

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0185
CALIBRATION DATE: 19-Mar-05p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3190

Boc = 0.0000

Voffset = -0.6738

TCor = 0.0012

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)
1.40	30.00	0.01	1.471	1.39	-0.01
1.42	12.00	0.01	1.270	1.45	0.03
1.44	20.00	0.01	1.377	1.46	0.02
1.44	26.00	0.01	1.448	1.44	0.00
1.46	6.00	0.00	1.204	1.48	0.02
1.47	2.00	0.00	1.145	1.46	-0.01
4.18	30.00	0.01	3.040	4.13	-0.05
4.19	12.00	0.01	2.422	4.26	0.07
4.20	20.00	0.01	2.717	4.24	0.04
4.21	26.00	0.01	2.920	4.19	-0.02
4.26	6.00	0.00	2.201	4.27	0.01
4.28	2.00	0.00	2.031	4.19	-0.09
6.74	30.00	0.01	4.490	6.66	-0.08
6.74	12.00	0.01	3.484	6.85	0.11
6.79	6.00	0.00	3.117	6.83	0.04
6.85	2.00	0.00	2.850	6.72	-0.13
6.87	20.00	0.01	4.016	6.94	0.07
6.97	26.00	0.01	4.405	6.96	-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

