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**Certificate of Analysis**

**Customer**

CMI Calibration Laboratory, CMI Inc.  
316 East Ninth Street, Owensboro, KY 42303

**Item Description**

Ethanol Dry Gas Standard (Ethanol in Nitrogen)

**Target Value**

0.080 BAC

**Lot Number**

01315080A3

**Manufacture Date**

January 13, 2015

**Expiration Date**

February 5, 2017

**Analysis Type/Test Method**

NDIR/DMT-1

**Lot Average (ppm/BAC)**

212.0/0.081

**Lot Measurement of  
Uncertainty [ $\pm$  ppm/BAC]**

4.7/0.0018

<b><u>NTRM Information</u></b>	
Batch#	09130202
Serial#	CC14290
Reported NIST Value (ppm)	212.8

*Jacob Matthey*  
Specialty Gas Analytical Lab Technician  
ILMO Products Company

01/21/15  
Date

\* The stated expanded uncertainty was determined from the combined uncertainty associated with the following: calibration standard, equipment accuracy, repeatability and random variability (instrument readability).

The uncertainty is expressed as  $U = ku$ , where  $u$  is the combined standard uncertainty and the coverage factor  $k$  is equal to 2, yielding a level of confidence of approximately 95%.

\* The results on this report relate only to the items tested in the group of cylinders designated by the 'Lot Number' field.

**SUPERVISOR TEST**

Alaska Department of Public Safety  
 DATAMASTER dmt: 100362

Date: 03/09/2015  
 Time: 10:10:49

SUPERVISOR NAME:  
 BRANDI BARNETT  
 OPERATOR'S #: 7038

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.81: 0.080  
 TANK PRESSURE: 1059 psi

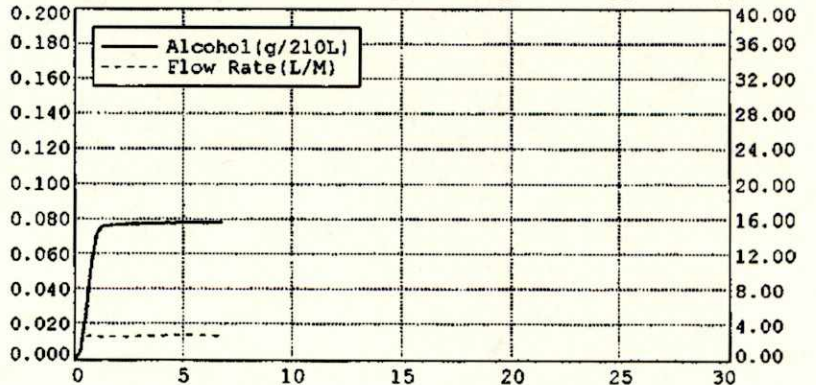
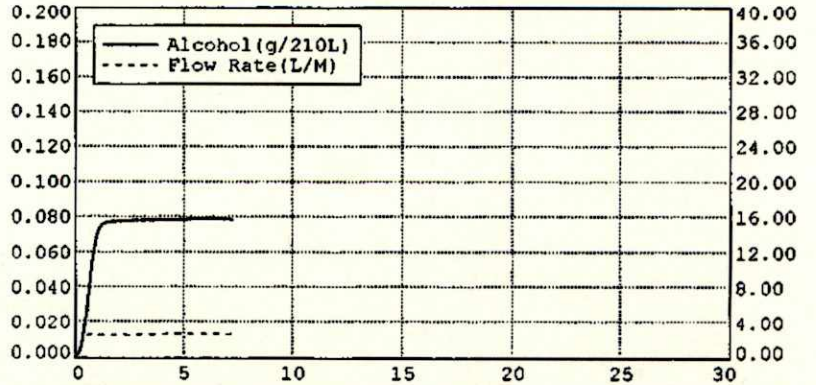
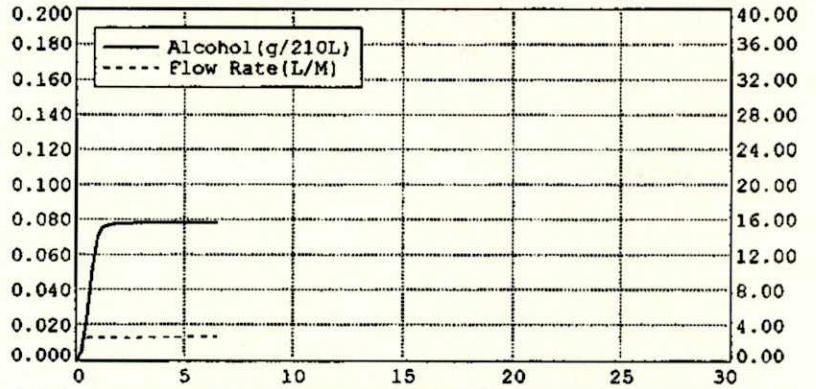
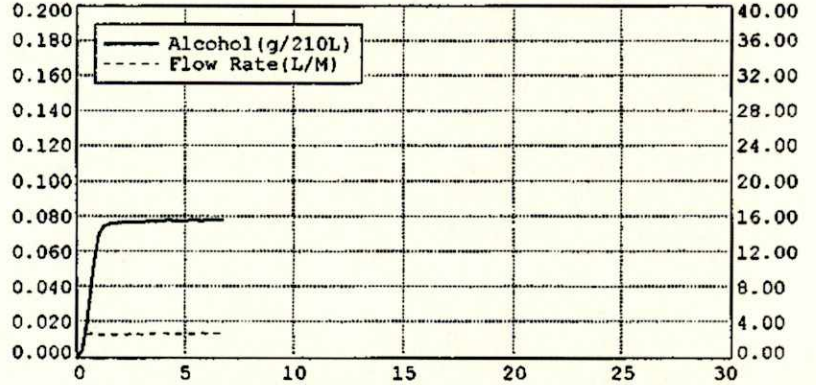
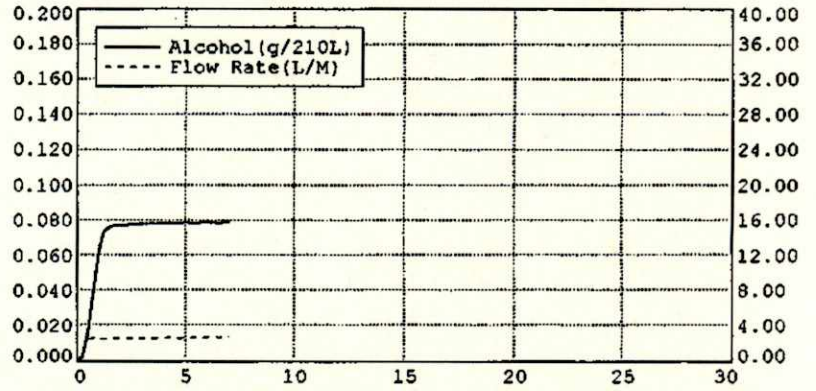
BLANK TEST	0.000	10:11
INTERNAL STANDARD	VERIFIED	10:11
EXTERNAL STANDARD	0.080	10:12
BLANK TEST	0.000	10:13
EXTERNAL STANDARD	0.079	10:13
BLANK TEST	0.000	10:14
EXTERNAL STANDARD	0.080	10:14
BLANK TEST	0.000	10:15
EXTERNAL STANDARD	0.080	10:15
BLANK TEST	0.000	10:16
EXTERNAL STANDARD	0.079	10:16
BLANK TEST	0.000	10:17

Average = 0.0796  
 Std Dev = 0.0005

Lot: 01315080A3  
 Exp: 02/05/2017  
 BMB 3/9/15

100362 0.0796  
 100668 0.0798  
 100377 0.0800

Aug = 0.0798 = 0.080



**SUPERVISOR TEST**

Alaska Department of Public Safety  
 DATAMASTER dmt: 100668

Date: 03/09/2015  
 Time: 09:55:23

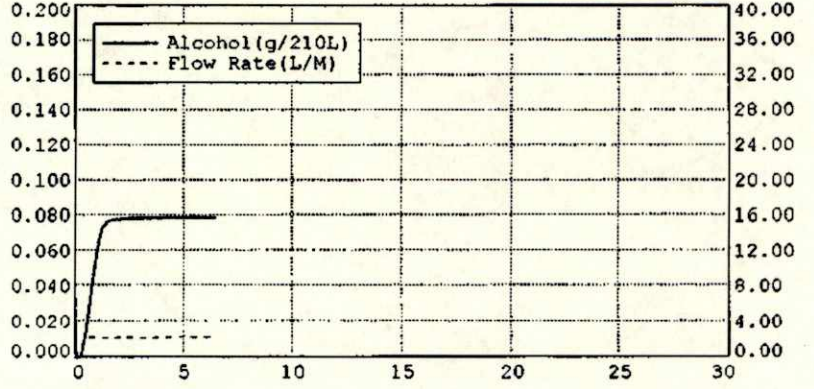
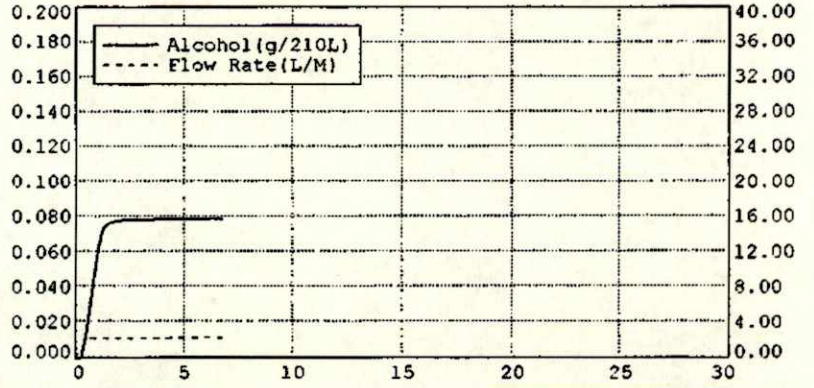
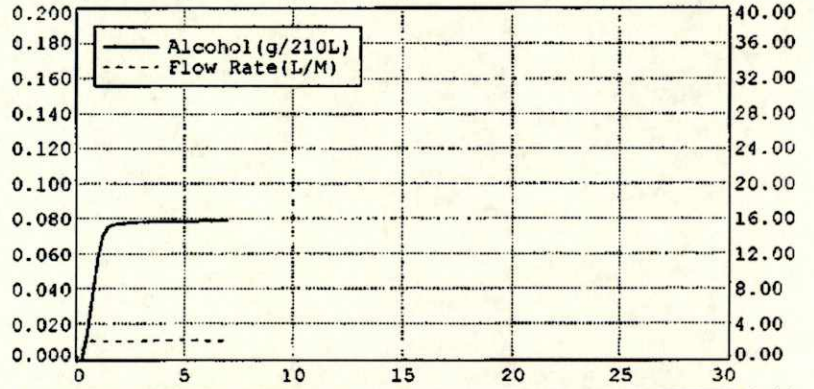
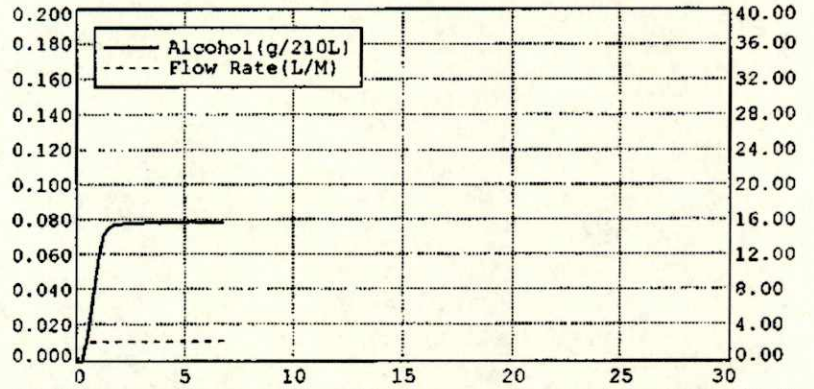
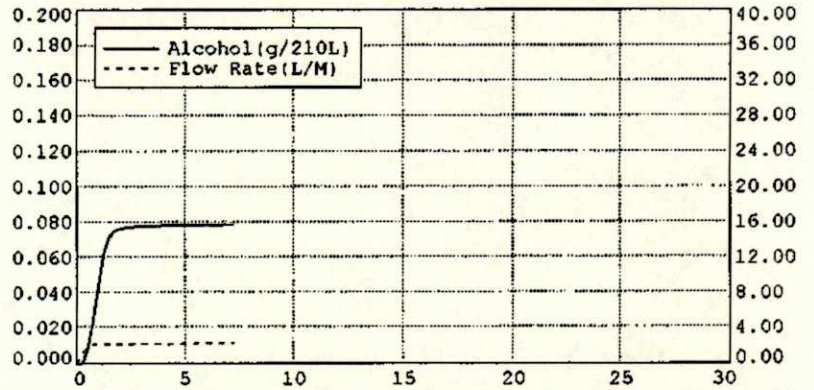
SUPERVISOR NAME:  
 BRANDI BARNETT  
 OPERATOR'S #: 7038

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.79: 0.080  
 TANK PRESSURE: 1076 psi

BLANK TEST	0.000	09:56
INTERNAL STANDARD	VERIFIED	09:56
EXTERNAL STANDARD	0.079	09:56
BLANK TEST	0.000	09:57
EXTERNAL STANDARD	0.080	09:57
BLANK TEST	0.000	09:58
EXTERNAL STANDARD	0.080	09:59
BLANK TEST	0.000	09:59
EXTERNAL STANDARD	0.080	10:00
BLANK TEST	0.000	10:01
EXTERNAL STANDARD	0.080	10:01
BLANK TEST	0.000	10:02

Average = 0.0798  
 Std Dev = 0.0004

Lot: 01315080A3  
 Exp: 02/05/2017  
 BMB 3/9/15



**SUPERVISOR TEST**

Alaska Department of Public Safety  
 DATAMASTER dmt: 100377

Date: 03/09/2015  
 Time: 09:45:56

SUPERVISOR NAME:  
 BRANDI BARNETT  
 OPERATOR'S #: 7038

EXTERNAL STANDARD INFORMATION  
 NOMINAL: 0.080  
 TARGET AT 29.78: 0.080  
 TANK PRESSURE: 1072 psi

BLANK TEST	0.000	09:46
INTERNAL STANDARD	VERIFIED	09:47
EXTERNAL STANDARD	0.080	09:47
BLANK TEST	0.000	09:48
EXTERNAL STANDARD	0.080	09:48
BLANK TEST	0.000	09:49
EXTERNAL STANDARD	0.080	09:49
BLANK TEST	0.000	09:50
EXTERNAL STANDARD	0.080	09:50
BLANK TEST	0.000	09:51
EXTERNAL STANDARD	0.080	09:51
BLANK TEST	0.000	09:52

Average = 0.0800  
 Std Dev = 0.0000

Lot: 01315080A3  
 Exp: 02/05/2017  
 BMB 3/9/15

