

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

Boldly "X" this box if there is qualified data on this name

Meter ID: YSE #3 RQ: 2018-04-02-55 Project: Gville Biology

- 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.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site _____

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification _____

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	PO'Connor	04-05-18	0705	22.8	8.61	8.62	100.0	—	1.1902	P/F	L/F
ICV	✓	✓	0710	22.8	8.61	8.61	100.0	—	1.1902	P/F	L/F
CCV	PO'Connor	04-05-18	1830	26.6	8.32	8.32	100.0	—	—	P/F	L/F
CCV				24.6	8.32	9.19	110	—	—	P/F	L/F

DO Acceptance criteria from Table ± 0.3 mg/L.

Optical: DO gain range 0.85 to 1.15; DO charge N/A.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge Range 25-75.

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.	PO'Connor	04-05-18	0713	3221413	09-2018	1413	1413	P/F	L/F
ICV	✓	✓	0715	1711298	12-2018	100	99	P/F	L/F
CCV	PO'Connor	04-05-18	1840	1711294	12-2018	1000	1003	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	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	PO'Connor	04-05-18	0721	2711081	11-2019	7.0	7.00	-5.9	P/F	L/F
Calibr.	✓	✓	0724	2711517	10-2019	4.0	4.00	171.6	P/F	L/F
Calibr.	✓	✓	0727	2711527	04-2019	10.0	9.99	-179.9	P/F	L/F
ICV	✓	✓	0733	2711081	11-2019	7.0	7.01	-4.9	P/F	L/F
CCV	PO'Connor	04-05-18	1843	2711081	11-2019				P/F	L/F
CCV				2711527	04-2019	10.0	9.93	-176.4	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 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? (yes) No If yes, list date of last quarterly depth verification 01-10-18

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	PO'Connor	04-05-18	0729	0.000	0.000	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:

QC/Scanned BT 4/9/18 JP 4/6/18

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

Boldly "X" this box if there is qualified data on this name.

Meter ID: YSI 71 RQ: 2018-02-12-39 Project: SCI - Reference Lake

- 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.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400 Date of Last Temperature Verification 1/18

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	J. Parnish	4/5/18	7:55	22.07	8.72	8.72	100	—	—	P/F	L/F
ICV	J	J	J	22.11	8.72	8.73	100	—	—	P/F	L/F
CCV	B = T =	4/5/18	13:50	21.2	8.88	8.60	96.8	—	—	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; 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.	J. Parnish	4/5/18	7:20	3221413	9/18	1413	1413	P/F	L/F
ICV	J	J	J	1420318	9/18	147	150	P/F	L/F
CCV	B = T =	4/5/18	13:55	3221413	9/18	1413	1411	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	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	J. Parnish	4/5/18	7:24	2711517	11/19	7.0	7.00	-10.9	P/F	L/F
Calibr.	J	J	7:25	2711517	10/19	4.0	4.00	159.8	P/F	L/F
Calibr.	J	J	7:26	2711527	4/19	10.0	10.00	-180.0	P/F	L/F
ICV	J	J	7:27	4/19	2711517	4.0	3.99	159.8	P/F	L/F
CCV	B = T =	4/5/18	13:56	2711517	10/19	4.0	4.02	158.1	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 _____, slope from 4 to 7 _____ (both must be between 165 and 180 mV)

Is meter equipped with depth sensor? Yes / No If yes, list date of last quarterly depth 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	J. Parnish	4/5/18	7:30	0.0	0.0	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:

QC/Scanned BTD 4/9/18 JP 4/6/18