

Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1232
CALIBRATION DATE: 26-Feb-13

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.5749

Voffset = -0.4978

Tau20 = 1.86

A = -2.9907e-003

B = 8.8725e-005

C = -1.6924e-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)
1.21	2.00	0.00	0.717	1.21	-0.00
1.23	6.00	0.00	0.746	1.22	-0.00
1.25	12.00	0.00	0.793	1.25	-0.00
1.27	20.00	0.00	0.859	1.27	-0.00
1.31	26.00	0.00	0.918	1.31	-0.00
1.31	30.00	0.00	0.953	1.31	-0.00
4.14	2.00	0.00	1.247	4.15	0.00
4.19	12.00	0.00	1.492	4.20	0.00
4.21	6.00	0.00	1.352	4.21	0.01
4.25	20.00	0.00	1.705	4.25	-0.00
4.32	26.00	0.00	1.887	4.32	0.00
4.35	30.00	0.00	2.015	4.36	0.01
7.08	30.00	0.00	2.961	7.07	-0.01
7.18	26.00	0.00	2.809	7.19	0.01
7.29	20.00	0.00	2.567	7.28	-0.01
7.37	12.00	0.00	2.243	7.37	-0.00
7.46	2.00	0.00	1.846	7.46	-0.00
7.48	6.00	0.00	2.014	7.48	0.00

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

V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU], K = temperature [Kelvin]

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

Date, Delta Ox (ml/l)

