

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1419

CALIBRATION DATE: 24-Apr-12

SBE 43 OXYGEN CALIBRATION DATA

## COEFFICIENTS

Soc = 0.4335

Voffset = -0.5059

Tau20 = 1.30

A = -2.3251e-003

B = 1.0226e-004

C = -1.4282e-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)
1.33	6.00	0.06	0.862	1.33	-0.00
1.33	2.00	0.06	0.824	1.33	-0.00
1.34	12.00	0.05	0.921	1.34	-0.00
1.35	20.00	0.05	1.004	1.35	-0.00
1.36	26.00	0.05	1.068	1.36	-0.00
1.37	30.00	0.05	1.112	1.37	0.00
4.28	2.00	0.06	1.532	4.29	0.01
4.31	6.00	0.06	1.660	4.31	0.01
4.31	12.00	0.05	1.845	4.31	0.00
4.34	20.00	0.05	2.106	4.34	0.00
4.37	26.00	0.05	2.311	4.37	0.00
4.38	30.00	0.05	2.449	4.38	0.00
7.08	30.00	0.06	3.644	7.08	-0.00
7.09	20.00	0.05	3.120	7.09	-0.00
7.12	12.00	0.05	2.718	7.12	-0.00
7.14	26.00	0.05	3.457	7.14	0.00
7.19	6.00	0.06	2.430	7.19	-0.00
7.26	2.00	0.06	2.244	7.26	-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)

