

SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0197
CALIBRATION DATE: 12-Nov-04p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.4525

Boc = 0.0000

Voffset = -0.4998

TCor = 0.0026

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)
1.36	12.05	0.01	0.896	1.39	0.03
1.41	6.00	0.00	0.855	1.42	0.01
1.44	20.00	0.01	0.981	1.46	0.02
1.46	2.00	0.00	0.828	1.44	-0.02
1.48	26.00	0.01	1.041	1.49	0.00
1.48	30.00	0.01	1.071	1.48	-0.01
4.13	12.06	0.01	1.695	4.20	0.07
4.15	30.00	0.01	2.090	4.11	-0.04
4.17	20.00	0.01	1.890	4.21	0.05
4.17	26.00	0.01	2.015	4.16	-0.01
4.20	6.00	0.00	1.554	4.22	0.02
4.25	2.00	0.00	1.448	4.17	-0.08
6.88	12.06	0.01	2.495	7.01	0.13
6.96	2.01	0.00	2.053	6.83	-0.14
6.99	6.01	0.00	2.254	7.02	0.03
6.99	20.01	0.01	2.834	7.07	0.08
7.22	26.00	0.01	3.122	7.20	-0.02
7.27	30.00	0.01	3.278	7.18	-0.09

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

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

