

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: 1628
CALIBRATION DATE: 01-Mar-11p

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.3820
Voffset = -0.4692
Tau20 = 1.16

A = -5.0251e-004
B = 1.3958e-004
C = -2.6924e-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)
1.23	2.00	0.05	0.804	1.24	0.00
1.24	6.00	0.05	0.841	1.24	0.00
1.24	12.00	0.05	0.897	1.24	0.00
1.25	20.00	0.05	0.971	1.25	0.00
1.26	26.00	0.05	1.029	1.25	-0.00
1.26	30.00	0.05	1.070	1.26	-0.00
4.16	26.00	0.05	2.322	4.15	-0.00
4.16	30.00	0.05	2.452	4.16	0.00
4.16	6.00	0.05	1.716	4.15	-0.01
4.16	20.00	0.05	2.139	4.16	-0.01
4.16	2.00	0.05	1.594	4.16	-0.01
4.16	12.00	0.05	1.899	4.16	-0.01
6.59	30.00	0.05	3.613	6.59	-0.00
6.62	12.00	0.05	2.748	6.62	0.00
6.63	26.00	0.05	3.429	6.63	0.01
6.63	6.00	0.05	2.463	6.64	0.01
6.64	20.00	0.05	3.138	6.64	-0.00
6.66	2.00	0.05	2.274	6.67	0.00

$$\text{Oxygen (ml/l)} = \text{Soc} * (\text{V} + \text{Voffset}) * (1.0 + \text{A} * \text{T} + \text{B} * \text{T}^2 + \text{C} * \text{T}^3) * \text{OxSol}(\text{T},\text{S}) * \exp(\text{E} * \text{P} / \text{K})$$

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)

