

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: Scup Bucket

RQ: 2020-06-06-38

Project: 5 mp

- 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 12/6/19

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.	T. Riordan	1/14/20	0625	23.0	761.6	8.6	8.60	100.2	—	1.0551	P/F	L/F
ICV				23.1	761.7	8.6	8.59	100.2	—	—	P/F	L/F
CCV			1500	23.1 23.1	759.5	8.6	8.85	103.4	—	—	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.	T. Riordan	1/14/20	0625	191003	10/20	1000	1000	P/F	L/F
ICV				191106	11/20	100	103.2	P/F	L/F
CCV			1500	191003	10/20	1000 1000	1001	P/F	L/F
CCV*				181219B	12/19	50,000	50,597	P/F	L/F
Conductivity Acceptance criteria $\pm 5\%$ T. Riordan 1630 200109B 1/21 10,000 10,0003 P L									

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.	T. Riordan	1/14/20	0625	188510	1/21	7.01	23.1	7.01	-3.4	P/F	L/F
Calibr.				193247	5/21	4.00	23.2	4.00	178.8	P/F	L/F
Calibr.				190071	1/21	10.02	23.1	10.02	-176.7	P/F	L/F
ICV				193247	5/21	4.00	23.2	3.99	178.7	P/F	L/F
CCV			1500	190071	1/21	10.02	22.9	9.97	-174.8	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 ± 50 ;

mV pH 10 Range -180 ± 50 ;

If mV are recorded: slope from 7 to 10 173.3, slope from 4 to 7 182.2 (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: _____

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Crusty; Date of last verification: 8/23/19

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: * Bracketed w/ recent expired std, will confirm upon receipt of new std. Recv'd new 10,000 standard. Bracketed using T.

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

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Meter ID: Shrimp Trap

RQ: 2019-10-28-57

Project: HAB

- 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 12/6/19

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.	Mike Drennen	1/14/19	830	22.9	761.8	8.6	8.62	100.2	—	1.0409	P/F	L/F
ICV		20		22.9	761.8	8.6	8.62	100.4	—	—	P/F	L/F
CCV		7P	1400	23.3	759.9	8.62	8.62	101.1	—	—	P/F	L/F
CCV						8.5 (L)					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.	Mike Drennen	1/14/19	830	191003	16/20	1000	1000	P/F	L/F
ICV		20		191106	11/20	100	103.1	P/F	L/F
CCV		7P	1400	191106	11/20	100	103.0	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.	Mike Drennen	1/14/19	830	188510	1/21	7.01	23.1	7.01	-28.7	P/F	L/F
Calibr.		20		193247	5/21	4.00	23.0	4.00	146.0	P/F	L/F
Calibr.		7P		190071	1/21	10.02	22.9	10.02	-206.6	P/F	L/F
ICV				190071	1/21	10.02	22.9	10.03	-206.3	P/F	L/F
CCV			1400	190071	1/21	10.02	22.9	10.10	-210.6	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 10 177.9, slope from 4 to 7 174.7 (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: 11/2/19

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: Light; Date of last verification: 11/2/19

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	Mike Drennen	1/14/19	830	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: