


ภาคผนวก ง

เอกสารการสอบเทียบเครื่องมือตรวจวิเคราะห์

[illegible]



EMISSION TEST RESULT

1

FORM 35

Client	OAF 19102 Co., Ltd.	Location	Nong
Site	Plot 2B	Test Operator	CHEN CHIA
Heat Type	NGN	Factory Type	LAB
NGN Producer	TAIPEI GAS CO., LTD.	NGN	NGN
NGN/NGN Producer Model	TAIPEI GAS CO., LTD. 10000	Sample No.	000
Working/Stopper Name	TAIPEI GAS CO., LTD. 10000	Sample No.	000

Time (min)	CO (ppm)	CO ₂ (%)	Heat (kW)	CO ₂ (ppm)	CO (ppm)	Remark
0:00	12.00	12.00	12.00	12.00	12.00	
0:05	12.00	12.00	12.00	12.00	12.00	
0:10	12.00	12.00	12.00	12.00	12.00	
0:15	12.00	12.00	12.00	12.00	12.00	
0:20	12.00	12.00	12.00	12.00	12.00	
0:25	12.00	12.00	12.00	12.00	12.00	
0:30	12.00	12.00	12.00	12.00	12.00	
0:35	12.00	12.00	12.00	12.00	12.00	
0:40	12.00	12.00	12.00	12.00	12.00	
0:45	12.00	12.00	12.00	12.00	12.00	
0:50	12.00	12.00	12.00	12.00	12.00	
0:55	12.00	12.00	12.00	12.00	12.00	
1:00	12.00	12.00	12.00	12.00	12.00	
1:05	12.00	12.00	12.00	12.00	12.00	
1:10	12.00	12.00	12.00	12.00	12.00	
1:15	12.00	12.00	12.00	12.00	12.00	
1:20	12.00	12.00	12.00	12.00	12.00	
1:25	12.00	12.00	12.00	12.00	12.00	
1:30	12.00	12.00	12.00	12.00	12.00	
1:35	12.00	12.00	12.00	12.00	12.00	
1:40	12.00	12.00	12.00	12.00	12.00	
1:45	12.00	12.00	12.00	12.00	12.00	
1:50	12.00	12.00	12.00	12.00	12.00	
1:55	12.00	12.00	12.00	12.00	12.00	
2:00	12.00	12.00	12.00	12.00	12.00	
2:05	12.00	12.00	12.00	12.00	12.00	
2:10	12.00	12.00	12.00	12.00	12.00	
2:15	12.00	12.00	12.00	12.00	12.00	
2:20	12.00	12.00	12.00	12.00	12.00	
2:25	12.00	12.00	12.00	12.00	12.00	
2:30	12.00	12.00	12.00	12.00	12.00	
2:35	12.00	12.00	12.00	12.00	12.00	
2:40	12.00	12.00	12.00	12.00	12.00	
2:45	12.00	12.00	12.00	12.00	12.00	
2:50	12.00	12.00	12.00	12.00	12.00	
2:55	12.00	12.00	12.00	12.00	12.00	
3:00	12.00	12.00	12.00	12.00	12.00	
3:05	12.00	12.00	12.00	12.00	12.00	
3:10	12.00	12.00	12.00	12.00	12.00	
3:15	12.00	12.00	12.00	12.00	12.00	
3:20	12.00	12.00	12.00	12.00	12.00	
3:25	12.00	12.00	12.00	12.00	12.00	
3:30	12.00	12.00	12.00	12.00	12.00	
3:35	12.00	12.00	12.00	12.00	12.00	
3:40	12.00	12.00	12.00	12.00	12.00	
3:45	12.00	12.00	12.00	12.00	12.00	
3:50	12.00	12.00	12.00	12.00	12.00	
3:55	12.00	12.00	12.00	12.00	12.00	
4:00	12.00	12.00	12.00	12.00	12.00	
4:05	12.00	12.00	12.00	12.00	12.00	
4:10	12.00	12.00	12.00	12.00	12.00	
4:15						

[illegible]

[illegible][illegible][illegible][illegible][illegible]

Airgas		Airgas (USA) Inc. 10000 W. 16th Ave. Denver, CO 80202 (303) 440-0000		
CERTIFICATE OF ANALYSIS Grade of Product: EPA PROFORM STANDARD				
Customer: Air Liquide 27000 Highway 125 Commerce Center U.S. Pharmacy - Inc. 10000 201 900-0000		Reference Number: 40-0000000-0-1 Lot: 1128 Sample Weight: 12.717003 Combination Date: Feb 11, 2010		
Expiration Date: Feb 11, 2010				
This certificate is valid only for the product and grade specified above. It is not valid for any other product or grade. It is not valid for any other use. It is not valid for any other purpose. It is not valid for any other reason.				
ANALYTICAL RESULTS				
Component	Assay Method	Result	Test Method	Unit
Carbon Dioxide <td>GC-MS <td>99.9999% <td>ASTM D1505 <td>%</td> </td></td></td>	GC-MS <td>99.9999% <td>ASTM D1505 <td>%</td> </td></td>	99.9999% <td>ASTM D1505 <td>%</td> </td>	ASTM D1505 <td>%</td>	%
Carbon Monoxide <td>GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td></td>	GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td>	0.0001% <td>ASTM D1505 <td>%</td> </td>	ASTM D1505 <td>%</td>	%
Acetylene <td>GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td></td>	GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td>	0.0001% <td>ASTM D1505 <td>%</td> </td>	ASTM D1505 <td>%</td>	%
Hydrogen <td>GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td></td>	GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td>	0.0001% <td>ASTM D1505 <td>%</td> </td>	ASTM D1505 <td>%</td>	%
Water <td>GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td></td>	GC-MS <td>0.0001% <td>ASTM D1505 <td>%</td> </td></td>	0.0001% <td>ASTM D1505 <td>%</td> </td>	ASTM D1505 <td>%</td>	%
VALUED ITEM INFORMATION				
Item	Lot #	Quantity	Unit Price	Expiration Date
Carbon Dioxide <td>1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td></td>	1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td>	10000 <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010
Carbon Monoxide <td>1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td></td>	1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td>	10000 <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010
Acetylene <td>1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td></td>	1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td>	10000 <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010
Hydrogen <td>1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td></td>	1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td>	10000 <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010
Water <td>1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td></td>	1128 <td>10000 <td>0.0001</td> <td>Feb 11, 2010</td> </td>	10000 <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010
ANALYTICAL HISTORY				
Analysis Method	Result	Unit Price	Expiration Date	
Carbon Dioxide <td>99.9999% <td>0.0001</td> <td>Feb 11, 2010</td> </td>	99.9999% <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010	
Carbon Monoxide <td>0.0001% <td>0.0001</td> <td>Feb 11, 2010</td> </td>	0.0001% <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010	
Acetylene <td>0.0001% <td>0.0001</td> <td>Feb 11, 2010</td> </td>	0.0001% <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010	
Hydrogen <td>0.0001% <td>0.0001</td> <td>Feb 11, 2010</td> </td>	0.0001% <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010	
Water <td>0.0001% <td>0.0001</td> <td>Feb 11, 2010</td> </td>	0.0001% <td>0.0001</td> <td>Feb 11, 2010</td>	0.0001	Feb 11, 2010	

		Airgas Specialty Gases Dept. Sales and Marketing, Attn: Robert Higgins			
<h2 style="margin: 0;">CERTIFICATE OF ANALYSIS</h2> <h3 style="margin: 0;">Grade of Product: AIR PROTOCOL STANDARD</h3>					
Customer:		AIR-GUARD (THANALOX LTD.) 10000 Highway 101 Unit 200 Richmond, BC V6V 1K6 Canada			
Part Number:	Q21827023	Reference Number:	101-00200002023-0		
Cylinder Number:	524 - Phenomenex PA	Cylinder Volume:	245.4 CF		
Lot/Inventory:	A13252	Cylinder Pressure:	2214 PSI@50		
PDP/PWT Number:	A13252	Order Number:	560		
Gas Order:	Q21827023	Combustion Order:	None 1/23		
Expiration Date: April 22, 2025 <small>Our products are warranted to conform to the specifications stated on the label. The actual gas composition may vary slightly from the stated composition due to normal manufacturing tolerances. The actual gas composition may vary slightly from the stated composition due to normal manufacturing tolerances. The actual gas composition may vary slightly from the stated composition due to normal manufacturing tolerances.</small>		Date of Analysis: April 22, 2023 <small>Our products are warranted to conform to the specifications stated on the label. The actual gas composition may vary slightly from the stated composition due to normal manufacturing tolerances. The actual gas composition may vary slightly from the stated composition due to normal manufacturing tolerances. The actual gas composition may vary slightly from the stated composition due to normal manufacturing tolerances.</small>			
<h3 style="margin: 0;">ANALYTICAL RESULTS</h3>					
Component	Quantitative	Actual Concentration	Units	Acceptance Specification	
Carbon Dioxide	Not Detected	Not Detected	ppm	≤ 10	
Carbon Monoxide	Not Detected	Not Detected	ppm	≤ 10	
Hydrogen	Not Detected	Not Detected	ppm	≤ 10	
<h3 style="margin: 0;">CALIBRATION STANDARDS</h3>					
Type	Lot #	Cylinder Size	Concentration	Uncertainty	Expiration Date
None	None	None	None	None	None
<h3 style="margin: 0;">ANALYTICAL EQUIPMENT</h3>					
Instrument/Model/Serial		Analysis Procedure	Lot/Lot Method Calibration		
None/None/None		None	None		
Total Gas Available Upon Request Net/Brk Gas Weight: 40.3 kg Net/Brk Gas Weight: 1.9 kg					



Airgas Specialty Gases
 Attn: Sales
 10000 Highway 10, Aliso Viejo
 CA 92656

CERTIFICATE OF ANALYSIS

Grade of Product: EPA FORMATION STANDARD

Customer:

AMT
 10000042
 CYLINDER LTD
 10000042
 Laboratory
 10000042
 P/Q/P Number
 Gas Code

Reference Number: 100-402700001-1

248.2 C
Cylinder Pressure
217.4 PSI
Valve Out
See 01, 2022

Expiration Date: Feb 28, 2023

For information only. This is not a contract. The actual product specifications are contained in the Airgas Product Specification Manual. The information on this certificate is for informational purposes only. The information on this certificate is for informational purposes only. The information on this certificate is for informational purposes only.

ANALYTICAL RESULTS					
Component	Desired Specification	Actual Concentration	Method	Test Number	Accept Status

CALIBRATION STANDARDS

Type	Lot #	Cylinder Size	Concentration	Uncertainty	Expiration Date


ANALYTICAL EQUIPMENT

Equipment Description	Last Calibration Calibration

Total Data Available Upon Request:

NET-10000042 **Weight:** 10.0 kg


Net Weight: 1.0 kg

<div>  <div> <div>CONSOLE CONTROL UNIT CALIBRATION TEST REPORT</div> </div> </div>									
Calibration of Date :		3 Jul 22		Barometric Pressure (mm.Hg) :		756.0			
Next Cal. Date :		3 Jan 23		Relative Humidity (%) :		62.0			
						Temperature :			
<u>Console Control Meter Data</u>				<u>Reference Dry Gas Meter Data</u>					
Calibration No. :		C-030722 BOK, F50536		Reference Dry Gas Meter ID. :		BOK, FS1122			
Dry Gas Meter No. :		BOK, F50536		Serial No. :		A2002240			
Serial No. :		1508054		Connection Factor (Y) :		1.0160			
Model No. :		SCXSE4		Next Calibration Date :		25 Dec 23			

Approved for Release

Approved for Release

Calibrated by: 
(Mr. Khamsen Khamphe)
Field Scientist(s)

Approved by: 
Mr. Samrat Hoo-riem
Specialist (I)

FORM NO. FWS/01 REVISIONS: 1 (ISSUE DATE: 2016)



Run No.	Time Actual (msec)	Time Reading (msec)	DR (ps)	DR (ps)
1	5:00:12	5:00	12	0.00020
2	5:00:12	5:00	12	0.00020
3	5:00:11	5:00	10	0.00017
4	5:00:12	5:00	12	0.00020
5	5:00:11	5:00	11	0.00016
6	5:00:12	5:00	10	0.00017
7	5:00:11	5:00	11	0.00016
8	5:00:12	5:00	10	0.00017
9	5:00:12	5:00	10	0.00017
10	5:00:12	5:00	11	0.00018
			Average	0.00018
			SD	0.00001



Pitot Tube Calibration Data

Type S Pilot Value Coefficient Data					
	Type s pilot value Log A/B	Standard pilot value (ΔP^* , mm Hg)	Type s pilot value (ΔP^* , mm Hg)	Cp (s) Log A	Cp (s) Log B
Test 1	A	12.00	16.60	0.842	-
	B	12.00	16.60	-	0.842
Test 2	A	12.00	16.60	0.842	-
	B	12.00	16.60	-	0.842
Test 3	A	12.00	16.60	0.842	-
	B	12.00	16.60	-	0.842
CP				0.842	0.842

Calibrated by:  Approved by: 
(Mr. Poojit Sunakhar) (Mr. Samrat Rao-nagar)
Field Scientist (I) Specialist (I)

ASAP NO. 7-16-035 REVISION NO. - 0000 DATE 07/10/07



Calibrated by:  (Mr. Prasad Sarathikan)
Field Scientist (S)
Approved by:  (Mr. Somani Ravi-nagar)
Specialist (I)
JERAM NO. 1 2004-0217 REVISION NO. 1 ISSUE DATE:

FORM NO. F 04-017 REVISION NO. 1 ISSUE DATE 2-15-01



Nucleo ID #	Nucleo Diameter (cm)			H ₂ L ₀	[H ₂ - L ₀] / L ₀
	D ₁	D ₂	D ₃		
1	0.315	0.315	0.315	0.000	0.395
2	0.475	0.475	0.475	0.000	0.475
3	0.635	0.635	0.635	0.000	0.635
4	0.790	0.790	0.790	0.000	0.790
5	0.950	0.950	0.950	0.000	0.950
6	1.110	1.110	1.110	0.000	1.110
7	1.270	1.270	1.270	0.000	1.270

A diagram of a circular measurement plane. The circle is divided into four quadrants by a horizontal line and a vertical line. The horizontal line is labeled D_2 at both ends. Below the circle, the text "MEASUREMENT PLANE" is written. A bracket on the left side of the circle indicates a measurement across the diameter.

Calibrated by: P. S. S. S. S. Approved by: M. S. S. S. S.
(Mr. Praveen Sankaran) Mr. Samant Rangan
Field Scientist (Q) Specialist (I)

JOURNAL: 7 06-026 REVISION NO: - ISSUE DATE: 4-15-01



Scatter plot showing the relationship between Oatd (mL/min) on the x-axis and I (EEM) on the y-axis. The x-axis ranges from 0.0 to 2.0, and the y-axis ranges from 0.0 to 65.4. Five data points are plotted, showing a strong positive linear correlation. A linear regression line is fitted to the data with the equation $y = 36.042x + 2.2222$.

Calibrated by: Singhania N. Approved by: N. Singhania
(Mr. Singhanian Nataraj) (Mr. Nagesh Nataraj)
Field Scientist(I) Kevika Field Coordinator Scientist

FORM NO. F04-072 REVISION NO.: ISSUE DATE: 14/03/23



Type S Pilot Tube Coefficient Data					
	Type-s pilot tube Log A/B	Standard pilot tube (A ² /m ² H ₂ O)	Type-s pilot tube (A ² /m ² H ₂ O)	Cp (S) Log A	Cp (S) Log B
Test 1	A	12.00	16.60	0.842	-
	B	12.00	16.60	-	0.842
Test 2	A	12.00	16.60	0.842	-
	B	12.00	16.60	-	0.842
Test 3	A	12.00	16.60	0.842	-
	B	12.00	16.60	-	0.842
		C _p	0.842	0.842	

Calibrated by:  Approved by: 
(Mr. Prasert Sunakhan) (Mr. Saman Roo-ngun)
Field Scientist (3) Specialist (1)

FORM NO. 1 (6-005) REVISED - JULY 1972 (7-70)



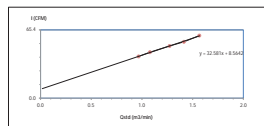
A scatter plot with a linear regression line. The x-axis is labeled 'Q10 (ms/min)' and ranges from 0.0 to 2.0. The y-axis is labeled 'I (STW)' and ranges from 0.0 to 65.4. There are 10 data points plotted, showing a clear positive linear correlation. A solid black line represents the linear regression fit. The equation for the line is displayed as $y = 22.388x + 7.662$.

Calibrated by: Sangtawan N. Approved by: W. Pong
(Mr. Sangtawan Nattak) (Mr. Noppong Pongpan)
Field Scientist(1) Envis Field Coordinator Scientist (2)

FORM NO. P-64-872 REVISION NO.- ISSUE DATE: 24/03/2014



Test No.	Delta H ₂ O (μm/s)	Q _{int} (m ³ /min)	I - Chart (CFM)	Linear Regression
1	2.4	0.9670	40	Slope: 32.5810
2	2.0	1.0797	44	Intercept: 8.5642
3	4.2	1.2725	50	Correlation Coefficient: 0.9987
4	5.2	1.4135	54	
5	6.4	1.5629	60	



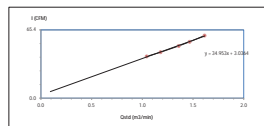
Calibrated by: Sungtawan N.
(Mr. Sungtawan Natsoo)
Field Scientist (I)

Approved by: N. Noppong
(Mr. Noppong Jantanasopha)
Entomology Coordinator Scientist (I)

FORM NO. F 64-072 SECTION NO. - ISSUE DATE: 14/03/94



Test No.	Delta H ₂ O (inch)	Q _{air} (m ³ /min)	I - Chart (CFM)	Linear Regression
1	2.8	1.0428	40	Slope: 34.9536 Intercept: 3.0264 Correlation Coefficient: 0.9980
2	2.6	1.1716	44	
3	4.8	1.2589	50	
4	5.6	1.4661	54	
5	6.8	1.6334	60	



Calibrated by: Sangtawan N.
(Mr.Sangtawan Natat)
Field Scientist (I)

Approved by: W. Pong
(Mr. Wutipong Juntanaporn)
Ecology Field Coordinator Scientist (II)

FORM NO. FOL-072 REVISION NO.: ISSUE DATE: 14/03/20






Factor	a	b	c	d	e	f	g	h
Stress concentration factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Stress concentration factor	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Symmetry: Yes, through center of hole. (2) Mirrored about y.
 Dimensions: 100 mm (width) x 100 mm (height) x 10 mm (thickness).

[illegible]

0000-0001-9111-1111

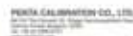





Figure 1: A rectangular box with a grid of 10 cells (2 rows by 5 columns). The top row contains cells 1 through 5, and the bottom row contains cells 6 through 10. The cells are arranged in a grid with dashed lines.

Figure 2: A circular diagram with 10 cells arranged in a ring. The cells are numbered 1 through 10 clockwise starting from the top. The cells are arranged in a ring with dashed lines.

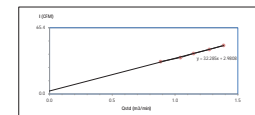
Student's name (S)		Student Number	
S		S Number	

Give the value of the following (S, S Number)

Order No	Coordinate of S	Interval	Order No	Coordinate of S	Interval	S
S	S	S	S	S	S	S
1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

 Springer

Test No.	Delta H ₂ (m/s)	Q _{max} (m ³ /min)	I Chart (C248)	Linear Regression
1	2.0	0.8949	32	Slope: 32.2847
2	2.0	1.6428	36	Intercept: 2.9808
3	3.4	1.1478	40	Correlation Coefficient: 0.9970
4	4.2	1.2725	44	
5	5.0	1.5843	48	



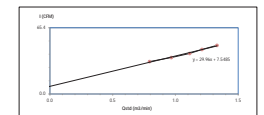
Calibrated by: Sangtawan N
(Mr Sangtawan Natsart)
Field Scientist (I)

Approved by: S. N. N.
(Mr. Supong (Santapan))
Review Field Coordinator, Scientist (II)

FORM NO. 1 (4-74) REVISION NO. 1 DATE 1-4/85/74



Test No.	Delta H ₂ O (g/gdwt)	Q _{max} (mg/gmwt)	1 / Char1 (CRM)	Linear Regression
1	1.6	0.7919	32	Slope : 28.9621
2	2.6	0.9679	36	Intercept : 7.5485
3	3.2	1.1333	60	Correlation Coefficient : 0.9940
4	3.8	1.2114	64	
5	4.6	1.3387	68	



Calibrated by:  Approved by: 
(Mr. Sangtawan Natasat) (Mr. Noppa Jantarap)
Field Scientist (I) Deputy Field Coordinator Scientist (II)

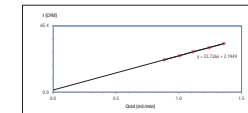
FORM NO. F 36-074 REVISED: 11-00 DATE: 11/01/00



Question:	KLP Marketing Group (Pharmaceuticals) Ltd. Pharmaceuticals Division Marketing Performance: War-Sau-Ling, Beijing (1995).	
Examined Content:	Questions: 2 (10 x 5 = 50) Answers: 2 (10 x 5 = 50) Average: 100%	Marked by: [Signature] Checked by: [Signature]
Comments Area:	KLP Marketing Group (Pharmaceuticals) Ltd. Pharmaceuticals Division Marketing Performance: War-Sau-Ling, Beijing (1995).	

[illegible]
$$\frac{p(\mathbf{h}|\mathbf{y})}{p(\mathbf{h})} = \frac{p(\mathbf{y}|\mathbf{h})}{p(\mathbf{y})}$$
[illegible]

Test No.	Delta H ₁ (J/mol)	Q _{max} (m ³ /m ² sec)	1 - Chart (J/m ²)	Linear Regression
1	2.0	0.0045	32	Slope : 23.7262
2	2.6	1.0056	36	Intercept : 2.1049
3	3.2	1.1133	40	Correlation Coefficient : 0.9997
4	4.0	1.2433	44	
5	4.6	1.3709	48	

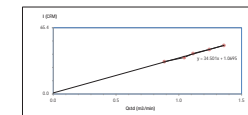


Calibrated by: Syafiqah P. Approved by: H. Noppeng
(Ms Syafiqah Natsari) (Mr. Noppeng Jantarapan)
Field Coordinator (1) Envoys Field Coordinator (2)

FORM NO.-F 66-075 RETURN NO.- ISSUE DATE-14/03/24



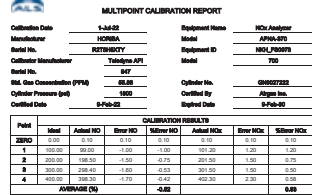
Test No.	DeltaH ₁₂ (J/mol)	Q _{max} (J/g _{dry} product)	F - Chart (J/g _{dry})	Linear Regression
1	2.0	0.0005	32	Slope : 34.5014 Intercept : 1.0605 Correlation Coefficient : 0.9952
2	2.0	1.0620	36	
3	3.2	1.1133	40	
4	6.0	1.2423	44	
5	6.8	1.3380	48	



Calibrated by: Sangtawan N
(Ms Sangtawan Natatan)
Field Scientist (1)


Approved by: Mr. Noppong Jantarapan
(Mr. Noppong Jantarapan)
Environ Field Coordinator Scientist (2)

FORM NO. F 66-074 REVISION NO. 1 DOW DATE: 11/01/94



MULTIPOINT CALIBRATION REPORT					
Collection Date	9-24-02	Equipment Name	NCL Analyzer		
Manufacturer	HORIBA	Model	APM-070		
Serial No.	M005093	Equipment ID	NCL_P00005		
Collection Manufacturer	Tektronix API	Model	700		
Serial No.	827	Cylinder No.			
Gas Concentration (ppm)	50.00	Operator	Allyssa Liu		
Original Pressure (psi)	1600	Calified By	Allyssa Liu		
Calified Date	8-Feb-02	Expire Date	3-Feb-03		



MULTIPOINT CALIBRATION REPORT				
	1-3-82	Reagent Name	KCE Analyzer	
Manufacturer	HORIBA	Model	APSA-871	
Serial No.	1000717	Equipment ID	BSC / 702778	
Cylinder Manufacturer	Tokubetsu API	700	700	
Serial No.	867	Cylinder No.	G19	
Gas Concentration (ppm)	40.3	Certified By	Alpine Inc.	
Cylinder Pressure (psi)	1850	Certified Date	8-Feb-82	
Certified Date	8-Feb-82			


CALIBRATION RESULTS				
Point	Total	Actual	Error	%Error
ZERO				
1	100.00	91.50	-8.50	-8.50
2	200.00	198.70	-1.30	-0.65
3	300.00	298.10	-1.90	-0.63
4	400.00	399.20	-0.80	-0.20
AVERAGE (%)				



MULTIPOINT CALIBRATION REPORT					
Collection Date	1-Jul-02		Expendment Name	NCS Analysis	
Manufacturer	HORIBA		Model	APNA-070	
Serial No.	080340		Expendment ID	NCS_F0004	
Collector Manufacturer	Toshima		Model	700	
Serial No.	947		Cylinder No.	000000000	
Calibration Pressure (PSI)	1500		Calibrated By	Allyson Hill	
Certified Date	0-Pub-02		Expiry Date	0-Pub-03	


Point	CALIBRATION RESULTS					
	Meas	Actual MD	Error MD	Actual NCS	Error NCS	Slr Error NCS
ZERO	0	0.10	0.10	0.00	0.10	0.10
1	1000.00	1000.00	-1.00	1001.30	1.30	1.30
2	2000.00	1998.50	-1.50	-0.75	2001.30	1.30
3	3000.00	2999.40	-0.60	-0.23	3001.30	1.40
4	4000.00	3999.20	-0.80	-0.40	4001.30	1.30
	AVERAGE (n)		-0.60			0.60



MULTIPOINT CALIBRATION REPORT			
	Date: 1-Jul-02		Equipment Name: 802 Analyzer
Manufacturer:	HORIBA	Model:	APM-070
Serial No.:	NA01448	Equipment ID:	8004_P00001
Technician:	Yoshitaka AFI	Model:	700
Serial No.:	567	Cylinder No.:	00000007
Gas Concentration (PPM):	1000	Cylinder By:	Aligas Inc.
Cylinder Pressure (psi):	1000	Expiry Date:	6-Feb-06
Certified Date:	2-Pub-02		

CALIBRATION RESULTS				
Point	Wtd	Actual	Error	Ratio
1 ZERO	0.00	0.10	0.10	0.99
2	100.00	99.80	-0.20	0.998
3	200.00	199.50	-0.50	0.9975
4	300.00	299.40	-0.60	0.998
5	400.00	397.40	-2.60	0.9935
AVERAGE (%)			-0.82	

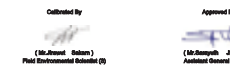


MULTIPOINT CALIBRATION REPORT				
	3-14-82		Employment Name	924 Jendrager
Manufacturer	HORMBA		Model	AFM-470
Serial No.	Y0050286		Equipment ID	9004_P02006
Calibrator Manufacturer	Yaleclima API		Model	760
Serial No.	847		Cylinder No.	00000257
Gas Concentration (PPM)	10.3		Calibrated By	Alfano Inc.
Original Pressure (psi)	1890		Reprint Date	6-14-80
Calified Date	3-14-82			

CALIBRATION RESULTS				
Point	Ideal	Actual	Error	Tolerance
1 ZERO	0.00	0.00	0.00	0.10
2	100.00	99.50	-1.20	-0.50
3	200.00	199.30	-1.10	-0.50
4	300.00	299.30	-1.70	-0.57
5	400.00	397.20	-3.80	-1.00
AVERAGE (%)				-0.49



MULTIPOINT CALIBRATION REPORT										
Calibration Date		1-13-92		Replacement Name		NJC Anderson				
Manufacturer		HONDA		Model		APV10-87				
Serial No.		HCW91386		Replacement ID		HSL/P26386				
Control Manufacturer		Mitsubishi API		Model		700				
Serial Number		947		Cylinder No.		H0000722				
IME, Fuel Consumption (g/kWh)		69.68		Certified By		Alagna Inc.				
Cylinder Pressure (psi)		1000		Installed Date		5-24-91				
Certified Date		5-24-91								
CALIBRATION RESULTS										
Point	Ideal	Actual HD	Error HD	Actual HC	Actual HCN	Error HCN	Actual HC	Error HC	Actual HCN	
1	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	200.00	198.00	-2.00	-0.75	201.00	1.00	1.30	0.30	0.05	
4	300.00	298.00	-2.00	-0.50	301.00	1.00	1.30	0.30	0.05	
5	400.00	398.00	-2.00	-0.50	401.00	1.00	1.30	0.30	0.05	
AVERAGE (N)				-0.48				0.88		



MULTIPOINT CALIBRATION REPORT			
Calibration Date	3-24-02	Equipment Name	BGS Analyzer
Manufacturer	ICMORA	Model	AP60-07
Model No.	BMF03-01	Equipment ID	MDL_F00005
Calibrator Manufacturer	Teknidyne API		700
Serial No.	785	Cylinder No.	000000000000
MS Gas Concentration (PPM)	99.9	Calibrated By	Allynn Kim
Cylinder Pressure (psi)	1800	Expiry Date	0-Feb-03
Calibrated Date	0-Feb-02		

CALIBRATION RESULTS				
Point	Ideal	Actual	Error	toller
ZERO	0	0.10	-0.10	0.10
	100.00	99.99	-1.00	1.20
	200.00	199.60	-1.40	0.70
4	500.00	499.30	-0.70	0.57
	1000.00	999.20	-0.80	0.57
AVERAGE (%)				

[illegible]

5. Local Results including the first range tested

Range	Accepted	Measured	Observed	Expanded
Temp	1.00	1.00	1.00	1.00

6. Over-range expansion

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

10. Final 1 expansion

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

10. Final 1 expansion

10. Final 1 expansion

Calibration Method:

The equipment is calibrated against the NIST 1013 Standard Reference Material (SRM). The SRM is a certified reference material (CRM) for the purpose of calibrating the equipment. The equipment is calibrated against the SRM by comparing the measured value with the certified value.

Location of the result of calibration:

Equipment	Temp	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00

1. The calibration is performed in accordance with the requirements of the calibration method. The calibration is performed in accordance with the requirements of the calibration method. The calibration is performed in accordance with the requirements of the calibration method.

10. Final 1 expansion

10. Final 1 expansion

5. Local Results including the first range tested

Range	Accepted	Measured	Observed	Expanded
Temp	1.00	1.00	1.00	1.00

6. Over-range expansion

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

11. Final 1 expansion

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

12. Final 1 expansion

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

10. Final 1 expansion

10. Final 1 expansion

5. Local Results including the first range tested

Range	Accepted	Measured	Observed	Expanded
Temp	1.00	1.00	1.00	1.00

6. Over-range expansion

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

The equipment is calibrated in accordance with the requirements of the calibration method. The calibration is performed in accordance with the requirements of the calibration method. The calibration is performed in accordance with the requirements of the calibration method.

10. Final 1 expansion

10. Final 1 expansion

Summary of Measurement Results:

Equipment	Temp	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00

10. Final 1 expansion

10. Final 1 expansion

5. Local Results including the first range tested

Range	Accepted	Measured	Observed	Expanded
Temp	1.00	1.00	1.00	1.00

10. Final 1 expansion

10. Final 1 expansion

Calibration Certificate

Equipment: 1013
Model: 1013
Serial No.: 1013
Ref No.: 1013

Location of the result of calibration:

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

The calibration is performed in accordance with the requirements of the calibration method. The calibration is performed in accordance with the requirements of the calibration method. The calibration is performed in accordance with the requirements of the calibration method.

10. Final 1 expansion

10. Final 1 expansion

Summary of Measurement Results:

Equipment	Temp	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00

10. Final 1 expansion

10. Final 1 expansion

5. Local Results including the first range tested

Range	Accepted	Measured	Observed	Expanded
Temp	1.00	1.00	1.00	1.00

6. Over-range expansion


Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

11. Final 1 expansion

Temp	Observed	Expanded	Observed	Expanded	Observed	Expanded
Temp	1.00	1.00	1.00	1.00	1.00	1.00

10. Final 1 expansion

10. Final 1 expansion




SCG

3303 Mue 3, T. Bantua, A-Nangchong, Samut Prakan 11110, Thailand.

Metrological Center

SCI (ECO Systems) Company Limited

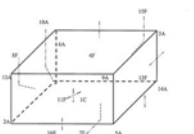


MTC
Metrological Testing Center
ISO 9001:2015

Certificate No. T2216444

Page 3 of 4


Calibration Report



C = Center, F = Center of Face, A = Corner, E = Center of Edge

IC	=	VN0101
JA	=	VN0102
KA	=	VN0103
LF	=	VN0104
LA	=	VN0105
GA	=	VN0106
TF	=	VN0107
GF	=	VN0108
HA	=	VN0109
HA	=	VN0110

IF	=	VN0111
IF	=	VN0112
IA	=	VN0113
IA	=	VN0114
IF	=	VN0115
IF	=	VN0116


 Approved By: _____

Measurement Results:

Collection Point	Average Standard of Reading at each position (°C)									
	YN101	YN102	YN103	YN104	YN105	YN106	YN107	YN108	YN109	YN110
2	2.71	2.82	2.75	2.89	2.88	2.88	3.00	2.98	3.00	2.80
	YN101	YN102	YN103	YN104	YN105	YN106	YN107	YN108	YN109	YN110
	2.87	3.00	2.89	3.00	2.97	3.01	3.01	3.01	3.01	3.01

Checker (Cell Room)		Temperature Distribution					Average	Stability (°C)	Uniformity (°C)	Consistency (°C)	Coverage
Setting (°C)	Reading (°C)	Min.	Max	Average	Stability (°C)	Uniformity (°C)					
2.0	2.5, 4.0	2.2	2.89	2.89	1.00	1.00	1.00	1.00	1.00	2.00	

* The general uncertainty includes "stability".
The calibration must apply only to the above calibrated item.
The result of use on the field instrument as shown on date and place of use only.
The reported expanded uncertainty is based on a combined uncertainty multiplied by a coverage factor k, which is a distribution, providing a level of confidence of approximately 95 %.

Approved By: [Signature]
PMA1310701-00-00

Certificate of Calibration

Equipment: Bench
Capacity: 50 mL
Serial No.:
ID No.: BXX_000701
Manufacturer: Wing
Made in: Germany
Submitted by: ALS Laboratory Group (Thailand) Co., Ltd.
104 Phrasathanakul Rd., Phrasathanakul Rd.
Klongkum Phrasathanakul, Thai Sam Luang
Bangkok 10250 Thailand
Ambient Temperature: (20 ± 0.5) °C
Relative Humidity: (50 ± 10) %
Barometric Pressure: 759.997 hPa
Calibration Procedure: ASTM E 542 - 01
Calibrated by: Parnon Parnon
Approved by: [Signature]
Approved Signature
Issue Date: 31 August 2023

The Uncertainty are for a confidence probability of approximately 95 %.
The certificate may not be reproduced after due to the scope of the report.

A 0044007

PENTA CALIBRATION CO., LTD.
333 Moo 3, T.Banpa, A.Kangthong, Bangkok 10110, Thailand

Certificate of Calibration

Equipment: Bench
Capacity: 50 mL
Serial No.:
ID No.: BXX_000701
Manufacturer: Wing
Made in: Germany
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Issue Date: 31 August 2023

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SCG Metrological Center
SCI ECO Services Company Limited
333 Moo 3, T.Banpa, A.Kangthong, Bangkok 10110, Thailand

Certificate of Calibration

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Serial No.:
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Calibrated by: Parnon Parnon
Approved by: [Signature]
Approved Signature
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SCG Metrological Center
SCI ECO Services Company Limited
333 Moo 3, T.Banpa, A.Kangthong, Bangkok 10110, Thailand


Certificate of Calibration

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SCG Metrological Center
SCI ECO Services Company Limited
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Certificate of Calibration

Equipment: Bench
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ID No.: BXX_000701
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Barometric Pressure: 759.997 hPa
Calibration Procedure: ASTM E 542 - 01
Calibrated by: Parnon Parnon
Approved by: [Signature]
Approved Signature
Issue Date: 31 August 2023



Barco Scientific Co., Ltd.
 1800 Yousong Building, P.O. Box 107
 Yongsong, Seoul 150-740, Korea
 Tel: 02-4338-0100 Fax: 02-4338-0120
 E-mail: barco@barco.co.kr

Certificate of Calibration

Certificate No. BSCC-WV-0102

Calibration Result:

1. Wavelength Accuracy

Number of Pages: 2 of 2

Certificate Wavelength (nm)	NIST (nm)	Error (nm)	Uncertainty (nm)
379.70	379.65	-0.05	0.10
393.42	393.30	-0.10	0.10
474.51	474.40	-0.11	0.10
577.98	577.90	-0.08	0.10
879.41	879.17	-0.24	0.10

2. Photometric Accuracy (nm)

Wavelength (nm)	Certificate Absorbance (AU)	NIST (AU)	Error (AU)	Uncertainty (AU)
220	0.0000	0.0000	0.0000	0.0015
	0.1747	0.1741	-0.0006	0.0015
	0.0000	0.0000	0.0000	0.0015
267	0.0002	0.0004	0.0002	0.0015
	0.0000	0.0000	0.0000	0.0015
313	0.0004	0.0011	0.0007	0.0015
	0.0000	0.0000	0.0000	0.0015
360	0.0029	0.0028	-0.0001	0.0015

*** Customer not request

The above results are only valid under the calibration conditions as mentioned in this report. Calibration. Authority of the Report: Calibration and analysis of the results are performed and only that not mentioned except in the above and other pages of the report are guaranteed. Barco Scientific Co., Ltd.

BSC Scientific Co., Ltd.
 1001-1003 3rd Floor, Beijing Yizhuo Technology Center
 100004 Beijing, P.R. China
 Tel: 010-63043646 Fax: 010-63043672

Certificate of Calibration

Certificate No. BSCOC-CP-00132

Number of Page(s) 2 of 2

Calibration Results

1. Photometric Analyzer (721N2)

Wavelength (nm)	Control absorbance (A)	UV-C (A)	Error (A)	Uncertainty (A)
402.0	0.0000	0.0000	0.0000	0.0004
	0.1700	0.1717	0.0017	0.0004
	0.7000	0.7000	0.0007	0.0004
	1.0000	1.0000	0.0007	0.0004
460.0	0.0000	0.0000	0.0000	0.0004
	0.0600	0.0610	0.0010	0.0004
	0.3000	0.3010	0.0010	0.0004
	1.0000	1.0000	0.0000	0.0004
480.0	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
546.1	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
589.0	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
680.0	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004
	0.0000	0.0000	0.0000	0.0004

UV-C = Calibration

4. Signing Page

Standard	Unit Under Calibration (SU/C)		
	Control Value	Wavelength (nm)	Transmittance (T%) / Absorbance (A)
	0.0000	402.0	0.0000

The Day/Date Transmittance tolerance is less than 1.0/0.7 and Day/Date Absorbance tolerance is greater than 0.004. Wavelength Unit and UV-C (nm) Assured.

The measurement results are in a standard uncertainty format by a coverage factor k=2 providing an overall expanded uncertainty of approximately 95%.

"End of Certificate"

The above results are the results of the calibration. The results are not valid for the subsequent calibrations. Altering the Report, Certificate and validity of the results are prohibited and will not be represented. Copyright © by BSC, without written approval of BSC Scientific Co., Ltd.

		Revision: <u>01/01/2017</u>	
		Drawn By: <u> </u>	
		Approved By: <u> </u>	
		Approved Date: <u>20/01/2017</u>	
<p align="center">Certificate of Calibration</p> <p align="center">ICS-2100: Anion (ID#018)</p> <p align="center">This certificate is to certify that measurement below are calibrated</p> <p align="center">by <u> </u> on <u> </u></p>			
<p align="center">ICS-2100 1/1% 12018077</p> <p align="center">AG-01 1/1% 140180805</p>			
<p align="center">For</p> <p align="center">ALS Laboratory Group (Thailand) Co., Ltd.</p>			
			
Signature Operator: <u> </u>		Date: <u>20-01-2017</u>	
<p align="center">(30% Uncertainty Percentage)</p> <p align="center">Applicable Standard:</p>			

[illegible][illegible]

 Meteorological Center SCG 2020 International Training Institute	
351/20th F, 20th St, Bangkok, Thailand 10110 Phone: +66 2 206 1177-8 Fax: +66 2 206 1176 Website: www.scgcenter.com E-Mail: scgcenter@scg.com	
(Certificate No. T10000000) Training on Radiosound Balloon System (2020) Page 1 of 1	
Certificate of Calibration	
Engineers	1. Wijitnan Eak
Observations	2. Environmental Factors
Model	3. 763000
Serial No.	4. 201710100101
Calibration Code	5. W05_210023
SR No.	6. 1077004
Comments	7. ASD Laboratory Group (Thailand) Co., Ltd.
ASD (Thailand) Co., Ltd. (Head Office), 61/100-101 Sukhumvit Road, 10110 Sukhumvit 10, Bangkok, Thailand	
Customer Location	8. WIA (Company) Ltd
Date of Receipt	9. 28 January 2022
Calibration by	10. Wachayaporn Jaengjai (Thailand)
Approved by	11.  Wajitnan Eak (Site Calibration Manager)
Date of Issue	12. 11 Feb 2022

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Date: November 25, 2021 1:12:28 PM
System ID: 00610
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Date: November 23, 2021 1:10:20 PM
System ID: 006-10
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Purpose

This section describes the as found system configuration.

Details	
System	
System ID	GM-10
Manufacturer	Agilent Technologies
Name	78950
Flow Data Input	Manual Data
Temperature Data Input	Manual Data or Other Data Logging
Tested Configuration	
Injection Technique	Injection Tower
Inlet	Front
Detector	External
LTM Included?	No
Sample 1	
Manufacturer	Agilent Technologies
Type	Injection Tower
Name	7895A
Model Number	6413A
Serial Number	CN180003
Firmware Revision	A1.03
Use	Sample Injection
Location	Front
Syringe Volume (µL)	10

Purpose

This signature page was created and published because the ACE sign-off action was executed, which is valid for the entire document, including attachments. The ACE sign-off is an electronic signature that requires two distinct certification components: unique username and personal password. This Agilent representative who has delivered this service understands the meaning and legal status of an electronic signature. As a trained official person, the Agilent representative has a unique password and login to access ACE and electronically sign this document. (Other e-signatures can be applied to this document using a Document Content Management or other suitable method defined in your data access and control procedures.)

Details	
Full Name of Signer:	Jaruwat Channarong
Logged On User Name:	jaruwat.channarong@agilent.com
Signature Creation Date:	November 23, 2021
Reason for Signature:	Executed protocol and published this original version of document

This document provides a protocol to verify and record instrument configuration and evidence of proper operation. It has been prepared from our interpretation of applicable regulations as well as industry best practices. The document is designed to provide an important component of a complete compliance package. Validation depends upon many factors and use of this protocol alone does not assure compliance. Agilent Technologies makes no promises or representations as to its sufficiency for any specific regulatory program.

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DKSH Calibration Report

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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DKSH Calibration Report

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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METTLER TOLEDO Calibration Certificate

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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METTLER TOLEDO Calibration Report

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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METTLER TOLEDO Calibration Report

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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METTLER TOLEDO Performance Test

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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Agilent CrossLab Equipment Qualification Report

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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Agilent CrossLab Equipment Qualification Report

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

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Agilent CrossLab Equipment Qualification Report

Customer Details

Product/Service

Measurement Results

Uncertainty

Signature

Page 1 of 2

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Agilent CrossLab Compliance Services

Service Details

Purpose

This section includes test content and delivery details for this service.

General Details

Service Order No./Request: K000037164

ISIP Name: AgilentRecommended

ISIP Revision: CPMS-02.00

Report Type: Report

Organization Details

Name: ALS Laboratory Group (Thailand) Co., Ltd.

Location: 104 Phrasumwan 41, Suan Luang, Bangkok 10200

Local Contact Details

Name: Chatchanon Kongsakul

Job Title: Manager

Qualification Location: Laboratory

Operator Details

Name: Pinyakij Kongsakul

Job Title: Field Service Engineer

Data Acquisition Details

Acquisition Software Name: MassHunter

Acquisition Software Revision: G.01.04

Customer Data System (CDS): Agilent MassHunter

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Agilent CrossLab Compliance Services

Calculation Formulas

Purpose

This section includes calculation formulas for all available tests. Depending upon which tests are scheduled, all or some apply to your qualification.

For a description of calculations for CPMS test performed by the MassHunter software, refer to the MassHunter application and documentation.

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Agilent CrossLab Compliance Services

Integrated Sample Introduction System (ISIS) Check

Purpose

This test demonstrates that the ISIS module is correctly installed and connected. It does not test module performance.

Subject

Results

Criteria

After the self test, is probe in the home position?

Observed Result

Expected Result

Status

Yes

No

Pass

Fail

Request Status

Pass

Overall Integrated Sample Introduction System (ISIS) Check Test Status

Pass

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Agilent CrossLab Compliance Services

Instrument Details

Purpose

This section describes the as-found system configuration.

Details

CPMS 1

Manufacturer: Agilent Technologies

Name: 3903

Model Number: G5400A

Installed Options: #1000 Standard Package with hydrogen uptake

Detector Type: MS

Injection: MicroMist (G5911)

Spray Chamber: G5916

Trunk: G5916

Bumping Cone: 40

Blowdown Cone: 40

Serial Number: JP1047100

Processor Revision: G.01.04

MS 1

Manufacturer: Agilent Technologies

Name: 8951

Model Number: G5071A

Type: Portable pump system

Serial Number: JP1001001

Autosampler 1

Manufacturer: Agilent Technologies

Name: 8954

Model Number: G5071A

Serial Number: A01040002

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Protocol Details

Purpose

This section lists the modules for all test units used in this report. For complete test specific and highest-level details, refer to the Revision History document.

Test Number

Test

CPMS-02.00

20-Minute Stability (No Gas Mode)

CPMS-02.00

Autosampler Check

CPMS-02.00

Airline

CPMS-02.00

Background (One Method)

CPMS-02.00

Background (No Gas Mode)

CPMS-02.00

Integrated Sample Introduction System (ISIS) Check

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Agilent CrossLab Compliance Services

Autotune

Purpose

This test uses flexible procedural standards to test a software-estimated autotune in all modules. The test report provides values for peak width, mass accuracy, sensitivity, scan speed, and study-charged spectrum tests.

Subject

Results

Parameter Mass 7

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Parameter Mass 99

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Parameter Mass 200

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Mass Acc 7

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Mass Acc 99

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Mass Acc 200

Agilent Recommended

Observed Result

Expected Result

Status

Pass

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Agilent CrossLab Compliance Services

Order 1

Manufacturer: Agilent Technologies

Name: Order

Model Number: G5000A

Serial Number: 301010110

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Agilent CrossLab Compliance Services

Autosampler Check

Purpose

This test demonstrates that the autosampler module is correctly installed and connected. It does not test module performance.

Subject

Results

Criteria

After the self test, is probe in the home position?

Observed Result

Expected Result

Status

Yes

No

Pass

Fail

Request Status

Pass

Overall Autosampler Check Test Status

Pass

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Agilent CrossLab Compliance Services

Autotune

Purpose

This test uses flexible procedural standards to test a software-estimated autotune in all modules. The test report provides values for peak width, mass accuracy, sensitivity, scan speed, and study-charged spectrum tests.

Subject

Results

Parameter Mass 7

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Parameter Mass 99

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Parameter Mass 200

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Mass Acc 7

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Mass Acc 99

Agilent Recommended

Observed Result

Expected Result

Status

Pass

Mass Acc 200

Agilent Recommended

Observed Result

Expected Result

Status

Pass

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Serial:			
Document Name:		Operator's training certificate and qualifications	
<div style="text-align: center;">  Agile Technologies </div>			
Course Name:		Keynote: Requirements	
File ID/Class:		4051 (3-2008) 2-008 A, Agile 100 (20-00) Agile Properties Training	
Completion Date:		November 1, 2017	
Issued By/Company:		Learning & Agile	
<p><i>Agile Technologies and Agile Training Institute are the following quality institutions:</i></p> <p> a member of the Bureau of Higher Learning and is also a member of Agile Technologies, a fully accredited and highly recognized institution offering quality and relevant training to students in the field of Agile Technologies, a fully accredited and highly recognized institution offering quality and relevant training to students in the field of Agile Technologies, a fully accredited and highly recognized institution offering quality and relevant training to students in the field of Agile Technologies, a fully accredited and highly recognized institution </p>			

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Document Name: Instrument's Test Report

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Date: September 15, 2007 9:50:41 PM
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System ID: 971001000

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Certificate of Calibration

Form No. 01/0017
Page: 1 of 1

Equipment: Scale 5kg
Manufacturer: Mettler
Model: ME50
Serial No.: 12345678
Calibrated by: [Signature]
Location: [Blank]
Calibration Date: 01/01/2024
Calibration Interval: 12 Months
Calibration Result: 5.0000 kg
Accepted by: [Signature]
Remarks: [Blank]
Next Date: 01/01/2025

The instrument is calibrated according to the requirements of the relevant standards and is found to be in good condition.

Certificate of Calibration

Form No. 01/0017
Page: 1 of 1

Equipment: Scale 5kg
Manufacturer: Mettler
Model: ME50
Serial No.: 12345678
Calibrated by: [Signature]
Location: [Blank]
Calibration Date: 01/01/2024
Calibration Interval: 12 Months
Calibration Result: 5.0000 kg
Accepted by: [Signature]
Remarks: [Blank]
Next Date: 01/01/2025

The instrument is calibrated according to the requirements of the relevant standards and is found to be in good condition.

Certificate of Calibration

Form No. 01/0017
Page: 1 of 1

Equipment: Scale 5kg
Manufacturer: Mettler
Model: ME50
Serial No.: 12345678
Calibrated by: [Signature]
Location: [Blank]
Calibration Date: 01/01/2024
Calibration Interval: 12 Months
Calibration Result: 5.0000 kg
Accepted by: [Signature]
Remarks: [Blank]
Next Date: 01/01/2025

The instrument is calibrated according to the requirements of the relevant standards and is found to be in good condition.