

Chemical Analysis Report

NE-DIST-2018-03-06-02

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

Event Description: **LSJR SOUTHSIDE 2_2018**

Request ID: **RQ-2018-03-05-22**

Customer: **NE-DIST**

Project ID: **SMP**

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Date Certified: 18-APR-2018 16:46



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, Nutrients and Pesticides.

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: CORMORANT BRANCH AT JULINGTON CREEK ROAD

Collection Date/Time: 03/05/2018 10:55

Field ID: 20030685

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972405	EPA 8321B	2,4-D	0.0058	I	ug/L	P340883	
		Sucralose**	0.42		ug/L	P341049	
		Bentazon	0.012		ug/L	P340883	MS
		MCP	0.0020	U	ug/L	P340883	MS
		Triclopyr**	0.0040	U	ug/L	P340883	MS
		Imidacloprid	0.020		ug/L	P340883	MS
		Diuron	0.0025	I	ug/L	P340883	
		Primidone**	0.0045	I	ug/L	P340883	
		Linuron	0.0040	U	ug/L	P340883	
		Acetaminophen**	0.0080	U	ug/L	P340883	
		Fenuron	0.0080	U	ug/L	P340883	
		Imazapyr**	0.089		ug/L	P340883	MS
		Carbamazepine**	7.5E-04	I	ug/L	P340883	
		Fluridone**	0.024		ug/L	P340883	

Ref. Method and Comment:
EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

Sample Location: CORMORANT BRANCH @ MARBON RD

Collection Date/Time: 03/05/2018 11:45

Field ID: 20030852

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972354	EPA 180.1 Rev. 2.0	Turbidity	5.2		NTU	P341077	
	EPA 300.0 Rev. 2.1	Chloride	24		mg Cl/L	P341226	
		Sulfate	21		mg SO4/L	P341230	
	SM 2120 B	Color (true)	53		PCU	P341030	
	SM 2320 B-97	Total Alkalinity	74		mg CaCO3/L	P341454	
	SM 2540 C-97	TDS	164	A	mg/L	P341589	
	SM 2540 D-97	TSS	3	IA	mg/L	P341606	
	SM 4500 F-C-97	Fluoride	0.091	I	mg F/L	P341459	
1972355	EPA 350.1 Rev. 2.0	Ammonia-N	0.031		mg N/L	P341261	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.37	J	mg N/L	P341299	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.24		mg N/L	P341283	
	EPA 365.1 Rev. 2.0	Total-P	0.052		mg P/L	P341312	
	SM 5310 B-00	Organic Carbon	7.3		mg C/L	P341325	
1972356	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.026		mg P/L	P341054	
	dissolved						
1972404	EPA 8321B	2,4-D	0.0020	U	ug/L	P340883	
		Sucralose**	0.23		ug/L	P340984	
		Bentazon	0.015		ug/L	P340883	MS
		MCP	0.0020	U	ug/L	P340883	MS
		Triclopyr**	0.0040	U	ug/L	P340883	MS
		Imidacloprid	0.029		ug/L	P340883	MS
		Diuron	0.017		ug/L	P340883	
		Primidone**	0.0051	I	ug/L	P340883	

Field ID: 20030852

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972404	EPA 8321B	Linuron	0.0040	U	ug/L	P340883	
		Acetaminophen**	0.0080	U	ug/L	P340883	
		Fenuron	0.0080	U	ug/L	P340883	
		Imazapyr**	0.19		ug/L	P340883	MS
		Carbamazepine**	5.1E-04	I	ug/L	P340883	
		Fluridone**	0.038		ug/L	P340883	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

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

EPA 8321B: Fenuron was detected in the method blank slightly above the MDL.

Sample Location: OLDFIELD CR @ LORETTO RD

Collection Date/Time: 03/05/2018 12:15

Field ID: 20030563

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972357	EPA 180.1 Rev. 2.0	Turbidity	8.7		NTU	P341077	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P341226	
		Sulfate	33		mg SO4/L	P341230	
	SM 2120 B	Color (true)	38		PCU	P341030	
	SM 2320 B-97	Total Alkalinity	101		mg CaCO3/L	P341454	
	SM 2540 C-97	TDS	206		mg/L	P341589	
	SM 2540 D-97	TSS	3	I	mg/L	P341606	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P341459	
1972359	EPA 350.1 Rev. 2.0	Ammonia-N	0.049		mg N/L	P341261	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.44		mg N/L	P341299	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P341283	
	EPA 365.1 Rev. 2.0	Total-P	0.065		mg P/L	P341312	
	SM 5310 B-00	Organic Carbon	7.1		mg C/L	P341325	
1972361	EPA 365.1 Rev. 2.0	O-Phosphate-P	0.018		mg P/L	P341054	
1972378	EPA 200.7 Rev. 4.4	Calcium	46.7		mg/L	P341196	
		Iron	1.59E+03		ug/L	P341196	
		Magnesium	6.33		mg/L	P341196	
		Potassium	1.8		mg/L	P341196	
		Sodium	17.7		mg/L	P341196	
		Zinc	5.0	U	ug/L	P341196	
	EPA 200.8 Rev. 5.4	Arsenic	0.95		ug/L	P341196	
		Cadmium	0.020	U	ug/L	P341196	
		Chromium	0.40	U	ug/L	P341196	
		Copper	1.02		ug/L	P341196	
		Lead	0.11	I	ug/L	P341196	
		Nickel	0.36	I	ug/L	P341196	
		Silver	0.010	U	ug/L	P341196	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: OLDFIELD CR @ JULINGTON CREEK ROAD

Collection Date/Time: 03/05/2018 11:15

Field ID: 20030684

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972358	EPA 180.1 Rev. 2.0	Turbidity	2.8		NTU	P341077	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P341226	
		Sulfate	40		mg SO4/L	P341230	
		Color (true)	48		PCU	P341030	
	SM 2320 B-97	Total Alkalinity	76		mg CaCO3/L	P341454	
	SM 2540 C-97	TDS	198		mg/L	P341589	
	SM 2540 D-97	TSS	3	I	mg/L	P341606	
	SM 4500 F-C-97	Fluoride	0.11		mg F/L	P341459	
1972360	EPA 350.1 Rev. 2.0	Ammonia-N	0.033		mg N/L	P341261	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.42		mg N/L	P341299	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.23		mg N/L	P341283	
	EPA 365.1 Rev. 2.0	Total-P	0.066		mg P/L	P341312	
	SM 5310 B-00	Organic Carbon	7.8		mg C/L	P341325	
1972362	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.060		mg P/L	P341054	
1972379	EPA 200.7 Rev. 4.4	Calcium	37.0		mg/L	P341196	
		Iron	590		ug/L	P341196	
		Magnesium	9.48		mg/L	P341196	
		Potassium	2.6		mg/L	P341196	
		Sodium	23.1		mg/L	P341196	
		Zinc	5.0	U	ug/L	P341196	
	EPA 200.8 Rev. 5.4	Arsenic	0.81		ug/L	P341196	
		Cadmium	0.020	U	ug/L	P341196	
		Chromium	0.99	I	ug/L	P341196	
		Copper	0.73	I	ug/L	P341196	
		Lead	0.11	I	ug/L	P341196	
		Nickel	0.36	I	ug/L	P341196	
		Silver	0.010	U	ug/L	P341196	

Ref. Method and Comment:

SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Sample Location: MILL CREEK 300 YRDS ABOVE SR 16

Collection Date/Time: 03/05/2018 13:30

Field ID: 20030568

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972363	EPA 180.1 Rev. 2.0	Turbidity	3.6	A	NTU	P341078	
	EPA 300.0 Rev. 2.1	Chloride	100		mg Cl/L	P341226	
		Sulfate	99		mg SO4/L	P341230	
		Color (true)	67		PCU	P341030	
	SM 2320 B-97	Total Alkalinity	142		mg CaCO3/L	P341521	
	SM 2540 C-97	TDS	457		mg/L	P341589	
	SM 2540 D-97	TSS	3	I	mg/L	P341606	
	SM 4500 F-C-97	Fluoride	0.28		mg F/L	P341524	
1972364	EPA 350.1 Rev. 2.0	Ammonia-N	0.035		mg N/L	P341261	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.83		mg N/L	P341299	MS
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.40		mg N/L	P341283	

Field ID: 20030568

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1972364	EPA 365.1 Rev. 2.0	Total-P	0.063		mg P/L	P341313	
	SM 5310 B-00	Organic Carbon	14		mg C/L	P341325	
1972365	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.030		mg P/L	P341054	

Ref. Method and Comment:
 SM 2540 D-97: Batch relative percent difference is unavailable because of low analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P341077

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0
 Batch ID: P341078

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
 Batch ID: P341196

Component	Result	Code	Units
Calcium	0.075	U	mg/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Potassium	0.30	U	mg/L
Sodium	0.50	U	mg/L
Zinc	5.0	U	ug/L

Reference Method: EPA 200.8 Rev. 5.4
 Batch ID: P341196

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

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P341226

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
 Batch ID: P341230

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341261

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341299

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341283

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341312

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341313

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341054

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

Reference Method: EPA 8321B
Batch ID: P340883

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Bentazon	8.0E-04	U	ug/L
Carbamazepine	4.0E-04	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.021	I	ug/L
Fluridone	8.0E-04	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
MCPP	0.0020	U	ug/L
Primidone	0.0040	U	ug/L
Triclopyr	0.0040	U	ug/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P340984

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P341049

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P341030

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P341454

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

Reference Method: SM 2320 B-97
Batch ID: P341521

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

Reference Method: SM 2540 C-97
Batch ID: P341589

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P341606

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P341459

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 4500 F-C-97
Batch ID: P341524

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Quality Assurance Report Method Blank Results

Reference Method: SM 5310 B-00
Batch ID: P341325

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: P341196

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Calcium	107		P	85 - 115
Iron	110		P	85 - 115
Magnesium	106		P	85 - 115
Potassium	107		P	85 - 115
Sodium	101		P	85 - 115
Zinc	103		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341196

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Arsenic	103		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	102		P	85 - 115
Copper	101		P	85 - 115
Lead	110		P	85 - 115
Nickel	101		P	85 - 115
Silver	105		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341226

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	95.5		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341230

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	97.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341261

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341299

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341283

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341312

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341313

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341054

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

Reference Method: EPA 8321B
Batch ID: P340883

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	81.0		P	40 - 150
Acetaminophen	91.3		P	30 - 150
Bentazon	103		P	30 - 150
Carbamazepine	78.8		P	40 - 150
Diuron	65.0		P	40 - 150
Fenuron	95.5		P	40 - 150
Fluridone	66.0		P	40 - 150
Imazapyr	63.3		P	40 - 150
Imidacloprid	89.3		P	40 - 160
Linuron	73.6		P	40 - 150
MCPP	83.2		P	40 - 150
Primidone	100		P	40 - 150
Triclopyr	77.5		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P340984

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	100		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P341049

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	92.2		P	40 - 150

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 2320 B-97
Batch ID: P341454

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.8		P	95 - 108

Reference Method: SM 2320 B-97
Batch ID: P341521

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.2		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P341459

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	96.8		P	92 - 103

Reference Method: SM 4500 F-C-97
Batch ID: P341524

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.7		P	92 - 103

Reference Method: SM 5310 B-00
Batch ID: P341325

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

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341196

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972378	Calcium	106		P	80 - 120
1972378	Iron	110		P	80 - 120
1972378	Magnesium	106		P	80 - 120
1972378	Potassium	105		P	80 - 120
1972378	Sodium	102		P	80 - 120
1972378	Zinc	102		P	80 - 120
1972688	Calcium	102		P	80 - 120
1972688	Iron	109	107	P/P	80 - 120
1972688	Magnesium	101		P	80 - 120
1972688	Potassium	107	104	P/P	80 - 120
1972688	Sodium	98.5		P	80 - 120
1972688	Zinc	99.4	97.6	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341196

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972378	Arsenic	105		P	80 - 120

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341196

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972378	Cadmium	103		P	80 - 120
1972378	Chromium	103		P	80 - 120
1972378	Copper	99.9		P	80 - 120
1972378	Lead	112		P	80 - 120
1972378	Nickel	99.3		P	80 - 120
1972378	Silver	105		P	80 - 120
1972688	Arsenic	103	101	P/P	80 - 120
1972688	Cadmium	107	106	P/P	80 - 120
1972688	Chromium	103	100	P/P	80 - 120
1972688	Copper	97.5	96.3	P/P	80 - 120
1972688	Lead	112	110	P/P	80 - 120
1972688	Nickel	98.6	97.0	P/P	80 - 120
1972688	Silver	107	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341226

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972112	Chloride	94.8		P	90 - 110
1972159	Chloride	96.1		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341230

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972112	Sulfate	95.9		P	90 - 110
1972159	Sulfate	97.8		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341261

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972355	Ammonia-N	102	95.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341299

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972355	Kjeldahl Nitrogen	106	89.2	P/F	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341283

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972359	NO2NO3-N	99.5	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341312

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972285	Total-P	98.6	103	P/P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P341313

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972462	Total-P	98.6	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P341054

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972108	O-Phosphate-P	96.1	98.8	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P340883

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972049	2,4-D	44.4	44.3	P/P	40 - 150
1972049	Acetaminophen	119	117	P/P	30 - 150
1972049	Bentazon	27.9	28.9	F/F	30 - 150
1972049	Carbamazepine	74.3	75.3	P/P	40 - 150
1972049	Diuron	55.3	56.0	P/P	40 - 150
1972049	Fenuron	67.5	74.7	P/P	40 - 150
1972049	Fluridone	59.9	59.9	P/P	40 - 150
1972049	Imazapyr	52.1	37.9	P/F	40 - 150
1972049	Imidacloprid	164	161	F/F	40 - 160
1972049	Linuron	77.1	72.0	P/P	40 - 150
1972049	MCPP	30.8	31.9	F/F	40 - 150
1972049	Primidone	81.4	91.4	P/P	40 - 150
1972049	Triclopyr	40.0	45.0	F/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P340984

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1971431	Sucralose	98.3	104	P/P	40 - 150

Reference Method: EPA 8321B

Batch ID: P341049

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972405	Sucralose	107	101	P/P	40 - 150

Reference Method: SM 4500 F-C-97

Batch ID: P341459

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972110	Fluoride	95.7	96.3	P/P	91 - 105

Reference Method: SM 4500 F-C-97

Batch ID: P341524

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972840	Fluoride	96.4	97.0	P/P	91 - 105

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 5310 B-00
Batch ID: P341325

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1972106	Organic Carbon	108		P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341077

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972327	Turbidity	0.797	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P341078

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972363	Turbidity	5.01	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P341196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972688	Calcium	0.775	Spike	P	0 - 20
1972688	Iron	1.12	Spike	P	0 - 20
1972688	Magnesium	1.62	Spike	P	0 - 20
1972688	Potassium	1.78	Spike	P	0 - 20
1972688	Sodium	0.602	Spike	P	0 - 20
1972688	Zinc	1.41	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P341196

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972688	Arsenic	2.07	Spike	P	0 - 20
1972688	Cadmium	1.30	Spike	P	0 - 20
1972688	Chromium	2.94	Spike	P	0 - 20
1972688	Copper	1.18	Spike	P	0 - 20
1972688	Lead	1.73	Spike	P	0 - 20
1972688	Nickel	1.70	Spike	P	0 - 20
1972688	Silver	1.95	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341226

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972112	Chloride	4.35	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P341230

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972112	Sulfate	5.70	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P341261

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972355	Ammonia-N	4.45	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P341299

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972355	Kjeldahl Nitrogen	13.3	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P341283

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972359	NO2NO3-N	1.84	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341312

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972285	Total-P	3.74	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P341313

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972462	Total-P	2.71	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P341054

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972108	O-Phosphate-P	2.77	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P340883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972049	2,4-D	0.162	Spike	P	0 - 30
1972049	Acetaminophen	2.37	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P340883

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972049	Bentazon	2.71	Spike	P	0 - 30
1972049	Carbamazepine	1.32	Spike	P	0 - 30
1972049	Diuron	1.26	Spike	P	0 - 30
1972049	Fenuron	10.2	Spike	P	0 - 30
1972049	Fluridone	0.0788	Spike	P	0 - 30
1972049	Imazapyr	13.5	Spike	P	0 - 30
1972049	Imidacloprid	1.62	Spike	P	0 - 30
1972049	Linuron	6.78	Spike	P	0 - 30
1972049	MCP	3.48	Spike	P	0 - 30
1972049	Primidone	11.7	Spike	P	0 - 30
1972049	Triclopyr	11.9	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P340984

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1971431	Sucralose	5.28	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P341049

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972405	Sucralose	4.52	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P341030

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972160	Color (true)	4.62	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P341454

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972110	Total Alkalinity	0.246	Sample	P	0 - 4.8

Reference Method: SM 2320 B-97
Batch ID: P341521

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972840	Total Alkalinity	0.318	Sample	P	0 - 4.8

Quality Assurance Report Precision

Reference Method: SM 2540 C-97
Batch ID: P341589

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972354	TDS	3.06	Sample	P	0 - 10

Reference Method: SM 4500 F-C-97
Batch ID: P341459

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972110	Fluoride	0.477	Spike	P	0 - 3.0

Reference Method: SM 4500 F-C-97
Batch ID: P341524

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972840	Fluoride	0.477	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P341325

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1972106	Organic Carbon	0.161	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 Surrogates

Lab Sample ID: 1972404
Field Sample ID: 20030852

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	41.4	P	30 - 160
EPA 8321B	Acetaminophen-d4	117	P	30 - 160
EPA 8321B	Carbamazepine-d10	72.0	P	30 - 160
EPA 8321B	Diuron-d6	65.8	P	30 - 160
EPA 8321B	Primidone-d5	102	P	30 - 160
EPA 8321B	Sucralose-d6	106	P	40 - 160

Lab Sample ID: 1972405
Field Sample ID: 20030685

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	52.3	P	30 - 160
EPA 8321B	Acetaminophen-d4	114	P	30 - 160
EPA 8321B	Carbamazepine-d10	75.7	P	30 - 160
EPA 8321B	Diuron-d6	65.2	P	30 - 160
EPA 8321B	Primidone-d5	95.9	P	30 - 160
EPA 8321B	Sucralose-d6	94.0	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B

Run ID: A82462

Included Lab Sample IDs: 1972354, 1972357, 1972358, 1972363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	98.1	P/P	85 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A82474

Included Lab Sample IDs: 1972356, 1972361, 1972362, 1972365

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

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A82476

Included Lab Sample IDs: 1972354, 1972357, 1972358, 1972363

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

Reference Method: EPA 8321B

Run ID: A82499

Included Lab Sample IDs: 1972404

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	99.4	102	P/P	60 - 150

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82509

Included Lab Sample IDs: 1972354, 1972357, 1972358, 1972363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	95.5	98.3	P/P	90 - 110
Sulfate	96.9	99.5	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82515

Included Lab Sample IDs: 1972355, 1972359, 1972360, 1972364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	103	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82523

Included Lab Sample IDs: 1972355, 1972359, 1972360, 1972364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	100	101	P/P	90 - 110
NO2NO3-N	99.5	100	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: SM 5310 B-00

Run ID: A82537

Included Lab Sample IDs: 1972355, 1972359, 1972360, 1972364

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.4	97.9	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A82544

Included Lab Sample IDs: 1972405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	95.4	101	P/P	60 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82548

Included Lab Sample IDs: 1972359, 1972360, 1972364

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82550

Included Lab Sample IDs: 1972355

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	100	99.8	P/P	90 - 110

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A82562

Included Lab Sample IDs: 1972378, 1972379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Calcium	101	100	P/P	90 - 110
Iron	101	100	P/P	90 - 110
Magnesium	101	100	P/P	90 - 110
Potassium	98.4	98.5	P/P	90 - 110
Sodium	98.4	97.5	P/P	90 - 110
Zinc	103	99.2	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A82571

Included Lab Sample IDs: 1972354, 1972357, 1972358

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	97.8	101	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82571

Included Lab Sample IDs: 1972354, 1972357, 1972358

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82573

Included Lab Sample IDs: 1972355, 1972359, 1972360, 1972364

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

Reference Method: EPA 8321B

Run ID: A82580

Included Lab Sample IDs: 1972404, 1972405

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	93.1	93.5	P/P	50 - 150
Acetaminophen	98.4	96.0	P/P	60 - 150
Bentazon	127	136	P/P	50 - 150
Carbamazepine	97.6	96.6	P/P	60 - 150
Diuron	88.6	99.0	P/P	60 - 150
Fenuron	95.6	92.8	P/P	60 - 150
Fluridone	109	105	P/P	60 - 160
Imazapyr	79.8	75.7	P/P	50 - 150
Imidacloprid	91.5	97.5	P/P	60 - 150
Linuron	107	96.0	P/P	60 - 150
MCPP	99.2	98.4	P/P	50 - 150
Primidone	97.2	90.8	P/P	60 - 150
Triclopyr	96.4	93.8	P/P	50 - 150

Reference Method: SM 2320 B-97

Run ID: A82604

Included Lab Sample IDs: 1972363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	98.7	97.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82604

Included Lab Sample IDs: 1972363

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.1	98.6	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A82618

Included Lab Sample IDs: 1972378, 1972379

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Arsenic	102	97.2	P/P	90 - 110
Cadmium	98.5	96.0	P/P	90 - 110
Chromium	97.2	96.9	P/P	90 - 110
Copper	99.5	94.8	P/P	90 - 110
Lead	106	103	P/P	90 - 110
Nickel	100	95.6	P/P	90 - 110
Silver	101	98.6	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			LCS	Precision SMP	MS
EPA 180.1 Rev. 2.0	Turbidity						0.797	
	Turbidity						5.01	
EPA 200.7 Rev. 4.4	Calcium	107	106	102				0.775
	Iron	110	110	109	107			1.12
	Magnesium	106	106	101				1.62
	Potassium	107	105	107	104			1.78
	Sodium	101	102	98.5				0.602
	Zinc	103	102	99.4	97.6			1.41
EPA 200.8 Rev. 5.4	Arsenic	103	105	103	101			2.07
	Cadmium	103	103	107	106			1.30
	Chromium	102	103	103	100			2.94
	Copper	101	99.9	97.5	96.3			1.18
	Lead	110	112	112	110			1.73
	Nickel	101	99.3	98.6	97.0			1.70
	Silver	105	105	107	105			1.95
EPA 300.0 Rev. 2.1	Chloride	95.5	94.8	96.1			4.35	
	Sulfate	97.3	95.9	97.8			5.70	
EPA 350.1 Rev. 2.0	Ammonia-N	104	102	95.2				4.45
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	106	89.2				13.3
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	101	99.5	102				1.84
EPA 365.1 Rev. 2.0	Total-P	102	98.6	103				3.74
	Total-P	102	98.6	101				2.71
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	101	96.1	98.8				2.77
EPA 8321B	2,4-D	81.0	44.4	44.3				0.162
	Acetaminophen	91.3	119	117				2.37
	Bentazon	103	27.9	28.9				2.71
	Carbamazepine	78.8	74.3	75.3				1.32
	Diuron	65.0	55.3	56.0				1.26
	Fenuron	95.5	67.5	74.7				10.2
	Fluridone	66.0	59.9	59.9				0.0788
	Imazapyr	63.3	52.1	37.9				13.5
	Imidacloprid	89.3	164	161				1.62
	Linuron	73.6	77.1	72.0				6.78
	MCPP	83.2	30.8	31.9				3.48
	Primidone	100	81.4	91.4				11.7
	Sucralose	100	98.3	104				5.28
	Sucralose	92.2	107	101				4.52
	Triclopyr	77.5	40.0	45.0				11.9
SM 2120 B	Color (true)						4.62	
SM 2320 B-97	Total Alkalinity	99.8					0.246	
	Total Alkalinity	99.2					0.318	
SM 2540 C-97	TDS						3.06	
SM 4500 F-C-97	Fluoride	96.8	95.7	96.3				0.477
	Fluoride	95.7	96.4	97.0				0.477
SM 5310 B-00	Organic Carbon	98.6	108					0.161

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1972354, 1972357, 1972358, 1972363
EPA 200.7 Rev. 4.4 / E31780	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	1972378, 1972379

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 200.8 Rev. 5.4 / E31780	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	1972378, 1972379
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1972354, 1972357, 1972358, 1972363
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1972354, 1972357, 1972358, 1972363
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1972355, 1972359, 1972360, 1972364
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1972355, 1972359, 1972360, 1972364
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1972355, 1972359, 1972360, 1972364
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1972355, 1972359, 1972360, 1972364
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1972356, 1972361, 1972362, 1972365
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1972404, 1972405
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1972404, 1972405
SM 2120 B / E31780	True Color measured at 450 nm	1972354, 1972357, 1972358, 1972363
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO ₃ /L	1972354, 1972357, 1972358, 1972363
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1972354, 1972357, 1972358, 1972363
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1972354, 1972357, 1972358, 1972363
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1972354, 1972357, 1972358, 1972363
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1972355, 1972359, 1972360, 1972364

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	03/06/2018			03/06/2018 17:11	DeAsia Armster	1972354, 1972357, 1972358, 1972363
EPA 200.7 Rev. 4.4	03/06/2018	03/08/2018 15:55	Elliott D. Healy	03/12/2018 18:25	Betina Topolski	1972378
	03/06/2018	03/08/2018 15:55	Elliott D. Healy	03/12/2018 18:45	Betina Topolski	1972379
EPA 200.8 Rev. 5.4	03/06/2018	03/08/2018 15:55	Elliott D. Healy	03/14/2018 18:08	Nadine Brooks	1972378
	03/06/2018	03/08/2018 15:55	Elliott D. Healy	03/14/2018 18:26	Nadine Brooks	1972379
EPA 300.0 Rev. 2.1	03/06/2018			03/08/2018 11:24	Julia Storbeck	1972354
	03/06/2018			03/08/2018 11:36	Julia Storbeck	1972357
	03/06/2018			03/08/2018 11:48	Julia Storbeck	1972358
	03/06/2018			03/08/2018 12:00	Julia Storbeck	1972363
EPA 350.1 Rev. 2.0	03/06/2018			03/08/2018 16:02	Ping Hua	1972355
	03/06/2018			03/08/2018 16:08	Ping Hua	1972359
	03/06/2018			03/08/2018 16:10	Ping Hua	1972360
	03/06/2018			03/08/2018 16:11	Ping Hua	1972364
EPA 351.2 Rev. 2.0	03/06/2018	03/09/2018 12:30	Adrian Shelby	03/13/2018 13:37	Joseph Suarez	1972355
	03/06/2018	03/09/2018 12:30	Adrian Shelby	03/13/2018 13:41	Joseph Suarez	1972359
	03/06/2018	03/09/2018 12:30	Adrian Shelby	03/13/2018 13:43	Joseph Suarez	1972360
	03/06/2018	03/09/2018 12:30	Adrian Shelby	03/13/2018 13:44	Joseph Suarez	1972364
EPA 353.2 Rev. 2.0	03/06/2018			03/09/2018 09:51	Beverly Y. Sanders	1972359
	03/06/2018			03/09/2018 09:52	Beverly Y. Sanders	1972360
	03/06/2018			03/09/2018 09:53	Beverly Y. Sanders	1972364
	03/06/2018			03/09/2018 11:51	Beverly Y. Sanders	1972355
EPA 365.1 Rev. 2.0	03/06/2018	03/09/2018 14:10	Sima Feizi	03/12/2018 10:03	Beverly Y. Sanders	1972359
	03/06/2018	03/09/2018 14:10	Sima Feizi	03/12/2018 10:04	Beverly Y. Sanders	1972360
	03/06/2018	03/09/2018 14:10	Sima Feizi	03/12/2018 10:13	Beverly Y. Sanders	1972364
	03/06/2018	03/09/2018 14:10	Sima Feizi	03/12/2018 12:20	Beverly Y. Sanders	1972355
EPA 365.1 Rev. 2.0 dissolved	03/06/2018			03/06/2018 17:36	Megan Treadwell	1972356
	03/06/2018			03/06/2018 17:37	Megan Treadwell	1972361
	03/06/2018			03/06/2018 17:38	Megan Treadwell	1972362, 1972365
EPA 8321B	03/06/2018	03/07/2018 10:00	Hoor Shaik	03/08/2018 21:04	Julie Michelle Frank	1972404
	03/06/2018	03/07/2018 10:00	Hoor Shaik	03/08/2018 21:38	Julie Michelle Frank	1972405
	03/06/2018	03/07/2018 10:00	Hoor Shaik	03/09/2018 13:13	Julie Michelle Frank	1972404
	03/06/2018	03/07/2018 10:00	Hoor Shaik	03/09/2018 13:48	Julie Michelle Frank	1972405
	03/06/2018	03/07/2018 14:30	Julie Michelle Frank	03/08/2018 01:14	Juyoung Kim	1972404
	03/06/2018	03/09/2018 14:00	Julie Michelle Frank	03/09/2018 15:30	Juyoung Kim	1972405
SM 2120 B	03/06/2018			03/06/2018 16:47	Tanya Welborn	1972354, 1972357
	03/06/2018			03/06/2018 16:48	Tanya Welborn	1972358
	03/06/2018			03/06/2018 16:49	Tanya Welborn	1972363
SM 2320 B-97	03/06/2018			03/13/2018 09:48	Dale L. Simmons	1972354
	03/06/2018			03/13/2018 09:58	Dale L. Simmons	1972357
	03/06/2018			03/13/2018 10:08	Dale L. Simmons	1972358

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
SM 2320 B-97	03/06/2018			03/13/2018 22:29	Dale L. Simmons	1972363
SM 2540 C-97	03/06/2018			03/10/2018 23:15	Yijie Li	1972354, 1972357, 1972358, 1972363
SM 2540 D-97	03/06/2018			03/10/2018 23:15	Yijie Li	1972354, 1972357, 1972358, 1972363
SM 4500 F-C-97	03/06/2018			03/13/2018 09:48	Dale L. Simmons	1972354
	03/06/2018			03/13/2018 09:58	Dale L. Simmons	1972357
	03/06/2018			03/13/2018 10:08	Dale L. Simmons	1972358
	03/06/2018			03/13/2018 22:29	Dale L. Simmons	1972363
	03/06/2018			03/09/2018 00:47	Megan Treadwell	1972355
SM 5310 B-00	03/06/2018			03/09/2018 01:01	Megan Treadwell	1972359
	03/06/2018			03/09/2018 01:16	Megan Treadwell	1972360
	03/06/2018			03/09/2018 01:31	Megan Treadwell	1972364