

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 71

RQ: 2018-04-16-44

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 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	04-19-18	0703	22.7	8.62	8.62	100.0	—	1.03074	P/F	L/F
ICV	↓	↓	0710	22.8	8.61	8.60	100.0	—	1.03074	P/F	L/F
CCV	J. Parnell	4/19/18	1305	23.5	8.5	8.55	100.5	—		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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	P. O'Connor	04-19-18	0710	180321B	04-2019	1000	1000	P/F	L/F
ICV	↓	↓	0713	171129B	12-2018	100	104	P/F	L/F
CCV	J. Parnell	4/19/18	1307	3121413	9/18	1413	1413	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	04-19-18	0715	2711C81	11-2019	7.0	7.00	-8.2	P/F	L/F
Calibr.	↓	↓	0720	2711517	10-2019	4.0	4.00	160.7	P/F	L/F
Calibr.	↓	↓	0722	2711527	04-2019	10.0	9.99	-175.9	P/F	L/F
ICV	↓	↓	0725	2711C81	11-2019	7.0	7.03	-9.5	P/F	L/F
CCV	J. Parnell	4/19/18	1310	2711527	4/19	10.0	10.03	175.9	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 ± 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 04-10-18

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						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 BT 4/23/18 JP 4/23/18

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: YSE #4

RQ: 2018-04-16-45

Project: Con't Mon't

- 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 Lck.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

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>4/19/18</u>	<u>735</u>	<u>23.4</u>	<u>8.51</u>	<u>8.51</u>	<u>100</u>	<u>59.4</u>	<u>0.94</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>838</u>	<u>23.5</u>	<u>8.49</u>	<u>8.50</u>	<u>100</u>	<u>59.4</u>	<u>0.94</u>	<u>P/F</u>	<u>L/F</u>
CCV			<u>1401</u>	<u>25.7</u>	<u>8.15</u>	<u>8.16</u>	<u>100.1</u>	<u>59.4</u>	<u>0.94</u>	<u>P/F</u>	<u>L/F</u>
CCV										<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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	<u>B-V</u>	<u>4/19/18</u>	<u>740</u>	<u>180321B</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>1404</u>	<u>180321B</u>	<u>4/19</u>	<u>1000</u>	<u>1000</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>B-V</u>	<u>4/19/18</u>	<u>750</u>	<u>2711C81</u>	<u>11/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-38.0</u>	<u>P/F</u>	<u>L/F</u>
Calibr.			<u>754</u>	<u>2711517</u>	<u>10/19</u>	<u>4.0</u>	<u>4.0</u>	<u>140.9</u>	<u>P/F</u>	<u>L/F</u>
Calibr.			<u>759</u>	<u>2711527</u>	<u>4/19</u>	<u>10.0</u>	<u>9.98</u>	<u>-211.5</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>804</u>	<u>2711C81</u>	<u>11/19</u>	<u>7.0</u>	<u>7.04</u>	<u>-38.3</u>	<u>P/F</u>	<u>L/F</u>
CCV			<u>1407</u>	<u>2711527</u>	<u>4/19</u>	<u>10.0</u>	<u>9.98</u>	<u>-211.1</u>	<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 ;
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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:

QC/Scanned BT 4/23/18 JP 4/23/18