

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0387
CALIBRATION DATE: 23-Jan-08p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.5571

Boc = 0.0000

Voffset = -0.4952

TCor = -0.0015

PCor = 1.350e-04

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.31	26.00	0.01	0.923	1.30	-0.01
1.32	30.00	0.01	0.964	1.32	0.00
1.32	20.00	0.01	0.882	1.33	0.01
1.34	12.00	0.01	0.821	1.34	0.01
1.36	6.00	0.00	0.778	1.36	0.00
1.37	2.00	0.00	0.750	1.37	0.00
4.22	20.00	0.01	1.717	4.20	-0.02
4.22	26.00	0.01	1.879	4.20	-0.01
4.22	30.00	0.01	1.996	4.22	-0.00
4.24	12.00	0.01	1.527	4.25	0.01
4.27	6.00	0.00	1.384	4.27	0.00
4.29	2.00	0.00	1.291	4.27	-0.02
6.73	30.00	0.01	2.889	6.74	0.01
6.77	20.00	0.01	2.462	6.76	-0.01
6.79	26.00	0.01	2.728	6.78	-0.00
6.85	12.00	0.01	2.162	6.87	0.03
6.92	2.00	0.00	1.781	6.90	-0.02
6.93	6.00	0.00	1.940	6.94	0.02

$$\text{oxygen (ml/l)} = (\text{Soc} * (\text{V} + \text{Voffset})) * \exp(\text{Tcor} * \text{T}) * \text{Oxsat}(\text{T},\text{S}) * \exp(\text{Pcor} * \text{P})$$

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

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

