



Certificate / Report of Calibration

Customer:		NOAA/PMEL/OERD Seattle, WA 98115		SO Number:		16363																	
				RMA Number:		19709																	
Description:		Autosal		Certificate Number:		C16264																	
Manufacturer:		Guildline Instruments		Date received		21-Nov-2016																	
Model:		84008		Date of calibration		22-Dec-2016																	
Serial Number:		68807		Due date		22-Dec-2018																	
Certificate Number:		n/a		Procedure		18970.01.20_P																	
Issue Date:		03-Jan-17		Temperature		(22 ± 2) °C																	
Specification		18970-01-85_B OCT 13 2006		Relative humidity		(35 ± 20) %rH																	
Condition as received		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>In Good condition</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Out of Specification</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Physically Damaged</td><td style="text-align: center;"><input type="checkbox"/></td></tr> <tr><td>Defective</td><td style="text-align: center;"><input checked="" type="checkbox"/></td></tr> </table>		In Good condition	<input type="checkbox"/>	Out of Specification	<input type="checkbox"/>	Physically Damaged	<input type="checkbox"/>	Defective	<input checked="" type="checkbox"/>	Condition as returned		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>Within Specifications:</td><td style="text-align: center;"><input checked="" type="checkbox"/></td></tr> <tr><td>With adjustments</td><td style="text-align: center;"><input checked="" type="checkbox"/></td></tr> <tr><td>Repaired</td><td style="text-align: center;"><input checked="" type="checkbox"/></td></tr> <tr><td>With Limitations:</td><td style="text-align: center;"><input type="checkbox"/></td></tr> </table>		Within Specifications:	<input checked="" type="checkbox"/>	With adjustments	<input checked="" type="checkbox"/>	Repaired	<input checked="" type="checkbox"/>	With Limitations:	<input type="checkbox"/>
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<p>This instrument has been tested and calibrated in accordance with Guildline Calibration Services Quality System. The calibration is traceable to the International System of Units (SI). Measurement uncertainties are calculated in accordance with the method described in the ISO Guide to the Expression of Uncertainty in Measurement. The uncertainties are expanded with the necessary coverage factor for a level of confidence of approximately 95%, assuming a normal distribution. The results presented relate only to the item calibrated. The measured value and associated uncertainty apply only to the measurements made at the time under conditions specified and should not be interpreted as indicators for long term stability.</p>																							
Measurement Standards <table style="width: 100%;"> <tr> <td style="width: 50%;">GCS ID# / Description</td> <td style="width: 50%;">Due Date:</td> </tr> <tr> <td>TS1086 34401</td> <td>31-Oct-2017</td> </tr> <tr> <td>TS1031 9540 51215</td> <td>30-Mar-2017</td> </tr> <tr> <td>TS1062 1281 20765-6</td> <td>02-Jun-2018</td> </tr> <tr> <td colspan="2">P159, use by 15-Dec-2018</td> </tr> </table>				GCS ID# / Description	Due Date:	TS1086 34401	31-Oct-2017	TS1031 9540 51215	30-Mar-2017	TS1062 1281 20765-6	02-Jun-2018	P159, use by 15-Dec-2018		Note: <p>Guildline Instruments uses the guideline ILAC-G8:03/2009 for reporting compliance with specifications. Statements of compliance relate only to the metrological aspects off the specification at the measured points for the stated level of confidence, due allowance having being made for the uncertainty of the measurement.</p> <p>This calibration certificate may not be reproduced other than in full except with the permission of the issuing laboratory. Calibration Certificates without signature are not valid.</p>									
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Calibrated by: <u>Tim Preece</u> Tim Preece, Technologist				Authorized by: <u>Kai Malomy</u> Kai Malomy, Metrologist																			
Guildline Instruments Limited 21 Gilroy Street, Smiths Falls Ontario, Canada K7A 4S9 (613) 283-3000						Page No: 1 of 2																	



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REPAIR SUMMARY

Model: 8400B

Serial Number: 68807

FOR

NOAA/PMEL

FAULTS FOUND:

--Conductivity Cell was in poor condition.

WORK DONE:

- Reset all wired connections.
- Aligned and Calibrated per Guildline procedures

ATTACHMENTS:

-- Calibration certificate

COMMENTS:

Conductivity cell was cleaned.

Date: 23 Dec 2016


Guildline Instruments Limited