

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0930  
CALIBRATION DATE: 11-Nov-16

SBE 43 OXYGEN CALIBRATION DATA

## COEFFICIENTS:

Soc = 0.4612

Voffset = -0.5100

Tau20 = 1.04

A = -5.4434e-003

B = 3.0175e-004

C = -4.2964e-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)
1.08	6.00	0.00	0.786	1.08	-0.00
1.09	2.00	0.00	0.756	1.09	0.00
1.10	12.00	0.00	0.836	1.10	0.00
1.13	20.00	0.00	0.904	1.13	0.00
1.15	26.00	0.00	0.956	1.15	0.00
1.16	30.00	0.00	0.991	1.16	0.00
3.86	6.00	0.00	1.493	3.86	-0.00
3.87	12.00	0.00	1.655	3.87	-0.00
3.87	2.00	0.00	1.387	3.88	0.00
3.92	20.00	0.00	1.876	3.92	-0.00
3.96	26.00	0.00	2.038	3.95	-0.01
4.00	30.00	0.00	2.161	4.00	-0.00
6.65	6.00	0.00	2.203	6.65	-0.00
6.66	2.00	0.00	2.016	6.66	0.00
6.66	12.00	0.00	2.482	6.66	0.00
6.70	20.00	0.00	2.848	6.71	0.00
6.77	26.00	0.00	3.131	6.77	0.00
6.80	30.00	0.00	3.321	6.80	0.00

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

