

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: 113529 RQ: 2018-05-28-24 Project: SMP Set

- 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

8/27/18

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 / F	L / F
ICV										P / F	L / F
CCV	<u>MK</u>	<u>10/29/18</u>	<u>0740</u>	<u>22.24</u>	<u>8.71</u>	<u>8.79</u>	<u>101.0</u>			<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
CCV	<u>M</u>	<u>10/29</u>	<u>1545</u>	<u>22.78</u>	<u>8.61</u>	<u>8.60</u>	<u>100.1</u>			<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>

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.	<u>MK</u>	<u>10/29</u>	<u>0745</u>	<u>180104C</u>	<u>8/2/2019</u>	<u>10000</u>	<u>10003</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
ICV	<u>M</u>	<u>10/29</u>	<u>0747</u>	<u>180517C</u>	<u>05/2019</u>	<u>1000</u>	<u>1032</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
CCV	<u>M</u>	<u>10/29</u>	<u>1550</u>	<u>180125B</u>	<u>8/2/2019</u>	<u>100</u>	<u>103</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(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>M</u>	<u>10/29</u>	<u>0750</u>	<u>1805E95</u>	<u>04/2020</u>	<u>7.0</u>	<u>7.0</u>	<u>24.6</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>0751</u>	<u>2803729</u>	<u>02/2020</u>	<u>4.0</u>	<u>4.0</u>	<u>178.4</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
Calibr.	<u>↓</u>	<u>↓</u>	<u>0752</u>	<u>2804C20</u>	<u>10/2019</u>	<u>10.0</u>	<u>10.0</u>	<u>177.6</u>	<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
ICV	<u>↓</u>	<u>↓</u>	<u>0755</u>	<u>2803729</u>	<u>02/2020</u>	<u>4.0</u>	<u>4.01</u>		<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(F)</u>
CCV	<u>M</u>	<u>10/29</u>	<u>1555</u>	<u>2804C20</u>	<u>10/2019</u>	<u>10.0</u>	<u>9.97</u>		<u>(P)</u> / <u>(F)</u>	<u>(L)</u> / <u>(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 10 152.2, slope from 4 to 7 203 (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:

CHANGED PH Probe

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 naae.

Meter ID: 154179 RQ- 2018-10-29-14 Project: SNP

- 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 8/27/18

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 / F	L / F
ICV										P / F	L / F
CCV	J. P. Ross	10/29/18	0720	23.2	8.546	8.66	101.3	-	-	P / F	L / F
CCV	J. P. Ross	10/29/18	0538	25.9	8.128	8.25	101.4	-	-	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.	J. P. Ross	10/29/18	0722	180517B	5/2019	1000	1000	P / F	L / F
ICV	J. P. Ross	10/29/18	0724	18025B	2/2019	100	102	P / F	L / F
CCV	J. P. Ross	10/29/18	1539	180625B	2/2019	100	103	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.	J. P. Ross	10/29/18	0726	18051295	4/2020	7.0	7.0	155.0	P / F	L / F
Calibr.	J. P. Ross	10/29/18	0728	2803729	2/2020	4.0	4.0	150.7	P / F	L / F
Calibr.	J. P. Ross	10/29/18	0730	2804120	10/2019	10.0	10.0	148.8	P / F	L / F
ICV	J. P. Ross	10/29/18	0732	2804120	10/2019	10.0	10.0	-	P / F	L / F
CCV	J. P. Ross	10/29/18	0540	2803729	2/2020	4.0	4.2	-	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 10 163.8, slope from 4 to 7 185.7 (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 10/17/18

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	J. P. Ross	10/29/18	0734	0.00	0.00	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: