

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2949
CALIBRATION DATE: 18-Mar-17

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4185
Voffset = -0.5278
Tau20 = 1.28

A = -4.1790e-003
B = 2.4978e-004
C = -3.4514e-006
E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.300000e-2
D2 = -4.64803e-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)
1.10	6.00	0.00	0.835	1.10	-0.00
1.12	2.00	0.00	0.804	1.11	-0.00
1.12	12.00	0.00	0.888	1.11	-0.00
1.14	20.00	0.00	0.959	1.13	-0.00
1.14	26.00	0.00	1.008	1.14	0.00
1.16	30.00	0.00	1.051	1.16	0.00
3.84	2.00	0.00	1.485	3.85	0.00
3.87	12.00	0.00	1.780	3.87	0.00
3.88	20.00	0.00	2.005	3.89	0.01
3.89	6.00	0.00	1.614	3.89	0.00
3.92	26.00	0.00	2.182	3.93	0.00
3.97	30.00	0.00	2.310	3.97	0.00
6.60	2.00	0.00	2.168	6.60	-0.00
6.64	12.00	0.00	2.674	6.64	-0.00
6.66	6.00	0.00	2.386	6.66	0.00
6.72	20.00	0.00	3.078	6.71	-0.00
6.77	26.00	0.00	3.377	6.77	-0.00
6.78	30.00	0.00	3.572	6.78	-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

