

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: QUANTA #1 RQ: 2018-02-05-22 Project: LSJR West

- 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 10-02-01-10-18

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.	PO Conn	02-06-18	0650	22.0	8.74	8.69	99.8	-	-	(P) F	(L) F
ICV	V	↓	0700	22.0	8.74	8.68	99.7			(P) F	(L) F
CCV	PO Conn	02-06-18	1552	21.6	8.21	8.17	98.4	-	-	(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 Conn	02-06-18	0703	171129A	12-2018	1000	1000	(P) F	(L) F
ICV	V	↓	0705	170315A	03-2018	100.	99	(P) F	(L) F
CCV	PO Conn	02-06-18	1555	171129A	12-2018	1000	997	(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 Conn	02-06-18	0707	2708B60	07-2019	7.0	7.00	-	(P) F	(L) F
Calibr.	V	↓	0712	271157	10-2019	4.0	4.00	-	(P) F	(L) F
Calibr. ICV	V	↓	0715	2708A21	01-2019	10.0	9.95	-	(P) F	(L) F
ICV CCV	PO Conn	02-06-18	1557	2708B60	07-2019	7.0	7.00	-	(P) F	(L) F
CCV									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 N/A, slope from 4 to 7 N/A (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 N/A

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	N/A					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:

BD GC/Scanned 2/9/18

JP 2/8/18

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:

YSI 4

RQ-

2018-01-29-11

Project:

BMAP 2

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

1/10/2018

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.	A Kalmbacher	2-6-18	0850	20.7	8.96	8.95	100	51.2	0.87162	P/F	L/F
ICV			0853	20.8	8.95	8.92	99.9	51.2	0.87162	(P)/F	(L)/F
CCV	A Kalmbacher	2-6-18	1450	21.0	8.82	9.05	101.7	51.2	0.87162	(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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	A Kalmbacher	2-6-18	0855	171129A	12/2018	1,000	1,000	P/F	L/F
ICV			0800	17035A	3/2018	100	104	(P)/F	(L)/F
CCV	A Kalmbacher	2-6-18	1540	171129A	12/2018	1,000	1,010	(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	2-6-18	0804	2708B60	7/2019	7.0	7.00	-34.2	P/F	L/F
Calibr.			0807	2710816	9/2019	4.0	4.00	144.3	P/F	L/F
Calibr.			0810	2708A21	1/2019	10.0	9.98	-206.0	P/F	L/F
ICV			0815	2708B60	7/2019	7.0	7.02	-33.2	(P)/F	(L)/F
CCV	A Kalmbacher	2-6-18	1545	2708A21	1/2019	10.0	9.97	-206.1	(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 10 171.8, slope from 4 to 7 178.5 (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 1/10/2018

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	2-6-2018	0820	0.00	0.001	(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:

BD QC/Scanned 2/9/18 JP 2/18/18