Report of Test

This report is to certify that the instrument listed below has been calibrated by ***Thermo***Probe, Inc. to NIST traceable criteria.

Report No.: **2012-10-31 - 0024 CHANNEL 2**
Model: TL2

Unit SN: TL2-0024
Probe SN: AB3E29
Calibration Date: **10/31/2012**
Ambient Temp: 23ºC +/- 2ºC
Calibrated By: MS

Calibration Data As Found

New or Repaired Unit: No As Found data available

Calibration Data As Left

This device has been adjusted to read as closely as possible to actual temperature.
Tested temperatures and corrections are as follows:

Nominal Value		Actual Test Temp.		Reading of TL2		Correction		Tolerance		In Tolerance	Measurement Uncertainty	
º F	º C	º F	º C	º F	º C	º F	º C	º F	º C		º F	º C
-4	*-20*	**-4.009**	*-20.005*	**-3.986**	*-19.992*	**-0.023**	*-0.013*	**0.050**	*0.030*	Yes	**0.030**	*0.017*
32	*0*	**32.007**	*0.004*	**32.015**	*0.008*	**-0.008**	*-0.004*	**0.050**	*0.030*	Yes	**0.030**	*0.017*
120	*49*	**119.997**	*48.887*	**119.998**	*48.888*	**-0.001**	*-0.001*	**0.050**	*0.030*	Yes	**0.030**	*0.017*
199	*93*	**199.000**	*92.778*	**199.003**	*92.779*	**-0.003**	*-0.002*	**0.050**	*0.030*	Yes	**0.030**	*0.017*
300	*149*	**300.195**	*148.997*	**300.201**	*149.001*	**-0.006**	*-0.003*	**0.050**	*0.030*	Yes	**0.030**	*0.017*

Callendar Van Dusen Coefficients:

R0: 199.98 A: 3.91513E-03 B: -5.94034E-07 C: 0.00000E+00

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Test Method: The calibration procedures used were *ThermoProbe, Inc. Calibration Procedures* based on ASTM E-644-06. This probe was immersed in a constant temperature bath with a reference thermometer which determined the actual test temperature. The readings were compared and correction factors for the probe were calculated. The As Left readings reflect the TL2's readings after calibration

Nominal Temp		Bath	Fluid	Reference	Calibration Date	Next Calibration Due
(-)20.0º C	(-)4.0º F	Fluke 7340	water/glycol	TL1R - 6068	4/4/2012	4/4/2013
0.0º C	32.0º F	Fluke 7340	water/glycol	TL2 - 0016	4/4/2012	4/4/2013
48.9º C	120.0º F	PolyScience 8101	mineral oil	TL2-0008	7/19/2012	7/19/2013
92.8º C	199.0º F	Fluke 6330	mineral oil	Fluke 1502A - ASP WSP500	4/4/2012	4/4/2013
149.0º C	300.2º F	Fluke 6330	silicon oil	Fluke 1502A - ASP WSP500	7/19/2012	7/19/2013
290.0º C	554.0º F	Fluke 6330	silicon oil	Fluke 1502A - ASP WSP500	7/19/2012	7/19/2013

Traceability: This calibration is traceable to NIST through an unbroken chain of comparisons. IsoTech calibrated the references shown above using transfer standards which in turn were calibrated by their primary reference thermometer.

Uncertainty Statement: Uncertainties were computed using the concepts, methods and techniques of the ISO Guide to the Expression of Uncertainty in Measurement (the GUM). The calculated uncertainty is an expanded uncertainty (k=2). It does not consider errors due to possible damage to the TL2 from shipping, temperature drift, or thermal hysteresis effect. To maintain the accuracy of the TL2, users should take care to protect it during shipping, avoid using it to measure temperatures significantly above the highest calibrated temperature, and have the TL2 recalibrated annually.

Calibrator's Signature: _____

Test Results Approved by: _____

Title: _____

Date: **10/31/2012**