

Chemical Analysis Report

WQAP-2019-07-11-03

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

Event Description: **Algal Bloom Response - SWD**
Request ID: **RQ-2019-07-01-60**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
13051 N. Telecom Parkway
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Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 02-AUG-2019 10:24

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line above the first few letters of the first name.

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 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: WATER STREET CANAL-NEAR ELLENTON

Collection Date/Time: 07/10/2019 13:30

Field ID: WATER STREET CANAL-NEAR ELLENT

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2101929	EPA 8321B	Anatoxin-a**	0.25	U	ug/L	P367024	
		Cylindrospermopsin**	0.25	U	ug/L	P367024	
		Microcystin LA**	0.25	U	ug/L	P367024	
		Microcystin LF**	0.25	U	ug/L	P367024	
		Microcystin LR**	0.25	U	ug/L	P367024	
		Microcystin LY**	0.25	U	ug/L	P367024	
		Microcystin RR**	0.25	U	ug/L	P367024	
		Microcystin YR**	0.25	U	ug/L	P367024	

Sample Location: WATER STREET CANAL-NEAR ELLENTON

Collection Date/Time: 07/10/2019 13:30

Field ID: WATER STREET CANAL-NEAR ELLENT

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2101936	EPA 350.1 Rev. 2.0	Ammonia-N	0.17		mg N/L	P367420	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P367287	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.10		mg N/L	P367205	
	EPA 365.1 Rev. 2.0	Total-P	0.81		mg P/L	P367282	
2101939	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.25		mg P/L	P367099	

Sample Location: MAIN CANAL TO 4th AVE

Collection Date/Time: 07/10/2019 14:05

Field ID: MAIN CANAL TO 4th AVE

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2101930	EPA 8321B	Anatoxin-a**	0.25	U	ug/L	P367024	
		Cylindrospermopsin**	0.25	U	ug/L	P367024	
		Microcystin LA**	0.25	U	ug/L	P367024	
		Microcystin LF**	0.25	U	ug/L	P367024	
		Microcystin LR**	0.25	U	ug/L	P367024	
		Microcystin LY**	0.25	U	ug/L	P367024	
		Microcystin RR**	0.25	U	ug/L	P367024	
		Microcystin YR**	0.25	U	ug/L	P367024	

Sample Location: MAIN CANAL TO 4th AVE

Collection Date/Time: 07/10/2019 14:05

Field ID: MAIN CANAL TO 4th AVE

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2101937	EPA 350.1 Rev. 2.0	Ammonia-N	0.16		mg N/L	P367420	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P367287	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.030		mg N/L	P367207	
	EPA 365.1 Rev. 2.0	Total-P	0.37		mg P/L	P367282	
2101940	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.59		mg P/L	P367099	

Ref. Method and Comment:

EPA 365.1 Rev. 2.0: Total-P: The result was confirmed on 07/26/2019.

EPA 365.1 Rev. 2.0 dissolved: O-Phosphate-P: The result was confirmed on 07/11/2019.

Sample Location: MANATEE RIVER @ MARKER 28

Collection Date/Time: 07/10/2019 14:25

Field ID: MANATEE RIVER @ MARKER 28

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2101931	EPA 8321B	Anatoxin-a**	0.25	U	ug/L	P367024	
		Cylindrospermopsin**	0.25	U	ug/L	P367024	
		Microcystin LA**	0.25	U	ug/L	P367024	
		Microcystin LF**	0.25	U	ug/L	P367024	
		Microcystin LR**	0.25	U	ug/L	P367024	
		Microcystin LY**	0.25	U	ug/L	P367024	
		Microcystin RR**	0.25	U	ug/L	P367024	
		Microcystin YR**	0.25	U	ug/L	P367024	

Sample Location: MANATEE RIVER @ MARKER 28

Collection Date/Time: 07/10/2019 14:25

Field ID: MANATEE RIVER @ MARKER 28

Matrix: W-SURF-SLT

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2101938	EPA 350.1 Rev. 2.0	Ammonia-N	0.063		mg N/L	P367420	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.1		mg N/L	P367287	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.004	I	mg N/L	P367207	
	EPA 365.1 Rev. 2.0	Total-P	0.37		mg P/L	P367282	
2101941	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.27		mg P/L	P367099	

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P367420

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P367287

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367205

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367207

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367282

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367099

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

Reference Method: EPA 8321B
Batch ID: P367024

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Cylindrospermopsin	0.25	U	ug/L
Microcystin LA	0.25	U	ug/L
Microcystin LF	0.25	U	ug/L
Microcystin LR	0.25	U	ug/L
Microcystin LY	0.25	U	ug/L
Microcystin RR	0.25	U	ug/L
Microcystin YR	0.25	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P367420

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P367287

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367205

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367207

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367282

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367099

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

Reference Method: EPA 8321B
Batch ID: P367024

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	101		P	40 - 140
Cylindrospermopsin	97.5		P	40 - 140
Microcystin LA	112		P	40 - 140
Microcystin LF	110		P	40 - 140
Microcystin LR	101		P	40 - 140
Microcystin LY	112		P	40 - 140
Microcystin RR	105		P	40 - 140
Microcystin YR	108		P	40 - 140

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P367420

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2101730	Ammonia-N	104	102	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P367287

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2101854	Kjeldahl Nitrogen	93.0	94.0	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367205

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2101381	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367207

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2101661	NO2NO3-N	101	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367282

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2101854	Total-P	103	101	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367099

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2102025	O-Phosphate-P	94.5	95.3	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P367024

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2101929	Anatoxin-a	113	101	P/P	40 - 140
2101929	Cylindrospermopsin	98.6	74.3	P/P	40 - 140
2101929	Microcystin LA	121	102	P/P	40 - 140
2101929	Microcystin LF	114	98.8	P/P	40 - 140
2101929	Microcystin LR	114	114	P/P	40 - 140
2101929	Microcystin LY	126	111	P/P	40 - 140
2101929	Microcystin RR	103	103	P/P	40 - 140
2101929	Microcystin YR	122	118	P/P	40 - 140

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P367420

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2101730	Ammonia-N	1.35	Spike	P	0 - 15

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P367287

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2101854	Kjeldahl Nitrogen	0.845	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367205

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2101381	NO2NO3-N	0.491	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P367207

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2101661	NO2NO3-N	0.406	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P367282

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2101854	Total-P	1.63	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P367099

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2102025	O-Phosphate-P	0.616	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P367024

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2101929	Anatoxin-a	11.1	Spike	P	0 - 30
2101929	Cylindrospermopsin	28.1	Spike	P	0 - 30
2101929	Microcystin LA	17.1	Spike	P	0 - 30
2101929	Microcystin LF	14.4	Spike	P	0 - 30
2101929	Microcystin LR	0.195	Spike	P	0 - 30
2101929	Microcystin LY	13.4	Spike	P	0 - 30
2101929	Microcystin RR	0.572	Spike	P	0 - 30
2101929	Microcystin YR	3.18	Spike	P	0 - 30

Quality Assurance Report Precision

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

Quality Assurance Report Surrogates

Lab Sample ID: 2101929

Field Sample ID: WATER STREET CANAL-NEAR ELLENT

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbamazepine-d10	95.2	P	30 - 165

Lab Sample ID: 2101930

Field Sample ID: MAIN CANAL TO 4th AVE

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbamazepine-d10	82.5	P	30 - 165

Lab Sample ID: 2101931

Field Sample ID: MANATEE RIVER @ MARKER 28

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Carbamazepine-d10	79.8	P	30 - 165

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A92716

Included Lab Sample IDs: 2101939, 2101940, 2101941

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	97.7	96.8	P/P	90 - 110
O-Phosphate-P	99.3	97.7	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A92732

Included Lab Sample IDs: 2101929, 2101930, 2101931

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	94.9	91.9	P/P	50 - 160
Cylindrospermopsin	94.4	84.7	P/P	60 - 160
Microcystin LA	107	96.3	P/P	50 - 160
Microcystin LF	105	91.8	P/P	60 - 160
Microcystin LR	101	86.4	P/P	60 - 160
Microcystin LY	114	98.3	P/P	60 - 160
Microcystin RR	106	94.1	P/P	60 - 160
Microcystin YR	111	90.3	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A92760

Included Lab Sample IDs: 2101936, 2101937, 2101938

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
NO2NO3-N	102	102	P/P	90 - 110
NO2NO3-N	99.0	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A92818

Included Lab Sample IDs: 2101936, 2101937, 2101938

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	99.5	103	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A92827

Included Lab Sample IDs: 2101936, 2101937, 2101938

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	104	95.8	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A92838

Included Lab Sample IDs: 2101936, 2101937, 2101938

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	102	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		Precision SMP	MS
			LCS			
EPA 350.1 Rev. 2.0	Ammonia-N	104	102	104		1.35
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	101	93.0	94.0		0.845
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	102	102		0.491
	NO ₂ NO ₃ -N	102	101	101		0.406
EPA 365.1 Rev. 2.0	Total-P	100	103	101		1.63
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	100	94.5	95.3		0.616
EPA 8321B	Anatoxin-a	101	113	101		11.1
	Cylindrospermopsin	97.5	98.6	74.3		28.1
	Microcystin LA	112	121	102		17.1
	Microcystin LF	110	114	98.8		14.4
	Microcystin LR	101	114	114		0.195
	Microcystin LY	112	126	111		13.4
	Microcystin RR	105	103	103		0.572
	Microcystin YR	108	122	118		3.18

Reference Method Descriptions

Method / DoH Cert #	Description	Associated Samples
EPA 350.1 Rev. 2.0 / E31780	Ammonia in aqueous matrices as mg N/L	2101936, 2101937, 2101938
EPA 351.2 Rev. 2.0 / E31780	Total Kjeldahl Nitrogen in aqueous matrices	2101936, 2101937, 2101938
EPA 353.2 Rev. 2.0 / E31780	Nitrite/Nitrate in aqueous matrices as mg N/L	2101936, 2101937, 2101938
EPA 365.1 Rev. 2.0 / E31780	Total Phosphorus in aqueous matrices as mg P/L	2101936, 2101937, 2101938
EPA 365.1 Rev. 2.0 dissolved / E31780	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2101939, 2101940, 2101941
EPA 8321B / E31780	Microcystins in water matrices by HPLC/MS/MS	2101929, 2101930, 2101931

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
EPA 350.1 Rev. 2.0	07/11/2019			07/17/2019 13:26	Virginia P. Brown	2101936
	07/11/2019			07/17/2019 13:27	Virginia P. Brown	2101937
	07/11/2019			07/17/2019 13:29	Virginia P. Brown	2101938
EPA 351.2 Rev. 2.0	07/11/2019	07/16/2019 12:35	Sima Feizi	07/17/2019 12:28	Joseph Suarez	2101936
	07/11/2019	07/16/2019 12:35	Sima Feizi	07/17/2019 12:29	Joseph Suarez	2101937
	07/11/2019	07/16/2019 12:35	Sima Feizi	07/17/2019 12:31	Joseph Suarez	2101938
EPA 353.2 Rev. 2.0	07/11/2019			07/15/2019 11:32	Beverly Y. Sanders	2101936
	07/11/2019			07/15/2019 12:26	Beverly Y. Sanders	2101937
	07/11/2019			07/15/2019 12:27	Beverly Y. Sanders	2101938
EPA 365.1 Rev. 2.0	07/11/2019	07/16/2019 13:30	Sima Feizi	07/17/2019 09:08	Lipi Saha	2101936
	07/11/2019	07/16/2019 13:30	Sima Feizi	07/17/2019 09:09	Lipi Saha	2101937
	07/11/2019	07/16/2019 13:30	Sima Feizi	07/17/2019 09:10	Lipi Saha	2101938
EPA 365.1 Rev. 2.0 dissolved	07/11/2019			07/11/2019 16:33	Jhamieka S. Greenwood	2101941
	07/11/2019			07/11/2019 16:34	Jhamieka S. Greenwood	2101939
	07/11/2019			07/11/2019 16:54	Jhamieka S. Greenwood	2101940
EPA 8321B	07/11/2019	07/12/2019 09:00	Mohammad Ghaffari	07/12/2019 10:17	Mohammad Ghaffari	2101929
	07/11/2019	07/12/2019 09:00	Mohammad Ghaffari	07/12/2019 10:50	Mohammad Ghaffari	2101930
	07/11/2019	07/12/2019 09:00	Mohammad Ghaffari	07/12/2019 11:07	Mohammad Ghaffari	2101931