

Chemical Analysis Report

NE-DIST-2018-02-08-01

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

Event Description: **Bmap Tribs 1**
Request ID: **RQ-2018-02-05-21**
Customer: **NE-DIST**
Project ID: **SMP**

Send Reports to:
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8800 Baymeadows Way West
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Certified by: Colin Wright, Program Administrator

Date Certified: 07-MAR-2018 12:30

A handwritten signature in black ink, appearing to read "Colin Wright", is displayed on a light gray rectangular 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 groups are included in this report: 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: Butcher PEN CR @ Confederate PT Road

Collection Date/Time: 02/07/2018 09:55

Field ID: 20030082

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966023	EPA 180.1 Rev. 2.0	Turbidity	12	A	NTU	P339594	
	EPA 300.0 Rev. 2.1	Chloride	34		mg Cl/L	P339876	
		Sulfate	23		mg SO4/L	P339878	
	SM 2120 B	Color (true)	64		PCU	P339587	
	SM 2320 B-97	Total Alkalinity	110		mg CaCO3/L	P340207	
	SM 2540 C-97	TDS	235		mg/L	P340001	
	SM 2540 D-97	TSS	20		mg/L	P339761	
	SM 4500 F-C-97	Fluoride	0.12		mg F/L	P340476	
1966027	EPA 350.1 Rev. 2.0	Ammonia-N	0.008		mg N/L	P340184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.3		mg N/L	P339652	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.052		mg N/L	P340045	
	EPA 365.1 Rev. 2.0	Total-P	0.19		mg P/L	P340061	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P340160	
1966031	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.034		mg P/L	P339604	
1966070	EPA 8321B	2,4-D	0.024		ug/L	P339538	
		Sucralose**	0.56		ug/L	P339557	
		Bentazon	0.0064		ug/L	P339538	
		MCP	0.0078	I	ug/L	P339538	
		Triclopyr**	0.0040	U	ug/L	P339538	
		Imidacloprid	0.024		ug/L	P339538	
		Diuron	0.0059	I	ug/L	P339538	
		Primidone**	0.0040	UJ	ug/L	P339538	SUR
		Linuron	0.0040	U	ug/L	P339538	
		Acetaminophen**	0.025	IJ	ug/L	P339538	SUR
		Fenuron	0.0080	U	ug/L	P339538	
		Carbamazepine**	4.0E-04	U	ug/L	P339538	
		Fluridone**	0.0011	I	ug/L	P339538	

Ref. Method and Comment:

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

EPA 8321B: Refer to the narrative for an explanation of QC Codes. Results confirmed in re-extraction.

Sample Location: Goodbys Creek @ SR 13

Collection Date/Time: 02/07/2018 09:10

Field ID: 20030518

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966035	EPA 180.1 Rev. 2.0	Turbidity	9.0	A	NTU	P339595	
	SM 2320 B-97	Total Alkalinity	77		mg CaCO3/L	P340207	
	SM 2540 D-97	TSS	7	I	mg/L	P339761	
	SM 4500 F-C-97	Fluoride	0.089	I	mg F/L	P340476	
1966037	EPA 350.1 Rev. 2.0	Ammonia-N	0.055		mg N/L	P340184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P339709	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P340046	
	EPA 365.1 Rev. 2.0	Total-P	0.067		mg P/L	P339772	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P340160	

Field ID: 20030518

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966039	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.023		mg P/L	P339605	
1966074	EPA 8321B	2,4-D	0.012		ug/L	P339538	
		Sucralose**	0.25		ug/L	P339557	
		Bentazon	0.023		ug/L	P339538	
		MCP	0.0045	I	ug/L	P339538	
		Triclopyr**	0.0040	U	ug/L	P339538	
		Imidacloprid	0.050		ug/L	P339538	
		Diuron	0.011		ug/L	P339538	
		Primidone**	0.0040	U	ug/L	P339538	
		Linuron	0.0040	U	ug/L	P339538	
		Acetaminophen**	0.0080	U	ug/L	P339538	
		Fenuron	0.0080	U	ug/L	P339538	
		Carbamazepine**	4.1E-04	I	ug/L	P339538	
		Fluridone**	0.014		ug/L	P339538	

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: Big Fishweir Crk SF East Park St

Collection Date/Time: 02/07/2018 11:15

Field ID: 20030951

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966024	EPA 180.1 Rev. 2.0	Turbidity	4.6		NTU	P339594	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P339876	
		Sulfate	45		mg SO4/L	P339878	
	SM 2120 B	Color (true)	46		PCU	P339587	
	SM 2320 B-97	Total Alkalinity	208		mg CaCO3/L	P340207	
	SM 2540 C-97	TDS	384		mg/L	P340001	
	SM 2540 D-97	TSS	2	U	mg/L	P339761	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P340476	
1966028	EPA 350.1 Rev. 2.0	Ammonia-N	0.073		mg N/L	P340184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.65		mg N/L	P339652	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P340046	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P340061	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P340160	
1966032	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.051		mg P/L	P339604	
1966071	EPA 8321B	2,4-D	0.024		ug/L	P339538	
		Sucralose**	0.74		ug/L	P339557	
		Bentazon	0.0091		ug/L	P339538	
		MCP	0.0059	I	ug/L	P339538	
		Triclopyr**	0.0040	U	ug/L	P339538	
		Imidacloprid	0.021		ug/L	P339538	
		Diuron	0.0020	U	ug/L	P339538	
		Primidone**	0.012	I	ug/L	P339538	
		Linuron	0.0040	U	ug/L	P339538	
		Acetaminophen**	0.026	I	ug/L	P339538	

Field ID: 20030951

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966071	EPA 8321B	Fenuron	0.0080	U	ug/L	P339538	
		Carbamazepine**	0.0082		ug/L	P339538	
		Fluridone**	4.0E-04	U	ug/L	P339538	

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: Big Fishweir Crk SF East Park St

Collection Date/Time: 02/07/2018 11:20

Field ID: 20030951DUP

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966025	EPA 180.1 Rev. 2.0	Turbidity	4.2		NTU	P339594	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P339876	
		Sulfate	45		mg SO4/L	P339878	
	SM 2120 B	Color (true)	47		PCU	P339587	
	SM 2320 B-97	Total Alkalinity	207		mg CaCO3/L	P340207	
	SM 2540 C-97	TDS	383		mg/L	P340001	
	SM 2540 D-97	TSS	2	U	mg/L	P339761	
	SM 4500 F-C-97	Fluoride	0.17		mg F/L	P340476	
1966029	EPA 350.1 Rev. 2.0	Ammonia-N	0.075		mg N/L	P340184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.62		mg N/L	P339709	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.21		mg N/L	P340046	
	EPA 365.1 Rev. 2.0	Total-P	0.11		mg P/L	P340339	
	SM 5310 B-00	Organic Carbon	11		mg C/L	P340160	
1966033	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.052		mg P/L	P339604	
1966072	EPA 8321B	2,4-D	0.024		ug/L	P339538	
		Sucralose**	0.76		ug/L	P339557	
		Bentazon	0.011		ug/L	P339538	
		MCP	0.0062	I	ug/L	P339538	
		Triclopyr**	0.0040	U	ug/L	P339538	
		Imidacloprid	0.023		ug/L	P339538	
		Diuron	0.0020	U	ug/L	P339538	
		Primidone**	0.013	I	ug/L	P339538	
		Linuron	0.0040	U	ug/L	P339538	
		Acetaminophen**	0.027	I	ug/L	P339538	
		Fenuron	0.0080	U	ug/L	P339538	
		Carbamazepine**	0.0089		ug/L	P339538	
		Fluridone**	4.0E-04	U	ug/L	P339538	

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: Craig CR 100m Down from footbridge in park

Collection Date/Time: 02/07/2018 12:40

Field ID: 20030958

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966026	EPA 180.1 Rev. 2.0	Turbidity	7.7		NTU	P339594	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P339876	

Field ID: 20030958

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966026	EPA 300.0 Rev. 2.1	Sulfate	44		mg SO4/L	P339878	
	SM 2120 B	Color (true)	63		PCU	P339587	
	SM 2320 B-97	Total Alkalinity	149		mg CaCO3/L	P340207	
	SM 2540 C-97	TDS	310		mg/L	P340001	
	SM 2540 D-97	TSS	6	I	mg/L	P339761	
	SM 4500 F-C-97	Fluoride	0.16		mg F/L	P340476	
1966030	EPA 350.1 Rev. 2.0	Ammonia-N	0.13		mg N/L	P340184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.80		mg N/L	P339709	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.33		mg N/L	P340046	
	EPA 365.1 Rev. 2.0	Total-P	0.083		mg P/L	P340339	
	SM 5310 B-00	Organic Carbon	10		mg C/L	P340160	
1966034	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.024		mg P/L	P339604	
1966073	EPA 8321B	2,4-D	0.0035	I	ug/L	P339538	
		Sucralose**	0.50		ug/L	P339557	
		Bentazon	0.014		ug/L	P339538	
		MCP	0.0020	U	ug/L	P339538	
		Triclopyr**	0.0040	U	ug/L	P339538	
		Imidacloprid	0.035		ug/L	P339538	
		Diuron	0.0020	U	ug/L	P339538	
		Primidone**	0.0040	U	ug/L	P339538	
		Linuron	0.0040	U	ug/L	P339538	
		Acetaminophen**	0.0080	U	ug/L	P339538	
		Fenuron	0.0080	U	ug/L	P339538	
		Carbamazepine**	5.1E-04	I	ug/L	P339538	
		Fluridone**	0.029		ug/L	P339538	

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: Big Fishweir Creek @ Herschel St

Collection Date/Time: 02/07/2018 10:50

Field ID: 20030139

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966036	EPA 180.1 Rev. 2.0	Turbidity	8.2		NTU	P339595	
	SM 2320 B-97	Total Alkalinity	164		mg CaCO3/L	P340207	
	SM 2540 D-97	TSS	8	I	mg/L	P339761	
	SM 4500 F-C-97	Fluoride	0.15		mg F/L	P340476	
1966038	EPA 350.1 Rev. 2.0	Ammonia-N	0.091		mg N/L	P340184	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.89		mg N/L	P339709	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.36		mg N/L	P340046	
	EPA 365.1 Rev. 2.0	Total-P	0.18		mg P/L	P339772	
	SM 5310 B-00	Organic Carbon	12		mg C/L	P340160	
1966040	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.084		mg P/L	P339605	
1966075	EPA 8321B	2,4-D	0.072		ug/L	P339538	
		Sucralose**	0.59		ug/L	P339557	
		Bentazon	0.0059		ug/L	P339538	

Field ID: 20030139

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
1966075	EPA 8321B	MCP	0.018		ug/L	P339538	
		Triclopyr**	0.0040	U	ug/L	P339538	
		Imidacloprid	0.065		ug/L	P339538	
		Diuron	0.0034	I	ug/L	P339538	
		Primidone**	0.0040	U	ug/L	P339538	
		Linuron	0.0040	U	ug/L	P339538	
		Acetaminophen**	0.015	I	ug/L	P339538	
		Fenuron	0.0080	U	ug/L	P339538	
		Carbamazepine**	0.0030		ug/L	P339538	
		Fluridone**	4.0E-04	U	ug/L	P339538	

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: P339594

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 180.1 Rev. 2.0

Batch ID: P339595

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P339876

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1

Batch ID: P339878

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P340184

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

Reference Method: EPA 351.2 Rev. 2.0

Batch ID: P339652

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339709

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340045

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340046

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P339772

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340061

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340339

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339604

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339605

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

Reference Method: EPA 8321B
Batch ID: P339538

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

Quality Assurance Report Method Blank Results

Reference Method: EPA 8321B
Batch ID: P339538

Component	Result	Code	Units
Diuron	0.0020	U	ug/L
Fenuron	0.0080	U	ug/L
Fluridone	4.0E-04	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

Reference Method: EPA 8321B
Batch ID: P339557

Component	Result	Code	Units
Sucralose	0.010	U	ug/L

Reference Method: SM 2120 B
Batch ID: P339587

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-97
Batch ID: P340207

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

Reference Method: SM 2540 C-97
Batch ID: P340001

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-97
Batch ID: P339761

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 4500 F-C-97
Batch ID: P340476

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-00
Batch ID: P340160

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: P339876

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339878

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340184

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	97.1		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339652

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339709

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340045

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	107		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340046

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
NO2NO3-N	106		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P339772

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340061

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

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340339

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: P339604

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339605

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

Reference Method: EPA 8321B
Batch ID: P339538

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	75.4		P	40 - 150
Acetaminophen	102		P	30 - 150
Bentazon	82.0		P	30 - 150
Carbamazepine	99.7		P	40 - 150
Diuron	80.9		P	40 - 150
Fenuron	110		P	40 - 150
Fluridone	89.3		P	40 - 150
Imidacloprid	93.1		P	40 - 160
Linuron	79.0		P	40 - 150
MCPP	79.7		P	40 - 150
Primidone	113		P	40 - 150
Triclopyr	83.4		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P339557

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sucralose	109		P	40 - 150

Reference Method: SM 2320 B-97
Batch ID: P340207

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.4		P	95 - 108

Reference Method: SM 4500 F-C-97
Batch ID: P340476

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	95.8		P	92 - 103

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: SM 5310 B-00
Batch ID: P340160

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	97.4		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965872	Chloride	103		P	90 - 110
1965873	Chloride	104		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339878

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965872	Sulfate	105		P	90 - 110
1965873	Sulfate	105		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340184

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966027	Ammonia-N	98.5	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339652

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965953	Kjeldahl Nitrogen	94.2	96.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339709

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966093	Kjeldahl Nitrogen	105	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340045

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965951	NO2NO3-N	107	107	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340046

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966030	NO2NO3-N	104		P	90 - 110

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P339772

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966231	Total-P	95.7	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P340061

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965951	Total-P	98.1	99.3	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
 Batch ID: P340339

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966301	Total-P	96.1	92.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P339604

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965877	O-Phosphate-P	97.3	97.9	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
 Batch ID: P339605

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966039	O-Phosphate-P	96.2	96.8	P/P	90 - 110

Reference Method: EPA 8321B
 Batch ID: P339538

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965802	2,4-D	84.3	83.1	P/P	40 - 150
1965802	Acetaminophen	119	112	P/P	30 - 150
1965802	Bentazon	58.1	50.2	P/P	30 - 150
1965802	Carbamazepine	120	110	P/P	40 - 150
1965802	Diuron	82.2	80.6	P/P	40 - 150
1965802	Fenuron	103	107	P/P	40 - 150
1965802	Fluridone	83.8	79.6	P/P	40 - 150
1965802	Imidacloprid	135	136	P/P	40 - 160
1965802	Linuron	82.6	88.1	P/P	40 - 150
1965802	MCP	69.2	64.8	P/P	40 - 150
1965802	Primidone	105	111	P/P	40 - 150
1965802	Triclopyr	71.2	60.6	P/P	40 - 150

Reference Method: EPA 8321B
 Batch ID: P339557

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965583	Sucralose	117	134	P/P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: SM 4500 F-C-97
Batch ID: P340476

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1966131	Fluoride	94.1	97.0	P/P	91 - 105

Reference Method: SM 5310 B-00
Batch ID: P340160

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
1965919	Organic Carbon	97.8	98.4	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P339594

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966023	Turbidity	0.816	Sample	P	0 - 20

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P339595

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966035	Turbidity	0.222	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965873	Chloride	0.690	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P339878

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965873	Sulfate	0.596	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P340184

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966027	Ammonia-N	3.60	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339652

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339652

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965953	Kjeldahl Nitrogen	1.22	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P339709

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966093	Kjeldahl Nitrogen	2.73	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340045

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965951	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P340046

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966030	NO2NO3-N	0.187	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P339772

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966231	Total-P	4.60	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340061

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965951	Total-P	1.24	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P340339

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966301	Total-P	2.45	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339604

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965877	O-Phosphate-P	0.392	Spike	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P339605

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966039	O-Phosphate-P	0.503	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P339538

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965802	2,4-D	1.39	Spike	P	0 - 30
1965802	Acetaminophen	6.16	Spike	P	0 - 30
1965802	Bentazon	14.4	Spike	P	0 - 30
1965802	Carbamazepine	8.79	Spike	P	0 - 30
1965802	Diuron	2.01	Spike	P	0 - 30
1965802	Fenuron	3.79	Spike	P	0 - 30
1965802	Fluridone	5.13	Spike	P	0 - 30
1965802	Imidacloprid	1.16	Spike	P	0 - 30
1965802	Linuron	6.46	Spike	P	0 - 30
1965802	MCPP	6.53	Spike	P	0 - 30
1965802	Primidone	5.73	Spike	P	0 - 30
1965802	Triclopyr	16.2	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P339557

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965583	Sucralose	13.3	Spike	P	0 - 30

Reference Method: SM 2120 B
Batch ID: P339587

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965921	Color (true)	0.215	Sample	P	0 - 20

Reference Method: SM 2320 B-97
Batch ID: P340207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966131	Total Alkalinity	1.12	Sample	P	0 - 4.8

Reference Method: SM 2540 C-97
Batch ID: P340001

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965950	TDS	3.14	Sample	P	0 - 10

Quality Assurance Report Precision

Reference Method: SM 4500 F-C-97
Batch ID: P340476

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1966131	Fluoride	0.469	Spike	P	0 - 3.0

Reference Method: SM 5310 B-00
Batch ID: P340160

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
1965919	Organic Carbon	0.392	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: 1966070
Field Sample ID: 20030082

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	51.9	P	30 - 160
EPA 8321B	Acetaminophen-d4	203	F	30 - 160
EPA 8321B	Carbamazepine-d10	130	P	30 - 160
EPA 8321B	Diuron-d6	128	P	30 - 160
EPA 8321B	Primidone-d5	169	F	30 - 160
EPA 8321B	Sucralose-d6	112	P	40 - 160

Lab Sample ID: 1966071
Field Sample ID: 20030951

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	60.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	125	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.6	P	30 - 160
EPA 8321B	Diuron-d6	91.6	P	30 - 160
EPA 8321B	Primidone-d5	81.3	P	30 - 160
EPA 8321B	Sucralose-d6	140	P	40 - 160

Lab Sample ID: 1966072
Field Sample ID: 20030951DUP

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	62.0	P	30 - 160
EPA 8321B	Acetaminophen-d4	123	P	30 - 160
EPA 8321B	Carbamazepine-d10	95.0	P	30 - 160
EPA 8321B	Diuron-d6	76.0	P	30 - 160
EPA 8321B	Primidone-d5	77.5	P	30 - 160
EPA 8321B	Sucralose-d6	131	P	40 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 1966073
Field Sample ID: 20030958

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	57.7	P	30 - 160
EPA 8321B	Acetaminophen-d4	135	P	30 - 160
EPA 8321B	Carbamazepine-d10	97.4	P	30 - 160
EPA 8321B	Diuron-d6	77.1	P	30 - 160
EPA 8321B	Primidone-d5	108	P	30 - 160
EPA 8321B	Sucralose-d6	117	P	40 - 160

Lab Sample ID: 1966074
Field Sample ID: 20030518

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	49.1	P	30 - 160
EPA 8321B	Acetaminophen-d4	135	P	30 - 160
EPA 8321B	Carbamazepine-d10	84.5	P	30 - 160
EPA 8321B	Diuron-d6	76.9	P	30 - 160
EPA 8321B	Primidone-d5	86.6	P	30 - 160
EPA 8321B	Sucralose-d6	103	P	40 - 160

Lab Sample ID: 1966075
Field Sample ID: 20030139

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	59.2	P	30 - 160
EPA 8321B	Acetaminophen-d4	132	P	30 - 160
EPA 8321B	Carbamazepine-d10	81.0	P	30 - 160
EPA 8321B	Diuron-d6	76.8	P	30 - 160
EPA 8321B	Primidone-d5	93.6	P	30 - 160
EPA 8321B	Sucralose-d6	108	P	40 - 160

Quality Assurance Report Calibration Verification

Reference Method: SM 2120 B
Run ID: A81932
Included Lab Sample IDs: 1966023, 1966024, 1966025, 1966026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	97.9	98.6	P/P	85 - 115

Reference Method: EPA 180.1 Rev. 2.0
Run ID: A81934
Included Lab Sample IDs: 1966023, 1966024, 1966025, 1966026, 1966035, 1966036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	100	100	P/P	95 - 105
Turbidity	99.5	100	P/P	95 - 105

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A81942

Included Lab Sample IDs: 1966031, 1966032, 1966033, 1966034, 1966039, 1966040

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	100	101	P/P	90 - 110
O-Phosphate-P	101	98.7	P/P	90 - 110
O-Phosphate-P	98.6	101	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A81986

Included Lab Sample IDs: 1966070, 1966071, 1966072, 1966073, 1966074, 1966075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	110	115	P/P	60 - 150
Sucralose	115	116	P/P	60 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82001

Included Lab Sample IDs: 1966037, 1966038

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

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A82003

Included Lab Sample IDs: 1966023, 1966024, 1966025, 1966026

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	103	104	P/P	90 - 110
Sulfate	101	104	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82030

Included Lab Sample IDs: 1966027, 1966028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.6	99.1	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A82075

Included Lab Sample IDs: 1966029, 1966030, 1966037, 1966038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	97.3	97.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A82097

Included Lab Sample IDs: 1966027, 1966028, 1966029, 1966030, 1966037, 1966038

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

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82126

Included Lab Sample IDs: 1966027, 1966028

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.3	99.8	P/P	90 - 110

Reference Method: SM 5310 B-00

Run ID: A82131

Included Lab Sample IDs: 1966027, 1966028, 1966029, 1966030, 1966037, 1966038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	96.9	99.2	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A82134

Included Lab Sample IDs: 1966027, 1966028, 1966029, 1966030, 1966037, 1966038

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	100	101	P/P	90 - 110
Ammonia-N	101	99.2	P/P	90 - 110
Ammonia-N	99.2	100	P/P	90 - 110

Reference Method: SM 2320 B-97

Run ID: A82137

Included Lab Sample IDs: 1966023, 1966024, 1966025, 1966026, 1966035, 1966036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	99.8	97.8	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A82197

Included Lab Sample IDs: 1966070, 1966071, 1966072, 1966073, 1966074, 1966075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	106	87.7	P/P	50 - 150
2,4-D	87.7	90.8	P/P	50 - 150
Bentazon	108	98.4	P/P	50 - 150
Bentazon	98.4	96.1	P/P	50 - 150
MCP	94.4	92.1	P/P	50 - 150
MCP	97.4	94.4	P/P	50 - 150
Triclopyr	94.7	99.1	P/P	50 - 150
Triclopyr	99.1	94.8	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A82205

Included Lab Sample IDs: 1966070, 1966071, 1966072, 1966073, 1966074, 1966075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acetaminophen	109	117	P/P	60 - 150
Acetaminophen	117	117	P/P	60 - 150
Carbamazepine	108	109	P/P	60 - 150
Carbamazepine	109	92.9	P/P	60 - 150
Diuron	111	119	P/P	60 - 150
Diuron	119	116	P/P	60 - 150
Fenuron	115	116	P/P	60 - 150

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A82205

Included Lab Sample IDs: 1966070, 1966071, 1966072, 1966073, 1966074, 1966075

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fenuron	116	115	P/P	60 - 150
Fluridone	102	99.3	P/P	60 - 160
Fluridone	99.1	102	P/P	60 - 160
Imidacloprid	96.8	106	P/P	60 - 150
Imidacloprid	99.7	96.8	P/P	60 - 150
Linuron	100	94.6	P/P	60 - 150
Linuron	105	100	P/P	60 - 150
Primidone	104	104	P/P	60 - 150
Primidone	104	95.8	P/P	60 - 150

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A82226

Included Lab Sample IDs: 1966029, 1966030

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	102	99.9	P/P	90 - 110

Reference Method: SM 4500 F-C-97

Run ID: A82245

Included Lab Sample IDs: 1966023, 1966024, 1966025, 1966026, 1966035, 1966036

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Fluoride	98.5	102	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				0.816	
	Turbidity				0.222	
EPA 300.0 Rev. 2.1	Chloride	102	104 103		0.690	
	Sulfate	104	105 105		0.596	
EPA 350.1 Rev. 2.0	Ammonia-N	97.1	98.5 103			3.60
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	99.5	94.2 96.2			1.22
	Kjeldahl Nitrogen	97.8	105 99.8			2.73
EPA 353.2 Rev. 2.0	NO2NO3-N	107	107 107			0.0
	NO2NO3-N	106	104			0.187
EPA 365.1 Rev. 2.0	Total-P	98.1	95.7 101			4.60
	Total-P	104	98.1 99.3			1.24
	Total-P	101	96.1 92.0			2.45
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.3	97.3 97.9			0.392
	O-Phosphate-P	102	96.2 96.8			0.503
EPA 8321B	2,4-D	75.4	84.3 83.1			1.39
	Acetaminophen	102	119 112			6.16
	Bentazon	82.0	58.1 50.2			14.4

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	Carbamazepine	99.7	120	110		8.79
	Diuron	80.9	82.2	80.6		2.01
	Fenuron	110	103	107		3.79
	Fluridone	89.3	83.8	79.6		5.13
	Imidacloprid	93.1	135	136		1.16
	Linuron	79.0	82.6	88.1		6.46
	MCPP	79.7	69.2	64.8		6.53
	Primidone	113	105	111		5.73
	Sucralose	109	117	134		13.3
	Triclopyr	83.4	71.2	60.6		16.2
SM 2120 B	Color (true)				0.215	
SM 2320 B-97	Total Alkalinity	99.4			1.12	
SM 2540 C-97	TDS				3.14	
SM 4500 F-C-97	Fluoride	95.8	94.1	97.0		0.469
SM 5310 B-00	Organic Carbon	97.4	97.8	98.4		0.392

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 180.1 Rev. 2.0 / E31780	Turbidity in aqueous matrices	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
EPA 300.0 Rev. 2.1 / E31780	Chloride in aqueous matrices	1966023, 1966024, 1966025, 1966026
EPA 300.0 Rev. 2.1 / E31780	Sulfate in aqueous matrices	1966023, 1966024, 1966025, 1966026
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	1966027, 1966028, 1966029, 1966030, 1966037, 1966038
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	1966027, 1966028, 1966029, 1966030, 1966037, 1966038
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	1966027, 1966028, 1966029, 1966030, 1966037, 1966038
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	1966027, 1966028, 1966029, 1966030, 1966037, 1966038
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	1966031, 1966032, 1966033, 1966034, 1966039, 1966040
EPA 8321B / E31780	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	1966070, 1966071, 1966072, 1966073, 1966074, 1966075
EPA 8321B / E31780	Water soluble organic compounds by HPLC/MS/MS	1966070, 1966071, 1966072, 1966073, 1966074, 1966075
SM 2120 B / E31780	True Color measured at 450 nm	1966023, 1966024, 1966025, 1966026
SM 2320 B-97 / E31780	Alkalinity in aqueous matrices as mg CaCO3/L	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
SM 2540 C-97 / E31780	Total Dissolved Solids in aqueous matrices	1966023, 1966024, 1966025, 1966026
SM 2540 D-97 / E31780	Total Suspended Solids in aqueous matrices	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
SM 4500 F-C-97 / E31780	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
SM 5310 B-00 / E31780	Nonpurgeable Organic Carbon in aqueous matrices	1966027, 1966028, 1966029, 1966030, 1966037, 1966038

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	02/08/2018			02/08/2018 17:02	DeAsia Armster	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
EPA 300.0 Rev. 2.1	02/08/2018			02/13/2018	Irina Carbone	1966023, 1966024, 1966025, 1966026
EPA 350.1 Rev. 2.0	02/08/2018			02/16/2018	Julia Storbeck	1966027, 1966028, 1966029, 1966030, 1966037, 1966038
EPA 351.2 Rev. 2.0	02/08/2018	02/09/2018	Adrian Shelby	02/13/2018	Joseph Suarez	1966027, 1966028
	02/08/2018	02/12/2018	Adrian Shelby	02/15/2018	Joseph Suarez	1966029, 1966030, 1966037, 1966038
EPA 353.2 Rev. 2.0	02/08/2018			02/15/2018	Lauren Bottorf	1966027, 1966028, 1966029, 1966030, 1966037, 1966038
EPA 365.1 Rev. 2.0	02/08/2018	02/12/2018	Sima Feizi	02/13/2018	Beverly Y. Sanders	1966037, 1966038
	02/08/2018	02/15/2018	Sima Feizi	02/16/2018	Lipi Saha	1966027, 1966028
	02/08/2018	02/21/2018	Sima Feizi	02/22/2018	Lipi Saha	1966029, 1966030
EPA 365.1 Rev. 2.0 dissolved	02/08/2018			02/08/2018 14:55	Megan Treadwell	1966039
	02/08/2018			02/08/2018 15:20	Megan Treadwell	1966031
	02/08/2018			02/08/2018 15:21	Megan Treadwell	1966032
	02/08/2018			02/08/2018 15:22	Megan Treadwell	1966033
	02/08/2018			02/08/2018 15:27	Megan Treadwell	1966034
	02/08/2018			02/08/2018 15:28	Megan Treadwell	1966040
EPA 8321B	02/08/2018	02/09/2018	Hoor Shaik	02/09/2018	Juyoung Kim	1966070, 1966071, 1966072, 1966073, 1966074
	02/08/2018	02/09/2018	Hoor Shaik	02/10/2018	Juyoung Kim	1966075
	02/08/2018	02/13/2018	Hoor Shaik	02/13/2018	Julie Michelle Frank	1966070, 1966071, 1966072, 1966073
	02/08/2018	02/13/2018	Hoor Shaik	02/14/2018	Julie Michelle Frank	1966074, 1966075
	02/08/2018	02/13/2018	Hoor Shaik	02/15/2018	Julie Michelle Frank	1966070, 1966071, 1966072, 1966073, 1966074, 1966075
SM 2120 B	02/08/2018			02/08/2018 16:11	Tanya Welborn	1966023, 1966024
	02/08/2018			02/08/2018 16:12	Tanya Welborn	1966025
	02/08/2018			02/08/2018 16:13	Tanya Welborn	1966026
SM 2320 B-97	02/08/2018			02/17/2018	Dale L. Simmons	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
SM 2540 C-97	02/08/2018			02/09/2018	DeAsia Armster	1966023, 1966024, 1966025, 1966026
SM 2540 D-97	02/08/2018			02/09/2018	DeAsia Armster	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
SM 4500 F-C-97	02/08/2018			02/22/2018	Dale L. Simmons	1966023, 1966024, 1966025, 1966026, 1966035, 1966036
SM 5310 B-00	02/08/2018			02/16/2018	Megan Treadwell	1966027, 1966028, 1966029, 1966030
	02/08/2018			02/17/2018	Megan Treadwell	1966037, 1966038