

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: **Pro DSS**

RQ: **2018-12-03-26**

Project: **LSJR North Fresh Salt**

- 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.	C Ruben	12-6-18	0735	19.9	760	9.10	9.12	100	—	—	P/F	L/F
ICV	↓	12-6-18	0738	20.0	760	9.10	9.13	100	—	—	P/F	L/F
CCV	J Parnish	12-6-18	1348	20.7	766.1	8.97	9.03	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 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.	C Ruben	12-6-18	0742	1801102	11/2019	1000	1000	P/F	L/F
ICV	↓	12-6-18	0745	180321A	4/2019	100	101	P/F	L/F
CCV	↓	12-6-18	1350	1024820	9/19	24,820	24667	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.	C Ruben	12-6-18	0749	2809841	8/2020	7.	22.4	7.0	-33.1	P/F	L/F
Calibr.	↓		0751	2810832	9/2020	4.	22.2	4.0	1488	P/F	L/F
Calibr.	↓		0755	1800FS1	12/2019	10.	22.1	10.0	-204	P/F	L/F
ICV	↓		0759	2809841	8/2020	7.0	22.4	7.0	-308	P/F	L/F
CCV	J Parnish	12-6-18	1353	2810832	9/2020	4.0	22.3	4.07	145.9	P/F	L/F
CCV								4.02		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	C. Ruben	12-6-18				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 12/17/18 12/10/18 JP

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: XST 77

RQ: 2018-11-26-21

Project: Goodbys Can Man

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 10/18

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.	B. Davis	12/6/18	818	21.1	8.89	8.89	100	/	/	(P) F	(L) F
ICV			822	21.3	8.86	8.86	99.9	-	-	(P) F	(L) F
CCV	A. Kalmbacher	12-6-18	1240	17.1	9.64	9.69	100.5			(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.	B. Davis	12/6/18	825	181102	11/19	1000	1000	(P) F	(L) F
ICV			829	1470718	6/19	147	151	(P) F	(L) F
CCV	A. Kalmbacher	12-6-18	1245	181102	11/2019	1,000	996	(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.	B. Davis	12/6/18	833	2809841	8/20	7.0	7.0	-20.4	(P) F	(L) F
Calibr.			837	2810832	9/20	4.0	4.0	152.3	(P) F	(L) F
Calibr.			844	1806F51	12/19	10.0	9.99	-188.5	(P) F	(L) F
ICV			846	2809841	8/20	7.0	7.03	-20.7	(P) F	(L) F
CCV	A. Kalmbacher	12-6-18	1248	1806F51	8/2020	10.0	10.06	-192.8	(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	B. Davis	12/6/18	847	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:

QC/Scanned BD 12/12/18 J7 12/10/18