

Chemical Analysis Report

WQAP-2021-08-03-02

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

Event Description: **Algal Bloom Response -Lee County**
Request ID: **RQ-2021-05-31-55**
Customer: **WQAP**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
2295 Victoria AVE
Suite 364
Fort Myers, FL 33901
Attn: Kirby Wolfe

For additional information please contact
Colin Wright, Ph.D.
Liang-Tsair Lin, Ph.D.
Kerry Tate, Ph.D.
Dr. rer. nat. Bettina Steinbock
Thekkekalathil Chandrasekhar, Ph.D, QA Officer
Phone (850) 245-8085

Certified by: Kerry Tate, Ph.D., Environmental Administrator

Date Certified: 26-AUG-2021 09:36

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 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: North Shore Park

Collection Date/Time: 08/02/2021 10:07

Field ID: North Shore Park

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266570	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P401837	
		Cylindrospermopsin	0.10	U	ug/L	P401837	
		Desmethyl microcystin LR	0.25	U	ug/L	P401837	
		Microcystin HilR**	0.25	U	ug/L	P401837	
		Microcystin HtyR**	0.25	U	ug/L	P401837	
		Microcystin LA	0.10	U	ug/L	P401837	
		Microcystin LF	0.10	U	ug/L	P401837	RPD
		Microcystin LR	0.25	U	ug/L	P401837	
		Microcystin LW	0.25	U	ug/L	P401837	
		Microcystin LY	0.10	U	ug/L	P401837	
		Microcystin RR	0.10	U	ug/L	P401837	
		Microcystin WR	0.50	U	ug/L	P401837	
		Microcystin YR	0.25	U	ug/L	P401837	
		Nodularin-R**	0.10	U	ug/L	P401837	
2266572	EPA 350.1 Rev. 2.0	Ammonia-N	0.029		mg N/L	P402266	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.4		mg N/L	P402636	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.028		mg N/L	P402032	
	EPA 365.1 Rev. 2.0	Total-P	0.17		mg P/L	P402007	
2266574	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.093		mg P/L	P401902	

Ref. Method and Comment:

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Sample Location: Mid Point Bridge (Four Mile Cove Park)

Collection Date/Time: 08/02/2021 11:00

Field ID: Mid Point Bridge (Four Mile Co

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2266571	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P401837	
		Cylindrospermopsin	0.10	U	ug/L	P401837	
		Desmethyl microcystin LR	0.25	U	ug/L	P401837	
		Microcystin HilR**	0.25	U	ug/L	P401837	
		Microcystin HtyR**	0.25	U	ug/L	P401837	
		Microcystin LA	0.10	U	ug/L	P401837	
		Microcystin LF	0.10	U	ug/L	P401837	RPD
		Microcystin LR	0.25	U	ug/L	P401837	
		Microcystin LW	0.25	U	ug/L	P401837	
		Microcystin LY	0.10	U	ug/L	P401837	
		Microcystin RR	0.10	U	ug/L	P401837	
		Microcystin WR	0.50	U	ug/L	P401837	
		Microcystin YR	0.25	U	ug/L	P401837	
		Nodularin-R**	0.10	U	ug/L	P401837	
2266573	EPA 350.1 Rev. 2.0	Ammonia-N	0.082		mg N/L	P402265	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	1.2		mg N/L	P402636	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.046		mg N/L	P402032	
	EPA 365.1 Rev. 2.0	Total-P	0.14		mg P/L	P402007	
2266575	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.097		mg P/L	P401902	

Ref. Method and Comment:

EPA 351.2 Rev. 2.0: Batch matrix spike recoveries are unavailable because of high analyte concentration in the QC sample.

Quality Assurance Report Method Blank Results

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402265

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402266

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402636

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402032

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402007

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401902

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

Reference Method: EPA 8321B
Batch ID: P401837

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Cylindrospermopsin	0.10	U	ug/L
Desmethyl microcystin LR	0.25	U	ug/L
Microcystin H1LR	0.25	U	ug/L
Microcystin HtyR	0.25	U	ug/L
Microcystin LA	0.10	U	ug/L
Microcystin LF	0.10	U	ug/L
Microcystin LR	0.25	U	ug/L
Microcystin LW	0.25	U	ug/L
Microcystin LY	0.10	U	ug/L
Microcystin RR	0.10	U	ug/L
Microcystin WR	0.50	U	ug/L
Microcystin YR	0.25	U	ug/L
Nodularin-R	0.10	U	ug/L

Quality Assurance Report Laboratory Control Sample Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402265

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

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402266

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402636

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402032

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: P402007

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401902

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

Reference Method: EPA 8321B
Batch ID: P401837

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	98.8		P	40 - 150
Cylindrospermopsin	126		P	40 - 150
Desmethyl microcystin LR	91.7		P	40 - 150
Microcystin H1LR	102		P	40 - 150
Microcystin HtyR	104		P	40 - 150
Microcystin LA	85.4		P	40 - 150
Microcystin LF	79.7		P	40 - 150
Microcystin LR	89.0		P	40 - 150
Microcystin LW	97.8		P	40 - 150
Microcystin LY	84.1		P	40 - 150
Microcystin RR	103		P	40 - 150
Microcystin WR	96.4		P	40 - 150
Microcystin YR	88.7		P	40 - 150
Nodularin-R	108		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P402265

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266492	Ammonia-N	97.6	97.4	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Batch ID: P402266

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266807	Ammonia-N	98.8	99.8	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0

Batch ID: P402032

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266572	NO2NO3-N	100	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Batch ID: P402007

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266562	Total-P	102	103	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Batch ID: P401902

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2266808	O-Phosphate-P	98.7	97.7	P/P	90 - 110

Reference Method: EPA 8321B

Batch ID: P401837

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2265978	Anatoxin-a	110	112	P/P	40 - 150
2265978	Cylindrospermopsin	126	129	P/P	40 - 150
2265978	Desmethyl microcystin LR	98.6	108	P/P	40 - 150
2265978	Microcystin HiLR	107	111	P/P	40 - 150
2265978	Microcystin HtyR	100	107	P/P	40 - 150
2265978	Microcystin LA	95.8	91.8	P/P	40 - 150
2265978	Microcystin LF	69.6	95.2	P/P	40 - 150
2265978	Microcystin LR	88.9	93.3	P/P	40 - 150
2265978	Microcystin LW	77.5	90.0	P/P	40 - 150
2265978	Microcystin LY	93.0	96.9	P/P	40 - 150
2265978	Microcystin RR	105	112	P/P	40 - 150
2265978	Microcystin WR	102	101	P/P	40 - 150
2265978	Microcystin YR	101	113	P/P	40 - 150
2265978	Nodularin-R	108	121	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402265

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266492	Ammonia-N	0.122	Spike	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P402266

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266807	Ammonia-N	0.664	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P402636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266586	Kjeldahl Nitrogen	0.409	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P402032

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266572	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P402007

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266562	Total-P	0.472	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P401902

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2266808	O-Phosphate-P	0.929	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P401837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265978	Anatoxin-a	2.29	Spike	P	0 - 30
2265978	Cylindrospermopsin	2.25	Spike	P	0 - 30
2265978	Desmethyl microcystin LR	8.99	Spike	P	0 - 30
2265978	Microcystin HtLR	3.62	Spike	P	0 - 30
2265978	Microcystin HtyR	6.84	Spike	P	0 - 30
2265978	Microcystin LA	4.21	Spike	P	0 - 30
2265978	Microcystin LF	31.1	Spike	F	0 - 30
2265978	Microcystin LR	4.67	Spike	P	0 - 30
2265978	Microcystin LW	14.9	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P401837

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2265978	Microcystin LY	4.13	Spike	P	0 - 30
2265978	Microcystin RR	6.63	Spike	P	0 - 30
2265978	Microcystin WR	1.69	Spike	P	0 - 30
2265978	Microcystin YR	11.4	Spike	P	0 - 30
2265978	Nodularin-R	11.5	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2266570

Field Sample ID: North Shore Park

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	111	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	97.9	P	30 - 160

Lab Sample ID: 2266571

Field Sample ID: Mid Point Bridge (Four Mile Co

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Microcystin LR-d7	109	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	95.2	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A107006

Included Lab Sample IDs: 2266574, 2266575

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.8	99.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A107011

Included Lab Sample IDs: 2266570, 2266571

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	107	108	P/P	50 - 160
Cylindrospermopsin	122	118	P/P	60 - 160
Desmethyl microcystin LR	94.9	97.8	P/P	60 - 160
Microcystin HIR	99.9	103	P/P	60 - 160
Microcystin HtyR	102	105	P/P	60 - 160
Microcystin LA	98.7	90.1	P/P	50 - 160
Microcystin LF	71.2	118	P/P	60 - 160
Microcystin LR	84.8	84.0	P/P	60 - 160
Microcystin LW	93.8	101	P/P	60 - 160
Microcystin LY	83.9	100	P/P	60 - 160
Microcystin RR	102	103	P/P	60 - 160
Microcystin WR	91.4	92.7	P/P	60 - 160
Microcystin YR	98.0	102	P/P	60 - 160
Nodularin-R	105	108	P/P	60 - 160

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A107057

Included Lab Sample IDs: 2266572, 2266573

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

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A107087

Included Lab Sample IDs: 2266572, 2266573

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	104	106	P/P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A107154

Included Lab Sample IDs: 2266572, 2266573

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.3	98.6	P/P	90 - 110
Ammonia-N	98.6	99.4	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A107355

Included Lab Sample IDs: 2266572, 2266573

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

Quality Assurance Report

Calibration Verification

* 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	MS
						SMP	
EPA 350.1 Rev. 2.0	Ammonia-N	101	97.6	97.4			0.122
	Ammonia-N	101	98.8	99.8			0.664
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	107					0.409
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	100	100			0.0
EPA 365.1 Rev. 2.0	Total-P	106	102	103			0.472
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	102	98.7	97.7			0.929
EPA 8321B	Anatoxin-a	98.8	110	112			2.29
	Cylindrospermopsin	126	126	129			2.25
	Desmethyl microcystin LR	91.7	98.6	108			8.99
	Microcystin H ₁ LR	102	107	111			3.62
	Microcystin H ₂ LR	104	100	107			6.84
	Microcystin LA	85.4	95.8	91.8			4.21
	Microcystin LF	79.7	69.6	95.2			31.1
	Microcystin LR	89.0	88.9	93.3			4.67
	Microcystin LW	97.8	77.5	90.0			14.9
	Microcystin LY	84.1	93.0	96.9			4.13
	Microcystin RR	103	105	112			6.63
	Microcystin WR	96.4	102	101			1.69
	Microcystin YR	88.7	101	113			11.4
	Nodularin-R	108	108	121			11.5

Reference Method Descriptions

Method	Description	<u>Associated Samples</u>
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2266572, 2266573
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2266572, 2266573
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2266572, 2266573
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2266572, 2266573
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2266574, 2266575
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2266570, 2266571

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	08/03/2021			08/10/2021 13:14	Ping Hua	2266573
	08/03/2021			08/10/2021 13:31	Ping Hua	2266572
EPA 351.2 Rev. 2.0	08/03/2021	08/18/2021 14:23	Benjamin T. Nordmann	08/19/2021 14:08	Virginia P. Brown	2266572
	08/03/2021	08/18/2021 14:23	Benjamin T. Nordmann	08/19/2021 14:10	Virginia P. Brown	2266573
EPA 353.2 Rev. 2.0	08/03/2021			08/05/2021 10:39	Beverly Y. Sanders	2266572
	08/03/2021			08/05/2021 10:40	Beverly Y. Sanders	2266573
EPA 365.1 Rev. 2.0	08/03/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 08:56	Shengyu Ding	2266572
	08/03/2021	08/05/2021 15:45	Simonne.V. Calhoun	08/06/2021 08:57	Shengyu Ding	2266573
EPA 365.1 Rev. 2.0 dissolved	08/03/2021			08/03/2021 16:14	Patrick M. Roche	2266574
	08/03/2021			08/03/2021 16:15	Patrick M. Roche	2266575
EPA 8321B	08/03/2021	08/03/2021 11:00	Pramila Ghimire	08/03/2021 19:11	Pramila Ghimire	2266570
	08/03/2021	08/03/2021 11:00	Pramila Ghimire	08/03/2021 19:27	Pramila Ghimire	2266571