

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: YSI#3 RQ- 2018-10-29-26 Project: LSSR Southside 1

- 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 10-10-18

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.	PO Connor	10-31-18	0755	23.8	8.44	8.46	100.0	—	—	(P) F	(L) F
ICV	✓	✓	0800	23.7	8.46	8.47	100.1	—	—	(P) F	(L) F
CCV	CRUBEN	10-31-18	1058	26.4	9.02	9.01	100	—	—	(P) F	(L) F
CCV										P / F	L / F

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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	PO Connor	10-31-18	0740	1470718	12-2018	147	147	(P) F	(L) F
ICV	✓	✓	0752	180321A	04-2019	100	101	(P) F	(L) F
CCV	C Ruben	10-31-18	1102	10141318	09-2019	1395	1395	(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.	PO Connor	10-31-18	0803	2803E45	03-2020	7.0	7.00	-20.0	(P) F	(L) F
Calibr.			0805	2806975	06-2020	4.0	4.00	158.9	(P) F	(L) F
Calibr.			0810	2712855	06-2019	10.0	9.97	188.6	(P) F	(L) F
ICV	✓	✓	0812	2803E45	03-2020	7.00	7.05	-19.6	(P) F	(L) F
CCV	C. Ruben	10-31-18	1105	2806975	06-2020	4.0	4.05	154	(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 _____, 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 _____

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:

BD Scanned/QC 11/5/18 JP 11/2/18.

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 page.

Meter ID: YSI PRO DSS RQ- 2018-10-29-04 Project: ZSJR East

- 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 10/2018

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 - F =</u>	<u>10/31/18</u>	<u>744</u>	<u>22.8</u>	<u>8.64</u>	<u>22.8</u>	<u>100</u>	<u>/</u>	<u>/</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>747</u>	<u>22.9</u>	<u>8.59</u>	<u>8.59</u>	<u>100</u>	<u>/</u>	<u>/</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>J Parnish</u>	<u>10/31/18</u>	<u>1858</u>	<u>23.1</u>	<u>8.56</u>	<u>8.59</u>	<u>100</u>	<u>-</u>	<u>-</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 mhos/cm	Meter Reading μ mhos/cm	Pass / Fail	Lab / Field
Calibr.	<u>B - F =</u>	<u>10/31/18</u>	<u>750</u>	<u>1470718</u>	<u>8/2/18</u>	<u>147</u>	<u>147</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>756</u>	<u>10141318</u>	<u>9/1/19</u>	<u>1413</u>	<u>1395</u>	<u>P/F</u>	<u>L/F</u>
CCV			<u>1300</u>	<u>180321A</u>	<u>4/1/19</u>	<u>100</u>	<u>99</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 - F =</u>	<u>10/31/18</u>	<u>805</u>	<u>2803E45</u>	<u>3/20</u>	<u>7.0</u>	<u>7.0</u>	<u>-28.3</u>	<u>P/F</u>	<u>L/F</u>
Calibr.			<u>815</u>	<u>2806975</u>	<u>6/20</u>	<u>4.0</u>	<u>4.0</u>	<u>154.1</u>	<u>P/F</u>	<u>L/F</u>
Calibr.			<u>827</u>	<u>105413</u>	<u>4/1/19</u>	<u>10.4</u>	<u>10.4</u>	<u>-208</u>	<u>P/F</u>	<u>L/F</u>
ICV			<u>830</u>	<u>2803E45</u>	<u>3/20</u>	<u>7.0</u>	<u>3/20</u>	<u>-28.9</u>	<u>P/F</u>	<u>L/F</u>
CCV	<u>J Parnish</u>	<u>10/31/18</u>					<u>7.16</u>		<u>P/F</u>	<u>L/F</u>
CCV			<u>1307</u>	<u>105413</u>	<u>4/1/19</u>	<u>10.0</u>	<u>10.19</u>	<u>200</u>	<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 ;

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 _____

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						<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 BD 11/5/18 11/2/18 JP