

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 #4 RQ- 2016-05-02-38 Project Nassau East

- 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 4/2016

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.	A. Kalmbacher	5/2/16	0825	22.7	8.62	8.61	99.9	46.1	0.877	P	L
ICV	J. P. Gosh	5/2/16	850	23.5	8.50	8.43	99.1	48.2	0.877	P	L
CCV	A. Kalmbacher	5/2/16	1300	27.1	7.95	8.01	100.5	49.2	0.877	P	L
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.	A. Kalmbacher	5/2/16	0830	160216A	2/2017	1,000	1,000	P	L
ICV			0847	160216A	2/2017	1,000	1,005	P	L
CCV	A. Kalmbacher	5/2/16	1305	12916	4/16	12,900	12,988	P	L
CCV									

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

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.	A. Kalmbacher	5/2/16	0835	2509677	8/17	7.0	7.0	-58.3	*P	L
Calibr.			0838	2509F74	9/17	4.0	4.0	122.7	P	L
Calibr.			0840	2510A88	4/17	10.0	9.97	-229.5	P	L
ICV			0842	2509677	8/17	7.00	7.02	-55.2	*P	L
CCV	A. Kalmbacher	5/2/16	1310	2509677	8/17	7.00	7.00	-55.0	*P	L
CCV										

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

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

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

Depth (Quarterly)

Date of Last Depth Verification 4/2016

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air	A. Kalmbacher	5-2-16	0820	0.000	0.00	P	L

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

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

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Meter YSI 556 #1 RQ- 2016-05-02-38 Project Nassau East

- 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 L.C.
 Temperature (Quarterly) FT 1400 Date of Last Temperature Verification 4/16

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>P. Davis</u>	<u>5/2/16</u>	<u>747</u>	<u>23.74</u>	<u>8.46</u>	<u>8.46</u>	<u>100</u>	<u>/</u>	<u>/</u>	<u>P</u>	<u>L</u>
ICV	<u>b</u>	<u>b</u>	<u>748</u>	<u>23.76</u>	<u>8.46</u>	<u>8.45</u>	<u>99.9</u>	<u>/</u>	<u>/</u>	<u>P</u>	<u>L</u>
CCV	<u>b</u>	<u>b</u>	<u>1425</u>	<u>25.20</u>	<u>8.23</u>	<u>8.21</u>	<u>99.7</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>P. Davis</u>	<u>5/2/16</u>	<u>752</u>	<u>160216A</u>	<u>2/17</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
ICV	<u>b</u>	<u>b</u>	<u>754</u>	<u>b</u>	<u>b</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
CCV	<u>N. Fredrick</u>	<u>5/2/16</u>	<u>1427</u>	<u>1165864</u>	<u>11/16</u>	<u>58640</u>	<u>58038</u>	<u>P</u>	<u>L</u>
CCV									

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

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>P. Davis</u>	<u>5/2/16</u>	<u>756</u>	<u>2509627</u>	<u>8/17</u>	<u>7.0</u>	<u>7.0</u>	<u>/</u>	<u>P</u>	<u>L</u>
Calibr.			<u>759</u>	<u>2509774</u>	<u>9/17</u>	<u>4.0</u>	<u>4.0</u>	<u>/</u>	<u>P</u>	<u>L</u>
Calibr.			<u>801</u>	<u>250A88</u>	<u>4/17</u>	<u>10.0</u>	<u>90.0</u>	<u>/</u>	<u>P</u>	<u>L</u>
ICV	<u>b</u>	<u>b</u>	<u>804</u>	<u>2509627</u>	<u>8/17</u>	<u>7.0</u>	<u>7.02</u>	<u>/</u>	<u>P</u>	<u>L</u>
CCV	<u>N. Fredrick</u>	<u>5/2/16</u>	<u>1430</u>	<u>2509774</u>	<u>9/17</u>	<u>4.0</u>	<u>4.03</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 ± 50 ; mV pH 4 Range $+180 \pm 50$;
 mV pH 10 Range -180 ± 50 ; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification /

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode				0.000			
In air							

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