

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 1505  
CALIBRATION DATE: 22-Nov-16

SBE 43 OXYGEN CALIBRATION DATA

## COEFFICIENTS:

Soc = 0.4664

Voffset = -0.5153

Tau20 = 1.49

A = -3.9628e-003

B = 1.8060e-004

C = -2.3781e-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)
1.10	2.00	0.00	0.759	1.09	-0.00
1.10	12.00	0.00	0.836	1.10	-0.00
1.10	6.00	0.00	0.791	1.10	-0.00
1.12	20.00	0.00	0.903	1.12	-0.00
1.14	26.00	0.00	0.958	1.14	0.00
1.15	30.00	0.00	0.991	1.15	0.00
3.85	6.00	0.00	1.480	3.85	0.00
3.85	12.00	0.00	1.641	3.86	0.00
3.86	20.00	0.00	1.853	3.87	0.00
3.87	26.00	0.00	2.012	3.87	0.00
3.87	2.00	0.00	1.380	3.87	0.00
3.92	30.00	0.00	2.141	3.93	0.01
6.59	12.00	0.00	2.439	6.59	-0.00
6.59	20.00	0.00	2.797	6.59	-0.00
6.60	6.00	0.00	2.170	6.60	-0.00
6.61	26.00	0.00	3.067	6.60	-0.00
6.61	30.00	0.00	3.250	6.61	-0.00
6.63	2.00	0.00	1.995	6.63	-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

