

# 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: 0387  
 CALIBRATION DATE: 03-Jan-07p

## SBE 43 OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 0.3717

Boc = 0.0000

Voffset = -0.4867

TCor = 0.0010

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)
1.26	2.00	0.00	0.835	1.26	-0.00
1.27	6.00	0.00	0.879	1.28	0.00
1.28	12.00	0.01	0.940	1.29	0.00
1.29	20.00	0.01	1.024	1.29	0.00
1.30	26.00	0.01	1.090	1.30	-0.00
1.32	30.00	0.01	1.139	1.32	0.00
4.10	2.00	0.00	1.623	4.09	-0.01
4.11	20.00	0.01	2.191	4.11	-0.00
4.11	6.00	0.00	1.751	4.12	0.01
4.12	12.00	0.01	1.942	4.13	0.01
4.14	26.00	0.01	2.397	4.13	-0.01
4.15	30.00	0.01	2.537	4.15	0.00
6.66	30.00	0.01	3.780	6.66	0.00
6.73	26.00	0.01	3.599	6.73	-0.00
6.78	20.00	0.01	3.297	6.77	-0.00
6.80	12.00	0.01	2.890	6.81	0.01
6.81	2.00	0.00	2.376	6.80	-0.01
6.86	6.00	0.00	2.596	6.87	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

