

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 YSI #4 RQ- 2017-07-31-10 Project Hawthorne Lakes

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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.	N. Fredrikh	8/14/17	0700	23.10	8.56	8.54	99.8	58.4	0.92	P	L
ICV			0705	23.12	8.52	8.54	99.8	58.4	0.92	P	L
CCV	B-Tc	8/14/17	1440	25.0	8.26	8.24	99.7	59.4	0.92	P	L
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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.	N. Fredrikh	8/14/17	0708	170315B	3/18	1,000	1,000	P	L
ICV			0710	170315A	3/18	100	104	P	L
CCV	B-Tc	8/14/17	1443	170315B	3/18	1,000	1000	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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.	N. Fredrikh	8/14/17	0715	1407A12	6/18	7.0	7.0	-24.4	P	L
Calibr.			0720	2702743	1/19	4.0	4.0	154.9	P	L
Calibr.			0722	2611998	5/18	10.0	10.0	-196.8	P	L
ICV			0725	2702743	1/19	4.0	4.03	154.9	P	L
CCV	B-Tc	8/14/17	1445	1607A12	6/18	7.0	7.0	-24.4	P	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

MP

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 **USI #3**

RQ- **2017-08-1456**

Project **LSJR B10**

- Notes:** (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 **06-2017**

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.	P O'Connor	08-16-17	0700	23.6	8.48	8.48	100.0	62.5	1.0016	Pass	LAB
ICV	↓	↓	0710	23.6	8.48	8.46	99.8	63.5	1.0016	Pass	LAB
CCV	J. Parnish	8/16/17	1530	25.2	8.23	8.38	101.8	63.5	1.0016	P	L
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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.	P O'Connor	08-16-17	0712	170315B	03-2018	1000	1000	P	LAB
ICV	↓	↓	0717	170720B	08-2018	100	102	P	LAB
CCV	J. Parnish	8/16/17	1531	1298117	12/17	12900	12873	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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.	P O'Connor	08-16-17	0720	1607812	06-2018	7.0	7.00	-9.9	Pass	LAB
Calibr.	↓	↓	0725	2702743	01-2019	4.0	4.00	160.1	Pass	LAB
Calibr.	↓	↓	0728	2611998	05-2018	10.0	9.97	-170.8	Pass	LAB
ICV	↓	↓	0730	1607812	06-2018	7.0	7.02	-8.0	Pass	LAB
CCV	J. Parnish	8/16/17	1535	2611998	1/19	10.0	9.93	-168.8	Pass	L
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 50;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air	P O'Connor	08-16-17	0732	0.000	0.00	Pass	LAB

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

MF