

Chemical Analysis Report

CEN-DIST-2023-11-09-01

Florida DEP Laboratory
2600 Blair Stone Road
Tallahassee, FL 32399-2400
DOH Accreditation E31780

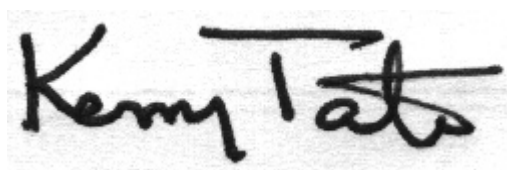
Event Description: **.Algal Bloom Response - CEROC**
Request ID: **RQ-2023-08-07-37**
Customer: **CEN-DIST**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
FL Dept. of Environmental Protection
3319 Maguire Blvd., Suite 232
Orlando, FL 32803-3767
Attn: Jessie Atchison

For additional information please contact
Colin Wright, Ph.D.
Chris Bowen, B.S.
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: 28-NOV-2023 12:32

A handwritten signature in black ink that reads "Kerry Tate". The signature is written in a cursive, flowing style with a horizontal line extending from the end of the 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: Lake Drawdy - S Shore

Collection Date/Time: 11/08/2023 10:47

Field ID: HABCE0217

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2450501	DEP SOP: NU-094-1	Color (true)	120		PCU	P437632	
2450502	EPA 350.1 Rev. 2.0	Ammonia-N	0.048		mg N/L	P438071	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.61		mg N/L	P437722	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.055		mg N/L	P437977	
	EPA 365.1 Rev. 2.0	Total-P	0.017		mg P/L	P437794	MS
2450503	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.004	U	mg P/L	P437636	
2450504	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P437620	
		Cylindrospermopsin	0.10	U	ug/L	P437619	
		Desmethyl microcystin LR	0.25	U	ug/L	P437619	
		Microcystin HILR	0.25	U	ug/L	P437619	
		Microcystin HtyR	0.25	U	ug/L	P437619	
		Microcystin LA	0.10	U	ug/L	P437619	
		Microcystin LF	0.10	U	ug/L	P437619	
		Microcystin LR	0.77	I	ug/L	P437619	
		Microcystin LW	0.25	U	ug/L	P437619	
		Microcystin LY	0.10	U	ug/L	P437619	
		Microcystin RR	1.5	J	ug/L	P437619	MS
		Microcystin WR	0.50	U	ug/L	P437619	
		Neosaxitoxin	0.50	U	ug/L	P437620	
		Microcystin YR	0.25	U	ug/L	P437619	
		Saxitoxin	0.50	U	ug/L	P437620	
		Nodularin-R	0.10	U	ug/L	P437619	

Ref. Method and Comment:

EPA 8321B: Refer to the Lab Analysis Report for an explanation of QC Codes.

Quality Assurance Report

Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437632

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438071

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437977

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437794

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437636

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

Reference Method: EPA 8321B
Batch ID: P437619

Component	Result	Code	Units
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

Method Blank Results

Reference Method: EPA 8321B
Batch ID: P437620

Component	Result	Code	Units
Anatoxin-a	0.25	U	ug/L
Neosaxitoxin	0.50	U	ug/L
Saxitoxin	0.50	U	ug/L

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: DEP SOP: NU-094-1
Batch ID: P437632

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	99.3		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438071

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Kjeldahl Nitrogen	109		P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437977

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: P437794

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Total-P	108		P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437636

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.8		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437619

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	131		P	40 - 150
Desmethyl microcystin LR	127		P	40 - 150
Microcystin H11R	124		P	40 - 150
Microcystin HtyR	123		P	40 - 150
Microcystin LA	114		P	40 - 150
Microcystin LF	114		P	40 - 150
Microcystin LR	129		P	40 - 150
Microcystin LW	101		P	40 - 150
Microcystin LY	115		P	40 - 150
Microcystin RR	142		P	40 - 150
Microcystin WR	109		P	40 - 150
Microcystin YR	120		P	40 - 150
Nodularin-R	143		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P437620

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	98.0		P	40 - 150
Neosaxitoxin	83.7		P	40 - 150
Saxitoxin	83.3		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438071

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450457	Ammonia-N	95.6	97.2	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450510	Kjeldahl Nitrogen	97.1	104	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437977

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450502	NO2NO3-N	102	102	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437794

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450435	Total-P	109	111	P/F	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437636

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450462	O-Phosphate-P	100	101	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437619

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450504	Cylindrospermopsin	134	137	P/P	40 - 150
2450504	Desmethyl microcystin LR	126	130	P/P	40 - 150
2450504	Microcystin HiLR	139	134	P/P	40 - 150
2450504	Microcystin HtyR	124	133	P/P	40 - 150
2450504	Microcystin LA	111	111	P/P	40 - 150
2450504	Microcystin LF	127	117	P/P	40 - 150
2450504	Microcystin LR	124	124	P/P	40 - 150
2450504	Microcystin LW	119	102	P/P	40 - 150
2450504	Microcystin LY	121	110	P/P	40 - 150
2450504	Microcystin RR	142	153	P/F	40 - 150
2450504	Microcystin WR	109	105	P/P	40 - 150
2450504	Microcystin YR	128	125	P/P	40 - 150
2450504	Nodularin-R	144	144	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437620

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450504	Anatoxin-a	93.5	93.5	P/P	40 - 150
2450504	Neosaxitoxin	71.0	69.8	P/P	40 - 150
2450504	Saxitoxin	80.9	79.3	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437632

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450454	Color (true)	8.19	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438071

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450457	Ammonia-N	1.44	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437722

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450510	Kjeldahl Nitrogen	3.63	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P437977

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450502	NO2NO3-N	0.0	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437794

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450435	Total-P	1.55	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437636

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450462	O-Phosphate-P	0.592	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P437619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450504	Cylindrospermopsin	2.47	Spike	P	0 - 30
2450504	Desmethyl microcystin LR	3.41	Spike	P	0 - 30
2450504	Microcystin HtIR	3.95	Spike	P	0 - 30
2450504	Microcystin HtyR	6.44	Spike	P	0 - 30
2450504	Microcystin LA	0.0346	Spike	P	0 - 30
2450504	Microcystin LF	7.94	Spike	P	0 - 30
2450504	Microcystin LR	0.572	Spike	P	0 - 30
2450504	Microcystin LW	14.8	Spike	P	0 - 30
2450504	Microcystin LY	9.62	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P437619

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450504	Microcystin RR	6.75	Spike	P	0 - 30
2450504	Microcystin WR	3.60	Spike	P	0 - 30
2450504	Microcystin YR	2.26	Spike	P	0 - 30
2450504	Nodularin-R	0.0165	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P437620

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450504	Anatoxin-a	0.00834	Spike	P	0 - 30
2450504	Neosaxitoxin	1.61	Spike	P	0 - 30
2450504	Saxitoxin	1.93	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2450504
Field Sample ID: HABCE0217

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	97.5	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	139	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: EPA 8321B
Run ID: A122641
Included Lab Sample IDs: 2450504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	90.6	105	P/P	50 - 160
Neosaxitoxin	98.9	98.9	P/P	50 - 160
Saxitoxin	98.1	104	P/P	50 - 160

Reference Method: DEP SOP: NU-094-1
Run ID: A122660
Included Lab Sample IDs: 2450501

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	98.2	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Run ID: A122665
Included Lab Sample IDs: 2450503

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	99.0	99.7	P/P	90 - 110

Reference Method: EPA 8321B
Run ID: A122680
Included Lab Sample IDs: 2450504

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	122	124	P/P	50 - 160
Desmethyl microcystin LR	104	109	P/P	50 - 160
Microcystin HILR	111	118	P/P	50 - 160
Microcystin HtyR	106	114	P/P	50 - 160
Microcystin LA	104	105	P/P	50 - 160
Microcystin LF	103	113	P/P	50 - 160
Microcystin LR	114	113	P/P	50 - 160
Microcystin LW	100	103	P/P	50 - 160
Microcystin LY	95.9	108	P/P	50 - 160
Microcystin RR	112	114	P/P	50 - 160
Microcystin WR	101	102	P/P	50 - 160
Microcystin YR	95.2	107	P/P	50 - 160
Nodularin-R	126	128	P/P	50 - 160

Reference Method: EPA 351.2 Rev. 2.0
Run ID: A122728
Included Lab Sample IDs: 2450502

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	107	105	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Run ID: A122770
Included Lab Sample IDs: 2450502

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Total-P	98.0	101	P/P	90 - 110

Quality Assurance Report Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122800

Included Lab Sample IDs: 2450502

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122831

Included Lab Sample IDs: 2450502

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.9	99.7	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	MS
						SMP	
DEP SOP: NU-094-1	Color (true)	99.3				8.19	
EPA 350.1 Rev. 2.0	Ammonia-N	97.0	95.6	97.2			1.44
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	109	97.1	104			3.63
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	102	102	102			0.0
EPA 365.1 Rev. 2.0	Total-P	108	109	111			1.55
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.8	100	101			0.592
EPA 8321B	Anatoxin-a	98.0	93.5	93.5			0.0083
	Cylindrospermopsin	131	134	137			2.47
	Desmethyl microcystin LR	127	126	130			3.41
	Microcystin H ₁ LR	124	139	134			3.95
	Microcystin H ₂ LR	123	124	133			6.44
	Microcystin LA	114	111	111			0.0346
	Microcystin LF	114	127	117			7.94
	Microcystin LR	129	124	124			0.572
	Microcystin LW	101	119	102			14.8
	Microcystin LY	115	121	110			9.62
	Microcystin RR	142	142	153			6.75
	Microcystin WR	109	109	105			3.60
	Microcystin YR	120	128	125			2.26
	Neosaxitoxin	83.7	71.0	69.8			1.61
	Nodularin-R	143	144	144			0.0165
	Saxitoxin	83.3	80.9	79.3			1.93

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2450501
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2450502
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2450502
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2450502
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2450502
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2450503
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2450504
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2450504

Preparation and Analysis Log

Ref. Method	Received Date	Prep Date/Time	Prepared By	Analysis Date/Time	Analyzed By	Associated Samples
DEP SOP: NU-094-1	11/09/2023			11/09/2023 13:42	Chandler E Cox	2450501
EPA 350.1 Rev. 2.0	11/09/2023			11/20/2023 13:50	Khloe J Berg	2450502
EPA 351.2 Rev. 2.0	11/09/2023	11/14/2023 11:29	Simonne.V. Calhoun	11/15/2023 10:20	Samantha L Bates	2450502
EPA 353.2 Rev. 2.0	11/09/2023			11/17/2023 13:13	Fadila Guebre	2450502
EPA 365.1 Rev. 2.0	11/09/2023	11/15/2023 11:07	Adam P Silver	11/16/2023 12:44	James L Waggeberby	2450502
EPA 365.1 Rev. 2.0 dissolved	11/09/2023			11/09/2023 14:32	Elise M. Gillis	2450503
EPA 8321B	11/09/2023	11/09/2023 12:00	Hana Lee	11/10/2023 04:59	Tae K Lee	2450504
	11/09/2023	11/09/2023 12:00	Hana Lee	11/10/2023 11:23	Tae K Lee	2450504