



## Missouri State Highway Patrol Calibration Certification for the Guth Laboratories 10-4D Simulator



The individual wet-bath simulator listed herein has been verified operating within specified parameters, in accordance with the MoDHSS State Public Health Laboratory Breath Alcohol Program's "Testing Requirements for the Recalibration of Simulators".

Simulator Inventory Number:	CD05382	Simulator Serial Number:	SD3150
Initial Low Temperature Reading:	N/A	<i>Data marked N/A at left indicates the simulator required no heater temperature adjustments. Refer to final readings.</i>	
Initial High Temperature Reading:	N/A		
Final Low Temperature Reading:	+34.011 °C	Simulator Thermometer Reading:	+34.000 °C
Final High Temperature Reading:	+34.028 °C	Correction (Bias):	0.018 °C
Temperature Variance:	0.017 °C		

*Note: A combined measurement uncertainty of  $\pm 0.04$  °C applies to final readings.*

Thermal validation was performed using 500mL of aqueous solution and allowed to stabilize to a target operating temperature of +34.00 degrees Celsius,  $\pm 0.2$  degree Celsius. The instrument used to confirm thermal performance has been calibrated against standards traceable to the National Institute of Standards and Technology (NIST), as indicated below.

NIST Traceable Thermometer:	Ertco-Eutechnics 4400 Digital Thermometer
Serial Number:	307715
Calibrated By:	Alpha Technics, 17151 Gillette Avenue, Irvine, CA 92614-5602
Certification Number:	307715081914
Certification Date:	08/19/2014
Expires:	08/19/2015

#### Other Control Data

AC Line Voltage:	118.2 VAC
Ambient Room Temp:	+20.6 °C

Certification Performed at:	GHQ Radio Shop
Certification Date:	02/03/2015
Certification Number:	420384087
Expires:	02/03/2016
Type II/Technician:	Chief Tech. D. D. Carver, C41