

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0463
CALIBRATION DATE: 16-Nov-06p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3422

Boc = 0.0000

Voffset = -0.4749

TCor = 0.0022

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)
1.23	2.00	0.00	0.847	1.24	0.01
1.23	6.00	0.00	0.887	1.24	0.01
1.25	12.00	0.01	0.949	1.26	0.01
1.27	20.00	0.01	1.030	1.26	-0.00
1.28	26.00	0.01	1.093	1.27	-0.01
1.30	30.00	0.01	1.142	1.29	-0.01
4.10	12.00	0.01	2.030	4.12	0.02
4.11	30.00	0.01	2.601	4.10	-0.01
4.11	6.00	0.00	1.838	4.11	0.00
4.11	26.00	0.01	2.472	4.10	-0.01
4.12	20.00	0.01	2.288	4.12	-0.00
4.13	2.00	0.00	1.713	4.11	-0.02
6.72	12.00	0.01	3.024	6.75	0.03
6.74	6.00	0.00	2.711	6.75	0.01
6.76	2.00	0.00	2.502	6.73	-0.03
6.78	20.00	0.01	3.463	6.79	0.01
6.81	30.00	0.01	4.002	6.81	-0.00
6.81	26.00	0.01	3.787	6.80	-0.01

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

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

