

used as "field meter" on 8/30/21

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: E.L.S.A.

RQ:

Project: BMAP Clipboard

- Notes: (1) Always wait for meter to stabilize before recording any readings.
 (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 8/23/21

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.	Kim Appleby	8/30/21	948	22.7	762.3	8.7	—	100.3	—	1.009	P/F	L/F
ICV	↓	↓	952	22.7	762.4	8.7	8.66	100.3	—	1.009	P/F	L/F
CCV	↓	9/13/21	1438	22.2	764.4	8.8	8.55	97.2	—	1.009	P/F	L/F
CCV					764.4		8.69	99.9			P/F	L/F

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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Kim Appleby	8/30/21	1010	210426E	5/22	50,000	50,000	P/F	L/F
ICV	↓	↓	1012	210426D	5/22	20,000	19,951	P/F	L/F
CCV	↓	9/13/21	1440	210426E	5/22	50,000	49,819	P/F	L/F
CCV	↓	↓	1642	210426C	5/22	1413	1446	P/F	L/F

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.		8/30/21				7.				P/F	L/F
Calibr.						4.				P/F	L/F
Calibr.						10.				P/F	L/F
ICV										P/F	L/F
CCV										P/F	L/F
CCV										P/F	L/F

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 _____, slope from 4 to 7 _____ (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: 8/23/21

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	Kim Appleby	8/20/21	1015	0.00	0.00	P/F	L/F

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

COMMENTS:

used as "field meter" on 9/13/21

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: LI.L.O.

RQ-

Project: BMAP Clipboard

Notes: (1) Always wait for meter to stabilize before recording any readings.

(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 8/16/21

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.	Kim Appleby	9/13/21	902	21.4	766.0	8.9	—	100.8	—	1.07455	P/F	R/F
ICV	↓	↓	904	21.45	765.9	8.9	8.92	101.0	—	1.07455	P/F	L/F
CCV	↓	10/7/21	1740	22.08	761.7	8.8	9.06	103.0	—	1.07455	P/F	L/F
CCV											P/F	L/F

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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	Kim Appleby	9/13/21	912	210426E	5/2022	50,000 ± 10	50,000	P/F	L/F
ICV	↓	↓	914	210426D	5/2022	20,000	19,982	P/F	L/F
CCV	↓	10/7/21	1755	210917C	9/2022	50,000	50,330	P/F	L/F
CCV	↓	↓	1758	210426L	5/2022	1413	1445	P/F	L/F

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.						7.				P/F	L/F
Calibr.						4.				P/F	L/F
Calibr.						10.				P/F	L/F
ICV										P/F	L/F
CCV										P/F	L/F
CCV										P/F	L/F

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 _____, slope from 4 to 7 _____ (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: 7/18/21

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	Kim Appleby	9/13/21	909	0.00	0.00	P/F	L/F

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

COMMENTS:

SECN Coastal Water Quality Monitoring
Datasonde Datasheet v1.42 (11/2019)—DEPLOYMENT

Station Name
TIMUclap02

Calibration / Pre-Deployment

Instrument (Sonde) # (SN) **E.L.S.A.**
 Calibration Date **8/30/21** Calibrated By **Kim Appleby**
 Battery Voltage Pre-Calibration **2.58** Battery Voltage >5.3 **Y** ☒ **N** Battery Voltage Post-Calibration **2.53**
 Central Wiper Replaced **Y** ☒ **N** Central Wiper Parking 180° **Y** ☒ **N**
 Barometric Pressure (mmHg) **762.3** Conductivity Cell Constant **0.470430** ODO Gain **1.009**
 pH7 (mv) **/** pH10 (mv) **/** pH4 (mv)(check) **/** pH Slope **/**

Parameter	Temp (°C)	Sp. Cond. (mS/cm)	Depth (m)	ODO (% Sat.)	ODO (mg/l)	pH7	pH10
Standard	22.79	50.00	0.00	100.0	8.7		
Measured	22.90	49.50.00	0.00	100.3	8.66		
Calibrated		50.00	0.00	100.3	-N/A		

Parameter	pH4 (check)	Turbidity Low (FNU)	Turbidity High (FNU)	Chl Low (µg/l)	Chl High (µg/l)	BGA-PC Low (µg/l)	BGA-PC High (µg/l)
Standard							
Measured							
Calibrated							

Deployment

Deployed By: **Kim Appleby + Jessica Lee** File Name: **TIMUclap02 + 20210830**
 (Station name _YYYYMMDD)
 Sonde Start Date: **8/30/21** Sonde Start Time: **11:30** Eastern Standard Time (EST)
 Actual Deployment Date: **8/30/21** Actual Time Placed in Water: **11:18** (EST)

Comments:

Site Observations: Fish Kill ☐ Algal Bloom ☐ Debris ☐ Hurricane / Tropical Storm ☐ Other ☐

Observation Description:

Recorded By: **Kim Appleby** Computer Entry By / Date: _____

Certified By / Date: _____

SECN Coastal Water Quality Monitoring
YSI Datasonde Datasheet v1.42 (11/2019)— RETRIEVAL

Station Name

TIMUclap02

Retrieval

In situ Sonde # (SN)

E.L.S.A

Retrieved By

Kim Appleby & Jessica Lee

Retrieval Date

9/13/21

Retrieval Time

1053 (EST)

Field Meter # (SN)

L.I.L.O.

Field Meter Calibration Date

9/13/21

On Site Readings

	Temp (°C)	Baro. Pres. (mmHg)	ODO (% Sat.)	ODO (mg/l)	Sp. Cond. (mS/cm)	Salinity (psu)	pH	Turb. (FNU)	Depth (m)	Chla (µg/l)	BGA (µg/l)
Field Meter	28.20	766.7	83.2	5.64	39.40	25.01	/	/	2.960	/	/
In situ Sonde	28.07	-	63.7	4.35	38.240	24.21	/	/	/	/	/

Fouling presence: Please record type of fouling **AND** amount (e.g. A, B, E, / H). Types A= Algae, B= Barnacles, C= Crabs, E= Eggs, F= Fish, O= Other, N= none, S= Sediment / Amount H=Heavy, M= Moderate, L= Light, N= None

Sonde/Guard: A very light External Screen: - Temp/Cond: N

ODO Probe: N pH Probe: - Turbidity: -

Post Deployment

Post Deployment Reading Date

9/13/21

Battery Voltage

2.47

Central Wiper Parking 180°

☒ N

Barometric Pressure (mmHg)

764.4

Conductivity Cell Constant

0.470430

pH7 (mv)

/

pH10 (mv)

/

pH Slope

/

pH4 (mv)

/

Parameter	Temp (°C)	Sp. Cond. (mS/cm)	Depth (m)	ODO (% Sat.)	ODO (mg/l)	pH7	pH10
Standard	22.65	50.00	0.00	100.0	8.8	/	/
Measured (clean sensors)	22.709	49.82	0.00	99.9	8.69	/	/

Parameter	pH4 (check)	Turbidity Low (FNU)	Turbidity High (FNU)	Chl Low (µg/l)	Chl High (µg/l)	BGA-PE Low (µg/l)	BGA-PE High (µg/l)
Standard	/	/	/	/	/	/	/
Measured (clean sensors)	/	/	/	/	/	/	/

Any Probe Malfunctions?

Y/N

File Name:

TIMUclap02-20210830

If Y, describe in the comments.

(Station name _YYYYMMDD)

Comments:

Recorded By

Kim Appleby

Computer Entry By / Date

Certified By / Date