

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: YSTN

RQ: 2018-07-23-18

Project: LSJF Southside

- 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

7/2018

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	7/31/18	711	24.3	8.37	8.37	100	—	—	P/F	L/F
ICV	J	J	713	24.3	8.37	8.38	100.1	—	—	P/F	L/F
CCV	J Parnish	7/31/18	1340	25.0	8.26	8.23	100.9	—	—	P/F	L/F
CCV										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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	J Parnish	7/31/18	715	180711A	7/19	1000	1000	P/F	L/F
ICV	J	J	717	1470718	12/18	147	252	P/F	L/F
CCV	J Parnish	7/31/18	1345	180321A	4/19	100	105	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	7/31/18	718	2803E45	3/20	7.0	7.0	18.1	P/F	L/F
Calibr.	J	J	719	2803D54	3/20	4.0	4.0	155.1	P/F	L/F
Calibr.	J	J	720	271527	4/19	10.0	10.0	199	P/F	L/F
ICV	J	J	721	2803E45	3/20	4.0	4.02	154.8	P/F	L/F
CCV	J Parnish	7/31/18	1350	271527	4/19	10.0	9.98	190.8	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)

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	7/31/18	722	0.00	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:

137 QC/Scanned 8/6/18

JP 8/12/18

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:

Y51 #3

RQ:

2018-07-23-17

Project:

LSJR East

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.	A Kalmbacher	7-31-18	0800	23.6	8.48	8.49	100.1		1.0012	P / F	L / F
ICV			0805	23.7	8.48	8.46	100.1		1.0012	(P) / F	(L) / F
CCV	A Kalmbacher	7-31-18	1415	24.8	8.29	8.39	101.4		1.0012	P / F	L / F
CCV										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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	A Kalmbacher	7-31-18	0807	180711A	7/2019	1,000	1,000	P / F	L / F
ICV			0810	180321A	4/2019	100	102	(P) / F	(L) / F
CCV			1420	180711A	7/2019	1,000	1000	(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.	A Kalmbacher	7-31-18	0815	2803E45	3/2020	7.0	7.00	-17.3	P / F	L / F
Calibr.			0818	2803D38	3/2020	4.0	4.00	142.0	P / F	L / F
Calibr.			0820	2711527	4/2019	10.0	9.98	-170.9	P / F	L / F
ICV			0822	2803E45	3/2020	7.0	7.02	16.7	(P) / F	(L) / F
CCV			1423	2803D38	3/2020	4.0	4.02	140.3	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 10 153.6 , slope from 4 to 7 159.3 (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	A Kalmbacher	7-31-18	0812	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:

BP QC / Scanned 8/6/18 JP 8/13/18