

# Sea-Bird Electronics, Inc.

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SENSOR SERIAL NUMBER: 3269  
CALIBRATION DATE: 17-Jan-17

SBE 21 CONDUCTIVITY CALIBRATION DATA  
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

## COEFFICIENTS:

g = -4.22016424e+000  
h = 4.97836808e-001  
i = -1.30382481e-004  
j = 3.22073361e-005

CPcor = -9.5700e-008 (nominal)  
CTcor = 3.2500e-006 (nominal)

| BATH TEMP<br>(° C) | BATH SAL<br>(PSU) | BATH COND<br>(S/m) | INSTRUMENT<br>OUTPUT (kHz) | INSTRUMENT<br>COND (S/m) | RESIDUAL<br>(S/m) |
|--------------------|-------------------|--------------------|----------------------------|--------------------------|-------------------|
| 22.0000            | 0.0000            | 0.00000            | 2.91184                    | 0.00000                  | 0.00000           |
| 1.0000             | 34.6661           | 2.96435            | 8.23834                    | 2.96435                  | 0.00001           |
| 4.5000             | 34.6461           | 3.27024            | 8.60113                    | 3.27024                  | -0.00001          |
| 15.0000            | 34.6031           | 4.24822            | 9.66882                    | 4.24822                  | 0.00000           |
| 18.5000            | 34.5937           | 4.59201            | 10.01668                   | 4.59202                  | 0.00001           |
| 24.0000            | 34.5832           | 5.14777            | 10.55428                   | 5.14776                  | -0.00001          |
| 29.0000            | 34.5766           | 5.66746            | 11.03280                   | 5.66746                  | 0.00000           |
| 32.5000            | 34.5723           | 6.03823            | 11.36151                   | 6.03816                  | -0.00007          |

f = Instrument Output (kHz)

t = temperature (°C); p = pressure (decibars);  $\delta$  = CTcor;  $\epsilon$  = CPcor;

Conductivity (S/m) =  $(g + h * f^2 + i * f^3 + j * f^4) / 10 (1 + \delta * t + \epsilon * p)$

Residual (Siemens/meter) = instrument conductivity - bath conductivity

