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 ET RQ- 2018-05-14-21 Project: L.SJR Northgate

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.	PO'Connor	05-16-18	0718	23.9	8.43	8.44	100.0	—	1.03216	(P) / F	(L) / F
ICV	V	V	0722	23.9	8.43	8.45	100.1	—	1.032x	(P) / F	(L) / F
CCV	JParrish	5/16/18	1231	25.6	8.17	8.23	100.7	—	1.03216	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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	PO'Conn	05-16-18	0724	1803218	04-2019	1000	1000	(P) / F	(L) / F
ICV	V	V	0726	171129B	12-2018	100	103	P / F	L / F
CCV	JParrish	5/16/18	1233	170720C	8/18	50000	47802	P / F	L / F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 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'Conn	05-16-18	0728	2711C81	11-2019	7.0	7.00	-12.1	(P) / F	(L) / F
Calibr.	↓	↓	0730	2711517	10-2019	4.0	4.00	156.0	(P) / F	(L) / F
Calibr.	↓	↓	0732	2745Z1	04-2019	10.0	9.98	-179.0	(P) / F	(L) / F
ICV	V	V	0735	2711C81	11-2019	7.0	7.02	-13.4	(P) / F	(L) / F
CCV	JPorn	5/16/18	1235	2711527	4/19	10.00	9.99	180.1	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 ± 5 % or ± 0.05m, whichever is greater.

COMMENTS:
QC/Scanned BD 5/29/18 JP 5/17/18

Boldly "X" this box if there is qualified data on this page.

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

Meter ID: YSI #3 RQ- 2018-05-14-ES / 2018-04-16-45 Project: Cont. Monitoring

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 Lab

Temperature (Quarterly) FT 1400 Date of Last Temperature Verification 4/18

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.	A. Kalmbacher	5-16-18	0815	23.5	8.49	8.49	99.9	—	1.09584	P / F	L / F
ICV				23.5	8.49	8.50	100.0	—	1.09584	(P) / F	(L) / F
CCV	A. Kalmbacher	5-16-18	1300	22.9	8.59	8.59	100.1	—	1.09584	(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 µmhos/cm	Meter Reading µmhos/cm	Pass / Fail	Lab / Field
Calibr.	A. Kalmbacher	5-16-18	0830	18032113	4/2019	1,000	1,000	P / F	L / F
ICV			0833	17112913	12/2018	100	99	(P) / F	(L) / F
CCV	A. Kalmbacher	5-16-18	1305	1124820	6/18	24,820	24,830	(P) / F	(L) / F
CCV								P / F	L / F

Conductivity Acceptance criteria ± 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	5-16-18	0840	2711C81	11/2019	7.0	7.00	-6.9	P / F	L / F
Calibr.			0840	2711517	10/2019	4.0	4.00	170.5	P / F	L / F
Calibr.			0846	2711527	4/2019	10.0	9.99	-181.3	P / F	L / F
ICV			0850	2711C81	11/2019	7.0	7.03	-7.4	(P) / F	(L) / F
CCV	A. Kalmbacher	5-16-18	1310	2711527	4/2019	10.0	10.02	-183.0	(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 10 174.4, slope from 4 to 7 177.4 (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	A. Kalmbacher	5-16-18	0855	0.0	0.0	(P) / F	(L) / F

Report two decimal places. Round numbers ≤ 4 down, ≥ 5 up. ICV acceptance criteria ± 5 % or ± 0.05m, whichever is greater.

COMMENTS:
QC/Scanned BD 5/29/18 JP 5/18/18