

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: YSI #3

RQ: 2019-02-18-11

Project: SCI Rushing Cr

- 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-V-	2/20/19	801	22.2	760	8.71	8.69	99.8	/	/	P/F	L/F
ICV		↓	806	22.4	760	8.67	8.66	99.8	/	/	P/F	L/F
CCV	C. Ruben	↓	1310	22.9	760	8.59	8.57	99.7	/	/	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.	B-V-	2/20/19	809	181109	11/19	1000	1000	P/F	L/F
ICV		↓	811	180711B	7/19	100	104	P/F	L/F
CCV	C. Ruben	↓	1315	190125B	2/20	1000	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	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	B-V-	2/20/19	814	2811EG1	11/20	7.	23.05	7.0	-19.5	P/F	L/F
Calibr.		↓	817	2811D47	11/20	4.	23.07	4.0	156.8	P/F	L/F
Calibr.		↓	820	28110E55	4/20	10.	23.08	9.98	-190.9	P/F	L/F
ICV		↓	824	2811EG1	11/20	7.0	23.11	7.02	-19.0	P/F	L/F
CCV	C. Ruben	↓	1320	2811D47	11/20	4.0	23.2	4.02	165.1	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: _____

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-V-	2/20/19	826	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:

Scanned BV 3/5/19

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.

Meter ID: EXO

RQ: 2019-02-18-10

Project: BMAP2

- 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.	PO'Connor	02-20-19	0900	22.53	763.6	8.66	8.73	100.8	-	-	(P/F)	(L/F)
ICV	PO'Connor	V	0905	22.58	763.6	8.66	8.72	100.8	-	-	(P/F)	(L/F)
CCV	PO'Connor	02-20-19	1535	19.9	760.4	9.10	8.99	98.8	-	-	(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 (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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	PO'Connor	02-20-19	0908	181109	11-2019	1000	1000	(P/F)	(L/F)
ICV	V	V	0915	180711B	07-2019	100	1030.7	(P/F)	(L/F)
CCV	PO'Connor	02-20-19	1540	181109	11-2019	1000	1009	(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.	PO'Connor	02-20-19	0925	2811E61	11-2020	7.00	23.2	7.01	-19.2	(P/F)	(L/F)
Calibr.	V	V	0930	2811D47	11-2020	4.00	23.3	4.00	150.9	(P/F)	(L/F)
Calibr.	V	V	0933	2810F55	04-2020	10.00	23.2	10.02	-195.4	(P/F)	(L/F)
ICV	V	V	0936	2811E61	11-2020	7.00	23.2	6.95	-18.9	(P/F)	(L/F)
CCV	PO'Connor	02-20-19	1543	2811D47	11-2020	4.00	23.31	3.91	156.2	(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:

BP QC/scanned 2/25/19