

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0385  
 CALIBRATION DATE: 05-Jun-13

## SBE 43I OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 1.2027e-04 (adj)  
 Foffset = -3497.19  
 Tau20 = 3.32

A = -3.7215e-003  
 B = 1.8700e-004  
 C = -3.3158e-006  
 E measured = 0.0450

### NOMINAL DYNAMIC COEFFICIENTS

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

Note: Soc adjustment from single-point measurement 10-Jun-13

BATH OX (ml/l)	BATH TEMP ITS-90	BATH SAL PSU	INSTRUMENT OUTPUT(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.20	2.00	0.00	4568.42	1.20	-0.00
1.21	6.00	0.00	4709.55	1.21	0.00
1.22	12.00	0.00	4929.69	1.22	0.00
1.25	20.00	0.00	5232.40	1.25	0.00
1.25	26.00	0.00	5464.50	1.26	0.01
1.27	30.00	0.00	5648.82	1.28	0.01
4.07	2.00	0.00	7136.49	4.06	-0.01
4.09	6.00	0.00	7601.61	4.08	-0.00
4.11	12.00	0.00	8298.34	4.11	-0.00
4.16	26.00	0.00	9985.99	4.16	-0.00
4.18	30.00	0.00	10530.83	4.18	-0.00
4.20	20.00	0.00	9330.89	4.20	-0.00
6.49	30.00	0.00	14415.86	6.49	-0.00
6.54	26.00	0.00	13705.77	6.54	0.00
6.66	20.00	0.00	12749.10	6.66	-0.00
6.78	12.00	0.00	11431.98	6.79	0.00
6.93	6.00	0.00	10463.84	6.93	0.00
7.03	2.00	0.00	9801.55	7.04	0.00

Oxygen (ml/l) = Soc \* (F + Foffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* OxSol(T,S) \* exp(E \* P / K)  
 F = frequency output from SBE43I, 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

