

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2948

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 03-May-17

COEFFICIENTS:

Soc = 0.4596

Voffset = -0.5032

Tau20 = 1.26

A = -4.3175e-003

B = 2.4055e-004

C = -3.5409e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4

D2 = -4.64803e-2

H1 = -3.300000e-2

H2 = 5.00000e+3

H3 = 1.45000e+3

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.08	2.00	0.00	0.746	1.07	-0.01
1.09	6.00	0.00	0.778	1.08	-0.01
1.10	12.00	0.00	0.827	1.10	-0.00
1.13	20.00	0.00	0.897	1.13	0.00
1.16	26.00	0.00	0.954	1.16	0.01
1.16	30.00	0.00	0.989	1.17	0.01
3.86	6.00	0.00	1.486	3.86	0.00
3.89	2.00	0.00	1.383	3.88	-0.00
3.89	12.00	0.00	1.654	3.90	0.00
3.92	20.00	0.00	1.871	3.93	0.00
3.94	26.00	0.00	2.033	3.95	0.00
3.96	30.00	0.00	2.151	3.97	0.01
6.69	6.00	0.00	2.206	6.69	-0.00
6.80	2.00	0.00	2.046	6.81	0.00
6.82	20.00	0.00	2.877	6.81	-0.00
6.82	30.00	0.00	3.330	6.81	-0.01
6.85	26.00	0.00	3.159	6.85	-0.01
6.91	12.00	0.00	2.545	6.91	0.00

V = instrument output (volts); T = temperature (°C); S = salinity (PSU); K = temperature (°K)

Oxsol(T,S) = oxygen saturation (ml/l); P = pressure (dbar)

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * Oxsol(T,S) * exp(E * P / K)

Residual (ml/l) = instrument oxygen - bath oxygen

