

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 #3

RQ:

2017-12-04-27

Project:

LSR SW

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

10/10/17

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	12-18-17	0810	22.4	8.67	8.68	100	65.5	0.879	P/F	L/F
ICV	↓	↓	0832	22.2	8.70	8.62	99.3	65.5	0.879	(P) F	(L) F
CCV	↓	↓	1310	20.7	8.96	8.98	100.5	65.5	0.879	(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.	A Kalmbacher	12-18-17	0815	171129A	12/2018	1,000	1,000	P/F	L/F
ICV	↓	↓	0820	170315A	3/2018	100	103	(P) F	(L) F
CCV	↓	↓		171129A	12/2018	1,000	992	(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	12-18-17	0823	2708B60	7/2019	7.0	7.00	-7.7	P/F	L/F
Calibr.	↓	↓		2710816	9/2019	4.0	4.00	168.0	P/F	L/F
Calibr.	↓	↓		2706031	12/2018	10.0	10.00	-181.8	P/F	L/F
ICV	↓	↓		2708B60	7/2019	7.00	7.01	-7.9	(P) F	(L) F
CCV	↓	↓		2710816	9/2019	4.00	4.08	163.9	(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 10 174.1, slope from 4 to 7 175.7 (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 10/10/2017

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	12-18-17	0830	0.00	0.000	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:

NF

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: 2017-12-04-38 Project: GUILLEMAKENV

- 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

10-10-17

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.	<u>PO con</u>	<u>12-18-17</u>	<u>0735</u>	<u>23.0</u>	<u>8.57</u>	<u>8.54</u>	<u>100.0</u>	<u>-</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>↓</u>	<u>✓</u>	<u>0740</u>	<u>23.1</u>	<u>8.56</u>	<u>8.54</u>	<u>100.0</u>	<u>-</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>PO con</u>	<u>12-18-17</u>	<u>1618</u>	<u>23.0</u>	<u>8.50</u>	<u>8.70</u>				<u>P/F</u>	<u>L/F</u>
CCV						<u>8.65</u>	<u>101.3</u>	<u>-</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>

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.	<u>PO con</u>	<u>12-18-17</u>	<u>0742</u>	<u>171129A</u>	<u>12-2018</u>	<u>1000</u>	<u>1000</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>↓</u>	<u>✓</u>	<u>0744</u>	<u>170315A</u>	<u>03-2018</u>	<u>100</u>	<u>98</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>PO Connor</u>	<u>12-18-17</u>	<u>1623</u>	<u>170720C</u>	<u>08-2018</u>	<u>50,000</u>	<u>50,800</u>	<u>P/F</u>	<u>L/F</u>
CCV								<u>P/F</u>	<u>L/F</u>

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.	<u>PO con</u>	<u>12-18-17</u>	<u>0745</u>	<u>2708B60</u>	<u>07-2019</u>	<u>7.0</u>	<u>7.00</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>↓</u>	<u>✓</u>	<u>0750</u>	<u>2710816</u>	<u>09-2019</u>	<u>4.0</u>	<u>4.00</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
Calibr.	<u>↓</u>	<u>✓</u>	<u>0752</u>	<u>27106031</u>	<u>12-2018</u>	<u>10.0</u>	<u>10.01</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
ICV	<u>PO con</u>	<u>12-18-17</u>	<u>1626</u>	<u>2708B60</u>	<u>07-2019</u>	<u>7.0</u>	<u>6.98</u>	<u>-</u>	<u>P/F</u>	<u>L/F</u>
CCV									<u>P/F</u>	<u>L/F</u>
CCV									<u>P/F</u>	<u>L/F</u>

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

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						<u>P/F</u>	<u>L/F</u>

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater.

COMMENTS: