

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0150
CALIBRATION DATE: 21-Jul-12

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.6985

Voffset = -0.4839

Tau20 = 1.35

A = -4.5205e-003

B = 7.5229e-005

C = -1.3774e-006

E nominal = 0.036

NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4 H1 = -3.30000e-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	0.05	0.669	1.24	-0.00
1.25	6.00	0.05	0.694	1.25	-0.00
1.26	12.00	0.04	0.734	1.26	0.00
1.27	20.00	0.04	0.791	1.27	0.00
1.27	26.00	0.04	0.837	1.27	0.00
1.27	30.00	0.04	0.870	1.28	0.00
4.20	2.00	0.05	1.111	4.20	-0.00
4.21	6.00	0.05	1.194	4.21	-0.00
4.22	20.00	0.04	1.508	4.22	0.00
4.23	30.00	0.04	1.765	4.23	0.00
4.23	12.00	0.04	1.326	4.23	0.00
4.24	26.00	0.04	1.661	4.24	0.00
6.77	12.00	0.04	1.831	6.77	-0.01
6.79	20.00	0.04	2.130	6.79	0.00
6.80	6.00	0.05	1.631	6.81	0.00
6.81	2.00	0.05	1.500	6.81	0.00
6.85	30.00	0.04	2.556	6.85	-0.00
6.86	26.00	0.04	2.384	6.85	-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 [Kelvin]

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

Date, Delta Ox (ml/l)

