

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: 2045

RQ: 2018-06-18-22

Project: SMP Muskegon 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.

Circle/Fill In: Lab Calibration or Calibration/Verification on Site

Temperature (Quarterly) FT 1400

Date of Last Temperature Verification 3/22/18

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.	Gary Swick	6/12/18	708	24.9	8.36	8.36	100	55.3		P/F	L/F
ICV	"	"	712	24.3	8.37	8.37	100	8.37		P/F	L/F
CCV	N. Reistad	6/12/18	1418	26.7	8.012	7.97	99.5	55.3		P/F	L/F
CCV											

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.	Gary Swick	6/12/18	0716	180321B	04/19	1000	1000	P/F	L/F
ICV	"	"	0722	171211B	12/18	100	101	P/F	L/F
CCV	N. Reistad	6/12/18	1422	180321A	04/19	500	502	P/F	L/F
CCV									

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.	Gary Swick	6/12/18	0725	177435	10/19	7.0	6.98	-14.2	P/F	L/F
Calibr.	"	6/12/18	0729	180710	2/20	4.0	4.0	154.0	P/F	L/F
Calibr.	"	6/12/18	0732	178040	12/19	10.0	9.99	-201.8	P/F	L/F
ICV	"	6/12/18	0733	180710	2/20	4.0	3.99	153.7	P/F	L/F
CCV	N. Reistad	6/12/18	1424	177435	10/19	7.0	6.92	-19.6	P/F	L/F
CCV										

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 10 177.6, slope from 4 to 7 178.2 (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: