

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1875
CALIBRATION DATE: 21-Mar-15

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:

Soc = 0.5387
Voffset = -0.4947
Tau20 = 1.21

A = -4.4310e-003
B = 1.8911e-004
C = -2.3211e-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)
1.24	2.00	0.00	0.735	1.24	-0.00
1.27	6.00	0.00	0.770	1.26	-0.00
1.30	20.00	0.00	0.885	1.30	-0.00
1.30	12.00	0.00	0.824	1.30	-0.00
1.31	26.00	0.00	0.938	1.32	0.00
1.32	30.00	0.00	0.975	1.33	0.01
4.03	6.00	0.00	1.372	4.03	0.00
4.04	12.00	0.00	1.519	4.03	-0.00
4.07	20.00	0.00	1.720	4.07	0.00
4.07	2.00	0.00	1.281	4.06	-0.00
4.11	26.00	0.00	1.881	4.12	0.01
4.14	30.00	0.00	1.988	4.15	0.00
6.79	6.00	0.00	1.973	6.79	0.01
6.79	2.00	0.00	1.808	6.79	-0.00
6.85	12.00	0.00	2.232	6.85	-0.00
6.88	20.00	0.00	2.567	6.88	-0.00
6.96	30.00	0.00	3.000	6.96	-0.01
6.97	26.00	0.00	2.839	6.97	-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

