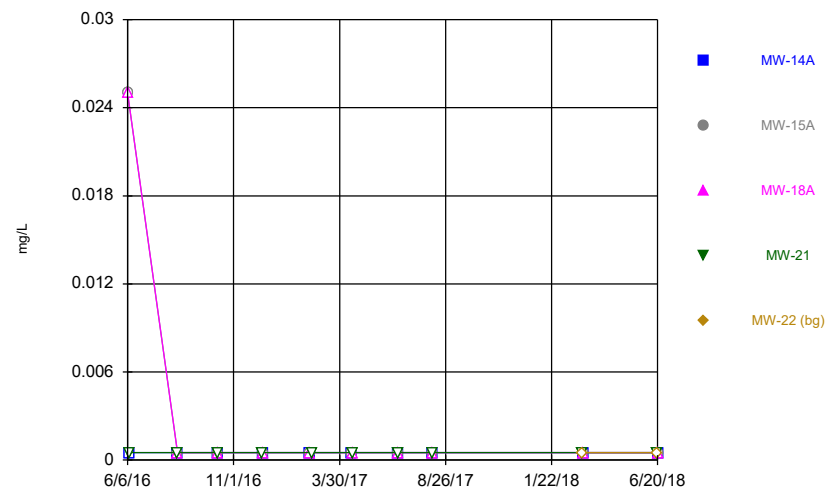
Constituent: Boron Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



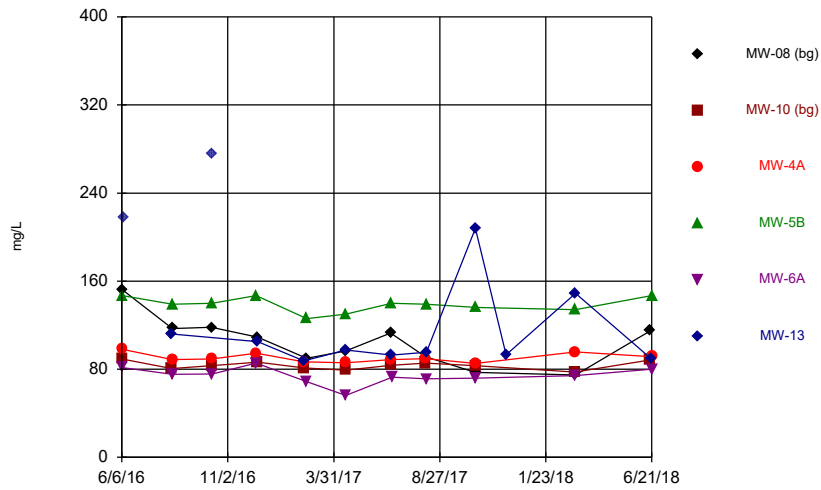
Constituent: Cadmium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



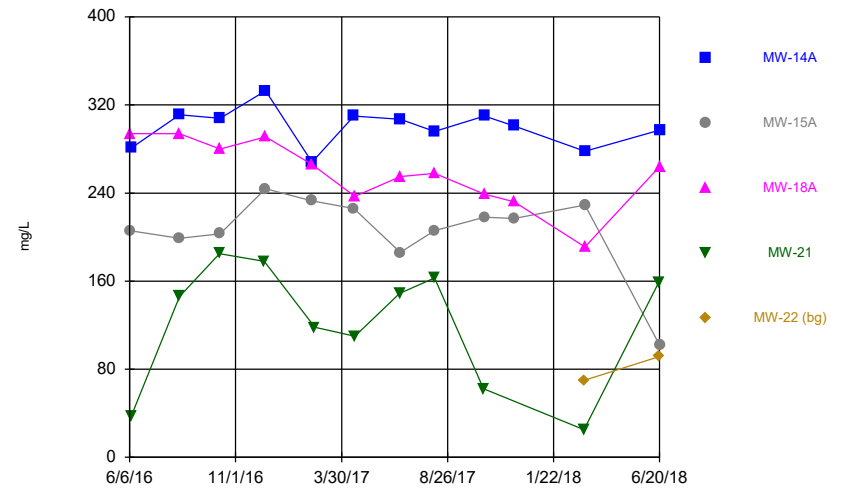
Constituent: Cadmium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



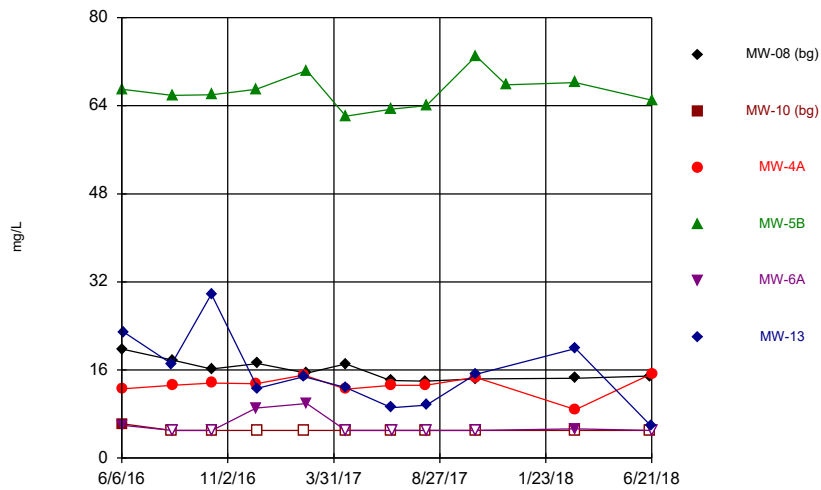
Constituent: Calcium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



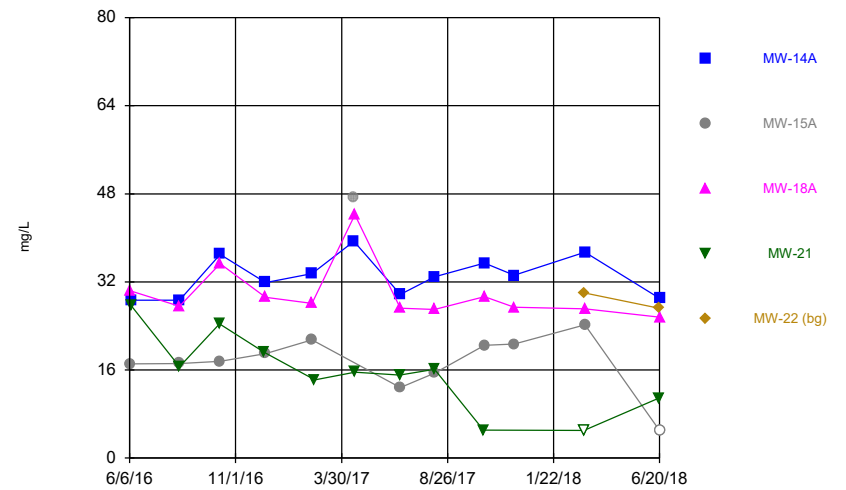
Constituent: Calcium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



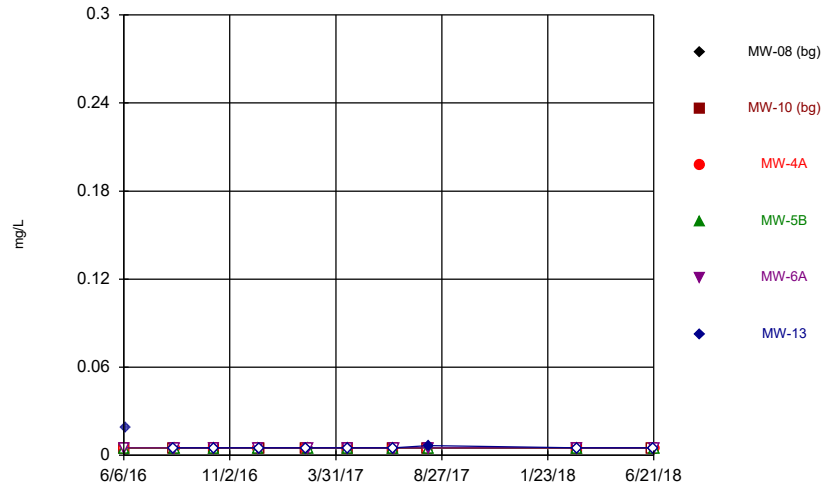
Constituent: Chloride Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



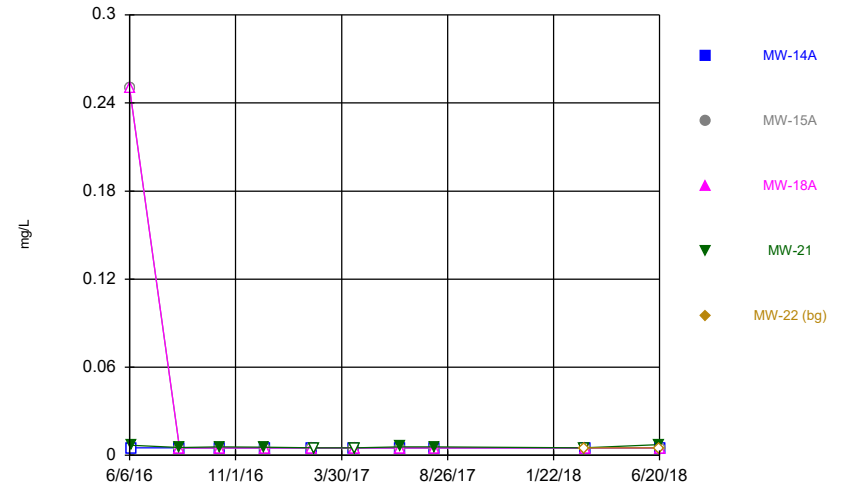
Constituent: Chloride Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



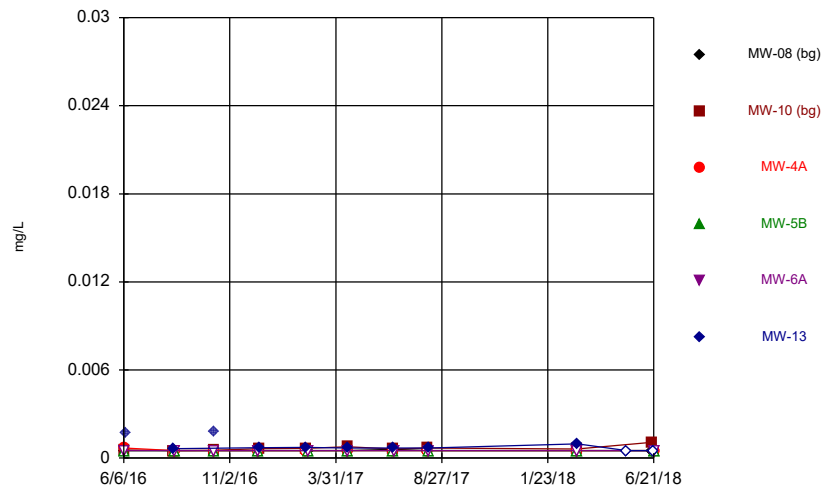
Constituent: Chromium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



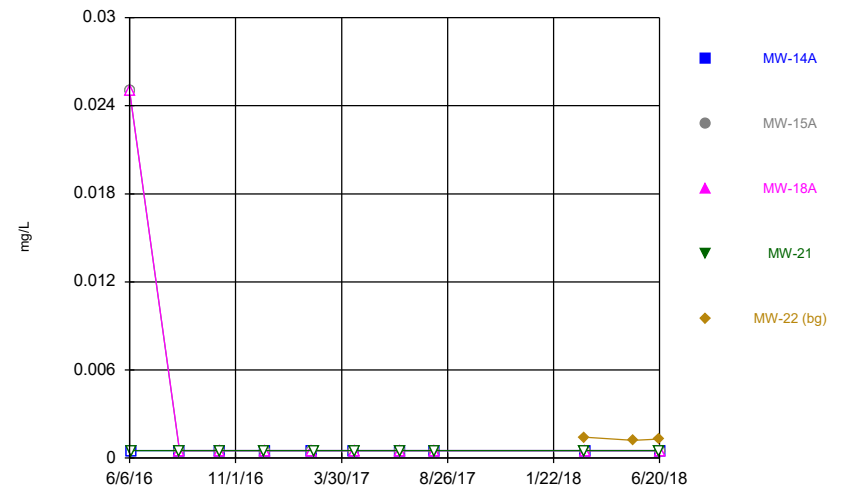
Constituent: Chromium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



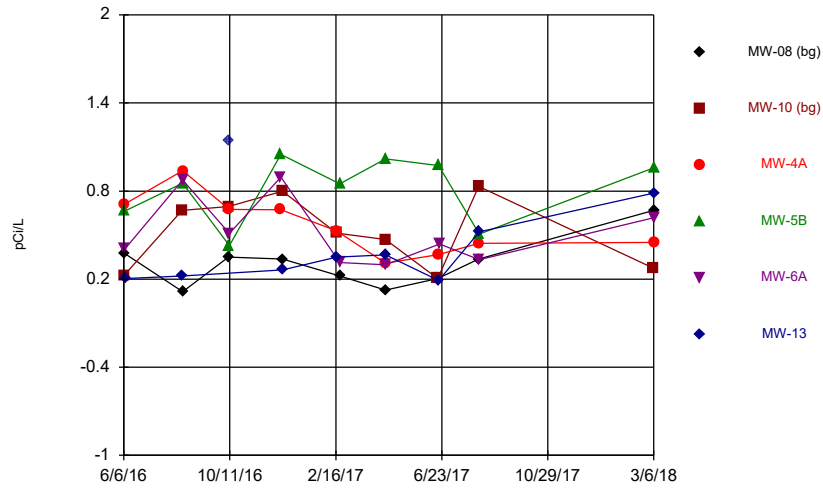
Constituent: Cobalt Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



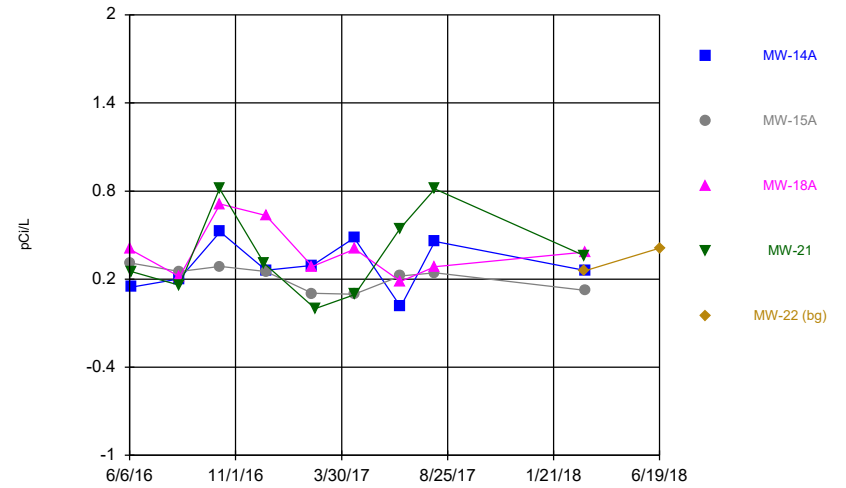
Constituent: Cobalt Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



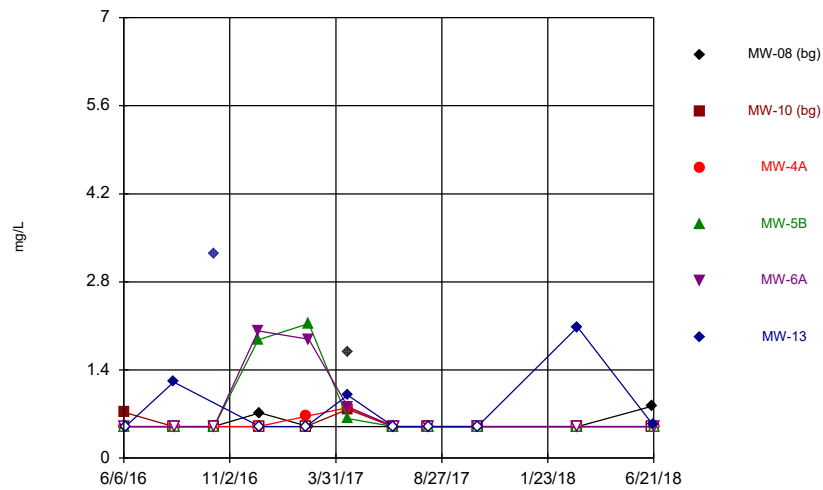
Constituent: Combined Radium 226 + 228 Analysis Run 10/11/2018 6:25 AM View: Time Series - All Well
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



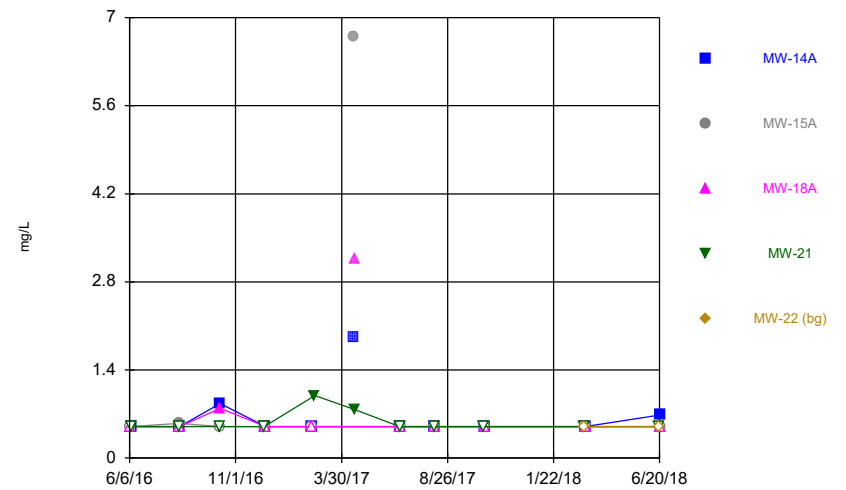
Constituent: Combined Radium 226 + 228 Analysis Run 10/11/2018 6:25 AM View: Time Series - All Well
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



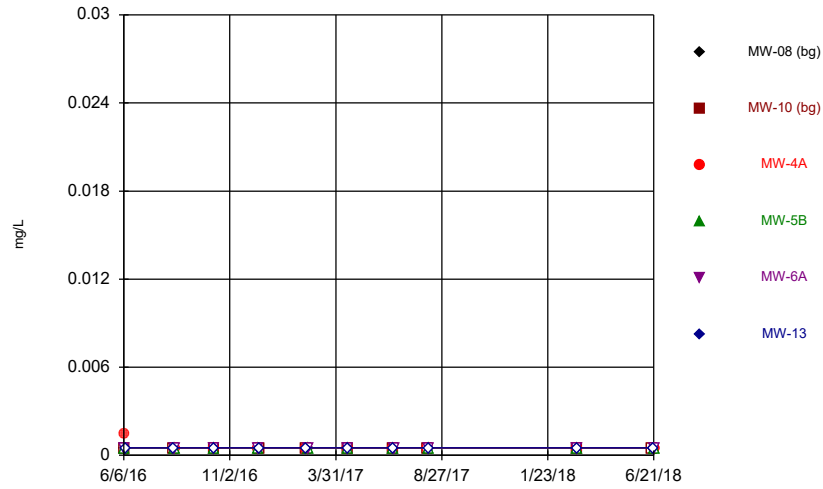
Constituent: Fluoride Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



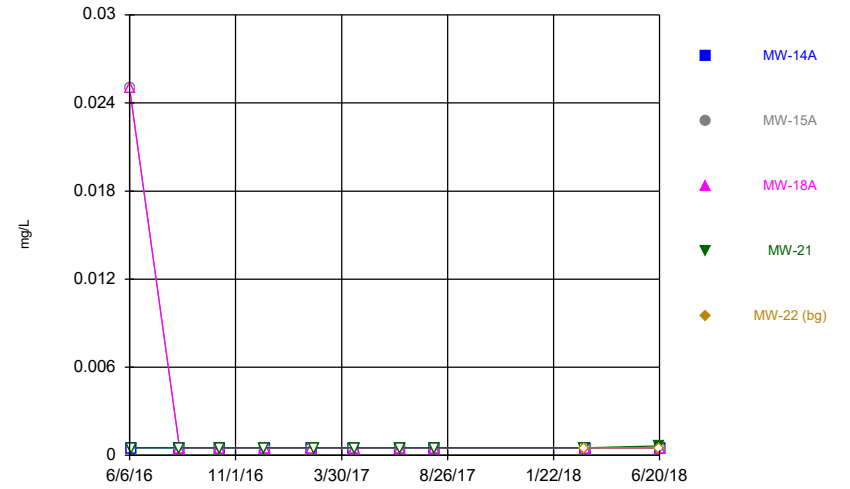
Constituent: Fluoride Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



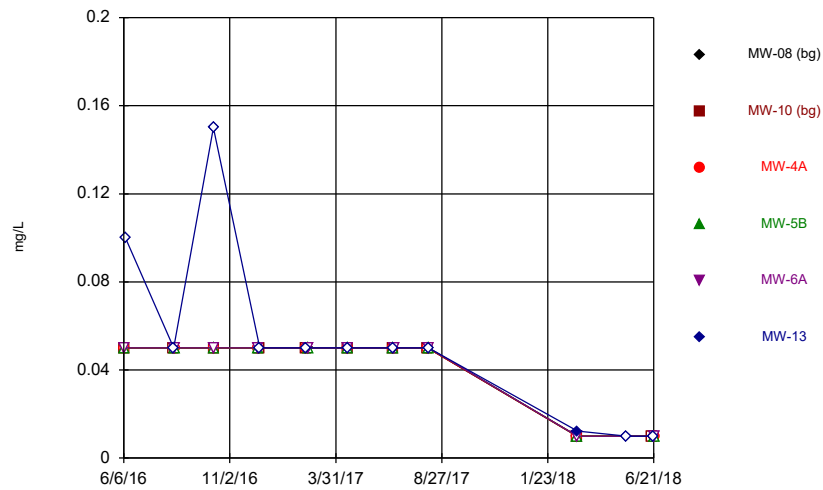
Constituent: Lead Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



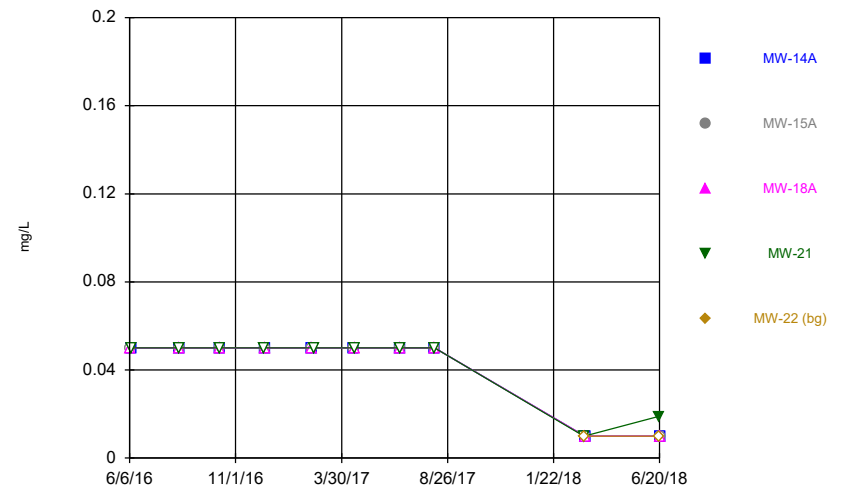
Constituent: Lead Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



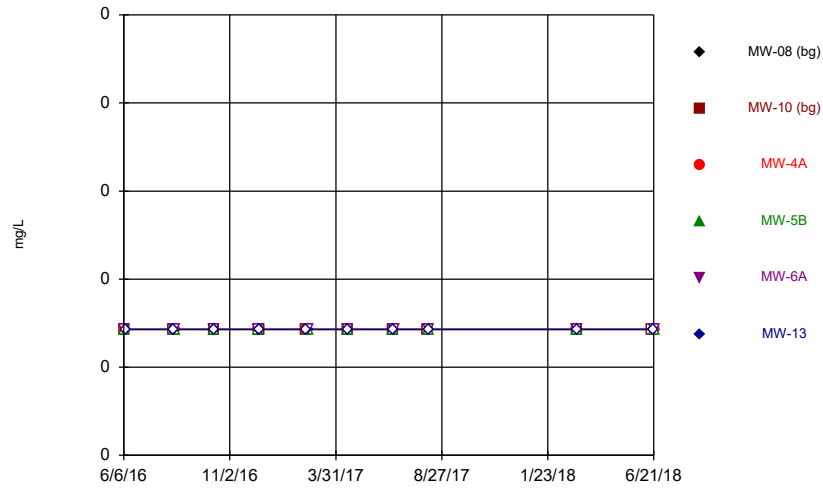
Constituent: Lithium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



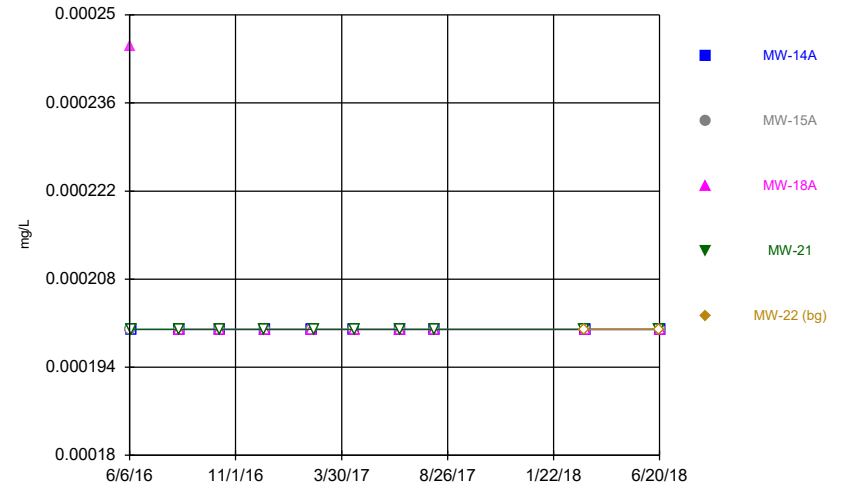
Constituent: Lithium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



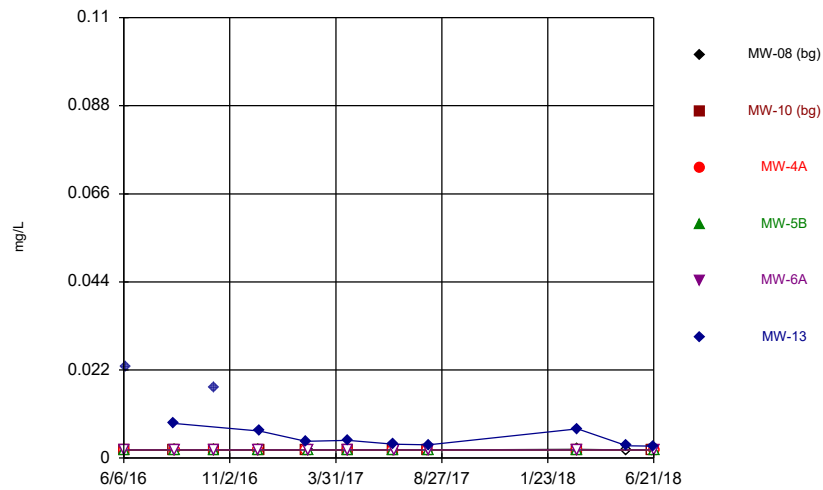
Constituent: Mercury Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



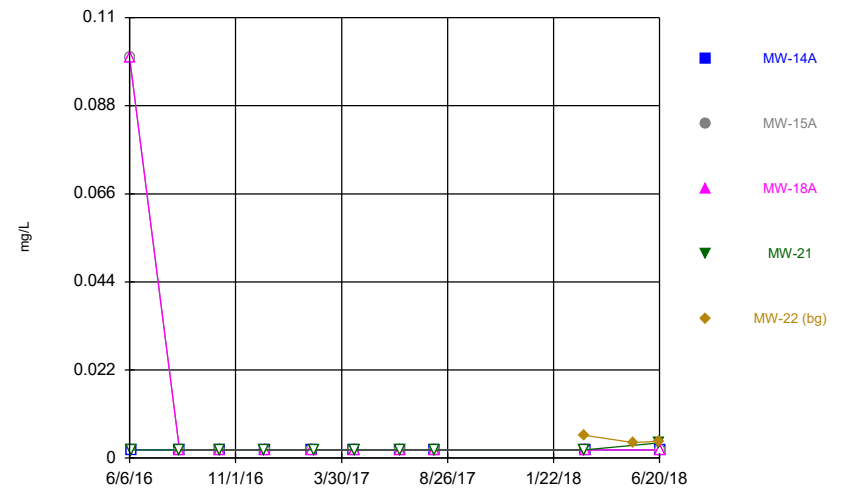
Constituent: Mercury Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



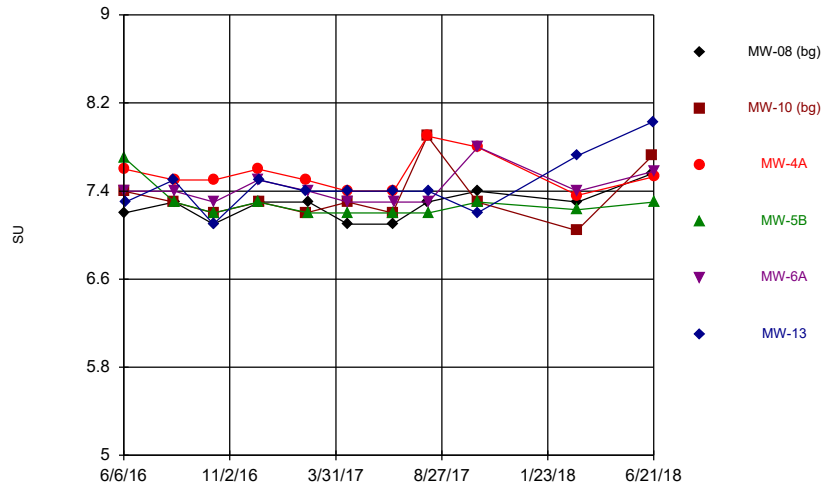
Constituent: Molybdenum Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



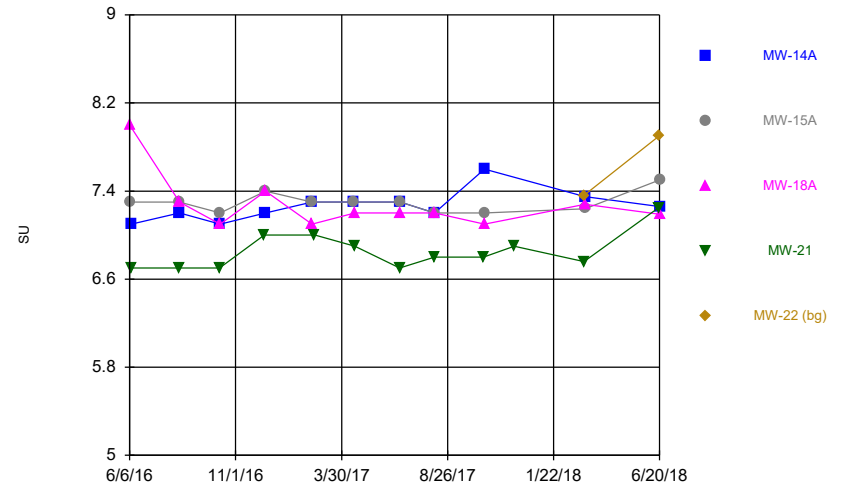
Constituent: Molybdenum Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



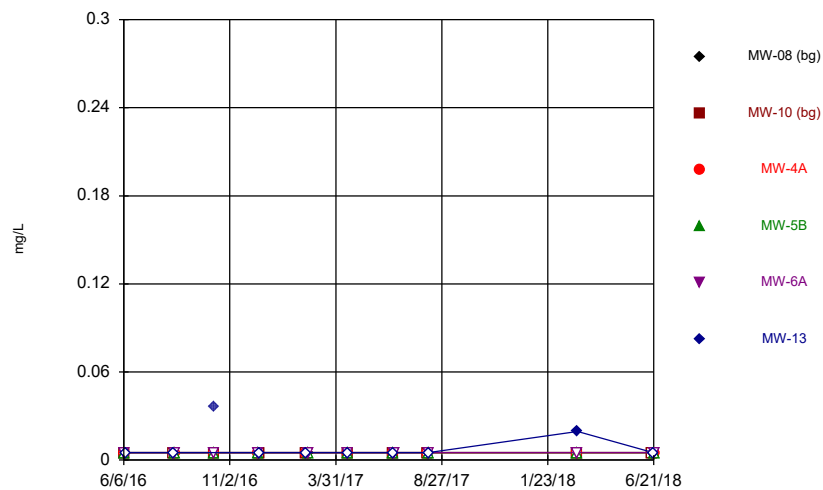
Constituent: pH Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



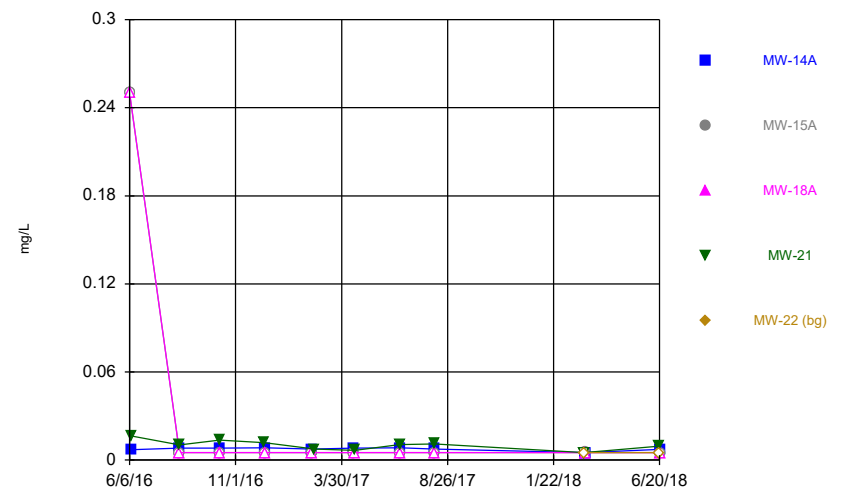
Constituent: pH Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



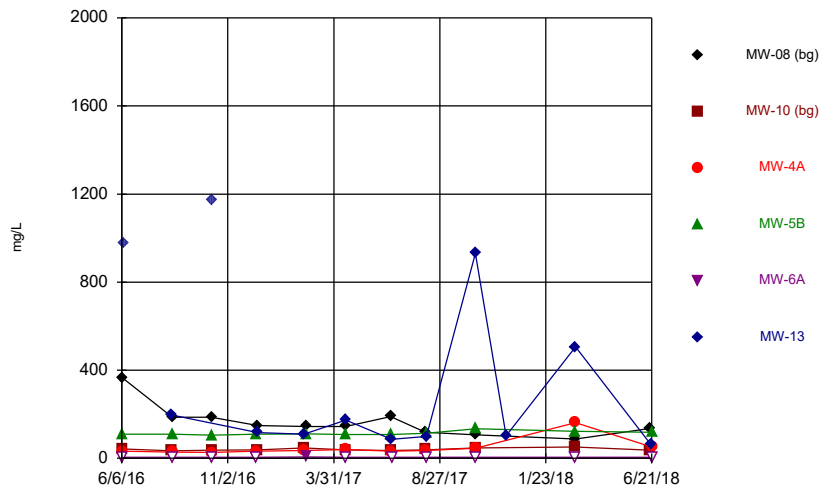
Constituent: Selenium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



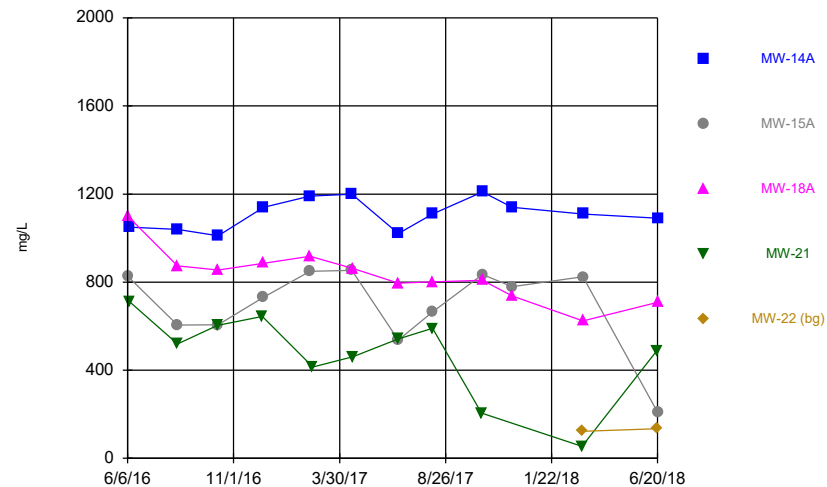
Constituent: Selenium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



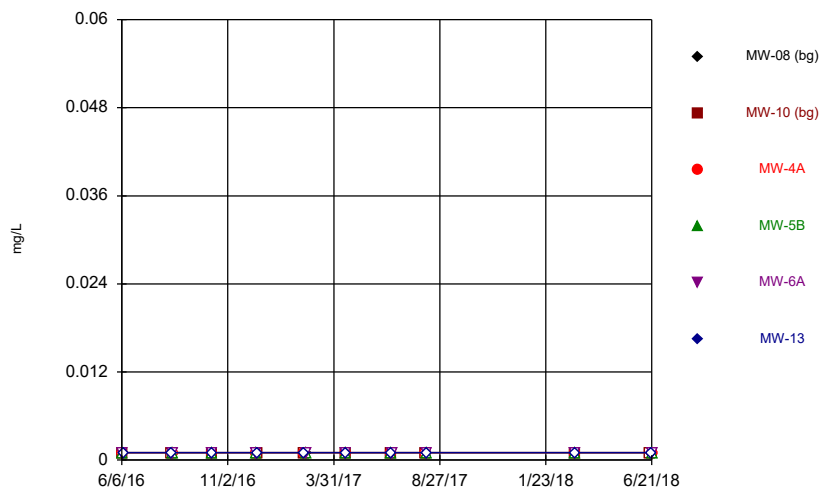
Constituent: Sulfate Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



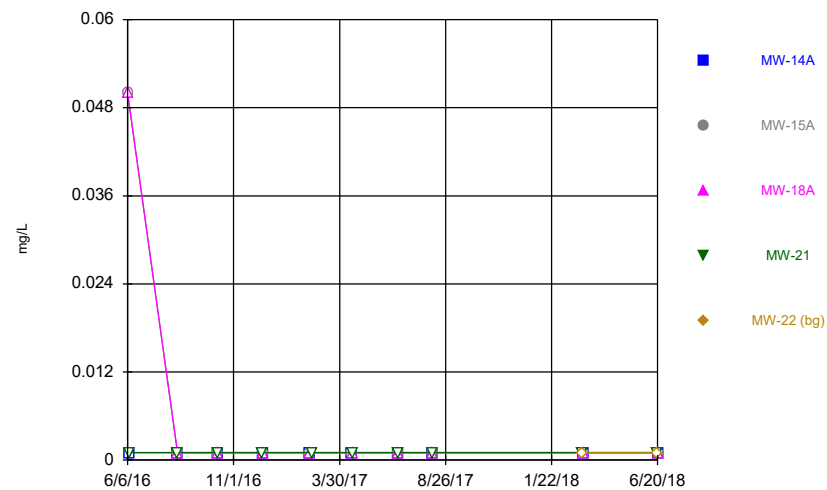
Constituent: Sulfate Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



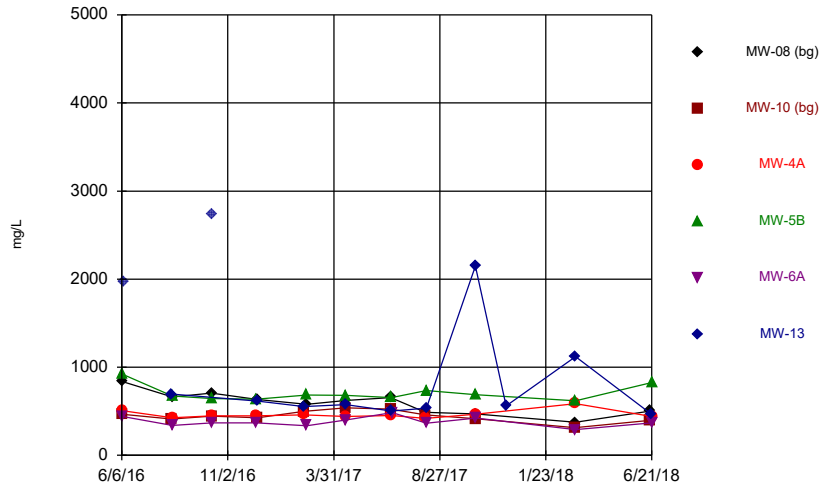
Constituent: Thallium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



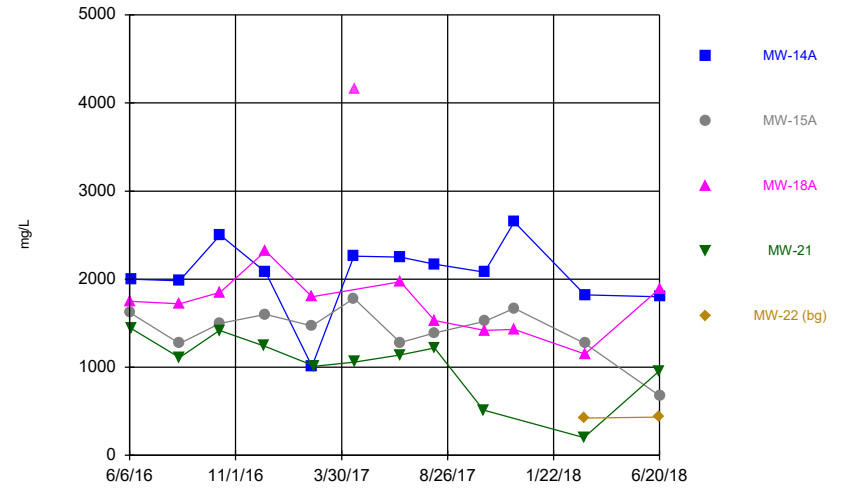
Constituent: Thallium Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Time Series



Constituent: Total Dissolved Solids Analysis Run 10/11/2018 6:25 AM View: Time Series - All Wells
 Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Confidence Intervals

Confidence Interval Summary Table - All Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:14 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. N | Mean | Std. Dev. | %NDs | ND Adj | Transform | Alpha | Method |
|-----------------------------------|--------|------------|------------|------------|--------|-----------|------------|-------|---------|-----------|-------|----------------|
| Antimony (mg/L) | MW-4A | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-5B | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-6A | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-13 | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-14A | 0.001 | 0.001 | 0.006 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-15A | 0.001 | 0.001 | 0.006 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Antimony (mg/L) | MW-18A | 0.00195 | 0.001 | 0.006 | No 10 | 0.005995 | 0.01546 | 90 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-4A | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-5B | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-6A | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-13 | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-14A | 0.002 | 0.002 | 0.01 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-15A | 0.002 | 0.002 | 0.01 | No 10 | 0.0118 | 0.03099 | 100 | None | No | 0.011 | NP (NDs) |
| Arsenic (mg/L) | MW-18A | 0.00265 | 0.002 | 0.01 | No 10 | 0.01187 | 0.03097 | 90 | None | No | 0.011 | NP (NDs) |
| Barium (mg/L) | MW-4A | 0.1437 | 0.1221 | 2 | No 10 | 0.1329 | 0.01209 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-5B | 0.3293 | 0.2995 | 2 | No 10 | 0.3144 | 0.01667 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-6A | 0.2154 | 0.1814 | 2 | No 10 | 0.1984 | 0.01906 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-13 | 0.1071 | 0.05108 | 2 | No 10 | 0.07911 | 0.03141 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-14A | 0.03968 | 0.03058 | 2 | No 10 | 0.03513 | 0.005098 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-15A | 0.04176 | 0.03364 | 2 | No 9 | 0.0377 | 0.004209 | 0 | None | No | 0.01 | Param. |
| Barium (mg/L) | MW-18A | 0.0403 | 0.0281 | 2 | No 10 | 0.04141 | 0.02103 | 10 | None | No | 0.011 | NP (normality) |
| Beryllium (mg/L) | MW-4A | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-5B | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-6A | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-13 | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-14A | 0.001 | 0.001 | 0.004 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-15A | 0.001 | 0.001 | 0.004 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Beryllium (mg/L) | MW-18A | 0.001 | 0.001 | 0.004 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-4A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-5B | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-6A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-13 | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-14A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-15A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Cadmium (mg/L) | MW-18A | 0.0005 | 0.0005 | 0.005 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-4A | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-5B | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-6A | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-13 | 0.00658 | 0.005 | 0.1 | No 9 | 0.005176 | 0.0005267 | 88.89 | None | No | 0.002 | NP (NDs) |
| Chromium (mg/L) | MW-14A | 0.005 | 0.005 | 0.1 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-15A | 0.005 | 0.005 | 0.1 | No 10 | 0.0295 | 0.07748 | 100 | None | No | 0.011 | NP (NDs) |
| Chromium (mg/L) | MW-18A | 0.005 | 0.005 | 0.1 | No 10 | 0.0295 | 0.07748 | 100 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-4A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005181 | 0.00005724 | 90 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-5B | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-6A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-13 | 0.0008038 | 0.0005536 | 0.006 | No 9 | 0.0006787 | 0.0001374 | 22.22 | Kapla.. | No | 0.01 | Param. |
| Cobalt (mg/L) | MW-14A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.0005 | 0 | 100 | Kapla.. | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-15A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.00295 | 0.007748 | 100 | Kapla.. | No | 0.011 | NP (NDs) |
| Cobalt (mg/L) | MW-18A | 0.0005 | 0.0005 | 0.006 | No 10 | 0.00295 | 0.007748 | 100 | Kapla.. | No | 0.011 | NP (NDs) |
| Combined Radium 226 + 228 (pCi/L) | MW-4A | 0.7583 | 0.3735 | 5 | No 9 | 0.5659 | 0.1992 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-5B | 1.031 | 0.5925 | 5 | No 9 | 0.8118 | 0.2271 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-6A | 0.7309 | 0.3134 | 5 | No 9 | 0.5211 | 0.2298 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-13 | 0.5607 | 0.1772 | 5 | No 8 | 0.363 | 0.2029 | 0 | None | sqrt(x) | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-14A | 0.4542 | 0.1302 | 5 | No 9 | 0.2922 | 0.1678 | 0 | None | No | 0.01 | Param. |
| Combined Radium 226 + 228 (pCi/L) | MW-15A | 0.2876 | 0.1315 | 5 | No 9 | 0.2095 | 0.08085 | 0 | None | No | 0.01 | Param. |

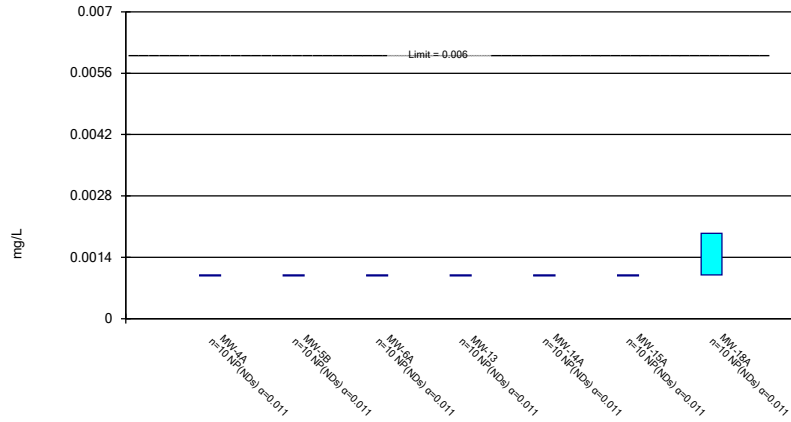
Confidence Interval Summary Table - All Results

Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water Printed 10/10/2018, 6:14 PM

| Constituent | Well | Upper Lim. | Lower Lim. | Compliance | Sig. N | Mean | Std. Dev. | %NDs | ND Adj | Transform | Alpha | Method |
|-----------------------------------|--------|------------|------------|------------|--------|----------|-----------|-------|--------|-----------|-------|----------------|
| Combined Radium 226 + 228 (pCi/L) | MW-18A | 0.5629 | 0.2171 | 5 | No 9 | 0.39 | 0.1791 | 0 | None | No | 0.01 | Param. |
| Fluoride (mg/L) | MW-4A | 0.664 | 0.5 | 4 | No 11 | 0.5423 | 0.09891 | 81.82 | None | No | 0.006 | NP (NDs) |
| Fluoride (mg/L) | MW-5B | 1.88 | 0.5 | 4 | No 11 | 0.7861 | 0.6091 | 72.73 | None | No | 0.006 | NP (normality) |
| Fluoride (mg/L) | MW-6A | 1.89 | 0.5 | 4 | No 11 | 0.7931 | 0.5828 | 72.73 | None | No | 0.006 | NP (normality) |
| Fluoride (mg/L) | MW-13 | 1.21 | 0.5 | 4 | No 10 | 0.7815 | 0.5224 | 60 | None | No | 0.011 | NP (normality) |
| Fluoride (mg/L) | MW-14A | 0.684 | 0.5 | 4 | No 10 | 0.5551 | 0.1239 | 80 | None | No | 0.011 | NP (NDs) |
| Fluoride (mg/L) | MW-15A | 0.5 | 0.5 | 4 | No 10 | 0.5049 | 0.0155 | 90 | None | No | 0.011 | NP (NDs) |
| Fluoride (mg/L) | MW-18A | 0.5 | 0.5 | 4 | No 10 | 0.5291 | 0.09202 | 90 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-4A | 0.0005 | 0.0005 | 0.015 | No 9 | 0.0005 | 0 | 100 | None | No | 0.002 | NP (NDs) |
| Lead (mg/L) | MW-5B | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-6A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-13 | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-14A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.0005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-15A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Lead (mg/L) | MW-18A | 0.0005 | 0.0005 | 0.015 | No 10 | 0.00295 | 0.007748 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-4A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-5B | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-6A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-13 | 0.1 | 0.01 | 0.04 | No 11 | 0.05293 | 0.04127 | 90.91 | None | No | 0.006 | NP (NDs) |
| Lithium (mg/L) | MW-14A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-15A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Lithium (mg/L) | MW-18A | 0.05 | 0.01 | 0.04 | No 10 | 0.042 | 0.01687 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-4A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-5B | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-6A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-13 | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-14A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-15A | 0.0002 | 0.0002 | 0.002 | No 10 | 0.0002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Mercury (mg/L) | MW-18A | 0.0002 | 0.0002 | 0.002 | No 9 | 0.0002 | 0 | 100 | None | No | 0.002 | NP (NDs) |
| Molybdenum (mg/L) | MW-4A | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-5B | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-6A | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-13 | 0.00684 | 0.002985 | 0.1 | No 9 | 0.004903 | 0.002122 | 0 | None | sqrt(x) | 0.01 | Param. |
| Molybdenum (mg/L) | MW-14A | 0.002 | 0.002 | 0.1 | No 10 | 0.002 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-15A | 0.002 | 0.002 | 0.1 | No 10 | 0.0118 | 0.03099 | 100 | None | No | 0.011 | NP (NDs) |
| Molybdenum (mg/L) | MW-18A | 0.002 | 0.002 | 0.1 | No 10 | 0.0118 | 0.03099 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-4A | 0.005 | 0.005 | 0.05 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-5B | 0.005 | 0.005 | 0.05 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-6A | 0.005 | 0.005 | 0.05 | No 10 | 0.005 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-13 | 0.0195 | 0.005 | 0.05 | No 9 | 0.006611 | 0.004833 | 88.89 | None | No | 0.002 | NP (NDs) |
| Selenium (mg/L) | MW-14A | 0.008302 | 0.00699 | 0.05 | No 10 | 0.007578 | 0.001006 | 10 | None | x^4 | 0.01 | Param. |
| Selenium (mg/L) | MW-15A | 0.00502 | 0.005 | 0.05 | No 10 | 0.0295 | 0.07748 | 90 | None | No | 0.011 | NP (NDs) |
| Selenium (mg/L) | MW-18A | 0.005 | 0.005 | 0.05 | No 10 | 0.0295 | 0.07748 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-4A | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-5B | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-6A | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-13 | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-14A | 0.001 | 0.001 | 0.002 | No 10 | 0.001 | 0 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-15A | 0.001 | 0.001 | 0.002 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |
| Thallium (mg/L) | MW-18A | 0.001 | 0.001 | 0.002 | No 10 | 0.0059 | 0.0155 | 100 | None | No | 0.011 | NP (NDs) |

Non-Parametric Confidence Interval

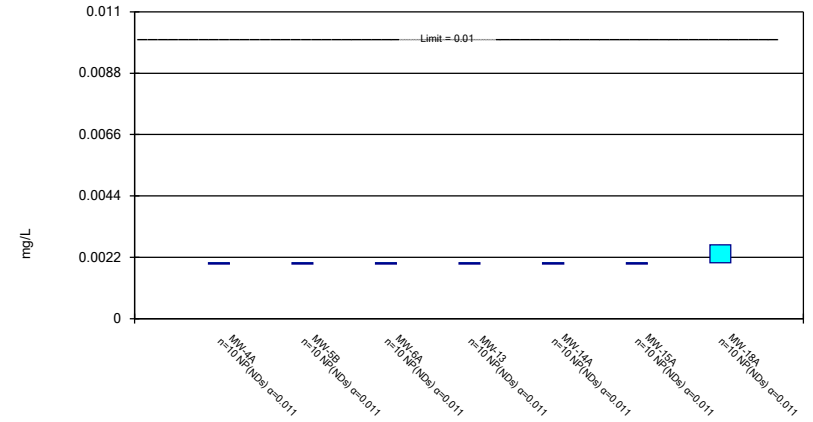
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

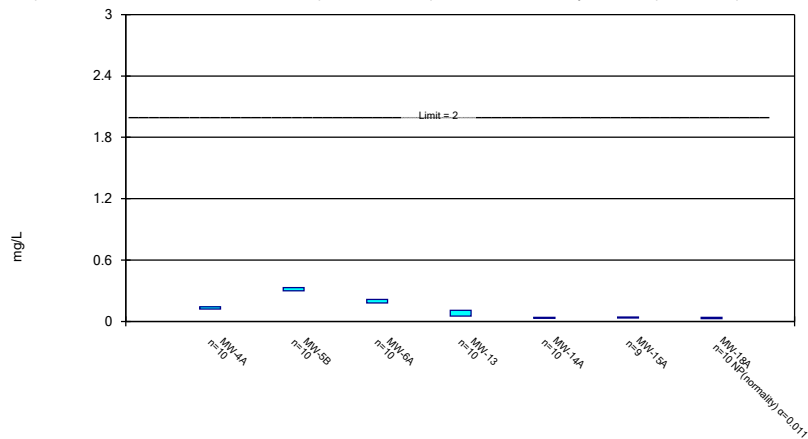
Compliance Limit is not exceeded.



Constituent: Arsenic Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Parametric and Non-Parametric (NP) Confidence Interval

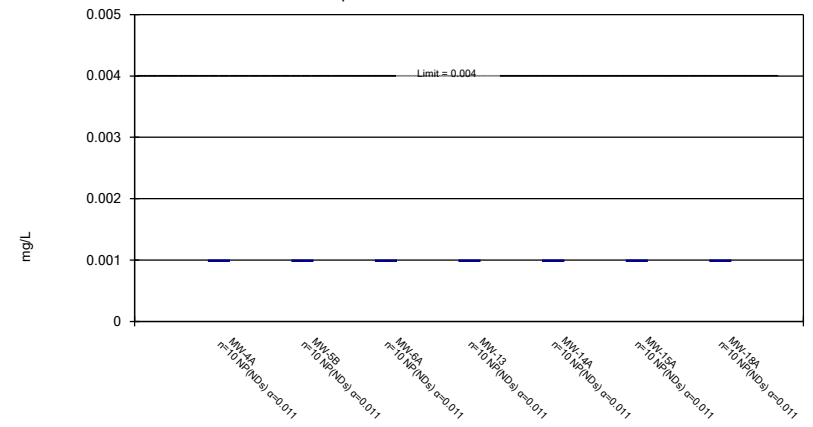
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

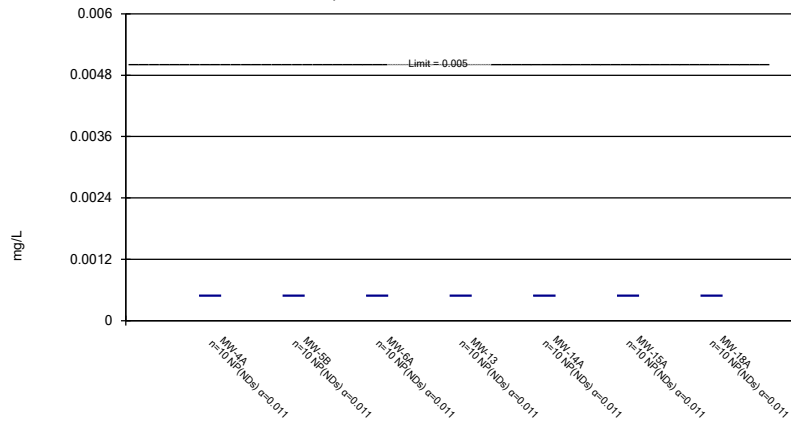
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

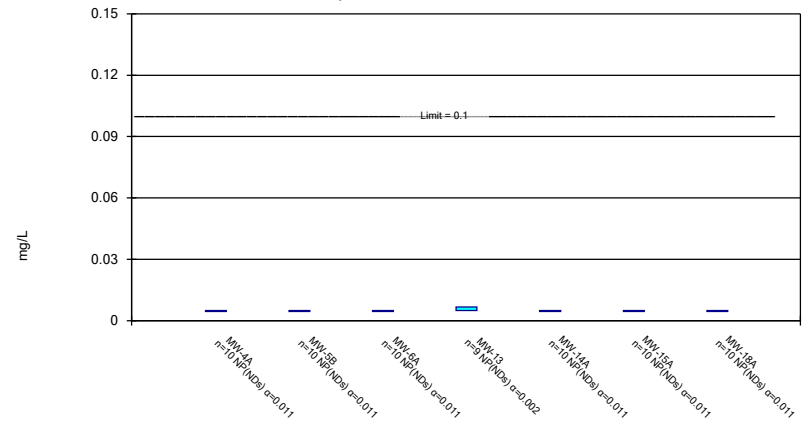
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

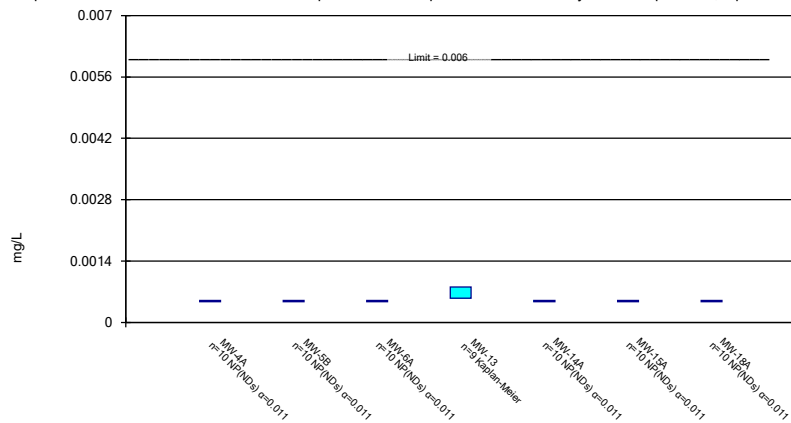
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Parametric and Non-Parametric (NP) Confidence Interval

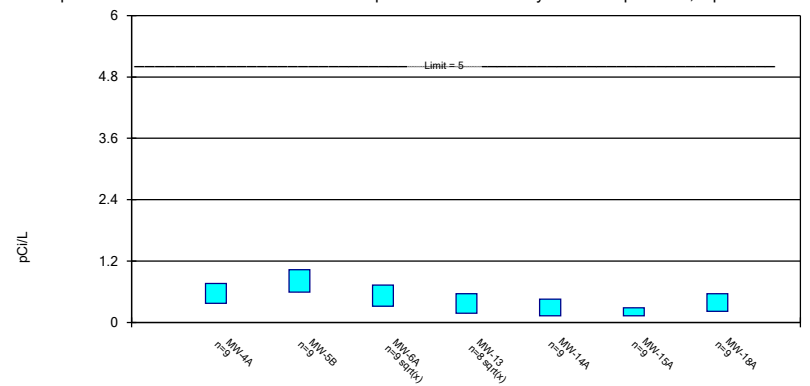
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Parametric Confidence Interval

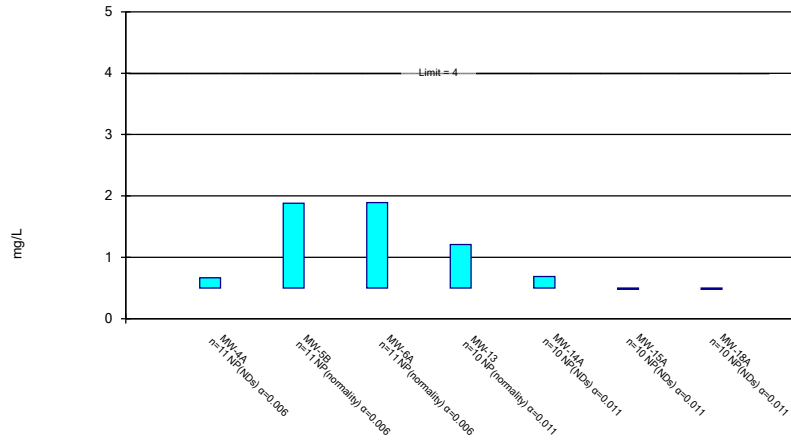
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals -
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

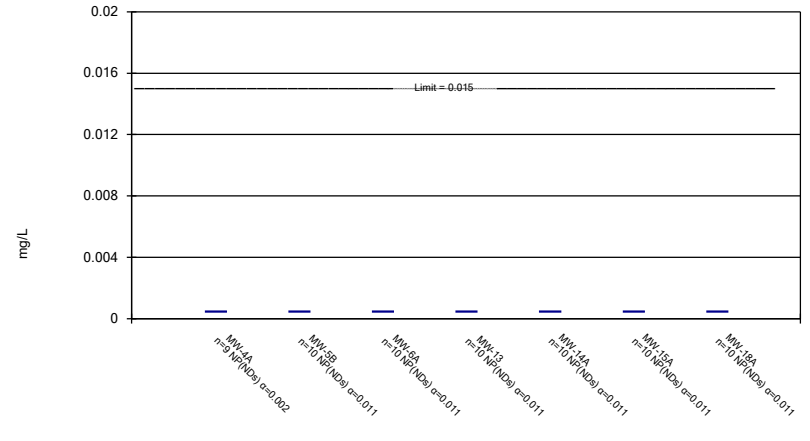
Compliance Limit is not exceeded.



Constituent: Fluoride Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

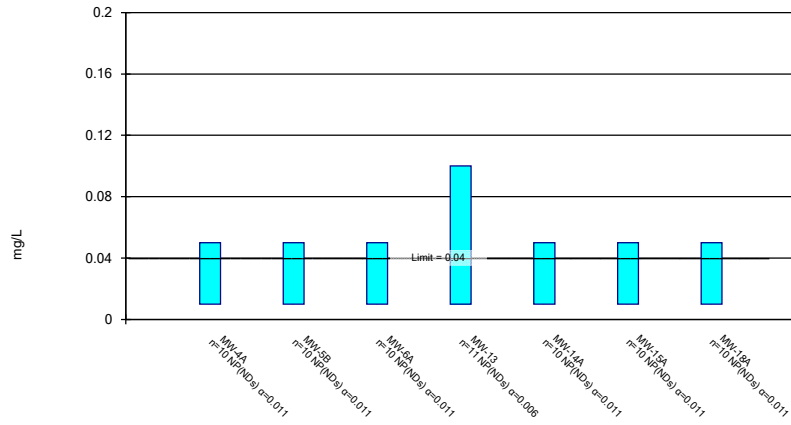
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

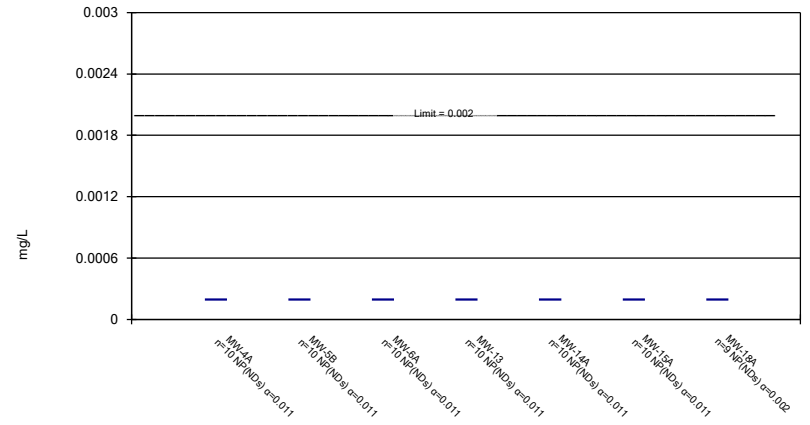
Compliance Limit is not exceeded.



Constituent: Lithium Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

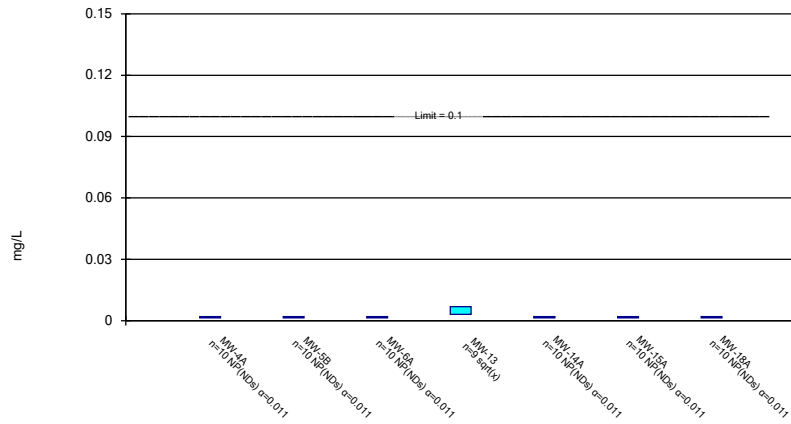
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Parametric and Non-Parametric (NP) Confidence Interval

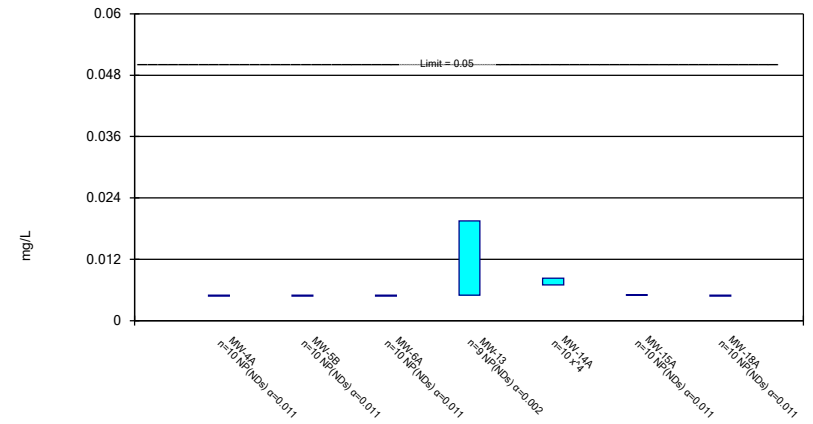
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Parametric and Non-Parametric (NP) Confidence Interval

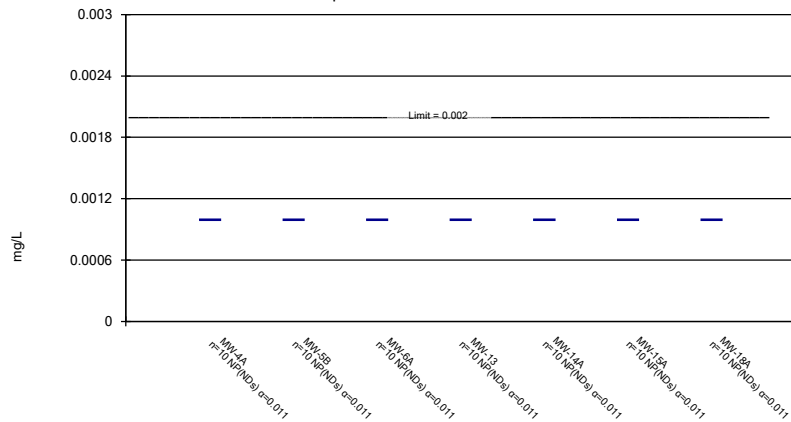
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 10/10/2018 6:14 PM View: Confidence Intervals - App IV
Muscatine Power & Water Client: HR Green, Inc. Data: Muscatine Power & Water