

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: Acva

RQ- 2019-05-06-45

Project: SMP LV Drainage

- 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 3/7/19

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.	Kristene T.	05/13	9:39	26.2	753	8.08	8.03	99.2	/	1.032	P/F	L/F
ICV	"	"	9:40	26.0	753	8.11	8.04	99.0	/	1.032	P/F	L/F
CCV	Alex Miranda	05/13	16:44	24.4	754	8.08	8.01	99.3		1.032	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.	Kristene Taylor	05/13	9:42	2808E90	08/20	1000	1001	P/F	L/F
ICV	"	"	9:44	2812A65	12/20	100	100.7	P/F	L/F
CCV	Alex Miranda	05/13	16:46	2808E90	08/20	1000	998	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.	Kristene Taylor	05/13	8:50	190073	02/21	7.00	26.6	7.00	-23.3	P/F	L/F
Calibr.	"	"	8:52	190072	01/21	4.01	26.8	4.01	151	P/F	L/F
Calibr.	"	"	8:54	187680	12/20	10.00	26.8	10.00	-202	P/F	L/F
ICV	"	"	8:56	187680	12/20	10.00	26.6	10.01	-201	P/F	L/F
CCV	Alex Miranda	05/13	16:48	190072	01/21	4.00	27.1	4.15	149.8	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 10 178.7, slope from 4 to 7 174.3 (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: 3/7/19

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	Kristene Taylor	05/13	9:00	0.00	0.00	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:

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: Hodor

RQ- 2019-0506-48

Project: SMP Bad Lakes

- 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 4/30/17

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.	Kristene T.	05/13	8:10	25.5	754	8.18	8.12	99	/	1.042	P/F	L/F
ICV	"	"	8:12	25.6	754	8.17	8.12	99	/	1.042	P/F	L/F
CCV	Drew Liddell	"	1630	24.8	754	8.29	8.24	100	1	1.142	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.	Kristene T.	05/13	8:15	2808E90	06/20	1000	1000	P/F	L/F
ICV	"	"	9:17	2812A65	12/20	100	103	P/F	L/F
CCV	Drew Liddell	"	1634	2812A41	10/20	500	502	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.	Kristene T.	05/13	8:10	190073	02/21	7.00	28.4	7.00	-40.0	P/F	L/F
Calibr.	"	"	8:23	190072	01/21	4.01	28.4	4.01	140.6	P/F	L/F
Calibr.	"	"	8:24	187680	12/20	10.00	28.4	10.00	-221.5	P/F	L/F
ICV	"	"	8:27	187680	12/20	10	28.4	10.00	-221.3	P/F	L/F
CCV	Drew Liddell	"	1636	190072	01/21	4.00	28.0	4.02	141.3	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 10 181.5, slope from 4 to 7 180.6 (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: 4/30/17

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	Kristene T.	05/13	8:30	0.00	0.00	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: