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Revision 0

QUALIFICATION OF THE FIRST ICS-3000 ION CHROMATOGRAPH FOR USE AT THE DEFENSE WASTE PROCESSING FACILITY

R.N. Mahannah
T.B. Edwards

June 2009

Applied Computational Engineering and Statistics
Savannah River National Laboratory
Aiken, SC 29808

This document was prepared in conjunction with work accomplished under Contract No. DE-AC09-08SR22470 with the U.S. Department of Energy.

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EXECUTIVE SUMMARY

The ICS-3000 Ion Chromatography (IC) system installed in 221-S M-13 has been qualified for use. The qualification was a head to head comparison of the ICS-3000 with the currently used DX-500 IC system. The crosscheck work included standards for instrument calibration and calibration verifications and standards for individual anion analysis, where the standards were traceable back to the National Institute of Standards and Technology (NIST). In addition the crosscheck work included the analysis of simulated Sludge Receipt Adjustment Tank (SRAT) Receipt, SRAT Product, and Slurry Mix Evaporator (SME) samples, along with radioactive Sludge Batch 5 material from the SRAT and SME tanks. Based upon the successful qualification of the ICS-3000 in M-13, it is recommended that this task proceed in developing the data to qualify, by a head to head comparison of the two ICS-3000 instruments, a second ICS-3000 to be installed in M-14.

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LIST OF ABBREVIATIONS

ACES	Applied Computational Engineering and Statistics
DWPF	Defense Waste Processing Facility
EG	Eluent Generator
HLW	High Level Waste
IC	Ion Chromatography
JMP	Statistical software package from SAS Institute, Inc. [3]
NIST	National Institute of Standards and Technology
REDOX	Reduction-Oxidation
RFIC	Reagent Free Ion Chromatography
SRNL	Savannah River National Laboratory
TTR	Technical Task Request
TT&QA	Task Technical and Quality Assurance

1.0 INTRODUCTION

The Defense Waste Processing Facility (DWPF) requires the analysis of specific anions at various stages of its processing of high level waste (HLW). The anions of interest to the DWPF are fluoride, formate, chloride, nitrite, nitrate, sulfate, oxalate, and phosphate. The anion analysis is used to evaluate process chemistry including formic acid / nitric acid additions to establish optimum conditions for mercury stripping, reduction-oxidation (REDOX) chemistry for the melter, nitrite destruction, organic acid constituents, etc. The DWPF Laboratory (Lab) has been using Dionex DX-500 ion chromatography (IC) systems since 1998. The vendor informed DWPF in 2006 that the instruments would no longer be supported by service contracts after 2008.

DWPF purchased three new ICS-3000 systems in September of 2006. The ICS-3000 instruments are (a) designed to be more stable using an eluent generator to make eluent, (b) require virtually no daily chemical handling by the analysts, (c) require less line breaks in the hood, and (d) generally require less maintenance due to the pump configuration only using water versus the current system where the pump uses various hydroxide concentrations. The ICS-3000 instruments also allow the DWPF to maintain current service contracts, which support routine preventive maintenance and emergency support for larger problems such as component failure.

One of the three new systems was set up in the DWPF Lab trailers in January of 2007 to be used for the development of methods and procedures. This system will continue to be used for training, new method development and potential improvements to current methods. The qualification of the other two ICS-3000 instruments is to be a phased effort. This effort is to be supported by the Applied Computational Engineering and Statistical (ACES) group of the Savannah River National Laboratory (SRNL) as authorized by the Technical Task Request (TTR) [1] and as directed by the corresponding Task Technical and Quality Assurance (TT&QA) plan [2]. The installation of the first "rad" system into the M-13 Lab module required modifications to both the Lab module and to the radiohood. The installation was completed in July 2008. The testing of this system was conducted as directed by the TT&QA plan [2]. The purpose of this technical report is to provide a review of the data generated by these tests that will lead to the recommendation for the qualification of the M-13 ICS-3000 instrument. With the successful qualification of this first ICS-3000, plans will be developed for the installation of the second "rad" system in the M-14 Lab module later in fiscal year 2009. When the second "rad" ICS-3000 system is installed, the DX-500 systems will be removed and retired from service.

2.0 EXPERIMENTAL PROCEDURE

As indicated above, the first ICS-3000 was implemented in the modified hood in M-13; it was debugged and tested to ensure that it was set up to the vendor's specifications and that it was performing as anticipated. The testing of the M-13 ICS-3000 versus the DX-500 instruments was a two-fold exercise. Initial testing involved standards (2 ppm and 16 ppm), while the subsequent testing utilized process samples as well as standards.

In the subsections that follow, a comparison between the analytical methods of the two types of instruments is provided; the calibrations of the two instruments are discussed; and a description of the protocols utilized in measuring the simulant sample analyses, spiked sample analyses, and sludge sample analyses are provided.

2.1 Method Development

Both IC systems currently use a hydroxide based eluent and the AS-11 separator column. The actual gradient method for the two systems is slightly different. The ICS-3000 system uses what is called

Reagent Free Ion Chromatography (RFIC) whereas the DX-500 system requires the eluent to be prepared by the analyst. The RFIC is done with an Eluent Generator (EG) Module, which contains a cartridge with a quantitative amount of 4M potassium hydroxide (KOH). The required eluent (KOH) concentration is then made according to specifications prescribed in the method. The EG allows lower concentrations of hydroxide to be prepared more precisely and requires no mixing, which in turn allows for better separation of some of the more easily eluted smaller monovalent anions and provides more stable retention times.

The ICS-3000's use of the eluent generator allowed for a slightly different eluent gradient to be developed. This lower concentration eluent gradient provided better resolution between the fluoride and formate anions in the chromatogram. It is suspected that the better resolution obtained on the ICS-3000 led to the slightly higher formate numbers seen in the crosscheck work.

2.2 Calibration

The DX-500 and ICS-3000 instruments were calibrated with NIST[♣] traceable standards. Calibration solutions were prepared using 8 individual 1000 ppm anion solutions. The calibration verification standards (check standards) are prepared with a NIST traceable multi-anion standard that includes 7 anions and nitrite. The nitrite solution is from a different vendor than the individual nitrite solution used for the calibration solutions.

The IC instruments are calibrated over a range of 1 ppm to 20 ppm for each anion, and the samples are diluted to ensure that the anion concentrations are in this range. DWPF routinely performs a 500X and a 5000X dilution. The dilutions are set up so that each anion's concentration will be within the 1 to 20 ppm range of the calibration in one or both dilutions. The 500X dilution is used to provide "less than" values for anions not typically found in the sludge, i.e. fluoride, chloride and phosphate. The dilutions are also limited due to radiation levels in the samples for ALARA purposes. The IC instrument calibration is verified daily using a 2 ppm and a 16 ppm verification standard. Table A1 of Appendix A provides a set of measurements generated by the ICS-3000 and both DX-500 instruments for such standards. Both the 2 ppm and 16 ppm calibration verification standards met established measurement control limits as will be seen as these data are reviewed in Section 3.

2.3 Simulated Sample Analysis

Simulated samples, for the crosscheck work, were prepared from NIST traceable individual 1000 ppm anion solutions. The simulated samples were prepared to match the anion concentrations for the average SRAT Receipt, SRAT Product, and SME samples in both the 500X and 5000X dilution. Anions typically not found in the sludge or that are diluted below detection, were added at the lowest calibration level, 1 ppm, to not only ensure that these anions could be measured at this concentration but to ensure that "tailing" from a larger peak would not prevent accurate measurement of these anions. In the 500X dilutions there are anion concentrations outside the 1 – 20 ppm calibration range. These anions would be quantified on the 5000X dilution; however, they would still be in the 500X dilution and could affect other peaks in the chromatograph. Data generated by this crosscheck work are provided in Table A2 and A3 in Appendix A. The percent differences of the measurements from the known concentrations for each instrument are shown in these tables, and these differences are all below 20%. A statistical review of these data is provided in Section 3.

2.4 Spiked Sample Analysis

For each sample set analyzed, one of the samples, typically a 5000x dilution is spiked. The spike preparation is performed by taking a 5 mL aliquot of sample and combining it with a 5 mL aliquot of

[♣] NIST – National Institute of Standards and Technology

the 16 ppm check standard. The spiked sample ensures that the solution injected into the IC does not have any matrix issues that would interfere with the analysis. The spike solution also provides an indication of how well the software is able to evaluate peaks. The data generated by this crosscheck work are provided in Table A4 in Appendix A, and all of the percent recoveries are between 94.8% and 106.9%. A statistical review of these data is provided in Section 3.

2.5 Sludge Sample Analysis

The final set of crosscheck data is the direct comparison between the M-14 primary DX-500 IC used in sample analysis and the M-13 ICS-3000 with actual SRAT Receipt, Product and SME Product material. Twelve samples were analyzed, with 4 samples coming from each of the major tanks. As mentioned earlier, the sample preparation process involves preparing two dilutions, a 500X and a 5000X. Typically 4 Pnut vials of sludge are used. From each Pnut vial a roughly 1 g to 100g dilution is made. From each of the four 100X dilutions, 500X and 5000X dilutions are prepared. Approximately 20mL of each of the 8 dilutions is removed from the DWPF shielded cells to a glovebox where the final sample is filtered into an IC autosampler vial. A typical sample run on the IC is provided in Table 1.

Table 1. Sequence of Analyses for a Typical Sludge Sample Set

Blank
2 ppm check standard
16 ppm check standard
5000X dilution 1
5000X dilution 2
5000X dilution 3
5000X dilution 4
Spiked Sample
500X dilution 1
500X dilution 2
500X dilution 3
500X dilution 4
2 ppm check standard
16 ppm check standard

Table A5 in Appendix A provides the measurements generated by this crosscheck work. A statistical review of these data is provided in Section 3.

3.0 STATISTICAL ANALYSIS

In this section, the statistical comparisons of the measurements generated by the ICS-3000 to the measurements from the two DX-500 instruments from the crosscheck work described above are conducted and evaluated. JMP Version 7.0.2 [3] was used to perform these analyses.

3.1 Initial Comparisons Using Standards

The initial crosschecking of the instruments was conducted using only standards. As indicated above, the data from this work are provided in Table A1. Table 2 below provides the minimum (min) and maximum (max) values for each anion for each instrument. The sample results consistently met the established 20% agreement limit for the 2 ppm standard (i.e., 1.6 to 2.4 ppm) and the 10% agreement limit for the 16 ppm standard (i.e., 14.4 to 17.6 ppm) between the measurements and the standard values for each of the instruments. The results from these preliminary tests with standards were considered successful, and the crosschecking was continued to involve the introduction of other types of samples.

Table 2. Initial Testing on October 8, 2008 with 2 and 16 ppm Standards

Device / Location	DX-500/ M-13	DX-500/ M-14	ICS-3000/ M-13	DX-500/ M-13	DX-500/ M-14	ICS-3000/ M-13
Std Name	QC 16 ppm	QC 16 ppm	QC 16 ppm	QC 2 ppm	QC 2 ppm	QC 2 ppm
N Rows	5	5	5	5	5	5
Min(Fluoride)	15.45	15.24	15.91	2.08	1.90	2.16
Max(Fluoride)	15.54	16.07	16.17	2.17	1.92	2.16
Min(Formate)	17.04	16.77	15.91	2.27	1.90	2.03
Max(Formate)	17.34	17.47	16.32	2.37	1.97	2.05
Min(Chloride)	15.84	15.87	16.07	1.94	1.95	1.99
Max(Chloride)	15.87	16.01	16.11	1.97	1.98	1.99
Min(Nitrite)	15.83	15.98	15.83	1.95	1.85	2.01
Max(Nitrite)	15.93	16.06	16.11	2.00	1.88	2.01
Min(Nitrate)	16.01	15.97	16.09	1.92	1.97	1.98
Max(Nitrate)	16.03	16.16	16.16	1.96	2.00	2.02
Min(Sulfate)	15.68	15.89	16.04	1.97	1.97	2.00
Max(Sulfate)	15.85	16.05	16.13	2.02	1.99	2.02
Min(Oxalate)	15.80	15.84	15.64	2.01	2.14	2.15
Max(Oxalate)	16.13	16.01	15.78	2.05	2.18	2.23
Min(Phosphate)	16.03	16.05	16.10	1.92	2.02	1.91
Max(Phosphate)	16.09	16.22	16.31	1.97	2.05	1.97

3.2 Full Set of Crosscheck Sample Results

The measurements generated by the crosscheck testing (i.e., Table A2 through Table A5) for the simulated samples, spiked samples, and process samples along with standards that were included in the analytical protocols were imported into a JMP spreadsheet for analysis, and these data are provided in Table A6 of Appendix A. These data served as the basis for the qualification of the first ICS-3000 instrument, and the statistical comparisons of this section provide the justification for the qualification.

Exhibits A1a-A1f provide plots of the raw score differences (the DX-500 value minus the ICS-3000 value, in mg/L) showing date, sample number, tank, the nominal dilution factor (DF), and the type of sample (i.e., standard or process). The colors of the plotted points are used to distinguish among the nominal DF's and the symbols are used to distinguish between standards and process measurements.

A comparison of the precision of the two instruments is investigated next. Exhibits A2a-A2h provide a statistical comparison of the raw measurements by each instrument of the 16 ppm standards. In these exhibits, Levene's test can be used to identify a statistically significant difference in the variability of the measurements from the two instruments. Utilizing this test at a 5% significance level, the DX-500 demonstrated greater variability than the ICS-3000 for chloride, fluoride, formate, and nitrate. Exhibits A3a-A3h provide a statistical comparison of the raw measurements by each instrument of the 2 ppm standards. Once again, utilizing Levene's test at a 5% significance level, the DX-500 demonstrated greater variability than the ICS-3000 for chloride, fluoride, and formate, while the ICS-3000 demonstrated greater variability than the DX-500 for oxalate, phosphate, and sulfate.

A comparison of the relative bias between the two instruments is investigated next using the raw score differences (DX-500 minus ICS-3000) in mg/L. A relative bias between the two instruments is indicated at the 5% significance level if zero is not within the 95% confidence interval presented as part of each exhibit. The larger, in absolute value, of the upper and lower limits for these confidence

limits is a conservative bound at 95% confidence for the bias between the two instruments for the type of measurements represented in the exhibits. Exhibits A4a-A4h provide a look at all of the data for each anion in turn, with other exhibits (A4i through A4aab) providing a comparison for the measurements from the two instruments grouped by type of sample. Overall, from these analyses, the DX-500 is biased high as compared to the ICS-3000 for chloride, nitrite, phosphate, and sulfate. Note that all of the available measurements for chloride, fluoride, and oxalate are from standards (compare Exhibits A4i, A4j, and A4f to Exhibits A4a, A4b, and A4q). For each of the other anions various groupings of the measurements from the two instruments are compared. Table 3 provides the largest bounding bias seen between the raw measurements from the two instruments over all of the exhibits from A4a through A4aab for each of the anions. The largest bound for bias is 0.804 mg/L for phosphate.

Table 3. Bounds on Potential Biases between DX-500 and ICS-3000 Instruments at 95% Confidence

Anion	Chloride	Fluoride	Formate	Nitrate	Nitrite	Oxalate	Phosphate	Sulfate
Bias (mg/L)	0.341	0.272	0.775	0.447	0.459	0.472	0.804	0.593

3.3 Guidelines for Evaluation of Standards Measured by the ICS-3000

The measurements of the standards (2 ppm and 16 ppm) from Table A6 are revisited in this section to evaluate the guidelines for their use in assessing the performance of the ICS-3000. The current guidelines were identified in Section 3.1: measurements for the 2 ppm standard are to be within 20% of the standard (i.e., 1.6 to 2.4 ppm) and measurements of the 16 ppm standard are to be within 10% of the standard (i.e., 14.4 to 17.6 ppm). Exhibits A5a-A5h and Exhibits A6a-A6h provide histograms and descriptive statistics for the raw score measurement data (in mg/L or ppm) generated by the DX-500 and ICS-3000 for the 2- and 16-ppm standards, respectively. Uniform scaling was used for the histograms for each of the standards.

The minimum and maximum measurements for each anion by each instrument are provided in these exhibits, and these values are summarized in Table 4, which shows that the ICS-3000 generated anion measurements for both standards that were within the current limits for acceptability (i.e., the measurements are within the interval from 1.6 to 2.4 ppm for the 2 ppm standards and within the interval from 14.4 to 17.6 ppm for the 16 ppm standards). Thus in looking to establish guidelines for assessing the performance of the ICS-3000 based upon measurements of standards it appears that the current guidelines may be adequate initially. As more data are generated as part of the process to qualify the second ICS-3000 in M-14, this evaluation will be refined and new guidelines finalized.

Table 4 Crosscheck Testing with 2 and 16 ppm Standards

Device / Location	DX-500/ M-14	ICS-3000/ M-13	DX-500/ M-14	ICS-3000/ M-13
Standard	2 ppm	2 ppm	16 ppm	16 ppm
Number of Measurements	22	22	24	24
Min(Chloride)	1.77	1.96	16.03	15.86
Max(Chloride)	2.11	1.99	16.69	16.16
Min(Fluoride)	2.00	1.92	15.42	15.89
Max(Fluoride)	2.20	1.97	16.11	16.24
Min(Formate)	1.98	1.88	16.05	15.68
Max(Formate)	2.17	2.01	17.42	16.03
Min(Nitrate)	1.80	1.85	15.74	15.57
Max(Nitrate)	1.93	1.96	16.90	15.98
Min(Nitrite)	1.91	1.95	15.73	15.96
Max(Nitrite)	2.00	2.09	17.29	17.12
Min(Oxalate)	2.00	1.90	15.61	15.68
Max(Oxalate)	2.16	2.18	17.11	17.01
Min(Phosphate)	1.94	1.73	15.92	14.70
Max(Phosphate)	2.07	2.05	17.44	16.19
Min(Sulfate)	1.95	1.81	15.61	15.65
Max(Sulfate)	2.06	1.99	17.15	16.21

The exhibits also include a 95% confidence interval for the mean anion concentration for each instrument. An underlying assumption in the development of these confidence intervals is that the Central Limit Theorem applies for the data in each of these exhibits, and this appears to be a reasonable assumption for almost all of these data. If an instrument's confidence interval for an anion contains the nominal concentration (i.e., 2 or 16 ppm) for that anion, then that instrument is unbiased for that anion. Table 5 summarizes the confidence interval information. The biased results are shown in red in this table. While the two instruments reveal biases that follow different patterns for these standards, the sizes of the biases for the two instruments seen in these data are comparable and of no practical concern.

Table 5 95% Confidence Intervals for the Anion Mean Concentration (ppm) by Instrument

Results from the 2 ppm Standards								
Instrument	Chloride	Fluoride	Formate	Nitrate	Nitrite	Oxalate	Phosphate	Sulfate
DX-500	1.97-2.07	**2.11-2.16**	**2.06-2.11**	**1.85-1.88**	**1.94-1.96**	**2.04-2.08**	1.98-2.01	1.98-2.01
ICS-3000	**1.97-1.98**	**1.93-1.94**	**1.94-1.97**	**1.91-1.94**	1.99-2.02	**2.06-2.13**	**1.89-1.96**	**1.92-1.96**
Results from the 16 ppm Standards								
Instrument	Chloride	Fluoride	Formate	Nitrate	Nitrite	Oxalate	Phosphate	Sulfate
DX-500	**16.29-16.42**	**15.72-15.88**	**16.48-16.78**	15.91-16.19	**16.34-16.68**	15.87-16.27	**16.18-16.55**	**16.27-16.53**
ICS-3000	15.98-16.05	**16.05-16.14**	**15.81-15.89**	**15.74-15.84**	**16.21-16.48**	**16.35-16.62**	**15.63-15.94**	15.95-16.09

(Statistically significant biases at α=5% are listed in red)

4.0 CONCLUSIONS AND RECOMMENDATIONS

The test results of the evaluation of the ICS-3000 in M-13 indicate that the performance of this new instrument meets the established control limits utilized for the DX-500 instrumentation. Thus, the ICS-3000 system installed in 221-S M-13 has been qualified for use. The qualification was a head-to-head comparison of the ICS-3000 with the currently used DX-500 IC system. The crosscheck work included standards for instrument calibration and calibration verifications and standards for individual anion analysis, which were NIST traceable. In addition the crosscheck work included the preparation of simulated SRAT Receipt, SRAT Product, and SME samples, along with actual Sludge Batch 5 material from the SRAT and SME tanks. Based upon the successful qualification of the ICS-3000 in M-13, it is recommended that this task proceed in developing the data to qualify, by a head-to-head comparison of the two ICS-3000 instruments, a second ICS-3000 to be installed in M-14.

REFERENCES

[1] Mahannah, RN, "Technical Task Request: Perform Data Evaluation from the New ICS-3000 Ion Chromatography Systems versus the Current DX-500 IC," HLW/DWPF/TTR-2007-0023, Revision 0, August 2, 2007.

[2] Edwards, TB, "Task Technical & QA Plan: Perform Data Evaluation of the New ICS-300 Ion Chromatography Systems versus the Current DX-500 Systems," WSRC-STI-2007000449, Revision 0, August 27, 2007.

[3] JMP Version 7.0.2, SAS Institute, Inc., Cary NC, 1989-2007.

Appendix A. Tables and Exhibits

Table A1. Initial Testing with Standards

Time	Device	Location	ID	Std Name	Fluoride	Formate	Chloride	Nitrite	Nitrate	Sulfate	Oxalate	Phosphate
3:21	DX-500	M-14	1	QC 16 ppm	16.07	16.77	16.01	16	16.16	16.05	16.01	16.22
4:06	DX-500	M-14	3	QC 16 ppm	15.7	16.91	15.99	15.98	16.13	16.02	15.99	16.21
4:21	DX-500	M-14	4	QC 16 ppm	15.42	17.2	15.96	16.06	16.07	16.02	15.87	16.19
5:05	DX-500	M-14	7	QC 16 ppm	15.35	17.02	15.87	15.99	15.97	15.89	15.84	16.05
5:49	DX-500	M-14	10	QC 16 ppm	15.24	17.47	15.94	16.01	16.07	16	15.91	16.17
4:05	DX-500	M-13	17	QC 16 ppm	15.54	17.11	15.84	15.83	16.02	15.85	15.8	16.05
4:34	DX-500	M-13	19	QC 16 ppm	15.53	17.04	15.85	15.86	16.03	15.83	15.84	16.03
5:04	DX-500	M-13	21	QC 16 ppm	15.45	17.26	15.84	15.89	16.01	15.68	16.02	16.03
5:48	DX-500	M-13	24	QC 16 ppm	15.5	17.25	15.85	15.89	16.02	15.71	16.13	16.09
6:02	DX-500	M-13	25	QC 16 ppm	15.47	17.34	15.87	15.93	16.01	15.75	16.08	16.09
3:17	ICS-3000	M-13	27	QC 16 ppm	16.17	15.91	16.11	16.11	16.15	16.13	15.77	16.27
3:33	ICS-3000	M-13	28	QC 16 ppm	15.97	16.23	16.1	15.91	16.16	16.13	15.78	16.31
4:21	ICS-3000	M-13	31	QC 16 ppm	15.92	16.25	16.07	15.87	16.13	16.06	15.71	16.18
4:37	ICS-3000	M-13	32	QC 16 ppm	15.91	16.32	16.09	15.88	16.14	16.06	15.73	16.18
5:58	ICS-3000	M-13	37	QC 16 ppm	15.92	16.26	16.08	15.83	16.09	16.04	15.64	16.1
4:36	DX-500	M-14	5	QC 2ppm	1.91	1.96	1.97	1.88	2	1.99	2.17	2.04
4:50	DX-500	M-14	6	QC 2ppm	1.92	1.9	1.96	1.86	1.98	1.98	2.18	2.02
5:20	DX-500	M-14	8	QC 2ppm	1.9	1.91	1.95	1.85	1.97	1.97	2.14	2.02
6:04	DX-500	M-14	11	QC 2ppm	1.91	1.97	1.98	1.87	1.99	1.99	2.17	2.05
6:19	DX-500	M-14	12	QC 2ppm	1.91	1.93	1.97	1.87	1.99	1.98	2.18	2.03
3:21	DX-500	M-13	14	QC 2ppm	2.17	2.27	1.97	2	1.96	2.02	2.01	1.97
3:50	DX-500	M-13	16	QC 2ppm	2.11	2.32	1.96	1.97	1.94	1.99	2.02	1.92
4:20	DX-500	M-13	18	QC 2ppm	2.1	2.31	1.95	1.96	1.94	1.99	2.05	1.95
5:19	DX-500	M-13	22	QC 2ppm	2.08	2.35	1.94	1.95	1.93	1.98	2.04	1.93
5:33	DX-500	M-13	23	QC 2ppm	2.08	2.37	1.94	1.95	1.92	1.97	2.04	1.92
4:05	ICS-3000	M-13	30	QC 2ppm	2.16	2.05	1.99	2.01	2.02	2.01	2.21	1.94
5:09	ICS-3000	M-13	34	QC 2ppm	2.16	2.04	1.99	2.01	2.01	2.02	2.21	1.97
5:25	ICS-3000	M-13	35	QC 2ppm	2.16	2.04	1.99	2.01	2	2.02	2.22	1.95
5:42	ICS-3000	M-13	36	QC 2ppm	2.16	2.03	1.99	2.01	2.01	2.02	2.23	1.96
6:30	ICS-3000	M-13	39	QC 2ppm	2.16	2.04	1.99	2.01	1.98	2	2.15	1.91

Table A2. 5000 X Simulated Sample Crosscheck Data

SME	Anion	Stock STD (ppm)	Vol of STD (uL)	Vol Flask (mL)	Final Conc (ppm)	M-14 DX 500	% Diff	M-13 ICS 3000	% Diff
500X	Fluoride	1000	100	100	1	1.15	15.0	0.98	-2.0
	Formate	1000	6000	100	60	56.40	-6.0	59.43	-1.0
	Chloride	1000	100	100	1	1.17	17.0	1.00	0.0
	Nitrate	1000	2500	100	25	24.39	-2.4	23.66	-5.4
	Sulfate	1000	250	100	2.5	2.48	-0.8	2.45	-2.0
SRAT Product									
500X	Fluoride	1000	100	100	1	1.14	14.0	0.98	-2.0
	Formate	1000	6000	100	60	56.21	-6.3	59.44	-0.9
	Chloride	1000	100	100	1	1.17	17.0	1.02	2.0
	Nitrate	1000	3000	100	30	30.42	1.4	29.08	-3.1
	Sulfate	1000	250	100	2.5	2.50	0.0	2.34	-6.4
	Oxalate	1000	200	100	2	2.09	4.5	1.91	-4.5
	Phosphate	1000	0	100	0				
SRAT Receipt									
500X	Fluoride	1000	100	100	1	1.15	15.0	1.00	0.0
	Formate	1000	1500	100	15	13.76	-8.3	14.32	-4.5
	Chloride	1000	100	100	1	1.11	11.0	1.01	1.0
	Nitrite	1000	1500	100	15	14.84	-1.1	14.53	-3.1
	Nitrate	1000	1500	100	15	14.87	-0.9	14.81	-1.3
	Sulfate	1000	250	100	2.5	2.52	0.8	2.41	-3.6
	Oxalate	1000	250	100	2.5	2.56	2.4	2.55	2.0

Table A3. 5000 X Simulated Sample Crosscheck Data

SME	Anion	Stock STD (ppm)	Vol of STD (uL)	Vol Flask (mL)	Final Conc (ppm)	M-14 DX 500	% Diff	M-13 ICS 3000	% Diff
5000X	Fluoride	1000	100	100	1	1.15	15.0	1.01	1.0
	Formate	1000	600	100	6	5.79	-3.5	5.81	-3.2
	Chloride	1000	100	100	1	1.18	18.0	1.14	14.0
	Nitrate	1000	250	100	2.5	2.36	-5.6	2.45	-2.0
	Sulfate	1000	100	100	1	1.04	4.0	1.02	2.0
SRAT Product									
5000X	Fluoride	1000	100	100	1	1.13	13.0	0.99	-1.0
	Formate	1000	600	100	6	5.81	-3.2	5.84	-2.7
	Chloride	1000	100	100	1	1.09	9.0	0.99	-1.0
	Nitrate	1000	300	100	3	2.83	-5.7	2.95	-1.7
	Sulfate	1000	100	100	1	1.01	1.0	0.95	-5.0
	Oxalate	1000	100	100	1	1.06	6.0	1.02	2.0
SRAT Receipt									
5000X	Fluoride	1000	100	100	1	1.16	16.0	1.06	6.0
	Formate	1000	150	100	1.5	1.59	6.0	1.42	-5.3
	Chloride	1000	100	100	1	1.12	12.0	1.04	4.0
	Nitrite	1000	150	100	1.5	1.43	-4.7	1.47	-2.0
	Nitrate	1000	150	100	1.5	1.46	-2.7	1.51	0.7
	Sulfate	1000	100	100	1	1.03	3.0	1.02	2.0
	Oxalate	1000	100	100	1	1.06	6.0	0.99	-1.0

Table A4. Spiked Sample Crosscheck Data

(Part 1)

		Slurry Mix Evaporator					SRAT Product					SRAT Receipt			
LSN	Anion	DX 500	% Rec	ICS 3000	% Rec	LSN	DX 500	% Rec	ICS 3000	% Rec	LSN	DX 500	% Rec	ICS 3000	% Rec
11535	Fluoride	8.17	102.1	7.95	99.4	11579	8.06	100.8	7.89	98.6	11517	8.26	103.3	7.98	99.8
12/7	Formate	11.44	100.0	11.56	99.6	12/9	12.25	104.9	12.00	100.7	12/6	8.99	103.3	8.77	100.6
	Chloride	8.25	103.1	8.12	101.5		8.26	103.3	8.05	100.6		8.39	104.9	8.15	101.9
	Nitrite	8.08	101.0	7.96	99.5		8.11	101.4	7.96	99.5		8.81	102.3	8.74	101.1
	Nitrate	9.03	97.8	9.04	96.9		9.53	99.3	9.53	99.1		8.58	99.6	8.66	100.9
	Sulfate	8.23	102.9	8.03	100.4		8.25	103.1	7.83	97.9		8.37	104.6	8.22	102.8
	Oxalate	7.98	99.8	8.08	101.0		7.90	98.8	7.69	96.1		8.09	101.1	8.47	105.9
	Phosphate	8.12	101.5	7.56	94.5		7.88	98.5	7.83	97.9		8.23	102.9	8.04	100.5
11663	Fluoride	7.79	97.4	7.71	96.4	11700	8.08	101.0	7.96	99.5	11627	8.09	101.1	7.89	98.6
12/14	Formate	11.13	100.8	10.97	97.9	12/16	11.75	103.3	11.50	98.9	12/13	8.98	102.5	8.67	99.2
	Chloride	7.97	99.6	7.92	99.0		8.38	104.8	8.22	102.8		8.33	104.1	8.06	100.8
	Nitrite	8.14	101.8	8.20	102.5		8.18	102.3	8.19	102.4		9.11	105.9	8.97	104.1
	Nitrate	8.92	95.9	9.20	98.6		9.77	99.1	9.91	98.5		8.43	96.9	8.61	99.5
	Sulfate	8.02	100.3	7.94	99.3		8.33	104.1	8.09	101.1		8.29	103.6	7.97	99.6
	Oxalate	7.73	96.6	8.04	100.5		8.04	100.5	8.25	103.1		7.90	98.8	8.06	100.8
	Phosphate	7.92	99.0	7.99	99.9		8.13	101.6	8.01	100.1		8.17	102.1	7.86	98.3

Table A4. Spiked Sample Crosscheck Data
(Part 2)

		Slurry Mix Evaporator					SRAT Product					SRAT Receipt			
LSN	Anion	DX 500	% Rec	ICS 3000	% Rec	LSN	DX 500	% Rec	ICS 3000	% Rec	LSN	DX 500	% Rec	ICS 3000	% Rec
11756	Fluoride	8.01	100.1	7.87	98.4	11801	7.85	98.1	8.21	102.6	11733	8.10	101.3	7.99	99.9
12/19	Formate	10.93	102.8	10.69	99.2	12/22	11.71	105.9	11.98	105.0	12/19	9.28	106.1	8.86	101.1
	Chloride	8.16	102.0	8.06	100.8		8.07	100.9	8.26	103.3		8.30	103.8	8.19	102.4
	Nitrite	8.12	101.5	8.12	101.5		7.97	99.6	8.26	103.3		8.81	102.9	8.78	102.3
	Nitrate	9.80	106.8	9.32	100.2		9.57	98.5	9.59	96.3		8.60	98.7	8.64	99.7
	Sulfate	8.22	102.8	8.10	101.3		8.11	101.4	8.34	104.3		8.29	103.6	8.20	102.5
	Oxalate	8.00	100.0	8.45	105.6		7.94	99.3	8.51	106.4		8.09	101.1	8.48	106.0
	Phosphate	8.14	101.8	8.06	100.8		7.92	99.0	8.10	101.3		8.21	102.6	8.09	101.1
11847	Fluoride	7.84	98.0	7.79	97.4	11883	7.96	99.5	7.85	98.1	11824	7.83	97.9	7.9	98.4
12/26	Formate	11.15	106.4	10.80	100.2	12/30	11.42	102.3	11.33	98.2	12/25	8.58	100.1	8.6	99.3
	Chloride	7.86	98.3	7.99	99.9		7.97	99.6	7.92	99.0		7.73	96.6	8.0	100.4
	Nitrite	8.45	105.6	7.98	99.8		8.55	106.9	7.58	94.8		8.94	105.2	8.7	100.9
	Nitrate	9.90	106.4	9.47	103.0		10.36	106.9	9.58	97.9		8.72	102.2	8.6	99.8
	Sulfate	8.41	105.1	8.04	100.5		8.54	106.8	7.85	98.1		8.25	103.2	8.0	100.5
	Oxalate	8.36	104.5	8.37	104.6		8.42	105.3	7.91	98.9		8.28	103.5	8.3	103.6
	Phosphate	8.53	106.6	7.97	99.6		8.55	106.9	7.86	98.3		8.29	103.6	7.8	97.9

Table A5. Sludge Batch 5 Sample Crosscheck Data

Tk	LSN	Anion	DX 500 (ppm)	ICS 3000 (ppm)	%Diff	Tk	LSN	Anion	DX 500 (ppm)	ICS 3000 (ppm)	%Diff	Tk	LSN	Anion	DX 500 (ppm)	ICS 3000 (ppm)	%Diff
SME	11535	Formate	35128	36542	4.03	SP	11579	Formate	39307	40367	2.70	SR	11517	Formate	6403	6671	4.19
	12/7	Nitrate	12344	12694	2.84		12/9	Nitrate	16188	16432	1.51		12/6	Nitrite	6487	6417	-1.08
	468	Sulfate	679	670	-1.23		469	Sulfate	577	519	-9.91		469	Nitrate	5643	5688	0.78
														Sulfate	570	606	6.41
SME	11663	Formate	31317	32096	2.49	SP	11700	Formate	32653	33232	1.77	SR	11627	Formate	6629	6901	4.10
	12/14	Nitrate	12769	13399	4.94		12/16	Nitrate	16837	17296	2.72		12/13	Nitrite	6427	6297	-2.03
	469	Sulfate	591	592	0.21		470	Sulfate					470	Nitrate	6147	6103	-0.71
														Sulfate	555	572	3.06
SME	11756	Formate	29579	30295	2.42	SP	11801	Formate	33066	34730	5.03	SR	11733	Formate	7070	7355	4.03
	12/19	Nitrate	13833	14399	4.10		12/22	Nitrate	17213	17801	3.42		12/20	Nitrite	6030	5935	-1.57
	470	Sulfate					471	Sulfate	504	517	2.49		471	Nitrate	6758	6796	0.56
														Sulfate	524	517	-1.22
SME	11847	Formate	27871	29176	4.68	SP	11883	Formate	31687	34059	7.48	SR	11824	Formate	5888	6282	6.69
	12/26	Nitrate	14693	14535	-1.07		12/30	Nitrate	18243	17207	-5.68		12/25	Nitrite	6536	6314	-3.39
	471	Sulfate					472	Sulfate	529	493	-6.91		472	Nitrate	6682	6475	-3.11
														Sulfate	539	515	-4.48

SME = Slurry Mix Evaporator
SP = SRAT Product
SR = SRAT Receipt

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/22/2008	1	SP	11801	standard	2ppm	Fluoride	1	2.12	1.94	2.12	1.94	0.18	0.18
12/22/2008	1	SP	11801	standard	2ppm	Formate	1	2.08	1.95	2.08	1.95	0.13	0.13
12/22/2008	1	SP	11801	standard	2ppm	Chloride	1	2.07	1.98	2.07	1.98	0.09	0.09
12/22/2008	1	SP	11801	standard	2ppm	Nitrite	1	1.94	2	1.94	2	-0.06	-0.06
12/22/2008	1	SP	11801	standard	2ppm	Nitrate	1	1.86	1.94	1.86	1.94	-0.08	-0.08
12/22/2008	1	SP	11801	standard	2ppm	Sulfate	1	1.96	1.99	1.96	1.99	-0.03	-0.03
12/22/2008	1	SP	11801	standard	2ppm	Oxalate	1	2.04	2.15	2.04	2.15	-0.11	-0.11
12/22/2008	1	SP	11801	standard	2ppm	Phosphate	1	1.97	1.95	1.97	1.95	0.02	0.02
12/22/2008	1	SP	11801	standard	16ppm	Fluoride	1	15.58	16.2	15.58	16.2	-0.62	-0.62
12/22/2008	1	SP	11801	standard	16ppm	Formate	1	16.63	15.95	16.63	15.95	0.68	0.68
12/22/2008	1	SP	11801	standard	16ppm	Chloride	1	16.22	16.07	16.22	16.07	0.15	0.15
12/22/2008	1	SP	11801	standard	16ppm	Nitrite	1	16.2	16.31	16.2	16.31	-0.11	-0.11
12/22/2008	1	SP	11801	standard	16ppm	Nitrate	1	15.74	15.87	15.74	15.87	-0.13	-0.13
12/22/2008	1	SP	11801	standard	16ppm	Sulfate	1	16.4	16.21	16.4	16.21	0.19	0.19
12/22/2008	1	SP	11801	standard	16ppm	Oxalate	1	15.84	16.69	15.84	16.69	-0.85	-0.85
12/22/2008	1	SP	11801	standard	16ppm	Phosphate	1	15.97	16.06	15.97	16.06	-0.09	-0.09
12/22/2008	5000	SP	11801	process	3067	Fluoride	5128.4408	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3067	Formate	5128.4408	6.47	6.73	33181	34514	-0.26	-1333
12/22/2008	5000	SP	11801	process	3067	Chloride	5128.4408	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3067	Nitrite	5128.4408	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3067	Nitrate	5128.4408	3.38	3.43	17334	17591	-0.05	-257
12/22/2008	5000	SP	11801	process	3067	Sulfate	5128.4408	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3067	Oxalate	5128.4408	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3067	Phosphate	5128.4408	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3068	Fluoride	5104.5908	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3068	Formate	5104.5908	6.44	6.8	32874	34711	-0.36	-1837
12/22/2008	5000	SP	11801	process	3068	Chloride	5104.5908	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3068	Nitrite	5104.5908	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3068	Nitrate	5104.5908	3.34	3.45	17049	17611	-0.11	-562
12/22/2008	5000	SP	11801	process	3068	Sulfate	5104.5908	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3068	Oxalate	5104.5908	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3068	Phosphate	5104.5908	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3069	Fluoride	5124.1212	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3069	Formate	5124.1212	6.49	6.79	33256	34793	-0.3	-1537
12/22/2008	5000	SP	11801	process	3069	Chloride	5124.1212	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3069	Nitrite	5124.1212	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3069	Nitrate	5124.1212	3.34	3.44	17115	17627	-0.1	-512
12/22/2008	5000	SP	11801	process	3069	Sulfate	5124.1212	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3069	Oxalate	5124.1212	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3069	Phosphate	5124.1212	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3072	Fluoride	4874.6687	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3072	Formate	4874.6687	6.76	7.16	32953	34903	-0.4	-1950

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/22/2008	5000	SP	11801	process	3072	Chloride	4874.6687	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3072	Nitrite	4874.6687	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3072	Nitrate	4874.6687	3.56	3.77	17354	18378	-0.21	-1024
12/22/2008	5000	SP	11801	process	3072	Sulfate	4874.6687	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3072	Oxalate	4874.6687	.	.	.	.	.	.
12/22/2008	5000	SP	11801	process	3072	Phosphate	4874.6687	.	.	.	.	.	.
12/22/2008	16	SP	11801	standard	9999	Fluoride	2	7.85	8.21	98.13	102.63	-0.36	-4.5
12/22/2008	16	SP	11801	standard	9999	Formate	2	11.71	11.98	105.94	105	-0.27	0.94
12/22/2008	16	SP	11801	standard	9999	Chloride	2	8.07	8.26	100.88	103.25	-0.19	-2.37
12/22/2008	16	SP	11801	standard	9999	Nitrite	2	7.97	8.26	99.63	103.25	-0.29	-3.62
12/22/2008	16	SP	11801	standard	9999	Nitrate	2	9.57	9.59	98.5	96.31	-0.02	2.19
12/22/2008	16	SP	11801	standard	9999	Sulfate	2	8.11	8.34	101.38	104.25	-0.23	-2.87
12/22/2008	16	SP	11801	standard	9999	Oxalate	2	7.94	8.51	99.25	106.38	-0.57	-7.13
12/22/2008	16	SP	11801	standard	9999	Phosphate	2	7.92	8.1	99	101.25	-0.18	-2.25
12/22/2008	500	SP	11801	process	3073	Fluoride	495.93915	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3073	Formate	495.93915	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3073	Chloride	495.93915	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3073	Nitrite	495.93915	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3073	Nitrate	495.93915	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3073	Sulfate	495.93915	1	1.01	496	501	-0.01	-5
12/22/2008	500	SP	11801	process	3073	Oxalate	495.93915	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3073	Phosphate	495.93915	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3074	Fluoride	505.08139	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3074	Formate	505.08139	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3074	Chloride	505.08139	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3074	Nitrite	505.08139	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3074	Nitrate	505.08139	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3074	Sulfate	505.08139	1.01	1.05	510	530	-0.04	-20
12/22/2008	500	SP	11801	process	3074	Oxalate	505.08139	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3074	Phosphate	505.08139	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3075	Fluoride	500.77009	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3075	Formate	500.77009	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3075	Chloride	500.77009	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3075	Nitrite	500.77009	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3075	Nitrate	500.77009	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3075	Sulfate	500.77009	1.02	1.03	511	516	-0.01	-5
12/22/2008	500	SP	11801	process	3075	Oxalate	500.77009	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3075	Phosphate	500.77009	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3076	Fluoride	499.20967	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3076	Formate	499.20967	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3076	Chloride	499.20967	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3076	Nitrite	499.20967	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/22/2008	500	SP	11801	process	3076	Nitrate	499.20967	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3076	Sulfate	499.20967	1	1.04	499	519	-0.04	-20
12/22/2008	500	SP	11801	process	3076	Oxalate	499.20967	.	.	.	.	.	.
12/22/2008	500	SP	11801	process	3076	Phosphate	499.20967	.	.	.	.	.	.
12/22/2008	500	SR	11801	standard	2ppm	Fluoride	1	2.11	1.94	2.11	1.94	0.17	0.17
12/22/2008	500	SR	11801	standard	2ppm	Formate	1	2.1	1.96	2.1	1.96	0.14	0.14
12/22/2008	500	SR	11801	standard	2ppm	Chloride	1	2.06	1.98	2.06	1.98	0.08	0.08
12/22/2008	500	SR	11801	standard	2ppm	Nitrite	1	1.91	2.01	1.91	2.01	-0.1	-0.1
12/22/2008	500	SR	11801	standard	2ppm	Nitrate	1	1.85	1.96	1.85	1.96	-0.11	-0.11
12/22/2008	500	SR	11801	standard	2ppm	Sulfate	1	1.95	1.98	1.95	1.98	-0.03	-0.03
12/22/2008	500	SR	11801	standard	2ppm	Oxalate	1	2.02	2.15	2.02	2.15	-0.13	-0.13
12/22/2008	500	SR	11801	standard	2ppm	Phosphate	1	1.95	1.97	1.95	1.97	-0.02	-0.02
12/22/2008	500	SR	11801	standard	16ppm	Fluoride	1	15.68	16.24	15.68	16.24	-0.56	-0.56
12/22/2008	500	SR	11801	standard	16ppm	Formate	1	16.76	15.97	16.76	15.97	0.79	0.79
12/22/2008	500	SR	11801	standard	16ppm	Chloride	1	16.26	16.08	16.26	16.08	0.18	0.18
12/22/2008	500	SR	11801	standard	16ppm	Nitrite	1	16.43	16.41	16.43	16.41	0.02	0.02
12/22/2008	500	SR	11801	standard	16ppm	Nitrate	1	15.78	15.9	15.78	15.9	-0.12	-0.12
12/22/2008	500	SR	11801	standard	16ppm	Sulfate	1	16.17	16.21	16.17	16.21	-0.04	-0.04
12/22/2008	500	SR	11801	standard	16ppm	Oxalate	1	15.79	16.78	15.79	16.78	-0.99	-0.99
12/22/2008	500	SR	11801	standard	16ppm	Phosphate	1	16.02	16.1	16.02	16.1	-0.08	-0.08
12/30/2008	1	SP	11883	standard	16ppm	Fluoride	1	15.92	16.09	15.92	16.09	-0.17	-0.17
12/30/2008	1	SP	11883	standard	16ppm	Formate	1	16.86	15.74	16.86	15.74	1.12	1.12
12/30/2008	1	SP	11883	standard	16ppm	Chloride	1	16.59	16.02	16.59	16.02	0.57	0.57
12/30/2008	1	SP	11883	standard	16ppm	Nitrite	1	17.12	16.11	17.12	16.11	1.01	1.01
12/30/2008	1	SP	11883	standard	16ppm	Nitrate	1	16.78	15.78	16.78	15.78	1	1
12/30/2008	1	SP	11883	standard	16ppm	Sulfate	1	17.07	15.99	17.07	15.99	1.08	1.08
12/30/2008	1	SP	11883	standard	16ppm	Oxalate	1	17.06	16.29	17.06	16.29	0.77	0.77
12/30/2008	1	SP	11883	standard	16ppm	Phosphate	1	17.33	15.4	17.33	15.4	1.93	1.93
12/30/2008	5000	SP	11883	process	3373	Fluoride	4952.8808	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3373	Formate	4952.8808	6.59	6.72	32639	33283	-0.13	-644
12/30/2008	5000	SP	11883	process	3373	Chloride	4952.8808	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3373	Nitrite	4952.8808	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3373	Nitrate	4952.8808	3.71	3.4	18375	16840	0.31	1535
12/30/2008	5000	SP	11883	process	3373	Sulfate	4952.8808	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3373	Oxalate	4952.8808	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3373	Phosphate	4952.8808	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3447	Fluoride	5276.8684	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3447	Formate	5276.8684	5.95	6.79	31397	35830	-0.84	-4433
12/30/2008	5000	SP	11883	process	3447	Chloride	5276.8684	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3447	Nitrite	5276.8684	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3447	Nitrate	5276.8684	3.74	3.46	19735	18258	0.28	1477
12/30/2008	5000	SP	11883	process	3447	Sulfate	5276.8684	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/30/2008	5000	SP	11883	process	3447	Oxalate	5276.8684	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3447	Phosphate	5276.8684	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3375	Fluoride	4950.8957	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3375	Formate	4950.8957	6.32	6.74	31290	33369	-0.42	-2079
12/30/2008	5000	SP	11883	process	3375	Chloride	4950.8957	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3375	Nitrite	4950.8957	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3375	Nitrate	4950.8957	3.5	3.38	17328	16734	0.12	594
12/30/2008	5000	SP	11883	process	3375	Sulfate	4950.8957	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3375	Oxalate	4950.8957	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3375	Phosphate	4950.8957	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3376	Fluoride	4856.4254	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3376	Formate	4856.4254	6.47	6.95	31421	33752	-0.48	-2331
12/30/2008	5000	SP	11883	process	3376	Chloride	4856.4254	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3376	Nitrite	4856.4254	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3376	Nitrate	4856.4254	3.61	3.5	17532	16997	0.11	535
12/30/2008	5000	SP	11883	process	3376	Sulfate	4856.4254	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3376	Oxalate	4856.4254	.	.	.	.	.	.
12/30/2008	5000	SP	11883	process	3376	Phosphate	4856.4254	.	.	.	.	.	.
12/30/2008	16	SP	11883	standard	9999	Fluoride	2	7.96	7.85	99.5	98.13	0.11	1.37
12/30/2008	16	SP	11883	standard	9999	Formate	2	11.42	11.33	102.31	98.19	0.09	4.12
12/30/2008	16	SP	11883	standard	9999	Chloride	2	7.97	7.92	99.63	99	0.05	0.63
12/30/2008	16	SP	11883	standard	9999	Nitrite	2	8.55	7.58	106.88	94.75	0.97	12.13
12/30/2008	16	SP	11883	standard	9999	Nitrate	2	10.36	9.58	106.94	97.88	0.78	9.06
12/30/2008	16	SP	11883	standard	9999	Sulfate	2	8.54	7.85	106.75	98.13	0.69	8.62
12/30/2008	16	SP	11883	standard	9999	Oxalate	2	8.42	7.91	105.25	98.88	0.51	6.37
12/30/2008	16	SP	11883	standard	9999	Phosphate	2	8.55	7.86	106.88	98.25	0.69	8.63
12/30/2008	500	SP	11883	process	3361	Fluoride	492.05128	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3361	Formate	492.05128	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3361	Chloride	492.05128	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3361	Nitrite	492.05128	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3361	Nitrate	492.05128	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3361	Sulfate	492.05128	1.08	.	531	.	.	.
12/30/2008	500	SP	11883	process	3361	Oxalate	492.05128	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3361	Phosphate	492.05128	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3417	Fluoride	487.78557	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3417	Formate	487.78557	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3417	Chloride	487.78557	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3417	Nitrite	487.78557	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3417	Nitrate	487.78557	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3417	Sulfate	487.78557	1.1	1.01	537	493	0.09	44
12/30/2008	500	SP	11883	process	3417	Oxalate	487.78557	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3417	Phosphate	487.78557	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/30/2008	500	SP	11883	process	3363	Fluoride	505.13289	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3363	Formate	505.13289	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3363	Chloride	505.13289	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3363	Nitrite	505.13289	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3363	Nitrate	505.13289	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3363	Sulfate	505.13289	1.02	.	.	.	.	.
12/30/2008	500	SP	11883	process	3363	Oxalate	505.13289	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3363	Phosphate	505.13289	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3364	Fluoride	490.32599	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3364	Formate	490.32599	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3364	Chloride	490.32599	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3364	Nitrite	490.32599	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3364	Nitrate	490.32599	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3364	Sulfate	490.32599	1.06	.	520	.	.	.
12/30/2008	500	SP	11883	process	3364	Oxalate	490.32599	.	.	.	.	.	.
12/30/2008	500	SP	11883	process	3364	Phosphate	490.32599	.	.	.	.	.	.
12/30/2008	500	SR	11883	standard	16ppm	Fluoride	1	16.05	16.14	16.05	16.14	-0.09	-0.09
12/30/2008	500	SR	11883	standard	16ppm	Formate	1	17.42	15.68	17.42	15.68	1.74	1.74
12/30/2008	500	SR	11883	standard	16ppm	Chloride	1	16.69	16.01	16.69	16.01	0.68	0.68
12/30/2008	500	SR	11883	standard	16ppm	Nitrite	1	17.29	16.09	17.29	16.09	1.2	1.2
12/30/2008	500	SR	11883	standard	16ppm	Nitrate	1	16.9	15.64	16.9	15.64	1.26	1.26
12/30/2008	500	SR	11883	standard	16ppm	Sulfate	1	17.15	15.73	17.15	15.73	1.42	1.42
12/30/2008	500	SR	11883	standard	16ppm	Oxalate	1	17.11	15.91	17.11	15.91	1.2	1.2
12/30/2008	500	SR	11883	standard	16ppm	Phosphate	1	17.44	14.7	17.44	14.7	2.74	2.74
12/6/2008	1	SR	11517	standard	2ppm	Fluoride	1	2.17	1.94	2.17	1.94	0.23	0.23
12/6/2008	1	SR	11517	standard	2ppm	Formate	1	2.06	2	2.06	2	0.06	0.06
12/6/2008	1	SR	11517	standard	2ppm	Chloride	1	2.06	1.97	2.06	1.97	0.09	0.09
12/6/2008	1	SR	11517	standard	2ppm	Nitrite	1	1.93	1.98	1.93	1.98	-0.05	-0.05
12/6/2008	1	SR	11517	standard	2ppm	Nitrate	1	1.86	1.91	1.86	1.91	-0.05	-0.05
12/6/2008	1	SR	11517	standard	2ppm	Sulfate	1	1.96	1.92	1.96	1.92	0.04	0.04
12/6/2008	1	SR	11517	standard	2ppm	Oxalate	1	2	2.04	2	2.04	-0.04	-0.04
12/6/2008	1	SR	11517	standard	2ppm	Phosphate	1	1.96	1.94	1.96	1.94	0.02	0.02
12/6/2008	1	SR	11517	standard	16ppm	Fluoride	1	16.07	16.15	16.07	16.15	-0.08	-0.08
12/6/2008	1	SR	11517	standard	16ppm	Formate	1	16.05	15.98	16.05	15.98	0.07	0.07
12/6/2008	1	SR	11517	standard	16ppm	Chloride	1	16.47	16.06	16.47	16.06	0.41	0.41
12/6/2008	1	SR	11517	standard	16ppm	Nitrite	1	16.21	16.34	16.21	16.34	-0.13	-0.13
12/6/2008	1	SR	11517	standard	16ppm	Nitrate	1	15.85	15.81	15.85	15.81	0.04	0.04
12/6/2008	1	SR	11517	standard	16ppm	Sulfate	1	16.34	16.14	16.34	16.14	0.2	0.2
12/6/2008	1	SR	11517	standard	16ppm	Oxalate	1	15.68	16.38	15.68	16.38	-0.7	-0.7
12/6/2008	1	SR	11517	standard	16ppm	Phosphate	1	16.17	16.05	16.17	16.05	0.12	0.12
12/6/2008	5000	SR	11517	process	1666	Fluoride	4885.5902	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1666	Formate	4885.5902	1.46	1.45	7133	7084	0.01	49

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/6/2008	5000	SR	11517	process	1666	Chloride	4885.5902	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1666	Nitrite	4885.5902	1.26	1.3	6156	6351	-0.04	-195
12/6/2008	5000	SR	11517	process	1666	Nitrate	4885.5902	1.22	1.18	5960	5765	0.04	195
12/6/2008	5000	SR	11517	process	1666	Sulfate	4885.5902	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1666	Oxalate	4885.5902	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1666	Phosphate	4885.5902	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1686	Fluoride	4897.2312	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1686	Formate	4897.2312	1.44	1.45	7052	7101	-0.01	-49
12/6/2008	5000	SR	11517	process	1686	Chloride	4897.2312	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1686	Nitrite	4897.2312	1.23	1.27	6024	6219	-0.04	-195
12/6/2008	5000	SR	11517	process	1686	Nitrate	4897.2312	1.24	1.14	6073	5583	0.1	490
12/6/2008	5000	SR	11517	process	1686	Sulfate	4897.2312	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1686	Oxalate	4897.2312	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1686	Phosphate	4897.2312	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1687	Fluoride	4990.7038	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1687	Formate	4990.7038	1.44	1.44	7187	7187	0	0
12/6/2008	5000	SR	11517	process	1687	Chloride	4990.7038	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1687	Nitrite	4990.7038	1.23	1.25	6139	6238	-0.02	-99
12/6/2008	5000	SR	11517	process	1687	Nitrate	4990.7038	1.19	1.21	5939	6039	-0.02	-100
12/6/2008	5000	SR	11517	process	1687	Sulfate	4990.7038	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1687	Oxalate	4990.7038	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1687	Phosphate	4990.7038	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1688	Fluoride	5051.561	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1688	Formate	5051.561	1.46	1.37	7375	6921	0.09	454
12/6/2008	5000	SR	11517	process	1688	Chloride	5051.561	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1688	Nitrite	5051.561	1.23	1.25	6213	6314	-0.02	-101
12/6/2008	5000	SR	11517	process	1688	Nitrate	5051.561	1.22	1.21	6163	6112	0.01	51
12/6/2008	5000	SR	11517	process	1688	Sulfate	5051.561	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1688	Oxalate	5051.561	.	.	.	.	.	.
12/6/2008	5000	SR	11517	process	1688	Phosphate	5051.561	.	.	.	.	.	.
12/6/2008	16	SR	11517	standard	9999	Fluoride	2	8.26	7.98	103.25	99.75	0.28	3.5
12/6/2008	16	SR	11517	standard	9999	Formate	2	8.99	8.77	103.25	100.56	0.22	2.69
12/6/2008	16	SR	11517	standard	9999	Chloride	2	8.39	8.15	104.88	101.88	0.24	3
12/6/2008	16	SR	11517	standard	9999	Nitrite	2	8.81	8.74	102.25	101.13	0.07	1.12
12/6/2008	16	SR	11517	standard	9999	Nitrate	2	8.58	8.66	99.63	100.88	-0.08	-1.25
12/6/2008	16	SR	11517	standard	9999	Sulfate	2	8.37	8.22	104.63	102.75	0.15	1.88
12/6/2008	16	SR	11517	standard	9999	Oxalate	2	8.09	8.47	101.13	105.88	-0.38	-4.75
12/6/2008	16	SR	11517	standard	9999	Phosphate	2	8.23	8.04	102.88	100.5	0.19	2.38
12/6/2008	500	SR	11517	process	1682	Fluoride	480.03926	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1682	Formate	480.03926	13.28	13.83	6375	6639	-0.55	-264
12/6/2008	500	SR	11517	process	1682	Chloride	480.03926	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1682	Nitrite	480.03926	13.43	13.35	6447	6409	0.08	38

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/6/2008	500	SR	11517	process	1682	Nitrate	480.03926	11.73	11.79	5631	5660	-0.06	-29
12/6/2008	500	SR	11517	process	1682	Sulfate	480.03926	1.19	1.29	571	619	-0.1	-48
12/6/2008	500	SR	11517	process	1682	Oxalate	480.03926	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1682	Phosphate	480.03926	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1683	Fluoride	487.67722	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1683	Formate	487.67722	13.19	13.67	6432	6667	-0.48	-235
12/6/2008	500	SR	11517	process	1683	Chloride	487.67722	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1683	Nitrite	487.67722	13.34	13.16	6506	6418	0.18	88
12/6/2008	500	SR	11517	process	1683	Nitrate	487.67722	11.57	11.6	5642	5657	-0.03	-15
12/6/2008	500	SR	11517	process	1683	Sulfate	487.67722	1.16	1.21	566	590	-0.05	-24
12/6/2008	500	SR	11517	process	1683	Oxalate	487.67722	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1683	Phosphate	487.67722	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1684	Fluoride	489.49995	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1684	Formate	489.49995	13.07	13.59	6398	6652	-0.52	-254
12/6/2008	500	SR	11517	process	1684	Chloride	489.49995	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1684	Nitrite	489.49995	13.22	13.07	6471	6398	0.15	73
12/6/2008	500	SR	11517	process	1684	Nitrate	489.49995	11.46	11.63	5610	5693	-0.17	-83
12/6/2008	500	SR	11517	process	1684	Sulfate	489.49995	1.15	1.26	563	617	-0.11	-54
12/6/2008	500	SR	11517	process	1684	Oxalate	489.49995	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1684	Phosphate	489.49995	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1685	Fluoride	499.61925	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1685	Formate	499.61925	12.82	13.46	6405	6725	-0.64	-320
12/6/2008	500	SR	11517	process	1685	Chloride	499.61925	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1685	Nitrite	499.61925	13.06	12.9	6525	6445	0.16	80
12/6/2008	500	SR	11517	process	1685	Nitrate	499.61925	11.39	11.49	5691	5741	-0.1	-50
12/6/2008	500	SR	11517	process	1685	Sulfate	499.61925	1.16	1.2	580	600	-0.04	-20
12/6/2008	500	SR	11517	process	1685	Oxalate	499.61925	.	.	.	.	.	.
12/6/2008	500	SR	11517	process	1685	Phosphate	499.61925	.	.	.	.	.	.
12/6/2008	500	SR	11517	standard	2ppm	Fluoride	1	2.17	1.94	2.17	1.94	0.23	0.23
12/6/2008	500	SR	11517	standard	2ppm	Formate	1	2.12	1.96	2.12	1.96	0.16	0.16
12/6/2008	500	SR	11517	standard	2ppm	Chloride	1	2.07	1.96	2.07	1.96	0.11	0.11
12/6/2008	500	SR	11517	standard	2ppm	Nitrite	1	1.93	1.97	1.93	1.97	-0.04	-0.04
12/6/2008	500	SR	11517	standard	2ppm	Nitrate	1	1.86	1.92	1.86	1.92	-0.06	-0.06
12/6/2008	500	SR	11517	standard	2ppm	Sulfate	1	1.97	1.96	1.97	1.96	0.01	0.01
12/6/2008	500	SR	11517	standard	2ppm	Oxalate	1	2.01	2.11	2.01	2.11	-0.1	-0.1
12/6/2008	500	SR	11517	standard	2ppm	Phosphate	1	1.99	1.92	1.99	1.92	0.07	0.07
12/6/2008	500	SR	11517	standard	16ppm	Fluoride	1	15.99	16.18	15.99	16.18	-0.19	-0.19
12/6/2008	500	SR	11517	standard	16ppm	Formate	1	16.25	15.87	16.25	15.87	0.38	0.38
12/6/2008	500	SR	11517	standard	16ppm	Chloride	1	16.51	16.05	16.51	16.05	0.46	0.46
12/6/2008	500	SR	11517	standard	16ppm	Nitrite	1	16.16	16.06	16.16	16.06	0.1	0.1
12/6/2008	500	SR	11517	standard	16ppm	Nitrate	1	15.9	15.79	15.9	15.79	0.11	0.11
12/6/2008	500	SR	11517	standard	16ppm	Sulfate	1	16.39	16.18	16.39	16.18	0.21	0.21

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/6/2008	500	SR	11517	standard	16ppm	Oxalate	1	15.76	16.5	15.76	16.5	-0.74	-0.74
12/6/2008	500	SR	11517	standard	16ppm	Phosphate	1	16.21	15.97	16.21	15.97	0.24	0.24
12/12/2008	1	SR	11627	standard	2ppm	Fluoride	1	2.18	1.94	2.18	1.94	0.24	0.24
12/12/2008	1	SR	11627	standard	2ppm	Formate	1	2.11	1.93	2.11	1.93	0.18	0.18
12/12/2008	1	SR	11627	standard	2ppm	Chloride	1	2.1	1.97	2.1	1.97	0.13	0.13
12/12/2008	1	SR	11627	standard	2ppm	Nitrite	1	1.98	2	1.98	2	-0.02	-0.02
12/12/2008	1	SR	11627	standard	2ppm	Nitrate	1	1.86	1.94	1.86	1.94	-0.08	-0.08
12/12/2008	1	SR	11627	standard	2ppm	Sulfate	1	1.99	1.95	1.99	1.95	0.04	0.04
12/12/2008	1	SR	11627	standard	2ppm	Oxalate	1	2.06	2.1	2.06	2.1	-0.04	-0.04
12/12/2008	1	SR	11627	standard	2ppm	Phosphate	1	2	1.95	2	1.95	0.05	0.05
12/12/2008	1	SR	11627	standard	16ppm	Fluoride	1	15.84	16.07	15.84	16.07	-0.23	-0.23
12/12/2008	1	SR	11627	standard	16ppm	Formate	1	16.14	15.82	16.14	15.82	0.32	0.32
12/12/2008	1	SR	11627	standard	16ppm	Chloride	1	16.38	15.99	16.38	15.99	0.39	0.39
12/12/2008	1	SR	11627	standard	16ppm	Nitrite	1	16.87	16.86	16.87	16.86	0.01	0.01
12/12/2008	1	SR	11627	standard	16ppm	Nitrate	1	15.88	15.77	15.88	15.77	0.11	0.11
12/12/2008	1	SR	11627	standard	16ppm	Sulfate	1	16.26	15.98	16.26	15.98	0.28	0.28
12/12/2008	1	SR	11627	standard	16ppm	Oxalate	1	15.69	16.52	15.69	16.52	-0.83	-0.83
12/12/2008	1	SR	11627	standard	16ppm	Phosphate	1	16.1	15.87	16.1	15.87	0.23	0.23
12/12/2008	5000	SR	11627	process	2152	Fluoride	4874.6742	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2152	Formate	4874.6742	1.5	2.17	7312	10578	-0.67	-3266
12/12/2008	5000	SR	11627	process	2152	Chloride	4874.6742	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2152	Nitrite	4874.6742	1.24	1.92	6045	9359	-0.68	-3314
12/12/2008	5000	SR	11627	process	2152	Nitrate	4874.6742	1.2	1.92	5850	9359	-0.72	-3509
12/12/2008	5000	SR	11627	process	2152	Sulfate	4874.6742	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2152	Oxalate	4874.6742	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2152	Phosphate	4874.6742	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2153	Fluoride	5122.7593	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2153	Formate	5122.7593	1.44	1.36	7377	6967	0.08	410
12/12/2008	5000	SR	11627	process	2153	Chloride	5122.7593	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2153	Nitrite	5122.7593	1.18	1.2	6045	6147	-0.02	-102
12/12/2008	5000	SR	11627	process	2153	Nitrate	5122.7593	1.26	1.17	6455	5994	0.09	461
12/12/2008	5000	SR	11627	process	2153	Sulfate	5122.7593	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2153	Oxalate	5122.7593	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2153	Phosphate	5122.7593	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2154	Fluoride	4808.4978	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2154	Formate	4808.4978	1.52	1.44	7309	6924	0.08	385
12/12/2008	5000	SR	11627	process	2154	Chloride	4808.4978	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2154	Nitrite	4808.4978	1.27	1.29	6107	6203	-0.02	-96
12/12/2008	5000	SR	11627	process	2154	Nitrate	4808.4978	1.23	1.27	5914	6107	-0.04	-193
12/12/2008	5000	SR	11627	process	2154	Sulfate	4808.4978	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2154	Oxalate	4808.4978	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2154	Phosphate	4808.4978	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/12/2008	5000	SR	11627	process	2155	Fluoride	4835.5642	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2155	Formate	4835.5642	1.56	1.47	7543	7108	0.09	435
12/12/2008	5000	SR	11627	process	2155	Chloride	4835.5642	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2155	Nitrite	4835.5642	1.28	1.29	6190	6238	-0.01	-48
12/12/2008	5000	SR	11627	process	2155	Nitrate	4835.5642	1.36	1.3	6576	6286	0.06	290
12/12/2008	5000	SR	11627	process	2155	Sulfate	4835.5642	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2155	Oxalate	4835.5642	.	.	.	.	.	.
12/12/2008	5000	SR	11627	process	2155	Phosphate	4835.5642	.	.	.	.	.	.
12/12/2008	16	SR	11627	standard	9999	Fluoride	2	8.09	7.89	101.13	98.63	0.2	2.5
12/12/2008	16	SR	11627	standard	9999	Formate	2	8.98	8.67	102.5	99.19	0.31	3.31
12/12/2008	16	SR	11627	standard	9999	Chloride	2	8.33	8.06	104.13	100.75	0.27	3.38
12/12/2008	16	SR	11627	standard	9999	Nitrite	2	9.11	8.97	105.88	104.06	0.14	1.82
12/12/2008	16	SR	11627	standard	9999	Nitrate	2	8.43	8.61	96.88	99.5	-0.18	-2.62
12/12/2008	16	SR	11627	standard	9999	Sulfate	2	8.29	7.97	103.63	99.63	0.32	4
12/12/2008	16	SR	11627	standard	9999	Oxalate	2	7.9	8.06	98.75	100.75	-0.16	-2
12/12/2008	16	SR	11627	standard	9999	Phosphate	2	8.17	7.86	102.13	98.25	0.31	3.88
12/12/2008	500	SR	11627	process	2144	Fluoride	475.99329	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2144	Formate	475.99329	13.79	14.41	6564	6859	-0.62	-295
12/12/2008	500	SR	11627	process	2144	Chloride	475.99329	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2144	Nitrite	475.99329	13.4	13.17	6378	6269	0.23	109
12/12/2008	500	SR	11627	process	2144	Nitrate	475.99329	12.83	12.79	6107	6088	0.04	19
12/12/2008	500	SR	11627	process	2144	Sulfate	475.99329	1.14	1.19	543	566	-0.05	-23
12/12/2008	500	SR	11627	process	2144	Oxalate	475.99329	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2144	Phosphate	475.99329	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2145	Fluoride	503.10259	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2145	Formate	503.10259	13.18	13.69	6631	6887	-0.51	-256
12/12/2008	500	SR	11627	process	2145	Chloride	503.10259	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2145	Nitrite	503.10259	12.74	12.49	6410	6284	0.25	126
12/12/2008	500	SR	11627	process	2145	Nitrate	503.10259	11.98	12.12	6027	6098	-0.14	-71
12/12/2008	500	SR	11627	process	2145	Sulfate	503.10259	1.12	1.12	563	563	0	0
12/12/2008	500	SR	11627	process	2145	Oxalate	503.10259	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2145	Phosphate	503.10259	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2146	Fluoride	480.26708	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2146	Formate	480.26708	13.84	14.4	6647	6916	-0.56	-269
12/12/2008	500	SR	11627	process	2146	Chloride	480.26708	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2146	Nitrite	480.26708	13.44	13.15	6455	6316	0.29	139
12/12/2008	500	SR	11627	process	2146	Nitrate	480.26708	12.73	12.72	6114	6109	0.01	5
12/12/2008	500	SR	11627	process	2146	Sulfate	480.26708	1.15	1.2	552	576	-0.05	-24
12/12/2008	500	SR	11627	process	2146	Oxalate	480.26708	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2146	Phosphate	480.26708	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2147	Fluoride	504.42832	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2147	Formate	504.42832	13.23	13.76	6674	6941	-0.53	-267

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/12/2008	500	SR	11627	process	2147	Chloride	504.42832	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2147	Nitrite	504.42832	12.82	12.53	6467	6320	0.29	147
12/12/2008	500	SR	11627	process	2147	Nitrate	504.42832	12.57	12.13	6341	6119	0.44	222
12/12/2008	500	SR	11627	process	2147	Sulfate	504.42832	1.11	1.15	560	580	-0.04	-20
12/12/2008	500	SR	11627	process	2147	Oxalate	504.42832	.	.	.	.	.	.
12/12/2008	500	SR	11627	process	2147	Phosphate	504.42832	.	.	.	.	.	.
12/12/2008	500	SR	11627	standard	2ppm	Fluoride	1	2.17	1.94	2.17	1.94	0.23	0.23
12/12/2008	500	SR	11627	standard	2ppm	Formate	1	2.12	1.97	2.12	1.97	0.15	0.15
12/12/2008	500	SR	11627	standard	2ppm	Chloride	1	2.06	1.97	2.06	1.97	0.09	0.09
12/12/2008	500	SR	11627	standard	2ppm	Nitrite	1	1.95	2	1.95	2	-0.05	-0.05
12/12/2008	500	SR	11627	standard	2ppm	Nitrate	1	1.87	1.92	1.87	1.92	-0.05	-0.05
12/12/2008	500	SR	11627	standard	2ppm	Sulfate	1	1.98	1.89	1.98	1.89	0.09	0.09
12/12/2008	500	SR	11627	standard	2ppm	Oxalate	1	2.06	2.03	2.06	2.03	0.03	0.03
12/12/2008	500	SR	11627	standard	2ppm	Phosphate	1	1.99	1.84	1.99	1.84	0.15	0.15
12/12/2008	500	SR	11627	standard	16ppm	Fluoride	1	15.97	16.11	15.97	16.11	-0.14	-0.14
12/12/2008	500	SR	11627	standard	16ppm	Formate	1	16.07	15.86	16.07	15.86	0.21	0.21
12/12/2008	500	SR	11627	standard	16ppm	Chloride	1	16.45	16.01	16.45	16.01	0.44	0.44
12/12/2008	500	SR	11627	standard	16ppm	Nitrite	1	16.82	16.72	16.82	16.72	0.1	0.1
12/12/2008	500	SR	11627	standard	16ppm	Nitrate	1	15.92	15.76	15.92	15.76	0.16	0.16
12/12/2008	500	SR	11627	standard	16ppm	Sulfate	1	16.26	15.94	16.26	15.94	0.32	0.32
12/12/2008	500	SR	11627	standard	16ppm	Oxalate	1	15.82	16.32	15.82	16.32	-0.5	-0.5
12/12/2008	500	SR	11627	standard	16ppm	Phosphate	1	16.13	15.65	16.13	15.65	0.48	0.48
12/19/2008	1	SR	11733	standard	2ppm	Fluoride	1	2.13	1.92	2.13	1.92	0.21	0.21
12/19/2008	1	SR	11733	standard	2ppm	Formate	1	2.12	1.91	2.12	1.91	0.21	0.21
12/19/2008	1	SR	11733	standard	2ppm	Chloride	1	2.08	1.97	2.08	1.97	0.11	0.11
12/19/2008	1	SR	11733	standard	2ppm	Nitrite	1	1.95	2.03	1.95	2.03	-0.08	-0.08
12/19/2008	1	SR	11733	standard	2ppm	Nitrate	1	1.88	1.94	1.88	1.94	-0.06	-0.06
12/19/2008	1	SR	11733	standard	2ppm	Sulfate	1	1.99	1.98	1.99	1.98	0.01	0.01
12/19/2008	1	SR	11733	standard	2ppm	Oxalate	1	2.05	2.15	2.05	2.15	-0.1	-0.1
12/19/2008	1	SR	11733	standard	2ppm	Phosphate	1	1.99	1.96	1.99	1.96	0.03	0.03
12/19/2008	1	SR	11733	standard	16ppm	Fluoride	1	15.64	16.09	15.64	16.09	-0.45	-0.45
12/19/2008	1	SR	11733	standard	16ppm	Formate	1	16.6	15.92	16.6	15.92	0.68	0.68
12/19/2008	1	SR	11733	standard	16ppm	Chloride	1	16.2	16.11	16.2	16.11	0.09	0.09
12/19/2008	1	SR	11733	standard	16ppm	Nitrite	1	16.32	16.37	16.32	16.37	-0.05	-0.05
12/19/2008	1	SR	11733	standard	16ppm	Nitrate	1	15.77	15.91	15.77	15.91	-0.14	-0.14
12/19/2008	1	SR	11733	standard	16ppm	Sulfate	1	16.12	16.15	16.12	16.15	-0.03	-0.03
12/19/2008	1	SR	11733	standard	16ppm	Oxalate	1	15.83	16.83	15.83	16.83	-1	-1
12/19/2008	1	SR	11733	standard	16ppm	Phosphate	1	15.99	16	15.99	16	-0.01	-0.01
12/19/2008	5000	SR	11733	process	2593	Fluoride	4913.8144	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2593	Formate	4913.8144	1.62	1.54	7960	7567	0.08	393
12/19/2008	5000	SR	11733	process	2593	Chloride	4913.8144	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2593	Nitrite	4913.8144	1.17	1.18	5749	5798	-0.01	-49

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/19/2008	5000	SR	11733	process	2593	Nitrate	4913.8144	1.38	1.36	6781	6683	0.02	98
12/19/2008	5000	SR	11733	process	2593	Sulfate	4913.8144	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2593	Oxalate	4913.8144	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2593	Phosphate	4913.8144	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2594	Fluoride	4816.8678	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2594	Formate	4816.8678	1.64	1.57	7900	7562	0.07	338
12/19/2008	5000	SR	11733	process	2594	Chloride	4816.8678	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2594	Nitrite	4816.8678	1.2	1.2	5780	5780	0	0
12/19/2008	5000	SR	11733	process	2594	Nitrate	4816.8678	1.37	1.34	6599	6455	0.03	144
12/19/2008	5000	SR	11733	process	2594	Sulfate	4816.8678	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2594	Oxalate	4816.8678	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2594	Phosphate	4816.8678	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2596	Fluoride	4834.973	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2596	Formate	4834.973	1.64	1.56	7929	7543	0.08	386
12/19/2008	5000	SR	11733	process	2596	Chloride	4834.973	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2596	Nitrite	4834.973	1.18	1.2	5705	5802	-0.02	-97
12/19/2008	5000	SR	11733	process	2596	Nitrate	4834.973	1.38	1.36	6672	6576	0.02	96
12/19/2008	5000	SR	11733	process	2596	Sulfate	4834.973	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2596	Oxalate	4834.973	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2596	Phosphate	4834.973	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2999	Fluoride	4917.1635	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2999	Formate	4917.1635	1.58	1.55	7769	7622	0.03	147
12/19/2008	5000	SR	11733	process	2999	Chloride	4917.1635	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2999	Nitrite	4917.1635	1.16	1.19	5704	5851	-0.03	-147
12/19/2008	5000	SR	11733	process	2999	Nitrate	4917.1635	1.41	1.33	6933	6540	0.08	393
12/19/2008	5000	SR	11733	process	2999	Sulfate	4917.1635	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2999	Oxalate	4917.1635	.	.	.	.	.	.
12/19/2008	5000	SR	11733	process	2999	Phosphate	4917.1635	.	.	.	.	.	.
12/19/2008	16	SR	11733	standard	9999	Fluoride	2	8.1	7.99	101.25	99.88	0.11	1.37
12/19/2008	16	SR	11733	standard	9999	Formate	2	9.28	8.86	106.13	101.06	0.42	5.07
12/19/2008	16	SR	11733	standard	9999	Chloride	2	8.3	8.19	103.75	102.38	0.11	1.37
12/19/2008	16	SR	11733	standard	9999	Nitrite	2	8.81	8.78	102.88	102.31	0.03	0.57
12/19/2008	16	SR	11733	standard	9999	Nitrate	2	8.6	8.64	98.69	99.69	-0.04	-1
12/19/2008	16	SR	11733	standard	9999	Sulfate	2	8.29	8.2	103.63	102.5	0.09	1.13
12/19/2008	16	SR	11733	standard	9999	Oxalate	2	8.09	8.48	101.13	106	-0.39	-4.87
12/19/2008	16	SR	11733	standard	9999	Phosphate	2	8.21	8.09	102.63	101.13	0.12	1.5
12/19/2008	500	SR	11733	process	2584	Fluoride	488.78705	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2584	Formate	488.78705	14.34	15.04	7009	7351	-0.7	-342
12/19/2008	500	SR	11733	process	2584	Chloride	488.78705	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2584	Nitrite	488.78705	12.24	12.15	5983	5939	0.09	44
12/19/2008	500	SR	11733	process	2584	Nitrate	488.78705	13.69	13.83	6691	6760	-0.14	-69
12/19/2008	500	SR	11733	process	2584	Sulfate	488.78705	1.07	1.06	523	518	0.01	5

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/19/2008	500	SR	11733	process	2584	Oxalate	488.78705	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2584	Phosphate	488.78705	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2585	Fluoride	487.37755	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2585	Formate	487.37755	14.58	15	7106	7311	-0.42	-205
12/19/2008	500	SR	11733	process	2585	Chloride	487.37755	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2585	Nitrite	487.37755	12.38	12.12	6034	5907	0.26	127
12/19/2008	500	SR	11733	process	2585	Nitrate	487.37755	13.78	13.77	6716	6711	0.01	5
12/19/2008	500	SR	11733	process	2585	Sulfate	487.37755	1.07	.	521	.	.	.
12/19/2008	500	SR	11733	process	2585	Oxalate	487.37755	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2585	Phosphate	487.37755	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2586	Fluoride	487.61016	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2586	Formate	487.61016	14.41	15.08	7026	7353	-0.67	-327
12/19/2008	500	SR	11733	process	2586	Chloride	487.61016	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2586	Nitrite	487.61016	12.27	12.16	5983	5929	0.11	54
12/19/2008	500	SR	11733	process	2586	Nitrate	487.61016	14	14.18	6827	6914	-0.18	-87
12/19/2008	500	SR	11733	process	2586	Sulfate	487.61016	1.07	1.06	522	517	0.01	5
12/19/2008	500	SR	11733	process	2586	Oxalate	487.61016	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2586	Phosphate	487.61016	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2587	Fluoride	494.71854	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2587	Formate	494.71854	14.43	14.97	7139	7406	-0.54	-267
12/19/2008	500	SR	11733	process	2587	Chloride	494.71854	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2587	Nitrite	494.71854	12.37	12.06	6120	5966	0.31	154
12/19/2008	500	SR	11733	process	2587	Nitrate	494.71854	13.74	13.74	6797	6797	0	0
12/19/2008	500	SR	11733	process	2587	Sulfate	494.71854	1.07	.	529	.	.	.
12/19/2008	500	SR	11733	process	2587	Oxalate	494.71854	.	.	.	.	.	.
12/19/2008	500	SR	11733	process	2587	Phosphate	494.71854	.	.	.	.	.	.
12/19/2008	500	SR	11733	standard	2ppm	Fluoride	1	2.16	1.94	2.16	1.94	0.22	0.22
12/19/2008	500	SR	11733	standard	2ppm	Formate	1	2.06	1.95	2.06	1.95	0.11	0.11
12/19/2008	500	SR	11733	standard	2ppm	Chloride	1	2.08	1.98	2.08	1.98	0.1	0.1
12/19/2008	500	SR	11733	standard	2ppm	Nitrite	1	1.97	2.07	1.97	2.07	-0.1	-0.1
12/19/2008	500	SR	11733	standard	2ppm	Nitrate	1	1.92	1.95	1.92	1.95	-0.03	-0.03
12/19/2008	500	SR	11733	standard	2ppm	Sulfate	1	2.06	1.96	2.06	1.96	0.1	0.1
12/19/2008	500	SR	11733	standard	2ppm	Oxalate	1	2	2.14	2	2.14	-0.14	-0.14
12/19/2008	500	SR	11733	standard	2ppm	Phosphate	1	2	1.93	2	1.93	0.07	0.07
12/19/2008	500	SR	11733	standard	16ppm	Fluoride	1	15.42	16.22	15.42	16.22	-0.8	-0.8
12/19/2008	500	SR	11733	standard	16ppm	Formate	1	16.33	16	16.33	16	0.33	0.33
12/19/2008	500	SR	11733	standard	16ppm	Chloride	1	16.11	16.16	16.11	16.16	-0.05	-0.05
12/19/2008	500	SR	11733	standard	16ppm	Nitrite	1	15.97	16.42	15.97	16.42	-0.45	-0.45
12/19/2008	500	SR	11733	standard	16ppm	Nitrate	1	16.09	15.96	16.09	15.96	0.13	0.13
12/19/2008	500	SR	11733	standard	16ppm	Sulfate	1	15.61	16.21	15.61	16.21	-0.6	-0.6
12/19/2008	500	SR	11733	standard	16ppm	Oxalate	1	15.61	16.83	15.61	16.83	-1.22	-1.22
12/19/2008	500	SR	11733	standard	16ppm	Phosphate	1	15.92	16.03	15.92	16.03	-0.11	-0.11

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/25/2008	1	SR	11824	standard	2ppm	Fluoride	1	2	1.94	2	1.94	0.06	0.06
12/25/2008	1	SR	11824	standard	2ppm	Formate	1	2	1.94	2	1.94	0.06	0.06
12/25/2008	1	SR	11824	standard	2ppm	Chloride	1	1.77	1.98	1.77	1.98	-0.21	-0.21
12/25/2008	1	SR	11824	standard	2ppm	Nitrite	1	1.94	2.01	1.94	2.01	-0.07	-0.07
12/25/2008	1	SR	11824	standard	2ppm	Nitrate	1	1.81	1.95	1.81	1.95	-0.14	-0.14
12/25/2008	1	SR	11824	standard	2ppm	Sulfate	1	2	1.98	2	1.98	0.02	0.02
12/25/2008	1	SR	11824	standard	2ppm	Oxalate	1	2.1	2.16	2.1	2.16	-0.06	-0.06
12/25/2008	1	SR	11824	standard	2ppm	Phosphate	1	2.03	1.97	2.03	1.97	0.06	0.06
12/25/2008	1	SR	11824	standard	16ppm	Fluoride	1	15.61	15.9	15.61	15.9	-0.29	-0.29
12/25/2008	1	SR	11824	standard	16ppm	Formate	1	16.48	15.76	16.48	15.76	0.72	0.72
12/25/2008	1	SR	11824	standard	16ppm	Chloride	1	16.03	15.87	16.03	15.87	0.16	0.16
12/25/2008	1	SR	11824	standard	16ppm	Nitrite	1	16.56	16.24	16.56	16.24	0.32	0.32
12/25/2008	1	SR	11824	standard	16ppm	Nitrate	1	16.17	15.68	16.17	15.68	0.49	0.49
12/25/2008	1	SR	11824	standard	16ppm	Sulfate	1	16.47	15.95	16.47	15.95	0.52	0.52
12/25/2008	1	SR	11824	standard	16ppm	Oxalate	1	16.47	16.55	16.47	16.55	-0.08	-0.08
12/25/2008	1	SR	11824	standard	16ppm	Phosphate	1	16.68	15.76	16.68	15.76	0.92	0.92
12/25/2008	5000	SR	11824	process	3104	Fluoride	5037.204	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3104	Formate	5037.204	1.19	1.27	5994	6397	-0.08	-403
12/25/2008	5000	SR	11824	process	3104	Chloride	5037.204	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3104	Nitrite	5037.204	1.1	1.21	5541	6095	-0.11	-554
12/25/2008	5000	SR	11824	process	3104	Nitrate	5037.204	1.12	1.23	5642	6196	-0.11	-554
12/25/2008	5000	SR	11824	process	3104	Sulfate	5037.204	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3104	Oxalate	5037.204	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3104	Phosphate	5037.204	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3105	Fluoride	5322.6871	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3105	Formate	5322.6871	1.15	1.22	6121	6494	-0.07	-373
12/25/2008	5000	SR	11824	process	3105	Chloride	5322.6871	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3105	Nitrite	5322.6871	1.04	1.15	5536	6121	-0.11	-585
12/25/2008	5000	SR	11824	process	3105	Nitrate	5322.6871	1.06	1.18	5642	6281	-0.12	-639
12/25/2008	5000	SR	11824	process	3105	Sulfate	5322.6871	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3105	Oxalate	5322.6871	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3105	Phosphate	5322.6871	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3106	Fluoride	5306.9865	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3106	Formate	5306.9865	1.21	1.22	6421	6475	-0.01	-54
12/25/2008	5000	SR	11824	process	3106	Chloride	5306.9865	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3106	Nitrite	5306.9865	1.06	1.16	5625	6156	-0.1	-531
12/25/2008	5000	SR	11824	process	3106	Nitrate	5306.9865	1.08	1.17	5732	6209	-0.09	-477
12/25/2008	5000	SR	11824	process	3106	Sulfate	5306.9865	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3106	Oxalate	5306.9865	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3106	Phosphate	5306.9865	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3107	Fluoride	5289.4983	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3107	Formate	5289.4983	1.14	1.23	6030	6506	-0.09	-476

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/25/2008	5000	SR	11824	process	3107	Chloride	5289.4983	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3107	Nitrite	5289.4983	1.05	1.17	5554	6189	-0.12	-635
12/25/2008	5000	SR	11824	process	3107	Nitrate	5289.4983	1.09	1.19	5766	6295	-0.1	-529
12/25/2008	5000	SR	11824	process	3107	Sulfate	5289.4983	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3107	Oxalate	5289.4983	.	.	.	.	.	.
12/25/2008	5000	SR	11824	process	3107	Phosphate	5289.4983	.	.	.	.	.	.
12/25/2008	16	SR	11824	standard	9999	Fluoride	2	7.83	7.87	97.88	98.38	-0.04	-0.5
12/25/2008	16	SR	11824	standard	9999	Formate	2	8.58	8.56	100.13	99.31	0.02	0.82
12/25/2008	16	SR	11824	standard	9999	Chloride	2	7.73	8.03	96.63	100.38	-0.3	-3.75
12/25/2008	16	SR	11824	standard	9999	Nitrite	2	8.94	8.66	105.19	100.94	0.28	4.25
12/25/2008	16	SR	11824	standard	9999	Nitrate	2	8.72	8.58	102.19	99.81	0.14	2.38
12/25/2008	16	SR	11824	standard	9999	Sulfate	2	8.25	8.04	103.16	100.5	0.21	2.66
12/25/2008	16	SR	11824	standard	9999	Oxalate	2	8.28	8.29	103.5	103.63	-0.01	-0.13
12/25/2008	16	SR	11824	standard	9999	Phosphate	2	8.29	7.83	103.63	97.88	0.46	5.75
12/25/2008	500	SR	11824	process	3089	Fluoride	492.43579	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3089	Formate	492.43579	11.83	12.68	5826	6244	-0.85	-418
12/25/2008	500	SR	11824	process	3089	Chloride	492.43579	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3089	Nitrite	492.43579	13.17	12.78	6485	6293	0.39	192
12/25/2008	500	SR	11824	process	3089	Nitrate	492.43579	13.41	13.07	6604	6436	0.34	168
12/25/2008	500	SR	11824	process	3089	Sulfate	492.43579	1.1	.	542	.	.	.
12/25/2008	500	SR	11824	process	3089	Oxalate	492.43579	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3089	Phosphate	492.43579	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3090	Fluoride	519.18274	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3090	Formate	519.18274	11.42	12.14	5929	6303	-0.72	-374
12/25/2008	500	SR	11824	process	3090	Chloride	519.18274	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3090	Nitrite	519.18274	12.67	12.21	6578	6339	0.46	239
12/25/2008	500	SR	11824	process	3090	Nitrate	519.18274	12.96	12.53	6729	6505	0.43	224
12/25/2008	500	SR	11824	process	3090	Sulfate	519.18274	1.05	.	545	.	.	.
12/25/2008	500	SR	11824	process	3090	Oxalate	519.18274	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3090	Phosphate	519.18274	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3091	Fluoride	503.17261	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3091	Formate	503.17261	11.8	12.54	5937	6310	-0.74	-373
12/25/2008	500	SR	11824	process	3091	Chloride	503.17261	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3091	Nitrite	503.17261	13.1	12.6	6592	6340	0.5	252
12/25/2008	500	SR	11824	process	3091	Nitrate	503.17261	13.4	12.92	6743	6501	0.48	242
12/25/2008	500	SR	11824	process	3091	Sulfate	503.17261	1.07	1.03	538	518	0.04	20
12/25/2008	500	SR	11824	process	3091	Oxalate	503.17261	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3091	Phosphate	503.17261	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3092	Fluoride	507.25122	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3092	Formate	507.25122	11.55	12.36	5859	6270	-0.81	-411
12/25/2008	500	SR	11824	process	3092	Chloride	507.25122	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3092	Nitrite	507.25122	12.79	12.39	6488	6285	0.4	203

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/25/2008	500	SR	11824	process	3092	Nitrate	507.25122	13.12	12.73	6655	6457	0.39	198
12/25/2008	500	SR	11824	process	3092	Sulfate	507.25122	1.05	1.01	533	512	0.04	21
12/25/2008	500	SR	11824	process	3092	Oxalate	507.25122	.	.	.	.	.	.
12/25/2008	500	SR	11824	process	3092	Phosphate	507.25122	.	.	.	.	.	.
12/25/2008	500	SR	11824	standard	2ppm	Fluoride	1	2.02	1.94	2.02	1.94	0.08	0.08
12/25/2008	500	SR	11824	standard	2ppm	Formate	1	1.98	1.96	1.98	1.96	0.02	0.02
12/25/2008	500	SR	11824	standard	2ppm	Chloride	1	1.77	1.98	1.77	1.98	-0.21	-0.21
12/25/2008	500	SR	11824	standard	2ppm	Nitrite	1	1.92	2.01	1.92	2.01	-0.09	-0.09
12/25/2008	500	SR	11824	standard	2ppm	Nitrate	1	1.82	1.93	1.82	1.93	-0.11	-0.11
12/25/2008	500	SR	11824	standard	2ppm	Sulfate	1	1.99	1.92	1.99	1.92	0.07	0.07
12/25/2008	500	SR	11824	standard	2ppm	Oxalate	1	2.12	2.09	2.12	2.09	0.03	0.03
12/25/2008	500	SR	11824	standard	2ppm	Phosphate	1	2.02	1.82	2.02	1.82	0.2	0.2
12/25/2008	500	SR	11824	standard	16ppm	Fluoride	1	16.02	15.98	16.02	15.98	0.04	0.04
12/25/2008	500	SR	11824	standard	16ppm	Formate	1	16.56	15.77	16.56	15.77	0.79	0.79
12/25/2008	500	SR	11824	standard	16ppm	Chloride	1	16.17	15.9	16.17	15.9	0.27	0.27
12/25/2008	500	SR	11824	standard	16ppm	Nitrite	1	15.73	16.02	15.73	16.02	-0.29	-0.29
12/25/2008	500	SR	11824	standard	16ppm	Nitrate	1	16.34	15.65	16.34	15.65	0.69	0.69
12/25/2008	500	SR	11824	standard	16ppm	Sulfate	1	16.57	15.85	16.57	15.85	0.72	0.72
12/25/2008	500	SR	11824	standard	16ppm	Oxalate	1	16.62	16.34	16.62	16.34	0.28	0.28
12/25/2008	500	SR	11824	standard	16ppm	Phosphate	1	16.81	15.34	16.81	15.34	1.47	1.47
12/9/2008	1	SP	11579	standard	2ppm	Fluoride	1	2.19	1.94	2.19	1.94	0.25	0.25
12/9/2008	1	SP	11579	standard	2ppm	Formate	1	2.17	1.93	2.17	1.93	0.24	0.24
12/9/2008	1	SP	11579	standard	2ppm	Chloride	1	2.07	1.97	2.07	1.97	0.1	0.1
12/9/2008	1	SP	11579	standard	2ppm	Nitrite	1	1.98	1.95	1.98	1.95	0.03	0.03
12/9/2008	1	SP	11579	standard	2ppm	Nitrate	1	1.88	1.85	1.88	1.85	0.03	0.03
12/9/2008	1	SP	11579	standard	2ppm	Sulfate	1	2	1.81	2	1.81	0.19	0.19
12/9/2008	1	SP	11579	standard	2ppm	Oxalate	1	2.07	1.9	2.07	1.9	0.17	0.17
12/9/2008	1	SP	11579	standard	2ppm	Phosphate	1	2.01	1.73	2.01	1.73	0.28	0.28
12/9/2008	1	SP	11579	standard	16ppm	Fluoride	1	15.72	16.01	15.72	16.01	-0.29	-0.29
12/9/2008	1	SP	11579	standard	16ppm	Formate	1	16.87	15.74	16.87	15.74	1.13	1.13
12/9/2008	1	SP	11579	standard	16ppm	Chloride	1	16.44	15.92	16.44	15.92	0.52	0.52
12/9/2008	1	SP	11579	standard	16ppm	Nitrite	1	16.34	16.2	16.34	16.2	0.14	0.14
12/9/2008	1	SP	11579	standard	16ppm	Nitrate	1	15.94	15.57	15.94	15.57	0.37	0.37
12/9/2008	1	SP	11579	standard	16ppm	Sulfate	1	16.34	15.65	16.34	15.65	0.69	0.69
12/9/2008	1	SP	11579	standard	16ppm	Oxalate	1	15.89	15.68	15.89	15.68	0.21	0.21
12/9/2008	1	SP	11579	standard	16ppm	Phosphate	1	16.18	15.15	16.18	15.15	1.03	1.03
12/9/2008	5000	SP	11579	process	1972	Fluoride	4887.3639	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1972	Formate	4887.3639	7.72	7.89	37730	38561	-0.17	-831
12/9/2008	5000	SP	11579	process	1972	Chloride	4887.3639	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1972	Nitrite	4887.3639	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1972	Nitrate	4887.3639	3.17	3.21	15493	15688	-0.04	-195
12/9/2008	5000	SP	11579	process	1972	Sulfate	4887.3639	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/9/2008	5000	SP	11579	process	1972	Oxalate	4887.3639	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1972	Phosphate	4887.3639	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1973	Fluoride	4941.382	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1973	Formate	4941.382	8.02	8.2	39630	40519	-0.18	-889
12/9/2008	5000	SP	11579	process	1973	Chloride	4941.382	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1973	Nitrite	4941.382	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1973	Nitrate	4941.382	3.28	3.34	16208	16504	-0.06	-296
12/9/2008	5000	SP	11579	process	1973	Sulfate	4941.382	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1973	Oxalate	4941.382	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1973	Phosphate	4941.382	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1974	Fluoride	4809.1445	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1974	Formate	4809.1445	8.44	8.72	40589	41936	-0.28	-1347
12/9/2008	5000	SP	11579	process	1974	Chloride	4809.1445	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1974	Nitrite	4809.1445	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1974	Nitrate	4809.1445	3.51	3.57	16880	17169	-0.06	-289
12/9/2008	5000	SP	11579	process	1974	Sulfate	4809.1445	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1974	Oxalate	4809.1445	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1974	Phosphate	4809.1445	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1975	Fluoride	4885.3346	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1975	Formate	4885.3346	8.04	8.28	39278	40451	-0.24	-1173
12/9/2008	5000	SP	11579	process	1975	Chloride	4885.3346	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1975	Nitrite	4885.3346	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1975	Nitrate	4885.3346	3.31	3.35	16170	16366	-0.04	-196
12/9/2008	5000	SP	11579	process	1975	Sulfate	4885.3346	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1975	Oxalate	4885.3346	.	.	.	.	.	.
12/9/2008	5000	SP	11579	process	1975	Phosphate	4885.3346	.	.	.	.	.	.
12/9/2008	16	SP	11579	standard	9999	Fluoride	2	8.06	7.89	100.75	98.63	0.17	2.12
12/9/2008	16	SP	11579	standard	9999	Formate	2	12.25	12	104.88	100.69	0.25	4.19
12/9/2008	16	SP	11579	standard	9999	Chloride	2	8.26	8.05	103.25	100.63	0.21	2.62
12/9/2008	16	SP	11579	standard	9999	Nitrite	2	8.11	7.96	101.38	99.5	0.15	1.88
12/9/2008	16	SP	11579	standard	9999	Nitrate	2	9.53	9.53	99.31	99.06	0	0.25
12/9/2008	16	SP	11579	standard	9999	Sulfate	2	8.25	7.83	103.13	97.88	0.42	5.25
12/9/2008	16	SP	11579	standard	9999	Oxalate	2	7.9	7.69	98.75	96.13	0.21	2.62
12/9/2008	16	SP	11579	standard	9999	Phosphate	2	7.88	7.83	98.5	97.88	0.05	0.62
12/9/2008	500	SP	11579	process	1968	Fluoride	476.50177	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1968	Formate	476.50177	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1968	Chloride	476.50177	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1968	Nitrite	476.50177	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1968	Nitrate	476.50177	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1968	Sulfate	476.50177	1.22	1.09	581	519	0.13	62
12/9/2008	500	SP	11579	process	1968	Oxalate	476.50177	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1968	Phosphate	476.50177	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/9/2008	500	SP	11579	process	1969	Fluoride	495.9579	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1969	Formate	495.9579	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1969	Chloride	495.9579	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1969	Nitrite	495.9579	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1969	Nitrate	495.9579	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1969	Sulfate	495.9579	1.17	.	580	.	.	.
12/9/2008	500	SP	11579	process	1969	Oxalate	495.9579	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1969	Phosphate	495.9579	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1970	Fluoride	487.66321	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1970	Formate	487.66321	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1970	Chloride	487.66321	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1970	Nitrite	487.66321	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1970	Nitrate	487.66321	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1970	Sulfate	487.66321	1.18	1.07	575	522	0.11	53
12/9/2008	500	SP	11579	process	1970	Oxalate	487.66321	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1970	Phosphate	487.66321	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1971	Fluoride	474.27086	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1971	Formate	474.27086	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1971	Chloride	474.27086	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1971	Nitrite	474.27086	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1971	Nitrate	474.27086	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1971	Sulfate	474.27086	1.2	1.09	569	517	0.11	52
12/9/2008	500	SP	11579	process	1971	Oxalate	474.27086	.	.	.	.	.	.
12/9/2008	500	SP	11579	process	1971	Phosphate	474.27086	.	.	.	.	.	.
12/9/2008	500	SR	11579	standard	2ppm	Fluoride	1	2.19	1.97	2.19	1.97	0.22	0.22
12/9/2008	500	SR	11579	standard	2ppm	Formate	1	2.15	2.01	2.15	2.01	0.14	0.14
12/9/2008	500	SR	11579	standard	2ppm	Chloride	1	2.1	1.98	2.1	1.98	0.12	0.12
12/9/2008	500	SR	11579	standard	2ppm	Nitrite	1	1.98	2	1.98	2	-0.02	-0.02
12/9/2008	500	SR	11579	standard	2ppm	Nitrate	1	1.86	1.88	1.86	1.88	-0.02	-0.02
12/9/2008	500	SR	11579	standard	2ppm	Sulfate	1	2	1.83	2	1.83	0.17	0.17
12/9/2008	500	SR	11579	standard	2ppm	Oxalate	1	2.06	1.93	2.06	1.93	0.13	0.13
12/9/2008	500	SR	11579	standard	2ppm	Phosphate	1	2.01	1.74	2.01	1.74	0.27	0.27
12/9/2008	500	SR	11579	standard	16ppm	Fluoride	1	15.74	16.13	15.74	16.13	-0.39	-0.39
12/9/2008	500	SR	11579	standard	16ppm	Formate	1	16.4	15.79	16.4	15.79	0.61	0.61
12/9/2008	500	SR	11579	standard	16ppm	Chloride	1	16.4	15.99	16.4	15.99	0.41	0.41
12/9/2008	500	SR	11579	standard	16ppm	Nitrite	1	16.39	16.29	16.39	16.29	0.1	0.1
12/9/2008	500	SR	11579	standard	16ppm	Nitrate	1	15.85	15.67	15.85	15.67	0.18	0.18
12/9/2008	500	SR	11579	standard	16ppm	Sulfate	1	16.28	15.86	16.28	15.86	0.42	0.42
12/9/2008	500	SR	11579	standard	16ppm	Oxalate	1	15.76	16.05	15.76	16.05	-0.29	-0.29
12/9/2008	500	SR	11579	standard	16ppm	Phosphate	1	16.14	15.33	16.14	15.33	0.81	0.81
12/15/2008	1	SP	11700	standard	2ppm	Fluoride	1	2.15	1.92	2.15	1.92	0.23	0.23
12/15/2008	1	SP	11700	standard	2ppm	Formate	1	2.16	1.93	2.16	1.93	0.23	0.23

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/15/2008	1	SP	11700	standard	2ppm	Chloride	1	2.11	1.96	2.11	1.96	0.15	0.15
12/15/2008	1	SP	11700	standard	2ppm	Nitrite	1	1.97	1.98	1.97	1.98	-0.01	-0.01
12/15/2008	1	SP	11700	standard	2ppm	Nitrate	1	1.93	1.93	1.93	1.93	0	0
12/15/2008	1	SP	11700	standard	2ppm	Sulfate	1	2.02	1.94	2.02	1.94	0.08	0.08
12/15/2008	1	SP	11700	standard	2ppm	Oxalate	1	2.08	2.08	2.08	2.08	0	0
12/15/2008	1	SP	11700	standard	2ppm	Phosphate	1	2.02	1.96	2.02	1.96	0.06	0.06
12/15/2008	1	SP	11700	standard	16ppm	Fluoride	1	15.6	15.97	15.6	15.97	-0.37	-0.37
12/15/2008	1	SP	11700	standard	16ppm	Formate	1	16.87	15.76	16.87	15.76	1.11	1.11
12/15/2008	1	SP	11700	standard	16ppm	Chloride	1	16.27	15.92	16.27	15.92	0.35	0.35
12/15/2008	1	SP	11700	standard	16ppm	Nitrite	1	16.32	16.21	16.32	16.21	0.11	0.11
12/15/2008	1	SP	11700	standard	16ppm	Nitrate	1	15.97	15.7	15.97	15.7	0.27	0.27
12/15/2008	1	SP	11700	standard	16ppm	Sulfate	1	16.38	15.94	16.38	15.94	0.44	0.44
12/15/2008	1	SP	11700	standard	16ppm	Oxalate	1	15.86	16.51	15.86	16.51	-0.65	-0.65
12/15/2008	1	SP	11700	standard	16ppm	Phosphate	1	16.24	15.91	16.24	15.91	0.33	0.33
12/15/2008	5000	SP	11700	process	2474	Fluoride	5119.1831	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2474	Formate	5119.1831	6.51	6.66	33326	34094	-0.15	-768
12/15/2008	5000	SP	11700	process	2474	Chloride	5119.1831	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2474	Nitrite	5119.1831	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2474	Nitrate	5119.1831	3.34	3.26	17098	16689	0.08	409
12/15/2008	5000	SP	11700	process	2474	Sulfate	5119.1831	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2474	Oxalate	5119.1831	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2474	Phosphate	5119.1831	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2475	Fluoride	5003.3509	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2475	Formate	5003.3509	6.64	6.79	33222	33973	-0.15	-751
12/15/2008	5000	SP	11700	process	2475	Chloride	5003.3509	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2475	Nitrite	5003.3509	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2475	Nitrate	5003.3509	3.39	3.44	16961	17212	-0.05	-251
12/15/2008	5000	SP	11700	process	2475	Sulfate	5003.3509	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2475	Oxalate	5003.3509	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2475	Phosphate	5003.3509	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2476	Fluoride	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2476	Formate	4748.9616	6.51	6.66	30916	31628	-0.15	-712
12/15/2008	5000	SP	11700	process	2476	Chloride	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2476	Nitrite	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2476	Nitrate	4748.9616	3.33	3.37	15814	16004	-0.04	-190
12/15/2008	5000	SP	11700	process	2476	Sulfate	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2476	Oxalate	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2476	Phosphate	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2477	Fluoride	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2477	Formate	4748.9616	6.98	7.18	33148	34098	-0.2	-950
12/15/2008	5000	SP	11700	process	2477	Chloride	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2477	Nitrite	4748.9616	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/15/2008	5000	SP	11700	process	2477	Nitrate	4748.9616	3.68	4.06	17476	19281	-0.38	-1805
12/15/2008	5000	SP	11700	process	2477	Sulfate	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2477	Oxalate	4748.9616	.	.	.	.	.	.
12/15/2008	5000	SP	11700	process	2477	Phosphate	4748.9616	.	.	.	.	.	.
12/15/2008	16	SP	11700	standard	9999	Fluoride	2	8.08	7.96	101	99.5	0.12	1.5
12/15/2008	16	SP	11700	standard	9999	Formate	2	11.75	11.5	103.25	98.88	0.25	4.37
12/15/2008	16	SP	11700	standard	9999	Chloride	2	8.38	8.22	104.75	102.75	0.16	2
12/15/2008	16	SP	11700	standard	9999	Nitrite	2	8.18	8.19	102.25	102.38	-0.01	-0.13
12/15/2008	16	SP	11700	standard	9999	Nitrate	2	9.77	9.91	99.13	98.5	-0.14	0.63
12/15/2008	16	SP	11700	standard	9999	Sulfate	2	8.33	8.09	104.13	101.13	0.24	3
12/15/2008	16	SP	11700	standard	9999	Oxalate	2	8.04	8.25	100.5	103.13	-0.21	-2.63
12/15/2008	16	SP	11700	standard	9999	Phosphate	2	8.13	8.01	101.63	100.13	0.12	1.5
12/15/2008	500	SP	11700	process	2470	Fluoride	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2470	Formate	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2470	Chloride	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2470	Nitrite	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2470	Nitrate	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2470	Sulfate	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2470	Oxalate	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2470	Phosphate	496.92513	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Fluoride	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Formate	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Chloride	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Nitrite	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Nitrate	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Sulfate	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Oxalate	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2471	Phosphate	499.79024	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Fluoride	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Formate	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Chloride	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Nitrite	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Nitrate	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Sulfate	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Oxalate	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2472	Phosphate	487.04392	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2473	Fluoride	488.52955	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2473	Formate	488.52955	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2473	Chloride	488.52955	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2473	Nitrite	488.52955	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2473	Nitrate	488.52955	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2473	Sulfate	488.52955	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/15/2008	500	SP	11700	process	2473	Oxalate	488.52955	.	.	.	.	.	.
12/15/2008	500	SP	11700	process	2473	Phosphate	488.52955	.	.	.	.	.	.
12/15/2008	500	SR	11700	standard	2ppm	Fluoride	1	2.15	1.93	2.15	1.93	0.22	0.22
12/15/2008	500	SR	11700	standard	2ppm	Formate	1	2.11	1.96	2.11	1.96	0.15	0.15
12/15/2008	500	SR	11700	standard	2ppm	Chloride	1	2.06	1.97	2.06	1.97	0.09	0.09
12/15/2008	500	SR	11700	standard	2ppm	Nitrite	1	1.95	2	1.95	2	-0.05	-0.05
12/15/2008	500	SR	11700	standard	2ppm	Nitrate	1	1.91	1.94	1.91	1.94	-0.03	-0.03
12/15/2008	500	SR	11700	standard	2ppm	Sulfate	1	1.99	1.93	1.99	1.93	0.06	0.06
12/15/2008	500	SR	11700	standard	2ppm	Oxalate	1	2.05	2.08	2.05	2.08	-0.03	-0.03
12/15/2008	500	SR	11700	standard	2ppm	Phosphate	1	1.99	1.94	1.99	1.94	0.05	0.05
12/15/2008	500	SR	11700	standard	16ppm	Fluoride	1	15.66	16.01	15.66	16.01	-0.35	-0.35
12/15/2008	500	SR	11700	standard	16ppm	Formate	1	16.67	15.78	16.67	15.78	0.89	0.89
12/15/2008	500	SR	11700	standard	16ppm	Chloride	1	16.37	15.94	16.37	15.94	0.43	0.43
12/15/2008	500	SR	11700	standard	16ppm	Nitrite	1	16.46	16.25	16.46	16.25	0.21	0.21
12/15/2008	500	SR	11700	standard	16ppm	Nitrate	1	15.95	15.72	15.95	15.72	0.23	0.23
12/15/2008	500	SR	11700	standard	16ppm	Sulfate	1	16.25	15.92	16.25	15.92	0.33	0.33
12/15/2008	500	SR	11700	standard	16ppm	Oxalate	1	15.85	16.47	15.85	16.47	-0.62	-0.62
12/15/2008	500	SR	11700	standard	16ppm	Phosphate	1	16.16	15.91	16.16	15.91	0.25	0.25
12/7/2008	1	SME	11535	standard	2ppm	Fluoride	1	2.16	1.94	2.16	1.94	0.22	0.22
12/7/2008	1	SME	11535	standard	2ppm	Formate	1	2.07	1.95	2.07	1.95	0.12	0.12
12/7/2008	1	SME	11535	standard	2ppm	Chloride	1	2.07	1.96	2.07	1.96	0.11	0.11
12/7/2008	1	SME	11535	standard	2ppm	Nitrite	1	1.91	1.98	1.91	1.98	-0.07	-0.07
12/7/2008	1	SME	11535	standard	2ppm	Nitrate	1	1.8	1.91	1.8	1.91	-0.11	-0.11
12/7/2008	1	SME	11535	standard	2ppm	Sulfate	1	1.95	1.91	1.95	1.91	0.04	0.04
12/7/2008	1	SME	11535	standard	2ppm	Oxalate	1	2	2.02	2	2.02	-0.02	-0.02
12/7/2008	1	SME	11535	standard	2ppm	Phosphate	1	1.94	1.91	1.94	1.91	0.03	0.03
12/7/2008	1	SME	11535	standard	16ppm	Fluoride	1	15.99	16.17	15.99	16.17	-0.18	-0.18
12/7/2008	1	SME	11535	standard	16ppm	Formate	1	16.25	15.9	16.25	15.9	0.35	0.35
12/7/2008	1	SME	11535	standard	16ppm	Chloride	1	16.47	16.06	16.47	16.06	0.41	0.41
12/7/2008	1	SME	11535	standard	16ppm	Nitrite	1	16.08	15.96	16.08	15.96	0.12	0.12
12/7/2008	1	SME	11535	standard	16ppm	Nitrate	1	15.82	15.69	15.82	15.69	0.13	0.13
12/7/2008	1	SME	11535	standard	16ppm	Sulfate	1	16.33	15.99	16.33	15.99	0.34	0.34
12/7/2008	1	SME	11535	standard	16ppm	Oxalate	1	15.71	16.04	15.71	16.04	-0.33	-0.33
12/7/2008	1	SME	11535	standard	16ppm	Phosphate	1	16.08	15.85	16.08	15.85	0.23	0.23
12/7/2008	5000	SME	11535	process	1866	Fluoride	4613.198	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1866	Formate	4613.198	7.59	7.89	35014	36398	-0.3	-1384
12/7/2008	5000	SME	11535	process	1866	Chloride	4613.198	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1866	Nitrite	4613.198	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1866	Nitrate	4613.198	2.68	2.62	12363	12087	0.06	276
12/7/2008	5000	SME	11535	process	1866	Sulfate	4613.198	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1866	Oxalate	4613.198	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1866	Phosphate	4613.198	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/7/2008	5000	SME	11535	process	1867	Fluoride	5098.0129	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1867	Formate	5098.0129	6.9	7.18	35176	36604	-0.28	-1428
12/7/2008	5000	SME	11535	process	1867	Chloride	5098.0129	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1867	Nitrite	5098.0129	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1867	Nitrate	5098.0129	2.4	2.47	12235	12592	-0.07	-357
12/7/2008	5000	SME	11535	process	1867	Sulfate	5098.0129	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1867	Oxalate	5098.0129	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1867	Phosphate	5098.0129	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1868	Fluoride	5119.462	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1868	Formate	5119.462	6.88	7.18	35222	36758	-0.3	-1536
12/7/2008	5000	SME	11535	process	1868	Chloride	5119.462	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1868	Nitrite	5119.462	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1868	Nitrate	5119.462	2.42	2.57	12389	13157	-0.15	-768
12/7/2008	5000	SME	11535	process	1868	Sulfate	5119.462	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1868	Oxalate	5119.462	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1868	Phosphate	5119.462	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1869	Fluoride	5035.9024	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1869	Formate	5035.9024	6.97	7.23	35100	36410	-0.26	-1310
12/7/2008	5000	SME	11535	process	1869	Chloride	5035.9024	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1869	Nitrite	5035.9024	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1869	Nitrate	5035.9024	2.46	2.57	12388	12942	-0.11	-554
12/7/2008	5000	SME	11535	process	1869	Sulfate	5035.9024	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1869	Oxalate	5035.9024	.	.	.	.	.	.
12/7/2008	5000	SME	11535	process	1869	Phosphate	5035.9024	.	.	.	.	.	.
12/7/2008	16	SME	11535	standard	9999	Fluoride	2	8.17	7.95	102.13	99.38	0.22	2.75
12/7/2008	16	SME	11535	standard	9999	Formate	2	11.44	11.56	100	99.63	-0.12	0.37
12/7/2008	16	SME	11535	standard	9999	Chloride	2	8.25	8.12	103.13	101.5	0.13	1.63
12/7/2008	16	SME	11535	standard	9999	Nitrite	2	8.08	7.96	101	99.5	0.12	1.5
12/7/2008	16	SME	11535	standard	9999	Nitrate	2	9.03	9.04	97.75	96.94	-0.01	0.81
12/7/2008	16	SME	11535	standard	9999	Sulfate	2	8.23	8.03	102.88	100.38	0.2	2.5
12/7/2008	16	SME	11535	standard	9999	Oxalate	2	7.98	8.08	99.75	101	-0.1	-1.25
12/7/2008	16	SME	11535	standard	9999	Phosphate	2	8.12	7.56	101.5	94.5	0.56	7
12/7/2008	500	SME	11535	process	1856	Fluoride	453.82363	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1856	Formate	453.82363	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1856	Chloride	453.82363	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1856	Nitrite	453.82363	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1856	Nitrate	453.82363	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1856	Sulfate	453.82363	1.5	1.46	681	663	0.04	18
12/7/2008	500	SME	11535	process	1856	Oxalate	453.82363	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1856	Phosphate	453.82363	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1857	Fluoride	500.74643	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1857	Formate	500.74643	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/7/2008	500	SME	11535	process	1857	Chloride	500.74643	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1857	Nitrite	500.74643	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1857	Nitrate	500.74643	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1857	Sulfate	500.74643	1.36	1.34	681	671	0.02	10
12/7/2008	500	SME	11535	process	1857	Oxalate	500.74643	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1857	Phosphate	500.74643	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1858	Fluoride	502.90922	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1858	Formate	502.90922	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1858	Chloride	502.90922	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1858	Nitrite	502.90922	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1858	Nitrate	502.90922	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1858	Sulfate	502.90922	1.36	1.34	684	674	0.02	10
12/7/2008	500	SME	11535	process	1858	Oxalate	502.90922	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1858	Phosphate	502.90922	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1859	Fluoride	491.4927	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1859	Formate	491.4927	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1859	Chloride	491.4927	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1859	Nitrite	491.4927	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1859	Nitrate	491.4927	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1859	Sulfate	491.4927	1.36	1.37	668	673	-0.01	-5
12/7/2008	500	SME	11535	process	1859	Oxalate	491.4927	.	.	.	.	.	.
12/7/2008	500	SME	11535	process	1859	Phosphate	491.4927	.	.	.	.	.	.
12/7/2008	500	SR	11535	standard	2ppm	Fluoride	1	2.2	1.94	2.2	1.94	0.26	0.26
12/7/2008	500	SR	11535	standard	2ppm	Formate	1	2.13	1.93	2.13	1.93	0.2	0.2
12/7/2008	500	SR	11535	standard	2ppm	Chloride	1	2.1	1.96	2.1	1.96	0.14	0.14
12/7/2008	500	SR	11535	standard	2ppm	Nitrite	1	1.96	1.97	1.96	1.97	-0.01	-0.01
12/7/2008	500	SR	11535	standard	2ppm	Nitrate	1	1.86	1.88	1.86	1.88	-0.02	-0.02
12/7/2008	500	SR	11535	standard	2ppm	Sulfate	1	2	1.89	2	1.89	0.11	0.11
12/7/2008	500	SR	11535	standard	2ppm	Oxalate	1	2.06	1.99	2.06	1.99	0.07	0.07
12/7/2008	500	SR	11535	standard	2ppm	Phosphate	1	2	1.87	2	1.87	0.13	0.13
12/7/2008	500	SR	11535	standard	16ppm	Fluoride	1	15.94	16.17	15.94	16.17	-0.23	-0.23
12/7/2008	500	SR	11535	standard	16ppm	Formate	1	16.43	15.87	16.43	15.87	0.56	0.56
12/7/2008	500	SR	11535	standard	16ppm	Chloride	1	16.43	16.06	16.43	16.06	0.37	0.37
12/7/2008	500	SR	11535	standard	16ppm	Nitrite	1	16.28	16.15	16.28	16.15	0.13	0.13
12/7/2008	500	SR	11535	standard	16ppm	Nitrate	1	15.79	15.78	15.79	15.78	0.01	0.01
12/7/2008	500	SR	11535	standard	16ppm	Sulfate	1	16.3	16.07	16.3	16.07	0.23	0.23
12/7/2008	500	SR	11535	standard	16ppm	Oxalate	1	15.85	16.36	15.85	16.36	-0.51	-0.51
12/7/2008	500	SR	11535	standard	16ppm	Phosphate	1	16.19	15.65	16.19	15.65	0.54	0.54
12/13/2008	1	SME	11663	standard	2ppm	Fluoride	1	2.16	1.95	2.16	1.95	0.21	0.21
12/13/2008	1	SME	11663	standard	2ppm	Formate	1	2.06	1.98	2.06	1.98	0.08	0.08
12/13/2008	1	SME	11663	standard	2ppm	Chloride	1	2.04	1.97	2.04	1.97	0.07	0.07
12/13/2008	1	SME	11663	standard	2ppm	Nitrite	1	1.93	2.03	1.93	2.03	-0.1	-0.1

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/13/2008	1	SME	11663	standard	2ppm	Nitrate	1	1.85	1.96	1.85	1.96	-0.11	-0.11
12/13/2008	1	SME	11663	standard	2ppm	Sulfate	1	1.99	1.98	1.99	1.98	0.01	0.01
12/13/2008	1	SME	11663	standard	2ppm	Oxalate	1	2.05	2.12	2.05	2.12	-0.07	-0.07
12/13/2008	1	SME	11663	standard	2ppm	Phosphate	1	1.99	2.05	1.99	2.05	-0.06	-0.06
12/13/2008	1	SME	11663	standard	16ppm	Fluoride	1	15.67	16.09	15.67	16.09	-0.42	-0.42
12/13/2008	1	SME	11663	standard	16ppm	Formate	1	16.88	15.87	16.88	15.87	1.01	1.01
12/13/2008	1	SME	11663	standard	16ppm	Chloride	1	16.27	16.04	16.27	16.04	0.23	0.23
12/13/2008	1	SME	11663	standard	16ppm	Nitrite	1	16.95	17.06	16.95	17.06	-0.11	-0.11
12/13/2008	1	SME	11663	standard	16ppm	Nitrate	1	15.86	15.98	15.86	15.98	-0.12	-0.12
12/13/2008	1	SME	11663	standard	16ppm	Sulfate	1	16.33	16.15	16.33	16.15	0.18	0.18
12/13/2008	1	SME	11663	standard	16ppm	Oxalate	1	15.76	16.64	15.76	16.64	-0.88	-0.88
12/13/2008	1	SME	11663	standard	16ppm	Phosphate	1	16.2	16.19	16.2	16.19	0.01	0.01
12/13/2008	5000	SME	11663	process	2237	Fluoride	5168.517	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2237	Formate	5168.517	6.13	6.2	31683	32045	-0.07	-362
12/13/2008	5000	SME	11663	process	2237	Chloride	5168.517	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2237	Nitrite	5168.517	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2237	Nitrate	5168.517	2.49	2.58	12870	13335	-0.09	-465
12/13/2008	5000	SME	11663	process	2237	Sulfate	5168.517	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2237	Oxalate	5168.517	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2237	Phosphate	5168.517	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2238	Fluoride	4995.0439	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2238	Formate	4995.0439	6.24	6.45	31169	32218	-0.21	-1049
12/13/2008	5000	SME	11663	process	2238	Chloride	4995.0439	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2238	Nitrite	4995.0439	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2238	Nitrate	4995.0439	2.55	2.72	12737	13587	-0.17	-850
12/13/2008	5000	SME	11663	process	2238	Sulfate	4995.0439	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2238	Oxalate	4995.0439	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2238	Phosphate	4995.0439	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2239	Fluoride	4977.9821	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2239	Formate	4977.9821	6.23	6.46	31013	32158	-0.23	-1145
12/13/2008	5000	SME	11663	process	2239	Chloride	4977.9821	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2239	Nitrite	4977.9821	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2239	Nitrate	4977.9821	2.57	2.68	12793	13341	-0.11	-548
12/13/2008	5000	SME	11663	process	2239	Sulfate	4977.9821	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2239	Oxalate	4977.9821	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2239	Phosphate	4977.9821	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2240	Fluoride	5089.8807	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2240	Formate	5089.8807	6.17	6.28	31405	31964	-0.11	-559
12/13/2008	5000	SME	11663	process	2240	Chloride	5089.8807	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2240	Nitrite	5089.8807	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2240	Nitrate	5089.8807	2.49	2.62	12674	13335	-0.13	-661
12/13/2008	5000	SME	11663	process	2240	Sulfate	5089.8807	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/13/2008	5000	SME	11663	process	2240	Oxalate	5089.8807	.	.	.	.	.	.
12/13/2008	5000	SME	11663	process	2240	Phosphate	5089.8807	.	.	.	.	.	.
12/13/2008	16	SME	11663	standard	9999	Fluoride	2	7.79	7.71	97.38	96.38	0.08	1
12/13/2008	16	SME	11663	standard	9999	Formate	2	11.13	10.97	100.81	97.88	0.16	2.93
12/13/2008	16	SME	11663	standard	9999	Chloride	2	7.97	7.92	99.63	99	0.05	0.63
12/13/2008	16	SME	11663	standard	9999	Nitrite	2	8.14	8.2	101.75	102.5	-0.06	-0.75
12/13/2008	16	SME	11663	standard	9999	Nitrate	2	8.92	9.2	95.94	98.63	-0.28	-2.69
12/13/2008	16	SME	11663	standard	9999	Sulfate	2	8.02	7.94	100.25	99.25	0.08	1
12/13/2008	16	SME	11663	standard	9999	Oxalate	2	7.73	8.04	96.63	100.5	-0.31	-3.87
12/13/2008	16	SME	11663	standard	9999	Phosphate	2	7.92	7.99	99	99.88	-0.07	-0.88
12/13/2008	500	SME	11663	process	2225	Fluoride	500.94801	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2225	Formate	500.94801	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2225	Chloride	500.94801	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2225	Nitrite	500.94801	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2225	Nitrate	500.94801	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2225	Sulfate	500.94801	1.18	1.18	591	591	0	0
12/13/2008	500	SME	11663	process	2225	Oxalate	500.94801	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2225	Phosphate	500.94801	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2226	Fluoride	497.03153	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2226	Formate	497.03153	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2226	Chloride	497.03153	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2226	Nitrite	497.03153	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2226	Nitrate	497.03153	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2226	Sulfate	497.03153	1.19	1.19	591	591	0	0
12/13/2008	500	SME	11663	process	2226	Oxalate	497.03153	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2226	Phosphate	497.03153	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2228	Fluoride	483.27085	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2228	Formate	483.27085	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2228	Chloride	483.27085	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2228	Nitrite	483.27085	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2228	Nitrate	483.27085	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2228	Sulfate	483.27085	1.25	1.25	604	604	0	0
12/13/2008	500	SME	11663	process	2228	Oxalate	483.27085	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2228	Phosphate	483.27085	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2229	Fluoride	502.20158	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2229	Formate	502.20158	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2229	Chloride	502.20158	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2229	Nitrite	502.20158	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2229	Nitrate	502.20158	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2229	Sulfate	502.20158	1.15	1.16	578	583	-0.01	-5
12/13/2008	500	SME	11663	process	2229	Oxalate	502.20158	.	.	.	.	.	.
12/13/2008	500	SME	11663	process	2229	Phosphate	502.20158	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/13/2008	500	SR	11663	standard	2ppm	Fluoride	1	2.15	1.95	2.15	1.95	0.2	0.2
12/13/2008	500	SR	11663	standard	2ppm	Formate	1	2.09	1.98	2.09	1.98	0.11	0.11
12/13/2008	500	SR	11663	standard	2ppm	Chloride	1	2.04	1.98	2.04	1.98	0.06	0.06
12/13/2008	500	SR	11663	standard	2ppm	Nitrite	1	1.94	2.03	1.94	2.03	-0.09	-0.09
12/13/2008	500	SR	11663	standard	2ppm	Nitrate	1	1.86	1.96	1.86	1.96	-0.1	-0.1
12/13/2008	500	SR	11663	standard	2ppm	Sulfate	1	2	1.97	2	1.97	0.03	0.03
12/13/2008	500	SR	11663	standard	2ppm	Oxalate	1	2.06	2.11	2.06	2.11	-0.05	-0.05
12/13/2008	500	SR	11663	standard	2ppm	Phosphate	1	2.01	2	2.01	2	0.01	0.01
12/13/2008	500	SR	11663	standard	16ppm	Fluoride	1	15.64	16.14	15.64	16.14	-0.5	-0.5
12/13/2008	500	SR	11663	standard	16ppm	Formate	1	16.76	15.86	16.76	15.86	0.9	0.9
12/13/2008	500	SR	11663	standard	16ppm	Chloride	1	16.34	16.04	16.34	16.04	0.3	0.3
12/13/2008	500	SR	11663	standard	16ppm	Nitrite	1	17.08	17.12	17.08	17.12	-0.04	-0.04
12/13/2008	500	SR	11663	standard	16ppm	Nitrate	1	15.94	15.96	15.94	15.96	-0.02	-0.02
12/13/2008	500	SR	11663	standard	16ppm	Sulfate	1	16.36	16.15	16.36	16.15	0.21	0.21
12/13/2008	500	SR	11663	standard	16ppm	Oxalate	1	15.9	16.67	15.9	16.67	-0.77	-0.77
12/13/2008	500	SR	11663	standard	16ppm	Phosphate	1	16.27	16.16	16.27	16.16	0.11	0.11
12/19/2008	1	SME	11756	standard	2ppm	Fluoride	1	2.13	1.93	2.13	1.93	0.2	0.2
12/19/2008	1	SME	11756	standard	2ppm	Formate	1	2.12	1.95	2.12	1.95	0.17	0.17
12/19/2008	1	SME	11756	standard	2ppm	Chloride	1	2.08	1.98	2.08	1.98	0.1	0.1
12/19/2008	1	SME	11756	standard	2ppm	Nitrite	1	2	2.06	2	2.06	-0.06	-0.06
12/19/2008	1	SME	11756	standard	2ppm	Nitrate	1	1.87	1.95	1.87	1.95	-0.08	-0.08
12/19/2008	1	SME	11756	standard	2ppm	Sulfate	1	1.98	1.98	1.98	1.98	0	0
12/19/2008	1	SME	11756	standard	2ppm	Oxalate	1	2.06	2.18	2.06	2.18	-0.12	-0.12
12/19/2008	1	SME	11756	standard	2ppm	Phosphate	1	1.99	2	1.99	2	-0.01	-0.01
12/19/2008	1	SME	11756	standard	16ppm	Fluoride	1	15.79	16.18	15.79	16.18	-0.39	-0.39
12/19/2008	1	SME	11756	standard	16ppm	Formate	1	16.87	16	16.87	16	0.87	0.87
12/19/2008	1	SME	11756	standard	16ppm	Chloride	1	16.34	16.14	16.34	16.14	0.2	0.2
12/19/2008	1	SME	11756	standard	16ppm	Nitrite	1	16.43	16.44	16.43	16.44	-0.01	-0.01
12/19/2008	1	SME	11756	standard	16ppm	Nitrate	1	15.95	15.96	15.95	15.96	-0.01	-0.01
12/19/2008	1	SME	11756	standard	16ppm	Sulfate	1	16.34	16.2	16.34	16.2	0.14	0.14
12/19/2008	1	SME	11756	standard	16ppm	Oxalate	1	16.11	17.01	16.11	17.01	-0.9	-0.9
12/19/2008	1	SME	11756	standard	16ppm	Phosphate	1	16.24	16.13	16.24	16.13	0.11	0.11
12/19/2008	5000	SME	11756	process	2719	Fluoride	5216.7908	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2719	Formate	5216.7908	5.74	5.84	29944	30466	-0.1	-522
12/19/2008	5000	SME	11756	process	2719	Chloride	5216.7908	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2719	Nitrite	5216.7908	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2719	Nitrate	5216.7908	2.68	2.76	13981	14398	-0.08	-417
12/19/2008	5000	SME	11756	process	2719	Sulfate	5216.7908	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2719	Oxalate	5216.7908	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2719	Phosphate	5216.7908	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2725	Fluoride	5560.4421	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2725	Formate	5560.4421	5.31	5.44	29526	30249	-0.13	-723

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/19/2008	5000	SME	11756	process	2725	Chloride	5560.4421	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2725	Nitrite	5560.4421	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2725	Nitrate	5560.4421	2.49	2.57	13846	14290	-0.08	-444
12/19/2008	5000	SME	11756	process	2725	Sulfate	5560.4421	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2725	Oxalate	5560.4421	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2725	Phosphate	5560.4421	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2726	Fluoride	5384.8891	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2726	Formate	5384.8891	5.48	5.68	29509	30586	-0.2	-1077
12/19/2008	5000	SME	11756	process	2726	Chloride	5384.8891	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2726	Nitrite	5384.8891	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2726	Nitrate	5384.8891	2.58	2.74	13893	14755	-0.16	-862
12/19/2008	5000	SME	11756	process	2726	Sulfate	5384.8891	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2726	Oxalate	5384.8891	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2726	Phosphate	5384.8891	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2729	Fluoride	5422.9508	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2729	Formate	5422.9508	5.41	5.51	29338	29880	-0.1	-542
12/19/2008	5000	SME	11756	process	2729	Chloride	5422.9508	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2729	Nitrite	5422.9508	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2729	Nitrate	5422.9508	2.51	2.61	13612	14154	-0.1	-542
12/19/2008	5000	SME	11756	process	2729	Sulfate	5422.9508	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2729	Oxalate	5422.9508	.	.	.	.	.	.
12/19/2008	5000	SME	11756	process	2729	Phosphate	5422.9508	.	.	.	.	.	.
12/19/2008	16	SME	11756	standard	9999	Fluoride	2	8.01	7.87	100.13	98.38	0.14	1.75
12/19/2008	16	SME	11756	standard	9999	Formate	2	10.93	10.69	102.81	99.19	0.24	3.62
12/19/2008	16	SME	11756	standard	9999	Chloride	2	8.16	8.06	102	100.75	0.1	1.25
12/19/2008	16	SME	11756	standard	9999	Nitrite	2	8.12	8.12	101.5	101.5	0	0
12/19/2008	16	SME	11756	standard	9999	Nitrate	2	9.8	9.32	106.81	100.19	0.48	6.62
12/19/2008	16	SME	11756	standard	9999	Sulfate	2	8.22	8.1	102.75	101.25	0.12	1.5
12/19/2008	16	SME	11756	standard	9999	Oxalate	2	8	8.45	100	105.63	-0.45	-5.63
12/19/2008	16	SME	11756	standard	9999	Phosphate	2	8.14	8.06	101.75	100.75	0.08	1
12/19/2008	500	SME	11756	process	2713	Fluoride	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2713	Formate	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2713	Chloride	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2713	Nitrite	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2713	Nitrate	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2713	Sulfate	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2713	Oxalate	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2713	Phosphate	499.41542	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2716	Fluoride	525.3654	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2716	Formate	525.3654	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2716	Chloride	525.3654	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2716	Nitrite	525.3654	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/19/2008	500	SME	11756	process	2716	Nitrate	525.3654	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2716	Sulfate	525.3654	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2716	Oxalate	525.3654	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2716	Phosphate	525.3654	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Fluoride	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Formate	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Chloride	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Nitrite	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Nitrate	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Sulfate	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Oxalate	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2718	Phosphate	510.58553	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Fluoride	510.62705	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Formate	510.62705	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Chloride	510.62705	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Nitrite	510.62705	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Nitrate	510.62705	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Sulfate	510.62705	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Oxalate	510.62705	.	.	.	.	.	.
12/19/2008	500	SME	11756	process	2696	Phosphate	510.62705	.	.	.	.	.	.
12/19/2008	500	SR	11756	standard	2ppm	Fluoride	1	2.13	1.94	2.13	1.94	0.19	0.19
12/19/2008	500	SR	11756	standard	2ppm	Formate	1	2.11	1.98	2.11	1.98	0.13	0.13
12/19/2008	500	SR	11756	standard	2ppm	Chloride	1	2.07	1.99	2.07	1.99	0.08	0.08
12/19/2008	500	SR	11756	standard	2ppm	Nitrite	1	1.99	2.09	1.99	2.09	-0.1	-0.1
12/19/2008	500	SR	11756	standard	2ppm	Nitrate	1	1.86	1.96	1.86	1.96	-0.1	-0.1
12/19/2008	500	SR	11756	standard	2ppm	Sulfate	1	1.98	1.97	1.98	1.97	0.01	0.01
12/19/2008	500	SR	11756	standard	2ppm	Oxalate	1	2.07	2.16	2.07	2.16	-0.09	-0.09
12/19/2008	500	SR	11756	standard	2ppm	Phosphate	1	1.99	1.95	1.99	1.95	0.04	0.04
12/19/2008	500	SR	11756	standard	16ppm	Fluoride	1	15.65	16.23	15.65	16.23	-0.58	-0.58
12/19/2008	500	SR	11756	standard	16ppm	Formate	1	17.17	16.03	17.17	16.03	1.14	1.14
12/19/2008	500	SR	11756	standard	16ppm	Chloride	1	16.3	16.16	16.3	16.16	0.14	0.14
12/19/2008	500	SR	11756	standard	16ppm	Nitrite	1	16.44	16.47	16.44	16.47	-0.03	-0.03
12/19/2008	500	SR	11756	standard	16ppm	Nitrate	1	15.92	15.96	15.92	15.96	-0.04	-0.04
12/19/2008	500	SR	11756	standard	16ppm	Sulfate	1	16.29	16.19	16.29	16.19	0.1	0.1
12/19/2008	500	SR	11756	standard	16ppm	Oxalate	1	16.08	16.92	16.08	16.92	-0.84	-0.84
12/19/2008	500	SR	11756	standard	16ppm	Phosphate	1	16.2	16.1	16.2	16.1	0.1	0.1
12/26/2008	1	SME	11847	standard	2ppm	Fluoride	1	2.05	1.92	2.05	1.92	0.13	0.13
12/26/2008	1	SME	11847	standard	2ppm	Formate	1	2	1.88	2	1.88	0.12	0.12
12/26/2008	1	SME	11847	standard	2ppm	Chloride	1	1.82	1.98	1.82	1.98	-0.16	-0.16
12/26/2008	1	SME	11847	standard	2ppm	Nitrite	1	1.98	1.99	1.98	1.99	-0.01	-0.01
12/26/2008	1	SME	11847	standard	2ppm	Nitrate	1	1.87	1.94	1.87	1.94	-0.07	-0.07
12/26/2008	1	SME	11847	standard	2ppm	Sulfate	1	2.05	1.98	2.05	1.98	0.07	0.07

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/26/2008	1	SME	11847	standard	2ppm	Oxalate	1	2.15	2.16	2.15	2.16	-0.01	-0.01
12/26/2008	1	SME	11847	standard	2ppm	Phosphate	1	2.01	1.97	2.01	1.97	0.04	0.04
12/26/2008	1	SME	11847	standard	16ppm	Fluoride	1	16.11	15.89	16.11	15.89	0.22	0.22
12/26/2008	1	SME	11847	standard	16ppm	Formate	1	16.69	15.71	16.69	15.71	0.98	0.98
12/26/2008	1	SME	11847	standard	16ppm	Chloride	1	16.38	15.86	16.38	15.86	0.52	0.52
12/26/2008	1	SME	11847	standard	16ppm	Nitrite	1	16.88	16.07	16.88	16.07	0.81	0.81
12/26/2008	.	SME	11847	standard	16ppm	Nitrate	1	16.58	15.68	16.58	15.68	0.9	0.9
12/26/2008	1	SME	11847	standard	16ppm	Sulfate	1	16.81	15.94	16.81	15.94	0.87	0.87
12/26/2008	1	SME	11847	standard	16ppm	Oxalate	1	16.78	16.71	16.78	16.71	0.07	0.07
12/26/2008	1	SME	11847	standard	16ppm	Phosphate	1	17.07	15.84	17.07	15.84	1.23	1.23
12/26/2008	5000	SME	11847	process	3308	Fluoride	4972.478	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3308	Formate	4972.478	5.75	5.95	28592	29586	-0.2	-994
12/26/2008	5000	SME	11847	process	3308	Chloride	4972.478	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3308	Nitrite	4972.478	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3308	Nitrate	4972.478	3.04	3.07	15116	15266	-0.03	-150
12/26/2008	5000	SME	11847	process	3308	Sulfate	4972.478	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3308	Oxalate	4972.478	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3308	Phosphate	4972.478	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3309	Fluoride	5246.1591	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3309	Formate	5246.1591	5.28	5.55	27700	29116	-0.27	-1416
12/26/2008	5000	SME	11847	process	3309	Chloride	5246.1591	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3309	Nitrite	5246.1591	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3309	Nitrate	5246.1591	2.81	2.87	14742	15056	-0.06	-314
12/26/2008	5000	SME	11847	process	3309	Sulfate	5246.1591	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3309	Oxalate	5246.1591	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3309	Phosphate	5246.1591	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3310	Fluoride	5405.1366	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3310	Formate	5405.1366	5.12	5.35	27674	28917	-0.23	-1243
12/26/2008	5000	SME	11847	process	3310	Chloride	5405.1366	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3310	Nitrite	5405.1366	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3310	Nitrate	5405.1366	2.67	2.77	14432	14972	-0.1	-540
12/26/2008	5000	SME	11847	process	3310	Sulfate	5405.1366	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3310	Oxalate	5405.1366	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3310	Phosphate	5405.1366	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3311	Fluoride	5221.8792	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3311	Formate	5221.8792	5.27	5.57	27519	29086	-0.3	-1567
12/26/2008	5000	SME	11847	process	3311	Chloride	5221.8792	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3311	Nitrite	5221.8792	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3311	Nitrate	5221.8792	2.77	2.46	14480	12846	0.31	1634
12/26/2008	5000	SME	11847	process	3311	Sulfate	5221.8792	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3311	Oxalate	5221.8792	.	.	.	.	.	.
12/26/2008	5000	SME	11847	process	3311	Phosphate	5221.8792	.	.	.	.	.	.

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/26/2008	16	SME	11847	standard	9999	Fluoride	2	7.84	7.79	98	97.38	0.05	0.62
12/26/2008	16	SME	11847	standard	9999	Formate	2	11.15	10.8	106.44	100.19	0.35	6.25
12/26/2008	16	SME	11847	standard	9999	Chloride	2	7.86	7.99	98.25	99.88	-0.13	-1.63
12/26/2008	16	SME	11847	standard	9999	Nitrite	2	8.45	7.98	105.63	99.75	0.47	5.88
12/26/2008	16	SME	11847	standard	9999	Nitrate	2	9.9	9.47	106.42	103	0.43	3.42
12/26/2008	16	SME	11847	standard	9999	Sulfate	2	8.41	8.04	105.13	100.5	0.37	4.63
12/26/2008	16	SME	11847	standard	9999	Oxalate	2	8.36	8.37	104.5	104.63	-0.01	-0.13
12/26/2008	16	SME	11847	standard	9999	Phosphate	2	8.53	7.97	106.63	99.63	0.56	7
12/26/2008	500	SME	11847	process	3293	Fluoride	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3293	Formate	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3293	Chloride	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3293	Nitrite	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3293	Nitrate	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3293	Sulfate	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3293	Oxalate	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3293	Phosphate	499.89459	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Fluoride	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Formate	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Chloride	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Nitrite	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Nitrate	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Sulfate	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Oxalate	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3294	Phosphate	528.35518	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Fluoride	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Formate	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Chloride	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Nitrite	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Nitrate	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Sulfate	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Oxalate	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3302	Phosphate	530.57591	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Fluoride	528.76397	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Formate	528.76397	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Chloride	528.76397	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Nitrite	528.76397	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Nitrate	528.76397	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Sulfate	528.76397	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Oxalate	528.76397	.	.	.	.	.	.
12/26/2008	500	SME	11847	process	3303	Phosphate	528.76397	.	.	.	.	.	.
12/26/2008	500	SR	11847	standard	2ppm	Fluoride	1	2.05	1.94	2.05	1.94	0.11	0.11
12/26/2008	500	SR	11847	standard	2ppm	Formate	1	2	1.95	2	1.95	0.05	0.05

Table A6. Full Set of Crosscheck Test Results

Date	Nominal DF	Tank	Sample Number	Type of Sample	Bottle ID	Anion	Dilution Factor (DF)	M-14 DX-500 raw (mg/L)	M-13 ICS-3000 raw (mg/L)	M-14 DX-500 FINAL (mg/L)	M-13 ICS-3000 FINAL (mg/L)	Raw Score Difference (mg/L) (DX500-ICS3000)	Final Score Difference (mg/L) (DX500-ICS3000)
12/26/2008	500	SR	11847	standard	2ppm	Chloride	1	1.81	1.98	1.81	1.98	-0.17	-0.17
12/26/2008	500	SR	11847	standard	2ppm	Nitrite	1	1.96	1.97	1.96	1.97	-0.01	-0.01
12/26/2008	500	SR	11847	standard	2ppm	Nitrate	1	1.86	1.85	1.86	1.85	0.01	0.01
12/26/2008	500	SR	11847	standard	2ppm	Sulfate	1	2.04	1.97	2.04	1.97	0.07	0.07
12/26/2008	500	SR	11847	standard	2ppm	Oxalate	1	2.16	2.16	2.16	2.16	0	0
12/26/2008	500	SR	11847	standard	2ppm	Phosphate	1	2.07	1.95	2.07	1.95	0.12	0.12
12/26/2008	500	SR	11847	standard	16ppm	Fluoride	1	15.9	15.96	15.9	15.96	-0.06	-0.06
12/26/2008	500	SR	11847	standard	16ppm	Formate	1	17.08	15.79	17.08	15.79	1.29	1.29
12/26/2008	500	SR	11847	standard	16ppm	Chloride	1	16.42	15.9	16.42	15.9	0.52	0.52
12/26/2008	500	SR	11847	standard	16ppm	Nitrite	1	16.9	16.08	16.9	16.08	0.82	0.82
12/26/2008	500	SR	11847	standard	16ppm	Nitrate	1	16.57	15.7	16.57	15.7	0.87	0.87
12/26/2008	500	SR	11847	standard	16ppm	Sulfate	1	16.79	15.93	16.79	15.93	0.86	0.86
12/26/2008	500	SR	11847	standard	16ppm	Oxalate	1	16.89	16.63	16.89	16.63	0.26	0.26
12/26/2008	500	SR	11847	standard	16ppm	Phosphate	1	17.08	15.74	17.08	15.74	1.34	1.34

Exhibit A1a Anion=Chloride
Variability Chart for Raw Score Difference (mg/L)

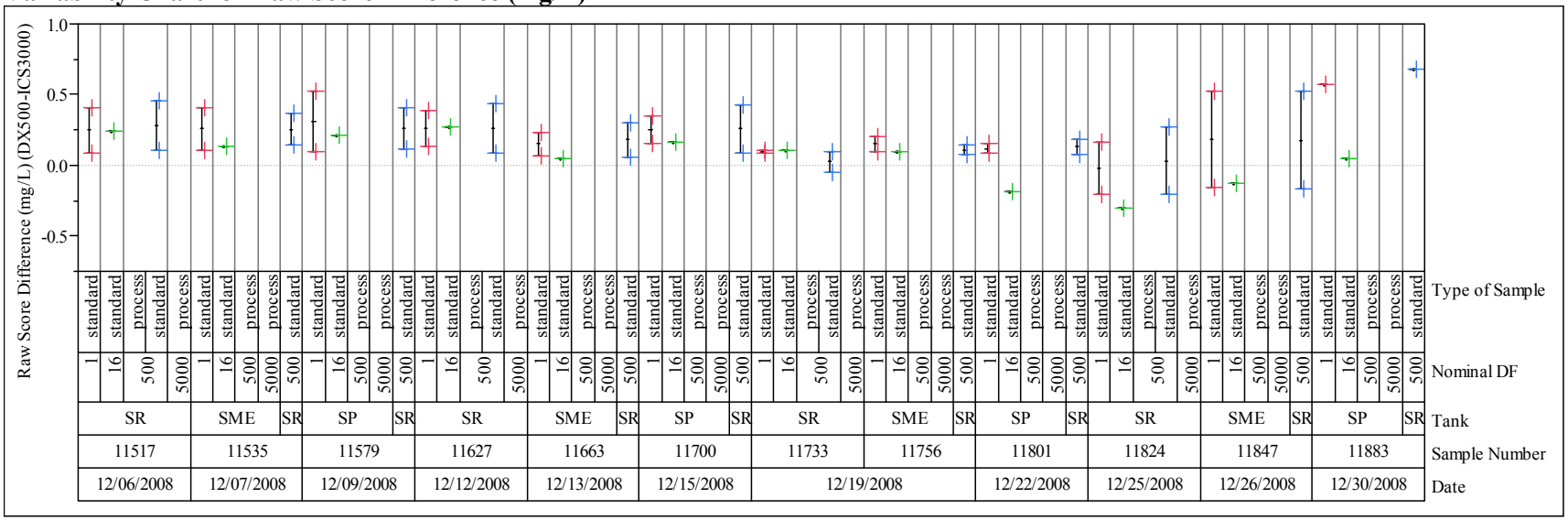


Exhibit A1b Anion=Fluoride
Variability Chart for Raw Score Difference (mg/L)

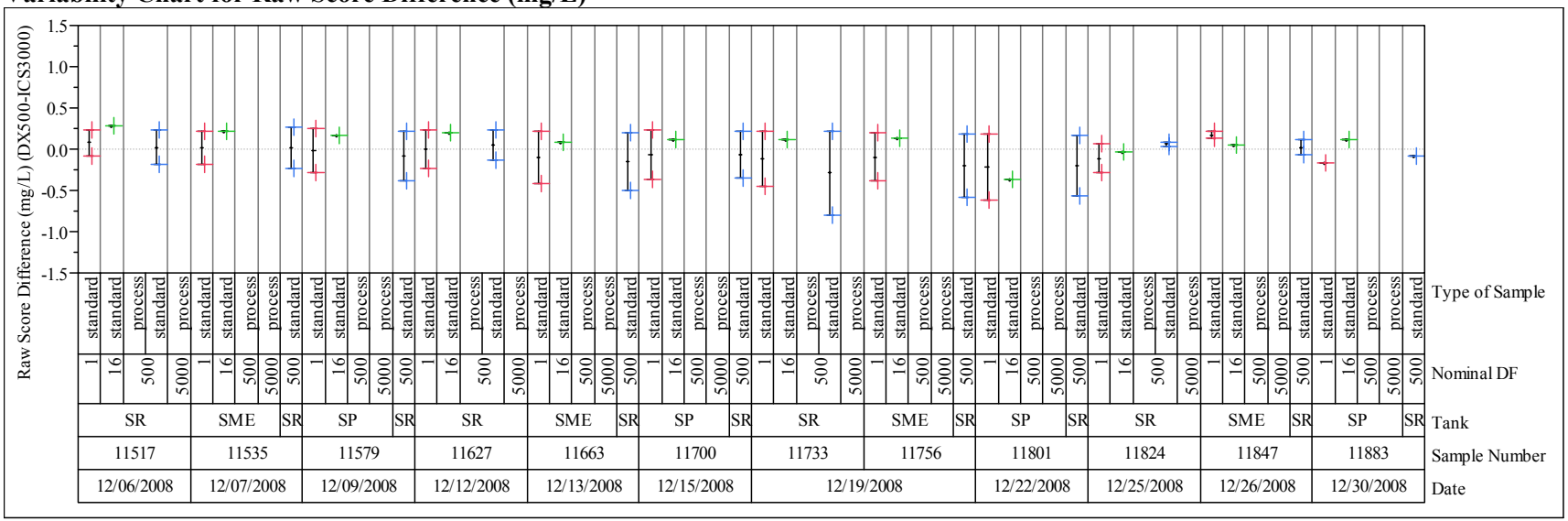


Exhibit A1c Anion=Formate
Variability Chart for Raw Score Difference (mg/L)

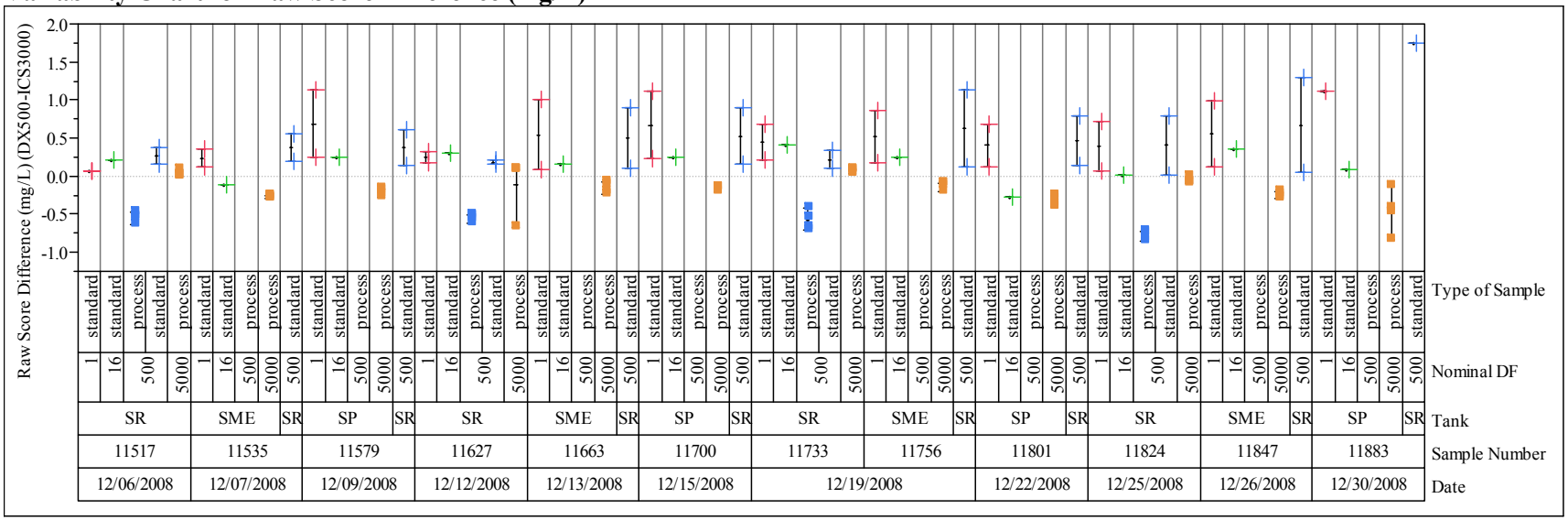


Exhibit A1d Anion=Nitrate
Variability Chart for Raw Score Difference (mg/L)

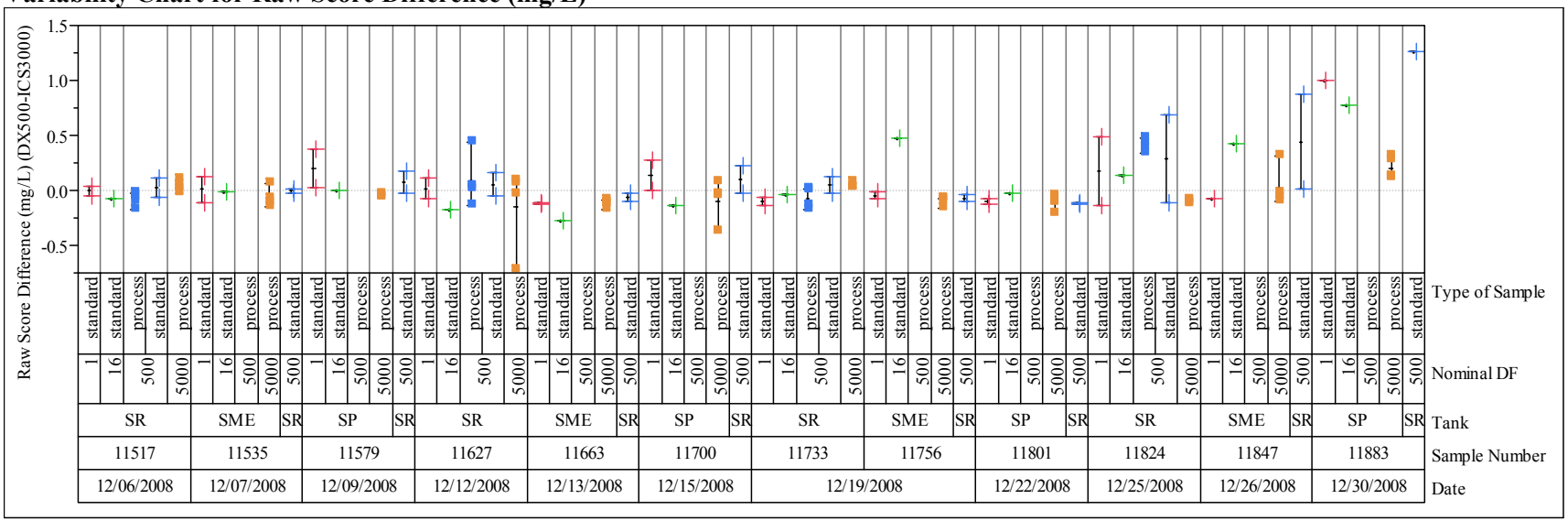


Exhibit A1e Anion=Nitrite
Variability Chart for Raw Score Difference (mg/L)

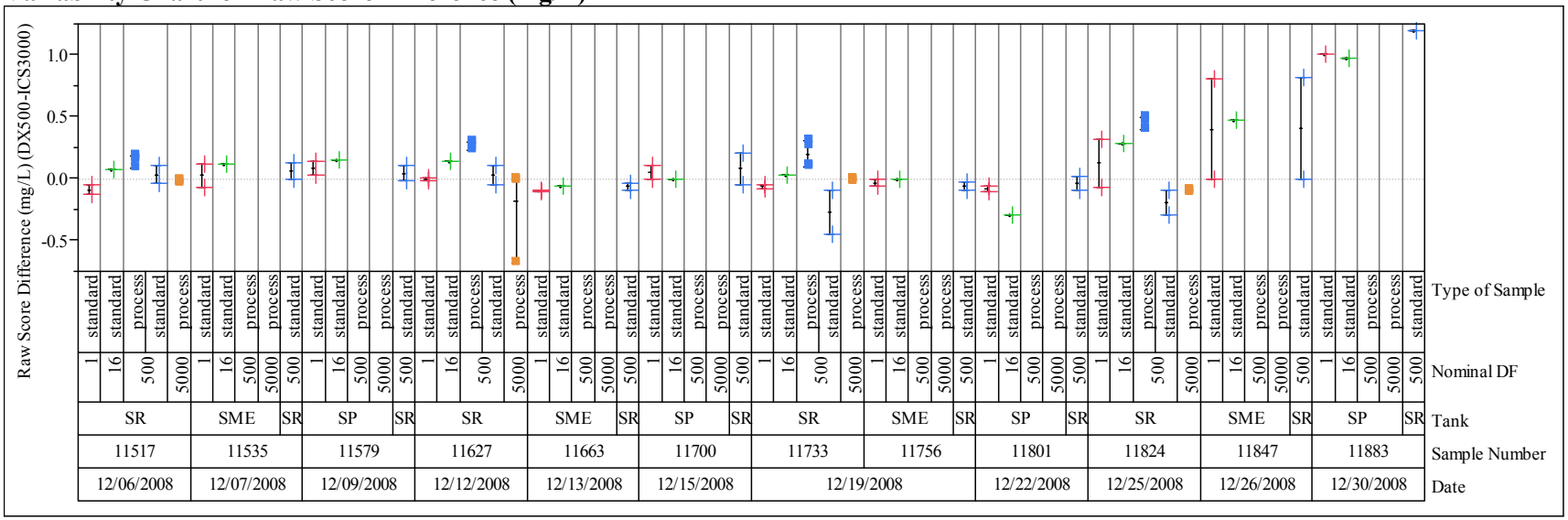


Exhibit A1f Anion=Oxalate
Variability Chart for Raw Score Difference (mg/L)

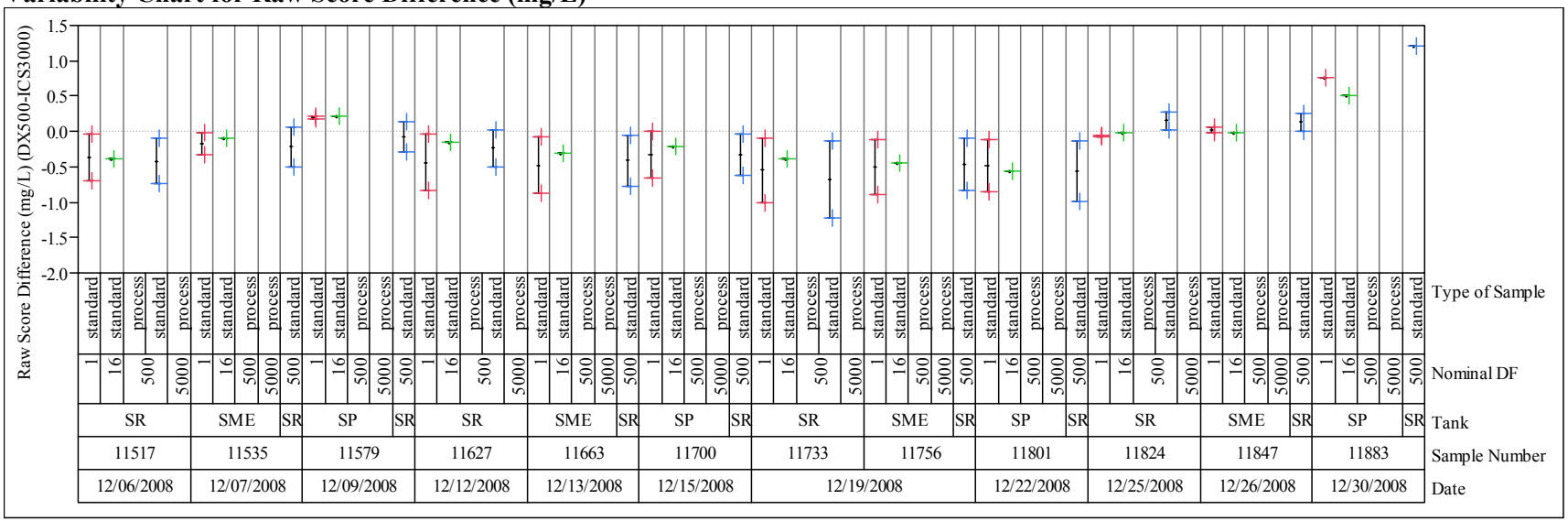


Exhibit A1g Anion=Phosphate
Variability Chart for Raw Score Difference (mg/L)

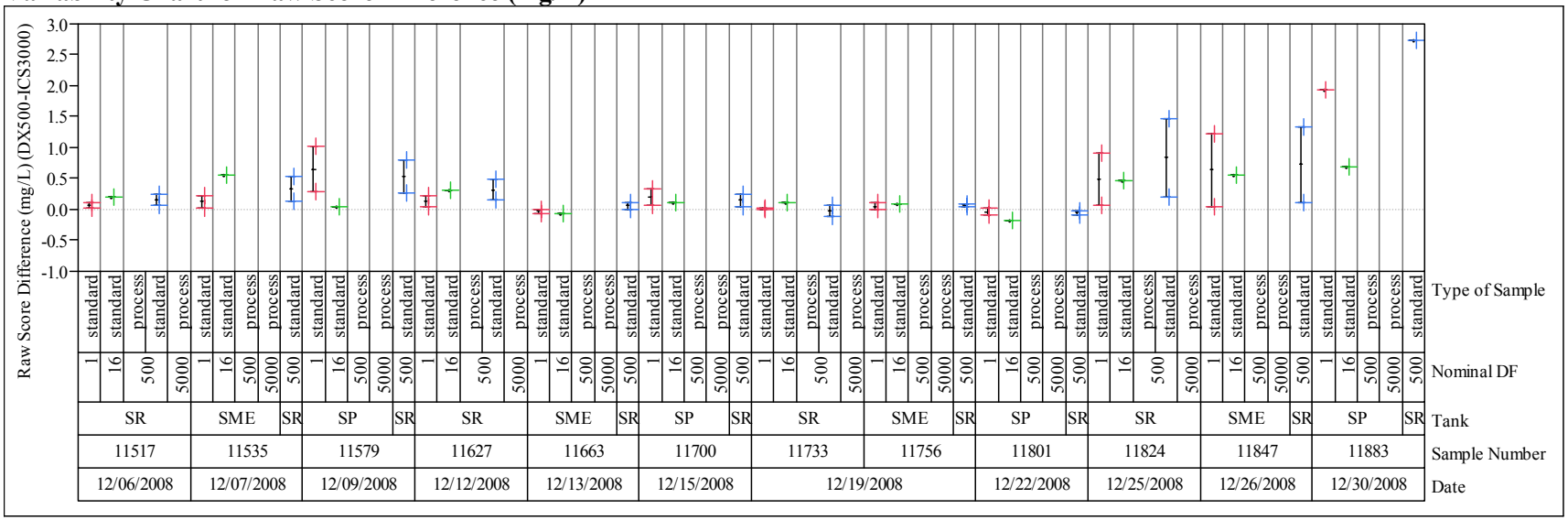


Exhibit A1h Anion=Sulfate
Variability Chart for Raw Score Difference (mg/L)

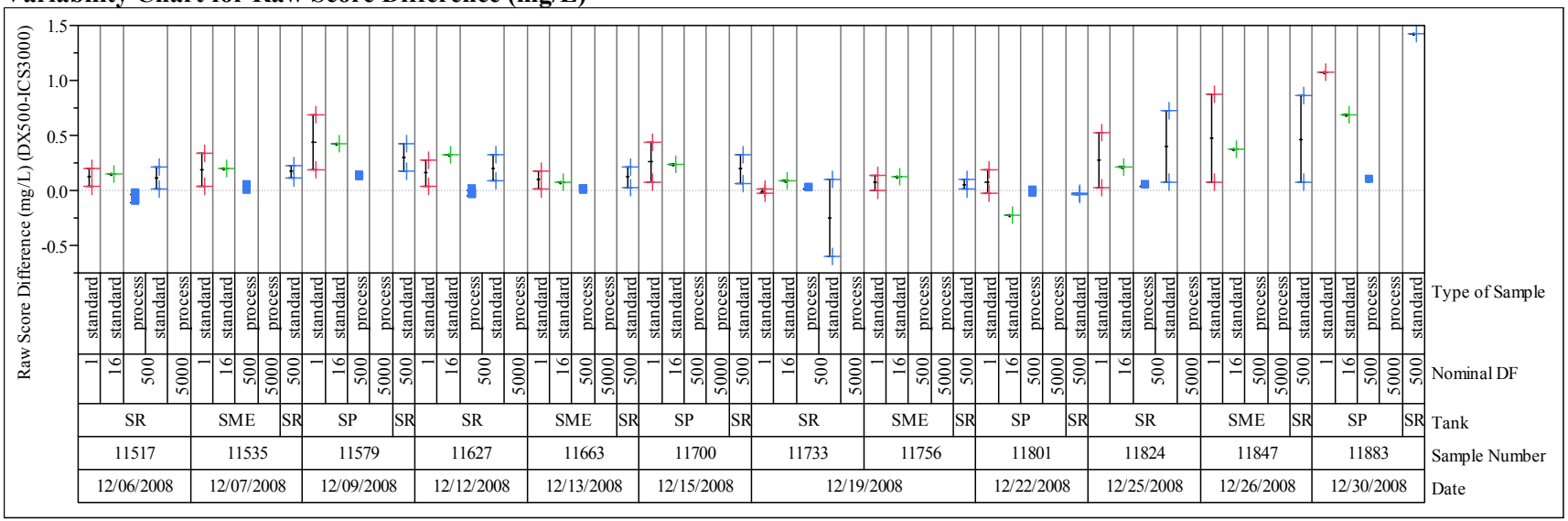
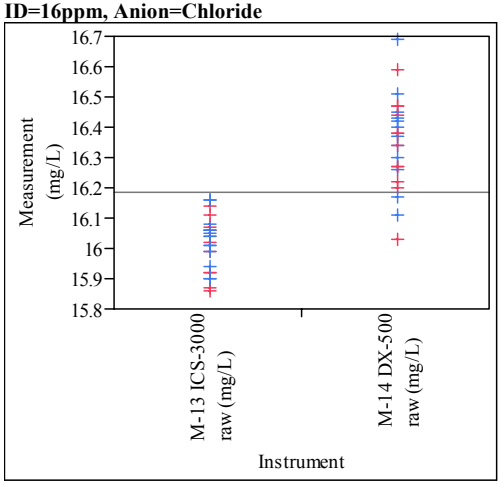


Exhibit A2a
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Chloride



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	16.0150	0.088219	0.01801	15.978	16.052
M-14 DX-500 raw (mg/L)	24	16.3546	0.149869	0.03059	16.291	16.418

Tests that the Variances are Equal

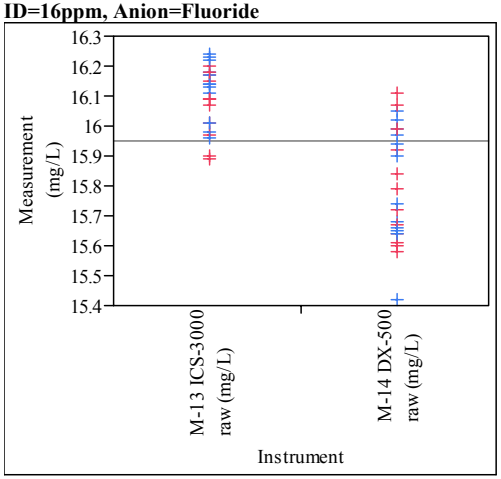
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.0882191	0.0712500	0.0708333
M-14 DX-500 raw (mg/L)	24	0.1498689	0.1158681	0.1145833

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	4.3240	1	46	0.0432
Brown-Forsythe	3.8354	1	46	0.0563
Levene	4.3686	1	46	0.0422
Bartlett	6.0463	1	.	0.0139
F Test 2-sided	2.8860	23	23	0.0139

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
91.5113	1	37.23	<.0001

Exhibit A2b
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Fluoride



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	16.0967	0.102646	0.02095	16.053	16.140
M-14 DX-500 raw (mg/L)	24	15.8000	0.189989	0.03878	15.720	15.880

Tests that the Variances are Equal

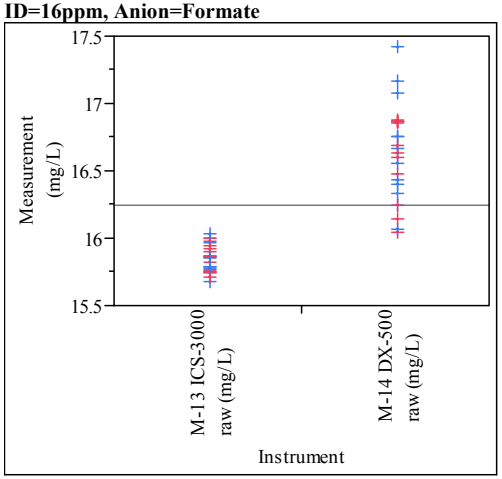
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.1026461	0.0836111	0.0825000
M-14 DX-500 raw (mg/L)	24	0.1899886	0.1666667	0.1658333

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	11.2706	1	46	0.0016
Brown-Forsythe	13.1444	1	46	0.0007
Levene	15.9934	1	46	0.0002
Bartlett	8.0427	1	.	0.0046
F Test 2-sided	3.4259	23	23	0.0046

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
45.2966	1	35.373	<.0001

Exhibit A2c
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Formate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	15.8508	0.101249	0.02067	15.808	15.894
M-14 DX-500 raw (mg/L)	24	16.6288	0.351114	0.07167	16.480	16.777

Tests that the Variances are Equal

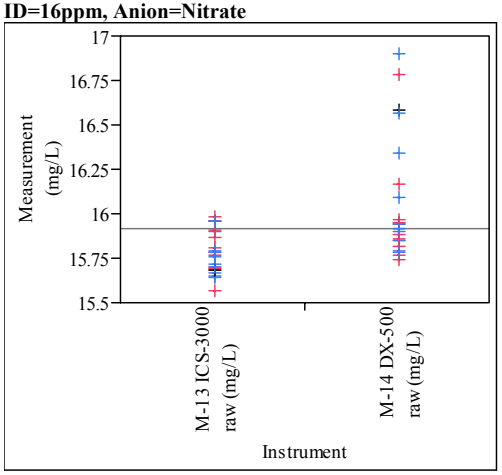
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.1012494	0.0849306	0.0841667
M-14 DX-500 raw (mg/L)	24	0.3511139	0.2796875	0.2795833

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	11.8028	1	46	0.0013
Brown-Forsythe	20.3063	1	46	<.0001
Levene	20.5124	1	46	<.0001
Bartlett	28.3749	1	.	<.0001
F Test 2-sided	12.0257	23	23	<.0001

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
108.7654	1	26.799	<.0001

Exhibit A2d
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Nitrate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	15.7871	0.122740	0.02505	15.735	15.839
M-14 DX-500 raw (mg/L)	24	16.0525	0.331430	0.06765	15.913	16.192

Tests that the Variances are Equal

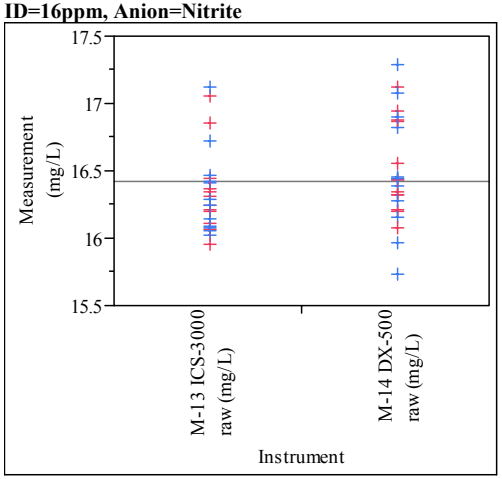
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.1227397	0.1024306	0.1012500
M-14 DX-500 raw (mg/L)	24	0.3314297	0.2552083	0.2125000

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	5.9908	1	46	0.0183
Brown-Forsythe	3.5829	1	46	0.0647
Levene	12.1781	1	46	0.0011
Bartlett	19.3018	1	.	<.0001
F Test 2-sided	7.2914	23	23	<.0001

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
13.5353	1	29.192	0.0009

Exhibit A2e
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Nitrite



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	16.3438	0.313158	0.06392	16.212	16.476
M-14 DX-500 raw (mg/L)	24	16.5096	0.395535	0.08074	16.343	16.677

Tests that the Variances are Equal

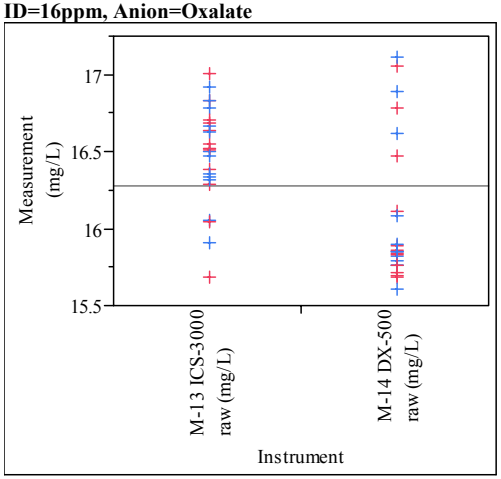
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.3131580	0.2313542	0.2237500
M-14 DX-500 raw (mg/L)	24	0.3955346	0.3236458	0.3070833

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	1.2969	1	46	0.2607
Brown-Forsythe	1.4348	1	46	0.2371
Levene	2.2876	1	46	0.1373
Bartlett	1.2167	1	.	0.2700
F Test 2-sided	1.5953	23	23	0.2700

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
2.5932	1	43.701	0.1145

Exhibit A2f
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Oxalate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	16.4846	0.326190	0.06658	16.347	16.622
M-14 DX-500 raw (mg/L)	24	16.0717	0.470057	0.09595	15.873	16.270

Tests that the Variances are Equal

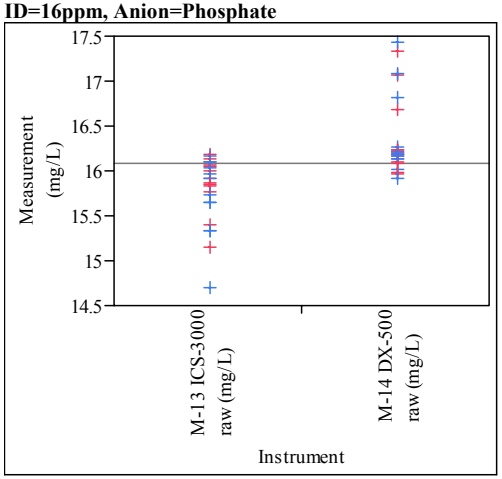
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.3261899	0.2504861	0.2470833
M-14 DX-500 raw (mg/L)	24	0.4700570	0.3788889	0.3133333

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	2.5156	1	46	0.1196
Brown-Forsythe	0.4935	1	46	0.4859
Levene	3.5303	1	46	0.0666
Bartlett	2.9406	1	.	0.0864
F Test 2-sided	2.0766	23	23	0.0864

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
12.5003	1	40.982	0.0010

Exhibit A2g
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Phosphate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	15.7871	0.368717	0.07526	15.631	15.943
M-14 DX-500 raw (mg/L)	24	16.3675	0.443644	0.09056	16.180	16.555

Tests that the Variances are Equal

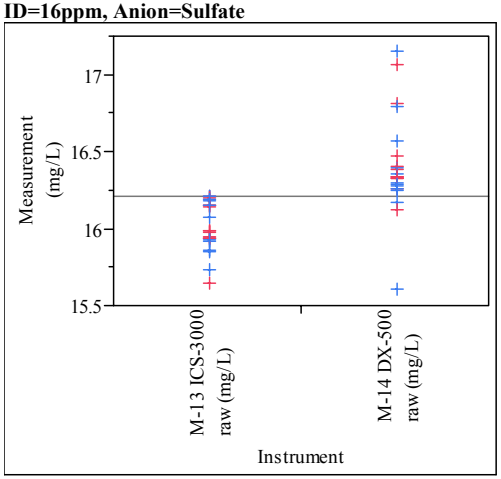
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.3687167	0.2803125	0.2637500
M-14 DX-500 raw (mg/L)	24	0.4436435	0.3504167	0.2800000

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	0.5345	1	46	0.4684
Brown-Forsythe	0.0287	1	46	0.8661
Levene	0.9617	1	46	0.3319
Bartlett	0.7660	1	.	0.3815
F Test 2-sided	1.4477	23	23	0.3815

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
24.2966	1	44.511	<.0001

Exhibit A2h
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=16ppm, Anion=Sulfate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	24	16.0221	0.159319	0.03252	15.955	16.089
M-14 DX-500 raw (mg/L)	24	16.4004	0.312194	0.06373	16.269	16.532

Tests that the Variances are Equal

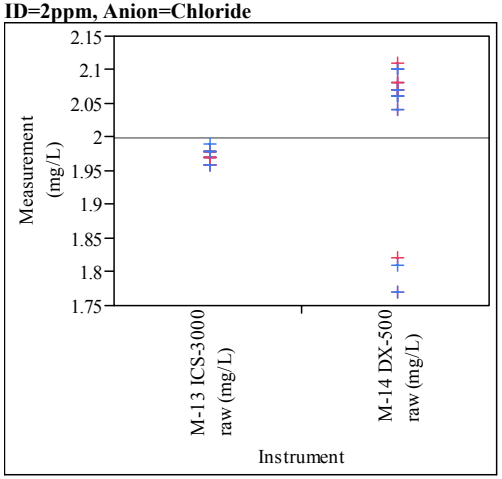
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	24	0.1593186	0.1347569	0.1320833
M-14 DX-500 raw (mg/L)	24	0.3121939	0.2047917	0.1887500

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	3.2210	1	46	0.0793
Brown-Forsythe	1.0652	1	46	0.3074
Levene	1.9575	1	46	0.1685
Bartlett	9.5004	1	.	0.0021
F Test 2-sided	3.8399	23	23	0.0020

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
27.9637	1	34.219	<.0001

Exhibit A3a
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Chloride



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	1.97364	0.008477	0.00181	1.9699	1.9774
M-14 DX-500 raw (mg/L)	22	2.02227	0.112713	0.02403	1.9723	2.0722

Tests that the Variances are Equal

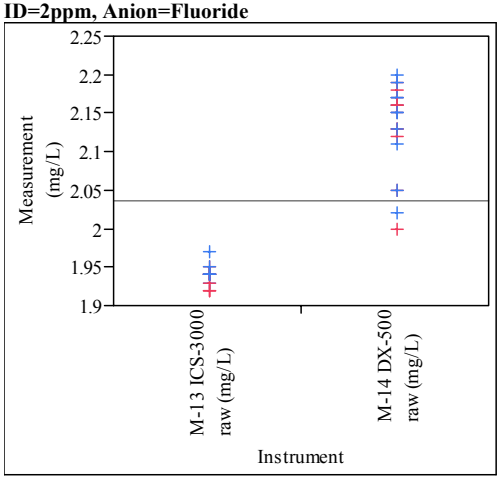
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0084771	0.0072727	0.0072727
M-14 DX-500 raw (mg/L)	22	0.1127125	0.0835537	0.0622727

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	7.2605	1	42	0.0101
Brown-Forsythe	6.0246	1	42	0.0183
Levene	23.6759	1	42	<.0001
Bartlett	77.9427	1	.	<.0001
F Test 2-sided	176.7861	21	21	<.0001

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
4.0733	1	21.238	0.0564

Exhibit A3b
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Fluoride



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	1.93864	0.010821	0.00231	1.9338	1.9434
M-14 DX-500 raw (mg/L)	22	2.13364	0.055767	0.01189	2.1089	2.1584

Tests that the Variances are Equal

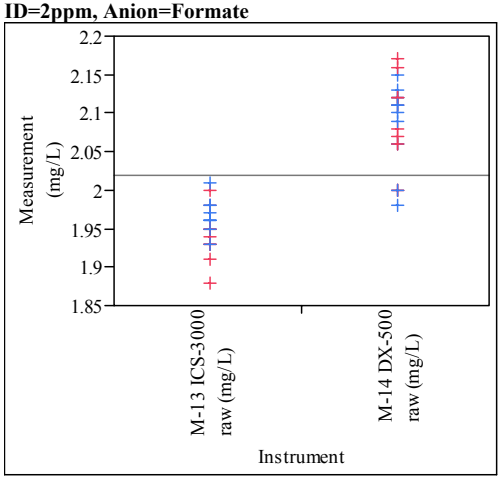
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0108213	0.0066529	0.0059091
M-14 DX-500 raw (mg/L)	22	0.0557670	0.0420661	0.0390909

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	8.1155	1	42	0.0068
Brown-Forsythe	12.9390	1	42	0.0008
Levene	20.7935	1	42	<.0001
Bartlett	40.3457	1	.	<.0001
F Test 2-sided	26.5582	21	21	<.0001

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
259.2301	1	22.579	<.0001

Exhibit A3c
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Formate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	1.95273	0.028980	0.00618	1.9399	1.9656
M-14 DX-500 raw (mg/L)	22	2.08727	0.053824	0.01148	2.0634	2.1111

Tests that the Variances are Equal

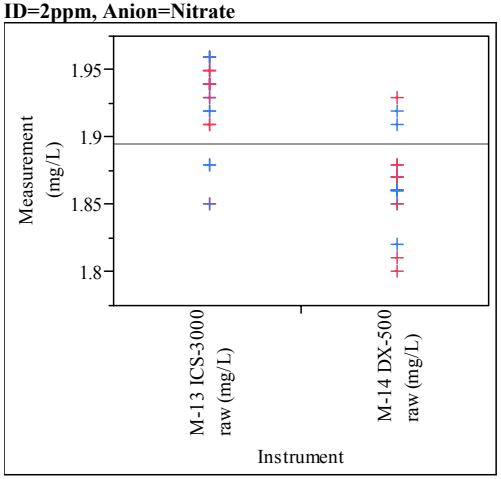
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0289798	0.0211570	0.0209091
M-14 DX-500 raw (mg/L)	22	0.0538235	0.0432231	0.0418182

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	6.1702	1	42	0.0171
Brown-Forsythe	5.3921	1	42	0.0251
Levene	8.1731	1	42	0.0066
Bartlett	7.4059	1	.	0.0065
F Test 2-sided	3.4495	21	21	0.0065

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
106.5765	1	32.232	<.0001

Exhibit A3d
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Nitrate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	1.92591	0.033617	0.00717	1.9110	1.9408
M-14 DX-500 raw (mg/L)	22	1.86364	0.030635	0.00653	1.8501	1.8772

Tests that the Variances are Equal

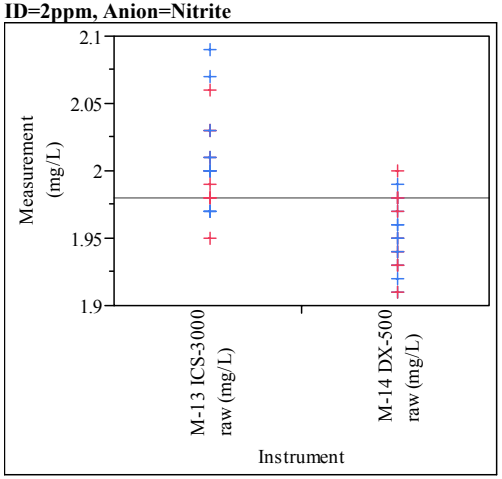
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0336168	0.0261157	0.0240909
M-14 DX-500 raw (mg/L)	22	0.0306354	0.0200826	0.0190909

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	0.1450	1	42	0.7053
Brown-Forsythe	0.4229	1	42	0.5191
Levene	0.8596	1	42	0.3592
Bartlett	0.1766	1	.	0.6743
F Test 2-sided	1.2041	21	21	0.6743

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
41.2419	1	41.643	<.0001

Exhibit A3e
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Nitrite



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	2.00591	0.034731	0.00740	1.9905	2.0213
M-14 DX-500 raw (mg/L)	22	1.95318	0.025891	0.00552	1.9417	1.9647

Tests that the Variances are Equal

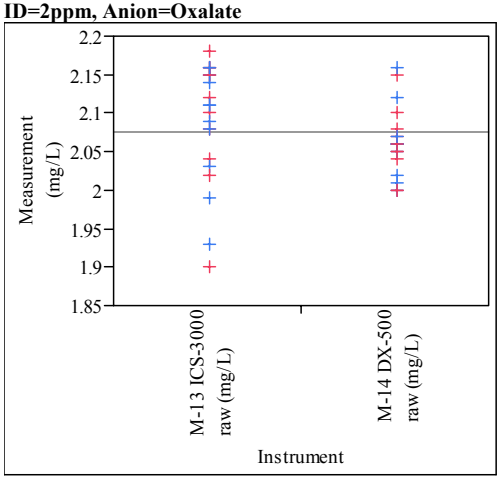
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0347315	0.0260744	0.0250000
M-14 DX-500 raw (mg/L)	22	0.0258910	0.0216529	0.0213636

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	1.5884	1	42	0.2145
Brown-Forsythe	0.3678	1	42	0.5475
Levene	0.6389	1	42	0.4286
Bartlett	1.7450	1	.	0.1865
F Test 2-sided	1.7995	21	21	0.1865

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
32.5924	1	38.833	<.0001

Exhibit A3f
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Oxalate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	2.09136	0.077355	0.01649	2.0571	2.1257
M-14 DX-500 raw (mg/L)	22	2.06045	0.043367	0.00925	2.0412	2.0797

Tests that the Variances are Equal

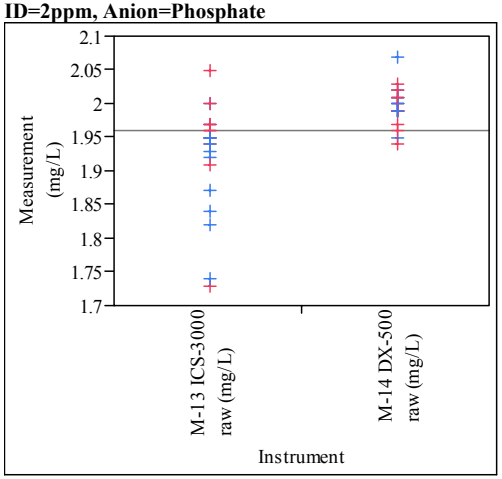
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0773548	0.0602066	0.0577273
M-14 DX-500 raw (mg/L)	22	0.0433675	0.0297107	0.0295455

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	3.7419	1	42	0.0598
Brown-Forsythe	4.5705	1	42	0.0384
Levene	6.5112	1	42	0.0144
Bartlett	6.5168	1	.	0.0107
F Test 2-sided	3.1816	21	21	0.0107

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
2.6725	1	33.014	0.1116

Exhibit A3g
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Phosphate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	1.92364	0.079315	0.01691	1.8885	1.9588
M-14 DX-500 raw (mg/L)	22	1.99682	0.027669	0.00590	1.9846	2.0091

Tests that the Variances are Equal

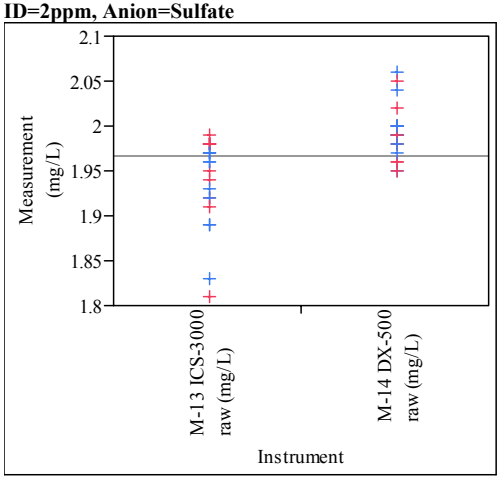
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0793153	0.0577686	0.0518182
M-14 DX-500 raw (mg/L)	22	0.0276692	0.0195455	0.0195455

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	5.3155	1	42	0.0261
Brown-Forsythe	5.0086	1	42	0.0306
Levene	10.1711	1	42	0.0027
Bartlett	19.4781	1	.	<.0001
F Test 2-sided	8.2171	21	21	<.0001

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
16.6971	1	26.037	0.0004

Exhibit A3h
Oneway Analysis of Measurement (mg/L) By Instrument Type of Sample=standard, Bottle ID=2ppm, Anion=Sulfate



Means and Std Deviations

Level	Number	Mean	Std Dev	Std Err Mean	Lower 95%	Upper 95%
M-13 ICS-3000 raw (mg/L)	22	1.94045	0.049519	0.01056	1.9185	1.9624
M-14 DX-500 raw (mg/L)	22	1.99318	0.029177	0.00622	1.9802	2.0061

Tests that the Variances are Equal

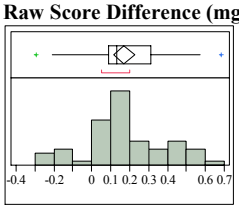
Level	Count	Std Dev	MeanAbsDif to Mean	MeanAbsDif to Median
M-13 ICS-3000 raw (mg/L)	22	0.0495193	0.0385537	0.0359091
M-14 DX-500 raw (mg/L)	22	0.0291770	0.0210331	0.0204545

Test	F Ratio	DFNum	DFDen	p-Value
O'Brien[.5]	2.6579	1	42	0.1105
Brown-Forsythe	2.7295	1	42	0.1060
Levene	5.2644	1	42	0.0268
Bartlett	5.4903	1	.	0.0191
F Test 2-sided	2.8805	21	21	0.0191

Welch Anova testing Means Equal, allowing Std Devs Not Equal

F Ratio	DFNum	DFDen	Prob > F
18.5150	1	34.013	0.0001

Exhibit A4a
Anion=Chloride
Raw Score Difference (mg/L)



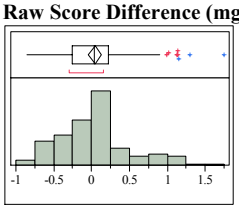
Quantiles

100.0%	maximum	0.6800
99.5%		0.6800
97.5%		0.6277
90.0%		0.4660
75.0%	quartile	0.3125
50.0%	median	0.1300
25.0%	quartile	0.0875
10.0%		-0.1610
2.5%		-0.2572
0.5%		-0.3000
0.0%	minimum	-0.3000

Moments

Mean	0.1710345
Std Dev	0.2093238
Std Err Mean	0.0274856
upper 95% Mean	0.2260734
lower 95% Mean	0.1159956
N	58

Exhibit A4c
Anion=Formate
Raw Score Difference (mg/L)



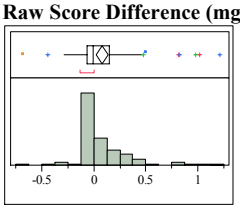
Quantiles

100.0%	maximum	1.740
99.5%		1.740
97.5%		1.139
90.0%		0.790
75.0%	quartile	0.223
50.0%	median	0.040
25.0%	quartile	-0.263
10.0%		-0.547
2.5%		-0.805
0.5%		-0.850
0.0%	minimum	-0.850

Moments

Mean	0.0440164
Std Dev	0.484914
Std Err Mean	0.0439021
upper 95% Mean	0.1309321
lower 95% Mean	-0.042899
N	122

Exhibit A4e
Anion=Nitrite
Raw Score Difference (mg/L)



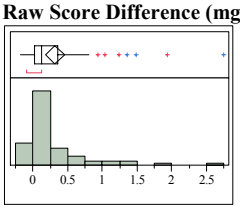
Quantiles

100.0%	maximum	1.200
99.5%		1.200
97.5%		0.999
90.0%		0.399
75.0%	quartile	0.150
50.0%	median	-0.010
25.0%	quartile	-0.060
10.0%		-0.110
2.5%		-0.406
0.5%		-0.680
0.0%	minimum	-0.680

Moments

Mean	0.0832222
Std Dev	0.2817395
Std Err Mean	0.0296979
upper 95% Mean	0.1422314
lower 95% Mean	0.024213
N	90

Exhibit A4g
Anion=Phosphate
Raw Score Difference (mg/L)



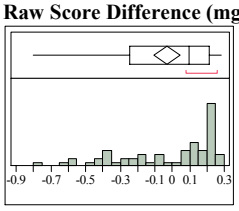
Quantiles

100.0%	maximum	2.740
99.5%		2.740
97.5%		2.355
90.0%		1.050
75.0%	quartile	0.362
50.0%	median	0.120
25.0%	quartile	0.030
10.0%		-0.061
2.5%		-0.147
0.5%		-0.180
0.0%	minimum	-0.180

Moments

Mean	0.3177586
Std Dev	0.5321326
Std Err Mean	0.0698724
upper 95% Mean	0.4576757
lower 95% Mean	0.1778415
N	58

Exhibit A4b
Anion=Fluoride
Raw Score Difference (mg/L)



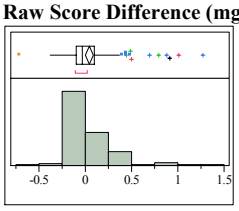
Quantiles

100.0%	maximum	0.2800
99.5%		0.2800
97.5%		0.2705
90.0%		0.2300
75.0%	quartile	0.2125
50.0%	median	0.0950
25.0%	quartile	-0.2450
10.0%		-0.4550
2.5%		-0.7145
0.5%		-0.8000
0.0%	minimum	-0.8000

Moments

Mean	-0.030172
Std Dev	0.2829884
Std Err Mean	0.0371582
upper 95% Mean	0.0442356
lower 95% Mean	-0.10458
N	58

Exhibit A4d
Anion=Nitrate
Raw Score Difference (mg/L)



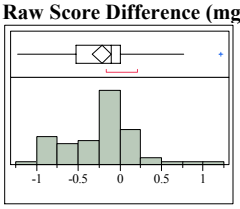
Quantiles

100.0%	maximum	1.260
99.5%		1.260
97.5%		0.898
90.0%		0.418
75.0%	quartile	0.093
50.0%	median	-0.035
25.0%	quartile	-0.100
10.0%		-0.140
2.5%		-0.275
0.5%		-0.720
0.0%	minimum	-0.720

Moments

Mean	0.0437705
Std Dev	0.2679562
Std Err Mean	0.0242596
upper 95% Mean	0.0917988
lower 95% Mean	-0.004258
N	122

Exhibit A4f
Anion=Oxalate
Raw Score Difference (mg/L)



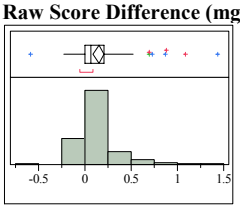
Quantiles

100.0%	maximum	1.200
99.5%		1.200
97.5%		0.996
90.0%		0.215
75.0%	quartile	0.000
50.0%	median	-0.100
25.0%	quartile	-0.525
10.0%		-0.853
2.5%		-1.115
0.5%		-1.220
0.0%	minimum	-1.220

Moments

Mean	-0.214828
Std Dev	0.445863
Std Err Mean	0.0585447
upper 95% Mean	-0.097594
lower 95% Mean	-0.332061
N	58

Exhibit A4h
Anion=Sulfate
Raw Score Difference (mg/L)



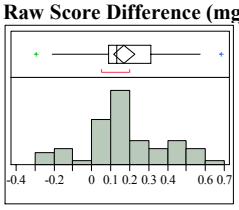
Quantiles

100.0%	maximum	1.420
99.5%		1.420
97.5%		1.043
90.0%		0.464
75.0%	quartile	0.210
50.0%	median	0.070
25.0%	quartile	0.000
10.0%		-0.040
2.5%		-0.209
0.5%		-0.600
0.0%	minimum	-0.600

Moments

Mean	0.1506977
Std Dev	0.2821255
Std Err Mean	0.0304224
upper 95% Mean	0.2111855
lower 95% Mean	0.0902098
N	86

Exhibit A4i
Anion=Chloride, Type of Sample=standard
Raw Score Difference (mg/L)



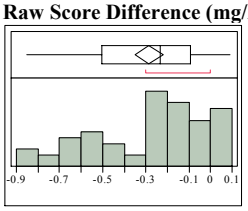
Quantiles

100.0%	maximum	0.6800
99.5%		0.6800
97.5%		0.6277
90.0%		0.4660
75.0%	quartile	0.3125
50.0%	median	0.1300
25.0%	quartile	0.0875
10.0%		-0.1610
2.5%		-0.2572
0.5%		-0.3000
0.0%	minimum	-0.3000

Moments

Mean	0.1710345
Std Dev	0.2093238
Std Err Mean	0.0274856
upper 95% Mean	0.2260734
lower 95% Mean	0.1159956
N	58

Exhibit A4k
Anion=Formate, Type of Sample=process
Raw Score Difference (mg/L)



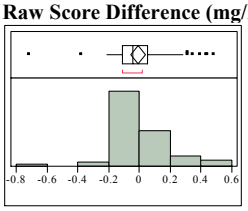
Quantiles

100.0%	maximum	0.0900
99.5%		0.0900
97.5%		0.0900
90.0%		0.0750
75.0%	quartile	-0.0925
50.0%	median	-0.2350
25.0%	quartile	-0.5025
10.0%		-0.6850
2.5%		-0.8438
0.5%		-0.8500
0.0%	minimum	-0.8500

Moments

Mean	-0.284063
Std Dev	0.2615383
Std Err Mean	0.0326923
upper 95% Mean	-0.218732
lower 95% Mean	-0.349393
N	64

Exhibit A4m
Anion=Nitrate, Type of Sample=process
Raw Score Difference (mg/L)



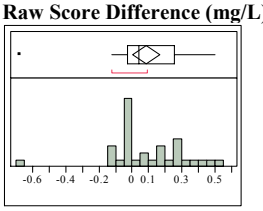
Quantiles

100.0%	maximum	0.4800
99.5%		0.4800
97.5%		0.4550
90.0%		0.3100
75.0%	quartile	0.0550
50.0%	median	-0.0450
25.0%	quartile	-0.1075
10.0%		-0.1650
2.5%		-0.5075
0.5%		-0.7200
0.0%	minimum	-0.7200

Moments

Mean	-0.011562
Std Dev	0.1904232
Std Err Mean	0.0238029
upper 95% Mean	0.0360038
lower 95% Mean	-0.059129
N	64

Exhibit A4o
Anion=Nitrite, Type of Sample=process
Raw Score Difference (mg/L)



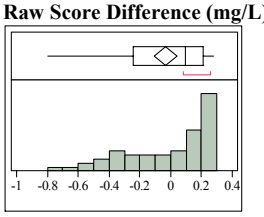
Quantiles

100.0%	maximum	0.5000
99.5%		0.5000
97.5%		0.5000
90.0%		0.3970
75.0%	quartile	0.2575
50.0%	median	0.0400
25.0%	quartile	-0.0275
10.0%		-0.1100
2.5%		-0.6800
0.5%		-0.6800
0.0%	minimum	-0.6800

Moments

Mean	0.0875
Std Dev	0.2272131
Std Err Mean	0.040166
upper 95% Mean	0.1694191
lower 95% Mean	0.0055809
N	32

Exhibit A4j
Anion=Fluoride, Type of Sample=standard
Raw Score Difference (mg/L)



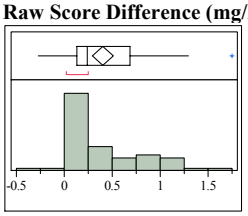
Quantiles

100.0%	maximum	0.2800
99.5%		0.2800
97.5%		0.2705
90.0%		0.2300
75.0%	quartile	0.2125
50.0%	median	0.0950
25.0%	quartile	-0.2450
10.0%		-0.4550
2.5%		-0.7145
0.5%		-0.8000
0.0%	minimum	-0.8000

Moments

Mean	-0.030172
Std Dev	0.2829884
Std Err Mean	0.0371582
upper 95% Mean	0.0442356
lower 95% Mean	-0.10458
N	58

Exhibit A4l
Anion=Formate, Type of Sample=standard
Raw Score Difference (mg/L)



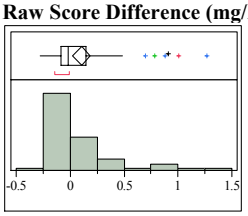
Quantiles

100.0%	maximum	1.740
99.5%		1.740
97.5%		1.526
90.0%		1.111
75.0%	quartile	0.690
50.0%	median	0.235
25.0%	quartile	0.127
10.0%		0.059
2.5%		-0.199
0.5%		-0.270
0.0%	minimum	-0.270

Moments

Mean	0.4060345
Std Dev	0.4115181
Std Err Mean	0.054035
upper 95% Mean	0.5142377
lower 95% Mean	0.2978313
N	58

Exhibit A4n
Anion=Nitrate, Type of Sample=standard
Raw Score Difference (mg/L)



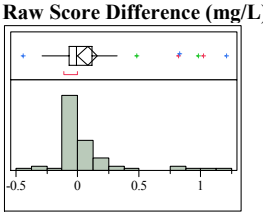
Quantiles

100.0%	maximum	1.260
99.5%		1.260
97.5%		1.136
90.0%		0.699
75.0%	quartile	0.145
50.0%	median	-0.020
25.0%	quartile	-0.085
10.0%		-0.131
2.5%		-0.232
0.5%		-0.280
0.0%	minimum	-0.280

Moments

Mean	0.1048276
Std Dev	0.3242061
Std Err Mean	0.0425704
upper 95% Mean	0.1900732
lower 95% Mean	0.0195819
N	58

Exhibit A4p
Anion=Nitrite, Type of Sample=standard
Raw Score Difference (mg/L)



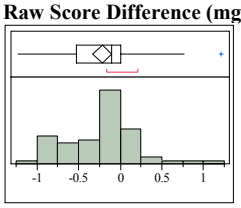
Quantiles

100.0%	maximum	1.200
99.5%		1.200
97.5%		1.110
90.0%		0.504
75.0%	quartile	0.120
50.0%	median	-0.010
25.0%	quartile	-0.070
10.0%		-0.110
2.5%		-0.374
0.5%		-0.450
0.0%	minimum	-0.450

Moments

Mean	0.0808621
Std Dev	0.309591
Std Err Mean	0.0406513
upper 95% Mean	0.1622649
lower 95% Mean	-0.000541
N	58

Exhibit A4q
Anion=Oxalate, Type of Sample=standard
Raw Score Difference (mg/L)



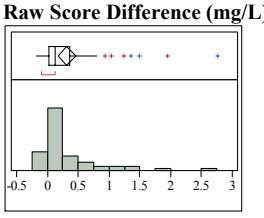
Quantiles

100.0%	maximum	1.200
99.5%		1.200
97.5%		0.996
90.0%		0.215
75.0%	quartile	0.000
50.0%	median	-0.100
25.0%	quartile	-0.525
10.0%		-0.853
2.5%		-1.115
0.5%		-1.220
0.0%	minimum	-1.220

Moments

Mean	-0.214828
Std Dev	0.445863
Std Err Mean	0.0585447
upper 95% Mean	-0.097594
lower 95% Mean	-0.332061
N	58

Exhibit A4r
Anion=Phosphate, Type of Sample=standard
Raw Score Difference (mg/L)



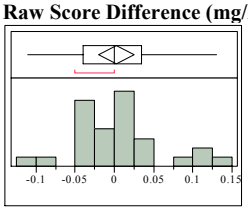
Quantiles

100.0%	maximum	2.740
99.5%		2.740
97.5%		2.355
90.0%		1.050
75.0%	quartile	0.362
50.0%	median	0.120
25.0%	quartile	0.030
10.0%		-0.061
2.5%		-0.147
0.5%		-0.180
0.0%	minimum	-0.180

Moments

Mean	0.3177586
Std Dev	0.5321326
Std Err Mean	0.0698724
upper 95% Mean	0.4576757
lower 95% Mean	0.1778415
N	58

Exhibit A4s
Anion=Sulfate, Type of Sample=process
Raw Score Difference (mg/L)



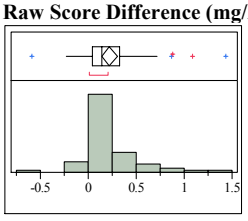
Quantiles

100.0%	maximum	0.1300
99.5%		0.1300
97.5%		0.1300
90.0%		0.1100
75.0%	quartile	0.0350
50.0%	median	0.0000
25.0%	quartile	-0.0400
10.0%		-0.0550
2.5%		-0.1100
0.5%		-0.1100
0.0%	minimum	-0.1100

Moments

Mean	0.0021429
Std Dev	0.0581414
Std Err Mean	0.0109877
upper 95% Mean	0.0246877
lower 95% Mean	-0.020402
N	28

Exhibit A4t
Anion=Sulfate, Type of Sample=standard
Raw Score Difference (mg/L)



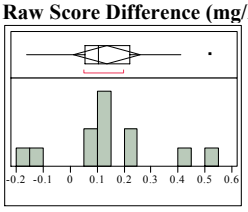
Quantiles

100.0%	maximum	1.420
99.5%		1.420
97.5%		1.258
90.0%		0.693
75.0%	quartile	0.323
50.0%	median	0.145
25.0%	quartile	0.040
10.0%		-0.030
2.5%		-0.424
0.5%		-0.600
0.0%	minimum	-0.600

Moments

Mean	0.2224138
Std Dev	0.3178343
Std Err Mean	0.0417337
upper 95% Mean	0.3059841
lower 95% Mean	0.1388435
N	58

Exhibit A4u
Anion=Chloride, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



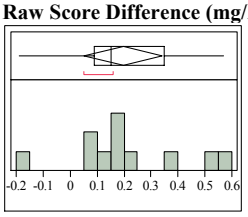
Quantiles

100.0%	maximum	0.5200
99.5%		0.5200
97.5%		0.5200
90.0%		0.4870
75.0%	quartile	0.2225
50.0%	median	0.1050
25.0%	quartile	0.0550
10.0%		-0.1510
2.5%		-0.1600
0.5%		-0.1600
0.0%	minimum	-0.1600

Moments

Mean	0.1358333
Std Dev	0.1928003
Std Err Mean	0.0556567
upper 95% Mean	0.2583328
lower 95% Mean	0.0133338
N	12

Exhibit A4v
Anion=Chloride, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



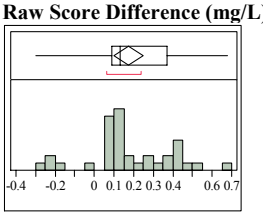
Quantiles

100.0%	maximum	0.5700
99.5%		0.5700
97.5%		0.5700
90.0%		0.5600
75.0%	quartile	0.3500
50.0%	median	0.1500
25.0%	quartile	0.0900
10.0%		-0.1420
2.5%		-0.1900
0.5%		-0.1900
0.0%	minimum	-0.1900

Moments

Mean	0.1963636
Std Dev	0.2156512
Std Err Mean	0.0650213
upper 95% Mean	0.3412401
lower 95% Mean	0.0514872
N	11

Exhibit A4w
Anion=Chloride, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



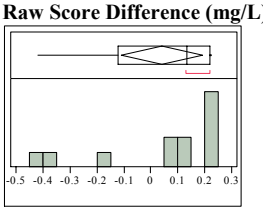
Quantiles

100.0%	maximum	0.6800
99.5%		0.6800
97.5%		0.6800
90.0%		0.4480
75.0%	quartile	0.3700
50.0%	median	0.1300
25.0%	quartile	0.0900
10.0%		-0.1860
2.5%		-0.3000
0.5%		-0.3000
0.0%	minimum	-0.3000

Moments

Mean	0.1751429
Std Dev	0.2170033
Std Err Mean	0.0366802
upper 95% Mean	0.2496861
lower 95% Mean	0.1005996
N	35

Exhibit A4x
Anion=Fluoride, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



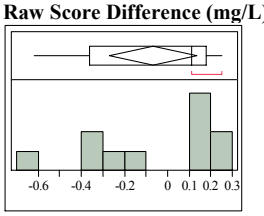
Quantiles

100.0%	maximum	0.2200
99.5%		0.2200
97.5%		0.2200
90.0%		0.2200
75.0%	quartile	0.2175
50.0%	median	0.1350
25.0%	quartile	-0.1225
10.0%		-0.4110
2.5%		-0.4200
0.5%		-0.4200
0.0%	minimum	-0.4200

Moments

Mean	0.04
Std Dev	0.23672
Std Err Mean	0.0683352
upper 95% Mean	0.1904047
lower 95% Mean	-0.110405
N	12

Exhibit A4y
Anion=Fluoride, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



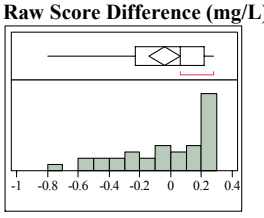
Quantiles

100.0%	maximum	0.2500
99.5%		0.2500
97.5%		0.2500
90.0%		0.2460
75.0%	quartile	0.1800
50.0%	median	0.1100
25.0%	quartile	-0.3600
10.0%		-0.5700
2.5%		-0.6200
0.5%		-0.6200
0.0%	minimum	-0.6200

Moments

Mean	-0.068182
Std Dev	0.3026489
Std Err Mean	0.0912521
upper 95% Mean	0.1351405
lower 95% Mean	-0.271504
N	11

Exhibit A4z
Anion=Fluoride, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



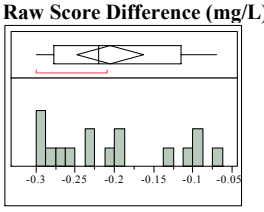
Quantiles

100.0%	maximum	0.2800
99.5%		0.2800
97.5%		0.2800
90.0%		0.2340
75.0%	quartile	0.2200
50.0%	median	0.0600
25.0%	quartile	-0.2300
10.0%		-0.5240
2.5%		-0.8000
0.5%		-0.8000
0.0%	minimum	-0.8000

Moments

Mean	-0.042286
Std Dev	0.2946692
Std Err Mean	0.0498082
upper 95% Mean	0.0589367
lower 95% Mean	-0.143508
N	35

Exhibit A4aa
Anion=Formate, Type of Sample=process, Tank=SME
Raw Score Difference (mg/L)



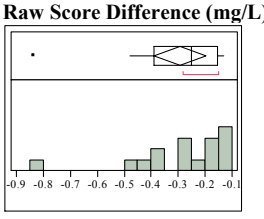
Quantiles

100.0%	maximum	-0.0700
99.5%		-0.0700
97.5%		-0.0700
90.0%		-0.0910
75.0%	quartile	-0.1150
50.0%	median	-0.2200
25.0%	quartile	-0.2775
10.0%		-0.3000
2.5%		-0.3000
0.5%		-0.3000
0.0%	minimum	-0.3000

Moments

Mean	-0.205625
Std Dev	0.0800807
Std Err Mean	0.0200202
upper 95% Mean	-0.162953
lower 95% Mean	-0.248297
N	16

Exhibit A4ab
Anion=Formate, Type of Sample=process, Tank=SP
Raw Score Difference (mg/L)



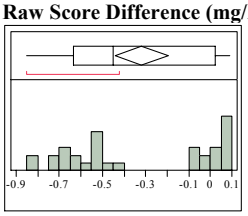
Quantiles

100.0%	maximum	-0.1300
99.5%		-0.1300
97.5%		-0.1300
90.0%		-0.1440
75.0%	quartile	-0.1550
50.0%	median	-0.2500
25.0%	quartile	-0.3900
10.0%		-0.5880
2.5%		-0.8400
0.5%		-0.8400
0.0%	minimum	-0.8400

Moments

Mean	-0.294375
Std Dev	0.1816212
Std Err Mean	0.0454053
upper 95% Mean	-0.197596
lower 95% Mean	-0.391154
N	16

Exhibit A4ac
Anion=Formate, Type of Sample=process, Tank=SR
Raw Score Difference (mg/L)



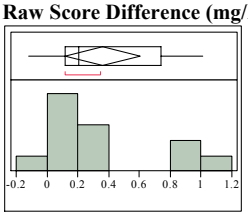
Quantiles

100.0%	maximum	0.0900
99.5%		0.0900
97.5%		0.0900
90.0%		0.0800
75.0%	quartile	0.0250
50.0%	median	-0.4500
25.0%	quartile	-0.6350
10.0%		-0.7340
2.5%		-0.8500
0.5%		-0.8500
0.0%	minimum	-0.8500

Moments

Mean	-0.318125
Std Dev	0.3398808
Std Err Mean	0.060083
upper 95% Mean	-0.195585
lower 95% Mean	-0.440665
N	32

Exhibit A4ad
Anion=Formate, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



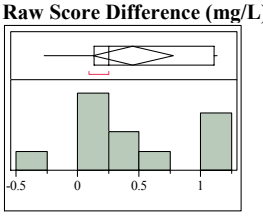
Quantiles

100.0%	maximum	1.010
99.5%		1.010
97.5%		1.010
90.0%		1.001
75.0%	quartile	0.740
50.0%	median	0.205
25.0%	quartile	0.120
10.0%		-0.060
2.5%		-0.120
0.5%		-0.120
0.0%	minimum	-0.120

Moments

Mean	0.3608333
Std Dev	0.3791967
Std Err Mean	0.1094647
upper 95% Mean	0.6017634
lower 95% Mean	0.1199032
N	12

Exhibit A4ae
Anion=Formate, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



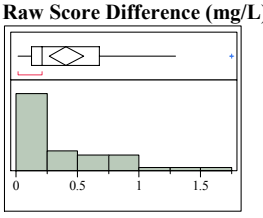
Quantiles

100.0%	maximum	1.130
99.5%		1.130
97.5%		1.130
90.0%		1.128
75.0%	quartile	1.110
50.0%	median	0.250
25.0%	quartile	0.130
10.0%		-0.198
2.5%		-0.270
0.5%		-0.270
0.0%	minimum	-0.270

Moments

Mean	0.4509091
Std Dev	0.481943
Std Err Mean	0.1453113
upper 95% Mean	0.7746828
lower 95% Mean	0.1271354
N	11

Exhibit A4af
Anion=Formate, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



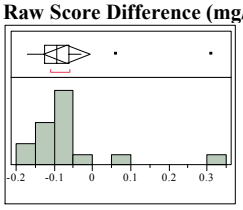
Quantiles

100.0%	maximum	1.7400
99.5%		1.7400
97.5%		1.7400
90.0%		0.9960
75.0%	quartile	0.6800
50.0%	median	0.2100
25.0%	quartile	0.1300
10.0%		0.0560
2.5%		0.0200
0.5%		0.0200
0.0%	minimum	0.0200

Moments

Mean	0.4074286
Std Dev	0.4095072
Std Err Mean	0.0692193
upper 95% Mean	0.5480992
lower 95% Mean	0.2667579
N	35

Exhibit A4ag
Anion=Nitrate, Type of Sample=process, Tank=SME
Raw Score Difference (mg/L)



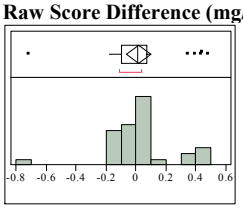
Quantiles

100.0%	maximum	0.3100
99.5%		0.3100
97.5%		0.3100
90.0%		0.1350
75.0%	quartile	-0.0625
50.0%	median	-0.0950
25.0%	quartile	-0.1250
10.0%		-0.1630
2.5%		-0.1700
0.5%		-0.1700
0.0%	minimum	-0.1700

Moments

Mean	-0.066875
Std Dev	0.114468
Std Err Mean	0.028617
upper 95% Mean	-0.005879
lower 95% Mean	-0.127871
N	16

Exhibit A4ai
Anion=Nitrate, Type of Sample=process, Tank=SR
Raw Score Difference (mg/L)



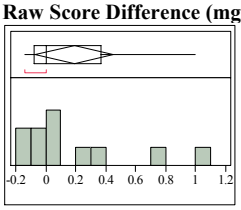
Quantiles

100.0%	maximum	0.4800
99.5%		0.4800
97.5%		0.4800
90.0%		0.4180
75.0%	quartile	0.0750
50.0%	median	0.0100
25.0%	quartile	-0.1000
10.0%		-0.1610
2.5%		-0.7200
0.5%		-0.7200
0.0%	minimum	-0.7200

Moments

Mean	0.0178125
Std Dev	0.2257423
Std Err Mean	0.039906
upper 95% Mean	0.0992013
lower 95% Mean	-0.063576
N	32

Exhibit A4ak
Anion=Nitrate, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



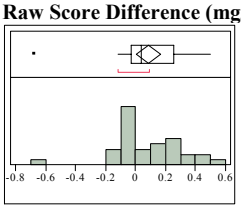
Quantiles

100.0%	maximum	1.000
99.5%		1.000
97.5%		1.000
90.0%		0.956
75.0%	quartile	0.370
50.0%	median	0.000
25.0%	quartile	-0.080
10.0%		-0.138
2.5%		-0.140
0.5%		-0.140
0.0%	minimum	-0.140

Moments

Mean	0.1890909
Std Dev	0.3832872
Std Err Mean	0.1155654
upper 95% Mean	0.4465868
lower 95% Mean	-0.068405
N	11

Exhibit A4am
Anion=Nitrite, Type of Sample=process, Tank=SR
Raw Score Difference (mg/L)



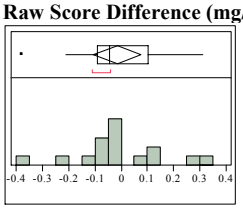
Quantiles

100.0%	maximum	0.5000
99.5%		0.5000
97.5%		0.5000
90.0%		0.3970
75.0%	quartile	0.2575
50.0%	median	0.0400
25.0%	quartile	-0.0275
10.0%		-0.1100
2.5%		-0.6800
0.5%		-0.6800
0.0%	minimum	-0.6800

Moments

Mean	0.0875
Std Dev	0.2272131
Std Err Mean	0.040166
upper 95% Mean	0.1694191
lower 95% Mean	0.0055809
N	32

Exhibit A4ah
Anion=Nitrate, Type of Sample=process, Tank=SP
Raw Score Difference (mg/L)



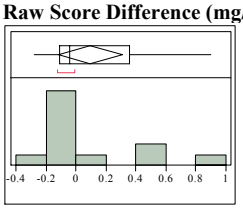
Quantiles

100.0%	maximum	0.3100
99.5%		0.3100
97.5%		0.3100
90.0%		0.2890
75.0%	quartile	0.1025
50.0%	median	-0.0450
25.0%	quartile	-0.0900
10.0%		-0.2610
2.5%		-0.3800
0.5%		-0.3800
0.0%	minimum	-0.3800

Moments

Mean	-0.015
Std Dev	0.1695877
Std Err Mean	0.0423969
upper 95% Mean	0.0753669
lower 95% Mean	-0.105367
N	16

Exhibit A4aj
Anion=Nitrate, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



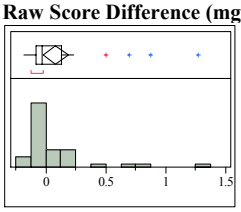
Quantiles

100.0%	maximum	0.9000
99.5%		0.9000
97.5%		0.9000
90.0%		0.7740
75.0%	quartile	0.3550
50.0%	median	-0.0400
25.0%	quartile	-0.1100
10.0%		-0.2320
2.5%		-0.2800
0.5%		-0.2800
0.0%	minimum	-0.2800

Moments

Mean	0.0958333
Std Dev	0.3385117
Std Err Mean	0.0977199
upper 95% Mean	0.3109134
lower 95% Mean	-0.119247
N	12

Exhibit A4al
Anion=Nitrate, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



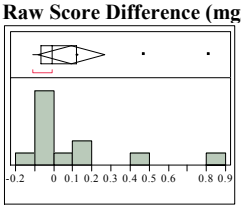
Quantiles

100.0%	maximum	1.260
99.5%		1.260
97.5%		1.260
90.0%		0.570
75.0%	quartile	0.130
50.0%	median	-0.030
25.0%	quartile	-0.080
10.0%		-0.128
2.5%		-0.180
0.5%		-0.180
0.0%	minimum	-0.180

Moments

Mean	0.0814286
Std Dev	0.3050279
Std Err Mean	0.0515591
upper 95% Mean	0.1862093
lower 95% Mean	-0.023352
N	35

Exhibit A4an
Anion=Nitrite, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



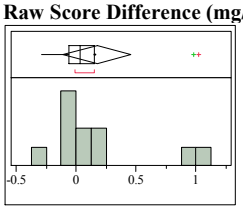
Quantiles

100.0%	maximum	0.8100
99.5%		0.8100
97.5%		0.8100
90.0%		0.7080
75.0%	quartile	0.1200
50.0%	median	-0.0100
25.0%	quartile	-0.0675
10.0%		-0.1070
2.5%		-0.1100
0.5%		-0.1100
0.0%	minimum	-0.1100

Moments

Mean	0.0916667
Std Dev	0.2762355
Std Err Mean	0.0797423
upper 95% Mean	0.2671783
lower 95% Mean	-0.083845
N	12

Exhibit A4ao
Anion=Nitrite, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



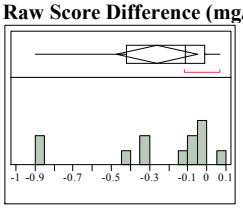
Quantiles

100.0%	maximum	1.010
99.5%		1.010
97.5%		1.010
90.0%		1.002
75.0%	quartile	0.150
50.0%	median	0.030
25.0%	quartile	-0.060
10.0%		-0.254
2.5%		-0.290
0.5%		-0.290
0.0%	minimum	-0.290

Moments

Mean	0.1754545
Std Dev	0.4216008
Std Err Mean	0.1271174
upper 95% Mean	0.4586898
lower 95% Mean	-0.107781
N	11

Exhibit A4aq
Anion=Oxalate, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



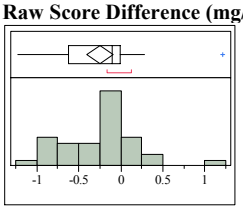
Quantiles

100.0%	maximum	0.0700
99.5%		0.0700
97.5%		0.0700
90.0%		0.0460
75.0%	quartile	-0.0125
50.0%	median	-0.1100
25.0%	quartile	-0.4200
10.0%		-0.8940
2.5%		-0.9000
0.5%		-0.9000
0.0%	minimum	-0.9000

Moments

Mean	-0.260833
Std Dev	0.3317024
Std Err Mean	0.0957542
upper 95% Mean	-0.05008
lower 95% Mean	-0.471587
N	12

Exhibit A4as
Anion=Oxalate, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



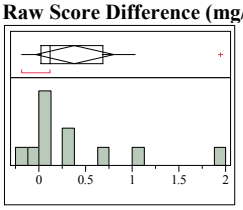
Quantiles

100.0%	maximum	1.200
99.5%		1.200
97.5%		1.200
90.0%		0.182
75.0%	quartile	-0.010
50.0%	median	-0.100
25.0%	quartile	-0.620
10.0%		-0.900
2.5%		-1.220
0.5%		-1.220
0.0%	minimum	-1.220

Moments

Mean	-0.251714
Std Dev	0.462331
Std Err Mean	0.0781482
upper 95% Mean	-0.092898
lower 95% Mean	-0.410531
N	35

Exhibit A4au
Anion=Phosphate, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



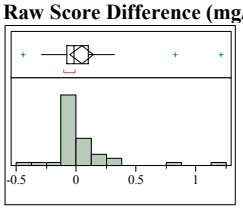
Quantiles

100.0%	maximum	1.930
99.5%		1.930
97.5%		1.930
90.0%		1.750
75.0%	quartile	0.690
50.0%	median	0.120
25.0%	quartile	0.020
10.0%		-0.162
2.5%		-0.180
0.5%		-0.180
0.0%	minimum	-0.180

Moments

Mean	0.3854545
Std Dev	0.6225972
Std Err Mean	0.1877201
upper 95% Mean	0.803721
lower 95% Mean	-0.032812
N	11

Exhibit A4ap
Anion=Nitrite, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



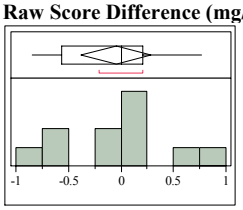
Quantiles

100.0%	maximum	1.200
99.5%		1.200
97.5%		1.200
90.0%		0.296
75.0%	quartile	0.100
50.0%	median	-0.020
25.0%	quartile	-0.080
10.0%		-0.112
2.5%		-0.450
0.5%		-0.450
0.0%	minimum	-0.450

Moments

Mean	0.0474286
Std Dev	0.2821904
Std Err Mean	0.0476989
upper 95% Mean	0.1443644
lower 95% Mean	-0.049507
N	35

Exhibit A4ar
Anion=Oxalate, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



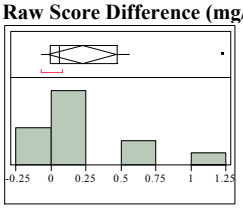
Quantiles

100.0%	maximum	0.7700
99.5%		0.7700
97.5%		0.7700
90.0%		0.7180
75.0%	quartile	0.2100
50.0%	median	0.0000
25.0%	quartile	-0.5700
10.0%		-0.8100
2.5%		-0.8500
0.5%		-0.8500
0.0%	minimum	-0.8500

Moments

Mean	-0.047273
Std Dev	0.4971537
Std Err Mean	0.1498975
upper 95% Mean	0.2867197
lower 95% Mean	-0.381265
N	11

Exhibit A4at
Anion=Phosphate, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



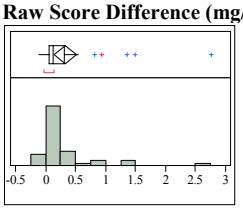
Quantiles

100.0%	maximum	1.230
99.5%		1.230
97.5%		1.230
90.0%		1.029
75.0%	quartile	0.477
50.0%	median	0.060
25.0%	quartile	-0.005
10.0%		-0.067
2.5%		-0.070
0.5%		-0.070
0.0%	minimum	-0.070

Moments

Mean	0.2258333
Std Dev	0.3826572
Std Err Mean	0.1104636
upper 95% Mean	0.4689621
lower 95% Mean	-0.017295
N	12

Exhibit A4av
Anion=Phosphate, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



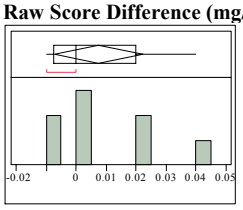
Quantiles

100.0%	maximum	2.740
99.5%		2.740
97.5%		2.740
90.0%		1.088
75.0%	quartile	0.310
50.0%	median	0.120
25.0%	quartile	0.050
10.0%		-0.014
2.5%		-0.110
0.5%		-0.110
0.0%	minimum	-0.110

Moments

Mean	0.328
Std Dev	0.5556649
Std Err Mean	0.0939245
upper 95% Mean	0.5188776
lower 95% Mean	0.1371224
N	35

Exhibit A4aw
Anion=Sulfate, Type of Sample=process, Tank=SME
Raw Score Difference (mg/L)



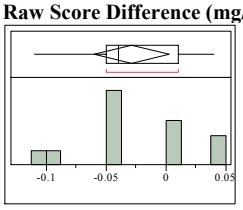
Quantiles

100.0%	maximum	0.0400
99.5%		0.0400
97.5%		0.0400
90.0%		0.0400
75.0%	quartile	0.0200
50.0%	median	0.0000
25.0%	quartile	-0.0075
10.0%		-0.0100
2.5%		-0.0100
0.5%		-0.0100
0.0%	minimum	-0.0100

Moments

Mean	0.0075
Std Dev	0.0175255
Std Err Mean	0.0061962
upper 95% Mean	0.0221517
lower 95% Mean	-0.007152
N	8

Exhibit A4ay
Anion=Sulfate, Type of Sample=process, Tank=SR
Raw Score Difference (mg/L)



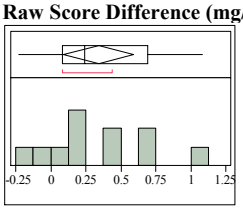
Quantiles

100.0%	maximum	0.0400
99.5%		0.0400
97.5%		0.0400
90.0%		0.0400
75.0%	quartile	0.0100
50.0%	median	-0.0400
25.0%	quartile	-0.0500
10.0%		-0.1070
2.5%		-0.1100
0.5%		-0.1100
0.0%	minimum	-0.1100

Moments

Mean	-0.028333
Std Dev	0.0491442
Std Err Mean	0.0141867
upper 95% Mean	0.0028914
lower 95% Mean	-0.059558
N	12

Exhibit A4aaa
Anion=Sulfate, Type of Sample=standard, Tank=SP
Raw Score Difference (mg/L)



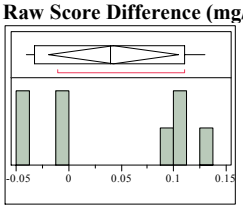
Quantiles

100.0%	maximum	1.080
99.5%		1.080
97.5%		1.080
90.0%		1.002
75.0%	quartile	0.690
50.0%	median	0.240
25.0%	quartile	0.080
10.0%		-0.190
2.5%		-0.230
0.5%		-0.230
0.0%	minimum	-0.230

Moments

Mean	0.3418182
Std Dev	0.3732779
Std Err Mean	0.1125475
upper 95% Mean	0.5925897
lower 95% Mean	0.0910467
N	11

Exhibit A4ax
Anion=Sulfate, Type of Sample=process, Tank=SP
Raw Score Difference (mg/L)



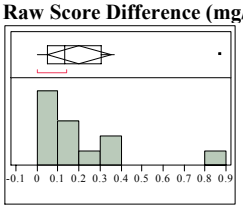
Quantiles

100.0%	maximum	0.1300
99.5%		0.1300
97.5%		0.1300
90.0%		0.1300
75.0%	quartile	0.1100
50.0%	median	0.0400
25.0%	quartile	-0.0325
10.0%		-0.0400
2.5%		-0.0400
0.5%		-0.0400
0.0%	minimum	-0.0400

Moments

Mean	0.0425
Std Dev	0.0738241
Std Err Mean	0.0261008
upper 95% Mean	0.1042185
lower 95% Mean	-0.019219
N	8

Exhibit A4az
Anion=Sulfate, Type of Sample=standard, Tank=SME
Raw Score Difference (mg/L)



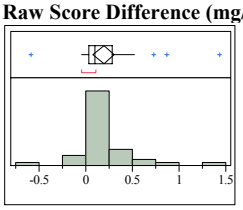
Quantiles

100.0%	maximum	0.87000
99.5%		0.87000
97.5%		0.87000
90.0%		0.72000
75.0%	quartile	0.30500
50.0%	median	0.13000
25.0%	quartile	0.04750
10.0%		0.00300
2.5%		0.00000
0.5%		0.00000
0.0%	minimum	0.00000

Moments

Mean	0.2016667
Std Dev	0.2413535
Std Err Mean	0.0696728
upper 95% Mean	0.3550154
lower 95% Mean	0.048318
N	12

Exhibit A4aab
Anion=Sulfate, Type of Sample=standard, Tank=SR
Raw Score Difference (mg/L)



Quantiles

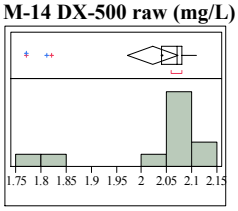
100.0%	maximum	1.420
99.5%		1.420
97.5%		1.420
90.0%		0.600
75.0%	quartile	0.280
50.0%	median	0.100
25.0%	quartile	0.030
10.0%		-0.030
2.5%		-0.600
0.5%		-0.600
0.0%	minimum	-0.600

Moments

Mean	0.192
Std Dev	0.3221965
Std Err Mean	0.0544611
upper 95% Mean	0.3026784
lower 95% Mean	0.0813216
N	35

Exhibit A5a
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Chloride

M-14 DX-500 raw (mg/L)



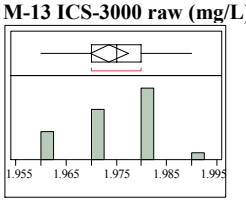
Quantiles

100.0%	maximum	2.1100
99.5%		2.1100
97.5%		2.1100
90.0%		2.1000
75.0%	quartile	2.0800
50.0%	median	2.0700
25.0%	quartile	2.0400
10.0%		1.7820
2.5%		1.7700
0.5%		1.7700
0.0%	minimum	1.7700

Moments

Mean	2.0222727
Std Dev	0.1127125
Std Err Mean	0.0240304
upper 95% Mean	2.0722467
lower 95% Mean	1.9722988
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

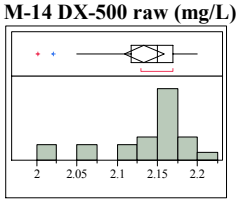
100.0%	maximum	1.9900
99.5%		1.9900
97.5%		1.9900
90.0%		1.9800
75.0%	quartile	1.9800
50.0%	median	1.9750
25.0%	quartile	1.9700
10.0%		1.9600
2.5%		1.9600
0.5%		1.9600
0.0%	minimum	1.9600

Moments

Mean	1.9736364
Std Dev	0.0084771
Std Err Mean	0.0018073
upper 95% Mean	1.9773949
lower 95% Mean	1.9698778
N	22

Exhibit A5b
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Fluoride

M-14 DX-500 raw (mg/L)



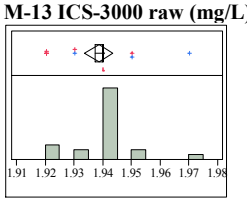
Quantiles

100.0%	maximum	2.2000
99.5%		2.2000
97.5%		2.2000
90.0%		2.1900
75.0%	quartile	2.1700
50.0%	median	2.1500
25.0%	quartile	2.1175
10.0%		2.0290
2.5%		2.0000
0.5%		2.0000
0.0%	minimum	2.0000

Moments

Mean	2.1336364
Std Dev	0.055767
Std Err Mean	0.0118896
upper 95% Mean	2.1583621
lower 95% Mean	2.1089107
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

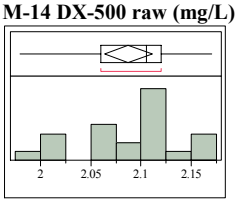
100.0%	maximum	1.9700
99.5%		1.9700
97.5%		1.9700
90.0%		1.9500
75.0%	quartile	1.9400
50.0%	median	1.9400
25.0%	quartile	1.9375
10.0%		1.9200
2.5%		1.9200
0.5%		1.9200
0.0%	minimum	1.9200

Moments

Mean	1.9386364
Std Dev	0.0108213
Std Err Mean	0.0023071
upper 95% Mean	1.9434342
lower 95% Mean	1.9338385
N	22

Exhibit A5c
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Formate

M-14 DX-500 raw (mg/L)



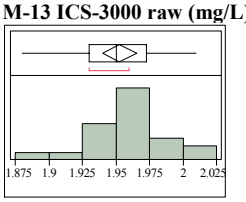
Quantiles

100.0%	maximum	2.1700
99.5%		2.1700
97.5%		2.1700
90.0%		2.1570
75.0%	quartile	2.1200
50.0%	median	2.1050
25.0%	quartile	2.0600
10.0%		2.0000
2.5%		1.9800
0.5%		1.9800
0.0%	minimum	1.9800

Moments

Mean	2.0872727
Std Dev	0.0538235
Std Err Mean	0.0114752
upper 95% Mean	2.1111367
lower 95% Mean	2.0634087
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

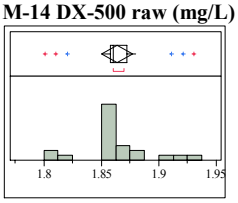
100.0%	maximum	2.0100
99.5%		2.0100
97.5%		2.0100
90.0%		1.9940
75.0%	quartile	1.9725
50.0%	median	1.9500
25.0%	quartile	1.9300
10.0%		1.9160
2.5%		1.8800
0.5%		1.8800
0.0%	minimum	1.8800

Moments

Mean	1.9527273
Std Dev	0.0289798
Std Err Mean	0.0061785
upper 95% Mean	1.9655762
lower 95% Mean	1.9398784
N	22

Exhibit A5d
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Nitrate

M-14 DX-500 raw (mg/L)



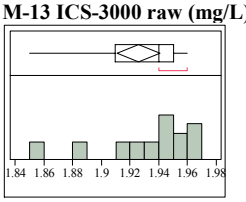
Quantiles

100.0%	maximum	1.9300
99.5%		1.9300
97.5%		1.9300
90.0%		1.9170
75.0%	quartile	1.8725
50.0%	median	1.8600
25.0%	quartile	1.8575
10.0%		1.8130
2.5%		1.8000
0.5%		1.8000
0.0%	minimum	1.8000

Moments

Mean	1.8636364
Std Dev	0.0306354
Std Err Mean	0.0065315
upper 95% Mean	1.8772193
lower 95% Mean	1.8500534
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

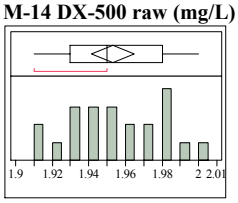
100.0%	maximum	1.9600
99.5%		1.9600
97.5%		1.9600
90.0%		1.9600
75.0%	quartile	1.9500
50.0%	median	1.9400
25.0%	quartile	1.9100
10.0%		1.8590
2.5%		1.8500
0.5%		1.8500
0.0%	minimum	1.8500

Moments

Mean	1.9259091
Std Dev	0.0336168
Std Err Mean	0.0071671
upper 95% Mean	1.9408139
lower 95% Mean	1.9110043
N	22

Exhibit A5e
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Nitrite

M-14 DX-500 raw (mg/L)



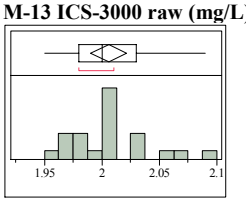
Quantiles

100.0%	maximum	2.0000
99.5%		2.0000
97.5%		2.0000
90.0%		1.9870
75.0%	quartile	1.9800
50.0%	median	1.9500
25.0%	quartile	1.9300
10.0%		1.9130
2.5%		1.9100
0.5%		1.9100
0.0%	minimum	1.9100

Moments

Mean	1.9531818
Std Dev	0.025891
Std Err Mean	0.00552
upper 95% Mean	1.9646613
lower 95% Mean	1.9417024
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

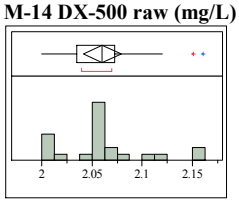
100.0%	maximum	2.0900
99.5%		2.0900
97.5%		2.0900
90.0%		2.0670
75.0%	quartile	2.0300
50.0%	median	2.0000
25.0%	quartile	1.9800
10.0%		1.9700
2.5%		1.9500
0.5%		1.9500
0.0%	minimum	1.9500

Moments

Mean	2.0059091
Std Dev	0.0347315
Std Err Mean	0.0074048
upper 95% Mean	2.0213082
lower 95% Mean	1.99051
N	22

Exhibit A5f
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Oxalate

M-14 DX-500 raw (mg/L)



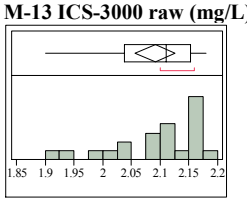
Quantiles

100.0%	maximum	2.1600
99.5%		2.1600
97.5%		2.1600
90.0%		2.1410
75.0%	quartile	2.0725
50.0%	median	2.0600
25.0%	quartile	2.0350
10.0%		2.0000
2.5%		2.0000
0.5%		2.0000
0.0%	minimum	2.0000

Moments

Mean	2.0604545
Std Dev	0.0433675
Std Err Mean	0.009246
upper 95% Mean	2.0796826
lower 95% Mean	2.0412265
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

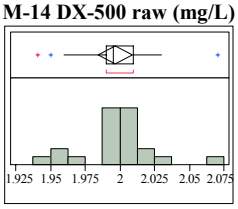
100.0%	maximum	2.1800
99.5%		2.1800
97.5%		2.1800
90.0%		2.1600
75.0%	quartile	2.1525
50.0%	median	2.1100
25.0%	quartile	2.0375
10.0%		1.9480
2.5%		1.9000
0.5%		1.9000
0.0%	minimum	1.9000

Moments

Mean	2.0913636
Std Dev	0.0773548
Std Err Mean	0.0164921
upper 95% Mean	2.1256608
lower 95% Mean	2.0570664
N	22

Exhibit A5g
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Phosphate

M-14 DX-500 raw (mg/L)



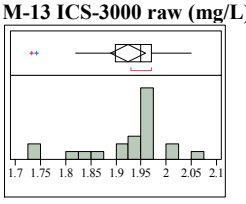
Quantiles

100.0%	maximum	2.0700
99.5%		2.0700
97.5%		2.0700
90.0%		2.0270
75.0%	quartile	2.0100
50.0%	median	1.9950
25.0%	quartile	1.9900
10.0%		1.9530
2.5%		1.9400
0.5%		1.9400
0.0%	minimum	1.9400

Moments

Mean	1.9968182
Std Dev	0.0276692
Std Err Mean	0.0058991
upper 95% Mean	2.009086
lower 95% Mean	1.9845503
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

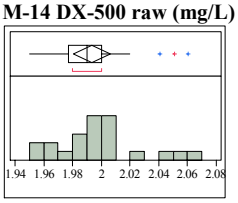
100.0%	maximum	2.0500
99.5%		2.0500
97.5%		2.0500
90.0%		2.0000
75.0%	quartile	1.9700
50.0%	median	1.9500
25.0%	quartile	1.9000
10.0%		1.7640
2.5%		1.7300
0.5%		1.7300
0.0%	minimum	1.7300

Moments

Mean	1.9236364
Std Dev	0.0793153
Std Err Mean	0.0169101
upper 95% Mean	1.9588028
lower 95% Mean	1.88847
N	22

Exhibit A5h
Distributions
Type of Sample=standard,
Bottle ID=2ppm,
Anion=Sulfate

M-14 DX-500 raw (mg/L)



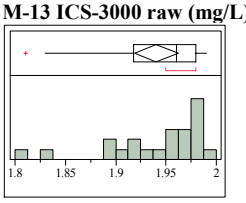
Quantiles

100.0%	maximum	2.0600
99.5%		2.0600
97.5%		2.0600
90.0%		2.0470
75.0%	quartile	2.0000
50.0%	median	1.9900
25.0%	quartile	1.9775
10.0%		1.9530
2.5%		1.9500
0.5%		1.9500
0.0%	minimum	1.9500

Moments

Mean	1.9931818
Std Dev	0.029177
Std Err Mean	0.0062206
upper 95% Mean	2.0061182
lower 95% Mean	1.9802455
N	22

M-13 ICS-3000 raw (mg/L)



Quantiles

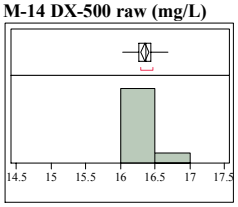
100.0%	maximum	1.9900
99.5%		1.9900
97.5%		1.9900
90.0%		1.9800
75.0%	quartile	1.9800
50.0%	median	1.9600
25.0%	quartile	1.9175
10.0%		1.8480
2.5%		1.8100
0.5%		1.8100
0.0%	minimum	1.8100

Moments

Mean	1.9404545
Std Dev	0.0495193
Std Err Mean	0.0105576
upper 95% Mean	1.9624102
lower 95% Mean	1.9184989
N	22

Exhibit A6a
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Chloride

M-14 DX-500 raw (mg/L)



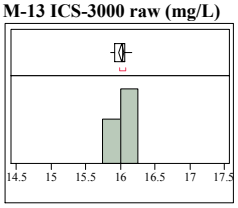
Quantiles

100.0%	maximum	16.690
99.5%		16.690
97.5%		16.690
90.0%		16.550
75.0%	quartile	16.448
50.0%	median	16.375
25.0%	quartile	16.263
10.0%		16.140
2.5%		16.030
0.5%		16.030
0.0%	minimum	16.030

Moments

Mean	16.354583
Std Dev	0.1498689
Std Err Mean	0.0305919
upper 95% Mean	16.417867
lower 95% Mean	16.291299
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

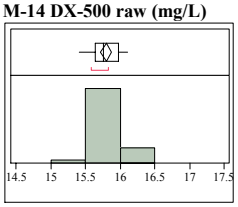
100.0%	maximum	16.160
99.5%		16.160
97.5%		16.160
90.0%		16.150
75.0%	quartile	16.068
50.0%	median	16.030
25.0%	quartile	15.925
10.0%		15.885
2.5%		15.860
0.5%		15.860
0.0%	minimum	15.860

Moments

Mean	16.015
Std Dev	0.0882191
Std Err Mean	0.0180076
upper 95% Mean	16.052252
lower 95% Mean	15.977748
N	24

Exhibit A6b
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Fluoride

M-14 DX-500 raw (mg/L)



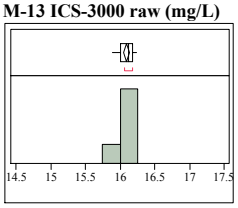
Quantiles

100.0%	maximum	16.110
99.5%		16.110
97.5%		16.110
90.0%		16.060
75.0%	quartile	15.985
50.0%	median	15.765
25.0%	quartile	15.643
10.0%		15.590
2.5%		15.420
0.5%		15.420
0.0%	minimum	15.420

Moments

Mean	15.8
Std Dev	0.1899886
Std Err Mean	0.0387813
upper 95% Mean	15.880225
lower 95% Mean	15.719775
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

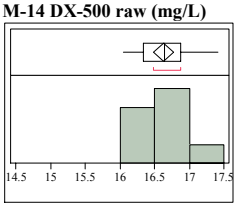
100.0%	maximum	16.240
99.5%		16.240
97.5%		16.240
90.0%		16.225
75.0%	quartile	16.178
50.0%	median	16.120
25.0%	quartile	16.010
10.0%		15.930
2.5%		15.890
0.5%		15.890
0.0%	minimum	15.890

Moments

Mean	16.096667
Std Dev	0.1026461
Std Err Mean	0.0209526
upper 95% Mean	16.14001
lower 95% Mean	16.053323
N	24

Exhibit A6c
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Formate

M-14 DX-500 raw (mg/L)



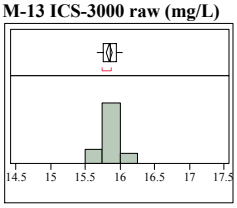
Quantiles

100.0%	maximum	17.420
99.5%		17.420
97.5%		17.420
90.0%		17.125
75.0%	quartile	16.870
50.0%	median	16.650
25.0%	quartile	16.347
10.0%		16.105
2.5%		16.050
0.5%		16.050
0.0%	minimum	16.050

Moments

Mean	16.62875
Std Dev	0.3511139
Std Err Mean	0.0716708
upper 95% Mean	16.777012
lower 95% Mean	16.480488
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

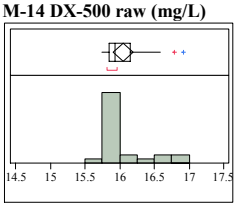
100.0%	maximum	16.030
99.5%		16.030
97.5%		16.030
90.0%		16.000
75.0%	quartile	15.943
50.0%	median	15.860
25.0%	quartile	15.763
10.0%		15.725
2.5%		15.680
0.5%		15.680
0.0%	minimum	15.680

Moments

Mean	15.850833
Std Dev	0.1012494
Std Err Mean	0.0206675
upper 95% Mean	15.893587
lower 95% Mean	15.808079
N	24

Exhibit A6d
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Nitrate

M-14 DX-500 raw (mg/L)



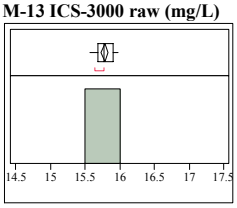
Quantiles

100.0%	maximum	16.900
99.5%		16.900
97.5%		16.900
90.0%		16.680
75.0%	quartile	16.150
50.0%	median	15.930
25.0%	quartile	15.850
10.0%		15.775
2.5%		15.740
0.5%		15.740
0.0%	minimum	15.740

Moments

Mean	16.0525
Std Dev	0.3314297
Std Err Mean	0.0676528
upper 95% Mean	16.19245
lower 95% Mean	15.91255
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

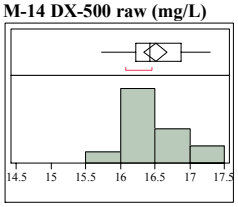
100.0%	maximum	15.980
99.5%		15.980
97.5%		15.980
90.0%		15.960
75.0%	quartile	15.908
50.0%	median	15.775
25.0%	quartile	15.683
10.0%		15.645
2.5%		15.570
0.5%		15.570
0.0%	minimum	15.570

Moments

Mean	15.787083
Std Dev	0.1227397
Std Err Mean	0.0250541
upper 95% Mean	15.838912
lower 95% Mean	15.735255
N	24

Exhibit A6e
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Nitrite

M-14 DX-500 raw (mg/L)



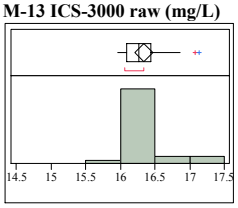
Quantiles

100.0%	maximum	17.290
99.5%		17.290
97.5%		17.290
90.0%		17.100
75.0%	quartile	16.878
50.0%	median	16.430
25.0%	quartile	16.228
10.0%		16.025
2.5%		15.730
0.5%		15.730
0.0%	minimum	15.730

Moments

Mean	16.509583
Std Dev	0.3955346
Std Err Mean	0.0807382
upper 95% Mean	16.676603
lower 95% Mean	16.342564
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

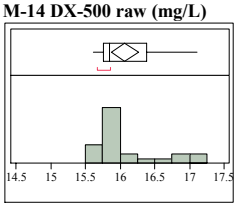
100.0%	maximum	17.120
99.5%		17.120
97.5%		17.120
90.0%		16.960
75.0%	quartile	16.435
50.0%	median	16.270
25.0%	quartile	16.095
10.0%		16.040
2.5%		15.960
0.5%		15.960
0.0%	minimum	15.960

Moments

Mean	16.34375
Std Dev	0.313158
Std Err Mean	0.0639231
upper 95% Mean	16.475985
lower 95% Mean	16.211515
N	24

Exhibit A6f
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Oxalate

M-14 DX-500 raw (mg/L)



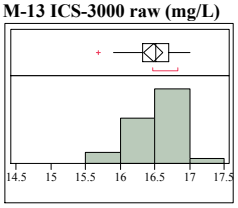
Quantiles

100.0%	maximum	17.110
99.5%		17.110
97.5%		17.110
90.0%		16.975
75.0%	quartile	16.380
50.0%	median	15.850
25.0%	quartile	15.760
10.0%		15.685
2.5%		15.610
0.5%		15.610
0.0%	minimum	15.610

Moments

Mean	16.071667
Std Dev	0.470057
Std Err Mean	0.09595
upper 95% Mean	16.270154
lower 95% Mean	15.873179
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

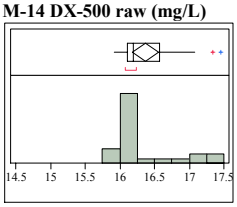
100.0%	maximum	17.010
99.5%		17.010
97.5%		17.010
90.0%		16.875
75.0%	quartile	16.705
50.0%	median	16.515
25.0%	quartile	16.325
10.0%		15.975
2.5%		15.680
0.5%		15.680
0.0%	minimum	15.680

Moments

Mean	16.484583
Std Dev	0.3261899
Std Err Mean	0.0665832
upper 95% Mean	16.622321
lower 95% Mean	16.346845
N	24

Exhibit A6g
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Phosphate

M-14 DX-500 raw (mg/L)



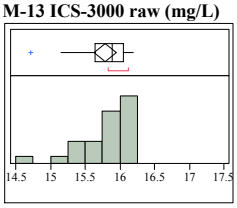
Quantiles

100.0%	maximum	17.440
99.5%		17.440
97.5%		17.440
90.0%		17.205
75.0%	quartile	16.578
50.0%	median	16.195
25.0%	quartile	16.108
10.0%		15.980
2.5%		15.920
0.5%		15.920
0.0%	minimum	15.920

Moments

Mean	16.3675
Std Dev	0.4436435
Std Err Mean	0.0905584
upper 95% Mean	16.554834
lower 95% Mean	16.180166
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

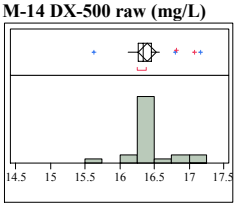
100.0%	maximum	16.190
99.5%		16.190
97.5%		16.190
90.0%		16.145
75.0%	quartile	16.058
50.0%	median	15.890
25.0%	quartile	15.650
10.0%		15.240
2.5%		14.700
0.5%		14.700
0.0%	minimum	14.700

Moments

Mean	15.787083
Std Dev	0.3687167
Std Err Mean	0.075264
upper 95% Mean	15.942779
lower 95% Mean	15.631388
N	24

Exhibit A6h
Distributions
Type of Sample=standard,
Bottle ID=16ppm,
Anion=Sulfate

M-14 DX-500 raw (mg/L)



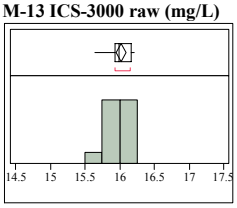
Quantiles

100.0%	maximum	17.150
99.5%		17.150
97.5%		17.150
90.0%		16.940
75.0%	quartile	16.453
50.0%	median	16.340
25.0%	quartile	16.265
10.0%		16.145
2.5%		15.610
0.5%		15.610
0.0%	minimum	15.610

Moments

Mean	16.400417
Std Dev	0.3121939
Std Err Mean	0.0637263
upper 95% Mean	16.532245
lower 95% Mean	16.268589
N	24

M-13 ICS-3000 raw (mg/L)



Quantiles

100.0%	maximum	16.210
99.5%		16.210
97.5%		16.210
90.0%		16.210
75.0%	quartile	16.173
50.0%	median	15.990
25.0%	quartile	15.933
10.0%		15.790
2.5%		15.650
0.5%		15.650
0.0%	minimum	15.650

Moments

Mean	16.022083
Std Dev	0.1593186
Std Err Mean	0.0325208
upper 95% Mean	16.089358
lower 95% Mean	15.954809
N	24

Distribution:

C.J. Bannochie, 773-42A
D. R. Best, 999-W
J. M. Bricker, 704-27S
A. Y. Brown, 704-28S
C. J. Coleman, 773-A
T. B. Edwards, 999-W
M. T. Feller, 704-28S
T. L. Fellinger, 704-26S
C. C. Herman, 999-W
J. F. Iaukea, 704-30S
P. L. Lee, 773-42A
R. N. Mahannah, 773-28S
S. L. Marra, 773-A
R. T. McNew, 704-27S
J. E. Occhipinti, 704-S
A. B. Osteen, 704-S
D. K. Peeler, 999-W
J. W. Ray, 704-S
D. C. Sherburne, 704-S
M. E. Stone, 999-W
J. P. Vaughan, 773-41A