

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 DADDY

RQ- 2022-10-10-25

Project: 254A2210

- 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 11/9/22

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	12/13/22	0720	21.8	759.2	8.8	8.78	99.9	/	0.951	P/F	L/F
ICV			0721	21.8	759.4	8.8	8.78	100.0	/	/	P/F	L/F
CCV	Terry Riordan		1631	22.4	759.8	8.7	8.76	100.8	/	/	P/F	L/F
CCV							8.76				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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Terry Riordan	12/13/22	0723	220/328A	04/23	1000	1000	P/F	L/F
ICV			0725	2204D30	04/24	100	99.6	P/F	L/F
CCV	Terry Riordan		1632	2204D30	04/24	100	99.5	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	12/13/22	0732	223156	06/24	7.02	21.8	7.02	-33.5	P/F	L/F
Calibr.			0735	215478	07/23	4.00	21.7	4.00	144.0	P/F	L/F
Calibr.			0738	213014	05/23	10.04	21.8	10.04	-212.4	P/F	L/F
ICV			0739	213014	05/23	10.04	21.8	10.04	-212.4	P/F	L/F
CCV	Terry Riordan		1634	215478	07/23	4.00	21.8	4.12	137.8	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 10 178.9, slope from 4 to 7 177.5 (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: NA

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

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						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: Stream T448 RQ: 2022-12-12-38 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 11/9/22

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.	Lief Boman	12/13/22	9:30	21.3	760.4	8.9	8.84	100.1	/	1.0351	P/F	D/F
ICV			9:35	21.5	760.4	8.8	8.83	100.1	/	/	P/F	D/F
CCV	Katie Marsh	1	3:15	21.0	759.5	8.9	9.02	101.2	/	/	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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	Lief Boman	12/13/22	9:38	220328A	04/23	1000	1000	P/F	D/F
ICV			9:40	2204030	04/24	100	98.8	P/F	D/F
CCV	K. Marsh	1	3:20	2204030	4/24	100	99.3	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.	Lief Boman	12/13/22	9:43	223156	06/24	7.01	21.7	7.01	-37.2	P/F	D/F
Calibr.				215478	07/23	4.00	21.7	4.00	144.7	P/F	D/F
Calibr.				213014	05/23	10.04	21.8	10.04	-214.1	P/F	D/F
ICV			9:59	215478	07/23	4.00	21.6	3.99	144.7	P/F	D/F
CCV	K. Marsh	1	3:25	213014	5/23	10.04	21.7	10.13	-220.5	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 10 176.9, slope from 4 to 7 181.9 (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: 11/9/22
 If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Light; Date of last verification: 11/29/22

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	Lief Boman	12/13/22	10:02	272	272	P/F	D/F

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

COMMENTS: