

used as "field meter" on 10/6/21

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

Crack

- 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	10/6/21	809	21.5	762.6	8.9	-	100.3	-	1.012097	P/F	L/F
ICV	↓	↓	811	21.5	762.6	8.9	8.86	100.4	-	1.012097	P/F	L/F
CCV	↓	10/26/21	1743	21.974	755.2	8.7	8.66	99.1	-	1.012097	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	10/6/21	916	2109176	9/22	50,000	50,000	P/F	L/F
ICV	↓	↓	920	2109210	5/22	20,000	19,902	P/F	L/F
CCV	↓	10/26/21	1745	2109176	9/22	50,000	49,983	P/F	L/F
CCV								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: 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	10/6/21	922	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 10/25/21

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: L.I.L.O.

RQ:

Project: BMAP L'Anse-au-Loup

- 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	10/25/21	848	20.6	759.5	8.9	—	99.9	—	1.054203	P/F	L/F
ICV	↓	↓	851	20.87	759.4	8.9	8.94	100.0	—	1.054202	P/F	L/F
CCV	↓	11/15/21	608	19.98	765.6	9.2	9.11	100.0	—	1.054202	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	10/25/21	904	210917L	9/2022	50,000	50,164	P/F	L/F
ICV	↓	↓	906	210426D	5/2022	20,000	19,895	P/F	L/F
CCV	↓	11/15/21	610	210426A	5/2022	1000	997	P/F	L/F
CCV			612	210917L	9/2022	50,000	49,980	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: 8/18/21

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	10/25/21	853	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) ELSA
Calibration Date 10/6/21 Calibrated By 10/6/21
Battery Voltage Pre-Calibration 2.58 Battery Voltage >5.3 Y / ☒ Battery Voltage Post-Calibration 2
Central Wiper Replaced Y / ☒ Central Wiper Parking 180° Y / ☒
Barometric Pressure (mmHg) 762.6 Conductivity Cell Constant 0.469266 ODO Gain 1.012097
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	<u>21.50</u>	<u>50.00</u>	<u>0.00</u>	<u>100.0</u>	<u>8.9</u>		
Measured	<u>21.69</u>	<u>49.99</u>	<u>0.00</u>	<u>100.4</u>	<u>8.92</u>		
Calibrated		<u>50.00</u>	<u>0.00</u>	<u>100.3</u>	<u>—</u>		

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: TIMUclap02-20211006
(Station name _YYYYMMDD)
Sonde Start Date: 10/6/21 Sonde Start Time: 1700 Eastern Standard Time (EST)
Actual Deployment Date: 10/6/21 Actual Time Placed in Water: 1701 (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)

Elsa

Retrieved By

BT/KA

Retrieval Date

10/25/21

Retrieval Time

1305 1505 (EST)

Field Meter # (SN)

Lilo

Field Meter Calibration Date

10/25/21

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	<u>25.927</u>		<u>83.4</u>	<u>6.18</u>	<u>26.50</u>	<u>16.24</u>	<u>/</u>	<u>/</u>	<u>1.435</u>	<u>/</u>	<u>/</u>
In situ Sonde	<u>25.928</u>		<u>78.5</u>	<u>5.76</u>	<u>29.078</u>	<u>17.93</u>	<u>/</u>	<u>/</u>	<u>3.657</u>	<u>/</u>	<u>/</u>

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: N/A Temp/Cond: N

ODO Probe: N pH Probe: N/A Turbidity: N/A

Post Deployment

Post Deployment Reading Date

10/26/21

Battery Voltage

2.51

Central Wiper Parking 180°

☒ Y ☐ N

Barometric Pressure (mmHg)

755.2

Conductivity Cell Constant

0.469266

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	<u>22.67</u>	<u>50.000</u>	<u>0.00</u>	<u>100.0</u>	<u>8.7</u>	<u>/</u>	<u>/</u>
Measured (clean sensors)	<u>22.713</u>	<u>49.931</u>	<u>0.00</u>	<u>99.1</u>	<u>8.66</u>	<u>/</u>	<u>/</u>

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	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>
Measured (clean sensors)	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>/</u>

Any Probe Malfunctions?

Y / N

If Y, describe in the comments.

File Name:

TIMUclap02-2

(Station name _YYYYMMDD)

Comments:

Field meter depth readings may not match In situ meter due to high current during retrieval.

Recorded By

Kim Appleby

Computer Entry By / Date

Certified By / Date