

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 page.

Meter ID: YSI 3

RQ: 05-2018-05-21-11

Project: SULW 3

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 L & F

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 4/18

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.	<u>B-V</u>	<u>5/30/18</u>	<u>735</u>	<u>23.6</u>	<u>8.48</u>	<u>8.49</u>	<u>100.1</u>	<u>/</u>	<u>1.09</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>738</u>	<u>23.6</u>	<u>8.48</u>	<u>8.49</u>	<u>100.1</u>	<u>/</u>	<u>1.09</u>	<u>(P) F</u>	<u>(L) F</u>
CCV			<u>1424</u>	<u>22.5</u>	<u>8.66</u>	<u>8.62</u>	<u>99.7</u>	<u>/</u>	<u>1.09</u>	<u>(P) F</u>	<u>(L) F</u>
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.	<u>B-V</u>	<u>5/30/18</u>	<u>730</u>	<u>1803213</u>	<u>4/19</u>	<u>1000</u>	<u>1000</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>742</u>	<u>171129B</u>	<u>12/18</u>	<u>100</u>	<u>99</u>	<u>(P) F</u>	<u>(L) F</u>
CCV			<u>1425</u>	<u>1420318</u>	<u>9/18</u>	<u>147</u>	<u>152</u>	<u>(P) F</u>	<u>(L) F</u>
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.	<u>B-V</u>	<u>5/30/18</u>	<u>747</u>	<u>2711C81</u>	<u>11/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-8.9</u>	<u>(P) F</u>	<u>(L) F</u>
Calibr.			<u>749</u>	<u>2711517</u>	<u>10/19</u>	<u>4.0</u>	<u>4.0</u>	<u>164.4</u>	<u>(P) F</u>	<u>(L) F</u>
Calibr.			<u>750</u>	<u>2711527</u>	<u>4/19</u>	<u>10.0</u>	<u>9.98</u>	<u>-176.7</u>	<u>(P) F</u>	<u>(L) F</u>
ICV			<u>752</u>	<u>2711C81</u>	<u>11/19</u>	<u>7.0</u>	<u>7.03</u>	<u>-9.1</u>	<u>(P) F</u>	<u>(L) F</u>
CCV			<u>1431</u>	<u>2711517</u>	<u>10/19</u>	<u>4.0</u>	<u>3.98</u>	<u>164.4</u>	<u>(P) F</u>	<u>(L) F</u>
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)

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	<u>B-V</u>	<u>5/30/18</u>	<u>755</u>	<u>0.00</u>	<u>0.00</u>	<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:

QC/Scanned BT 6/4/18 JP 6/11/18

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:

USE IT

RQ:

2018-05-28-19

Project:

Gville

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

04-10-18

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.	P O'Connor	05-30-18	0650	23.0	8.57	8.58	100.0	-	1.05821	P/F	P/F
ICV	↓	↓	0655	23.0	8.57	8.58	100.0	-	1.05821	P/F	P/F
CCV	A Kalmbacher	05-30-18	1710	22.0	8.74	8.99	103.2	-	1.05821	P/F	P/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.	P O'Connor	05-30-18	0658	1803218	04-2019	1000	1000	P/F	P/F
ICV	↓	↓	0700	1711298	12-2018	100	104	P/F	P/F
CCV	A Kalmbacher	05-30-18	1725	1803218	04-2019	1,000	998	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.	P O'Connor	05-30-18	0703	2711081	11-2019	7.0	7.00	-10.8	P/F	L/F
Calibr.	↓	↓	0705	271157	10-2019	4.0	4.00	156.6	P/F	P/F
Calibr.	↓	↓	0710	2711527	04-2019	10.0	10.00	-180.1	P/F	L/F
ICV	↓	↓	0715	2711081	11-2019	7.0	7.02	-12.8	P/F	P/F
CCV	A Kalmbacher	5-30-18	1730	2711517	10-2019	4.0	3.98	158.2	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)

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:

QC/Scanned BD 6/4/18

JP 6/1/18