

# SEA-BIRD ELECTRONICS, INC.

1808 136th Place N.E., Bellevue, Washington, 98005 USA  
 Phone: (425) 643 - 9866 Fax (425) 643 - 9954 Email: seabird@seabird.com

SENSOR SERIAL NUMBER: 0475  
 CALIBRATION DATE: 30-May-07

SBE 37 TEMPERATURE CALIBRATION DATA  
 ITS-90 TEMPERATURE SCALE

## ITS-90 COEFFICIENTS

a0 = -5.225661e-005  
 a1 = 2.884481e-004  
 a2 = -3.450352e-006  
 a3 = 1.809788e-007

| BATH TEMP<br>(ITS-90) | INSTRUMENT<br>OUTPUT | INST TEMP<br>(ITS-90) | RESIDUAL<br>(ITS-90) |
|-----------------------|----------------------|-----------------------|----------------------|
| 1.0000                | 703584.9             | 1.0000                | 0.0000               |
| 4.5000                | 601513.6             | 4.5000                | -0.0000              |
| 15.0000               | 383215.6             | 15.0000               | -0.0000              |
| 18.4999               | 331779.7             | 18.5000               | 0.0001               |
| 24.0000               | 266105.4             | 23.9999               | -0.0001              |
| 29.0000               | 219070.4             | 29.0000               | 0.0000               |
| 32.5000               | 191816.8             | 32.5000               | 0.0000               |

Temperature ITS-90 =  $1/[a_0 + a_1[\ln(n)] + a_2[\ln^2(n)] + a_3[\ln^3(n)]] - 273.15$  (°C)

Residual = instrument temperature - bath temperature

