

# SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 1329  
CALIBRATION DATE: 28-Mar-09p

## SBE 43 OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 0.3727

Voffset = -0.4991

Tau20 = 1.14

A = -1.8999e-003

B = 2.1263e-004

C = -3.7381e-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	0.845	1.24	-0.00
1.25	6.00	0.01	0.885	1.25	-0.00
1.25	12.00	0.01	0.943	1.25	-0.00
1.26	20.00	0.01	1.020	1.26	-0.00
1.26	26.00	0.02	1.079	1.26	0.00
1.26	30.00	0.02	1.119	1.26	0.00
4.12	30.00	0.02	2.524	4.12	0.00
4.14	6.00	0.01	1.779	4.14	-0.00
4.14	20.00	0.01	2.216	4.14	0.00
4.14	12.00	0.01	1.971	4.14	0.00
4.14	2.00	0.00	1.651	4.14	-0.00
4.14	26.00	0.02	2.405	4.15	0.00
6.48	30.00	0.02	3.681	6.48	-0.00
6.55	26.00	0.02	3.511	6.56	0.00
6.66	20.00	0.01	3.261	6.66	-0.00
6.67	12.00	0.01	2.869	6.67	-0.00
6.74	6.00	0.01	2.586	6.74	0.00
6.80	2.00	0.00	2.390	6.80	-0.00

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)

