

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

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

Meter ID:

YSE #3

RQ:

2019-03-18-10

Project:

HASTINGS

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.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 02-11-19

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro-meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab / Field
Calibr.	PO Conn	03-19-19	0640	21.6	760	8.81	8.80	99.9	—	1.09197	P/F	L/F
ICV	✓	✓	0645	21.7	768	8.79	8.78	99.9	—	1.09197	P/F	L/F
CCV	No DO, Probe Malfunction										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 (Pro DSS 0.75 to 1.50); 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 hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	PO Conn	03-19-19	0647	190125B	02-2020	1000	1000	P/F	L/F
ICV	✓	✓	0649	190125A	02-2020	100	102	P/F	L/F
CCV	B. DAVIS	03-19-19	1411	0424820	2/20	24820	24633	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	Temp °C	Meter reading SU	mV	Pass / Fail	Lab / Field
Calibr.	PO Conn	03-19-19	0651	2807A76	06-2020	7.00	22.3	7.00	-10.4	P/F	L/F
Calibr.	✓	✓	0653	2811D47	11-2020	4.00	22.14	4.00	164.0	P/F	L/F
Calibr.	✓	✓	0655	2810F55	04-2020	10.00	22.13	10.00	-186.1	P/F	L/F
ICV	✓	✓	0700	2807A76	06-2020	7.00	22.29	6.86	-2.7	P/F	L/F
CCV	B. DAVIS	03-19-19	1414	2811D47	11/20	4.0	22.65	4.05	163.1	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 $+180 \pm 50$; 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)

Does meter have a depth sensor that will be used to measure total depth & sample depth? YES / NO / NA (not surf. water project)

If YES, complete daily Calibr. & ICV below and list date of last quarterly depth verification: 02-11-19

If NO, what will be used? (circle one) Secchi Disk Line / Sonar Unique ID: _____; Date of last 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:

BT 3/28/19

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

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

Meter ID:

PRO DSS

RQ:

2019-03-18-09

Project:

LSJR Southwest

Notes: (1) Always wait for meter to stabilize before recording any readings.

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(3) For Calibrations, record calibrated meter reading. Do not record initial meter reading before calibration.

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification

2/2019 JP

DO DEP SOP FT 1500	Name	Date	Time CT-ET	Temp °C	Baro- meter mmHg	D.O. Chart mg/L	Meter D.O. mg/L	% DO	Probe Charge	Probe Gain	Pass / Fail	Lab. / Field
Calibr.	J. Pamish	3/19/19	744	21.2	761.2	8.88	8.88	100	—	—	P/F	L/F
ICV	J	3/19/19	745	21.2	761.2	8.88	8.90	100	—	—	P/F	L/F
CCV	J. Pamish	3/19/19	755	17.2	762.7	9.62	9.76	101.5	—	—	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 (Pro DSS 0.75 to 1.50); 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.	J. Pamish	3/19/19	749	190125B	2/20	1000	1000	P/F	L/F
ICV	J	3/19/19	750	190125A	2/20	100	100.5	P/F	L/F
CCV	J. Pamish	3/19/19	1258	190125B	2/20	1000	1000	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	Temp °C	Meter reading SU	mV	Pass / Fail	Lab. / Field
Calibr.	J. Pamish	3/19/19	752	2807A76	6/20	7.00	22.3	7.01	48.3	P/F	L/F
Calibr.	J		753	2811047	11/20	4.00	22.2	4.1	129.7	P/F	L/F
Calibr.	J		754	2810F55	4/20	10.00	22.2	10.02	29	P/F	L/F
ICV	J		755	2807A76	6/20	7.00	22.3	7.01	-44.6	P/F	L/F
CCV	J. Pamish	3/19/19	300	2811047	11/20	4.00	22.4	3.99	129.7	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 ;

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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:

JP 3/28/19