

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: B167

RQ: 2019-03-11-63

Project: CONTINUOUS BMP

- 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 12/26/18

DO DEP SOP FT 1500	Name	Date	Time GT-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.	BARRINGTON	3/7/19	0706	25.02	760	8.26	8.26	1000	—	1.06	(P/F)	(L/F)
ICV	↓	↓	0708	25.00	760	8.26	8.27	1000	—	—	(P/F)	(L/F)
CCV	Gary Sward	3/12/19	1532	24.79	760	8.35	8.35	1005			(P/F)	(L/F)
CCV						8.31	8.35				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 GT-ET	Lot #	Expir. Date	Standard µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	BARRINGTON	3/7/19	0710	2809DSD	9/20	10,000	10,000	(P/F)	(L/F)
ICV	↓	↓	0712	2711027	11/19	50,000	50,000	(P/F)	(L/F)
CCV	Gary Sward	3/12/19	1525	2812AC5	12/20	100	98	(P/F)	(L/F)
CCV								P/F	L/F

Conductivity Acceptance criteria $\pm 5\%$

pH DEP SOP FT 1100	Name	Date	Time GT-ET	Lot #	Expir. Date	pH Buffer SU	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	BARRINGTON	3/7/19	0714	187681	11/20	6.99	25.01	7.00	-51.3	(P/F)	(L/F)
Calibr.	↓	↓	0716	187887	11/20	4.01	25.02	4.00	122.5	(P/F)	(L/F)
Calibr.	↓	↓	0718	186877	10/20	10.01	25.00	9.96	-212	(P/F)	(L/F)
ICV	↓	↓	0720	187857	11/20	4.01	25.02	4.00	—	(P/F)	(L/F)
CCV	Gary Sward	3/12/19	1530	186877	10/20	10.91	25.07	10.04	—	(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 10 170.0, slope from 4 to 7 173.8 (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: DEEP BLUE; Date of last verification: 12/26/18

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time GT-ET	Calibrated Value (0.00 or 0.05m) 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:

J-QUAL FOP PH

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

Meter ID:

Box 8

RQ:

2019-03-11-63

Project:

Cont Mount

"X" in box indicates quality control on this page.

- 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

12/26/18

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.	Gregory Sward	3/7/19	0726	23.8	760	8.45	8.45	100.1	N/A	0.9957	P/F	L/F
ICV	Gregory Sward	3/7/19	0728	23.9	760	8.13	8.48	100.4	N/A		P/F	L/F
CCV	Gregory Sward	3/12/19	1545	25.3	760	8.22	8.15	99.3	N/A		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.	Gregory Sward	3/7/19	0718	2809550	9/24	10000	10000	P/F	L/F
ICV	Gregory Sward	3/7/19	0729	2810627	10/24	1000	1003	P/F	L/F
CCV	Gregory Sward	3/12/19	1550	2812A65	12/20	100	105	P/F	L/F
CCV	Gregory Sward	3/12/19	1553	2811E60	11/20	50,000	49970	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.	Gregory Sward	3/7/19	0730	18768	11/20	6.94	24.66	7.00	154.6	P/F	L/F
Calibr.	Gregory Sward	3/7/19	0742	187827	11/20	4.01	24.69	4.00	154.6	P/F	L/F
Calibr.	Gregory Sward	3/7/19	0750	186877	10/20	10.01	24.57	9.98	148.6	P/F	L/F
ICV	Gregory Sward	3/7/19	0757	187827	11/20	4.01	24.73	4.12	147.7	P/F	L/F
CCV	BARANGLTON	3/13/19	0707	186477	10/20	10.01	25.91	9.12	-	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 10 149.3, slope from 4 to 7 145.9 (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: