

Chemical Analysis Report

NE-DIST-2023-11-08-01

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

Event Description: **Algae Bloom Response NEROC-as needed**
Request ID: **RQ-2023-08-21-59**
Customer: **NE-DIST**
Project ID: **BLOOM-RESP**

Send Reports to:
FL Dept. of Environmental Protection
8800 Baymeadows Way West
Suite 100
Jacksonville, FL 32256
Attn: Katrin Villinger

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: Chris Bowen, Environmental Administrator

Date Certified: 30-NOV-2023 10:14



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: Darkwater Lake - 120 Darkwater Lake Road

Collection Date/Time: 11/07/2023 12:05

Field ID: NEHAB0114

Matrix: W-SURF-FRH

Sample ID	Ref. Method	Component	Result	Code	Units	Batch ID	QC Codes
2449690	DEP SOP: NU-094-1	Color (true)	180		PCU	P437591	
2449691	EPA 350.1 Rev. 2.0	Ammonia-N	0.030		mg N/L	P438234	
	EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	0.99		mg N/L	P437561	
	EPA 353.2 Rev. 2.0	NO2NO3-N	0.035		mg N/L	P438101	
	EPA 365.1 Rev. 2.0	Total-P	0.054		mg P/L	P437713	
2449692	EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	0.016		mg P/L	P437597	
2449693	EPA 8321B	Anatoxin-a	0.25	U	ug/L	P437511	
		Cylindrospermopsin	0.10	U	ug/L	P437510	
		Desmethyl microcystin LR	0.25	U	ug/L	P437510	
		Microcystin HiLR	0.25	U	ug/L	P437510	
		Microcystin HtyR	0.25	U	ug/L	P437510	
		Microcystin LA	0.10	U	ug/L	P437510	
		Microcystin LF	0.10	U	ug/L	P437510	
		Microcystin LR	0.25	U	ug/L	P437510	
		Microcystin LW	0.25	U	ug/L	P437510	
		Microcystin LY	0.10	U	ug/L	P437510	
		Microcystin RR	0.10	U	ug/L	P437510	
		Microcystin WR	0.50	U	ug/L	P437510	
		Neosaxitoxin	0.50	U	ug/L	P437511	
		Microcystin YR	0.25	U	ug/L	P437510	
		Saxitoxin	0.50	U	ug/L	P437511	
		Nodularin-R	0.10	U	ug/L	P437510	

Quality Assurance Report Method Blank Results

Reference Method: DEP SOP: NU-094-1
Batch ID: P437591

Component	Result	Code	Units
Color (true)	2.5	U	PCU

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438234

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

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437561

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438101

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437713

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

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437597

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

Reference Method: EPA 8321B
Batch ID: P437510

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: P437511

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: P437591

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Color (true)	96.7		P	90 - 110

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438234

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Ammonia-N	94.2		P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437561

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

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438101

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

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437713

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: P437597

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
O-Phosphate-P	99.1		P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437510

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Cylindrospermopsin	94.3		P	40 - 150
Desmethyl microcystin LR	109		P	40 - 150
Microcystin HILR	98.6		P	40 - 150
Microcystin HtyR	96.8		P	40 - 150
Microcystin LA	97.6		P	40 - 150
Microcystin LF	104		P	40 - 150
Microcystin LR	100		P	40 - 150
Microcystin LW	98.4		P	40 - 150
Microcystin LY	95.2		P	40 - 150
Microcystin RR	96.0		P	40 - 150
Microcystin WR	98.5		P	40 - 150
Microcystin YR	97.3		P	40 - 150
Nodularin-R	100		P	40 - 150

Quality Assurance Report

Laboratory Control Sample Accuracy

Reference Method: EPA 8321B
Batch ID: P437511

Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
Anatoxin-a	93.8		P	40 - 150
Neosaxitoxin	81.3		P	40 - 150
Saxitoxin	86.2		P	40 - 150

Quality Assurance Report Matrix Spike Accuracy

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438234

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2449691	Ammonia-N	98.6	101	P/P	90 - 110

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437561

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2449658	Kjeldahl Nitrogen	104	101	P/P	90 - 110

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438101

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2449691	NO2NO3-N	97.7	98.2	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437713

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2449709	Total-P	104	106	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437597

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2450039	O-Phosphate-P	101	98.7	P/P	90 - 110

Reference Method: EPA 8321B
Batch ID: P437510

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2449099	Cylindrospermopsin	115	115	P/P	40 - 150
2449099	Desmethyl microcystin LR	106	111	P/P	40 - 150
2449099	Microcystin HiLR	105	101	P/P	40 - 150
2449099	Microcystin HtyR	101	100	P/P	40 - 150
2449099	Microcystin LA	98.7	101	P/P	40 - 150
2449099	Microcystin LF	104	105	P/P	40 - 150
2449099	Microcystin LR	109	103	P/P	40 - 150
2449099	Microcystin LW	107	101	P/P	40 - 150
2449099	Microcystin LY	104	97.1	P/P	40 - 150
2449099	Microcystin RR	114	112	P/P	40 - 150
2449099	Microcystin WR	106	113	P/P	40 - 150
2449099	Microcystin YR	109	100	P/P	40 - 150
2449099	Nodularin-R	106	101	P/P	40 - 150

Reference Method: EPA 8321B
Batch ID: P437511

Spiked Sample	Component	% Rec.1	% Rec.2	Pass/Fail	Control Limits
2449099	Anatoxin-a	91.4	98.4	P/P	40 - 150
2449099	Neosaxitoxin	80.9	86.0	P/P	40 - 150
2449099	Saxitoxin	94.5	93.1	P/P	40 - 150

Quality Assurance Report Precision

Reference Method: DEP SOP: NU-094-1
Batch ID: P437591

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449762	Color (true)	0.367	Sample	P	0 - 20

Reference Method: EPA 350.1 Rev. 2.0
Batch ID: P438234

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449691	Ammonia-N	1.38	Spike	P	0 - 20

Reference Method: EPA 351.2 Rev. 2.0
Batch ID: P437561

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449658	Kjeldahl Nitrogen	2.70	Spike	P	0 - 20

Reference Method: EPA 353.2 Rev. 2.0
Batch ID: P438101

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449691	NO2NO3-N	0.434	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0
Batch ID: P437713

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449709	Total-P	1.67	Spike	P	0 - 20

Reference Method: EPA 365.1 Rev. 2.0 dissolved
Batch ID: P437597

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2450039	O-Phosphate-P	1.21	Spike	P	0 - 20

Reference Method: EPA 8321B
Batch ID: P437510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449099	Cylindrospermopsin	0.203	Spike	P	0 - 30
2449099	Desmethyl microcystin LR	4.90	Spike	P	0 - 30
2449099	Microcystin HtIR	4.23	Spike	P	0 - 30
2449099	Microcystin HtyR	0.712	Spike	P	0 - 30
2449099	Microcystin LA	2.22	Spike	P	0 - 30
2449099	Microcystin LF	0.771	Spike	P	0 - 30
2449099	Microcystin LR	5.50	Spike	P	0 - 30
2449099	Microcystin LW	5.79	Spike	P	0 - 30
2449099	Microcystin LY	6.96	Spike	P	0 - 30

Quality Assurance Report Precision

Reference Method: EPA 8321B
Batch ID: P437510

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449099	Microcystin RR	1.09	Spike	P	0 - 30
2449099	Microcystin WR	6.30	Spike	P	0 - 30
2449099	Microcystin YR	8.40	Spike	P	0 - 30
2449099	Nodularin-R	4.35	Spike	P	0 - 30

Reference Method: EPA 8321B
Batch ID: P437511

Replicated Lab Sample	Component	% RSD/RPD	Sample/Spike/LCS*	Pass/Fail	Control Limits
2449099	Anatoxin-a	7.40	Spike	P	0 - 30
2449099	Neosaxitoxin	6.12	Spike	P	0 - 30
2449099	Saxitoxin	1.54	Spike	P	0 - 30

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

Quality Assurance Report Surrogates

Lab Sample ID: 2449693
Field Sample ID: NEHAB0114

Reference Method	Surrogate	% Rec.	Pass/Fail	Control Limits
EPA 8321B	Anatoxin-a 13C4	91.3	P	30 - 160
EPA 8321B	Microcystin LR ethyl-d5	93.0	P	30 - 160

Quality Assurance Report Calibration Verification

Reference Method: DEP SOP: NU-094-1

Run ID: A122635

Included Lab Sample IDs: 2449690

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Color (true)	101	100	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0 dissolved

Run ID: A122636

Included Lab Sample IDs: 2449692

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
O-Phosphate-P	98.4	98.5	P/P	90 - 110

Reference Method: EPA 8321B

Run ID: A122640

Included Lab Sample IDs: 2449693

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Cylindrospermopsin	95.0	94.4	P/P	50 - 160
Desmethyl microcystin LR	107	105	P/P	50 - 160
Microcystin H1IR	100	99.7	P/P	50 - 160
Microcystin HtyR	94.1	99.0	P/P	50 - 160
Microcystin LA	95.8	98.9	P/P	50 - 160
Microcystin LF	104	115	P/P	50 - 160
Microcystin LR	103	102	P/P	50 - 160
Microcystin LW	92.4	97.3	P/P	50 - 160
Microcystin LY	99.4	99.8	P/P	50 - 160
Microcystin RR	91.5	93.8	P/P	50 - 160
Microcystin WR	97.0	104	P/P	50 - 160
Microcystin YR	96.3	100	P/P	50 - 160
Nodularin-R	97.3	96.4	P/P	50 - 160

Reference Method: EPA 8321B

Run ID: A122641

Included Lab Sample IDs: 2449693

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Anatoxin-a	100	82.4	P/P	50 - 160
Neosaxitoxin	98.1	84.7	P/P	50 - 160
Saxitoxin	104	98.5	P/P	50 - 160

Reference Method: EPA 351.2 Rev. 2.0

Run ID: A122697

Included Lab Sample IDs: 2449691

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Kjeldahl Nitrogen	96.0	97.6	P/P	90 - 110

Reference Method: EPA 365.1 Rev. 2.0

Run ID: A122742

Included Lab Sample IDs: 2449691

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

Quality Assurance Report

Calibration Verification

Reference Method: EPA 353.2 Rev. 2.0

Run ID: A122849

Included Lab Sample IDs: 2449691

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

Reference Method: EPA 350.1 Rev. 2.0

Run ID: A122914

Included Lab Sample IDs: 2449691

Component	% Rec.1	% Rec.2	Pass/Fail*	Control Limits
Ammonia-N	98.2	100	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)	96.7				0.367	
EPA 350.1 Rev. 2.0	Ammonia-N	94.2	98.6	101			1.38
EPA 351.2 Rev. 2.0	Kjeldahl Nitrogen	100	104	101			2.70
EPA 353.2 Rev. 2.0	NO ₂ NO ₃ -N	100	97.7	98.2			0.434
EPA 365.1 Rev. 2.0	Total-P	100	104	106			1.67
EPA 365.1 Rev. 2.0 dissolved	O-Phosphate-P	99.1	101	98.7			1.21
EPA 8321B	Anatoxin-a	93.8	91.4	98.4			7.40
	Cylindrospermopsin	94.3	115	115			0.203
	Desmethyl microcystin LR	109	106	111			4.90
	Microcystin HILR	98.6	105	101			4.23
	Microcystin HtyR	96.8	101	100			0.712
	Microcystin LA	97.6	98.7	101			2.22
	Microcystin LF	104	104	105			0.771
	Microcystin LR	100	109	103			5.50
	Microcystin LW	98.4	107	101			5.79
	Microcystin LY	95.2	104	97.1			6.96
	Microcystin RR	96.0	114	112			1.09
	Microcystin WR	98.5	106	113			6.30
	Microcystin YR	97.3	109	100			8.40
	Neosaxitoxin	81.3	80.9	86.0			6.12
	Nodularin-R	100	106	101			4.35
	Saxitoxin	86.2	94.5	93.1			1.54

Reference Method Descriptions

Method	Description	Associated Samples
DEP SOP: NU-094-1	True Color measured at 450 nm (not valid for NPDES monitoring)	2449690
EPA 350.1 Rev. 2.0	Ammonia in aqueous matrices as mg N/L	2449691
EPA 351.2 Rev. 2.0	Total Kjeldahl Nitrogen in aqueous matrices	2449691
EPA 353.2 Rev. 2.0	Nitrite/Nitrate in aqueous matrices as mg N/L	2449691
EPA 365.1 Rev. 2.0	Total Phosphorus in aqueous matrices as mg P/L	2449691
EPA 365.1 Rev. 2.0 dissolved	Ortho-phosphate, dissolved, in filtered, aqueous matrices as mg P/L	2449692
EPA 8321B	Microcystins in water matrices by HPLC/MS/MS	2449693
EPA 8321B	Saxitoxin in water matrices by HPLC/MS/MS	2449693

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	11/08/2023			11/08/2023 16:10	Anna M. Plaviak	2449690
EPA 350.1 Rev. 2.0	11/08/2023			11/28/2023 11:37	Khloe J Berg	2449691
EPA 351.2 Rev. 2.0	11/08/2023	11/09/2023 11:24	Simonne.V. Calhoun	11/13/2023 14:58	Samantha L Bates	2449691
EPA 353.2 Rev. 2.0	11/08/2023			11/20/2023 14:21	Anna M. Plaviak	2449691
EPA 365.1 Rev. 2.0	11/08/2023	11/14/2023 15:38	Adam P Silver	11/15/2023 12:18	James L Waggerby	2449691
EPA 365.1 Rev. 2.0 dissolved	11/08/2023	11/08/2023 12:00	Hana Lee	11/08/2023 15:07	Elise M. Gillis	2449692
EPA 8321B	11/08/2023	11/08/2023 12:00	Hana Lee	11/08/2023 20:00	Tae K Lee	2449693
	11/08/2023	11/08/2023 12:00	Hana Lee	11/09/2023 00:44	Tae K Lee	2449693