Idaho State Police Forensic Services

CERTIFICATE OF ANALYSIS/APPROVAL

The Idaho State Police Forensic Services (ISPFS) hereby certifies and approves Alcohol Simulator Solution **Lot Number 13220** (a product manufactured by GUTH Laboratories, Inc.) to be used to conduct performance verification checks within the State of Idaho in accordance with the analytical methods, policies and/or procedures promulgated by the Department governing breath alcohol examinations. ISPFS also approves of the manufacturer of this solution (GUTH Laboratories, Inc.) to provide Alcohol Simulator Solution **Lot Number 13220** in the State of Idaho. This lot has a target value of 0.200 with a range of 0.180 to 0.220 grams of ethyl alcohol/210 liters of vapor.

The expiration date for this lot number is on August 5th, 2015 at 11:59 PM.

5-21-2015
Date

Volatiles Analysis Discipline Leader

STATE OF IDAHO)
) ss.
County of Kootenai)

On this 21 day of May, in the year 2015 before me, Lynn A. Higdem, a notary public, Jeromey Johnston personally appeared, known to me to be the person whose name is subscribed to the within instrument as a Forensic Scientist for the Idaho State Police Forensic Services, and acknowledged to me that he executed the same as such Scientist.

Lynn A. Higdem Notary Public

My Commission Expires: 09/08/2016

LYNN A. HIGDEM NOTARY PUBLIC STATE OF IDAHO

Raw data from analysis: LOT #13220

Analyst:	Bottle #350	sample #1	a	0.2452	overall mean:
RC			b	0.2438	0.2483
		sample #2	a	0.2495	
			b	0.2481	
RC	bottle #210	sample #3	a	0.2503	
			b	0.2486	
		Sample #4	a	0.251	
			b	0.2499	
Analyst:	Bottle #347	sample #1	a	0.2486	overall mean:
HC			b	0.2521	0.2454
		sample #2	a	0.249	
			b	0.2509	
NB	bottle #346	sample #3	a	0.2435	
			b	0.2394	
		Sample #4	a	0.2422	
			b	0.2377	

average of all raw data: **0.2468625**

alcohol content conversion with 1.23: **0.2007**

with 1.21: 0.20402

Target value from provider:

0.2427	+/- 3% range	0.24998
		0.23542
0.2	+/- 3% range	0.206
		0.194

GUTH LABORATORIES, INC.
590 NORTH 67th STREET • HARRISBURG, PA 17111-4511 • TELEPHONE: 717-564-5470

CERTIFICATE OF ANALYSIS

Certified Alcohol Reference Solution for Simulator

Random Samples of Lot Number **13220** of Alcohol Reference Solution for Simulator were analyzed by gas chromatography on **August 6, 2013,** using a Perkin Elmer Gas Chromatograph Autosystem XL S/N: 610N9030209, and found to contain **0.2427%** (w/vol) ethyl alcohol. The expiration date for this lot number is **August 5, 2015** at 11:59 PM.

When used in a calibrated Simulator, operating at 34°C +/- .2°C, this solution will give a breath alcohol analysis instrument reading of **0.200 g/210L +/- 3%.**

The alcohol and water used in this solution were free of test interfering substances.

0.194 – 0.206

Ted L. Pauley, President
GUTH LABORATORIES, INC.

NIST Traceability:
Testing was conducted using Cerilliant Reference Standard lot number FN032712-01 whose values are traceable to NIST.
All balances are calibrated annually by an outside agency using NIST traceable weights. Calibration verification is done prior to each use utilizing NIST traceable weights.

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: GUTH 20 #13220 BOT350 Analysis Date(s): 11 May 2015

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.2452	0.2438	0.0014	0.2445	0.2466	
(g/100cc)	0.2495	0.2481	0.0014	0.2488		

Analysis Method

Refer to Volatiles Analytical Method 1.0

Instrument Information *Instrument method is stored centrally.*

Refer to Instrument Method: ALCOHOL.M Hamilton
Auto-Dilutor Serial Number: MD-96JF1032

Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

Overall Mean (g/100cc)	Low	High	5% of Mean
0.246	**0.233**	**0.259**	**0.013**

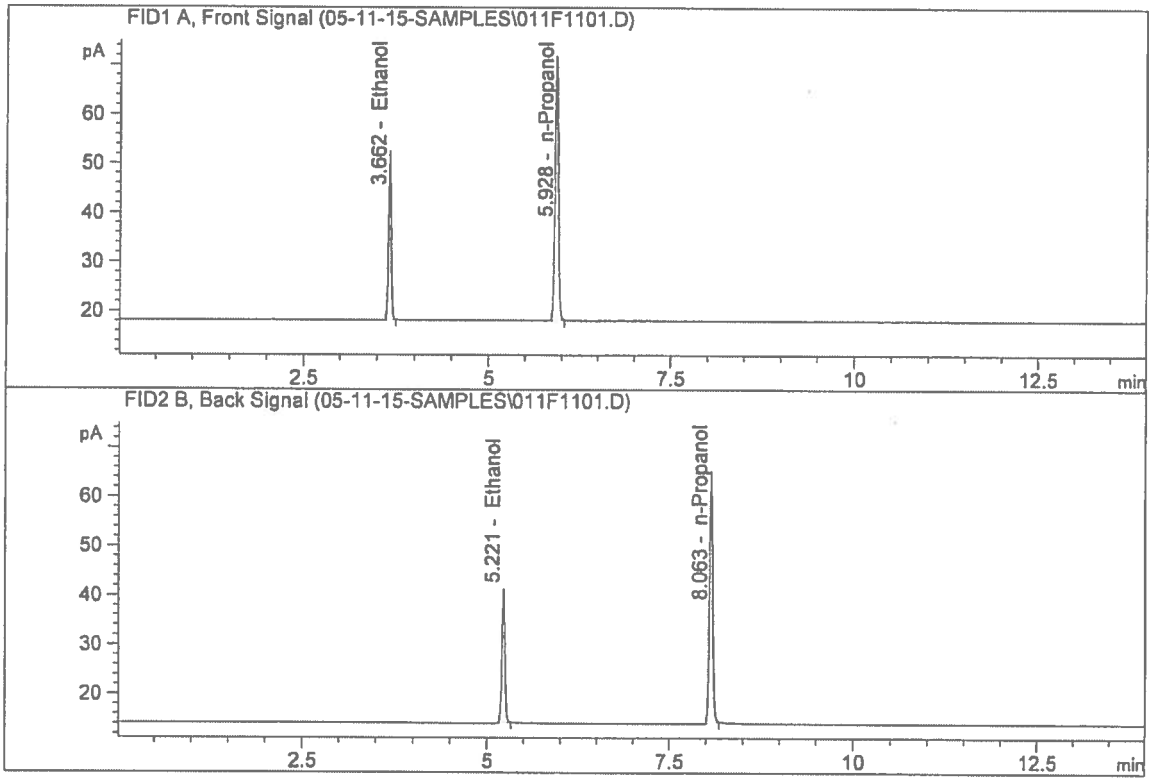
	Reported Result	
	0.2466 ÷ 1.23 = 0.2005	0.200 g/210L

Calibration and control data are stored centrally. **Analyst:** YC **Page 2**

Issued: 01/16/2014
Volatiles BAC Calculation Spreadsheet Rev 3
Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

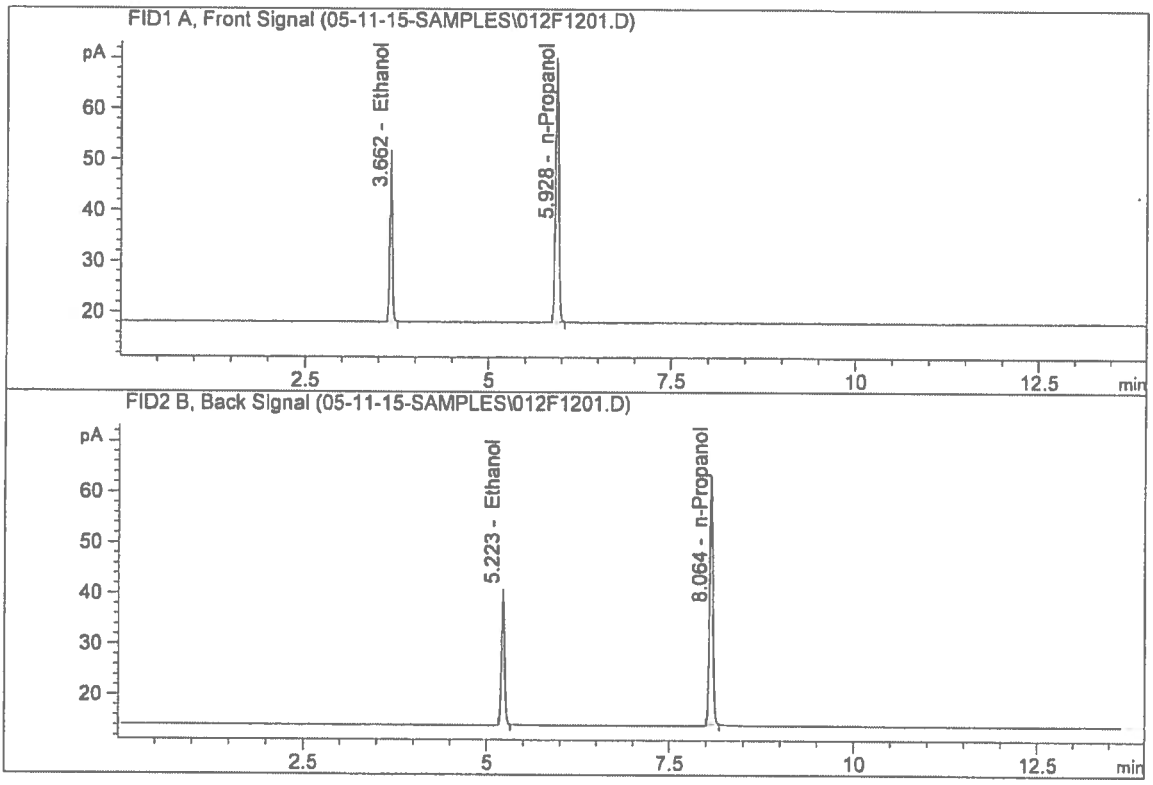
Sample Name : GUTH 20 #13220 BOT350-A
Laboratory : Pocatello
Injection Date : May 11, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742043-IT00741010



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	84.47588	0.2452	g/100cc
2.	Ethanol	Column 2:	78.69741	0.2438	g/100cc
3.	n-Propanol	Column 1:	168.30919	1.0000	g/100cc
4.	n-Propanol	Column 2:	156.47585	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name	:	GUTH 20 #13220 BOT350-B
Laboratory	:	Pocatello
Injection Date	:	May 11, 2015
Method	:	ALCOHOL.M
Acq. Instrument	:	CN10742043-IT00741010



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	82.87099	0.2495	g/100cc
2.	Ethanol	Column 2:	77.07413	0.2481	g/100cc
3.	n-Propanol	Column 1:	162.21037	1.0000	g/100cc
4.	n-Propanol	Column 2:	150.56238	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: GUTH 20 #13220 BOT210 **Analysis Date(s): 11 May 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.2503	0.2486	0.0017	0.2494	0.2499	
(g/100cc)	0.2510	0.2499	0.0011	0.2504		

Analysis Method

Refer to Volatiles Analytical Method 1.0

Instrument Information *Instrument method is stored centrally.*

Refer to Instrument Method: ALCOHOL.M Hamilton
Auto-Dilutor Serial Number: MD-96JF1032

Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

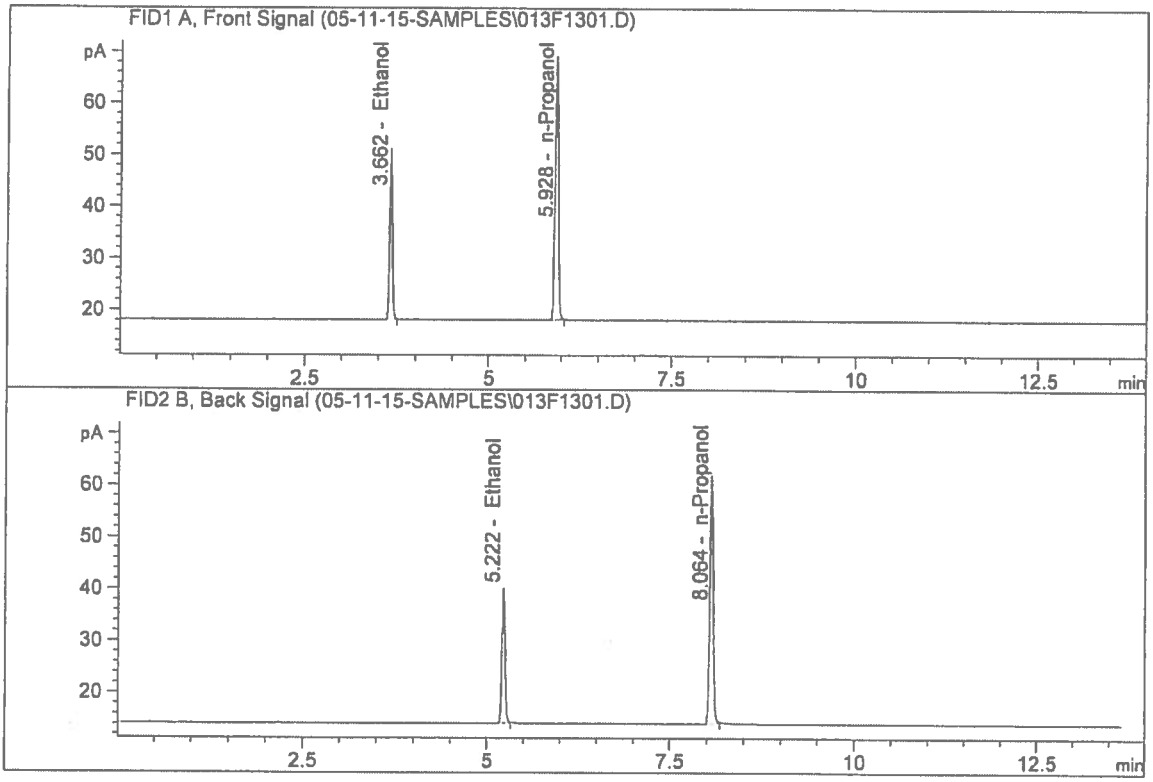
Overall Mean (g/100cc)	Low	High	5% of Mean
0.249	0.236	0.262	0.013

	Reported Result	
	0.2499 ÷ 1.23 =	0.2032 (RF) ~~0.202~~ g/210L = (0.203) g/210L

Calibration and control data are stored centrally. **Analyst:** _____ **Page 2**

ISP Forensic Services Blood Alcohol Report

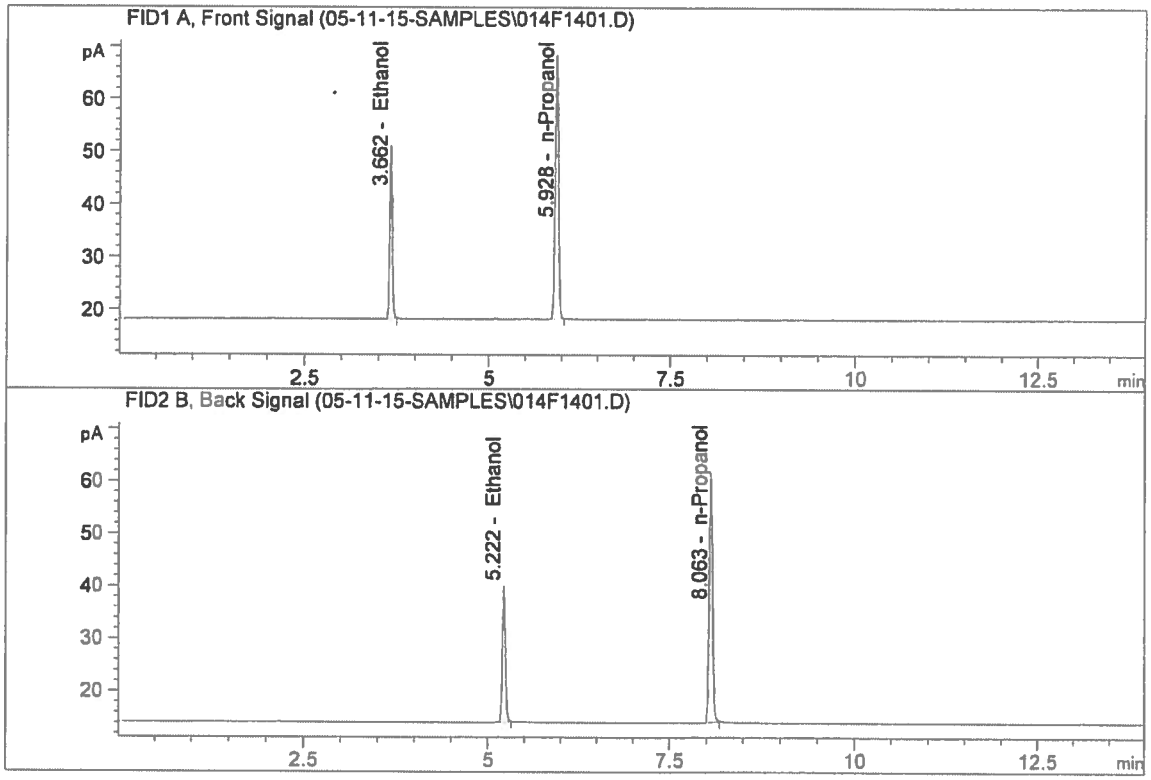
Sample Name : GUTH 20 #13220 BOT210-A
Laboratory : Pocatello
Injection Date : May 11, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742043-IT00741010



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	81.01694	0.2503	g/100cc
2.	Ethanol	Column 2:	75.19363	0.2486	g/100cc
3.	n-Propanol	Column 1:	158.09047	1.0000	g/100cc
4.	n-Propanol	Column 2:	146.57964	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : GUTH 20 #13220 BOT210-B
Laboratory : Pocatello
Injection Date : May 11, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742043-IT00741010



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	80.56088	0.2510	g/100cc
2.	Ethanol	Column 2:	74.96976	0.2499	g/100cc
3.	n-Propanol	Column 1:	156.74307	1.0000	g/100cc
4.	n-Propanol	Column 2:	145.41687	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: Guth 0.20 lot 13220 **Analysis Date(s): 18 Mar 2015** Bottle #347

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.2486	0.2521	0.0035	0.2503	0.2501	
(g/100cc)	0.2490	0.2509	0.0019	0.2499		

Analysis Method

Refer to Volatiles Analytical Method 1.0

Instrument Information *Instrument method is stored centrally.*

Refer to Instrument Method: ALCOHOL.M Hamilton
Auto-Dilutor Serial Number: MD96BC1382/MD94AM10010

Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

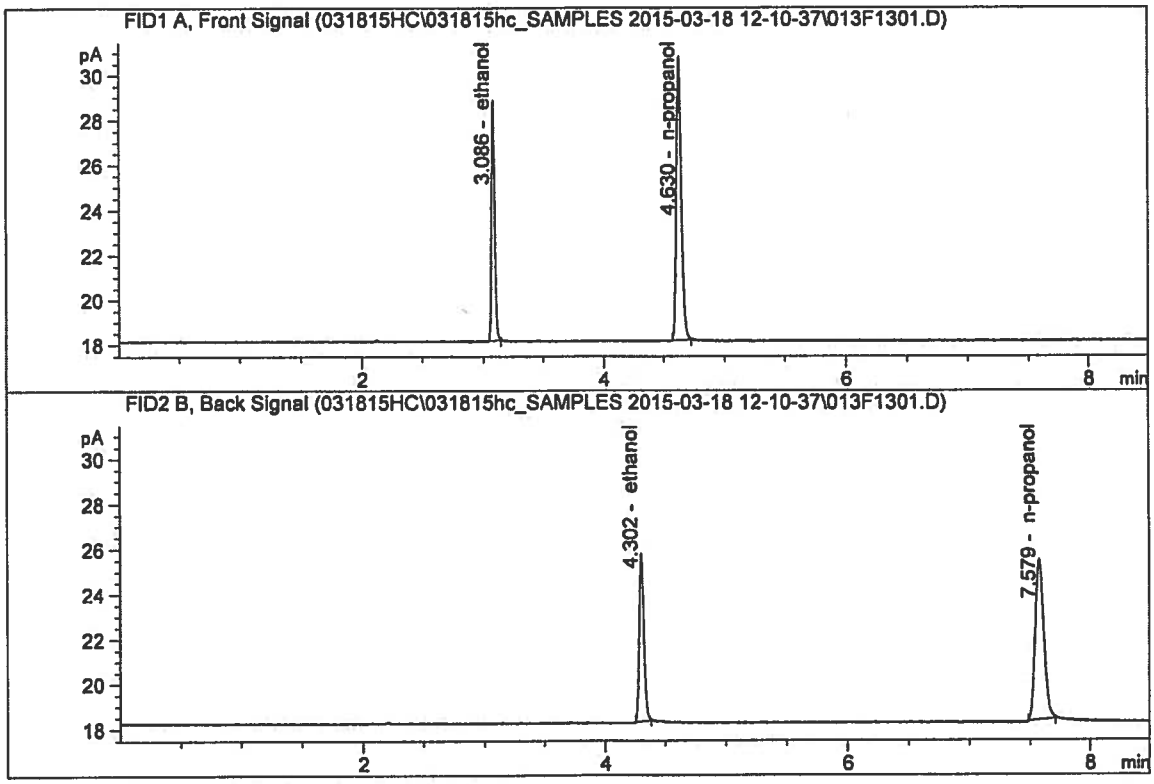
Overall Mean (g/100cc)	Low	High	5% of Mean
0.250	0.237	0.263	0.013

	Reported Result	
	0.250 ÷ 1.23	0.2033 LK

Calibration and control data are stored centrally. **Analyst:** AK **Page 2**

ISP Forensic Services Blood Alcohol Report

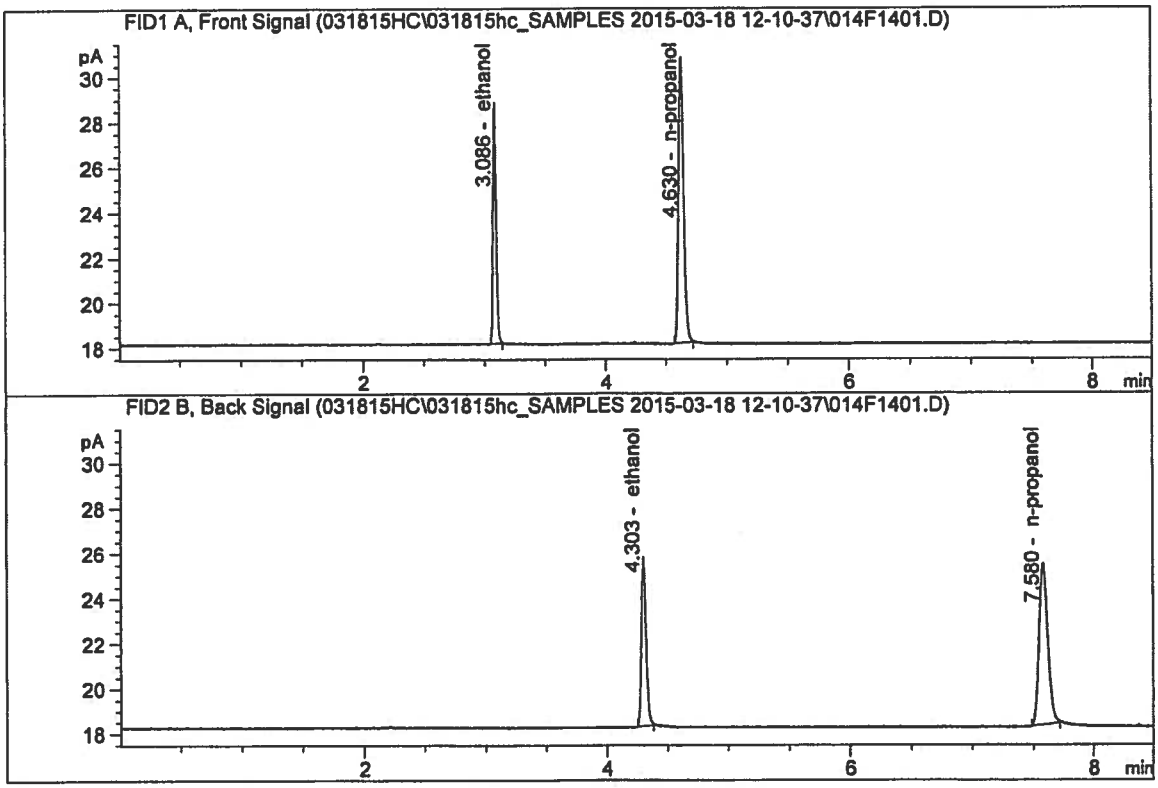
Sample Name : Guth 0.20-A
Laboratory : Meridian
Injection Date : Mar 18, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	19.69028	0.2486	g/100cc
2.	Ethanol	Column 2:	20.27412	0.2521	g/100cc
3.	n-Propanol	Column 1:	36.34321	1.0000	g/100cc
4.	n-Propanol	Column 2:	35.21139	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : Guth 0.20-B
Laboratory : Meridian
Injection Date : Mar 18, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	19.74882	0.2490	g/100cc
2.	Ethanol	Column 2:	20.31583	0.2509	g/100cc
3.	n-Propanol	Column 1:	36.39077	1.0000	g/100cc
4.	n-Propanol	Column 2:	35.44890	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: Guth 0.08 lot14070 **Analysis Date(s): 24 Mar 2015** Bottle # 346

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.2435	0.2394	0.0041	0.2414	0.2407	
(g/100cc)	0.2422	0.2377	0.0045	0.2399		

Analysis Method

Refer to Volatiles Analytical Method 1.0

Instrument Information *Instrument method is stored centrally.*

Refer to Instrument Method: ALCOHOL.M Hamilton
Auto-Dilutor Serial Number: MD96BC1382/MD94AM10010

Reporting of Results **Uncertainty of Measurement (UM%): 5.00%**

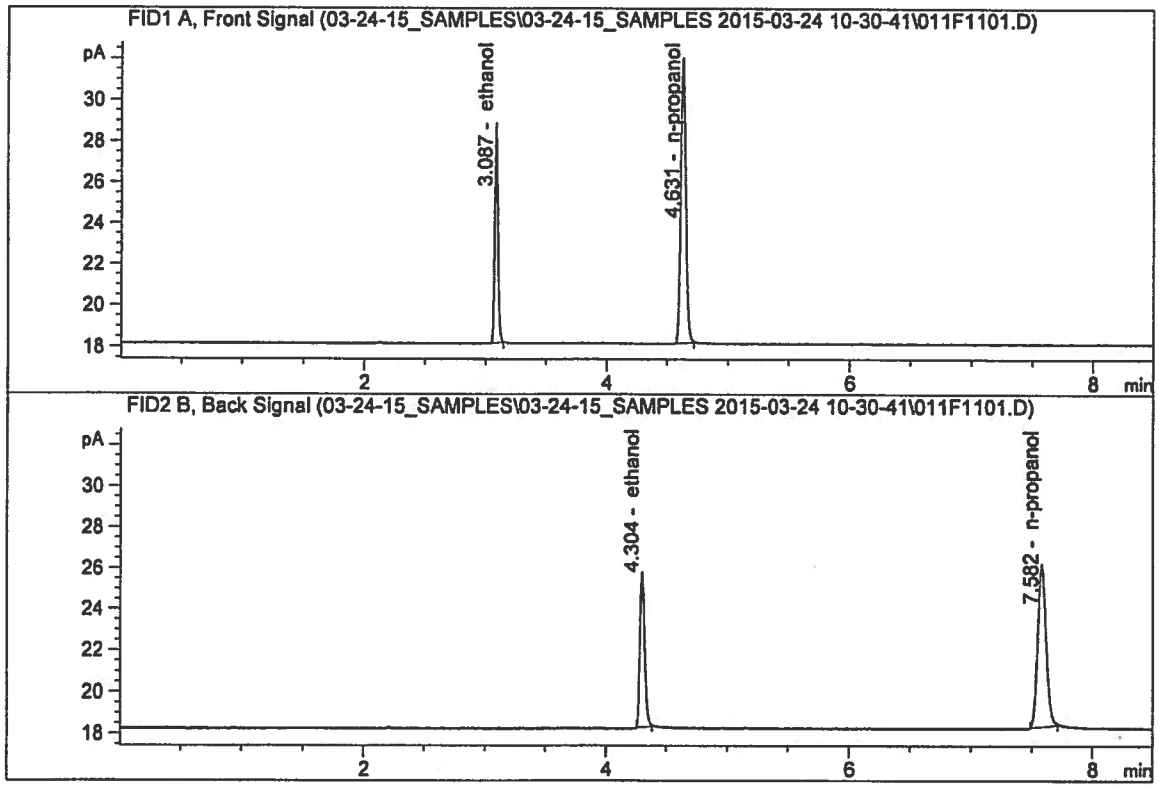
Overall Mean (g/100cc)	Low	High	5% of Mean
0.240	0.228	0.252	0.012

	Reported Result	
	0.240 ÷ 1.23	0.1957

Calibration and control data are stored centrally. **Analyst:** MB **Page 2**

ISP Forensic Services Blood Alcohol Report

Sample Name : Guth 0.20 lot13220-A
Laboratory : Meridian
Injection Date : Mar 24, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167

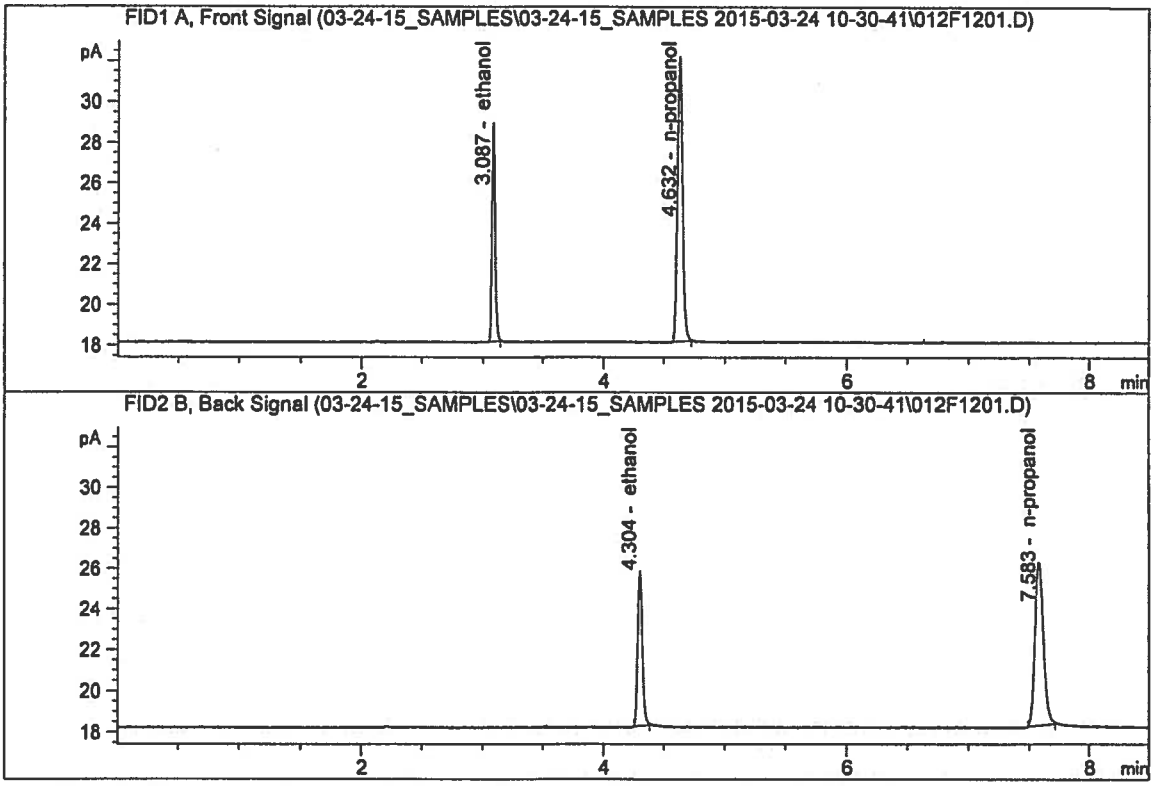


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	19.80391	0.2435	g/100cc
2.	Ethanol	Column 2:	20.26317	0.2394	g/100cc
3.	n-Propanol	Column 1:	39.83548	1.0000	g/100cc
4.	n-Propanol	Column 2:	38.77186	1.0000	g/100cc

NB

ISP Forensic Services Blood Alcohol Report

Sample Name : Guth 0.20 lot13220-B
Laboratory : Meridian
Injection Date : Mar 24, 2015
Method : ALCOHOL.M
Acq. Instrument: CN11180014-CN11041167



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	19.92739	0.2422	g/100cc
2.	Ethanol	Column 2:	20.42621	0.2377	g/100cc
3.	n-Propanol	Column 1:	40.30055	1.0000	g/100cc
4.	n-Propanol	Column 2:	39.35868	1.0000	g/100cc

NB