

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: DEP#154181

RQ: 2019-03-11-16

Project: INTERLACHEN 1

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

02-11-19

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.	P O'Connor	03-12-19	0720	22.8	761.9	8.61	8.62	100.1	-	-	P/F	L/F
ICV	✓	✓	0723	23.0	761.7	8.57	8.60	100.2	-	-	P/F	L/F
CCV	C Ruben	✓	1605	21.4	762	8.84	8.96	101.4	-	-	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.	P O'Connor	03-12-19	0725	190125B	02-2020	1000	1000	P/F	L/F
ICV	✓	✓	0727	180711B	07-2019	100	101.9	P/F	L/F
CCV	C Ruben	✓	1607	19025B	2-2020	1000	997	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.	P O'Connor	03-12-19	0730	2811E61	11-2020	7.00	23.6	7.00	-46.0	P/F	L/F
Calibr.	✓			2811D47	11-2020	4.00	23.6	4.00	134.4	P/F	L/F
Calibr.	✓			2810F55	04-2020	10.00	23.6	10.00	-217.2	P/F	L/F
ICV				2811E61	11-2020	7.00	23.5	7.00	-45.5	P/F	L/F
CCV	C Ruben	3-12-19	1610	2811D47	11-20	4.0	23.7	4.02	132.1	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)

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: 02-11-19

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

JP 3/1/19

TS 3/25/19

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.

YSI #3

Meter ID:

Melrose Lakes

RQ-

2019-03-11-15

Project:

Melrose Lakes

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

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.	B-D-	3/12/19	751	23.0	760	8.58	8.58	100.1	/	/	P/F	L/F
ICV			753	23.1	760	8.56	8.56	100	/	/	P/F	L/F
CCV	AKalmbacher	3-12-19	1450	20.6	760	8.98	9.04	100.7	/	/	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 DS5 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.	B-D-	3/12/19	755	190125B	2/20	1000	1000	P/F	L/F
ICV			757	180711B	7/19	100	103	P/F	L/F
CCV	AKalmbacher	3-12-19	1453	190125B	2/2020	1000	1001	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.	B-D-	3/12/19	802	2807A76	6/20	7.	23.7	7.0	-22.2	P/F	L/F
Calibr.			805	2811D47	11/20	4.	23.7	4.0	153.7	P/F	L/F
Calibr.			807	2810F55	4/20	10.	23.7	9.99	-194.0	P/F	L/F
ICV			811	2807A76	6/20	7.0	23.8	7.02	-22.0	P/F	L/F
CCV	AKalmbacher	3-12-19	1455	2811D47	11/2020	4.0	23.5	3.95	155.8	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 _____, slope from 4 to 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: _____

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last 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	B-D-	3/12/19	815	0.00	0.00	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:

3/15/19

BD 3/25/19