

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0215  
CALIBRATION DATE: 25-Sep-13

## SBE 43F OXYGEN CALIBRATION DATA

### COEFFICIENTS

Soc = 3.0846e-004 (DI)  
Foffset = -811.56  
Tau20 = 1.20

A = -3.6459e-003  
B = 2.1298e-004  
C = -3.1999e-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(Hz)	INSTRUMENT OXYGEN(ml/l)	RESIDUAL (ml/l)
1.29	2.00	0.00	1245.07	1.29	-0.00
1.30	6.00	0.00	1303.65	1.30	-0.00
1.33	12.00	0.00	1391.84	1.32	-0.00
1.35	20.00	0.00	1506.67	1.35	-0.00
1.35	30.00	0.00	1646.45	1.36	0.00
1.36	26.00	0.00	1594.22	1.36	0.00
4.07	2.00	0.00	2183.62	4.07	0.00
4.08	6.00	0.00	2354.94	4.08	0.00
4.10	12.00	0.00	2605.57	4.10	-0.00
4.13	20.00	0.00	2946.05	4.13	0.00
4.17	30.00	0.00	3379.35	4.17	0.00
4.18	26.00	0.00	3217.32	4.18	0.01
6.85	2.00	0.00	3120.26	6.85	-0.00
6.86	6.00	0.00	3404.16	6.86	0.01
6.88	12.00	0.00	3821.52	6.87	-0.00
6.91	20.00	0.00	4380.07	6.91	0.00
6.95	26.00	0.00	4805.79	6.95	-0.00
7.00	30.00	0.00	5114.98	6.99	-0.00

Oxygen (ml/l) = Soc \* (F + Foffset) \* (1.0 + A \* T + B \* T<sup>2</sup> + C \* T<sup>3</sup>) \* OxSol(T,S) \* exp(E \* P / K)

F = frequency output from SBE43F, 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

