

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0904  
CALIBRATION DATE: 26-Nov-15

SBE 43 OXYGEN CALIBRATION DATA

## COEFFICIENTS:

Soc = 0.4625

Voffset = -0.4833

Tau20 = 1.35

A = -3.4182e-003

B = 1.7261e-004

C = -2.5189e-006

E nominal = 0.036

## NOMINAL DYNAMIC COEFFICIENTS

D1 = 1.92634e-4

D2 = -4.64803e-2

H1 = -3.300000e-2

H2 = 5.00000e+3

H3 = 1.45000e+3

BATH OXYGEN (ml/l)	BATH TEMPERATURE (° C)	BATH SALINITY (PSU)	INSTRUMENT OUTPUT (volts)	INSTRUMENT OXYGEN (ml/l)	RESIDUAL (ml/l)
1.15	6.00	0.00	0.772	1.15	-0.00
1.16	30.00	0.00	0.964	1.16	0.00
1.16	12.00	0.00	0.822	1.16	-0.00
1.16	20.00	0.00	0.884	1.16	-0.00
1.16	26.00	0.00	0.933	1.16	0.00
1.17	2.00	0.00	0.746	1.17	-0.00
3.93	6.00	0.00	1.474	3.93	0.00
3.93	30.00	0.00	2.116	3.93	0.00
3.94	2.00	0.00	1.368	3.93	-0.00
3.94	20.00	0.00	1.848	3.94	0.00
3.94	12.00	0.00	1.636	3.94	0.00
3.95	26.00	0.00	2.014	3.95	0.01
6.64	12.00	0.00	2.426	6.64	-0.01
6.65	26.00	0.00	3.059	6.65	0.00
6.68	30.00	0.00	3.256	6.68	-0.00
6.70	20.00	0.00	2.804	6.70	-0.00
6.70	2.00	0.00	1.989	6.70	-0.00
6.70	6.00	0.00	2.174	6.71	0.01

V = instrument output (volts); T = temperature (°C); S = salinity (PSU); K = temperature (°K)

Oxsol(T,S) = oxygen saturation (ml/l); P = pressure (dbar)

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)

Residual (ml/l) = instrument oxygen - bath oxygen

