

SEA-BIRD ELECTRONICS, INC.

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SENSOR SERIAL NUMBER: 0086
CALIBRATION DATE: 30-Oct-09p

SBE 43F OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 2.1918e-004 (DI)
Foffset = -764.68
Tau20 = 1.42

A = -1.7807e-003
B = 1.9133e-004
C = -2.5508e-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)
1.24	2.00	0.00	1352.35	1.24	0.00
1.25	6.00	0.01	1422.92	1.25	0.00
1.25	12.00	0.01	1524.04	1.26	0.00
1.26	20.00	0.01	1650.90	1.26	0.00
1.27	26.00	0.01	1747.20	1.27	0.00
1.28	30.00	0.01	1819.04	1.28	0.00
4.18	2.00	0.00	2735.02	4.17	-0.01
4.19	6.00	0.01	2964.17	4.18	-0.01
4.19	20.00	0.01	3711.47	4.19	-0.00
4.20	26.00	0.01	4014.29	4.20	0.00
4.20	12.00	0.01	3296.71	4.19	-0.01
4.24	30.00	0.01	4250.35	4.24	0.00
6.60	30.00	0.01	6188.25	6.60	0.00
6.62	26.00	0.01	5888.31	6.62	-0.00
6.72	20.00	0.01	5487.54	6.72	0.00
6.77	12.00	0.01	4855.26	6.77	0.00
6.81	6.00	0.01	4348.92	6.81	0.00
6.85	2.00	0.00	4005.68	6.85	0.01

Oxygen (ml/l) = Soc * (F + Foffset) * (1.0 + A * T + B * T² + C * T³) * 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

