

# 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: Craw Dally

RQ- 2023-06-05-29

Project: SMP LV1

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: 4/14/23

| 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.            | Terry Riordan   | 6/15/23 | 0710       | 23.7    | 755.6           | 8.4             | 8.43            | 99.4 | /            | 0.950      | P/F         | L/F         |
| ICV                | 1               |         | 0711       | 23.7    | 755.6           | 8.4             | 8.42            | 99.4 | /            | /          | P/F         | L/F         |
| CCV                | Jessie Atchison | 1       | 1619       | 27.6    | 755             | 7.83            | 7.87            | 99.9 | /            | /          | 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.             | Terry Riordan   | 6/15/23 | 0719       | 2212B31 | 12/24       | 1000                   | 100.0                       | P/F         | L/F         |
| ICV                 | 1               |         | 0721       | 2207G95 | 07/24       | 100                    | 101.9                       | P/F         | L/F         |
| CCV                 | Jessie Atchison | 1       | 1622       | 2207G95 | 7/24        | 100                    | 101.4                       | 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.            | Terry Riordan   | 6/15/23 | 0727       | 216233 | 08/23       | 7.00         | 24.3    | 7.00             | -39.4  | P/F         | L/F         |
| Calibr.            | 1               |         | 0730       | 225424 | 11/24       | 4.00         | 24.1    | 4.00             | 137.2  | P/F         | L/F         |
| Calibr.            | 1               |         | 0733       | 222368 | 10/24       | 10.01        | 24.2    | 10.01            | -219.7 | P/F         | L/F         |
| ICV                | 1               |         | 0739       | 222368 | 10/24       | 10.01        | 24.2    | 10.01            | -219.5 | P/F         | L/F         |
| CCV                | Jessie Atchison | 1       | 1624       | 225424 | 11/24       | 4.00         | 23.9    | 4.06             | 134.3  | 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 10 180.3, slope from 4 to 7 176.6 (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: 4/14/23

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Knothead; Date of last verification: 5/17/23

| 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                   | Terry Riordan | 6/15/23 | 0739       | 0.272                                     | 0.269             | 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:

# 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: Shrimp Trap

RQ: 2023-06-12-31

Project: SMP

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: 4/14/23

| 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.            | Terry Riordan   | 6/15/23 | 0713       | 23.7    | 755.8           | 8.4             | 8.43            | 99.4  | /            | 1.002      | P/F         | L/F         |
| ICV                |                 |         | 0714       | 23.7    | 755.9           | 8.4             | 8.42            | 99.5  | /            | /          | P/F         | L/F         |
| CCV                | Victoria Schuch | 6/15/23 | 17:36      | 27.2    | 755.0           | 7.9             | 7.89            | 100.1 | /            | /          | 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.             | Terry Riordan   | 6/15/23 | 0719       | 2212 B31 | 12/24       | 1000                   | 1000                        | P/F         | L/F         |
| ICV                 |                 |         | 0721       | 2207 G95 | 07/24       | 100                    | 101.1                       | P/F         | L/F         |
| CCV                 | Victoria Schuch | 6/15/23 | 17:38      | 2207 G95 | 07/24       | 100                    | 100.9                       | 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.            | Terry Riordan   | 6/15/23 | 0726       | 216233 | 08/23       | 7.00         | 24.2    | 7.00             | -48.3  | P/F         | L/F         |
| Calibr.            |                 |         | 0729       | 225424 | 11/24       | 4.00         | 24.3    | 4.00             | 128.9  | P/F         | L/F         |
| Calibr.            |                 |         | 0732       | 222368 | 10/24       | 10.01        | 24.3    | 10.01            | -227.7 | P/F         | L/F         |
| ICV                |                 |         | 0736       | 222368 | 10/24       | 10.01        | 24.3    | 10.00            | -226.8 | P/F         | L/F         |
| CCV                | Victoria Schuch | 6/15/23 | 17:40      | 225424 | 11/24       | 4.00         | 24.0    | 4.01             | 128.5  | 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 10 175.4, slope from 4 to 7 177.2 (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: 4/14/23

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Light; Date of last verification: 5/17/23

| 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                   | Terry Riordan | 6/15/23 | 0736       | 0.272                                     | 0.275             | 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:



# 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: Send Bucket

RQ- 2023-06-12-19

Project: 44AB

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: 4/3/23

| 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>Denver Bourassa</u> | <u>6/15/23</u> | <u>0758</u> | <u>21.9</u> | <u>756.1</u>    | <u>8.7</u>      | <u>8.71</u>     | <u>99.2</u> | <u>/</u>     | <u>1.03734</u> | <u>P/F</u>  | <u>L/F</u>  |
| ICV                |                        |                | <u>0801</u> | <u>21.8</u> | <u>756.3</u>    | <u>8.7</u>      | <u>8.73</u>     | <u>99.5</u> | <u>/</u>     |                | <u>P/F</u>  | <u>L/F</u>  |
| CCV                |                        |                | <u>1521</u> | <u>24.1</u> | <u>755.5</u>    | <u>8.3</u>      | <u>8.25</u>     | <u>98.1</u> | <u>/</u>     |                | <u>P/F</u>  | <u>L/F</u>  |
| CCV                |                        |                |             |             |                 |                 |                 |             |              |                | <u>P/F</u>  | <u>L/F</u>  |

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.             | <u>Denver Bourassa</u> | <u>6/15/23</u> | <u>0805</u> | <u>221331</u>  | <u>12/24</u> | <u>1000</u>            | <u>1000</u>                 | <u>P/F</u>  | <u>L/F</u>  |
| ICV                 |                        |                | <u>0809</u> | <u>2207695</u> | <u>07/24</u> | <u>100</u>             | <u>103.1</u>                | <u>P/F</u>  | <u>L/F</u>  |
| CCV                 |                        |                | <u>1524</u> | <u>2207695</u> | <u>07/24</u> | <u>100</u>             | <u>101.6</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>Denver Bourassa</u> | <u>6/15/23</u> | <u>0814</u> | <u>216233</u> | <u>08/23</u> | <u>7.00</u>  | <u>24.3</u> | <u>7.00</u>      | <u>-40.9</u>  | <u>P/F</u>  | <u>L/F</u>  |
| Calibr.            |                        |                | <u>0820</u> | <u>225424</u> | <u>11/24</u> | <u>4.00</u>  | <u>24.1</u> | <u>4.00</u>      | <u>129.8</u>  | <u>P/F</u>  | <u>L/F</u>  |
| Calibr.            |                        |                | <u>0823</u> | <u>222368</u> | <u>10/24</u> | <u>10.01</u> | <u>24.2</u> | <u>10.01</u>     | <u>-216.0</u> | <u>P/F</u>  | <u>L/F</u>  |
| ICV                |                        |                | <u>0826</u> |               |              | <u>10.01</u> | <u>24.3</u> | <u>10.01</u>     | <u>-214.4</u> | <u>P/F</u>  | <u>L/F</u>  |
| CCV                |                        |                | <u>1533</u> | <u>225424</u> | <u>11/24</u> | <u>4.00</u>  | <u>23.9</u> | <u>4.17</u>      | <u>121.2</u>  | <u>P/F</u>  | <u>L/F</u>  |
| CCV                |                        |                |             |               |              |              |             |                  |               | <u>P/F</u>  | <u>L/F</u>  |

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 10 175.1, slope from 4 to 7 170.7 (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: 04/03/23

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Crusty; Date of last verification: 05/17/23

| 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>Denver Bourassa</u> | <u>6/15/23</u> | <u>0839</u> | <u>0.00</u>                               | <u>0.22</u>       | <u>P/F</u>  | <u>L/F</u>  |

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: