

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

Boldly "X" this box if there are qualified data on this page.

Meter ID: DESI

RQ: 2022-06-06-57

Project: Algae Response

- Notes: (1) Always wait for meter to stabilize before recording any readings. Lake Lochloosa
 (2) Report all digits displayed. Do not round before reporting measurements. (See special instructions for depth).
 (3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 5/2/22

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	<u>K. Villinger</u>	<u>6/28/22</u>	<u>820</u>	<u>22.9</u>	<u>762.5</u>	<u>8.6</u>	<u>-</u>	<u>100.3</u>	<u>-</u>	<u>1.022</u>	<u>(P) F</u>	<u>(L) F</u>
ICV		<u>↓</u>	<u>821</u>	<u>22.6</u>	<u>762.5</u>	<u>8.7</u>	<u>8.70</u>	<u>100.5</u>	<u>-</u>	<u>1.022</u>	<u>(P) F</u>	<u>(L) F</u>
CCV	<u>Brian Davis</u>	<u>↓</u>	<u>1702</u>	<u>23.8</u>	<u>761.8</u>	<u>8.5</u>	<u>8.51</u>	<u>100.7</u>	<u>✓</u>	<u>1.02</u>	<u>(P) F</u>	<u>(L) F</u>
CCV											<u>P / F</u>	<u>L / F</u>

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

Optical: DO gain range 0.85 to 1.15 (Pro DSS 0.75 to 1.50); DO charge N/A. Steady-state & Galvanic Sensors: DO Gain & Charge N/A.

Spec. Cond. FT 1200	Name	Date	Time CT-ET	Lot #	Expir. Date	Standard μ mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	<u>K. Villinger</u>	<u>6/28/22</u>	<u>824</u>	<u>220225A</u>	<u>3/23</u>	<u>1000</u>	<u>1000</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>827</u>	<u>210917A</u>	<u>9/22</u>	<u>100</u>	<u>100.1</u>	<u>(P) F</u>	<u>(L) F</u>
CCV	<u>Brian Davis</u>	<u>1704</u>	<u>6/28/22</u>	<u>220225A</u>	<u>3/23</u>	<u>1000</u>	<u>1001</u>	<u>(P) F</u>	<u>(L) F</u>
CCV								<u>P / F</u>	<u>L / F</u>

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	<u>K. Villinger</u>	<u>6/28/22</u>	<u>829</u>	<u>4203B87</u>	<u>2/24</u>	<u>7.00</u>	<u>23.7</u>	<u>7.00</u>	<u>-15.4</u>	<u>(P) F</u>	<u>(L) F</u>
Calibr.			<u>833</u>	<u>2205F96</u>	<u>5/24</u>	<u>4.00</u>	<u>23.4</u>	<u>4.00</u>	<u>161.9</u>	<u>(P) F</u>	<u>(L) F</u>
Calibr.			<u>836</u>	<u>2202A63</u>	<u>7/23</u>	<u>10.02</u>	<u>23.3</u>	<u>10.02</u>	<u>-184.4</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>839</u>	<u>2205F96</u>	<u>5/24</u>	<u>4.00</u>	<u>23.5</u>	<u>3.97</u>	<u>162.6</u>	<u>(P) F</u>	<u>(L) F</u>
CCV	<u>Brian Davis</u>	<u>6/28/22</u>	<u>1706</u>	<u>2202A63</u>	<u>7/23</u>	<u>10.01</u>	<u>24.3</u>	<u>9.98</u>	<u>-184.0</u>	<u>(P) F</u>	<u>(L) F</u>
CCV										<u>P / F</u>	<u>L / F</u>

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 ± 50 ; mV pH 4 Range $+180 \pm 50$; mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 169, slope from 4 to 7 177.3 (both must be between 165 and 180 mV)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 5/3/22

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last verification: _____

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value, meters	Pass/ Fail	Lab/ Field
Pressure mode in air	<u>K. Villinger</u>	<u>6/28/22</u>	<u>840</u>	<u>0.000</u>	<u>0.000</u>	<u>(P) F</u>	<u>(L) F</u>

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS:



Cyanobacteria Bloom Response Field Data Sheet (2022-06-10 v1)

Email scanned submittal forms to lab.receiving@FloridaDEP.gov

RQ - 2022-06-06-57				Collected By:		Brian Davis, Katrin Villinger					
Customer:		WQAP		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Lochloosa Lake entrance to Cross Creek				Comments: 500 ml brown bottle used for W-MCYST-AA analysis. Did not have the wide mouth 250 ml brown bottle in house. Will order more kits for future sampling using correct bottle.							
Field ID: NEHAB0079				Coordinates:		29.50736, -82.14934					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID: NEHAB0079				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
06/28/2022	00:00	151.1	11.23	31	9.37	0.3	2.582	0.6	98.6	0.04	
	12:05	52.4	4.03	29.2	6.82	2			94.4	0.04	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Clarity		☐ Clear		☐ Slightly Turbid		☒ Turbid		☐ Opaque			
Bloom Color		☒ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☒ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☒ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☒ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	C	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	D	
Toxins (BG-WD250)		☒ W-MCYST-AA ☐ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	D	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	D	
		Acid Lot:		SA1308030		Exp:		12/1/22			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45µm Filter		☒ Ice			1	D	
		Filter Lot #		R1EB01329							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped				Received By:		Date/Time	
Katrin Villinger		06/28/2022 16:05		1							



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RQ - 2022-06-06-57				Collected By:		Brian Davis, Katrin Villinger					
Customer:		Wqap		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Lochloosa Lake @ Park				Comments:							
Field ID: NEHAB0082				Coordinates:		29.50577, -82.10402					
WIN Secondary Resource Type: Lake				Collection Equip:		WaterBottle					
WIN ID: NEHAB0082				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
06/28/2022	12:25	110	8.5	30.6	7.72	0.3	1.759	0.65	95.8	0.04	
	12:28	5.1	0.4	28.1	6.21	1.2			405.6	0.19	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Clarity		☐ Clear		☐ Slightly Turbid		☒ Turbid		☐ Opaque			
Bloom Color		☒ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☒ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☒ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☒ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	C	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	D	
Toxins (BG-WD250)		☒ W-MCYST-AA ☐ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	D	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP				☒ Ice ☒ H2SO4		☒ <2	1	D	
		Acid Lot:		SA1308030		Exp:		12/1/22			
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45um Filter		☒ Ice			1	D	
		Filter Lot #		R1EB01329							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped				Received By:		Date/Time	
Katrin Villinger		06/28/2022 16:30		1							



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RQ - 2022-06-06-57				Collected By:		Brian Davis, Katrin Villinger					
Customer:		WQAP		Field Report Prepared By:		Katrin Villinger					
Project ID:		BLOOM_RESP		Sampling Agency:		NEROC					
Location: Lochloosa Lake NE in Veg				Comments: 500 ml brown bottle used for W-MCYST-AA analysis. Did not have the wide mouth 250 ml brown bottle in house. Will order more kits for future sampling using correct bottle.							
Field ID: NEHAB0083				Coordinates:		29.54450, -82.12232					
WIN Secondary Resource Type: Lake				Collection Equip:		Water Bottle					
WIN ID: NEHAB0083				High Tide Time:				Low Tide Time:			
Matrix:		Fresh		Grab		Tide:		☐ Rising ☐ Falling ☐ Slack ☒ N/A			
Water Quality											
Date	Time ☒ EST ☐ CEN	D.O. (%)	D.O. (mg/L)	Temp (°C)	pH (SU)	Sample Depth (m)	Total Depth (m)	Secchi Disk (m)	Sp. Cond. (µmho/cm)	Salinity (PPTH)	
06/28/2022	11:25	124.7	9.23	31.1	8.55	0.3	1.847	0.6	95.5	0.04	
	11:30	34.2	2.65	28.9	6.4	1.3			96.2	0.04	
Bloom Observations											
Algal Bloom Observed? ☒ Yes ☐ No											
Water Clarity		☐ Clear		☐ Slightly Turbid		☒ Turbid		☐ Opaque			
Bloom Color		☒ Green		☐ Red		☐ Brown		☐ Other:			
Algae Type		☒ Planktonic		☐ Filamentous		☐ Other:					
Algae Accumulation		☐ Mat		☒ Specks		☐ Scum		☐ Glob			
Algae Distribution		☐ Surface-Entire		☐ Surf-Localized		☐ Surf-Windblown		☒ Suspended		☐ Benthic ☐ Epiphytic	
Parameter Suite		Parameter Methods				Preservation		pH Check	#Bottles Sent to Lab	Bottle Group	
Algal ID (PT-50mL)		☐ ALGAL-ID				☐ Ice					
Bloom ID (PT-50mL)		☒ BLOOM-ID				☒ Ice			1	C	
Chlorophyll (BP-1L)		☒ CHLSUITE-W				☒ Ice			1	D	
Toxins (BG-WD250)		☒ W-MCYST-AA ☐ W-SAXTN-MS ☐ OV-TOXN				☒ Ice			1	D	
Preserved Nutrients (500mL HDPE)		☒ W-NH3 / W-NO2NO3 / W-TKN / W-S-A-TP SA1308030 Acid Lot: Exp:				☒ Ice ☒ H2SO4 12/1/22		<2	1	D	
Filtered Nutrients (P125mL)		☒ W-PO4-F		☒ Field Filtered 0.45µm Filter		☒ Ice			1	D	
		Filter Lot #		R1EB01329							
Quantitative Algae		☐ DTY-QN-C / PKD-QN-C				☐ Ice ☐ Lugols					
Relinquished By:		Date/Time		Number of Coolers Shipped		Received By:		Date/Time			
Katrin Villinger		06/28/2022 16:30		1							