

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2085
CALIBRATION DATE: 30-Dec-15

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4974
Voffset = -0.5026
Tau20 = 1.08

A = -4.2974e-003
B = 2.0874e-004
C = -3.4479e-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)
1.14	2.00	0.00	0.741	1.14	-0.00
1.14	6.00	0.00	0.772	1.14	-0.00
1.17	12.00	0.00	0.824	1.17	-0.00
1.18	30.00	0.00	0.965	1.18	-0.00
1.20	26.00	0.00	0.942	1.20	0.00
1.20	20.00	0.00	0.894	1.20	-0.00
3.86	6.00	0.00	1.411	3.86	0.00
3.87	2.00	0.00	1.313	3.87	0.00
3.88	12.00	0.00	1.566	3.88	-0.00
3.89	30.00	0.00	2.034	3.89	0.00
3.89	26.00	0.00	1.928	3.90	0.01
3.90	20.00	0.00	1.772	3.90	-0.00
6.60	6.00	0.00	2.056	6.60	-0.00
6.61	12.00	0.00	2.315	6.61	0.00
6.62	30.00	0.00	3.107	6.62	-0.00
6.63	26.00	0.00	2.923	6.62	-0.00
6.65	2.00	0.00	1.894	6.65	-0.00
6.65	20.00	0.00	2.669	6.65	-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

