

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 YSI #3 RQ- 2017-11-20-12 Project Gainesville

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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

10/10/2017

DO FDEP 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. Kumbacher	11-15-17	0750	21.9	8.75	8.15	100	53.3	0.8651		
ICV			0755	22.0	8.74	8.72	99.8	53.3	0.8651	P	L
CCV				21.67	8.81	8.83	100.3	53.3	0.866		
CCV	N. Fredrick		1600	21.34 8.86							

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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.	A. Kumbacher	11-15-17	0800	170720A	8/2018	1,000	1,000		
ICV			0803	170720B	8/2018	100	100	P	L
CCV	N. Fredrick		1610	170720A	8/2018	9950	9950	P	L
CCV						1,000			

Report specific conductance as a whole number with no decimal figure.

Conductivity Acceptance criteria $\pm 5\%$

pH FDEP SOP FT 1100	Name	Date	Time CT-ET	Lot #	Expir. Date	pH Buffer SU	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	A. Kumbacher	11-15-17	0805	2708360	7/2019	7.0	7.00	-12.7	-8.3	
Calibr.			0807	2710816	9/19	4.0	7.00	167.8		
Calibr.			0809	2704798	9/2018	10.0	9.99	-181.3		
ICV			0810	2708360	7/2019	7.0	7.02	-8.4		
CCV	N. Fredrick		1615	2701798	7/2018	10.0	9.89	167.8		
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 50; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification

10/10/2017

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air	A. Kumbacher	11-15-17		0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

BD 12/19/17

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 Quanta RQ- 2017-11-06-17 Project Interlachen Lakes

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 Lab

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 10/1/17

DO FDEP 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 = D</u>	<u>11/15/17</u>	<u>730</u>	<u>22.3</u>	<u>8.69</u>	<u>8.68</u>	<u>99.9</u>	<u>-</u>	<u>-</u>	<u>P</u>	<u>L</u>
ICV			<u>732</u>	<u>22.5</u>	<u>8.66</u>	<u>8.56</u>	<u>98.8</u>	<u>-</u>	<u>-</u>	<u>P</u>	<u>L</u>
CCV			<u>1517</u>	<u>21.9</u>	<u>8.75</u>	<u>8.53</u>	<u>98.3</u>	<u>-</u>	<u>-</u>	<u>P</u>	<u>L</u>
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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>B = D</u>	<u>11/15/17</u>	<u>735</u>	<u>170720A</u>	<u>8/18</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
ICV			<u>738</u>	<u>170720B</u>	<u>8/18</u>	<u>100</u>	<u>97</u>	<u>P</u>	<u>L</u>
CCV			<u>1522</u>	<u>81472017</u>	<u>3/18</u>	<u>447</u>	<u>993</u>	<u>P</u>	<u>L</u>
CCV				<u>170720A</u>	<u>8/18</u>	<u>1000</u>			

Report specific conductance as a whole number with no decimal figure.

Conductivity Acceptance criteria $\pm 5\%$

pH FDEP 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 = D</u>	<u>11/15/17</u>	<u>742</u>	<u>2708860</u>	<u>7/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-</u>	<u>P</u>	<u>L</u>
Calibr.			<u>748</u>	<u>2710816</u>	<u>9/19</u>	<u>4.0</u>	<u>4.02</u>	<u>-</u>	<u>P</u>	<u>L</u>
Calibr.			<u>750</u>	<u>2706031</u>	<u>12/18</u>	<u>10.0</u>	<u>9.91</u>	<u>-</u>	<u>P</u>	<u>L</u>
ICV			<u>1530</u>	<u>1708860</u>	<u>7/19</u>	<u>7.0</u>	<u>6.75</u>	<u>-</u>	<u>P</u>	<u>L</u>
CCV			<u>1534</u>	<u>2710816</u>	<u>9/19</u>	<u>4.0</u>	<u>3.97</u>	<u>-</u>	<u>P</u>	<u>L</u>
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 $\pm$ 50;

mV pH 4 Range +180 $\pm$ 50;

mV pH 10 Range -180 $\pm$ 50;

Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification 10/1/17

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air	<u>B = D</u>	<u>11/15/17</u>	<u>752</u>	<u>0.000</u>	<u>0.00</u>	<u>P</u>	<u>L</u>

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater

737 12/19/17