

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2945
CALIBRATION DATE: 08-Nov-14

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.4585
Voffset = -0.4882
Tau20 = 1.25

A = -3.2686e-003
B = 1.7312e-004
C = -2.7988e-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 OX (ml/l)	BATH TEMP (ITS-90)	BATH SAL (PSU)	INSTRUMENT OUTPUT (VOLTS)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.27	2.00	0.00	0.776	1.27	-0.00
1.27	5.98	0.00	0.811	1.27	-0.00
1.29	12.00	0.00	0.867	1.28	-0.00
1.29	30.00	0.00	1.032	1.29	-0.00
1.30	20.00	0.00	0.941	1.30	-0.00
1.30	26.00	0.00	0.995	1.30	-0.00
4.04	2.00	0.00	1.404	4.04	0.00
4.04	5.98	0.00	1.514	4.04	0.00
4.05	12.00	0.00	1.682	4.05	0.00
4.06	30.00	0.00	2.194	4.06	0.00
4.07	20.00	0.00	1.909	4.07	0.00
4.07	26.00	0.00	2.081	4.07	0.00
6.82	2.00	0.00	2.035	6.82	-0.00
6.83	6.00	0.00	2.224	6.83	0.00
6.86	12.00	0.00	2.511	6.86	-0.00
6.89	30.00	0.00	3.380	6.89	-0.00
6.90	20.00	0.00	2.896	6.89	-0.00
6.93	26.00	0.00	3.197	6.93	0.00

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

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU], K = temperature [deg K]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar]

Residual = instrument oxygen - bath oxygen

