

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1685  
 CALIBRATION DATE: 21-Aug-09p

### SBE 43 OXYGEN CALIBRATION DATA

**COEFFICIENTS**

Soc = 0.4660  
 Voffset = -0.5115  
 Tau20 = 1.80

A = -2.5890e-003  
 B = 1.6399e-004  
 C = -3.3572e-006  
 E nominal = 0.036

**NOMINAL DYNAMIC COEFFICIENTS**

D1 = 1.92634e-4 H1 = -3.30000e-2  
 D2 = -4.64803e-2 H2 = 5.00000e+3  
 H3 = 1.45000e+3

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(VOLTS)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.25	2.00	0.00	0.790	1.25	0.00
1.26	6.00	0.00	0.825	1.26	0.00
1.27	12.00	0.00	0.877	1.27	0.00
1.27	20.00	0.00	0.944	1.27	-0.00
1.27	26.00	0.00	1.000	1.27	0.00
1.28	30.00	0.00	1.042	1.28	0.00
4.19	2.00	0.00	1.443	4.18	-0.01
4.21	20.00	0.00	1.948	4.20	-0.01
4.22	30.00	0.00	2.258	4.22	-0.00
4.22	6.00	0.00	1.561	4.21	-0.01
4.22	26.00	0.00	2.135	4.23	0.01
4.22	12.00	0.00	1.728	4.22	-0.00
6.57	30.00	0.00	3.232	6.57	-0.00
6.70	26.00	0.00	3.086	6.71	0.01
6.78	2.00	0.00	2.023	6.79	0.00
6.80	20.00	0.00	2.835	6.80	-0.00
6.81	12.00	0.00	2.475	6.81	0.00
6.81	6.00	0.00	2.207	6.81	0.01

Oxygen (ml/l) = Soc \* (V + Voffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* OxSol(T,S) \* exp(E \* P / K)  
 V = voltage output from SBE43, T = temperature [deg C], S = salinity [PSU] K = temperature [deg K]  
 OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

Date, Delta Ox (ml/l)

