

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1666
CALIBRATION DATE: 28-Feb-12

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.5221

Voffset = -0.5033

Tau20 = 1.18

A = -2.7066e-003

B = 6.2859e-005

C = -1.1698e-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)
1.23	2.00	0.00	0.747	1.22	-0.01
1.24	30.00	0.00	0.983	1.25	0.01
1.24	26.00	0.00	0.945	1.24	0.01
1.24	6.00	0.00	0.779	1.24	-0.00
1.24	12.00	0.00	0.827	1.24	0.00
1.24	20.00	0.00	0.894	1.25	0.01
4.05	6.00	0.00	1.406	4.05	-0.00
4.05	20.00	0.00	1.771	4.05	-0.00
4.06	12.00	0.00	1.560	4.06	-0.00
4.08	26.00	0.00	1.948	4.07	-0.00
4.08	30.00	0.00	2.070	4.08	0.01
4.10	2.00	0.00	1.318	4.09	-0.01
6.60	30.00	0.00	3.031	6.59	-0.01
6.62	26.00	0.00	2.853	6.63	0.00
6.83	20.00	0.00	2.640	6.83	-0.00
6.95	12.00	0.00	2.315	6.95	0.00
7.09	6.00	0.00	2.087	7.10	0.01
7.24	2.00	0.00	1.946	7.25	0.01

$$\text{Oxygen (ml/l)} = \text{Soc} * (\text{V} + \text{Voffset}) * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * \text{OxSol}(\text{T},\text{S}) * \exp(\text{E} * \text{P} / \text{K})$$

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

Date, Delta Ox (ml/l)

