

Chemical Analysis Report

SE-DIST-2020-07-15-01

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

Event Description: **SMP- Stuart Priority SMP**
Request ID: **RQ-2020-07-13-46**
Customer: **SE-DIST**
Project ID: **SMP**

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Certified by: Thekkekalathil Chandrasekhar, Chemist Administrator

Date Certified: 06-AUG-2020 11:48



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 by the Florida Department of Health Environmental Laboratory Certification Program or where accreditation for that field of testing is not applicable.

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

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

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

Precision is reported as relative percent difference unless otherwise noted.

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

QC Codes used in this report may include:

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

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

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

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

Sample Location: Bessey Creek @ Murphy

Collection Date/Time: 07/14/2020 10:10

Field ID: G2SE0017

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182967	EPA 180.1 Rev. 2.0	Turbidity	3.8		NTU	P384667	
	EPA 300.0 Rev. 2.1	Bromide	0.084		mg Br/L	P385582	
	SM 2320 B-2011	Total Alkalinity	98		mg CaCO3/L	P384849	
	SM 2540 D-2011	TSS	4	I	mg/L	P385126	
	SM 4500 F-C-2011	Fluoride	0.077	I	mg F/L	P384854	
2182968	EPA 350.1 Rev. 2.0	Ammonia-N	0.051		mg N/L	P384819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.86		mg N/L	P384703	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.065		mg N/L	P384769	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P384876	
	SM 5310 B-2011	Organic Carbon	17		mg C/L	P384780	
2182969	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.089		mg P/L	P384675	
2182986	EPA 8321B	2,4-D	0.075		ug/L	P384706	
		Acesulfame K**	0.13	I	ug/L	P384657	
		AMPA**	0.60		ug/L	P384657	
		Sucralose**	0.53		ug/L	P384657	
		Acetaminophen**	0.0080	U	ug/L	P384706	
		Acetamiprid**	0.0020	U	ug/L	P384706	
		Endothall**	0.25	U	ug/L	P384657	
		Glufosinate**	0.10	U	ug/L	P384657	
		Glyphosate**	0.74		ug/L	P384657	
		Afidopyropen**	0.0020	U	ug/L	P384706	
		Bentazon	0.27		ug/L	P384706	
		Benzovindiflupyr**	0.0020	U	ug/L	P384706	
		Carbamazepine**	8.0E-04	U	ug/L	P384706	
		Clothianidin**	0.0020	I	ug/L	P384706	
		Dinotefuran**	0.0020	U	ug/L	P384706	
		Diuron	0.0020	U	ug/L	P384706	
		Fenuron	0.016	U	ug/L	P384706	
		Fluridone**	0.0025	I	ug/L	P384706	
		Imazapyr**	0.34		ug/L	P384706	
		Hydrocodone**	0.0020	U	ug/L	P384706	
		Ibuprofen**	0.020	U	ug/L	P384706	
		Imidacloprid	0.059		ug/L	P384706	
		Linuron	0.0040	U	ug/L	P384706	
		Mandestrobin**	0.0020	U	ug/L	P384706	
		MCP	0.0020	U	ug/L	P384706	
		Naproxen**	0.0080	U	ug/L	P384706	
		Primidone**	0.0040	U	ug/L	P384706	
		Pyraclostrobin**	0.0020	U	ug/L	P384706	
		Thiamethoxam**	0.0020	U	ug/L	P384706	
		Tolfenpyrad**	0.0020	U	ug/L	P384706	
		Triclopyr**	0.0040	U	ug/L	P384706	
2182988	EPA 200.7 Rev. 4.4	Chromium	1.0	U	ug/L	P384715	

Field ID: G2SE0017

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182988	EPA 200.7 Rev. 4.4	Iron	830		ug/L	P384715	
		Manganese	16.2		ug/L	P384715	
		Zinc	5.0	U	ug/L	P384715	
	EPA 200.8 Rev. 5.4	Aluminum	179		ug/L	P384715	
		Antimony	0.094	I	ug/L	P384715	
		Arsenic	2.35		ug/L	P384715	
		Cadmium	0.020	U	ug/L	P384715	
		Copper	2.15		ug/L	P384715	
		Lead	0.21	I	ug/L	P384715	
		Nickel	0.50	U	ug/L	P384715	
		Selenium	0.20	U	ug/L	P384715	
		Silver	0.010	U	ug/L	P384715	
		Thallium	0.10	U	ug/L	P384715	

Ref. Method and Comment:

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

Sample Location: Danforth Creek @ Martin Hwy

Collection Date/Time: 07/14/2020 10:35

Field ID: G2SE0018

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182970	EPA 180.1 Rev. 2.0	Turbidity	4.8		NTU	P384667	
	EPA 300.0 Rev. 2.1	Chloride	29		mg Cl/L	P385198	
		Sulfate	17		mg SO4/L	P385202	
	SM 2120 B-2011	Color (true)	97		PCU	P384671	
	SM 2320 B-2011	Total Alkalinity	66		mg CaCO3/L	P384849	
	SM 2540 C-2011	TDS	170		mg/L	P385213	
	SM 2540 D-2011	TSS	5	I	mg/L	P385125	
	SM 4500 F-C-2011	Fluoride	0.066	I	mg F/L	P384854	
2182971	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P384819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.76		mg N/L	P384703	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P384769	
	EPA 365.1 Rev. 2.0	Total-P	0.081		mg P/L	P384876	
	SM 5310 B-2011	Organic Carbon	13		mg C/L	P384780	
2182972	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.037		mg P/L	P384675	

Ref. Method and Comment:

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

Sample Location: Roebuck Creek @ Locks

Collection Date/Time: 07/14/2020 11:05

Field ID: G2SE0029

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182964	EPA 180.1 Rev. 2.0	Turbidity	3.4		NTU	P384667	
	EPA 300.0 Rev. 2.1	Bromide	0.11		mg Br/L	P385582	
	SM 2320 B-2011	Total Alkalinity	165		mg CaCO3/L	P384849	
	SM 2540 D-2011	TSS	3	I	mg/L	P385126	
	SM 4500 F-C-2011	Fluoride	0.18		mg F/L	P384854	
2182965	EPA 350.1 Rev. 2.0	Ammonia-N	0.070		mg N/L	P384819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.85		mg N/L	P384703	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.13		mg N/L	P384769	
	EPA 365.1 Rev. 2.0	Total-P	0.40		mg P/L	P384876	
	SM 5310 B-2011	Organic Carbon	15		mg C/L	P384780	
2182966	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.32		mg P/L	P384675	
2182985	EPA 8321B	2,4-D	0.0033	I	ug/L	P384706	
		Acesulfame K**	0.32	I	ug/L	P384657	
		AMPA**	0.53		ug/L	P384657	
		Sucralose**	3.3		ug/L	P384657	
		Acetaminophen**	0.0080	U	ug/L	P384706	
		Acetamiprid**	0.0020	U	ug/L	P384706	
		Endothall**	0.25	U	ug/L	P384657	
		Glufosinate**	0.10	U	ug/L	P384657	
		Glyphosate**	1.0		ug/L	P384657	
		Afidopyropen**	0.0020	U	ug/L	P384706	
		Bentazon	0.046		ug/L	P384706	
		Benzovindiflupyr**	0.0020	U	ug/L	P384706	
		Carbamazepine**	0.0029	I	ug/L	P384706	
		Clothianidin**	0.071		ug/L	P384706	
		Dinotefuran**	0.0020	U	ug/L	P384706	
		Diuron	0.0029	I	ug/L	P384706	
		Fenuron	0.016	U	ug/L	P384706	
		Fluridone**	0.0021	I	ug/L	P384706	
		Imazapyr**	0.19		ug/L	P384706	
		Hydrocodone**	0.0020	U	ug/L	P384706	
		Ibuprofen**	0.020	U	ug/L	P384706	
		Imidacloprid	0.022		ug/L	P384706	
		Linuron	0.0040	U	ug/L	P384706	
		Mandestrobin**	0.0020	U	ug/L	P384706	
		MCP	0.0020	U	ug/L	P384706	
		Naproxen**	0.0080	U	ug/L	P384706	
		Primidone**	0.013	I	ug/L	P384706	
		Pyraclostrobin**	0.0020	U	ug/L	P384706	
		Thiamethoxam**	0.0020	U	ug/L	P384706	
		Tolfenpyrad**	0.0020	U	ug/L	P384706	
		Triclopyr**	0.0040	U	ug/L	P384706	

Ref. Method and Comment:

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

Sample Location: South Fork SLR @ Hosford Park

Collection Date/Time: 07/14/2020 11:20

Field ID: G2SE0043

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182961	EPA 180.1 Rev. 2.0	Turbidity	5.7		NTU	P384667	
	EPA 300.0 Rev. 2.1	Bromide	0.17		mg Br/L	P385582	
	SM 2320 B-2011	Total Alkalinity	127		mg CaCO3/L	P384849	
	SM 2540 D-2011	TSS	6	I	mg/L	P385126	
	SM 4500 F-C-2011	Fluoride	0.13		mg F/L	P384854	
2182962	EPA 350.1 Rev. 2.0	Ammonia-N	0.064		mg N/L	P384819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P384703	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.12		mg N/L	P384769	
	EPA 365.1 Rev. 2.0	Total-P	0.15		mg P/L	P384876	
	SM 5310 B-2011	Organic Carbon	20		mg C/L	P384780	
2182963	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.086		mg P/L	P384675	
2182984	EPA 8321B	2,4-D	0.016		ug/L	P384706	
		Acesulfame K**	0.10	U	ug/L	P384657	
		AMPA**	0.29	I	ug/L	P384657	
		Sucralose**	0.82		ug/L	P384657	
		Acetaminophen**	0.0080	U	ug/L	P384706	
		Acetamiprid**	0.0020	U	ug/L	P384706	
		Endothall**	0.25	U	ug/L	P384657	
		Glufosinate**	0.10	U	ug/L	P384657	
		Glyphosate**	0.45		ug/L	P384657	
		Afidopyropen**	0.0020	U	ug/L	P384706	
		Bentazon	0.0089		ug/L	P384706	
		Benzovindiflupyr**	0.0020	U	ug/L	P384706	
		Carbamazepine**	8.0E-04	U	ug/L	P384706	
		Clothianidin**	0.0020	U	ug/L	P384706	
		Dinotefuran**	0.0020	U	ug/L	P384706	
		Diuron	0.0023	I	ug/L	P384706	
		Fenuron	0.016	U	ug/L	P384706	
		Fluridone**	0.0061		ug/L	P384706	
		Imazapyr**	0.093		ug/L	P384706	
		Hydrocodone**	0.0020	U	ug/L	P384706	
		Ibuprofen**	0.020	U	ug/L	P384706	
		Imidacloprid	0.019		ug/L	P384706	
		Linuron	0.0040	U	ug/L	P384706	
		Mandestrobin**	0.0020	U	ug/L	P384706	
		MCPP	0.0020	U	ug/L	P384706	
		Naproxen**	0.0080	U	ug/L	P384706	
		Primidone**	0.0040	U	ug/L	P384706	
		Pyraclostrobin**	0.0020	U	ug/L	P384706	
		Thiamethoxam**	0.0020	U	ug/L	P384706	
		Tolfenpyrad**	0.0020	U	ug/L	P384706	
		Triclopyr**	0.0040	U	ug/L	P384706	

Ref. Method and Comment:

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

Sample Location: Warner Creek @ 24th

Collection Date/Time: 07/14/2020 12:10

Field ID: G2SE0038

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182958	EPA 180.1 Rev. 2.0	Turbidity	1.5	A	NTU	P384667	
	EPA 300.0 Rev. 2.1	Chloride	37		mg Cl/L	P385198	
		Sulfate	4.4		mg SO4/L	P385202	
	SM 2120 B-2011	Color (true)	140		PCU	P384671	
	SM 2320 B-2011	Total Alkalinity	39		mg CaCO3/L	P384849	
	SM 2540 C-2011	TDS	156	A	mg/L	P385213	
	SM 2540 D-2011	TSS	3	IA	mg/L	P385125	
	SM 4500 F-C-2011	Fluoride	0.058	I	mg F/L	P384854	
	EPA 350.1 Rev. 2.0	Ammonia-N	0.024		mg N/L	P384819	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.95		mg N/L	P384703	
2182959	EPA 353.2 Rev. 2.0	NO2NO3-N	0.017		mg N/L	P384768	
	EPA 365.1 Rev. 2.0	Total-P	0.019		mg P/L	P384876	
	SM 5310 B-2011	Organic Carbon	21		mg C/L	P384780	
	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P384675	
	EPA 8321B	2,4-D	0.014		ug/L	P384706	
2182983		Acesulfame K**	0.15	I	ug/L	P384657	
		AMPA**	0.10	U	ug/L	P384657	
		Sucralose**	0.45		ug/L	P384657	
		Acetaminophen**	0.0080	U	ug/L	P384706	
		Acetamiprid**	0.0020	U	ug/L	P384706	
		Endothall**	0.25	U	ug/L	P384657	
		Glufosinate**	0.10	U	ug/L	P384657	
		Glyphosate**	0.12	I	ug/L	P384657	
		Afidopyropen**	0.0020	U	ug/L	P384706	
		Bentazon	0.025		ug/L	P384706	
		Benzovindiflupyr**	0.0020	U	ug/L	P384706	
		Carbamazepine**	8.0E-04	U	ug/L	P384706	
		Clothianidin**	0.0037	I	ug/L	P384706	
		Dinotefuran**	0.0020	U	ug/L	P384706	
		Diuron	0.0027	I	ug/L	P384706	
		Fenuron	0.016	U	ug/L	P384706	
		Fluridone**	0.046		ug/L	P384706	
		Imazapyr**	0.12		ug/L	P384706	
		Hydrocodone**	0.0020	U	ug/L	P384706	
		Ibuprofen**	0.020	U	ug/L	P384706	
		Imidacloprid	0.012		ug/L	P384706	
		Linuron	0.0040	U	ug/L	P384706	
		Mandestrobin**	0.0020	U	ug/L	P384706	
		MCP	0.0020	U	ug/L	P384706	
		Naproxen**	0.0080	U	ug/L	P384706	
		Primidone**	0.0040	U	ug/L	P384706	
		Pyraclostrobin**	0.0020	U	ug/L	P384706	
		Thiamethoxam**	0.0020	U	ug/L	P384706	

Field ID: G2SE0038

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2182983	EPA 8321B	Tolfenpyrad**	0.0020	U	ug/L	P384706	
		Triclopyr**	0.0040	U	ug/L	P384706	
2182987	EPA 200.7 Rev. 4.4	Barium	3.4	I	ug/L	P384715	
		Calcium	17.5		mg/L	P384715	
		Iron	140		ug/L	P384715	
		Magnesium	2.55		mg/L	P384715	
		Potassium	1.2		mg/L	P384715	
		Sodium	23.2		mg/L	P384715	
		Zinc	5.0	U	ug/L	P384715	
	EPA 200.8 Rev. 5.4	Aluminum	109		ug/L	P384715	
		Antimony	0.054	I	ug/L	P384715	
		Arsenic	0.69		ug/L	P384715	
		Boron**	41.6		ug/L	P384715	
		Cadmium	0.020	U	ug/L	P384715	
		Chromium	0.58	I	ug/L	P384715	
		Copper	0.77	I	ug/L	P384715	
		Lead	0.22	I	ug/L	P384715	
		Nickel	0.50	U	ug/L	P384715	
		Selenium	0.20	U	ug/L	P384715	
		Silver	0.010	U	ug/L	P384715	
		Thallium	0.10	U	ug/L	P384715	
	SM 2340B	Hardness	54.3		mg/L	P384715	

Ref. Method and Comment:

SM 2540 D-2011: 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: P384667

Component	Result	Code	Units
Turbidity	0.10	U	NTU

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384715

Component	Result	Code	Units
Barium	1.0	U	ug/L
Calcium	0.075	U	mg/L
Chromium	1.0	U	ug/L
Iron	30	U	ug/L
Magnesium	0.040	U	mg/L
Manganese	1.0	U	ug/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: P384715

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

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385198

Component	Result	Code	Units
Chloride	0.20	U	mg Cl/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385202

Component	Result	Code	Units
Sulfate	0.20	U	mg SO4/L

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385582

Component	Result	Code	Units
Bromide	0.013	U	mg Br/L

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384819

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384703

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384769

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384876

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384675

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

Reference Method: EPA 8321B
Batch ID: P384657

Component	Result	Code	Units
Acesulfame K	0.10	U	ug/L
AMPA	0.10	U	ug/L
Endothall	0.25	U	ug/L
Glufosinate	0.10	U	ug/L
Glyphosate	0.10	U	ug/L
Sucralose	0.010	U	ug/L

Reference Method: EPA 8321B
Batch ID: P384706

Component	Result	Code	Units
2,4-D	0.0020	U	ug/L
Acetaminophen	0.0080	U	ug/L
Acetamiprid	0.0020	U	ug/L
Afidopyropen	0.0020	U	ug/L
Bentazon	8.0E-04	U	ug/L

Quality Assurance Report

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P384706

Component	Result	Code	Units
Benzovindiflupyr	0.0020	U	ug/L
Carbamazepine	8.0E-04	U	ug/L
Clothianidin	0.0020	U	ug/L
Dinotefuran	0.0020	U	ug/L
Diuron	0.0020	U	ug/L
Fenuron	0.016	U	ug/L
Fluridone	8.0E-04	U	ug/L
Hydrocodone	0.0020	U	ug/L
Ibuprofen	0.020	U	ug/L
Imazapyr	0.0040	U	ug/L
Imidacloprid	0.0020	U	ug/L
Linuron	0.0040	U	ug/L
Mandestrobin	0.0020	U	ug/L
MCPP	0.0020	U	ug/L
Naproxen	0.0080	U	ug/L
Primidone	0.0040	U	ug/L
Pyraclostrobin	0.0020	U	ug/L
Thiamethoxam	0.0020	U	ug/L
Tolfenpyrad	0.0020	U	ug/L
Triclopyr	0.0040	U	ug/L

Reference Method: SM 2120 B-2011
Batch ID: P384671

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: SM 2320 B-2011
Batch ID: P384849

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

Reference Method: SM 2540 C-2011
Batch ID: P385213

Component	Result	Code	Units
TDS	15	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385125

Component	Result	Code	Units
TSS	2	U	mg/L

Reference Method: SM 2540 D-2011
Batch ID: P385126

Component	Result	Code	Units
TSS	2	U	mg/L

Quality Assurance Report

Method Blank Results

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Component	Result	Code	Units
Fluoride	0.035	U	mg F/L

Reference Method: SM 5310 B-2011
Batch ID: P384780

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: P384715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Barium	105		P	85 - 115
Calcium	103		P	85 - 115
Chromium	101		P	85 - 115
Iron	108		P	85 - 115
Magnesium	101		P	85 - 115
Manganese	104		P	85 - 115
Potassium	105		P	85 - 115
Sodium	103		P	85 - 115
Zinc	102		P	85 - 115

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384715

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Aluminum	100		P	85 - 115
Antimony	104		P	85 - 115
Arsenic	101		P	85 - 115
Boron	102		P	85 - 115
Cadmium	103		P	85 - 115
Chromium	104		P	85 - 115
Copper	101		P	85 - 115
Lead	99.3		P	85 - 115
Nickel	101		P	85 - 115
Selenium	99.8		P	85 - 115
Silver	102		P	85 - 115
Thallium	103		P	85 - 115

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385198

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Chloride	97.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385202

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Sulfate	96.6		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385582

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384819

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

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384703

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384769

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384876

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384675

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	97.0		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P384657

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Acesulfame K	90.8		P	40 - 150
AMPA	83.0		P	40 - 150
Endothall	77.4		P	40 - 150
Glufosinate	99.5		P	40 - 150
Glyphosate	92.6		P	40 - 140
Sucralose	93.1		P	40 - 150

Reference Method: EPA 8321B
Batch ID: P384706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2,4-D	104		P	30 - 160
Acetaminophen	62.1		P	30 - 160
Acetamiprid	76.1		P	30 - 160
Afidopyropen	59.3		P	30 - 160
Bentazon	51.4		P	30 - 160
Benzovindiflupyr	61.7		P	30 - 160
Carbamazepine	61.6		P	30 - 160
Clothianidin	77.9		P	30 - 160
Dinotefuran	85.6		P	30 - 160
Diuron	51.4		P	30 - 160
Fenuron	88.8		P	30 - 160

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P384706

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluridone	79.7		P	30 - 160
Hydrocodone	73.7		P	30 - 160
Ibuprofen	66.1		P	30 - 160
Imazapyr	95.9		P	30 - 160
Imidacloprid	93.7		P	30 - 160
Linuron	57.5		P	30 - 160
Mandestrobin	66.9		P	30 - 160
MCPP	115		P	30 - 160
Naproxen	71.3		P	30 - 160
Primidone	76.7		P	30 - 160
Pyraclostrobin	68.6		P	30 - 160
Thiamethoxam	89.4		P	30 - 160
Tolfenpyrad	56.2		P	30 - 160
Triclopyr	92.0		P	30 - 160

Reference Method: SM 2120 B-2011
Batch ID: P384671

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.1		P	85 - 115

Reference Method: SM 2320 B-2011
Batch ID: P384849

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total Alkalinity	99.1		P	93 - 104

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Fluoride	98.9		P	90 - 106

Reference Method: SM 5310 B-2011
Batch ID: P384780

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Organic Carbon	100		P	85 - 115

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183090	Barium	101	102	P/P	80 - 120
2183090	Calcium	105		P	80 - 120
2183090	Chromium	97.5	98.3	P/P	80 - 120
2183090	Iron	105	108	P/P	80 - 120
2183090	Magnesium	102		P	80 - 120
2183090	Manganese	101	102	P/P	80 - 120
2183090	Potassium	101	103	P/P	80 - 120
2183090	Sodium	107		P	80 - 120
2183090	Zinc	97.0	98.4	P/P	80 - 120

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384715

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2183090	Aluminum	97.5	95.6	P/P	80 - 120
2183090	Antimony	106	106	P/P	80 - 120
2183090	Arsenic	105	103	P/P	80 - 120
2183090	Boron	100	98.6	P/P	80 - 120
2183090	Cadmium	103	102	P/P	80 - 120
2183090	Chromium	107	107	P/P	80 - 120
2183090	Copper	98.6	98.1	P/P	80 - 120
2183090	Lead	99.2	97.7	P/P	80 - 120
2183090	Nickel	99.1	98.8	P/P	80 - 120
2183090	Selenium	98.2	98.9	P/P	80 - 120
2183090	Silver	102	99.1	P/P	80 - 120
2183090	Thallium	105	105	P/P	80 - 120

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385198

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182906	Chloride	96.2		P	90 - 110
2183153	Chloride	98.0		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385202

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182906	Sulfate	95.4		P	90 - 110
2183153	Sulfate	94.9		P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385582

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182961	Bromide	92.9		P	90 - 110
2183177	Bromide	93.3	92.9	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384819

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384819

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182952	Ammonia-N	100	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384703

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182965	Kjeldahl Nitrogen	99.1	106	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182838	NO2NO3-N	98.0	98.5	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384769

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182962	NO2NO3-N	96.0	95.5	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384876

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182952	Total-P	107	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384675

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182953	O-Phosphate-P	96.8	97.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P384657

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182983	Acesulfame K	99.2	95.0	P/P	40 - 150
2182983	AMPA	86.0	83.0	P/P	40 - 150
2182983	Endothall	85.5	88.4	P/P	40 - 150
2182983	Glufosinate	85.1	84.0	P/P	40 - 150
2182983	Glyphosate	70.4	65.3	P/P	40 - 140
2182983	Sucralose	106	98.9	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P384706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182738	2,4-D	117	102	P/P	30 - 160
2182738	Acetaminophen	69.7	77.9	P/P	30 - 160
2182738	Acetamiprid	66.7	66.9	P/P	30 - 160
2182738	Afidopyropen	68.8	68.0	P/P	30 - 160
2182738	Bentazon	44.0	41.1	P/P	30 - 160

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 8321B
Batch ID: P384706

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182738	Benzovindiflupyr	70.8	65.0	P/P	30 - 160
2182738	Carbamazepine	52.3	53.9	P/P	30 - 160
2182738	Clothianidin	61.9	66.0	P/P	30 - 160
2182738	Dinotefuran	73.1	76.9	P/P	30 - 160
2182738	Diuron	45.6	49.5	P/P	30 - 160
2182738	Fenuron	70.2	73.3	P/P	30 - 160
2182738	Fluridone	89.5	82.3	P/P	30 - 160
2182738	Hydrocodone	57.4	62.3	P/P	30 - 160
2182738	Ibuprofen	71.6	63.0	P/P	30 - 160
2182738	Imazapyr	98.9	99.6	P/P	30 - 160
2182738	Imidacloprid	114	120	P/P	30 - 160
2182738	Linuron	61.9	58.7	P/P	30 - 160
2182738	Mandestrobin	74.5	73.2	P/P	30 - 160
2182738	MCP	121	115	P/P	30 - 160
2182738	Naproxen	68.9	73.0	P/P	30 - 160
2182738	Primidone	80.6	75.3	P/P	30 - 160
2182738	Pyraclostrobin	77.3	75.0	P/P	30 - 160
2182738	Thiamethoxam	79.7	84.7	P/P	30 - 160
2182738	Tolfenpyrad	47.5	47.4	P/P	30 - 160
2182738	Triclopyr	103	89.1	P/P	30 - 160

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182837	Fluoride	101	100	P/P	94 - 107

Reference Method: SM 5310 B-2011
Batch ID: P384780

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2182968	Organic Carbon	99.7	99.8	P/P	85 - 115

Quality Assurance Report Precision

Reference Method: EPA 180.1 Rev. 2.0
Batch ID: P384667

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182958	Turbidity	4.65	Sample	P	0 - 20

Reference Method: EPA 200.7 Rev. 4.4
Batch ID: P384715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183090	Barium	1.01	Spike	P	0 - 20
2183090	Calcium	1.06	Spike	P	0 - 20
2183090	Chromium	0.754	Spike	P	0 - 20
2183090	Iron	2.25	Spike	P	0 - 20
2183090	Magnesium	0.176	Spike	P	0 - 20
2183090	Manganese	0.820	Spike	P	0 - 20
2183090	Potassium	1.34	Spike	P	0 - 20
2183090	Sodium	1.06	Spike	P	0 - 20
2183090	Zinc	1.34	Spike	P	0 - 20

Reference Method: EPA 200.8 Rev. 5.4
Batch ID: P384715

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183090	Aluminum	1.85	Spike	P	0 - 20
2183090	Antimony	0.0356	Spike	P	0 - 20
2183090	Arsenic	1.14	Spike	P	0 - 20
2183090	Boron	1.29	Spike	P	0 - 20
2183090	Cadmium	0.615	Spike	P	0 - 20
2183090	Chromium	0.139	Spike	P	0 - 20
2183090	Copper	0.419	Spike	P	0 - 20
2183090	Lead	1.54	Spike	P	0 - 20
2183090	Nickel	0.264	Spike	P	0 - 20
2183090	Selenium	0.687	Spike	P	0 - 20
2183090	Silver	2.96	Spike	P	0 - 20
2183090	Thallium	0.0932	Spike	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385198

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182906	Chloride	0.0504	Sample	P	0 - 20

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385202

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182906	Sulfate	0.540	Sample	P	0 - 20

Quality Assurance Report Precision

Reference Method: EPA 300.0 Rev. 2.1
Batch ID: P385582

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2183177	Bromide	0.308	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P384819

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182952	Ammonia-N	1.34	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P384703

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182965	Kjeldahl Nitrogen	3.72	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384768

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182838	NO2NO3-N	0.509	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P384769

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182962	NO2NO3-N	0.321	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P384876

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182952	Total-P	0.248	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P384675

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182953	O-Phosphate-P	0.623	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P384657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182983	Acesulfame K	4.11	Spike	P	0 - 30
2182983	AMPA	3.61	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P384657

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182983	Endothall	3.40	Spike	P	0 - 30
2182983	Glufosinate	1.31	Spike	P	0 - 30
2182983	Glyphosate	6.45	Spike	P	0 - 30
2182983	Sucralose	5.88	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P384706

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182738	2,4-D	13.5	Spike	P	0 - 30
2182738	Acetaminophen	11.1	Spike	P	0 - 30
2182738	Acetamiprid	0.416	Spike	P	0 - 30
2182738	Afidopyropen	1.16	Spike	P	0 - 30
2182738	Bentazon	3.25	Spike	P	0 - 30
2182738	Benzovindiflupyr	8.44	Spike	P	0 - 30
2182738	Carbamazepine	3.16	Spike	P	0 - 30
2182738	Clothianidin	6.53	Spike	P	0 - 30
2182738	Dinotefuran	5.16	Spike	P	0 - 30
2182738	Diuron	8.30	Spike	P	0 - 30
2182738	Fenuron	4.36	Spike	P	0 - 30
2182738	Fluridone	5.24	Spike	P	0 - 30
2182738	Hydrocodone	8.22	Spike	P	0 - 30
2182738	Ibuprofen	12.8	Spike	P	0 - 30
2182738	Imazapyr	0.477	Spike	P	0 - 30
2182738	Imidacloprid	5.22	Spike	P	0 - 30
2182738	Linuron	5.26	Spike	P	0 - 30
2182738	Mandestrobin	1.66	Spike	P	0 - 30
2182738	MCP	4.93	Spike	P	0 - 30
2182738	Naproxen	5.86	Spike	P	0 - 30
2182738	Primidone	6.87	Spike	P	0 - 30
2182738	Pyraclostrobin	3.08	Spike	P	0 - 30
2182738	Thiamethoxam	6.05	Spike	P	0 - 30
2182738	Tolfenpyrad	0.181	Spike	P	0 - 30
2182738	Triclopyr	14.1	Spike	P	0 - 30

Reference Method: SM 2120 B-2011
Batch ID: P384671

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182906	Color (true)	3.38	Sample	P	0 - 20

Reference Method: SM 2320 B-2011
Batch ID: P384849

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182837	Total Alkalinity	4.98	Sample	P	0 - 8.1

Quality Assurance Report Precision

Reference Method: SM 2540 C-2011
Batch ID: P385213

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182958	TDS	1.92	Sample	P	0 - 10

Reference Method: SM 4500 F-C-2011
Batch ID: P384854

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182837	Fluoride	0.915	Spike	P	0 - 2.8

Reference Method: SM 5310 B-2011
Batch ID: P384780

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2182968	Organic Carbon	0.0272	Spike	P	0 - 20

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

Quality Assurance Report Surrogates

Lab Sample ID: 2182983
Field Sample ID: G2SE0038

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	111	P	30 - 160
EPA 8321B	Acetaminophen-d4	71.2	P	30 - 160
EPA 8321B	Carbamazepine-d10	48.5	P	30 - 160
EPA 8321B	Diuron-d6	46.1	P	30 - 160
EPA 8321B	Endothall-d6	92.7	P	30 - 160
EPA 8321B	Endothall-d6	92.7	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	80.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.4	P	30 - 160
EPA 8321B	Primidone-d5	63.3	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160
EPA 8321B	Sucralose-d6	114	P	30 - 160

Lab Sample ID: 2182984
Field Sample ID: G2SE0043

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	104	P	30 - 160
EPA 8321B	Acetaminophen-d4	75.8	P	30 - 160
EPA 8321B	Carbamazepine-d10	46.6	P	30 - 160
EPA 8321B	Diuron-d6	43.9	P	30 - 160
EPA 8321B	Endothall-d6	93.1	P	30 - 160
EPA 8321B	Endothall-d6	93.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	79.4	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.4	P	30 - 160
EPA 8321B	Primidone-d5	65.7	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	30 - 160
EPA 8321B	Sucralose-d6	115	P	30 - 160

Lab Sample ID: 2182985
Field Sample ID: G2SE0029

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	108	P	30 - 160
EPA 8321B	Acetaminophen-d4	85.9	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.8	P	30 - 160
EPA 8321B	Diuron-d6	50.9	P	30 - 160
EPA 8321B	Endothall-d6	91.1	P	30 - 160
EPA 8321B	Endothall-d6	91.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.3	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	81.3	P	30 - 160
EPA 8321B	Ibuprofen-d3	72.0	P	30 - 160
EPA 8321B	Primidone-d5	80.5	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160
EPA 8321B	Sucralose-d6	113	P	30 - 160

Lab Sample ID: 2182986
Field Sample ID: G2SE0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	2,4-D-d3	116	P	30 - 160

Quality Assurance Report Surrogates

Lab Sample ID: 2182986
Field Sample ID: G2SE0017

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Acetaminophen-d4	76.4	P	30 - 160
EPA 8321B	Carbamazepine-d10	54.1	P	30 - 160
EPA 8321B	Diuron-d6	50.4	P	30 - 160
EPA 8321B	Endothall-d6	90.4	P	30 - 160
EPA 8321B	Endothall-d6	90.4	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	85.1	P	30 - 160
EPA 8321B	Glyphosate 13C 15N	85.1	P	30 - 160
EPA 8321B	Ibuprofen-d3	71.6	P	30 - 160
EPA 8321B	Primidone-d5	71.7	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160
EPA 8321B	Sucralose-d6	112	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.7 Rev. 4.4

Run ID: A100004

Included Lab Sample IDs: 2182987, 2182988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Barium	102	101	P/P	90 - 110
Calcium	99.6	102	P/P	90 - 110
Chromium	98.3	97.6	P/P	90 - 110
Iron	102	105	P/P	90 - 110
Magnesium	100	103	P/P	90 - 110
Manganese	102	101	P/P	90 - 110
Potassium	99.2	101	P/P	90 - 110
Sodium	100	104	P/P	90 - 110
Zinc	99.7	98.0	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A100005

Included Lab Sample IDs: 2182959

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	96.5	97.2	P/P	90 - 110

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100104

Included Lab Sample IDs: 2182958, 2182970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Chloride	100	99.7	P/P	90 - 110
Sulfate	99.9	99.0	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A100141

Included Lab Sample IDs: 2182983, 2182984, 2182985, 2182986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Sucralose	97.8	97.9	P/P	60 - 160

Reference Method: EPA 300.0 Rev. 2.1

Run ID: A100250

Included Lab Sample IDs: 2182961, 2182964, 2182967

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Bromide	99.7	107	P/P	90 - 110

Reference Method: EPA 180.1 Rev. 2.0

Run ID: A99896

Included Lab Sample IDs: 2182958, 2182961, 2182964, 2182967, 2182970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Turbidity	99.0	102	P/P	95 - 105

Reference Method: SM 2120 B-2011

Run ID: A99897

Included Lab Sample IDs: 2182958, 2182970

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

Reference Method: SM 2120 B-2011

Run ID: A99897

Included Lab Sample IDs: 2182958, 2182970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	99.1	100	P/P	90 - 115

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A99898

Included Lab Sample IDs: 2182960, 2182963, 2182966, 2182969, 2182972

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	95.1	95.3	P/P	90 - 110
O-Phosphate-P	95.3	93.7	P/P	90 - 110
O-Phosphate-P	95.5	96.2	P/P	90 - 110
O-Phosphate-P	96.2	94.6	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A99931

Included Lab Sample IDs: 2182959, 2182962, 2182965, 2182968, 2182971

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

Reference Method: EPA 8321B

Run ID: A99937

Included Lab Sample IDs: 2182983, 2182984, 2182985, 2182986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
AMPA	84.3	87.0	P/P	60 - 160
Glufosinate	103	95.1	P/P	60 - 160
Glyphosate	95.2	97.4	P/P	60 - 160

Reference Method: SM 5310 B-2011

Run ID: A99938

Included Lab Sample IDs: 2182959, 2182962, 2182965, 2182968, 2182971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Organic Carbon	97.9	98.6	P/P	90 - 110
Organic Carbon	98.6	98.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A99951

Included Lab Sample IDs: 2182959, 2182962, 2182965, 2182968, 2182971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	102	93.0	P/P	90 - 110
Kjeldahl Nitrogen	96.7	102	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A99954

Included Lab Sample IDs: 2182959, 2182962, 2182965, 2182968, 2182971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	97.7	99.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A99954

Included Lab Sample IDs: 2182959, 2182962, 2182965, 2182968, 2182971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.0	102	P/P	90 - 110

Reference Method: SM 2320 B-2011

Run ID: A99965

Included Lab Sample IDs: 2182958, 2182961, 2182964, 2182967, 2182970

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total Alkalinity	102	97.1	P/P	90 - 110
Total Alkalinity	96.6	102	P/P	90 - 110

Reference Method: SM 4500 F-C-2011

Run ID: A99965

Included Lab Sample IDs: 2182958, 2182961, 2182964, 2182967, 2182970

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

Reference Method: EPA 8321B

Run ID: A99981

Included Lab Sample IDs: 2182983, 2182984, 2182985, 2182986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
2,4-D	117	124	P/P	50 - 150
2,4-D	126	117	P/P	50 - 150
Acetaminophen	102	111	P/P	60 - 160
Acetaminophen	111	113	P/P	60 - 160
Acetamiprid	118	119	P/P	50 - 150
Acetamiprid	119	117	P/P	50 - 150
Afidopyropen	104	106	P/P	50 - 150
Afidopyropen	106	108	P/P	50 - 150
Bentazon	101	90.8	P/P	50 - 160
Bentazon	107	101	P/P	50 - 160
Bentazon	90.8	100	P/P	50 - 160
Benzovindiflupyr	103	111	P/P	50 - 150
Benzovindiflupyr	112	103	P/P	50 - 150
Carbamazepine	112	112	P/P	60 - 150
Carbamazepine	112	112	P/P	60 - 150
Clothianidin	105	107	P/P	60 - 150
Clothianidin	109	105	P/P	60 - 150
Dinotefuran	106	105	P/P	50 - 150
Dinotefuran	108	106	P/P	50 - 150
Diuron	113	118	P/P	60 - 160
Diuron	118	110	P/P	60 - 160
Fenuron	111	117	P/P	60 - 150
Fenuron	111	111	P/P	60 - 150
Fluridone	110	115	P/P	60 - 160
Fluridone	113	110	P/P	60 - 160
Hydrocodone	113	114	P/P	60 - 150
Hydrocodone	114	117	P/P	60 - 150
Ibuprofen	74.6	75.9	P/P	50 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B

Run ID: A99981

Included Lab Sample IDs: 2182983, 2182984, 2182985, 2182986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ibuprofen	83.4	74.6	P/P	50 - 160
Imazapyr	123	130	P/P	50 - 150
Imazapyr	130	124	P/P	50 - 150
Imidacloprid	101	103	P/P	60 - 150
Imidacloprid	103	104	P/P	60 - 150
Linuron	107	115	P/P	60 - 150
Linuron	108	107	P/P	60 - 150
Mandestrobin	118	120	P/P	50 - 150
Mandestrobin	121	118	P/P	50 - 150
MCPP	112	98.5	P/P	50 - 150
MCPP	121	112	P/P	50 - 150
Naproxen	122	125	P/P	50 - 160
Naproxen	125	77.5	P/P	50 - 160
Primidone	105	93.7	P/P	60 - 150
Primidone	93.7	106	P/P	60 - 150
Pyraclostrobin	117	106	P/P	60 - 150
Pyraclostrobin	124	117	P/P	60 - 150
Thiamethoxam	105	97.5	P/P	50 - 150
Thiamethoxam	97.5	119	P/P	50 - 150
Tolfenpyrad	110	103	P/P	60 - 150
Tolfenpyrad	122	110	P/P	60 - 150
Triclopyr	105	112	P/P	50 - 150
Triclopyr	112	102	P/P	50 - 150

Reference Method: EPA 8321B

Run ID: A99984

Included Lab Sample IDs: 2182983, 2182984, 2182985, 2182986

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Acesulfame K	120	89.8	P/P	60 - 160
Endothall	90.9	98.3	P/P	60 - 160

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A99998

Included Lab Sample IDs: 2182962, 2182965, 2182968, 2182971

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.4	99.1	P/P	90 - 110

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A99999

Included Lab Sample IDs: 2182987, 2182988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Aluminum	98.8	97.5	P/P	90 - 110
Antimony	100	101	P/P	90 - 110
Arsenic	99.1	99.0	P/P	90 - 110
Boron	98.1	97.5	P/P	90 - 110
Cadmium	103	100	P/P	90 - 110
Chromium	98.8	97.6	P/P	90 - 110
Copper	97.3	96.0	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 200.8 Rev. 5.4

Run ID: A99999

Included Lab Sample IDs: 2182987, 2182988

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Lead	96.3	96.3	P/P	90 - 110
Nickel	97.6	97.3	P/P	90 - 110
Selenium	100	99.0	P/P	90 - 110
Silver	97.7	96.1	P/P	90 - 110
Thallium	96.0	98.1	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					4.65	
EPA 200.7 Rev. 4.4	Barium	105	101	102			1.01
	Calcium	103	105				1.06
	Chromium	101	97.5	98.3			0.754
	Iron	108	105	108			2.25
	Magnesium	101	102				0.176
	Manganese	104	101	102			0.820
	Potassium	105	101	103			1.34
	Sodium	103	107				1.06
	Zinc	102	97.0	98.4			1.34
EPA 200.8 Rev. 5.4	Aluminum	100	97.5	95.6			1.85
	Antimony	104	106	106			0.0356
	Arsenic	101	105	103			1.14
	Boron	102	100	98.6			1.29
	Cadmium	103	103	102			0.615
	Chromium	104	107	107			0.139
	Copper	101	98.6	98.1			0.419
	Lead	99.3	99.2	97.7			1.54
	Nickel	101	99.1	98.8			0.264
	Selenium	99.8	98.2	98.9			0.687
	Silver	102	102	99.1			2.96
	Thallium	103	105	105			0.0932
EPA 300.0 Rev. 2.1	Bromide	96.2	93.3	92.9	92.9		0.308
	Chloride	97.6	96.2	98.0		0.0504	
	Sulfate	96.6	95.4	94.9		0.540	
EPA 350.1 Rev. 2.0	Ammonia-N	102	100	102			1.34
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	105	99.1	106			3.72
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	99.0	98.0	98.5			0.509
	NO ₂ NO ₃ -N	98.0	96.0	95.5			0.321
EPA 365.1 Rev. 2.0	Total-P	104	107	106			0.248
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	97.0	96.8	97.7			0.623
EPA 8321B	2,4-D	104	117	102			13.5
	Acesulfame K	90.8	99.2	95.0			4.11
	Acetaminophen	62.1	69.7	77.9			11.1
	Acetamiprid	76.1	66.7	66.9			0.416
	Afidopyropen	59.3	68.8	68.0			1.16
	AMPA	83.0	86.0	83.0			3.61
	Bentazon	51.4	44.0	41.1			3.25
	Benzovindiflupyr	61.7	70.8	65.0			8.44
	Carbamazepine	61.6	52.3	53.9			3.16
	Clothianidin	77.9	61.9	66.0			6.53
	Dinotefuran	85.6	73.1	76.9			5.16
	Diuron	51.4	45.6	49.5			8.30
	Endothall	77.4	85.5	88.4			3.40
	Fenuron	88.8	70.2	73.3			4.36
	Fluridone	79.7	89.5	82.3			5.24
	Glufosinate	99.5	85.1	84.0			1.31
	Glyphosate	92.6	70.4	65.3			6.45
	Hydrocodone	73.7	57.4	62.3			8.22
	Ibuprofen	66.1	71.6	63.0			12.8
	Imazapyr	95.9	98.9	99.6			0.477
	Imidacloprid	93.7	114	120			5.22
	Linuron	57.5	61.9	58.7			5.26
	Mandestrobin	66.9	74.5	73.2			1.66

Quality Assurance Report Summary

Ref. Method	Analyte	LCS % Recovery	MS % Recovery		Precision	
					LCS	MS
EPA 8321B	MCP	115	121	115		4.93
	Naproxen	71.3	68.9	73.0		5.86
	Primidone	76.7	80.6	75.3		6.87
	Pyraclostrobin	68.6	77.3	75.0		3.08
	Sucralose	93.1	106	98.9		5.88
	Thiamethoxam	89.4	79.7	84.7		6.05
	Tolfenpyrad	56.2	47.5	47.4		0.181
	Triclopyr	92.0	103	89.1		14.1
SM 2120 B-2011	Color (true)	99.1			3.38	
SM 2320 B-2011	Total Alkalinity	99.1			4.98	
SM 2540 C-2011	TDS				1.92	
SM 4500 F-C-2011	Fluoride	98.9	101	100		0.915
SM 5310 B-2011	Organic Carbon	100	99.7	99.8		0.0272

Reference Method Descriptions

Method	Description	Associated Samples
EPA 180.1 Rev. 2.0	Turbidity in aqueous matrices	2182958, 2182961, 2182964, 2182967, 2182970
EPA 200.7 Rev. 4.4	Total Recoverable Metals analysis using ICP emission spectroscopy for aqueous samples supporting Clean Water Act Projects	2182987, 2182988
EPA 200.8 Rev. 5.4	Total Recoverable Metals analysis using ICP-MS for aqueous samples supporting Clean Water Act Projects	2182987, 2182988
EPA 300.0 Rev. 2.1	Bromide in aqueous matrices	2182961, 2182964, 2182967
EPA 300.0 Rev. 2.1	Chloride in aqueous matrices	2182958, 2182970
EPA 300.0 Rev. 2.1	Sulfate in aqueous matrices	2182958, 2182970
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2182959, 2182962, 2182965, 2182968, 2182971
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2182959, 2182962, 2182965, 2182968, 2182971
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2182959, 2182962, 2182965, 2182968, 2182971
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2182959, 2182962, 2182965, 2182968, 2182971
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2182960, 2182963, 2182966, 2182969, 2182972
EPA 8321B	Pesticides, herbicides, and other chemicals in water matrices by HPLC/MS/MS	2182983, 2182984, 2182985, 2182986
EPA 8321B	Water soluble organic compounds by HPLC/MS/MS	2182983, 2182984, 2182985, 2182986
SM 2120 B-2011	True Color measured at 450 nm (not valid for NPDES monitoring)	2182958, 2182970
SM 2320 B-2011	Alkalinity in aqueous matrices as mg CaCO ₃ /L	2182958, 2182961, 2182964, 2182967, 2182970
SM 2340B	Hardness by calculation, in aqueous matrices, reported as mg/L CaCO ₃	2182987
SM 2540 C-2011	Total Dissolved Solids in aqueous matrices	2182958, 2182970
SM 2540 D-2011	Total Suspended Solids in aqueous matrices using a maximum of 250 mL of sample	2182958, 2182961, 2182964, 2182967, 2182970
SM 4500 F-C-2011	Fluoride in aqueous matrices, without distillation (not valid for NPDES monitoring)	2182958, 2182961, 2182964, 2182967, 2182970
SM 5310 B-2011	Nonpurgeable Organic Carbon in aqueous matrices	2182959, 2182962, 2182965, 2182968, 2182971

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	07/15/2020			07/15/2020 15:03	Yen Ta	2182958, 2182961, 2182964, 2182967, 2182970
EPA 200.7 Rev. 4.4	07/15/2020	07/16/2020 13:05	Elliott D. Healy	07/21/2020 13:37	Betina Topolski	2182987
	07/15/2020	07/16/2020 13:05	Elliott D. Healy	07/21/2020 13:45	Betina Topolski	2182988
EPA 200.8 Rev. 5.4	07/15/2020	07/16/2020 13:05	Elliott D. Healy	07/21/2020 20:16	Alexander Thompson	2182987
	07/15/2020	07/16/2020 13:05	Elliott D. Healy	07/21/2020 20:23	Alexander Thompson	2182988
EPA 300.0 Rev. 2.1	07/15/2020			07/21/2020 21:50	Julia Storbeck	2182958
	07/15/2020			07/21/2020 22:02	Julia Storbeck	2182970
	07/15/2020			07/28/2020 14:48	Julia Storbeck	2182961
	07/15/2020			07/28/2020 15:40	Julia Storbeck	2182964
	07/15/2020			07/28/2020 15:59	Julia Storbeck	2182967
EPA 350.1 Rev. 2.0	07/15/2020			07/18/2020 11:44	Ping Hua	2182959
	07/15/2020			07/18/2020 11:46	Ping Hua	2182962
	07/15/2020			07/18/2020 11:47	Ping Hua	2182965
	07/15/2020			07/18/2020 14:17	Ping Hua	2182968
	07/15/2020			07/18/2020 14:20	Ping Hua	2182971
EPA 351.2 Rev. 2.0	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 15:56	Jhamieka S. Greenwood	2182965
	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 16:10	Jhamieka S. Greenwood	2182959
	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 16:12	Jhamieka S. Greenwood	2182962
	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 16:13	Jhamieka S. Greenwood	2182968
	07/15/2020	07/16/2020 09:45	Sima Feizi	07/17/2020 16:15	Jhamieka S. Greenwood	2182971
EPA 353.2 Rev. 2.0	07/15/2020			07/17/2020 08:48	Beverly Y. Sanders	2182959
	07/15/2020			07/17/2020 08:55	Beverly Y. Sanders	2182962
	07/15/2020			07/17/2020 09:01	Beverly Y. Sanders	2182965
	07/15/2020			07/17/2020 09:02	Beverly Y. Sanders	2182968
	07/15/2020			07/17/2020 09:03	Beverly Y. Sanders	2182971
EPA 365.1 Rev. 2.0	07/15/2020	07/20/2020 13:21	Yen Ta	07/21/2020 10:09	Lipi Saha	2182962
	07/15/2020	07/20/2020 13:21	Yen Ta	07/21/2020 10:10	Lipi Saha	2182965
	07/15/2020	07/20/2020 13:21	Yen Ta	07/21/2020 10:11	Lipi Saha	2182968
	07/15/2020	07/20/2020 13:21	Yen Ta	07/21/2020 10:12	Lipi Saha	2182971
	07/15/2020	07/20/2020 13:21	Yen Ta	07/22/2020 08:06	Lipi Saha	2182959
EPA 365.1 Rev. 2.0 dissolved	07/15/2020			07/15/2020 16:02	Jhamieka S. Greenwood	2182963
	07/15/2020			07/15/2020 16:09	Jhamieka S. Greenwood	2182960, 2182972
	07/15/2020			07/15/2020 16:35	Jhamieka S. Greenwood	2182966
	07/15/2020			07/15/2020 16:50	Jhamieka S. Greenwood	2182969
EPA 8321B	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/15/2020 19:02	Rebecca Ware	2182983
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/15/2020 19:12	Rebecca Ware	2182984
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/15/2020 19:23	Rebecca Ware	2182985
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/15/2020 19:34	Rebecca Ware	2182986
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/20/2020 12:29	Rebecca Ware	2182983

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 8321B	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/20/2020 12:43	Rebecca Ware	2182984
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/20/2020 12:57	Rebecca Ware	2182985
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/20/2020 13:11	Rebecca Ware	2182986
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/28/2020 21:00	Mohammad Ghaffari	2182983
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/28/2020 21:12	Mohammad Ghaffari	2182984
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/28/2020 21:23	Mohammad Ghaffari	2182985
	07/15/2020	07/15/2020 15:30	Rebecca Ware	07/28/2020 21:35	Mohammad Ghaffari	2182986
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 06:19	Juyoung Kim	2182983
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 06:54	Juyoung Kim	2182984
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 08:03	Juyoung Kim	2182985
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 08:38	Juyoung Kim	2182986
	07/15/2020	07/20/2020 08:45	Hoor Shaik	07/21/2020 13:15	Juyoung Kim	2182986
SM 2120 B-2011	07/15/2020			07/15/2020 15:31	Benjamin T. Nordmann	2182958
	07/15/2020			07/15/2020 15:32	Benjamin T. Nordmann	2182970
SM 2320 B-2011	07/15/2020			07/18/2020 08:01	Samantha Davila	2182958
	07/15/2020			07/18/2020 08:47	Samantha Davila	2182961
	07/15/2020			07/18/2020 09:01	Samantha Davila	2182964
	07/15/2020			07/18/2020 09:14	Samantha Davila	2182967
	07/15/2020			07/18/2020 09:26	Samantha Davila	2182970
	07/15/2020			07/21/2020 13:37	Betina Topolski	2182987
SM 2340B	07/15/2020			07/20/2020 13:22	Yijie Li	2182958, 2182970
SM 2540 C-2011	07/15/2020			07/20/2020 13:22	Yijie Li	2182958, 2182961, 2182964, 2182967, 2182970
SM 2540 D-2011	07/15/2020					
SM 4500 F-C-2011	07/15/2020			07/18/2020 08:01	Samantha Davila	2182958
	07/15/2020			07/18/2020 08:47	Samantha Davila	2182961
	07/15/2020			07/18/2020 09:01	Samantha Davila	2182964
	07/15/2020			07/18/2020 09:14	Samantha Davila	2182967
	07/15/2020			07/18/2020 09:26	Samantha Davila	2182970
	07/15/2020			07/16/2020 18:51	David Boose	2182968
SM 5310 B-2011	07/15/2020			07/16/2020 19:40	David Boose	2182965
	07/15/2020			07/16/2020 21:22	David Boose	2182959
	07/15/2020			07/16/2020 21:34	David Boose	2182962
	07/15/2020			07/16/2020 21:46	David Boose	2182971
	07/15/2020					