

Chemical Analysis Report

SO-DIST-2019-01-17-01

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

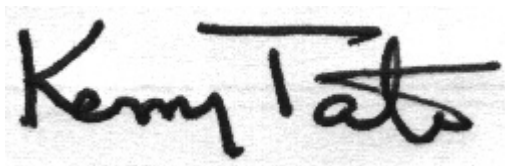
Event Description: **CALOOSA LT**
Request ID: **RQ-2019-01-07-03**
Customer: **SO-DIST**
Project ID: **BMAP**

Send Reports to:
FL Dept. of Environmental Protection
FLDEP South District Office
2295 Victoria Ave. Suite 364
Fort Myers, FL 33901-3381
Attn: John Barrington

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 07-FEB-2019 10:12

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the name.

NON-CONFORMANCE REPORT INCLUDED

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 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: USGSStation-PuntaBlanca

Collection Date/Time: 01/16/2019 09:50

Field ID: G3SD0108

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055018	SM 2320 B-97	Total Alkalinity	124		mg CaCO3/L	P357968	
	SM 4500 F-C-97	Fluoride	0.88		mg F/L	P357970	
2055022	SM 5310 B-00 dissolved	Organic Carbon	7.0		mg C/L	P357594	
2055026	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P357494	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.56		mg N/L	P357898	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.008	I	mg N/L	P357614	
	EPA 365.1 Rev. 2.0	Total-P	0.047		mg P/L	P357644	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P357594	
2055030	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P357465	
2055137	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P357726	
		Zinc	20	U	ug/L	P357726	
	EPA 200.8 Rev. 5.4	Arsenic	2.9		ug/L	P357726	
		Cadmium	0.060	U	ug/L	P357726	
		Chromium	1.2	U	ug/L	P357726	
		Copper	1.2	U	ug/L	P357726	
		Lead	0.60	U	ug/L	P357726	
		Nickel	1.5	U	ug/L	P357726	
		Silver	0.030	U	ug/L	P357726	

Sample Location: USGS Station-ShellPoint

Collection Date/Time: 01/16/2019 10:10

Field ID: G3SD0109

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055019	SM 2320 B-97	Total Alkalinity	124		mg CaCO3/L	P357968	
	SM 4500 F-C-97	Fluoride	0.94		mg F/L	P357970	
2055023	SM 5310 B-00 dissolved	Organic Carbon	6.3		mg C/L	P357594	
2055027	EPA 350.1 Rev. 2.0	Ammonia-N	0.012		mg N/L	P357494	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.59		mg N/L	P357898	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.011		mg N/L	P357614	
	EPA 365.1 Rev. 2.0	Total-P	0.042		mg P/L	P357644	
	SM 5310 B-00	Organic Carbon	6.5		mg C/L	P357594	
2055031	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.027		mg P/L	P357465	
2055138	EPA 200.7 Rev. 4.4	Iron	120	U	ug/L	P357726	
		Zinc	20	U	ug/L	P357726	
		Arsenic	3.1		ug/L	P357726	
	EPA 200.8 Rev. 5.4	Cadmium	0.080	U	ug/L	P357726	
		Chromium	1.6	U	ug/L	P357726	
		Copper	1.6	U	ug/L	P357726	
		Lead	0.80	U	ug/L	P357726	
		Nickel	2.0	U	ug/L	P357726	
		Silver	0.040	U	ug/L	P357726	

Sample Location: Marker # 76

Collection Date/Time: 01/16/2019 10:30

Field ID: G3SD0110

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055020	SM 2320 B-97	Total Alkalinity	122		mg CaCO3/L	P357968	
	SM 4500 F-C-97	Fluoride	0.68		mg F/L	P357970	
2055024	SM 5310 B-00 dissolved	Organic Carbon	8.8		mg C/L	P357594	
2055028	EPA 350.1 Rev. 2.0	Ammonia-N	0.015		mg N/L	P357689	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.69		mg N/L	P357898	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.007	I	mg N/L	P357614	
	EPA 365.1 Rev. 2.0	Total-P	0.061		mg P/L	P357644	
	SM 5310 B-00	Organic Carbon	9.2		mg C/L	P357594	
2055032	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.042		mg P/L	P357465	
2055139	EPA 200.7 Rev. 4.4	Iron	90	U	ug/L	P357726	
		Zinc	15	U	ug/L	P357726	
	EPA 200.8 Rev. 5.4	Arsenic	2.6		ug/L	P357726	
		Cadmium	0.060	U	ug/L	P357726	
		Chromium	1.2	U	ug/L	P357726	
		Copper	1.2	U	ug/L	P357726	
		Lead	0.60	U	ug/L	P357726	
		Nickel	1.5	U	ug/L	P357726	
		Silver	0.030	U	ug/L	P357726	

Sample Location: Marker # 52

Collection Date/Time: 01/16/2019 11:05

Field ID: G3SD0111

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055021	SM 2320 B-97	Total Alkalinity	126	A	mg CaCO3/L	P357968	
	SM 4500 F-C-97	Fluoride	0.44		mg F/L	P357970	
2055025	SM 5310 B-00 dissolved	Organic Carbon	12		mg C/L	P357594	
2055029	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P357689	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.94		mg N/L	P357898	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	U	mg N/L	P357614	
	EPA 365.1 Rev. 2.0	Total-P	0.083		mg P/L	P357644	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P357594	
2055033	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.055		mg P/L	P357465	
2055140	EPA 200.7 Rev. 4.4	Iron	94	I	ug/L	P357726	
		Zinc	15	U	ug/L	P357726	
	EPA 200.8 Rev. 5.4	Arsenic	2.3		ug/L	P357726	
		Cadmium	0.060	U	ug/L	P357726	
		Chromium	1.2	U	ug/L	P357726	
		Copper	1.2	I	ug/L	P357726	
		Lead	0.60	U	ug/L	P357726	
		Nickel	1.5	U	ug/L	P357726	
		Silver	0.030	U	ug/L	P357726	

Sample Location: US 41, Marker # 38

Collection Date/Time: 01/16/2019 11:25

Field ID: G3SD0112

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055034	SM 5310 B-00 dissolved	Organic Carbon	13		mg C/L	P357593	
2055058	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.064		mg P/L	P357465	
2055141	EPA 200.7 Rev. 4.4	Iron	57	I	ug/L	P357726	
		Zinc	5.0	U	ug/L	P357726	
	EPA 200.8 Rev. 5.4	Arsenic	2.1		ug/L	P357726	
		Cadmium	0.060	U	ug/L	P357726	
		Chromium	1.2	U	ug/L	P357726	
		Copper	1.2	U	ug/L	P357726	
		Lead	0.60	U	ug/L	P357726	
		Nickel	1.5	U	ug/L	P357726	
		Silver	0.030	U	ug/L	P357726	

Sample Location: Marker # 28

Collection Date/Time: 01/16/2019 11:40

Field ID: G3SD0113

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055035	SM 5310 B-00 dissolved	Organic Carbon	13		mg C/L	P357593	
2055051	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P357689	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P357898	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.040		mg N/L	P357614	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P357644	
	SM 5310 B-00	Organic Carbon	13		mg C/L	P357593	
2055059	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.067		mg P/L	P357465	
2055142	EPA 200.7 Rev. 4.4	Iron	70	I	ug/L	P357726	
		Zinc	5.0	U	ug/L	P357726	
	EPA 200.8 Rev. 5.4	Arsenic	2.8		ug/L	P357726	
		Cadmium	0.060	U	ug/L	P357726	
		Chromium	1.2	U	ug/L	P357726	
		Copper	1.3	I	ug/L	P357726	
		Lead	0.60	U	ug/L	P357726	
		Nickel	1.5	U	ug/L	P357726	
		Silver	0.030	U	ug/L	P357726	

Sample Location: Marker # 22

Collection Date/Time: 01/16/2019 11:55

Field ID: G3SD0114

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055036	SM 5310 B-00 dissolved	Organic Carbon	13		mg C/L	P357593	
2055052	EPA 350.1 Rev. 2.0	Ammonia-N	0.042		mg N/L	P357690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P357532	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.094		mg N/L	P357734	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P357642	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357593	
2055060	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.071		mg P/L	P357464	
2055143	EPA 200.7 Rev. 4.4	Iron	78	I	ug/L	P357638	
		Zinc	5.0	U	ug/L	P357638	
	EPA 200.8 Rev. 5.4	Arsenic	1.75		ug/L	P357638	
		Cadmium	0.020	U	ug/L	P357638	
		Chromium	0.40	U	ug/L	P357638	
		Copper	1.03		ug/L	P357638	
		Lead	0.20	U	ug/L	P357638	
		Nickel	0.50	U	ug/L	P357638	
		Silver	0.010	U	ug/L	P357638	

Sample Location: Old Swing Bridge

Collection Date/Time: 01/16/2019 12:06

Field ID: G3SD0115

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055037	SM 5310 B-00 dissolved	Organic Carbon	14		mg C/L	P357593	
2055053	EPA 350.1 Rev. 2.0	Ammonia-N	0.036		mg N/L	P357689	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P357898	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.087		mg N/L	P357617	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P357644	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357593	
2055061	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.073		mg P/L	P357465	
2055144	EPA 200.7 Rev. 4.4	Iron	110	I	ug/L	P357638	
		Zinc	5.0	U	ug/L	P357638	
	EPA 200.8 Rev. 5.4	Arsenic	1.85		ug/L	P357638	
		Cadmium	0.020	U	ug/L	P357638	
		Chromium	0.40	U	ug/L	P357638	
		Copper	1.04		ug/L	P357638	
		Lead	0.20	U	ug/L	P357638	
		Nickel	0.50	U	ug/L	P357638	
		Silver	0.010	U	ug/L	P357638	

Sample Location: MidChannel@OrangeRiver

Collection Date/Time: 01/16/2019 12:25

Field ID: G3SD0116

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055038	SM 5310 B-00 dissolved	Organic Carbon	13		mg C/L	P357593	
2055054	EPA 350.1 Rev. 2.0	Ammonia-N	0.050		mg N/L	P357690	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.0		mg N/L	P357532	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.14		mg N/L	P357734	
	EPA 365.1 Rev. 2.0	Total-P	0.097		mg P/L	P357642	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357653	
2055062	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.066		mg P/L	P357464	
2055145	EPA 200.7 Rev. 4.4	Iron	100	I	ug/L	P357638	
		Zinc	5.0	U	ug/L	P357638	
	EPA 200.8 Rev. 5.4	Arsenic	1.75		ug/L	P357638	
		Cadmium	0.020	U	ug/L	P357638	
		Chromium	0.40	U	ug/L	P357638	
		Copper	0.90		ug/L	P357638	
		Lead	0.20	U	ug/L	P357638	
		Nickel	0.50	U	ug/L	P357638	
		Silver	0.010	U	ug/L	P357638	

Sample Location: Upstream of Power Plant

Collection Date/Time: 01/16/2019 12:45

Field ID: G3SD0117

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055039	SM 5310 B-00 dissolved	Organic Carbon	14		mg C/L	P357593	
2055055	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P357688	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P357532	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.098		mg N/L	P357734	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P357642	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357653	
2055063	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.064		mg P/L	P357464	
2055146	EPA 200.7 Rev. 4.4	Iron	95	I	ug/L	P357638	
		Zinc	5.0	U	ug/L	P357638	
	EPA 200.8 Rev. 5.4	Arsenic	1.74		ug/L	P357638	
		Cadmium	0.020	U	ug/L	P357638	
		Chromium	0.40	U	ug/L	P357638	
		Copper	0.94		ug/L	P357638	
		Lead	0.20	U	ug/L	P357638	
		Nickel	0.50	U	ug/L	P357638	
		Silver	0.010	U	ug/L	P357638	

Sample Location: Mid Channel off Oxbow

Collection Date/Time: 01/16/2019 13:00

Field ID: G3SD0118

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055040	SM 5310 B-00 dissolved	Organic Carbon	14		mg C/L	P357593	
2055056	EPA 350.1 Rev. 2.0	Ammonia-N	0.058		mg N/L	P357688	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P357532	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.090		mg N/L	P357734	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P357642	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357653	
2055064	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.066		mg P/L	P357464	
2055147	EPA 200.7 Rev. 4.4	Iron	97	I	ug/L	P357638	
		Zinc	5.0	U	ug/L	P357638	
	EPA 200.8 Rev. 5.4	Arsenic	1.67		ug/L	P357638	
		Cadmium	0.020	U	ug/L	P357638	
		Chromium	0.40	U	ug/L	P357638	
		Copper	0.78	I	ug/L	P357638	
		Lead	0.20	U	ug/L	P357638	
		Nickel	0.50	U	ug/L	P357638	
		Silver	0.010	U	ug/L	P357638	

Sample Location: Mid channel off point

Collection Date/Time: 01/16/2019 13:10

Field ID: G3SD0119

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2055041	SM 5310 B-00 dissolved	Organic Carbon	14		mg C/L	P357593	
2055057	EPA 350.1 Rev. 2.0	Ammonia-N	0.073		mg N/L	P357688	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P357532	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.066		mg N/L	P357734	
	EPA 365.1 Rev. 2.0	Total-P	0.10		mg P/L	P357642	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P357653	
2055065	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.067		mg P/L	P357464	
2055148	EPA 200.7 Rev. 4.4	Iron	110	I	ug/L	P357638	
		Zinc	5.0	U	ug/L	P357638	
	EPA 200.8 Rev. 5.4	Arsenic	1.67		ug/L	P357638	
		Cadmium	0.020	U	ug/L	P357638	
		Chromium	0.40	U	ug/L	P357638	
		Copper	0.80		ug/L	P357638	
		Lead	0.20	U	ug/L	P357638	
		Nickel	0.50	U	ug/L	P357638	
		Silver	0.010	U	ug/L	P357638	

Non-Conformance Report

NCR ID: 7453

Event(s)

SO-DIST-2019-01-17-01

Job(s)

TLH-2019-01-17-27

Sample(s)

2055050

Test(s)

NCR Type: CUSTODY

NCR Category: Lost sample.

Observation: Sample lost in laboratory.

Analyses were not performed on sample due to it being misplaced after receipt.

Resolution: Customer contacted, email correspondence attached to sample submittal forms. Lost sample cancelled.

Authorized by/Date: Joshua Ayres 1/25/2019

The Non-Conformance Report details exceptions or problems encountered with the events/jobs/samples/test.

Please address questions to:

Chemistry	Colin Wright	(850) 245-8085
Biology	Cheryl Swanson	(850) 245-8177

Quality Assurance Report Method Blank Results

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P357638

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P357726

Component	Result	Code	Units
Iron	30	U	ug/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P357638

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P357726

Component	Result	Code	Units
Arsenic	0.050	U	ug/L
Cadmium	0.020	U	ug/L
Chromium	0.40	U	ug/L
Copper	0.40	U	ug/L
Lead	0.20	U	ug/L
Nickel	0.50	U	ug/L
Silver	0.010	U	ug/L

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357494

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357688

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357689

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357690

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357532

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357898

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357614

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357617

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357734

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357642

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357644

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357464

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357465

Component	Result	Code	Units
O-Phosphate-P	0.004	U	mg P/L

Reference Method: SM 2320 B-97
Batch ID: P357968

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

Reference Method: SM 4500 F-C-97
Batch ID: P357970

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P357593

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

Reference Method: SM 5310 B-00
Batch ID: P357594

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

Reference Method: SM 5310 B-00
Batch ID: P357653

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

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357593

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

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357594

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P357638

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	107		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P357726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Iron	106		P	85 - 115
Zinc	99.6		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P357638

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	109		P	85 - 115
Cadmium	112		P	85 - 115
Chromium	111		P	85 - 115
Copper	105		P	85 - 115
Lead	112		P	85 - 115
Nickel	105		P	85 - 115
Silver	108		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P357726

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	109		P	85 - 115
Cadmium	108		P	85 - 115
Chromium	107		P	85 - 115
Copper	102		P	85 - 115
Lead	109		P	85 - 115
Nickel	106		P	85 - 115
Silver	107		P	85 - 115

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357494

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357688

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357689

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	95.3		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357690

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	92.0		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357532

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	103		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357898

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357614

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357617

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357734

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	102		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357642

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	99.9		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357644

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357464

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.5		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357465

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

Reference Method: SM 2320 B-97
Batch ID: P357968

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	102		P	98 - 107

Reference Method: SM 4500 F-C-97
Batch ID: P357970

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	97.2		P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P357593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P357594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P357653

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.3		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357593

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	98.6		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357594

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	99.8		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P357638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055283	Iron	108		P	80 - 120
2055283	Zinc	100		P	80 - 120
2055554	Iron	108	107	P/P	80 - 120
2055554	Zinc	101	98.0	P/P	80 - 120

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P357726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055142	Iron	97.8	102	P/P	70 - 130
2055142	Zinc	96.7	98.9	P/P	70 - 130

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P357638

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055283	Arsenic	113		P	80 - 120
2055283	Cadmium	113		P	80 - 120
2055283	Chromium	107		P	80 - 120
2055283	Copper	103		P	80 - 120
2055283	Lead	114		P	80 - 120
2055283	Nickel	106		P	80 - 120
2055283	Silver	107		P	80 - 120
2055554	Arsenic	108	108	P/P	80 - 120
2055554	Cadmium	110	110	P/P	80 - 120
2055554	Chromium	105	105	P/P	80 - 120
2055554	Copper	97.8	98.8	P/P	80 - 120
2055554	Lead	107	108	P/P	80 - 120
2055554	Nickel	103	102	P/P	80 - 120
2055554	Silver	106	106	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P357726

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055142	Arsenic	114	114	P/P	80 - 120
2055142	Cadmium	113	111	P/P	80 - 120
2055142	Chromium	106	115	P/P	70 - 130
2055142	Copper	104	103	P/P	80 - 120
2055142	Lead	115	114	P/P	80 - 120
2055142	Nickel	108	109	P/P	70 - 130
2055142	Silver	108	108	P/P	80 - 120

Reference Method: EPA 350.1 Rev. 2.0
 Batch ID: P357494

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2054566	Ammonia-N	99.4	100	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357688

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055095	Ammonia-N	98.7	96.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357689

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055053	Ammonia-N	93.7	91.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357690

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2054994	Ammonia-N	97.6	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357532

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055056	Kjeldahl Nitrogen	95.0	97.0	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357898

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055026	Kjeldahl Nitrogen	101	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357614

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055026	NO2NO3-N	100	99.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357617

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055569	NO2NO3-N	99.8	99.4	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357734

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055052	NO2NO3-N	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357642

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055088	Total-P	106	107	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357644

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055026	Total-P	95.9	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357464

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055084	O-Phosphate-P	98.5	99.1	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357465

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055058	O-Phosphate-P	95.1	97.5	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P357970

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055021	Fluoride	97.1	97.1	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P357593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2054951	Organic Carbon	102		P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P357594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055022	Organic Carbon	98.7	97.0	P/P	85 - 115

Reference Method: SM 5310 B-00
Batch ID: P357653

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055054	Organic Carbon	96.4	95.2	P/P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357593

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2054951	Organic Carbon	102		P	85 - 115

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357594

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2055022	Organic Carbon	98.7	97.0	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P357638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055554	Iron	1.13	Spike	P	0 - 20
2055554	Zinc	2.76	Spike	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P357726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055142	Iron	4.23	Spike	P	0 - 20
2055142	Zinc	2.20	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P357638

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055554	Arsenic	0.0424	Spike	P	0 - 20
2055554	Cadmium	0.703	Spike	P	0 - 20
2055554	Chromium	0.558	Spike	P	0 - 20
2055554	Copper	1.00	Spike	P	0 - 20
2055554	Lead	0.772	Spike	P	0 - 20
2055554	Nickel	0.672	Spike	P	0 - 20
2055554	Silver	0.00296	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P357726

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055142	Arsenic	0.513	Spike	P	0 - 20
2055142	Cadmium	1.94	Spike	P	0 - 20
2055142	Chromium	8.12	Spike	P	0 - 20
2055142	Copper	0.555	Spike	P	0 - 20
2055142	Lead	1.06	Spike	P	0 - 20
2055142	Nickel	0.538	Spike	P	0 - 20
2055142	Silver	0.207	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357494

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2054566	Ammonia-N	0.498	Spike	P	0 - 15

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357688

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055095	Ammonia-N	2.35	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357689

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055053	Ammonia-N	1.12	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P357690

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2054994	Ammonia-N	1.21	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357532

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055056	Kjeldahl Nitrogen	0.984	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P357898

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055026	Kjeldahl Nitrogen	1.02	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357614

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055026	NO2NO3-N	0.966	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357617

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055569	NO2NO3-N	0.395	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P357734

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055052	NO2NO3-N	1.01	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357642

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055088	Total-P	0.252	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P357644

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055026	Total-P	3.55	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357464

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055084	O-Phosphate-P	0.607	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P357465

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055058	O-Phosphate-P	1.50	Spike	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P357968

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055021	Total Alkalinity	0.435	Sample	P	0 - 1.6

Reference Method: SM 4500 F-C-97
Batch ID: P357970

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055021	Fluoride	0.0	Spike	P	0 - 3.5

Reference Method: SM 5310 B-00
Batch ID: P357593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2054951	Organic Carbon	0.395	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P357594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055022	Organic Carbon	1.47	Spike	P	0 - 20

Reference Method: SM 5310 B-00
Batch ID: P357653

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055054	Organic Carbon	0.729	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357593

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2054951	Organic Carbon	0.395	Spike	P	0 - 20

Reference Method: SM 5310 B-00 dissolved
Batch ID: P357594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2055022	Organic Carbon	1.47	Spike	P	0 - 20

* Sample, spike and/or laboratory control sample precision (LCS) is reported.
Replicate spike precision may be reported when sample results are below quantifiable levels.

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A88882

Included Lab Sample IDs: 2055030, 2055031, 2055032, 2055033, 2055058, 2055059, 2055060, 2055061, 2055062, 2055063, 2055064, 2055065

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.6	99.2	P/P	90 - 110
O-Phosphate-P	98.6	99.6	P/P	90 - 110
O-Phosphate-P	99.2	98.5	P/P	90 - 110
O-Phosphate-P	99.6	98.6	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A88889

Included Lab Sample IDs: 2055026, 2055027

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	102	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A88923

Included Lab Sample IDs: 2055026, 2055027, 2055028, 2055029, 2055051, 2055052, 2055053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	101	P/P	90 - 110
Organic Carbon	101	98.6	P/P	90 - 110
Organic Carbon	98.6	98.8	P/P	90 - 110

Reference Method: SM 5310 B-00 dissolved

Run ID: A88923

Included Lab Sample IDs: 2055022, 2055023, 2055024, 2055025, 2055034, 2055035, 2055036, 2055037, 2055038, 2055039, 2055040, 2055041

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	100	101	P/P	90 - 110
Organic Carbon	101	100	P/P	90 - 110
Organic Carbon	101	98.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A88937

Included Lab Sample IDs: 2055026, 2055027, 2055028, 2055029, 2055051, 2055053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	98.0	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A88948

Included Lab Sample IDs: 2055054, 2055055, 2055056, 2055057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	101	98.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A88964

Included Lab Sample IDs: 2055028, 2055029, 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	97.6	P/P	90 - 110
Ammonia-N	100	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A88964

Included Lab Sample IDs: 2055028, 2055029, 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.6	100	P/P	90 - 110
Ammonia-N	99.4	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A88976

Included Lab Sample IDs: 2055052, 2055054, 2055055, 2055056, 2055057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	101	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A88978

Included Lab Sample IDs: 2055052, 2055054, 2055055, 2055056, 2055057

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	97.6	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A88981

Included Lab Sample IDs: 2055143, 2055144, 2055145, 2055146, 2055147, 2055148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	103	102	P/P	90 - 110
Zinc	100	99.9	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A88995

Included Lab Sample IDs: 2055137, 2055138, 2055139, 2055140, 2055141, 2055142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Iron	102	104	P/P	90 - 110
Iron	102	102	P/P	95 - 105
Zinc	98.0	98.2	P/P	95 - 105
Zinc	98.2	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89012

Included Lab Sample IDs: 2055143, 2055144, 2055145, 2055146, 2055147, 2055148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	103	105	P/P	90 - 110
Cadmium	104	104	P/P	90 - 110
Chromium	106	102	P/P	90 - 110
Copper	102	99.7	P/P	90 - 110
Lead	107	105	P/P	90 - 110
Silver	101	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A89014

Included Lab Sample IDs: 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A89033

Included Lab Sample IDs: 2055026, 2055027, 2055028, 2055029

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

Reference Method: SM 2320 B-97

Run ID: A89064

Included Lab Sample IDs: 2055018, 2055019, 2055020, 2055021

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	100	P/P	90 - 110
Total Alkalinity	99.2	102	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A89064

Included Lab Sample IDs: 2055018, 2055019, 2055020, 2055021

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

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A89065

Included Lab Sample IDs: 2055026, 2055027, 2055028, 2055029, 2055051, 2055053

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	101	100	P/P	90 - 110
Kjeldahl Nitrogen	98.5	101	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89083

Included Lab Sample IDs: 2055137, 2055138, 2055139, 2055140, 2055141, 2055142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	103	105	P/P	90 - 110
Arsenic	105	105	P/P	90 - 110
Cadmium	103	103	P/P	90 - 110
Copper	99.0	98.7	P/P	90 - 110
Lead	106	106	P/P	90 - 110
Silver	99.3	99.7	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89134

Included Lab Sample IDs: 2055137, 2055138, 2055139, 2055140, 2055141, 2055142

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

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89134

Included Lab Sample IDs: 2055137, 2055138, 2055139, 2055140, 2055141, 2055142

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chromium	103	104	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A89155

Included Lab Sample IDs: 2055137, 2055138, 2055139, 2055140, 2055141, 2055142, 2055143, 2055144, 2055145, 2055146, 2055147, 2055148

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Nickel	102	101	P/P	90 - 110
Nickel	103	104	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	
			LCS	SMP	MS		
EPA 200.7 Rev. 4.4	Iron	107	108	108	107		1.13
	Iron	106	97.8	102			4.23
	Zinc	103	100	101	98.0		2.76
	Zinc	99.6	96.7	98.9			2.20
EPA 200.8 Rev. 5.4	Arsenic	109	113	108	108		0.0424
	Arsenic	109	114	114			0.513
	Cadmium	112	113	110	110		0.703
	Cadmium	108	113	111			1.94
	Chromium	111	107	105	105		0.558
	Chromium	107	106	115			8.12
	Copper	105	103	97.8	98.8		1.00
	Copper	102	104	103			0.555
	Lead	112	114	107	108		0.772
	Lead	109	115	114			1.06
	Nickel	105	106	103	102		0.672
	Nickel	106	108	109			0.538
	Silver	108	107	106	106		0.0029
	Silver	107	108	108			0.207
EPA 350.1 Rev. 2.0	Ammonia-N	101	99.4	100			0.498
	Ammonia-N	96.7	98.7	96.2			2.35
	Ammonia-N	95.3	93.7	91.9			1.12
	Ammonia-N	92.0	97.6	99.4			1.21
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	103	95.0	97.0			0.984
	Kjeldahl Nitrogen	100	101	102			1.02
EPA 353.2 Rev. 2.0	NO2NO3-N	99.0	100	99.0			0.966
	NO2NO3-N	100	99.8	99.4			0.395
	NO2NO3-N	102	103	101			1.01
EPA 365.1 Rev. 2.0	Total-P	99.9	106	107			0.252
	Total-P	101	95.9	99.5			3.55
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.5	98.5	99.1			0.607
	O-Phosphate-P	100	95.1	97.5			1.50
SM 2320 B-97	Total Alkalinity	102				0.435	
SM 4500 F-C-97	Fluoride	97.2	97.1	97.1			0.0
SM 5310 B-00	Organic Carbon	98.6	102				0.395
	Organic Carbon	99.8	98.7	97.0			1.47
	Organic Carbon	97.3	96.4	95.2			0.729
SM 5310 B-00 dissolved	Organic Carbon	98.6	102				0.395
	Organic Carbon	99.8	98.7	97.0			1.47

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2055137, 2055138, 2055139, 2055140, 2055141, 2055142, 2055143, 2055144, 2055145, 2055146, 2055147, 2055148
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2055137, 2055138, 2055139, 2055140, 2055141, 2055142, 2055143, 2055144, 2055145, 2055146, 2055147, 2055148
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2055026, 2055027, 2055028, 2055029, 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2055026, 2055027, 2055028, 2055029, 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2055026, 2055027, 2055028, 2055029, 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2055026, 2055027, 2055028, 2055029, 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2055030, 2055031, 2055032, 2055033, 2055058, 2055059, 2055060, 2055061, 2055062, 2055063, 2055064, 2055065
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2055018, 2055019, 2055020, 2055021
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2055018, 2055019, 2055020, 2055021
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	2055026, 2055027, 2055028, 2055029, 2055051, 2055052, 2055053, 2055054, 2055055, 2055056, 2055057
SM 5310 B-00 dissolved / E31780	Dissolved Nonpurgeable Organic Carbon in filtered, aqueous matrices	2055022, 2055023, 2055024, 2055025, 2055034, 2055035, 2055036, 2055037, 2055038, 2055039, 2055040, 2055041

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.7 Rev. 4.4	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/23/2019 17:56	Betina Topolski	2055143
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/23/2019 18:02	Betina Topolski	2055144
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/23/2019 18:09	Betina Topolski	2055145
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/23/2019 18:15	Betina Topolski	2055146
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/23/2019 18:22	Betina Topolski	2055147
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/23/2019 18:28	Betina Topolski	2055148
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/24/2019 12:31	Betina Topolski	2055138
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/24/2019 12:36	Betina Topolski	2055139
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/24/2019 12:42	Betina Topolski	2055140
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/24/2019 12:47	Betina Topolski	2055141
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/24/2019 13:13	Betina Topolski	2055142
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/24/2019 13:30	Betina Topolski	2055137
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/24/2019 13:30	Betina Topolski	2055137
EPA 200.8 Rev. 5.4	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/24/2019 06:13	Allison Taylor	2055143
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/24/2019 06:23	Allison Taylor	2055144
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/24/2019 06:32	Allison Taylor	2055145
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/24/2019 06:42	Allison Taylor	2055146
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/24/2019 06:51	Allison Taylor	2055147
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	01/24/2019 07:01	Allison Taylor	2055148
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	02/01/2019 19:43	Allison Taylor	2055143
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	02/01/2019 19:52	Allison Taylor	2055144
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	02/01/2019 20:02	Allison Taylor	2055145
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	02/01/2019 20:11	Allison Taylor	2055146
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	02/01/2019 20:21	Allison Taylor	2055147
	01/17/2019	01/22/2019 15:50	Elliott D. Healy	02/01/2019 20:30	Allison Taylor	2055148
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/29/2019 22:02	Allison Taylor	2055137
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/29/2019 22:12	Allison Taylor	2055138
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/29/2019 22:21	Allison Taylor	2055139
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/29/2019 22:31	Allison Taylor	2055140
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/29/2019 22:40	Allison Taylor	2055141
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/29/2019 23:19	Allison Taylor	2055142
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/30/2019 02:01	Allison Taylor	2055138
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/30/2019 02:10	Allison Taylor	2055137
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/30/2019 02:20	Allison Taylor	2055139
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/30/2019 02:29	Allison Taylor	2055140
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/30/2019 02:39	Allison Taylor	2055141
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	01/30/2019 02:48	Allison Taylor	2055142
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/01/2019 00:25	Allison Taylor	2055138
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/01/2019 00:31	Allison Taylor	2055137
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/01/2019 00:37	Allison Taylor	2055139
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/01/2019 00:44	Allison Taylor	2055140

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 200.8 Rev. 5.4	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/01/2019 00:50	Allison Taylor	2055141
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/01/2019 00:56	Allison Taylor	2055142
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/02/2019 04:46	Allison Taylor	2055138
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/02/2019 04:55	Allison Taylor	2055137
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/02/2019 05:05	Allison Taylor	2055139
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/02/2019 05:14	Allison Taylor	2055140
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/02/2019 05:24	Allison Taylor	2055141
	01/17/2019	01/23/2019 17:00	Elliott D. Healy	02/02/2019 05:33	Allison Taylor	2055142
	01/17/2019					
EPA 350.1 Rev. 2.0	01/17/2019			01/17/2019 13:05	Ping Hua	2055026
	01/17/2019			01/17/2019 13:07	Ping Hua	2055027
	01/17/2019			01/22/2019 12:36	Ping Hua	2055055
	01/17/2019			01/22/2019 12:38	Ping Hua	2055056
	01/17/2019			01/22/2019 12:39	Ping Hua	2055057
	01/17/2019			01/22/2019 12:59	Ping Hua	2055053
	01/17/2019			01/22/2019 13:09	Ping Hua	2055028
	01/17/2019			01/22/2019 13:11	Ping Hua	2055029
	01/17/2019			01/22/2019 13:14	Ping Hua	2055051
	01/17/2019			01/22/2019 13:54	Ping Hua	2055052
	01/17/2019			01/22/2019 13:56	Ping Hua	2055054
EPA 351.2 Rev. 2.0	01/17/2019	01/18/2019 11:15	Adrian Shelby	01/22/2019 14:32	Joseph Suarez	2055052
	01/17/2019	01/18/2019 11:15	Adrian Shelby	01/22/2019 14:33	Joseph Suarez	2055054
	01/17/2019	01/18/2019 11:15	Adrian Shelby	01/22/2019 14:35	Joseph Suarez	2055055
	01/17/2019	01/18/2019 11:15	Adrian Shelby	01/22/2019 14:36	Joseph Suarez	2055056
	01/17/2019	01/18/2019 11:15	Adrian Shelby	01/22/2019 14:41	Joseph Suarez	2055057
	01/17/2019	01/28/2019 12:15	Adrian Shelby	01/29/2019 10:14	Joseph Suarez	2055026
	01/17/2019	01/28/2019 12:15	Adrian Shelby	01/29/2019 10:22	Joseph Suarez	2055027
	01/17/2019	01/28/2019 12:15	Adrian Shelby	01/29/2019 10:24	Joseph Suarez	2055028
	01/17/2019	01/28/2019 12:15	Adrian Shelby	01/29/2019 10:25	Joseph Suarez	2055029
	01/17/2019	01/28/2019 12:15	Adrian Shelby	01/29/2019 10:27	Joseph Suarez	2055051
	01/17/2019	01/28/2019 12:15	Adrian Shelby	01/29/2019 10:28	Joseph Suarez	2055053
EPA 353.2 Rev. 2.0	01/17/2019			01/22/2019 10:29	Beverly Y. Sanders	2055026
	01/17/2019			01/22/2019 10:35	Beverly Y. Sanders	2055027
	01/17/2019			01/22/2019 10:36	Beverly Y. Sanders	2055028
	01/17/2019			01/22/2019 10:37	Beverly Y. Sanders	2055029
	01/17/2019			01/22/2019 10:38	Beverly Y. Sanders	2055051
	01/17/2019			01/22/2019 11:44	Beverly Y. Sanders	2055053
	01/17/2019			01/23/2019 10:51	Beverly Y. Sanders	2055052
	01/17/2019			01/23/2019 10:59	Beverly Y. Sanders	2055054
	01/17/2019			01/23/2019 11:00	Beverly Y. Sanders	2055055
	01/17/2019			01/23/2019 11:02	Beverly Y. Sanders	2055056

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 353.2 Rev. 2.0	01/17/2019			01/23/2019 11:03	Beverly Y. Sanders	2055057
EPA 365.1 Rev. 2.0	01/17/2019	01/22/2019 11:40	Sima Feizi	01/24/2019 15:25	Rosalyn Ballman	2055052
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/24/2019 15:26	Rosalyn Ballman	2055054
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/24/2019 15:27	Rosalyn Ballman	2055055
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/24/2019 15:28	Rosalyn Ballman	2055056
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/24/2019 15:29	Rosalyn Ballman	2055057
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/24/2019 16:05	Rosalyn Ballman	2055051
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/24/2019 16:06	Rosalyn Ballman	2055053
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/25/2019 15:47	Rosalyn Ballman	2055026
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/25/2019 15:55	Rosalyn Ballman	2055027
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/25/2019 15:56	Rosalyn Ballman	2055028
	01/17/2019	01/22/2019 11:40	Sima Feizi	01/25/2019 15:57	Rosalyn Ballman	2055029
EPA 365.1 Rev. 2.0 dissolved	01/17/2019			01/17/2019 14:27	Jhamieka S. Greenwood	2055058
	01/17/2019			01/17/2019 14:38	Jhamieka S. Greenwood	2055060, 2055062
	01/17/2019			01/17/2019 14:39	Jhamieka S. Greenwood	2055063
	01/17/2019			01/17/2019 14:40	Jhamieka S. Greenwood	2055064
	01/17/2019			01/17/2019 14:41	Jhamieka S. Greenwood	2055065
	01/17/2019			01/17/2019 14:52	Jhamieka S. Greenwood	2055030
	01/17/2019			01/17/2019 14:53	Jhamieka S. Greenwood	2055031
	01/17/2019			01/17/2019 14:54	Jhamieka S. Greenwood	2055032
	01/17/2019			01/17/2019 14:55	Jhamieka S. Greenwood	2055033
	01/17/2019			01/17/2019 15:02	Jhamieka S. Greenwood	2055059
	01/17/2019			01/17/2019 15:03	Jhamieka S. Greenwood	2055061
SM 2320 B-97	01/17/2019			01/25/2019 04:07	Dale L. Simmons	2055021
	01/17/2019			01/25/2019 04:20	Dale L. Simmons	2055018
	01/17/2019			01/25/2019 05:42	Dale L. Simmons	2055019
	01/17/2019			01/25/2019 05:54	Dale L. Simmons	2055020
SM 4500 F-C-97	01/17/2019			01/25/2019 03:04	Dale L. Simmons	2055021
	01/17/2019			01/25/2019 03:16	Dale L. Simmons	2055018
	01/17/2019			01/25/2019 03:20	Dale L. Simmons	2055019
	01/17/2019			01/25/2019 03:24	Dale L. Simmons	2055020
SM 5310 B-00	01/17/2019			01/19/2019 02:32	Megan Treadwell	2055051
	01/17/2019			01/19/2019 02:44	Megan Treadwell	2055052
	01/17/2019			01/19/2019 03:21	Megan Treadwell	2055053
	01/17/2019			01/19/2019 05:48	Megan Treadwell	2055026
	01/17/2019			01/19/2019 06:00	Megan Treadwell	2055027
	01/17/2019			01/19/2019 06:12	Megan Treadwell	2055028
	01/17/2019			01/19/2019 06:24	Megan Treadwell	2055029
	01/17/2019			01/22/2019 14:14	Megan Treadwell	2055054
	01/17/2019			01/22/2019 15:03	Megan Treadwell	2055055

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 5310 B-00	01/17/2019			01/22/2019 15:28	Megan Treadwell	2055056
	01/17/2019			01/22/2019 15:40	Megan Treadwell	2055057
SM 5310 B-00 dissolved	01/17/2019			01/19/2019 00:19	Megan Treadwell	2055034
	01/17/2019			01/19/2019 00:56	Megan Treadwell	2055035
	01/17/2019			01/19/2019 01:08	Megan Treadwell	2055036
	01/17/2019			01/19/2019 01:20	Megan Treadwell	2055037
	01/17/2019			01/19/2019 01:32	Megan Treadwell	2055038
	01/17/2019			01/19/2019 01:45	Megan Treadwell	2055039
	01/17/2019			01/19/2019 01:57	Megan Treadwell	2055040
	01/17/2019			01/19/2019 02:09	Megan Treadwell	2055041
	01/17/2019			01/19/2019 03:58	Megan Treadwell	2055022
	01/17/2019			01/19/2019 04:34	Megan Treadwell	2055023
	01/17/2019			01/19/2019 04:46	Megan Treadwell	2055024
	01/17/2019			01/19/2019 05:11	Megan Treadwell	2055025