

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0463
CALIBRATION DATE: 05-Feb-11p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.5791
Voffset = -0.4822
Tau20 = 1.89

A = -1.7490e-003
B = 1.1481e-004
C = -2.4349e-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)
1.26	6.00	0.01	0.734	1.26	0.00
1.26	12.00	0.02	0.774	1.26	0.00
1.26	2.00	0.01	0.708	1.26	0.01
1.27	20.00	0.02	0.829	1.27	0.00
1.27	26.00	0.02	0.872	1.27	-0.00
1.27	30.00	0.02	0.903	1.27	-0.00
4.19	20.00	0.02	1.627	4.18	-0.01
4.19	26.00	0.02	1.771	4.19	0.00
4.20	12.00	0.02	1.451	4.19	-0.00
4.20	6.00	0.01	1.319	4.19	-0.01
4.20	2.00	0.01	1.233	4.20	-0.01
4.20	30.00	0.02	1.875	4.20	-0.00
6.50	30.00	0.02	2.637	6.50	-0.00
6.51	26.00	0.02	2.487	6.52	0.01
6.53	20.00	0.02	2.268	6.52	-0.00
6.55	12.00	0.02	1.996	6.55	0.00
6.56	6.00	0.01	1.793	6.57	0.00
6.58	2.00	0.01	1.660	6.58	0.00

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

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)

