

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 2934

SBE 43 OXYGEN CALIBRATION DATA

CALIBRATION DATE: 02-Aug-14

COEFFICIENTS:

Soc = 0.4201

Voffset = -0.5207

Tau20 = 1.41

A = -2.6707e-003

B = 1.3698e-004

C = -2.3000e-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 OX (ml/l)	BATH TEMP (ITS-90)	BATH SAL (PSU)	INSTRUMENT OUTPUT (VOLTS)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.25	2.00	0.00	0.831	1.25	0.00
1.26	5.96	0.00	0.870	1.26	0.00
1.27	12.00	0.00	0.928	1.27	-0.00
1.29	25.99	0.00	1.069	1.29	0.00
1.29	20.00	0.00	1.011	1.29	0.00
1.30	30.00	0.00	1.116	1.30	0.00
3.99	2.00	0.00	1.507	3.99	-0.00
4.00	5.97	0.00	1.626	4.00	-0.00
4.02	12.00	0.00	1.809	4.01	-0.00
4.04	20.00	0.00	2.057	4.04	-0.00
4.05	25.99	0.00	2.250	4.05	0.00
4.06	30.00	0.00	2.386	4.07	0.00
6.74	2.00	0.00	2.187	6.74	-0.00
6.76	6.00	0.00	2.390	6.76	0.00
6.78	12.00	0.00	2.696	6.78	-0.00
6.79	20.00	0.00	3.106	6.79	0.00
6.82	30.00	0.00	3.646	6.81	-0.00
6.84	26.00	0.00	3.437	6.84	-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

