

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 #F3

RQ- 2018-07-23-26

Project: Cont. monitoring

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	8/23/18	0821	23.3	—	8.53	100	100	—	1.103	(P) F	(L) F
ICV	C Ruben	↓	0823	23.4	—	8.51	100	100	—	1.103	(P) F	(L) F
CCV	C Ruben	8/23/18	1210	24.4	—	8.35	100	100	—	1.100	(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	8/23/18	0825	180711A	7/2019	1000	1000	(P) F	(L) F
ICV	↓	↓	0830	1807321A	4/2019	100	103	(P) F	(L) F
CCV	C Ruben	8/23/18	1215	180711A	7/2019	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.	C Ruben	8/23/18	0835	2803E45	3/2020	7.	24.4	7.0	-12.0	(P) F	(L) F
Calibr.	↓	↓	0837	2803D38	3/2020	4.	24.5	4.0	144.1	(P) F	(L) F
Calibr.	↓	↓	0846	2711527	4/2019	10.	24.5	9.98	-162	(P) F	(L) F
ICV	C Ruben	8/23/18	0843	2803E45	3/2020	4.7	24.5	7.03	-11.6	(P) F	(L) F
CCV	C Ruben	8/23/18	1218	2803D38	3/2020	4	24.6	4.00	140.8	(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						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 8/28/18 JP 8/27/18

CALIBRATION AND VERIFICATION LOG (FDEP SOP FT 1000-FT 1500, FD 1000-FD 4000)

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Meter ID: DEP #154181 RQ: 2018-08-20-42 Project: Deep Cr, Deep Cr + 16

- 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 07-11-18

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.	PO'Connor	08-23-18	0715	23.7	8.46	8.46	100.0	—	—	(P/F)	(L/F)
ICV	✓	✓	0720	23.8	8.44	8.46	100.1	—	—	(P/F)	(L/F)
CCV	PO'Connor	08-23-18	1448	24.4	8.35	8.44	101.1	—	—	(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; 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.	PO'Connor	08-23-18	0723	180711A	07-2019	1000	1000	(P/F)	(L/F)
ICV	✓	✓	0725	180321A	04-2019	100	102.5	(P/F)	(L/F)
CCV	PO'Connor	08-23-18	1450	180711A	07-2019	1000	1008	(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.	PO'Connor	08-23-18	0728	2803E45	03-2020	7.0	7.00	-18.0	(P/F)	(L/F)
Calibr.	✓	✓	0730	2803D38	03-2020	4.0	4.00	160.0	(P/F)	(L/F)
Calibr.	✓	✓	0734	2711527	04-2019	10.0	9.97	-188.1	(P/F)	(L/F)
ICV	✓	✓	0738	2803E45	03-2020	7.0	7.05	16.9	(P/F)	(L/F)
CCV	PO'Connor	08-23-18	1455	2803D38	03-2020	4.0	4.10	156.0	(P/F)	(L/F)
CCV									P / F	L / F

pH Acceptance criteria ± 0.2 SU; mV pH 7 Range 0 $\pm$ 50; mV pH 4 Range +180 $\pm$ 50; mV pH 10 Range -180 $\pm$ 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						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 8/28/18 JP 8/27/18