



Sea-Bird Scientific
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SENSOR SERIAL NUMBER: 9483
CALIBRATION DATE: 30-Apr-25

Slocum Payload CTD CONDUCTIVITY CALIBRATION DATA
PSS 1978: C(35,15,0) = 4.2914 Siemens/meter

COEFFICIENTS:

g = -9.897185e-01
h = 1.255625e-01
i = 2.256305e-03
j = -1.544738e-04

CPcor = -9.5700e-008
CTcor = 3.2500e-006
WBOTC = -1.2109e-07

| BATH TEMP (° C) | BATH SAL (PSU) | BATH COND (S/m) | INSTRUMENT OUTPUT (Hz) | INSTRUMENT COND (S/m) | RESIDUAL (S/m) |
|--------------------|-------------------|--------------------|---------------------------|--------------------------|-------------------|
| 22.0000 | 0.0000 | 0.00000 | 2752.84 | 0.00001 | 0.00001 |
| 1.0001 | 34.5672 | 2.95670 | 5441.68 | 2.95653 | -0.00017 |
| 4.4999 | 34.5477 | 3.26186 | 5645.98 | 3.26191 | 0.00005 |
| 14.9999 | 34.5063 | 4.23758 | 6254.53 | 4.23763 | 0.00005 |
| 18.5000 | 34.4974 | 4.58061 | 6455.55 | 4.58144 | 0.00084 |
| 24.0000 | 34.4871 | 5.13504 | 6766.36 | 5.13374 | -0.00130 |
| 29.0000 | 34.4806 | 5.65349 | 7047.09 | 5.65401 | 0.00052 |
| 32.5000 | 34.4757 | 6.02328 | 7245.96 | 6.03471 | 0.01143 |

$f = \text{Instrument Output(Hz)} * \text{sqrt}(1.0 + \text{WBOTC} * t) / 1000.0$

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

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

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

