

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0463
CALIBRATION DATE: 22-Jan-15

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.5077
Voffset = -0.4857
Tau20 = 1.11

A = -3.0935e-003
B = 1.5025e-004
C = -2.1299e-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	0.746	1.27	-0.00
1.28	6.00	0.00	0.779	1.28	0.00
1.29	20.00	0.00	0.892	1.29	-0.00
1.30	12.00	0.00	0.833	1.30	0.00
1.31	26.00	0.00	0.948	1.31	0.00
1.33	30.00	0.00	0.990	1.33	0.00
4.05	6.00	0.00	1.415	4.05	-0.00
4.06	2.00	0.00	1.316	4.06	-0.00
4.07	12.00	0.00	1.568	4.07	-0.00
4.11	20.00	0.00	1.781	4.11	-0.00
4.15	26.00	0.00	1.950	4.15	0.00
4.20	30.00	0.00	2.075	4.20	0.00
6.85	6.00	0.00	2.057	6.85	0.01
6.87	20.00	0.00	2.651	6.86	-0.00
6.89	2.00	0.00	1.896	6.89	-0.00
6.90	12.00	0.00	2.322	6.90	0.00
6.97	26.00	0.00	2.946	6.97	0.01
7.08	30.00	0.00	3.160	7.07	-0.01

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

