

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: Shmp Trap

RQ- 2020-11-23-08

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 12/04/20

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.	Victoria Schwartz	12/15/20	8:10	22.5	754.6	8.6	8.60	99.3		1.046078	P/F	L/F
ICV				22.5	754.6	8.6	8.59	99.3			P/F	L/F
CCV			14:24	21.9	752.8	8.7	8.77	100.3			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.	Victoria Schwartz	12/15/20	8:10	201026A	11/21	1000	1000	P/F	L/F
ICV				200821	09/21	100	101.8	P/F	L/F
CCV			14:24	200821	09/21	100	102.1	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.	Victoria Schwartz	12/15/20	8:10	202114	05/22	7.01	22.9	7.01	-41.2	P/F	L/F
Calibr.				200052	02/22	4.00	22.8	4.00	135.7	P/F	L/F
Calibr.				200109A	07/21	10.02	22.6	10.02	-209.0	P/F	L/F
ICV				200052	02/22	4.00	22.9	4.02	133.8	P/F	L/F
CCV			14:24	200109A	07/21	10.02	23.1	10.03	-211.4	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 10 167.8, slope from 4 to 7 176.9 (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: 12/04/20

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Light; Date of last verification: 12/04/20

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	Victoria Schwartz	12/15/20	8:10	0.272	0.272	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:

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:

Crow Daddy

RQ-

2020-12-14-09

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

12/04/2020

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>Erin Bates</u>	<u>12/15/20</u>	<u>8:44</u>	<u>22.7</u>	<u>754.7</u>	<u>8.6</u>	<u>8.59</u>	<u>99.6</u>	<u>/</u>	<u>1.062273</u>	<u>P / F</u>	<u>L / F</u>
ICV				<u>22.7</u>	<u>754.8</u>	<u>8.6</u>	<u>8.59</u>	<u>99.6</u>	<u>/</u>	<u>/</u>	<u>P / F</u>	<u>L / F</u>
CCV	<u>Natalie Ayala</u>	<u>12/15/20</u>	<u>1424</u>	<u>22.6</u>	<u>752.4</u>	<u>8.6</u>	<u>8.69</u>	<u>100.8</u>	<u>/</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 ± 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.	<u>Erin Bates</u>	<u>12/15/20</u>	<u>8:50</u>	<u>201026A</u>	<u>11/21</u>	<u>1000</u>	<u>1000</u>	<u>P / F</u>	<u>L / F</u>
ICV				<u>200821</u>	<u>09/21</u>	<u>100</u>	<u>102.3</u>	<u>P / F</u>	<u>L / F</u>
CCV	<u>Natalie Ayala</u>	<u>12/15/20</u>	<u>1427</u>	<u>200109C</u>	<u>01/21</u>	<u>50000</u>	<u>49960</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>Erin Bates</u>	<u>12/15/20</u>	<u>08:56</u>	<u>202114</u>	<u>05/22</u>	<u>7.01</u>	<u>22.8</u>	<u>7.01</u>	<u>-38.8</u>	<u>P / F</u>	<u>L / F</u>
Calibr.	<u>1</u>	<u>1</u>	<u>1</u>	<u>200052</u>	<u>02/22</u>	<u>4.00</u>	<u>22.9</u>	<u>4.00</u>	<u>138.3</u>	<u>P / F</u>	<u>L / F</u>
Calibr.	<u>1</u>	<u>1</u>	<u>1</u>	<u>200109A</u>	<u>07/21</u>	<u>10.02</u>	<u>22.6</u>	<u>10.02</u>	<u>-202.5</u>	<u>P / F</u>	<u>L / F</u>
ICV	<u>1</u>	<u>1</u>	<u>9:05</u>	<u>200052</u>	<u>02/22</u>	<u>4.00</u>	<u>22.8</u>	<u>3.96</u>	<u>138.4</u>	<u>P / F</u>	<u>L / F</u>
CCV	<u>Natalie Ayala</u>	<u>12/15/20</u>	<u>1433</u>	<u>200052</u>	<u>02/22</u>	<u>4.00</u>	<u>23.0</u>	<u>3.90</u>	<u>141.9</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 10 163.7, slope from 4 to 7 171.1 (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:

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Knothead; Date of last verification: 12/04/2020

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>Erin Bates</u>	<u>12/15/20</u>	<u>9:06</u>	<u>0.272</u>	<u>0.272</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: