

Chemical Analysis Report

NW-DIST-2016-04-07-01

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

Event Description: **WBID 275 179 27 271 28**

Request ID: **RQ-2016-03-07-73**

Customer: **NW-DIST**

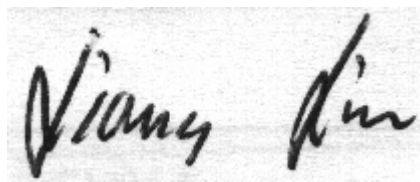
Project ID: **SMP**

Send Reports to:
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Suite 208A
Pensacola, FL 32502-5794
Attn: Michael King

For additional information please contact
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Certified by: Liang Lin, Environmental Administrator

Date Certified: 03-MAY-2016 16:59

A handwritten signature in black ink, appearing to read "Liang Lin", on a light-colored background.

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 group are included in this report: 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: Sweetwater Creek Green Rd

Collection Date/Time: 04/06/2016 12:05

Field ID: G4NW0294

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787492	EPA 180.1 Rev. 2.0	Turbidity	3.1		NTU	P301857	
	EPA 300.0 Rev. 2.1	Chloride	2.4		mg Cl/L	P302305	
		Sulfate	0.95		mg SO4/L	P302311	
	SM 2120 B	Color (true)	45	A	PCU	P302066	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	15	U	mg/L	P302613	
	SM 2540 D-97	TSS	4	I	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787501	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P302173	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.21		mg N/L	P302674	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.027		mg N/L	P302088	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P302351	
	SM 5310 B-00	Organic Carbon	4.5		mg C/L	P302248	
1787510	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301830	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Sweetwater Creek Hwy 4

Collection Date/Time: 04/06/2016 12:30

Field ID: G4NW0293

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787493	EPA 180.1 Rev. 2.0	Turbidity	3.5		NTU	P301857	
	EPA 300.0 Rev. 2.1	Chloride	2.4		mg Cl/L	P302305	
		Sulfate	0.97		mg SO4/L	P302311	
	SM 2120 B	Color (true)	42		PCU	P302066	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	15	U	mg/L	P302613	
	SM 2540 D-97	TSS	5	I	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787502	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P302173	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.18	I	mg N/L	P302674	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.043		mg N/L	P302088	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P302351	
	SM 5310 B-00	Organic Carbon	4.3		mg C/L	P302248	
1787511	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301830	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Bear Creek @ forest rd

Collection Date/Time: 04/06/2016 13:25

Field ID: G4NW0380

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: G4NW0380

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787494	EPA 180.1 Rev. 2.0	Turbidity	1.7		NTU	P301857	
	EPA 300.0 Rev. 2.1	Chloride	2.3		mg Cl/L	P302305	
		Sulfate	0.69		mg SO4/L	P302311	
	SM 2120 B	Color (true)	40		PCU	P302066	
	SM 2320 B-97	Total Alkalinity	6.3		mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	19	I	mg/L	P302613	
	SM 2540 D-97	TSS	2	U	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787503	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P302173	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.25	J	mg N/L	P302675	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.032		mg N/L	P302088	
	EPA 365.1 Rev. 2.0	Total-P	0.011		mg P/L	P302351	
	SM 5310 B-00	Organic Carbon	4.2		mg C/L	P302248	
1787512	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301830	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

EPA 351.2 Rev. 2.0: Refer to the narrative for an explanation of QC Codes.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Ates Creek Bryant Bridge RD

Collection Date/Time: 04/06/2016 14:15

Field ID: G4NW0332

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787495	EPA 180.1 Rev. 2.0	Turbidity	2.6		NTU	P301857	
	EPA 300.0 Rev. 2.1	Chloride	3.4		mg Cl/L	P302305	
		Sulfate	0.86		mg SO4/L	P302311	
	SM 2120 B	Color (true)	25		PCU	P302066	
	SM 2320 B-97	Total Alkalinity	6.5		mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	25		mg/L	P302613	
	SM 2540 D-97	TSS	2	U	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787504	EPA 350.1 Rev. 2.0	Ammonia-N	0.01		mg N/L	P302173	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P302675	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.014		mg N/L	P302088	
	EPA 365.1 Rev. 2.0	Total-P	0.008		mg P/L	P302352	
	SM 5310 B-00	Organic Carbon	2.3		mg C/L	P302248	
1787513	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301830	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Big Juniper Creek Munson Hwy north of Hwy 4

Collection Date/Time: 04/06/2016 10:45

Field ID: G4NW0290

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
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Field ID: G4NW0290

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787496	EPA 180.1 Rev. 2.0	Turbidity	2.0		NTU	P301857	
	EPA 300.0 Rev. 2.1	Chloride	2.5		mg Cl/L	P302305	
		Sulfate	0.71		mg SO4/L	P302311	
	SM 2120 B	Color (true)	36		PCU	P302066	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	15	U	mg/L	P302613	
	SM 2540 D-97	TSS	2	U	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787505	EPA 350.1 Rev. 2.0	Ammonia-N	0.004	I	mg N/L	P302174	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.14	I	mg N/L	P302675	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.059		mg N/L	P302088	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P302352	
	SM 5310 B-00	Organic Carbon	3.8		mg C/L	P302248	
1787514	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301830	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Big Juniper Creek Amos Cabniss Rd

Collection Date/Time: 04/06/2016 11:05

Field ID: G4NW0289

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787497	EPA 180.1 Rev. 2.0	Turbidity	2.1	A	NTU	P301858	
	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P302305	
		Sulfate	0.78		mg SO4/L	P302311	
	SM 2120 B	Color (true)	39		PCU	P302066	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	17	I	mg/L	P302613	
	SM 2540 D-97	TSS	3	I	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787506	EPA 350.1 Rev. 2.0	Ammonia-N	0.005	I	mg N/L	P302174	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.17	I	mg N/L	P302675	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.055		mg N/L	P302088	
	EPA 365.1 Rev. 2.0	Total-P	0.005	I	mg P/L	P302352	
	SM 5310 B-00	Organic Carbon	3.9		mg C/L	P302248	
1787515	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301830	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Big Juniper Creek Munson Hwy South of Hwy 4 **Collection Date/Time: 04/06/2016 11:25**

Field ID: G4NW0287

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787498	EPA 180.1 Rev. 2.0	Turbidity	4.9		NTU	P301858	

Field ID: G4NW0287

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787498	EPA 300.0 Rev. 2.1	Chloride	2.6		mg Cl/L	P302305	
		Sulfate	1.1		mg SO4/L	P302311	
	SM 2120 B	Color (true)	36		PCU	P302066	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	15	U	mg/L	P302613	
	SM 2540 D-97	TSS	6	I	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787507	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P302174	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P302675	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.045		mg N/L	P302089	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P302352	
	SM 5310 B-00	Organic Carbon	3.5		mg C/L	P302248	
1787516	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301831	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Sweetwater Creek Sandy Landing Rd

Collection Date/Time: 04/06/2016 11:45

Field ID: G4NW0292

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787499	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P301858	
	EPA 300.0 Rev. 2.1	Chloride	2.4		mg Cl/L	P302305	
		Sulfate	0.97		mg SO4/L	P302311	
	SM 2120 B	Color (true)	42	A	PCU	P302067	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	15	U	mg/L	P302613	
	SM 2540 D-97	TSS	6	I	mg/L	P302332	
1787508	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.003	I	mg N/L	P302272	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.19	I	mg N/L	P302675	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.044		mg N/L	P302089	
	EPA 365.1 Rev. 2.0	Total-P	0.006		mg P/L	P302352	
1787517	SM 5310 B-00	Organic Carbon	4.2		mg C/L	P302248	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301831	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Sample Location: Big Juniper Creek upstream of Red Rock Rd

Collection Date/Time: 04/06/2016 14:40

Field ID: G4NW0286

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787500	EPA 180.1 Rev. 2.0	Turbidity	3.6		NTU	P301858	
	EPA 300.0 Rev. 2.1	Chloride	2.5		mg Cl/L	P302305	

Field ID: G4NW0286

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1787500	EPA 300.0 Rev. 2.1	Sulfate	1.0		mg SO4/L	P302311	
	SM 2120 B	Color (true)	37		PCU	P302067	
	SM 2320 B-97	Total Alkalinity	0.65	U	mg CaCO3/L	P302191	
	SM 2540 C-97	TDS	15	U	mg/L	P302613	
	SM 2540 D-97	TSS	6	I	mg/L	P302332	
	SM 4500 F-C-97	Fluoride	0.035	U	mg F/L	P302194	
1787509	EPA 350.1 Rev. 2.0	Ammonia-N	0.002	I	mg N/L	P302272	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.16	I	mg N/L	P302675	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.055		mg N/L	P302089	
	EPA 365.1 Rev. 2.0	Total-P	0.004	I	mg P/L	P302352	
	SM 5310 B-00	Organic Carbon	3.9		mg C/L	P302248	
1787518	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P301831	

Ref. Method and Comment:

SM 2540 C-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 2540 D-97: The precision data is unavailable due to the low analyte concentration in the QC sample.

SM 5310 B-00: Matrix spike recovery data is unavailable due to high analyte concentration in the QC sample.

Quality Assurance Report

Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P301857

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P301858

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P302305

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P302311

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P302173

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: P302174

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302272

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302674

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302675

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302088

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302089

Component	Result	Code	Units
NO ₂ NO ₃ -N	0.004	U	mg N/L

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302351

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302352

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301830

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: P301831

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

Reference Method: SM 2120 B
Batch ID: P302066

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2120 B
Batch ID: P302067

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P302191

Component	Result	Code	Units
Total Alkalinity	0.65	U	mg CaCO3/L

Reference Method: SM 2540 C-97
Batch ID: P302613

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P302332

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P302194

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P302248

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P302305

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
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Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P302305

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	99.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P302311

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302173

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302174

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: P302272

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302674

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	97.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302675

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	98.4		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302088

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	100		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302089

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO ₂ NO ₃ -N	102		P	90 - 110

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302351

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302352

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	97.4		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301830

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301831

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

Reference Method: SM 2320 B-97
Batch ID: P302191

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	101		P	95 - 105

Reference Method: SM 4500 F-C-97
Batch ID: P302194

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P302248

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	96.0		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P302305

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787664	Chloride	97.8		P	90 - 110
1787665	Chloride	98.3		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P302311

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787664	Sulfate	95.6		P	90 - 110
1787665	Sulfate	95.9		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302173

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787474	Ammonia-N	105	107	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302174

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787506	Ammonia-N	101	101	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302272

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787508	Ammonia-N	99.8	100	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302674

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787406	Kjeldahl Nitrogen	89.5	92.6	F/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302675

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787503	Kjeldahl Nitrogen	88.2	94.6	F/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302088

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787458	NO2NO3-N	94.2	95.2	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302089

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787507	NO2NO3-N	97.6	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302351

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787407	Total-P	103	101	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302352

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787504	Total-P	103	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301830

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787482	O-Phosphate-P	98.2	99.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301831

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787516	O-Phosphate-P	99.9	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97
Batch ID: P302194

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1787570	Fluoride	96.9	96.9	P/P	91 - 105

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P301857

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787455	Turbidity	1.98	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P301858

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787497	Turbidity	0.477	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P302305

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787664	Chloride	0.0904	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P302311

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787664	Sulfate	0.298	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302173

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787474	Ammonia-N	1.95	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302174

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787506	Ammonia-N	0.0902	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P302272

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787508	Ammonia-N	0.608	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302674

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787406	Kjeldahl Nitrogen	1.85	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P302675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787503	Kjeldahl Nitrogen	5.71	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302088

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787458	NO2NO3-N	0.976	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P302089

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787507	NO2NO3-N	2.06	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302351

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787407	Total-P	1.45	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P302352

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787504	Total-P	2.61	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301830

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787482	O-Phosphate-P	1.02	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P301831

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787516	O-Phosphate-P	1.19	Spike	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P302066

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787492	Color (true)	0.227	Sample	P	0 - 20

Reference Method: SM 2120 B
Batch ID: P302067

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787499	Color (true)	0.972	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P302191

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787570	Total Alkalinity	0.214	Sample	P	0 - 4.8

Reference Method: SM 4500 F-C-97
Batch ID: P302194

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787570	Fluoride	0.0	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P302248

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1787457	Organic Carbon	0.342	Spike	P	0 - 20

Quality Assurance Report Precision

* 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: A68729

Included Lab Sample IDs: 1787510, 1787511, 1787512, 1787513, 1787514, 1787515, 1787516, 1787517, 1787518

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.2	97.5	P/P	90 - 110
O-Phosphate-P	98.5	97.6	P/P	90 - 110
O-Phosphate-P	99.7	98.5	P/P	90 - 110
O-Phosphate-P	99.8	99.2	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A68738

Included Lab Sample IDs: 1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	99.0	P/P	95 - 105
Turbidity	99.0	99.0	P/P	95 - 105

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A68804

Included Lab Sample IDs: 1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	101	100	P/P	90 - 110
Sulfate	100	99.0	P/P	90 - 110

Reference Method: SM 2120 B

Run ID: A68821

Included Lab Sample IDs: 1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	103	106	P/P	85 - 115
Color (true)	106	105	P/P	85 - 115

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A68825

Included Lab Sample IDs: 1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	98.5	100	P/P	90 - 110
NO2NO3-N	98.5	98.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68853

Included Lab Sample IDs: 1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507

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

Quality Assurance Report Calibration Verification

Reference Method: SM 2320 B-97

Run ID: A68859

Included Lab Sample IDs: 1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	99.6	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A68859

Included Lab Sample IDs: 1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	99.5	100	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A68878

Included Lab Sample IDs: 1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	95.7	96.2	P/P	90 - 110
Organic Carbon	96.0	95.7	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A68885

Included Lab Sample IDs: 1787508, 1787509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	101	102	P/P	90 - 110
Ammonia-N	103	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A68978

Included Lab Sample IDs: 1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.5	98.2	P/P	90 - 110
Total-P	99.8	98.5	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A69032

Included Lab Sample IDs: 1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	105	100	P/P	90 - 110
Kjeldahl Nitrogen	99.3	105	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	MS
				LCS	SMP

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 180.1 Rev. 2.0	Turbidity				1.98	
	Turbidity				0.477	
EPA 300.0 Rev. 2.1	Chloride	99.1	97.8	98.3	0.0904	
	Sulfate	97.8	95.6	95.9	0.298	
EPA 350.1 Rev. 2.0	Ammonia-N	102	105	107		1.95
	Ammonia-N	101	101	101		0.0902
	Ammonia-N	102	99.8	100		0.608
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	97.2	89.5	92.6		1.85
	Kjeldahl Nitrogen	98.4	94.6	88.2		5.71
EPA 353.2 Rev. 2.0	NO2NO3-N	100	94.2	95.2		0.976
	NO2NO3-N	102	97.6	100		2.06
EPA 365.1 Rev. 2.0	Total-P	101	103	101		1.45
	Total-P	97.4	103	106		2.61
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.9	98.2	99.5		1.02
	O-Phosphate-P	103	99.9	101		1.19
SM 2120 B	Color (true)				0.227	
	Color (true)				0.972	
SM 2320 B-97	Total Alkalinity	101			0.214	
SM 4500 F-C-97	Fluoride	98.7	96.9	96.9		0.0
SM 5310 B-00	Organic Carbon	96.0				0.342

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1787510, 1787511, 1787512, 1787513, 1787514, 1787515, 1787516, 1787517, 1787518
SM 2120 B / E31780	True Color measured at 450 nm	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 180.1 Rev. 2.0	04/07/2016			04/07/2016 17:11	Sima Feizi	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
EPA 300.0 Rev. 2.1	04/07/2016			04/12/2016	Ping Hua	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
EPA 350.1 Rev. 2.0	04/07/2016			04/13/2016	Diana M. Turner	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507
EPA 351.2 Rev. 2.0	04/07/2016	04/21/2016	Sofia Elnemr	04/14/2016	Diana M. Turner	1787508, 1787509
	04/07/2016			04/22/2016	Rochelle Y Jackson	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509
EPA 353.2 Rev. 2.0	04/07/2016			04/12/2016	Peter D. Kaus	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509
EPA 365.1 Rev. 2.0	04/07/2016	04/15/2016	Lipi Saha	04/18/2016	Lipi Saha	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509
EPA 365.1 Rev. 2.0 dissolved	04/07/2016			04/07/2016 13:19	Ping Hua	1787516
	04/07/2016			04/07/2016 13:55	Ping Hua	1787512
	04/07/2016			04/07/2016 13:56	Ping Hua	1787513
	04/07/2016			04/07/2016 13:57	Ping Hua	1787514
	04/07/2016			04/07/2016 13:58	Ping Hua	1787515
	04/07/2016			04/07/2016 13:59	Ping Hua	1787517
	04/07/2016			04/07/2016 14:04	Ping Hua	1787518
	04/07/2016			04/07/2016 14:48	Ping Hua	1787510
	04/07/2016			04/07/2016 14:49	Ping Hua	1787511
SM 2120 B	04/07/2016			04/07/2016 14:50	Blanca Fach	1787492
	04/07/2016			04/07/2016 14:53	Blanca Fach	1787493
	04/07/2016			04/07/2016 14:54	Blanca Fach	1787494
	04/07/2016			04/07/2016 14:55	Blanca Fach	1787495, 1787496
	04/07/2016			04/07/2016 14:56	Blanca Fach	1787497
	04/07/2016			04/07/2016 14:57	Blanca Fach	1787498
	04/07/2016			04/07/2016 15:01	Blanca Fach	1787499, 1787500
SM 2320 B-97	04/07/2016			04/13/2016	Dale L. Simmons	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
SM 2540 C-97	04/07/2016			04/11/2016	Sima Feizi	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
SM 2540 D-97	04/07/2016			04/11/2016	Sima Feizi	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 4500 F-C-97	04/07/2016			04/13/2016	Dale L. Simmons	1787492, 1787493, 1787494, 1787495, 1787496, 1787497, 1787498, 1787499, 1787500
SM 5310 B-00	04/07/2016			04/13/2016	Sofia Elnemr	1787501, 1787502, 1787503, 1787504, 1787505, 1787506, 1787507, 1787508, 1787509