

SEA-BIRD ELECTRONICS, INC.

13431 NE 20th Street, Bellevue, Washington, 98005-2010 USA

Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0113
CALIBRATION DATE: 24-Dec-10p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3478

Voffset = -0.5851

Tau20 = 1.21

A = -1.9574e-003

B = 1.2648e-004

C = -1.9175e-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)
1.21	2.00	0.01	0.948	1.22	0.00
1.22	6.00	0.01	0.991	1.22	0.00
1.23	12.00	0.01	1.057	1.23	0.00
1.24	20.00	0.02	1.149	1.24	-0.00
1.25	26.00	0.02	1.218	1.25	-0.00
1.25	30.00	0.02	1.265	1.26	0.00
4.12	6.00	0.01	1.955	4.12	-0.00
4.14	2.00	0.01	1.818	4.14	-0.00
4.14	26.00	0.02	2.679	4.14	-0.00
4.14	30.00	0.02	2.829	4.14	-0.00
4.15	20.00	0.02	2.464	4.14	-0.01
4.16	12.00	0.01	2.181	4.15	-0.01
6.64	30.00	0.02	4.180	6.64	-0.00
6.77	26.00	0.02	4.012	6.77	0.01
6.77	12.00	0.01	3.189	6.77	0.00
6.80	20.00	0.02	3.670	6.80	0.00
6.81	2.00	0.01	2.614	6.81	-0.00
6.81	6.00	0.01	2.852	6.82	0.00

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)

