

Used as "Field meter" on 6/9/21

# 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: LILO

RQ-                     

Project: Clapboard Creek

- 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 5/24/21

| 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 | 6/9/21 | 806        | 23.0    | 765.2           | 8.6             | 8.63            | 100.7 | -            | 1.066      | (P) F       | (L) F       |
| ICV                | ↓           | ↓      | 808        | 23.1    | 765.2           | 8.6             | 8.63            | 100.7 | -            | 1.066      | (P) F       | (L) F       |
| CCV                | ↓           | 7/8/21 | 1633       | 21.0    | 761.8           | 8.9             | 8.98            | 100.8 | -            | 1.066      | (P) F       | (L) F       |
| CCV                |             |        |            |         |                 |                 |                 |       |              |            | P / F       | L / F       |

DO Acceptance criteria from Table  $\pm 0.3$  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 $\mu$ hos/cm | Meter Reading $\mu$ hos/cm | Pass / Fail | Lab / Field |
|---------------------|-------------|--------|------------|---------|-------------|-----------------------|----------------------------|-------------|-------------|
| Calibr.             | Kim Appleby | 6/9/21 | 820        | 210426E | 5/2022      | 50,000                | 50,000                     | (P) F       | (L) F       |
| ICV                 | ↓           | ↓      | 825        | 210726D | 5/2022      | 20,000                | 20,002                     | (P) F       | (L) F       |
| CCV                 | ↓           | 7/8/21 | 1640       | 210426E | 5/2022      | 50,000                | 50,100                     | (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  $\pm 0.2$  SU; mV pH 7 Range  $0 \pm 50$ ; mV pH 4 Range  $+180 \pm 50$ ; mV pH 10 Range  $-180 \pm 50$ ;

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: 5/27/21

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 | 6/9/21 | 852        | 0.00                                      | 0.00              | (P) F       | (L) F       |

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

COMMENTS:

used as "field meter" on 7/8/21

# 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: ELSA

RQ-                     

Project: Clapboard

- 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 7/8/21

| 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 Applchy | 7/8/21  | 1240       | 20.2    | 762.2           | 9.1             | ✓               | 100.3 | —            | 1.018      | (P) F       | (L) F       |
| ICV                | ↓           | ↓       | 1242       | 20.17   | 762.0           | 9.1             | 9.09            | 100.3 | —            | 1.018      | (P) F       | (L) F       |
| CCV                | ↓           | 7/21/21 | 1630       | 22.1    | 760.5           | 8.7             | 8.74            | 100.2 | —            | 1.018      | (P) F       | (L) F       |
| CCV                |             |         |            |         |                 |                 |                 |       |              |            | P / F       | L / F       |

DO Acceptance criteria from Table  $\pm 0.3$  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 $\mu$ mhos/cm | Meter Reading $\mu$ mhos/cm | Pass / Fail | Lab / Field |
|---------------------|-------------|---------|------------|---------|-------------|------------------------|-----------------------------|-------------|-------------|
| Calibr.             | Kim Applchy | 7/8/21  | 1254       | 210426E | 5/2022      | 50.000                 | 50.000                      | (P) F       | (L) F       |
| ICV                 | ↓           | ↓       | 1257       | 210426D | 5/2022      | 20.000                 | 19.939                      | (P) F       | (L) F       |
| CCV                 | ↓           | 7/21/21 | 1630       | 210426E | 5/2022      | 50.000                 | 49.866                      | (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  $\pm 0.2$  SU; mV pH 7 Range 0  $\pm 50$ ; mV pH 4 Range  $+180 \pm 50$ ; mV pH 10 Range  $-180 \pm 50$ ;

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: 5/27/21

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 Applchy | 7/8/21 | 1300       | 0.00                                      | 0.00              | (P) F       | (L) F       |

Report two decimal places. Round numbers  $\leq 4$  down,  $\geq 5$  up. ICV acceptance criteria  $\pm 5\%$  or  $\pm 0.05$ 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) L.I.L.O.  
 Calibration Date 6/9/21 Calibrated By Kim Appleby  
 Battery Voltage Pre-Calibration 2.14 Battery Voltage >5.3 (Exo 3) ☒ Y ☐ N Battery Voltage Post-Calibration 2.14  
 Central Wiper Replaced ☒ Y ☐ N Central Wiper Parking 180° ☒ Y ☐ N  
 Barometric Pressure (mmHg) 765.2 Conductivity Cell Constant 0.469175 ODO Gain 1.066  
 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>24.04</u> | <u>50.00</u>      | <u>0.00</u> | <u>100.7</u> | <u>8.6</u>  |     |      |
| Measured   | <u>23.41</u> | <u>49.99</u>      | <u>0.00</u> | <u>100.7</u> | <u>8.63</u> |     |      |
| Calibrated |              | <u>50.00</u>      | <u>0.00</u> | <u>100.7</u> | <u>8.63</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 + Jeremy Parish File Name: TIMUclap02 - 20210609  
 (Station name \_YYYYMMDD)  
 Sonde Start Date: 6/9/21 Sonde Start Time: 1415 Eastern Standard Time (EST)  
 Actual Deployment Date: 6/9/21 Actual Time Placed in Water: 1440 (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: \_\_\_\_\_

Old  
 NIST  
 stand #  
 23.35  
 sonde  
 23.41

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

Station Name

TIMUclap02

Retrieval

In situ Sonde # (SN)

210

Retrieved By

Kim Appleby + Brian Davis

Retrieval Date

7/8/21

Retrieval Time

1410 (EST)

Field Meter # (SN)

ELSA

Field Meter Calibration Date

7/8/21

On Site Readings

|               | Temp<br>(°C)                 | Baro.<br>Pres.<br>(mmHg) | ODO<br>(% Sat.) | ODO<br>(mg/l) | Sp. Cond.<br>(mS/cm) | Salinity<br>(psu) | pH | Turb.<br>(FNU) | Depth<br>(m) | Chla<br>(µg/l) | BGA<br>(µg/l) |
|---------------|------------------------------|--------------------------|-----------------|---------------|----------------------|-------------------|----|----------------|--------------|----------------|---------------|
| Field Meter   | 28.03                        | 762.7                    | 84.9            | 6.03          | 28.468               | 17.4              | /  | /              | 2.8          | /              | /             |
| In situ Sonde | Not available (see comments) |                          |                 |               |                      |                   |    |                |              |                |               |

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: N External Screen: — Temp/Cond: N

ODO Probe: N pH Probe: — Turbidity: —

Post Deployment

Post Deployment Reading Date

7/8/21

Battery Voltage

1.8 (before battery change)

☒ N

Barometric Pressure (mmHg)

761.9

Conductivity Cell Constant

0.46915

pH7 (mv)

/

pH10 (mv)

/

pH Slope

/

pH4 (mv)

/

| Parameter                   | Temp<br>(°C)   | Sp. Cond.<br>(mS/cm) | Depth<br>(m) | ODO<br>(% Sat.) | ODO<br>(mg/l) | pH7 | pH10 |
|-----------------------------|----------------|----------------------|--------------|-----------------|---------------|-----|------|
| Standard                    | 21.41<br>21.34 | 50.00                | 0.00         | 100.0           | 8.9           | /   | /    |
| Measured<br>(clean sensors) | 21.47          | 50.10                | 10.27        | 100.8           | 8.98          | /   | /    |

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

Any Probe Malfunctions?

☒ Y

If Y, describe in the comments.

File Name:

TIMUclap\_20210609

(Station name\_YYYYMMDD)

Comments:

Hurricane ELSA 7/7/21. Sonde lost power. Lost 7 days of data. Replaced batteries for post-deployment readings.

Recorded By

Kim Appleby

Computer Entry By / Date

Certified By / Date