

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: 0794
CALIBRATION DATE: 08-Jul-09p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3950

Voffset = -0.4872

Tau20 = 2.32

A = -3.1847e-003

B = 2.0455e-004

C = -3.1882e-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)
1.24	2.00	0.00	0.812	1.23	-0.00
1.24	6.00	0.00	0.853	1.24	-0.00
1.25	12.00	0.01	0.911	1.24	-0.01
1.26	20.00	0.01	0.989	1.25	-0.01
1.27	26.00	0.01	1.049	1.26	-0.01
1.28	30.00	0.01	1.092	1.27	-0.01
4.08	2.00	0.00	1.565	4.10	0.02
4.09	6.00	0.00	1.698	4.11	0.02
4.11	12.00	0.01	1.891	4.12	0.01
4.12	20.00	0.01	2.143	4.13	0.01
4.13	26.00	0.01	2.327	4.12	-0.00
4.14	30.00	0.01	2.466	4.14	0.00
6.67	30.00	0.01	3.673	6.67	0.00
6.76	20.00	0.01	3.199	6.77	0.00
6.77	26.00	0.01	3.506	6.77	-0.00
6.81	12.00	0.01	2.805	6.80	-0.00
6.88	6.00	0.00	2.509	6.87	-0.01
6.90	2.00	0.00	2.299	6.89	-0.01

Oxygen (ml/l) = Soc * (V + Voffset) * (1.0 + A * T + B * T² + C * T³) * 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)

