

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

Meter ID: 132237

RQ: 2018-02-05-24

Project: SMP

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)

(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

1/22/18

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
Calibr.	<u>ML</u>	<u>2/5/18</u>								<u>P</u> <u>Q</u>
ICV	<u>m</u>	<u>2/5/18</u>	<u>1700</u>	<u>21.49</u>	<u>8.829</u>					
CCV	<u>J. P. JSS</u>	<u>2/5/18</u>	<u>1416</u>	<u>18.52</u>	<u>9.37</u>	<u>9.32</u>	<u>100</u>	<u>-</u>	<u>-</u>	<u>P</u> <u>Q</u>
CCV										

DO Acceptance criteria from Table ± 0.3 mg/L.

Rapid-Pulse Sensors: DO Gain Range 0.7 to 1.4; DO Charge N/A.

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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail
Calibr.	<u>ML</u>	<u>2/5/18</u>	<u>0705</u>	<u>180124C</u>	<u>2/2019</u>	<u>10000</u>	<u>10000</u>	<u>P</u> <u>Q</u>
ICV	<u>m</u>	<u>2/5</u>	<u>0706</u>	<u>180124B</u>	<u>2/2019</u>	<u>1000</u>	<u>1001</u>	<u>P</u> <u>Q</u>
CCV	<u>J. P. JSS</u>	<u>2/5</u>	<u>1417</u>	<u>180124A</u>	<u>02/2019</u>	<u>100</u>	<u>96</u>	<u>P</u> <u>Q</u>
CCV								

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
Calibr.	<u>ML</u>	<u>2/5</u>	<u>0710</u>	<u>240063</u>	<u>10/18</u>	<u>7.0</u>	<u>7.0</u>	<u>-29.6</u>	<u>P</u> <u>Q</u>
Calibr.	<u>ML</u>	<u>2/5</u>	<u>0711</u>	<u>4712981</u>	<u>11/2019</u>	<u>4.0</u>	<u>4.0</u>	<u>146.1</u>	<u>P</u> <u>Q</u>
Calibr.	<u>ML</u>	<u>2/5</u>	<u>0712</u>	<u>2611A79</u>	<u>05/2018</u>	<u>10.0</u>	<u>10.0</u>	<u>-197.9</u>	<u>P</u> <u>Q</u>
ICV	<u>m</u>	<u>2/5</u>	<u>0715</u>	<u>4712981</u>	<u>11/2019</u>	<u>4.0</u>	<u>4.01</u>		<u>P</u> <u>Q</u>
CCV	<u>J. P. JSS</u>	<u>2/5</u>	<u>1419</u>	<u>2611A79</u>	<u>5/18</u>	<u>10.0</u>	<u>10.0</u>		<u>P</u> <u>Q</u>
CCV									

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 1/22/18

Depth Sensor (Daily Calibration & ICV)	Name	Date	Time CT-ET	Calibrated Value (0.00 or Offset), meters	ICV Value meters	Pass / Fail
Pressure mode in air						

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

COMMENTS:

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: 113529 RQ: Project: Ref Streams

- 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 1/21/18

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.									1.03255	P / F	L / F
ICV										P / F	L / F
CCV	S. Slode	2/5/18	0807	21.48	8.829	8.83	100.0	N/A	1.03255	(P) F	(L) F
CCV	W. Butane	2/5/18	1054	20.22	9.050	9.07	100.1	NA	1.03255	(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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	S. Slode	2/5/18	0812	180124B	Feb/2019	1000	1000	P / F	(L) F
ICV	S. Slode	2/5/18	0814	180124A	Feb 2019	100	99	(P) F	(L) F
CCV	W. Butane	2/5/18	1058	180124A	Feb 2019	100	102	(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.	S. Slode	2/5/18	0820	2610663	OCT 2018	7.0	7.00	-39.8	P / F	(L) F
Calibr.	S. Slode	2/5/18	0822	4712981	NOV 2019	4.0	4.00	134.9	P / F	(L) F
Calibr.	S. Slode	2/5/18	0825	2611A79	May 2018	10.0	9.98	-208.8	P / F	(L) F
ICV	S. Slode	2/5/18	0826	4712981	NOV 2019	4.0	3.98	135.0	(P) F	(L) F
CCV	W. Butane	2/5/18	1702	2610663	OCT 2018	7.0	7.07	-42.6	(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 10 169, slope from 4 to 7 174.7 (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: