

Sea-Bird Electronics, Inc.

13431 NE 20th Street, Bellevue, WA 98005-2010 USA
 Phone: (+1) 425-643-9866 Fax (+1) 425-643-9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0463
 CALIBRATION DATE: 01-Mar-14

SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 0.5132

Voffset = -0.4848

Tau20 = 1.12

A = -2.8812e-003

B = 1.6112e-004

C = -2.9622e-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)
1.30	2.00	0.00	0.747	1.29	-0.00
1.30	12.00	0.00	0.826	1.30	-0.00
1.30	6.00	0.00	0.779	1.30	-0.00
1.31	20.00	0.00	0.893	1.31	0.00
1.31	26.00	0.00	0.944	1.31	0.00
1.33	30.00	0.00	0.986	1.33	0.01
4.03	6.00	0.00	1.398	4.03	-0.00
4.04	12.00	0.00	1.547	4.05	0.00
4.05	26.00	0.00	1.900	4.05	0.00
4.05	30.00	0.00	2.010	4.05	0.00
4.05	2.00	0.00	1.305	4.05	0.00
4.05	20.00	0.00	1.747	4.05	-0.00
6.78	26.00	0.00	2.853	6.78	-0.00
6.79	30.00	0.00	3.038	6.78	-0.00
6.82	20.00	0.00	2.609	6.82	-0.00
6.83	2.00	0.00	1.866	6.83	-0.00
6.83	12.00	0.00	2.278	6.83	0.00
6.85	6.00	0.00	2.036	6.85	-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 [Kelvin]

OxSol(T,S) = oxygen saturation [ml/l], P = pressure [dbar], Residual = instrument oxygen - bath oxygen

Date, Delta Ox (ml/l)

