# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 0215
CALIBRATION DATE: 15-Oct-13

SBE 43F OXYGEN CALIBRATION DATA

COEFFICIENTS

Soc = 2.9484e-04 (adj)
Foffset = -812.18
Tau20 = 1.06

A = -2.9961e-003
B = 1.7048e-004
C = -2.3729e-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

Note: Soc adjustment from single-point measurement 17-Oct-13

| BATH OX (ml/l) | BATH TEMP ITS-90 | BATH SAL PSU | INSTRUMENT OUTPUT(Hz) | INSTRUMENT OXYGEN(ml/l) | RESIDUAL (ml/l) |
|---|---|---|---|---|---|
| 1.32 | 6.00 | 0.00 | 1338.84 | 1.32 | -0.00 |
| 1.32 | 2.00 | 0.00 | 1282.19 | 1.32 | -0.00 |
| 1.32 | 12.00 | 0.00 | 1422.54 | 1.32 | -0.00 |
| 1.35 | 20.00 | 0.00 | 1548.28 | 1.35 | -0.00 |
| 1.37 | 26.00 | 0.00 | 1647.36 | 1.38 | 0.00 |
| 1.38 | 30.00 | 0.00 | 1707.58 | 1.38 | 0.00 |
| 4.13 | 2.00 | 0.00 | 2286.77 | 4.13 | 0.00 |
| 4.14 | 6.00 | 0.00 | 2466.74 | 4.15 | 0.00 |
| 4.16 | 12.00 | 0.00 | 2738.12 | 4.16 | 0.00 |
| 4.20 | 20.00 | 0.00 | 3102.78 | 4.20 | -0.00 |
| 4.23 | 26.00 | 0.00 | 3385.80 | 4.24 | 0.00 |
| 4.26 | 30.00 | 0.00 | 3581.60 | 4.26 | 0.00 |
| 6.99 | 2.00 | 0.00 | 3304.48 | 6.99 | -0.00 |
| 7.00 | 12.00 | 0.00 | 4046.90 | 6.99 | -0.00 |
| 7.02 | 6.00 | 0.00 | 3616.17 | 7.03 | 0.00 |
| 7.05 | 20.00 | 0.00 | 4660.45 | 7.05 | -0.00 |
| 7.11 | 26.00 | 0.00 | 5131.12 | 7.11 | 0.00 |
| 7.16 | 30.00 | 0.00 | 5459.96 | 7.16 | -0.00 |

Oxygen (ml/l) = Soc * (F + Foffset) * (1.0 + A * T + B * $T^2$ + C * $T^3$) * 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

Date, Delta Ox (ml/l)



● 15-Oct-13 1.0000