

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

YSI # 4

RQ-

2017-04-24-08

Project

Pack SCS

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 2/2017

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.	J. Parns L	5/1/17	716	23.6	8.48	8.48	100	57.4	-	P	L
ICV	J	L	719	23.7	8.46	8.43	99.6	56.3	-	P	L
CCV	J. Parns	5/1/17	1440	24.5	8.34	8.19	98.4	57.4	-	P	L
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	J. Parns	5/1/17	720	161101A	11/17	1000	1000	P	L
ICV	J	L	721	21472017	12/17	147	148	P	L
CCV	J. Parns	5/1/17	1441	161101B	5/17	100	97	P	L
CCV									

Report specific conductance as a whole number with no decimal figure.

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.	J. Parns	5/1/17	722	262247	2/19	7.0	7.0	77.7	P	L
Calibr.	J	L	723	260642	10/18	4.0	4.0	16.5	P	L
Calibr.	J	L	724	260835	2/18	10.0	10.0	184.4	P	L
ICV	J	L	725	261042	10/18	4.0	4.02	159.3	P	L
CCV	J. Parns	5/1/17	1445	260835	10/18	10.0	10.06	193.2	P	L
CCV										

Report pH with one decimal place; 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 ; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification 2/17

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air	J. Parns	5/1/17	726	0.000	0.00	P	L

ICV acceptance criteria $\pm 5\%$ or $\pm 0.05m$, whichever is greater

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 name.

Meter YSI # 3 RQ- 2017-04-24-28 Project LSJR West

- Notes: (1) Numbers ≤ 4 , are rounded down; numbers ≥ 5 are rounded up (e.g., 5.15 becomes 5.2).
 (2) Always wait for meter to stabilize before recording any readings.
 (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 02/04/2016 2/9/17

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-Van</u>	<u>5/1/17</u>	<u>800</u>	<u>23.8</u>	<u>8.45</u>	<u>8.45</u>	<u>100</u>	<u>51.2</u>	<u>0.80359</u>	<u>P</u>	<u>L</u>
ICV			<u>803</u>	<u>23.9</u>	<u>8.43</u>	<u>8.43</u>	<u>99.8</u>	<u>51.2</u>	<u>0.80359</u>	<u>P</u>	<u>L</u>
CCV	<u>A. Kalmbacher</u>	<u>5-1-17</u>	<u>1500</u>	<u>24.9</u>	<u>8.27</u>	<u>8.54</u>	<u>103.2</u>	<u>52.3</u>	<u>0.80359</u>	<u>P</u>	<u>L</u>
CCV											

Report DO mg/L with one decimal figure and DO % saturation as a whole number with no decimals.

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 μ hos/cm	Meter Reading μ hos/cm	Pass / Fail	Lab / Field
Calibr.	<u>B-Van</u>	<u>5/1/17</u>	<u>806</u>	<u>161101A</u>	<u>11/17</u>	<u>1000</u>	<u>1000</u>	<u>P</u>	<u>L</u>
ICV			<u>808</u>	<u>161101B</u>	<u>5/17</u>	<u>100</u>	<u>101</u>	<u>P</u>	<u>L</u>
CCV	<u>A. Kalmbacher</u>	<u>5-1-17</u>	<u>1515</u>	<u>1298117</u>	<u>12/17</u>	<u>12,900</u>	<u>13,266</u>	<u>P</u>	<u>L</u>
CCV									

Report specific conductance as a whole number with no decimal figure.

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-Van</u>	<u>5/1/17</u>	<u>813</u>	<u>2702047</u>	<u>2/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-16.3</u>	<u>P</u>	<u>L</u>
Calibr.			<u>816</u>	<u>2610F42</u>	<u>10/18</u>	<u>4.0</u>	<u>4.0</u>	<u>162.1</u>	<u>P</u>	<u>L</u>
Calibr.			<u>820</u>	<u>2611998</u>	<u>5/18</u>	<u>10.0</u>	<u>7.98</u>	<u>-189.7</u>	<u>P</u>	<u>L</u>
ICV			<u>825</u>	<u>2702047</u>	<u>2/19</u>	<u>7.0</u>	<u>7.0</u>	<u>-17.9</u>	<u>P</u>	<u>L</u>
CCV	<u>A. Kalmbacher</u>	<u>5-1-17</u>	<u>1518</u>	<u>2702047</u>	<u>2/19</u>	<u>7.0</u>	<u>7.06</u>	<u>-18.3</u>	<u>P</u>	<u>L</u>
CCV										

Report pH with one decimal place; pH Acceptance criteria ± 0.2 SU; mV pH7 Range 0 ± 50 ;

mV pH 4 Range $+180 \pm 50$;

mV pH 10 Range -180 ± 50 ; Slope from 7 to 10 and 4 to 7 must be between 165 and 180 mV

Depth (Quarterly)

Date of Last Depth Verification _____

Depth Sensor (Daily)	Name	Date	Time CT-ET	Zero the Sensor	ICV Value	Pass / Fail	Lab / Field
Pressure mode in air				0.000			

ICV acceptance criteria $\pm 5\%$ or ± 0.05 m, whichever is greater