

Chemical Analysis Report

NE-DIST-2022-04-21-02

Florida Department of Environmental Protection
Central Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

Event Description: **Nassau West 2022**
Request ID: **RQ-2022-04-11-25**
Customer: **NE-DIST**
Project ID: **SMP**

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Certified by: Dr. rer. nat. Bettina Steinbock, Environmental Administrator

Date Certified: 19-MAY-2022 12:14



Case Narrative

Unless otherwise noted, all samples included in this report were received in accordance with protocols referenced in Chapter 62-160, Florida Administrative Code (F.A.C.). Results published in this report pertain only to the samples as submitted to, and received by the laboratory. All times in this report are adjusted to the applicable Eastern Time Zone (EST or EDT).

Results for the following analytical groups are included in this report: Metals and Nutrients.

Scientific notation may be used in reporting very large or small values. Values reported using scientific notation will take the form of the following example: 1.3E+03, which is equivalent to 1.3×10^3 or 1300.

Unless otherwise noted, analytical values for soil and sediment samples are reported on a dry weight basis, and analytical values for waste and tissue samples are reported on a wet weight basis.

Results for TNI accredited tests met requirements established by The NELAC Institute. A double asterisk (**) is used to indicate an analyte/matrix/method for which the laboratory is not TNI accredited by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

Any significant anomalies or deviations from established protocols are documented in Non-Conformance Reports, which, where appropriate, are included within this analytical report. Additional comments related to specific analytical tests may be included as remarks following the analytical results for each sample. Such comments and remarks are for informational purposes only and are not intended to convey judgement about the usability of the reported data.

A quality control report on the performance of the test method for the submitted samples is included. Uncertainty associated with the analytical results contained in this report can be estimated from the reported quality assurance results and from published quality control acceptance limits for each analytical test. Matrix quality control results (matrix spike recoveries and matrix sample precision) pertain only to the matrix sample tested and do not necessarily reflect test method performance for other samples.

Typical matrix quality control (QC) measurements may include matrix spike recovery, matrix spike duplicate recovery, matrix spike precision and matrix sample precision. Not all matrix QC results may be available or reportable; where they are not an explanation is provided. Typical reasons for unavailable QC results include, but are not limited to, a) insufficient matrix sample to perform some or all QC measurements; b) analyte concentration in the sample replicated was too low for a meaningful measurement of precision and c) analyte concentration in the matrix sample spiked was too high (relative to the amount of analyte spiked) for a meaningful measurement of recovery. Where matrix QC results are unavailable, other method performance metrics (e.g., LCS recovery, LCS precision, surrogate recovery) may be used to assess performance of the method. Comments explaining any missing QC measurements are not intended to convey any adverse conclusions about the quality of the reported data.

Precision is reported as relative percent difference unless otherwise noted.

Quality Control codes as defined below may be used in this report to indicate results that are associated with one or more quality control elements which did not fall within established test method criteria. Such results may be qualified as estimates using a J qualifier as required by 62-160 F.A.C. Explanations are included in the report for any results that were reported as estimates for other reasons.

QC Codes used in this report may include:

- LCS – Recovery for the batch Laboratory Control Sample (LCS) was outside existing control limits;
- MS – Recovery for the batch matrix spike (MS) was outside existing control limits;
- CCV – Recovery for a continuing calibration verification (CCV) standard was outside existing control limits;
- SUR – Recovery of a surrogate (SUR) for associated analytes was outside existing control limits;
- RPD – The precision, measured as relative percent difference (RPD), of batch replicate measurements was outside existing control limits;
- RSD – The precision, measured as relative standard deviation (RSD), of batch replicate measurements was outside existing control limits;
- SMP – Sample - used precision derived from replicate analyses of a sample;

The following data qualifiers are used, where applicable, in this report as specified in 62-160 F.A.C.

- A - Value reported is the mean of two or more determinations.
- B - Results based on colony counts outside the acceptable range.
- I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
- J - Estimated value and/or the analysis did not meet established quality control criteria.
- K - Actual value is known to be less than value given.
- L - Actual value is known to be greater than value given.
- N - Presumptive evidence of presence of material.
- O - Sampled, but analysis lost or not performed.
- Q - Sample held beyond normal holding time.
- T - Value reported is less than the criterion of detection.
- U - Material was analyzed for but not detected. The reported value is the method detection limit for the sample analyzed.
- V - Analyte was detected in both sample and method blank.
- X - Too few individuals to calculate SCI value.
- Y - The laboratory analysis was from an unpreserved or improperly preserved sample. The data may not be accurate.
- Z - Colonies were too numerous to count (TNTC).

Quality control information from overflow laboratories may not be included in this report. Please refer to the associated report from the overflow laboratory for additional information.

Sample Location: Tributary to Deep Creek @ Kinard Rd.

Collection Date/Time: 04/20/2022 12:55

Field ID: 19010083

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321245	DEP SOP: NU-094-1	Color (true)**	390		PCU	P412729	
	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P412724	
	EPA 300.0 Rev. 2.1	Chloride	7.0		mg Cl/L	P413119	
		Sulfate	0.65		mg SO4/L	P413122	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P413184	
	SM 2540 C-2011	TDS	89		mg/L	P413206	
	SM 2540 D-2011	TSS	5	I	mg/L	P413356	
2321248	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P413189	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.005		mg N/L	P413376	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.82		mg N/L	P413214	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.005	I	mg N/L	P412881	
	EPA 365.1 Rev. 2.0	Total-P	0.024		mg P/L	P413337	
2321277	SM 5310 B-2011	Organic Carbon	31		mg C/L	P413057	
	EPA 200.7 Rev. 4.4	Calcium	3.26		mg/L	P412803	
		Iron	1.73E+03		ug/L	P412803	
		Magnesium	0.54		mg/L	P412803	
		Potassium	0.30	U	mg/L	P412803	
		Sodium	4.4		mg/L	P412803	
		Strontium	10.6		ug/L	P412803	
		Tin	3.0	U	ug/L	P412803	
		Titanium	2.1	I	ug/L	P412803	
		Vanadium	2.0	U	ug/L	P412803	
		Zinc	5.1	I	ug/L	P412803	
	EPA 200.8 Rev. 5.4	Aluminum	764		ug/L	P412803	
		Antimony	0.055	I	ug/L	P412803	
		Arsenic	0.53		ug/L	P412803	
		Barium	11.4		ug/L	P412803	
		Beryllium	0.066		ug/L	P412803	
		Boron**	12.3		ug/L	P412803	
		Cadmium	0.020	U	ug/L	P412803	
		Chromium	0.89	I	ug/L	P412803	
		Cobalt	0.266		ug/L	P412803	
		Copper	0.43	I	ug/L	P412803	
		Lead	0.94		ug/L	P412803	
		Manganese	8.55		ug/L	P412803	
		Molybdenum	0.15	U	ug/L	P412803	
		Nickel	0.75	I	ug/L	P412803	
		Selenium	0.20	U	ug/L	P412803	
		Silver	0.010	U	ug/L	P412803	
		Thallium	0.10	U	ug/L	P412803	
	SM 2340 B-2011	Hardness	10.4		mg/L	P412803	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 04/28/2022.

Sample Location: UNNAMED STREAM @ CR 121

Collection Date/Time: 04/20/2022 13:35

Field ID: 19010127

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321246	DEP SOP: NU-094-1	Color (true)**	380		PCU	P412729	
	EPA 180.1 Rev. 2.0	Turbidity	1.4		NTU	P412724	
	EPA 300.0 Rev. 2.1	Chloride	6.0		mg Cl/L	P413119	
		Sulfate	0.95		mg SO4/L	P413122	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P413184	
	SM 2540 C-2011	TDS	76		mg/L	P413206	
	SM 2540 D-2011	TSS	2	I	mg/L	P413356	
2321249	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P413189	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.010		mg N/L	P413376	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P413214	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P412881	
	EPA 365.1 Rev. 2.0	Total-P	0.022		mg P/L	P413337	
2321278	SM 5310 B-2011	Organic Carbon	29		mg C/L	P413057	
	EPA 200.7 Rev. 4.4	Calcium	3.40		mg/L	P412803	
		Iron	1.34E+03		ug/L	P412803	
		Magnesium	0.66		mg/L	P412803	
		Potassium	0.30	U	mg/L	P412803	
		Sodium	3.8		mg/L	P412803	
		Strontium	11.4		ug/L	P412803	
		Tin	3.0	U	ug/L	P412803	
		Titanium	2.0	I	ug/L	P412803	
		Vanadium	2.0	U	ug/L	P412803	
		Zinc	5.0	U	ug/L	P412803	
	EPA 200.8 Rev. 5.4	Aluminum	569		ug/L	P412803	
		Antimony	0.051	I	ug/L	P412803	
		Arsenic	0.45		ug/L	P412803	
		Barium	12.9		ug/L	P412803	
		Beryllium	0.043		ug/L	P412803	
		Boron**	15.0		ug/L	P412803	
		Cadmium	0.020	U	ug/L	P412803	
		Chromium	0.69	I	ug/L	P412803	
		Cobalt	0.176		ug/L	P412803	
		Copper	0.40	U	ug/L	P412803	
		Lead	0.51		ug/L	P412803	
		Manganese	9.41		ug/L	P412803	
		Molybdenum	0.15	U	ug/L	P412803	
		Nickel	0.74	I	ug/L	P412803	
		Selenium	0.20	U	ug/L	P412803	
		Silver	0.010	U	ug/L	P412803	
		Thallium	0.10	U	ug/L	P412803	
	SM 2340 B-2011	Hardness	11.2		mg/L	P412803	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 04/28/2022.

Sample Location: Unnamed Drain to Brandy Branch at Dillon Rd. Collection Date/Time: 04/20/2022 10:45

Field ID: G4NE0297

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321247	DEP SOP: NU-094-1	Color (true)**	470		PCU	P412729	
	EPA 180.1 Rev. 2.0	Turbidity	1.8		NTU	P412725	
	EPA 300.0 Rev. 2.1	Chloride	10		mg Cl/L	P413119	
		Sulfate	0.32	I	mg SO4/L	P413122	
	SM 2320 B-2011	Total Alkalinity	0.65	U	mg CaCO3/L	P413184	
	SM 2540 C-2011	TDS	108		mg/L	P413206	
	SM 2540 D-2011	TSS	2	I	mg/L	P413356	
2321250	SM 4500-F- C-2011	Fluoride	0.035	U	mg F/L	P413189	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.020		mg N/L	P413502	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P413268	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P412882	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P413868	
2321279	SM 5310 B-2011	Organic Carbon	49		mg C/L	P413057	
	EPA 200.7 Rev. 4.4	Calcium	1.59		mg/L	P412803	
		Iron	1.41E+03		ug/L	P412803	
		Magnesium	0.66		mg/L	P412803	
		Potassium	0.30	U	mg/L	P412803	
		Sodium	5.7		mg/L	P412803	
		Strontium	11.1		ug/L	P412803	
		Tin	3.0	U	ug/L	P412803	
		Titanium	1.8	I	ug/L	P412803	
		Vanadium	2.0	U	ug/L	P412803	
		Zinc	5.0	U	ug/L	P412803	
	EPA 200.8 Rev. 5.4	Aluminum	581		ug/L	P412803	
		Antimony	0.050	U	ug/L	P412803	
		Arsenic	0.31		ug/L	P412803	
		Barium	10.6		ug/L	P412803	
		Beryllium	0.045		ug/L	P412803	
		Boron**	14.2		ug/L	P412803	
		Cadmium	0.020	U	ug/L	P412803	
		Chromium	0.61	I	ug/L	P412803	
		Cobalt	0.247		ug/L	P412803	
		Copper	0.40	U	ug/L	P412803	
		Lead	0.56		ug/L	P412803	
		Manganese	9.76		ug/L	P412803	
		Molybdenum	0.15	U	ug/L	P412803	
		Nickel	0.78	I	ug/L	P412803	
		Selenium	0.20	U	ug/L	P412803	
		Silver	0.010	U	ug/L	P412803	
		Thallium	0.10	U	ug/L	P412803	
	SM 2340 B-2011	Hardness	6.7		mg/L	P412803	

Ref. Method and Comment:

SM 2540 D-2011: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 04/28/2022.

Sample Location: Unnamed Drain to Brandy Branch at US301

Collection Date/Time: 04/20/2022 11:30

Field ID: G4NE0302

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2321280	EPA 200.7 Rev. 4.4	Calcium	2.55		mg/L	P412803	
		Iron	1.36E+03		ug/L	P412803	
		Magnesium	0.81		mg/L	P412803	
		Potassium	0.39	I	mg/L	P412803	
		Sodium	5.6		mg/L	P412803	
		Strontium	17.9		ug/L	P412803	
		Tin	3.0	U	ug/L	P412803	
		Titanium	1.3	I	ug/L	P412803	
		Vanadium	2.0	U	ug/L	P412803	
	EPA 200.8 Rev. 5.4	Zinc	8.7	I	ug/L	P412803	
		Aluminum	507		ug/L	P412803	
		Antimony	0.050	U	ug/L	P412803	
		Arsenic	0.35		ug/L	P412803	
		Barium	11.7		ug/L	P412803	
		Beryllium	0.049		ug/L	P412803	
		Boron**	15.0		ug/L	P412803	
		Cadmium	0.020	U	ug/L	P412803	
		Chromium	0.56	I	ug/L	P412803	
		Cobalt	0.251		ug/L	P412803	
		Copper	1.19		ug/L	P412803	
		Lead	0.57		ug/L	P412803	
		Manganese	10.6		ug/L	P412803	
		Molybdenum	0.15	U	ug/L	P412803	
		Nickel	0.77	I	ug/L	P412803	
		Selenium	0.20	U	ug/L	P412803	
		Silver	0.010	U	ug/L	P412803	
		Thallium	0.10	U	ug/L	P412803	
	SM 2340 B-2011	Hardness	9.7		mg/L	P412803	

Ref. Method and Comment:

EPA 200.8 Rev. 5.4: The lead result was confirmed in the undigested sample on 04/28/2022.

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P412729

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412724

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412725

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412803

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Strontium	2.0	U	ug/L
Tin	3.0	U	ug/L
Titanium	0.75	U	ug/L
Vanadium	2.0	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412803

Component	Result	Code	Units
Aluminum	5.0	U	ug/L
Antimony	0.050	U	ug/L
Arsenic	0.050	U	ug/L
Barium	0.20	U	ug/L
Beryllium	0.010	U	ug/L
Boron	2.0	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Cobalt	0.020	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Manganese	0.10	U	ug/L
Molybdenum	0.15	U	ug/L
Nickel	0.50	U	ug/L
Selenium	0.20	U	ug/L
Silver	0.010	U	ug/L
Thallium	0.10	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413119

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413122

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413376

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413502

Component	Result	Code	Units
Ammonia-N	0.002	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413214

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413268

Component	Result	Code	Units
Kjeldahl Nitrogen	0.080	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412881

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412882

Component	Result	Code	Units
NO2NO3-N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413337

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413868

Component	Result	Code	Units
Total-P	0.002	U	mg P/L

Reference Method: SM 2320 B-2011
Batch ID: P413184

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO ₃ /L

Reference Method: SM 2540 C-2011
Batch ID: P413206

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P413356

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500-F- C-2011
Batch ID: P413189

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P413057

Component	Result	Code	Units
Organic Carbon	0.50	U	mg C/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P412729

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	100		P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412724

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.8		P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412725

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Turbidity	95.8		P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	101		P	85 - 115
Iron	102		P	85 - 115
Magnesium	102		P	85 - 115
Potassium	101		P	85 - 115
Sodium	103		P	85 - 115
Strontium	103		P	85 - 115
Tin	97.8		P	85 - 115
Titanium	100		P	85 - 115
Vanadium	94.0		P	85 - 115
Zinc	98.4		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412803

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	97.7		P	85 - 115
Antimony	97.9		P	85 - 115
Arsenic	98.8		P	85 - 115
Barium	102		P	85 - 115
Beryllium	95.8		P	85 - 115
Boron	98.8		P	85 - 115
Cadmium	98.7		P	85 - 115
Chromium	95.0		P	85 - 115
Cobalt	98.1		P	85 - 115
Copper	96.2		P	85 - 115
Lead	97.9		P	85 - 115
Manganese	95.6		P	85 - 115
Molybdenum	98.6		P	85 - 115
Nickel	99.1		P	85 - 115
Selenium	97.1		P	85 - 115
Silver	96.0		P	85 - 115
Thallium	101		P	85 - 115

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413119

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413122

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	99.6		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413376

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	96.2		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413502

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413214

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	110		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413268

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	105		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412881

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.5		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412882

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	99.0		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413337

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	102		P	90 - 110

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413868

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	101		P	90 - 110

Reference Method: SM 2320 B-2011
Batch ID: P413184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	94 - 106

Reference Method: SM 4500-F- C-2011
Batch ID: P413189

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	101		P	93 - 104

Reference Method: SM 5310 B-2011
Batch ID: P413057

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4

Batch ID: P412803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2320498	Calcium	104		P	80 - 120
2320498	Iron	106	108	P/P	80 - 120
2320498	Magnesium	104	105	P/P	80 - 120
2320498	Potassium	104	104	P/P	80 - 120
2320498	Sodium	105	106	P/P	80 - 120
2320498	Strontium	107	108	P/P	80 - 120
2320498	Tin	98.9	102	P/P	80 - 120
2320498	Titanium	103	106	P/P	80 - 120
2320498	Vanadium	98.3	101	P/P	80 - 120
2320498	Zinc	100	103	P/P	80 - 120
2320499	Calcium	104		P	80 - 120
2320499	Iron	105		P	80 - 120
2320499	Magnesium	103		P	80 - 120
2320499	Potassium	103		P	80 - 120
2320499	Sodium	104		P	80 - 120
2320499	Strontium	109		P	80 - 120
2320499	Tin	103		P	80 - 120
2320499	Titanium	104		P	80 - 120
2320499	Vanadium	100		P	80 - 120
2320499	Zinc	103		P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4

Batch ID: P412803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2320498	Aluminum	96.6	108	P/P	80 - 120
2320498	Antimony	98.3	99.2	P/P	80 - 120
2320498	Arsenic	97.3	97.0	P/P	80 - 120
2320498	Barium	102	103	P/P	80 - 120
2320498	Beryllium	92.1	95.2	P/P	80 - 120
2320498	Boron	101	102	P/P	80 - 120
2320498	Cadmium	97.2	98.9	P/P	80 - 120
2320498	Chromium	97.1	98.3	P/P	80 - 120
2320498	Cobalt	95.6	97.4	P/P	80 - 120
2320498	Copper	96.0	95.5	P/P	80 - 120
2320498	Lead	98.1	98.2	P/P	80 - 120
2320498	Manganese	95.3	98.7	P/P	80 - 120
2320498	Molybdenum	101	100	P/P	80 - 120
2320498	Nickel	96.8	98.6	P/P	80 - 120
2320498	Selenium	96.1	96.2	P/P	80 - 120
2320498	Silver	96.4	95.7	P/P	80 - 120
2320498	Thallium	102	103	P/P	80 - 120
2320499	Aluminum	97.4		P	80 - 120
2320499	Antimony	100		P	80 - 120
2320499	Arsenic	97.7		P	80 - 120
2320499	Barium	102		P	80 - 120
2320499	Beryllium	90.7		P	80 - 120
2320499	Boron	103		P	80 - 120
2320499	Cadmium	99.0		P	80 - 120
2320499	Chromium	97.5		P	80 - 120
2320499	Cobalt	96.9		P	80 - 120
2320499	Copper	94.6		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412803

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2320499	Lead	98.1		P	80 - 120
2320499	Manganese	99.3		P	80 - 120
2320499	Molybdenum	101		P	80 - 120
2320499	Nickel	97.9		P	80 - 120
2320499	Selenium	98.0		P	80 - 120
2320499	Silver	95.7		P	80 - 120
2320499	Thallium	103		P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413119

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321136	Chloride	101		P	90 - 110
2321216	Chloride	100		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413122

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321136	Sulfate	99.7		P	90 - 110
2321216	Sulfate	98.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413376

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321227	Ammonia-N	99.0	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413502

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321349	Ammonia-N	94.8	96.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413214

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2320963	Kjeldahl Nitrogen	99.7	99.7	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413268

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321459	Kjeldahl Nitrogen	106	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412881

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321228	NO2NO3-N	95.8	95.8	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412882

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321327	NO2NO3-N	96.8		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413337

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321327	Total-P	105	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413868

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2324267	Total-P	101	98.2	P/P	90 - 110

Reference Method: SM 4500-F- C-2011
Batch ID: P413189

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2320888	Fluoride	102	102	P/P	92 - 107

Reference Method: SM 5310 B-2011
Batch ID: P413057

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2321229	Organic Carbon	95.6	94.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P412729

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321325	Color (true)	0.553	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412724

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321153	Turbidity	6.58	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P412725

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321348	Turbidity	14.0	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P412803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2320498	Calcium	1.45	Spike	P	0 - 20
2320498	Iron	2.25	Spike	P	0 - 20
2320498	Magnesium	0.425	Spike	P	0 - 20
2320498	Potassium	0.0456	Spike	P	0 - 20
2320498	Sodium	0.749	Spike	P	0 - 20
2320498	Strontium	1.09	Spike	P	0 - 20
2320498	Tin	3.45	Spike	P	0 - 20
2320498	Titanium	3.22	Spike	P	0 - 20
2320498	Vanadium	2.83	Spike	P	0 - 20
2320498	Zinc	2.85	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2320498	Aluminum	8.90	Spike	P	0 - 20
2320498	Antimony	0.944	Spike	P	0 - 20
2320498	Arsenic	0.312	Spike	P	0 - 20
2320498	Barium	0.939	Spike	P	0 - 20
2320498	Beryllium	2.98	Spike	P	0 - 20
2320498	Boron	0.145	Spike	P	0 - 20
2320498	Cadmium	1.80	Spike	P	0 - 20
2320498	Chromium	1.21	Spike	P	0 - 20
2320498	Cobalt	1.77	Spike	P	0 - 20
2320498	Copper	0.472	Spike	P	0 - 20
2320498	Lead	0.111	Spike	P	0 - 20
2320498	Manganese	1.75	Spike	P	0 - 20
2320498	Molybdenum	0.736	Spike	P	0 - 20
2320498	Nickel	1.85	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P412803

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2320498	Selenium	0.0804	Spike	P	0 - 20
2320498	Silver	0.741	Spike	P	0 - 20
2320498	Thallium	0.722	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413119

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321136	Chloride	0.535	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P413122

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321136	Sulfate	0.671	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413376

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321227	Ammonia-N	0.175	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P413502

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321349	Ammonia-N	1.12	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413214

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2320963	Kjeldahl Nitrogen	0.00603	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P413268

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321459	Kjeldahl Nitrogen	0.178	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
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Quality Assurance Report Precision

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412881

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321228	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P412882

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321327	NO2NO3-N	1.37	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413337

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321327	Total-P	0.647	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P413868

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2324267	Total-P	2.25	Spike	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P413184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2320888	Total Alkalinity	0.974	Sample	P	0 - 5.2

Reference Method: SM 2540 C-2011
Batch ID: P413206

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321337	TDS	1.08	Sample	P	0 - 10

Reference Method: SM 4500-F- C-2011
Batch ID: P413189

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2320888	Fluoride	0.0	Spike	P	0 - 2.1

Reference Method: SM 5310 B-2011
Batch ID: P413057

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2321229	Organic Carbon	0.667	Spike	P	0 - 20

Quality Assurance Report Precision

* Sample, spike and/or laboratory control sample precision (LCS) is reported.

Quality Assurance Report Calibration Verification

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A111613

Included Lab Sample IDs: 2321245, 2321246, 2321247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	99.5	P/P	95 - 105
Turbidity	99.5	99.0	P/P	95 - 105

Reference Method: DEP SOP: NU-094-1

Run ID: A111614

Included Lab Sample IDs: 2321245, 2321246, 2321247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	102	104	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A111688

Included Lab Sample IDs: 2321248, 2321249, 2321250

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A111715

Included Lab Sample IDs: 2321245, 2321246, 2321247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	99.9	100	P/P	90 - 110
Sulfate	101	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A111744

Included Lab Sample IDs: 2321277, 2321278, 2321279, 2321280

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.4	98.1	P/P	90 - 110
Antimony	100	99.3	P/P	90 - 110
Arsenic	97.8	97.2	P/P	90 - 110
Barium	99.0	97.9	P/P	90 - 110
Beryllium	95.3	95.0	P/P	90 - 110
Boron	98.5	98.7	P/P	90 - 110
Cadmium	99.3	97.8	P/P	90 - 110
Chromium	97.0	96.3	P/P	90 - 110
Cobalt	95.7	95.3	P/P	90 - 110
Copper	96.4	95.8	P/P	90 - 110
Lead	96.3	95.2	P/P	90 - 110
Manganese	97.9	96.9	P/P	90 - 110
Molybdenum	97.6	97.3	P/P	90 - 110
Nickel	97.5	97.0	P/P	90 - 110
Selenium	98.6	97.9	P/P	90 - 110
Silver	98.4	97.2	P/P	90 - 110
Thallium	96.7	95.5	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-2011

Run ID: A111772

Included Lab Sample IDs: 2321248, 2321249, 2321250

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.8	101	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A111826

Included Lab Sample IDs: 2321245, 2321246, 2321247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.5	96.4	P/P	90 - 110

Reference Method: SM 4500-F- C-2011

Run ID: A111826

Included Lab Sample IDs: 2321245, 2321246, 2321247

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	103	102	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A111857

Included Lab Sample IDs: 2321277, 2321278, 2321279, 2321280

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	101	P/P	90 - 110
Iron	101	101	P/P	90 - 110
Magnesium	101	101	P/P	90 - 110
Potassium	102	102	P/P	90 - 110
Sodium	102	101	P/P	90 - 110
Strontium	107	106	P/P	90 - 110
Tin	99.9	101	P/P	90 - 110
Titanium	103	103	P/P	90 - 110
Vanadium	103	103	P/P	90 - 110
Zinc	102	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111914

Included Lab Sample IDs: 2321248, 2321249

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	96.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A111967

Included Lab Sample IDs: 2321250

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	99.4	96.3	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111970

Included Lab Sample IDs: 2321248, 2321249

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
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Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A111970

Included Lab Sample IDs: 2321248, 2321249

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	109	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A111973

Included Lab Sample IDs: 2321248, 2321249

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	99.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A112016

Included Lab Sample IDs: 2321250

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	98.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A112210

Included Lab Sample IDs: 2321250

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	98.8	P/P	90 - 110

* Pass/Fail determinations are made for each bracketing calibration verification check.

Control limits for initial calibration checks may be different from those for continuing checks, depending on method requirements.

Where they are different, both control limits are provided.

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery			Precision SMP	MS
			LCS				
DEP SOP: NU-094-1	Color (true)	100				0.553	
EPA 180.1 Rev. 2.0	Turbidity	95.8				6.58	
	Turbidity	95.8				14.0	
EPA 200.7 Rev. 4.4	Calcium	101	104	104			1.45
	Iron	102	106	108	105		2.25
	Magnesium	102	104	105	103		0.425
	Potassium	101	104	104	103		0.0456
	Sodium	103	105	106	104		0.749
	Strontium	103	107	108	109		1.09
	Tin	97.8	98.9	102	103		3.45
	Titanium	100	103	106	104		3.22
	Vanadium	94.0	98.3	101	100		2.83
	Zinc	98.4	100	103	103		2.85
EPA 200.8 Rev. 5.4	Aluminum	97.7	96.6	108	97.4		8.90
	Antimony	97.9	98.3	99.2	100		0.944
	Arsenic	98.8	97.3	97.0	97.7		0.312
	Barium	102	102	103	102		0.939
	Beryllium	95.8	92.1	95.2	90.7		2.98
	Boron	98.8	101	102	103		0.145
	Cadmium	98.7	97.2	98.9	99.0		1.80
	Chromium	95.0	97.1	98.3	97.5		1.21
	Cobalt	98.1	95.6	97.4	96.9		1.77
	Copper	96.2	96.0	95.5	94.6		0.472
	Lead	97.9	98.1	98.2	98.1		0.111
	Manganese	95.6	95.3	98.7	99.3		1.75
	Molybdenum	98.6	101	100	101		0.736
	Nickel	99.1	96.8	98.6	97.9		1.85
	Selenium	97.1	96.1	96.2	98.0		0.0804
	Silver	96.0	96.4	95.7	95.7		0.741
	Thallium	101	102	103	103		0.722
EPA 300.0 Rev. 2.1	Chloride	100	101	100		0.535	
	Sulfate	99.6	99.7	98.7		0.671	
EPA 350.1 Rev. 2.0	Ammonia-N	96.2	99.0	98.8			0.175
	Ammonia-N	95.0	94.8	96.0			1.12
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	110	99.7	99.7			0.0060
	Kjeldahl Nitrogen	105	106	106			0.178
EPA 353.2 Rev. 2.0	NO2NO3-N	99.5	95.8	95.8			0.0
	NO2NO3-N	99.0	96.8				1.37
EPA 365.1 Rev. 2.0	Total-P	102	105	106			0.647
	Total-P	101	101	98.2			2.25
SM 2320 B-2011	Total Alkalinity	101				0.974	
SM 2540 C-2011	TDS					1.08	
SM 4500-F- C-2011	Fluoride	101	102	102			0.0
SM 5310 B-2011	Organic Carbon	96.4	95.6	94.8			0.667

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2321245, 2321246, 2321247
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2321245, 2321246, 2321247
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2321277, 2321278, 2321279, 2321280

Reference Method Descriptions

Method	Description	Associated Samples
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2321277, 2321278, 2321279, 2321280
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2321245, 2321246, 2321247
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2321245, 2321246, 2321247
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2321248, 2321249, 2321250
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2321248, 2321249, 2321250
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2321248, 2321249, 2321250
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2321248, 2321249, 2321250
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO3/L	2321245, 2321246, 2321247
SM 2340 B-2011	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO3	2321277, 2321278, 2321279, 2321280
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2321245, 2321246, 2321247
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2321245, 2321246, 2321247
SM 4500-F- C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2321245, 2321246, 2321247
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2321248, 2321249, 2321250

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	04/21/2022			04/21/2022 17:29	Samantha L Bates	2321245
	04/21/2022			04/21/2022 17:30	Samantha L Bates	2321246
	04/21/2022			04/21/2022 17:31	Samantha L Bates	2321247
EPA 180.1 Rev. 2.0	04/21/2022			04/21/2022 15:34	Khloe J Berg	2321245
	04/21/2022			04/21/2022 15:37	Khloe J Berg	2321246
	04/21/2022			04/21/2022 15:52	Khloe J Berg	2321247
EPA 200.7 Rev. 4.4	04/21/2022	04/25/2022 10:55	Megan Whitefoot	05/02/2022 18:19	Josef B Mick	2321277
	04/21/2022	04/25/2022 10:55	Megan Whitefoot	05/02/2022 18:27	Josef B Mick	2321278
	04/21/2022	04/25/2022 10:55	Megan Whitefoot	05/02/2022 18:32	Josef B Mick	2321279
EPA 200.8 Rev. 5.4	04/21/2022	04/25/2022 10:55	Megan Whitefoot	05/02/2022 18:40	Josef B Mick	2321280
	04/21/2022	04/25/2022 10:55	Megan Whitefoot	04/27/2022 15:36	Alexander Thompson	2321277
	04/21/2022	04/25/2022 10:55	Megan Whitefoot	04/27/2022 15:45	Alexander Thompson	2321278
EPA 300.0 Rev. 2.1	04/21/2022	04/25/2022 10:55	Megan Whitefoot	04/27/2022 15:54	Alexander Thompson	2321279
	04/21/2022	04/25/2022 10:55	Megan Whitefoot	04/27/2022 16:04	Alexander Thompson	2321280
	04/21/2022			04/28/2022 03:16	James L Waggeberby	2321245
EPA 350.1 Rev. 2.0	04/21/2022			04/28/2022 03:28	James L Waggeberby	2321246
	04/21/2022			04/28/2022 03:40	James L Waggeberby	2321247
	04/21/2022			05/04/2022 17:29	Judith K. Clark	2321248
EPA 351.2 Rev. 2.0	04/21/2022			05/04/2022 17:31	Judith K. Clark	2321249
	04/21/2022			05/06/2022 10:46	Ping Hua	2321250
	04/21/2022	05/03/2022 16:45	Samantha L Bates	05/06/2022 13:32	Samantha L Bates	2321248
EPA 353.2 Rev. 2.0	04/21/2022	05/03/2022 16:45	Samantha L Bates	05/06/2022 13:34	Samantha L Bates	2321249
	04/21/2022	05/04/2022 16:20	Alexandra J Mattheus	05/09/2022 13:25	Samantha L Bates	2321250
	04/21/2022			04/26/2022 10:31	Beverly Y. Sanders	2321248
EPA 365.1 Rev. 2.0	04/21/2022			04/26/2022 10:33	Beverly Y. Sanders	2321249
	04/21/2022			04/26/2022 10:47	Beverly Y. Sanders	2321250
	04/21/2022	05/04/2022 17:30	Simonne.V. Calhoun	05/06/2022 15:45	James L Waggeberby	2321248
SM 2320 B-2011	04/21/2022	05/04/2022 17:30	Simonne.V. Calhoun	05/06/2022 15:46	James L Waggeberby	2321249
	04/21/2022	05/17/2022 11:10	Simonne.V. Calhoun	05/17/2022 16:31	James L Waggeberby	2321250
	04/21/2022			04/30/2022 19:40	Dale L. Simmons	2321245
SM 2340 B-2011	04/21/2022			04/30/2022 19:48	Dale L. Simmons	2321246
	04/21/2022			04/30/2022 19:54	Dale L. Simmons	2321247
	04/21/2022			05/02/2022 18:19	Josef B Mick	2321277
SM 2540 C-2011	04/21/2022			05/02/2022 18:27	Josef B Mick	2321278
	04/21/2022			05/02/2022 18:32	Josef B Mick	2321279
	04/21/2022			05/02/2022 18:40	Josef B Mick	2321280
SM 2540 D-2011	04/21/2022			04/26/2022 15:06	Yijie Li	2321245, 2321246, 2321247
SM 4500-F- C-2011	04/21/2022			04/26/2022 15:06	Yijie Li	2321245, 2321246, 2321247
	04/21/2022			04/30/2022 19:40	Dale L. Simmons	2321245
	04/21/2022			04/30/2022 19:48	Dale L. Simmons	2321246

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500-F- C-2011	04/21/2022			04/30/2022 19:54	Dale L. Simmons	2321247
SM 5310 B-2011	04/21/2022			04/27/2022 22:47	Khloe J Berg	2321248
	04/21/2022			04/27/2022 23:01	Khloe J Berg	2321249
	04/21/2022			04/27/2022 23:14	Khloe J Berg	2321250