Sea-Bird Scientific
13431 NE 20th Street
Bellevue, WA 98005
USA

+1 425-643-9866
seabird@seabird.com
www.seabird.com

SENSOR SERIAL NUMBER: 4625
CALIBRATION DATE: 16-Jul-26

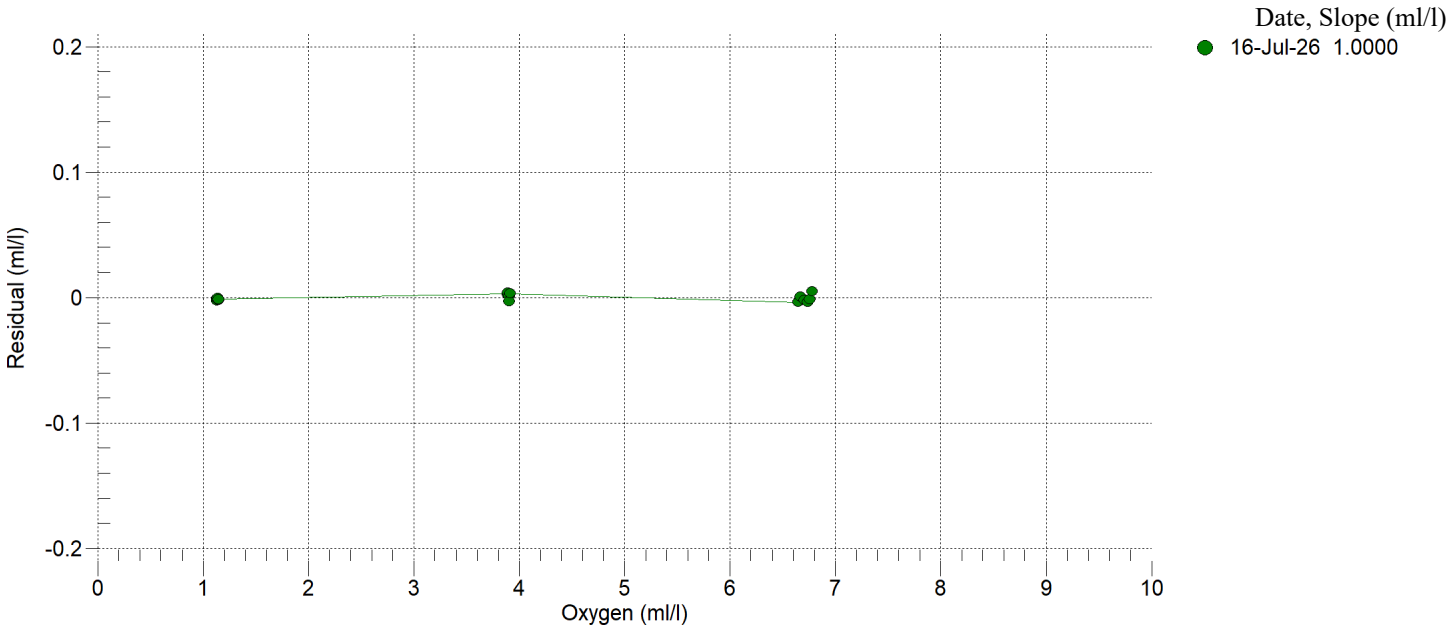
SBE 43 OXYGEN CALIBRATION DATA

COEFFICIENTS:
Soc = 0.4078
Voffset = -0.5129
Tau20 = 1.40
A = -2.9403e-03
B = 1.9506e-04
C = -2.9277e-06
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) |
|---|---|---|---|---|---|
| 1.13 | 20.00 | 0.00 | 0.950 | 1.13 | -0.00 |
| 1.14 | 12.00 | 0.00 | 0.886 | 1.13 | -0.00 |
| 1.14 | 2.00 | 0.00 | 0.803 | 1.14 | -0.00 |
| 1.14 | 6.00 | 0.00 | 0.838 | 1.14 | -0.00 |
| 1.14 | 26.00 | 0.00 | 1.004 | 1.14 | -0.00 |
| 1.15 | 30.00 | 0.00 | 1.040 | 1.15 | -0.00 |
| 3.89 | 12.00 | 0.00 | 1.795 | 3.89 | 0.00 |
| 3.89 | 6.00 | 0.00 | 1.622 | 3.89 | 0.00 |
| 3.89 | 2.00 | 0.00 | 1.506 | 3.90 | 0.00 |
| 3.91 | 26.00 | 0.00 | 2.194 | 3.91 | 0.00 |
| 3.91 | 20.00 | 0.00 | 2.024 | 3.90 | -0.00 |
| 3.92 | 30.00 | 0.00 | 2.315 | 3.92 | 0.00 |
| 6.65 | 2.00 | 0.00 | 2.206 | 6.65 | -0.00 |
| 6.67 | 6.00 | 0.00 | 2.412 | 6.67 | 0.00 |
| 6.71 | 12.00 | 0.00 | 2.722 | 6.71 | -0.00 |
| 6.74 | 30.00 | 0.00 | 3.609 | 6.73 | -0.00 |
| 6.76 | 20.00 | 0.00 | 3.129 | 6.76 | -0.00 |
| 6.78 | 26.00 | 0.00 | 3.433 | 6.79 | 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)

$$\text{Oxygen (ml/l)} = \text{Soc} * (V + \text{Voffset}) * (1.0 + A * T + B * T^2 + C * T^3) * \text{Oxsol}(T,S) * \exp(E * P / K)$$

Residual (ml/l) = instrument oxygen - bath oxygen