Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB 503A Liquid Processor/Dilutor Serial Number: MD-96GF641

Volatiles Quality Assurance Controls **Run Date(s): 7-30-15**

Control level	Expiration	Lot #	Target Value	Acceptable Range	Overall Results
Level 1	Dec-15	1211090	0.0773	0.0696-0.0850	0.0848 g/100cc
					0.0810 g/100cc
					g/100cc
Level 2	Jan-17	1212091	0.2020	0.1818-0.2222	0.2021 g/100cc
					0.2059 g/100cc
					g/100cc
Multi-Component mixture:		**Jan-16**	**Lot #**	FN012111-01	OK
Curve Fit:			**Column 1**	1.00000	**Column2** 0.99999

Ethanol Calibration Reference Material								
Calibrator level	**Expiration**	**Cerilliant Lot #**	**Target Value**	**Acceptable Range**	**Column 1**	**Column 2**	**Precision**	**Mean**
0.050	Jul-19	FN06231406	0.050	0.045 - 0.055	0.0504	0.0500	0.0004	0.0502
0.080	Jan-17	FN011712-02	0.080	0.072 - 0.088			0	#DIV/0!
0.100	Mar-19	FN02021403	0.100	0.090 - 0.110	0.1002	0.0989	0.0013	0.0995
0.200	Mar-17	FN032712-01	0.200	0.180 - 0.220	0.2002	0.1986	0.0016	0.1994
0.300	Oct-18	FN09061305	0.300	0.270 - 0.330	0.2983	0.2980	0.0003	0.2981
0.400			0.400	0.360 - 0.440			0	#DIV/0!
0.500	Jan-18	FN01281301	0.500	0.450 - 0.550	0.5008	0.5020	0.0012	0.5014

Aqueous Controls					
Control level	**Expiration**	**Cerilliant Lot #**	**Target Value**	**Acceptable Range**	**Overall Results**
0.080	Jan-17	FN011712-02	0.08000	0.076 - 0.084	0.079 g/100cc

Issued: 4/22/2015

~Any information on this document can be changed for laboratory use, except for the precision and mean determination fomulas.

Volatiles QA/QC data spreadsheet Rev 5

Issuing Authority: Quality Manager

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Sample Summary

Sequence table: C:\Chem32\1\TEMP\AESEQ\QS_30.07.2015_03.33.54\7-30-2015.S
Data directory path: C:\Chem32\1\Data\7-30-15JJ
Logbook: C:\Chem32\1\Data\7-30-15JJ\7-30-2015.LOG
Sequence start: 7/30/2015 3:47:40 PM
Sequence Operator: SYSTEM
Operator: SYSTEM

Method file name: C:\CHEM32\1\METHODS\ALCOHOL.M

Run #	Location	Inj #	Sample Name	Sample Amt [g/100cc]	Multip.* Dilution	File name	Cal	# Cmp
1	1	1	VOL MIX FN-01211	-	1.0000	001F0101.D		10
2	2	1	ISTD BLANK	-	1.0000	002F0201.D		2
3	3	1	QC-1-A	-	1.0000	003F0301.D		4
4	4	1	QC-1-B	-	1.0000	004F0401.D		4
5	5	1	0.08 FN011712-02	-	1.0000	005F0501.D		4
6	6	1	0.08 FN011712-02	-	1.0000	006F0601.D		4
7	7	1	C2015-1211-1-A	-	1.0000	007F0701.D		4
8	8	1	C2015-1211-1-B	-	1.0000	008F0801.D		4
9	9	1	C2015-1212-1-A	-	1.0000	009F0901.D		4
10	10	1	C2015-1212-1-B	-	1.0000	010F1001.D		4
11	11	1	C2015-1216-1-A	-	1.0000	011F1101.D		4
12	12	1	C2015-1216-1-B	-	1.0000	012F1201.D		4
13	13	1	C2015-1217-1-A	-	1.0000	013F1301.D		4
14	14	1	C2015-1217-1-B	-	1.0000	014F1401.D		4
15	15	1	C2015-1244-1-A	-	1.0000	015F1501.D		2
16	16	1	C2015-1244-1-B	-	1.0000	016F1601.D		2
17	17	1	C2015-1251-1-A	-	1.0000	017F1701.D		2
18	18	1	C2015-1251-1-B	-	1.0000	018F1801.D		2
19	19	1	C2015-1276-1-A	-	1.0000	019F1901.D		4
20	20	1	C2015-1276-1-B	-	1.0000	020F2001.D		4
21	21	1	C2015-1281-1-A	-	1.0000	021F2101.D		2
22	22	1	C2015-1281-1-B	-	1.0000	022F2201.D		2
23	23	1	C2015-1283-1-A	-	1.0000	023F2301.D		4
24	24	1	C2015-1283-1-B	-	1.0000	024F2401.D		4
25	25	1	QC-2-A	-	1.0000	025F2501.D		4
26	26	1	QC-2-B	-	1.0000	026F2601.D		4
27	27	1	C2015-1284-1-A	-	1.0000	027F2701.D		4
28	28	1	C2015-1284-1-B	-	1.0000	028F2801.D		4
29	29	1	C2015-1308-1-A	-	1.0000	029F2901.D		4
30	30	1	C2015-1308-1-B	-	1.0000	030F3001.D		4
31	31	1	C2015-1314-1-A	-	1.0000	031F3101.D		4
32	32	1	C2015-1314-1-B	-	1.0000	032F3201.D		4
33	33	1	C2015-1315-1-A	-	1.0000	033F3301.D		4
34	34	1	C2015-1315-1-B	-	1.0000	034F3401.D		4
35	35	1	C2015-1322-1-A	-	1.0000	035F3501.D		4
36	36	1	C2015-1322-1-B	-	1.0000	036F3601.D		4
37	37	1	C2015-1328-1-A	-	1.0000	037F3701.D		4
38	38	1	C2015-1328-1-B	-	1.0000	038F3801.D		4
39	39	1	C2015-1330-1-A	-	1.0000	039F3901.D		2
40	40	1	C2015-1330-1-B	-	1.0000	040F4001.D		2
41	41	1	C2015-1338-1-A	-	1.0000	041F4101.D		4
42	42	1	C2015-1338-1-B	-	1.0000	042F4201.D		4
43	43	1	C2015-1341-1-A	-	1.0000	043F4301.D		4
44	44	1	C2015-1341-1-B	-	1.0000	044F4401.D		4
45	45	1	C2015-1345-1-A	-	1.0000	045F4501.D		4
46	46	1	C2015-1345-1-B	-	1.0000	046F4601.D		4

Sequence File C:\Chem32\1\TEMP\AESEQ\QS_30.07.2015_03.33.54\7-30-2015.S

Run #	Location	Inj #	Sample Name	Sample Amt [g/100cc]	Multip.* Dilution	File name	Cal #	Cmp
47	47	1	QC-1-A	-	1.0000	047F4701.D		4
48	48	1	QC-1-B	-	1.0000	048F4801.D		4
49	49	1	C2015-1349-1-A	-	1.0000	049F4901.D		2
50	50	1	C2015-1349-1-B	-	1.0000	050F5001.D		2
51	51	1	C2015-1350-1-A	-	1.0000	051F5101.D		2
52	52	1	C2015-1350-1-B	-	1.0000	052F5201.D		2
53	53	1	C2015-1351-1-1-A	-	1.0000	053F5301.D		2
54	54	1	C2015-1351-1-1-B	-	1.0000	054F5401.D		2
55	55	1	C2015-1351-2-1-A	-	1.0000	055F5501.D		4
56	56	1	C2015-1351-2-1-B	-	1.0000	056F5601.D		4
57	57	1	C2015-1352-1-A	-	1.0000	057F5701.D		4
58	58	1	C2015-1352-1-B	-	1.0000	058F5801.D		4
59	59	1	C2015-1363-1-A	-	1.0000	059F5901.D		4
60	60	1	C2015-1363-1-B	-	1.0000	060F6001.D		4
61	61	1	m2015-2258-1-A	-	1.0000	061F6101.D		6
62	62	1	m2015-2258-1-B	-	1.0000	062F6201.D		6
63	63	1	m2015-2260-~~1~~-A 2 99	-	1.0000	063F6301.D		6
64	64	1	m2015-2260-~~1~~-B 2 99	-	1.0000	064F6401.D		6
65	65	1	QC-2-A	-	1.0000	065F6501.D		4
66	66	1	QC-2-B	-	1.0000	066F6601.D		4
67	67	1	ISTD BLANK	-	1.0000	067F6701.D		2
68	68	1	ISTD BLANK	-	1.0000	068F6801.D		2

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Calibration Table

General Calibration Setting

Calib. Data Modified : Thursday, July 30, 2015 12:28:08 PM
Signals calculated separately : No

Rel. Reference Window : 0.000 %
Abs. Reference Window : 0.100 min
Rel. Non-ref. Window : 0.000 %
Abs. Non-ref. Window : 0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : No recalibration if peaks missing

Curve Type : Linear
Origin : Forced
Weight : Equal

Recalibration Settings:
Average Response : Average all calibrations
Average Retention Time: Floating Average New 75%

Calibration Report Options :
Printout of recalibrations within a sequence:
Calibration Table after Recalibration
Normal Report after Recalibration
If the sequence is done with bracketing:
Results of first cycle (ending previous bracket)

Default Sample ISTD Information (if not set in sample table):

ISTD #	ISTD Amount [g/100cc]	Name
1	1.00000	n-Propanol
2	1.00000	n-Propanol

Signal Details

Signal 1: FID1 A, Front Signal
Signal 2: FID2 B, Back Signal

Overview Table

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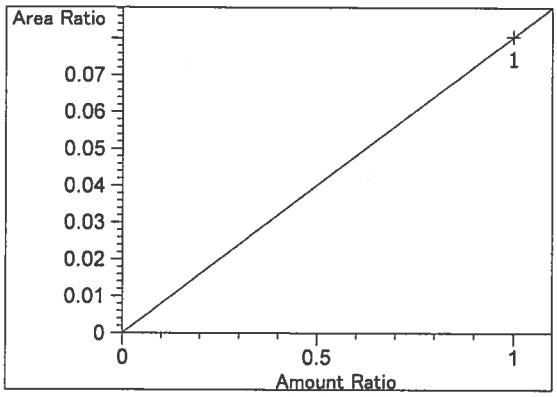
RT	Sig	Lvl	Amount [g/100cc]	Area	Rsp.Factor	Ref	ISTD	#	Compound
2.000	2	1	1.00000	5.00000	2.00000e-1	No	No	2	Difluoroethane
2.000	1	1	1.00000	5.00000	2.00000e-1	No	No	1	Difluoroethane
2.494	1	1	1.00000	3.69669	2.70512e-1	No	No	1	Methanol
2.772	1	1	1.00000	3.19311	3.13174e-1	No	No	1	Acetaldehyde
2.797	2	1	1.00000	3.10575	3.21983e-1	No	No	2	Acetaldehyde
3.098	1	1	5.00000e-2	6.19038	8.07705e-3	No	No	1	Ethanol
		2	1.00000e-1	12.65420	7.90252e-3				
		3	2.00000e-1	24.98673	8.00425e-3				
		4	3.00000e-1	37.38147	8.02537e-3				
		5	5.00000e-1	62.19038	8.03983e-3				
3.211	2	1	1.00000	4.26062	2.34707e-1	No	No	2	Methanol
3.715	1	1	1.00000	9.73055	1.02769e-1	No	No	1	Isopropyl alcohol
4.165	2	1	5.00000e-2	6.14215	8.14047e-3	No	No	2	Ethanol
		2	1.00000e-1	12.52006	7.98718e-3				
		3	2.00000e-1	24.74885	8.08118e-3				
		4	3.00000e-1	37.16668	8.07175e-3				
		5	5.00000e-1	61.94818	8.07126e-3				
4.530	1	1	1.00000	6.49940	1.53860e-1	No	No	1	Acetone
4.549	2	1	1.00000	6.89301	1.45075e-1	No	No	2	Acetone
4.870	2	1	1.00000	10.70642	9.34019e-2	No	No	2	Isopropyl alcohol
4.925	1	1	1.00000	62.66744	1.59573e-2	No	Yes	1	n-Propanol
		2	1.00000	64.45702	1.55142e-2				
		3	1.00000	63.71048	1.56960e-2				
		4	1.00000	63.97086	1.56321e-2				
		5	1.00000	63.40167	1.57725e-2				
7.593	2	1	1.00000	62.20340	1.60763e-2	No	Yes	2	n-Propanol
		2	1.00000	64.02837	1.56181e-2				
		3	1.00000	63.03580	1.58640e-2				
		4	1.00000	63.10712	1.58461e-2				
		5	1.00000	62.44037	1.60153e-2				

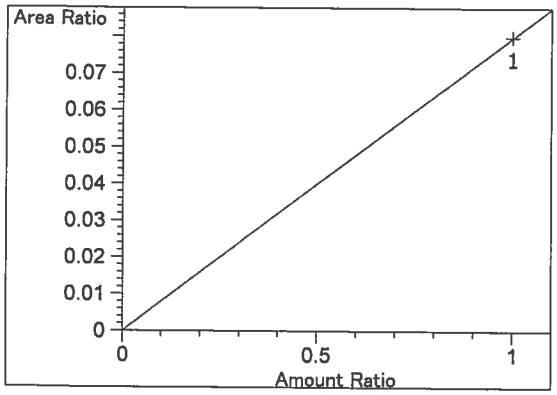
Peak Sum Table

No Entries in table

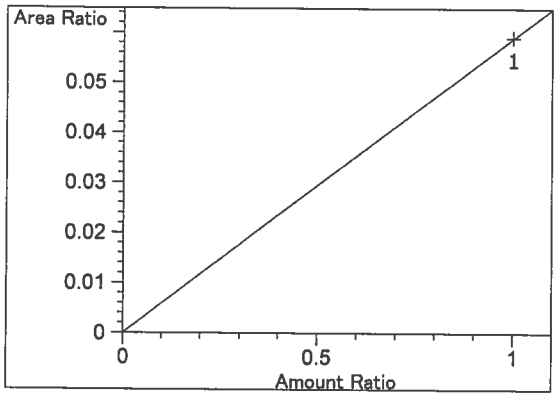
Calibration Curves



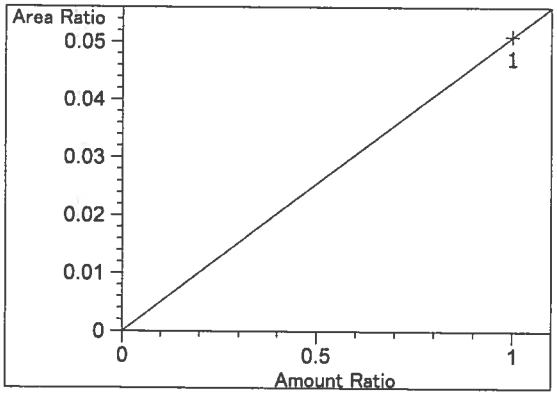
Difluoroethane at exp. RT: 2.000
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 8.03815e-2
x: Amount Ratio
y: Area Ratio



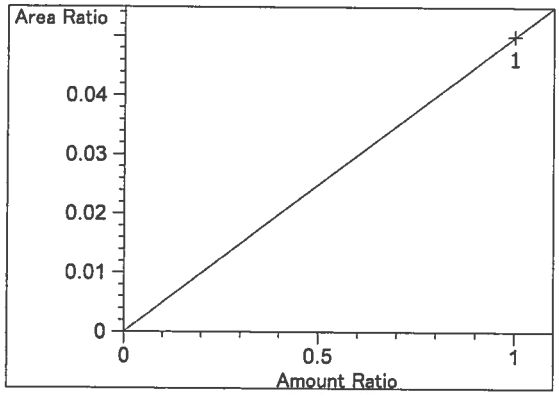
Difluoroethane at exp. RT: 2.000
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 7.97863e-2
x: Amount Ratio
y: Area Ratio



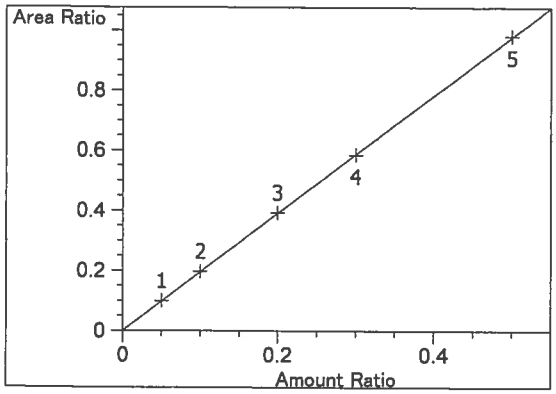
Methanol at exp. RT: 2.494
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 5.89891e-2
x: Amount Ratio
y: Area Ratio



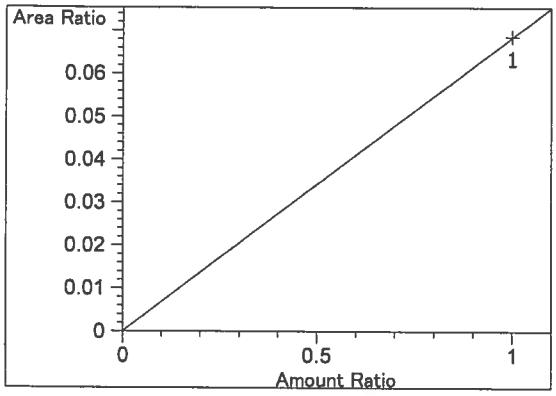
Acetaldehyde at exp. RT: 2.772
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 5.09533e-2
x: Amount Ratio
y: Area Ratio



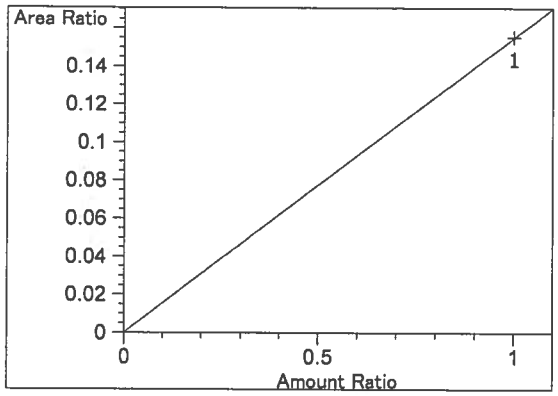
Acetaldehyde at exp. RT: 2.797
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 4.99289e-2
x: Amount Ratio
y: Area Ratio



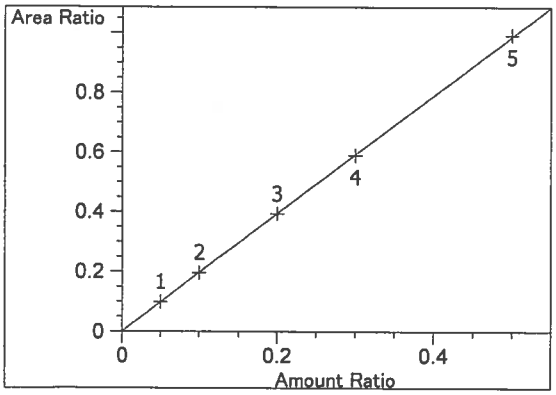
Ethanol at exp. RT: 3.098
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00188
Formula: y = mx
m: 1.95863
x: Amount Ratio
y: Area Ratio



Methanol at exp. RT: 3.211
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 6.84950e-2
x: Amount Ratio
y: Area Ratio



Isopropyl alcohol at exp. RT: 3.715
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 1.55273e-1
x: Amount Ratio
y: Area Ratio



Ethanol at exp. RT: 4.165
FID2 B, Back Signal
Correlation: 0.99999
Residual Std. Dev.: 0.00327
Formula: y = mx
m: 1.97645
x: Amount Ratio
y: Area Ratio

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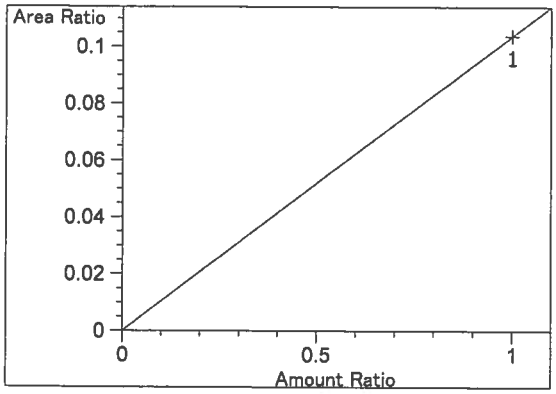
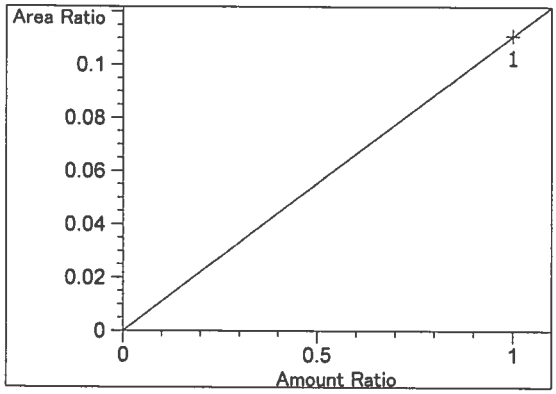
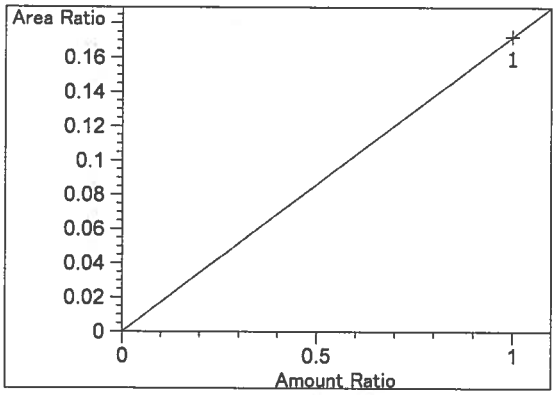


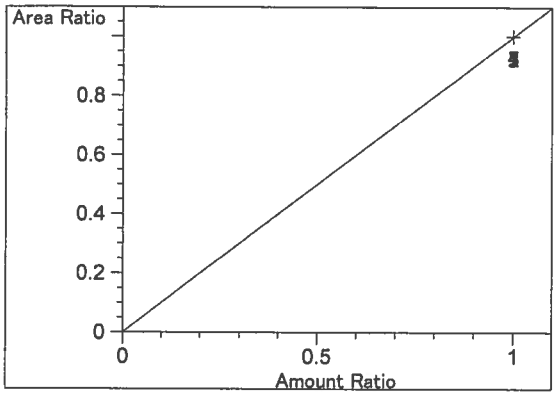
Acetone at exp. RT: 4.530
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 1.03713e-1
x: Amount Ratio
y: Area Ratio



Acetone at exp. RT: 4.549
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 1.10814e-1
x: Amount Ratio
y: Area Ratio



Isopropyl alcohol at exp. RT: 4.870
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 1.72119e-1
x: Amount Ratio
y: Area Ratio



n-Propanol at exp. RT: 4.925
FID1 A, Front Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 1.00000
x: Amount Ratio
y: Area Ratio

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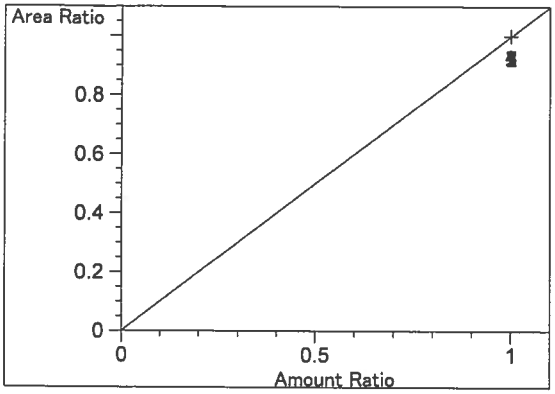

n-Propanol at exp. RT: 7.593
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx
m: 1.00000
x: Amount Ratio
y: Area Ratio

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Sample Summary

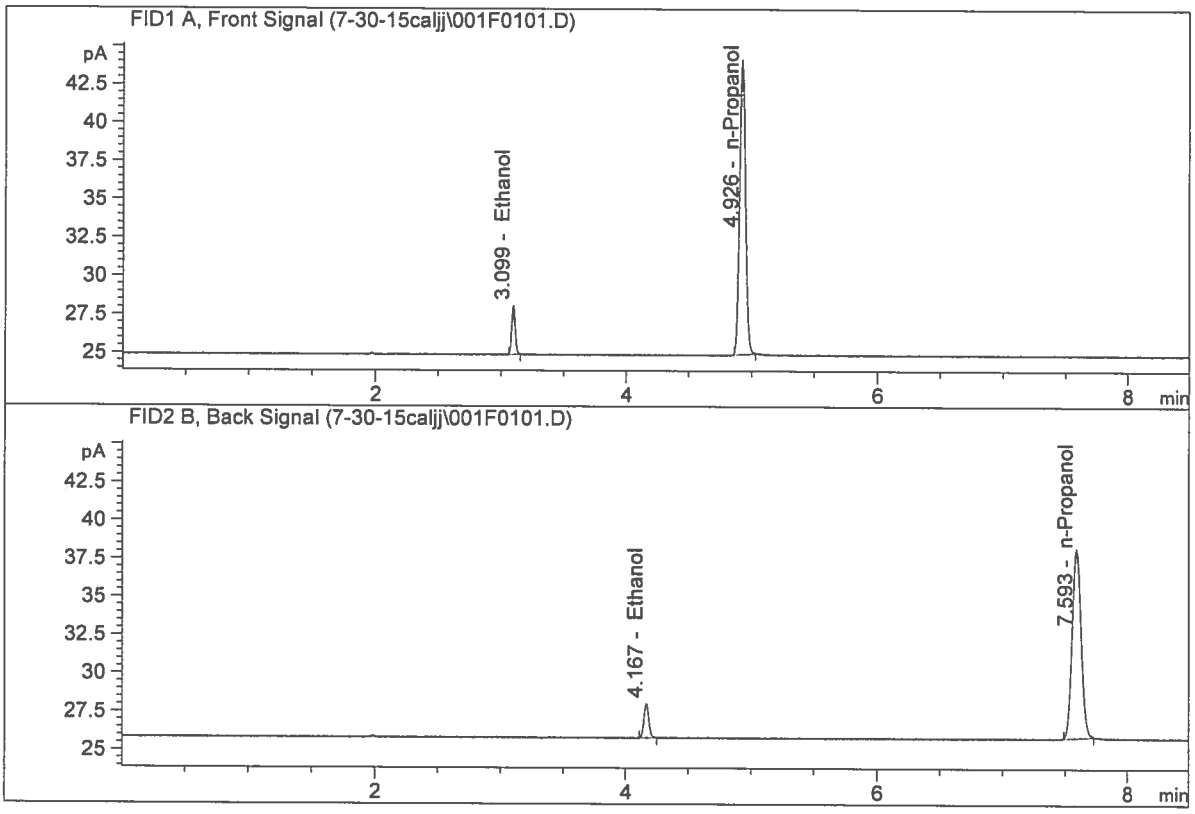
Sequence table: C:\Chem32\1\TEMP\AESEQ\QS_30.07.2015_10.33.24\7-30-2015cal.S
Data directory path: C:\Chem32\1\Data\7-30-15caljj
Logbook: C:\Chem32\1\Data\7-30-15caljj\7-30-2015cal.LOG
Sequence start: 7/30/2015 10:47:08 AM
Sequence Operator: SYSTEM
Operator: SYSTEM

Method file name: C:\CHEM32\1\METHODS\ALCOHOL.M

Run #	Location	Inj #	Sample Name	Sample Amt [g/100cc]	Multip.* Dilution	File name	Cal	# Cmp
1	1	1	0.05	-	1.0000	001F0101.D	*	4
2	2	1	0.100	-	1.0000	002F0201.D	*	4
3	3	1	0.200	-	1.0000	003F0301.D	*	4
4	4	1	0.300	-	1.0000	004F0401.D	*	4
5	5	1	0.500	-	1.0000	005F0501.D	*	4
6	6	1	blank	-	1.0000	006F0601.D		2

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.05
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	6.19038	0.0504	g/100cc
2.	Ethanol	Column 2:	6.14215	0.0500	g/100cc
3.	n-Propanol	Column 1:	62.66744	1.0000	g/100cc
4.	n-Propanol	Column 2:	62.20340	1.0000	g/100cc

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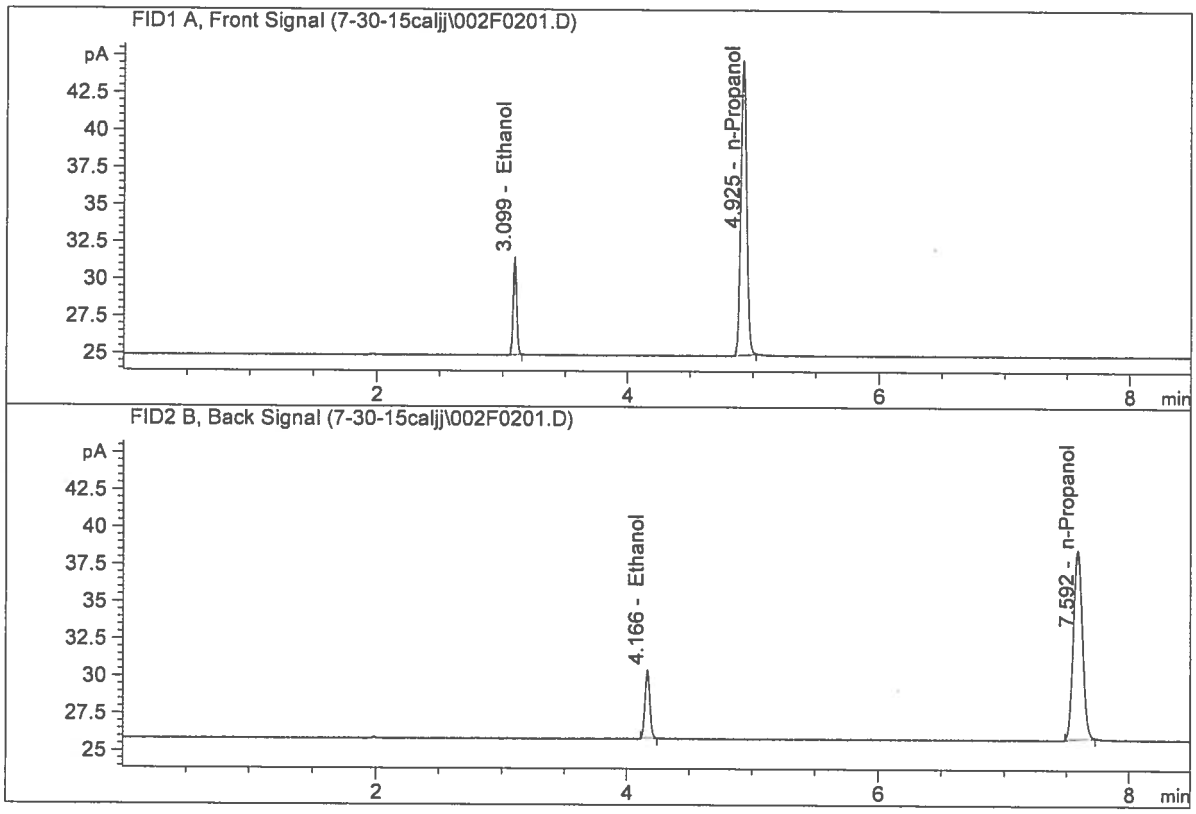
ISP Forensic Services Blood Alcohol Report

Sample Name : 0.100
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	12.65420	0.1002	g/100cc
2.	Ethanol	Column 2:	12.52006	0.0989	g/100cc
3.	n-Propanol	Column 1:	64.45702	1.0000	g/100cc
4.	n-Propanol	Column 2:	64.02837	1.0000	g/100cc

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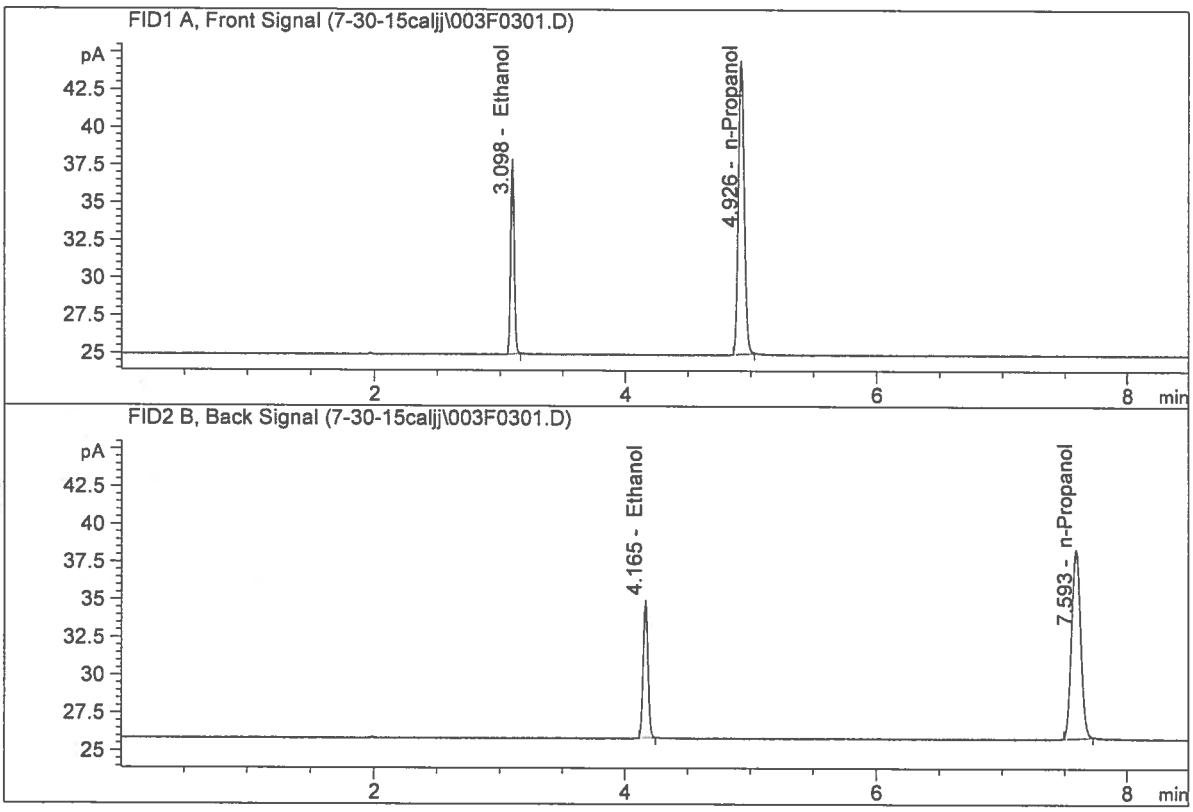
ISP Forensic Services Blood Alcohol Report

Sample Name : 0.200
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005

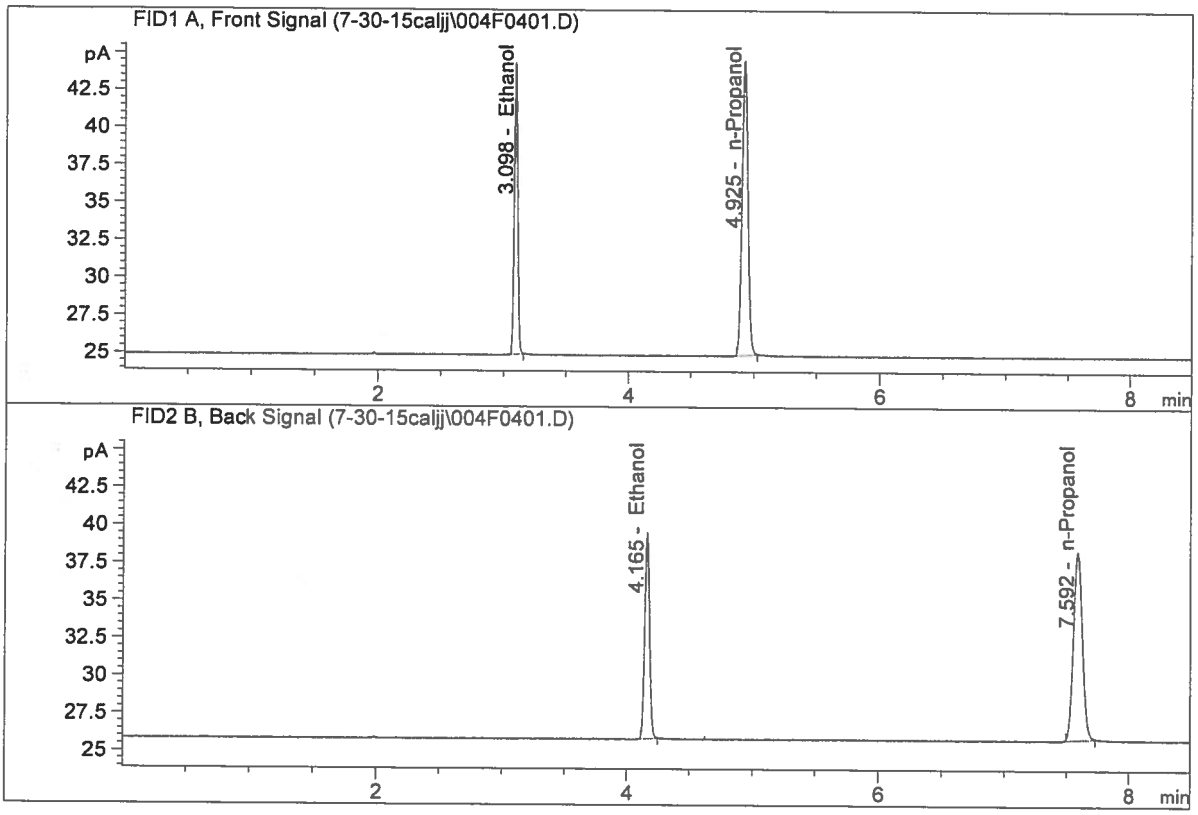


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	24.98673	0.2002	g/100cc
2.	Ethanol	Column 2:	24.74885	0.1986	g/100cc
3.	n-Propanol	Column 1:	63.71048	1.0000	g/100cc
4.	n-Propanol	Column 2:	63.03580	1.0000	g/100cc

99

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.300
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005

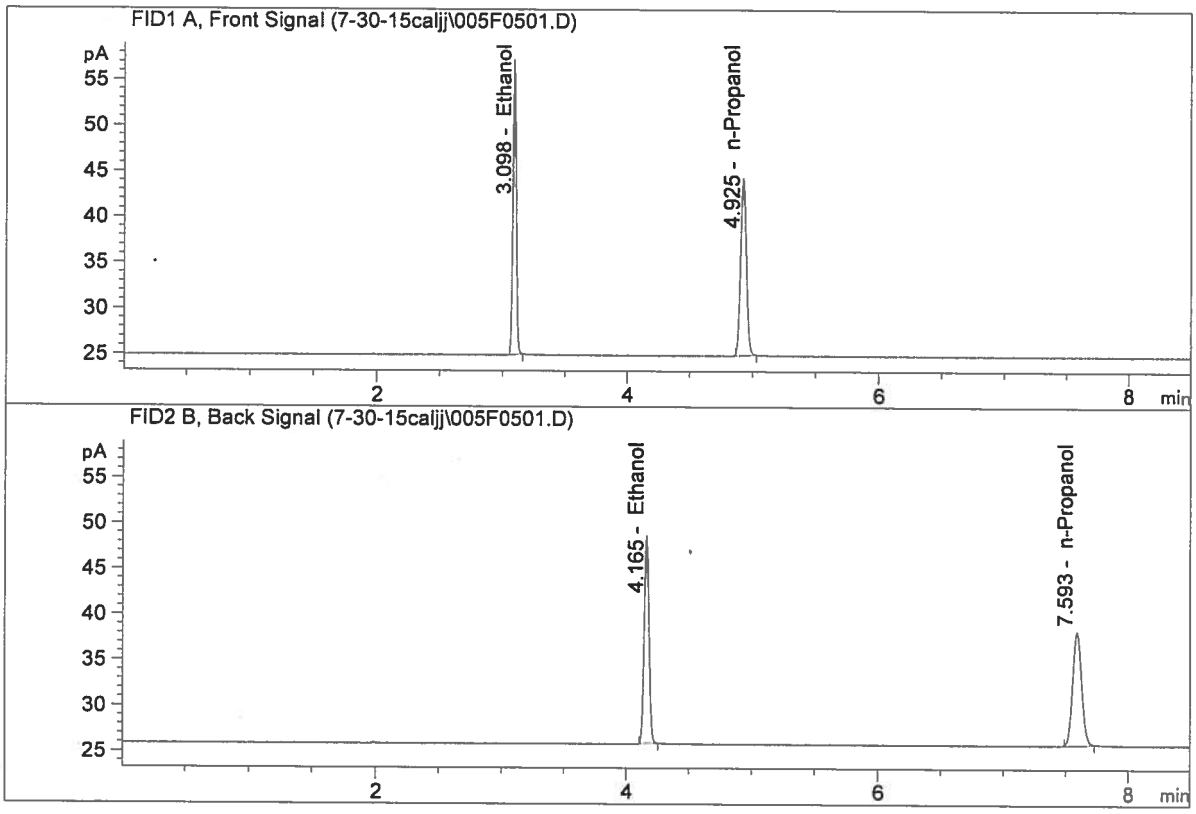


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	37.38147	0.2983	g/100cc
2.	Ethanol	Column 2:	37.16668	0.2980	g/100cc
3.	n-Propanol	Column 1:	63.97086	1.0000	g/100cc
4.	n-Propanol	Column 2:	63.10712	1.0000	g/100cc

99

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.500
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005

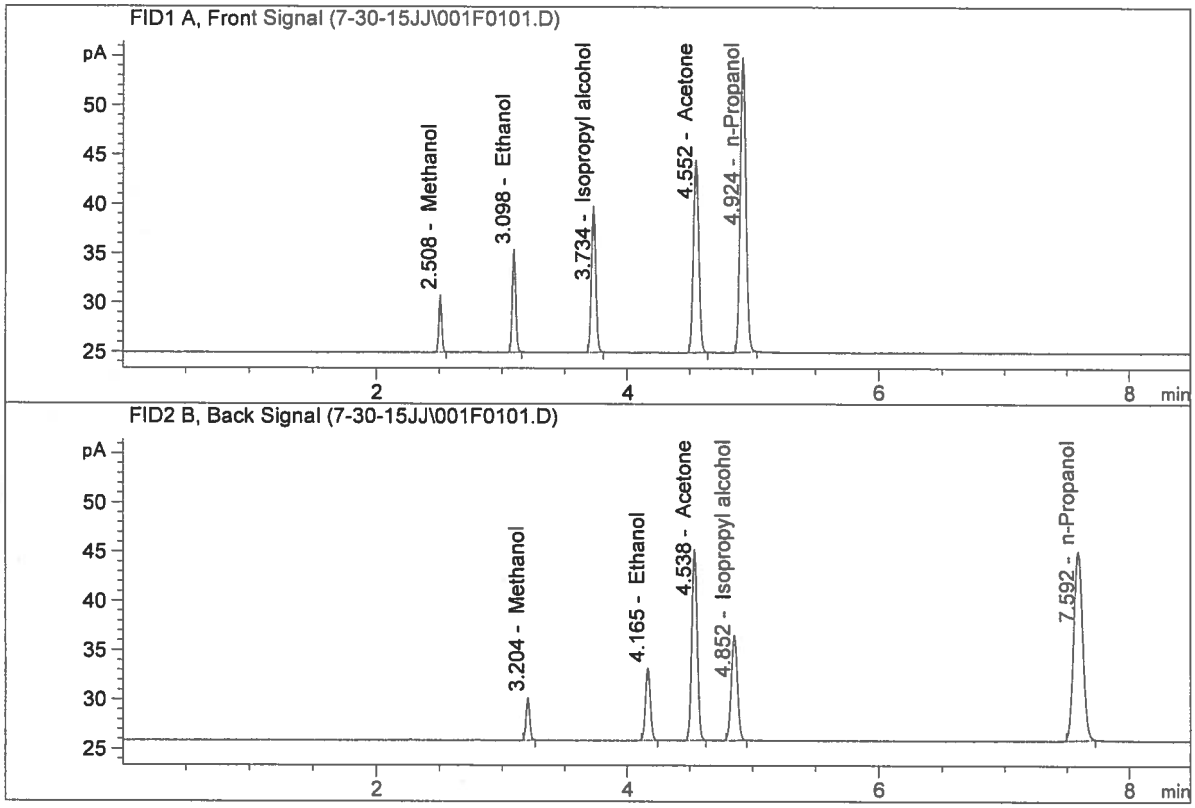


#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	62.19038	0.5008	g/100cc
2.	Ethanol	Column 2:	61.94818	0.5020	g/100cc
3.	n-Propanol	Column 1:	63.40167	1.0000	g/100cc
4.	n-Propanol	Column 2:	62.44037	1.0000	g/100cc

99

ISP Forensic Services Blood Alcohol Report

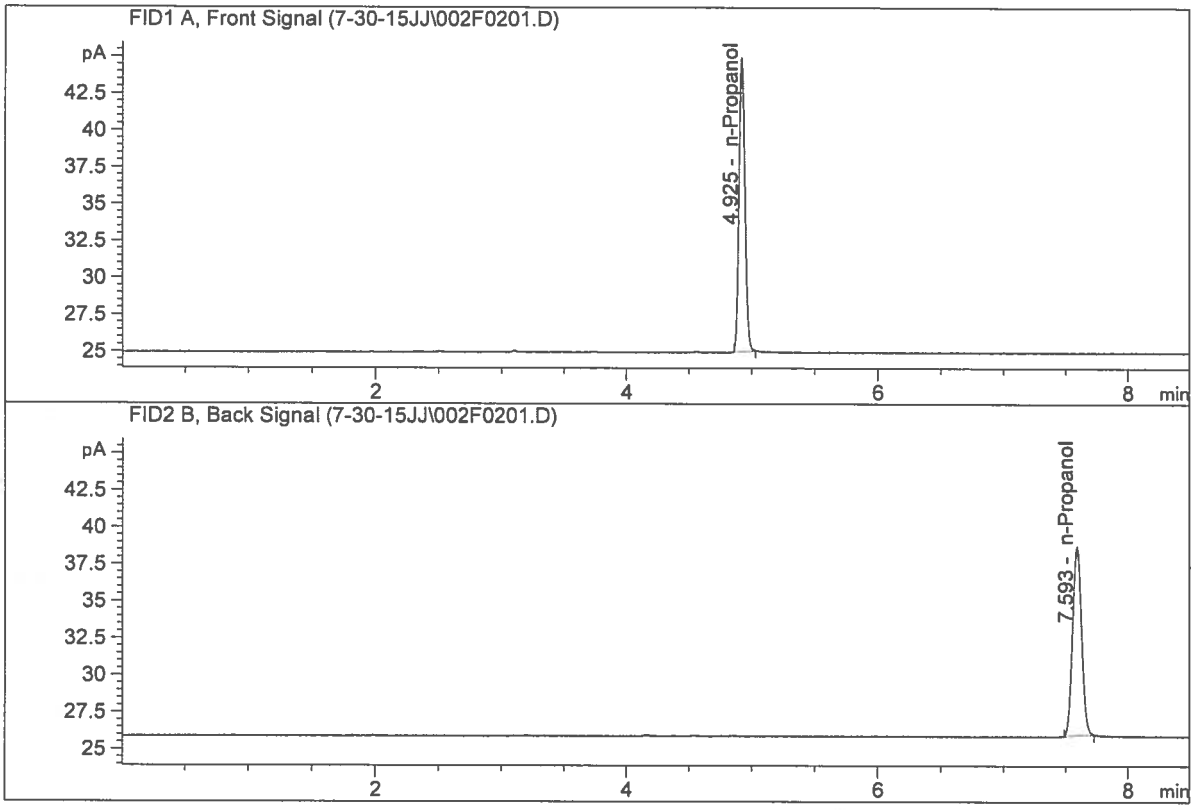
Sample Name : VOL MIX FN-012111-01
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	20.11632	0.1056	g/100cc
2.	Ethanol	Column 2:	20.06359	0.1053	g/100cc
3.	n-Propanol	Column 1:	97.28298	1.0000	g/100cc
4.	n-Propanol	Column 2:	96.42737	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : ISTD BLANK
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	0.00000	0.0000	g/100cc
2.	Ethanol	Column 2:	0.00000	0.0000	g/100cc
3.	n-Propanol	Column 1:	65.07871	1.0000	g/100cc
4.	n-Propanol	Column 2:	64.62925	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-1 **Analysis Date(s): 30 Jul 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.0854	0.0853	0.0001	0.0853	0.0848
(g/100cc)	0.0846	0.0842	0.0004	0.0844	

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-96GF641

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

Overall Mean (g/100cc)	Low	High	5% of Mean
0.084	0.079	0.089	0.005

Reported Result
0.084

Calibration and control data are stored centrally.

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

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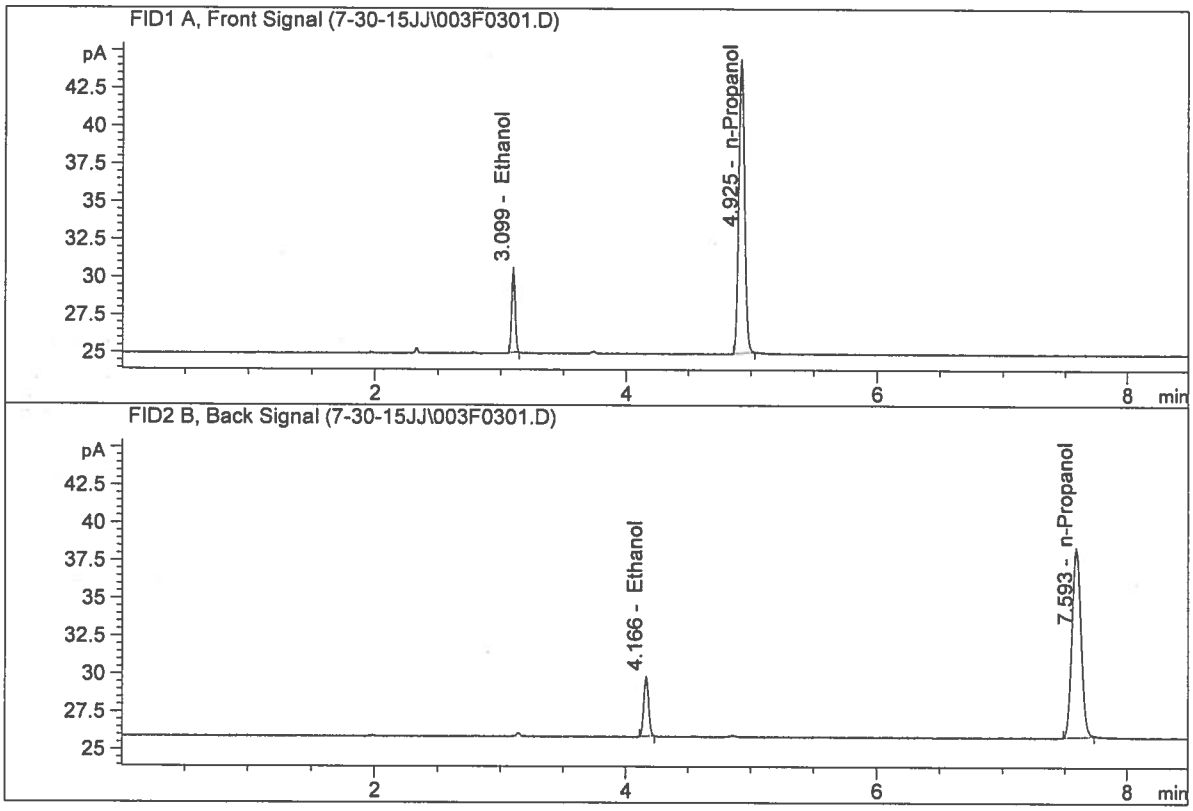
ISP Forensic Services Blood Alcohol Report

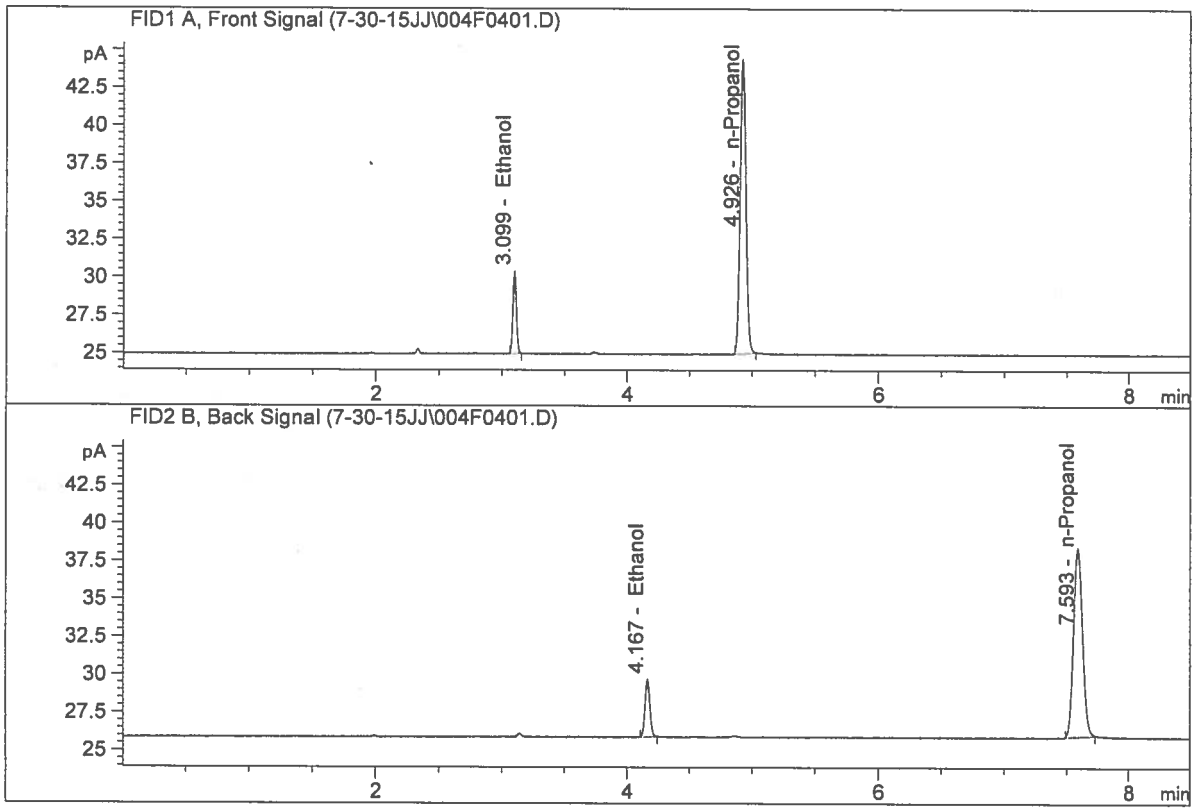
Sample Name : QC-1-A
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	10.63897	0.0854	g/100cc
2.	Ethanol	Column 2:	10.60360	0.0853	g/100cc
3.	n-Propanol	Column 1:	63.60825	1.0000	g/100cc
4.	n-Propanol	Column 2:	62.90470	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : QC-1-B
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	10.49069	0.0846	g/100cc
2.	Ethanol	Column 2:	10.40647	0.0842	g/100cc
3.	n-Propanol	Column 1:	63.32268	1.0000	g/100cc
4.	n-Propanol	Column 2:	62.52740	1.0000	g/100cc

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VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.08 FN011712-02-1 **Analysis Date(s): 30 Jul 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.0806	0.0799	0.0007	0.0802	0.0799	
(g/100cc)	0.0802	0.0792	0.0010	0.0797		

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-96GF641

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

Overall Mean (g/100cc)	Low	High	5% of Mean
0.079	0.075	0.083	0.004

	Reported Result	
	0.079	

Calibration and control data are stored centrally.

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

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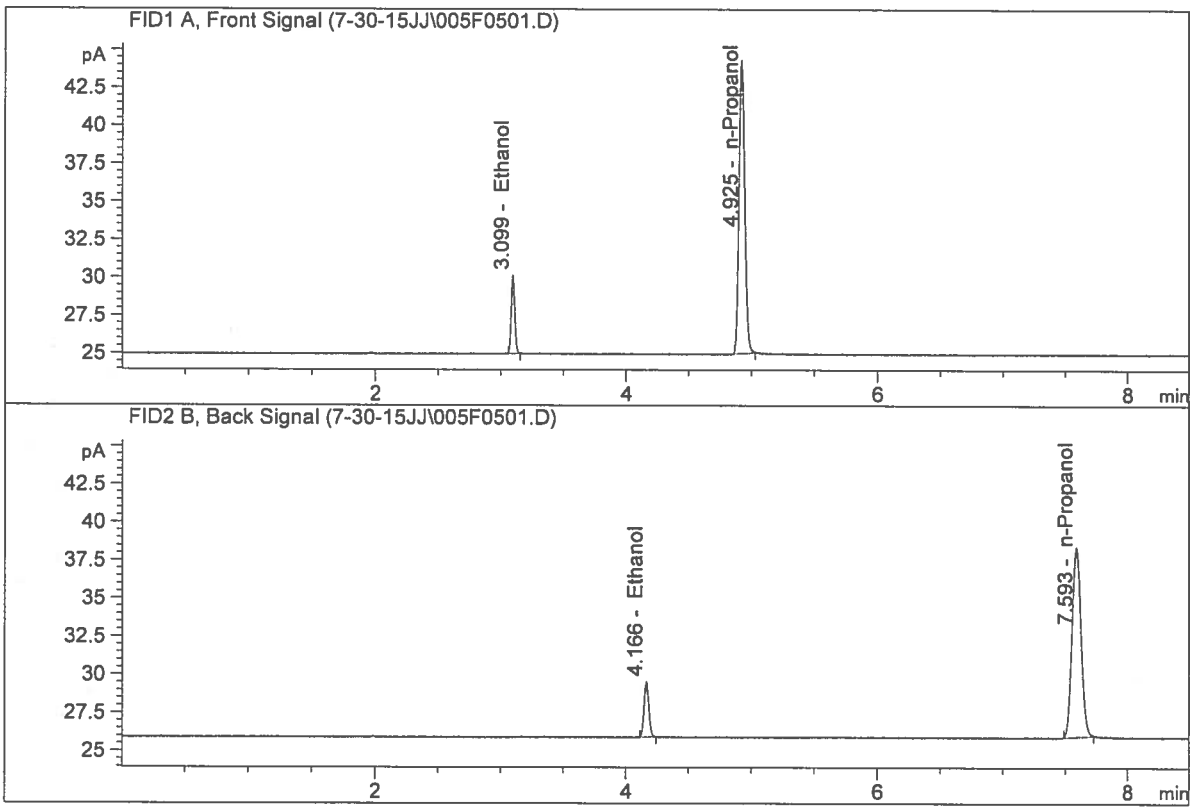
ISP Forensic Services Blood Alcohol Report

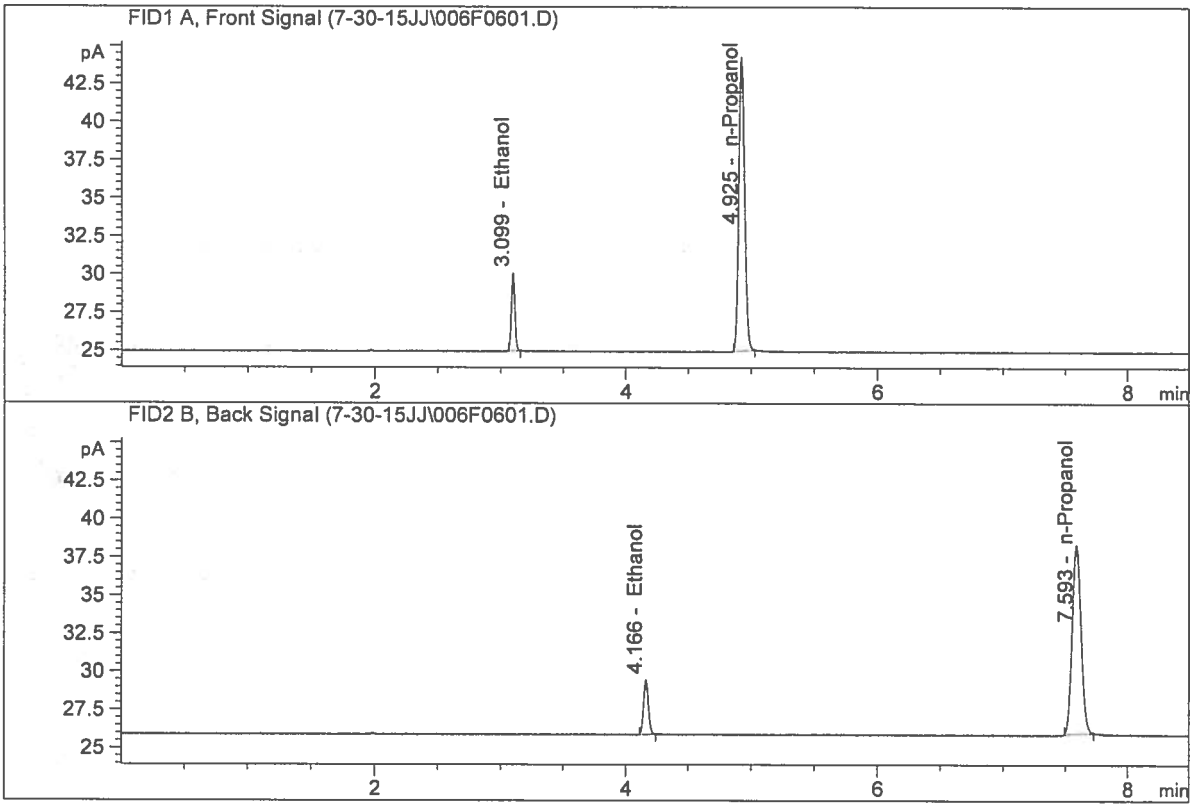
Sample Name : 0.08 FN011712-02-1-A
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	9.96709	0.0806	g/100cc
2.	Ethanol	Column 2:	9.85977	0.0799	g/100cc
3.	n-Propanol	Column 1:	63.11052	1.0000	g/100cc
4.	n-Propanol	Column 2:	62.41893	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : 0.08 FN011712-02-1-B
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	9.91385	0.0802	g/100cc
2.	Ethanol	Column 2:	9.76934	0.0792	g/100cc
3.	n-Propanol	Column 1:	63.07604	1.0000	g/100cc
4.	n-Propanol	Column 2:	62.40728	1.0000	g/100cc

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VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-2 **Analysis Date(s): 30 Jul 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.2017	0.2013	0.0004	0.2015	0.2021
(g/100cc)	0.2031	0.2026	0.0005	0.2028	

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-96GF641

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

Overall Mean (g/100cc)	Low	High	5% of Mean
0.202	**0.191**	**0.213**	**0.011**

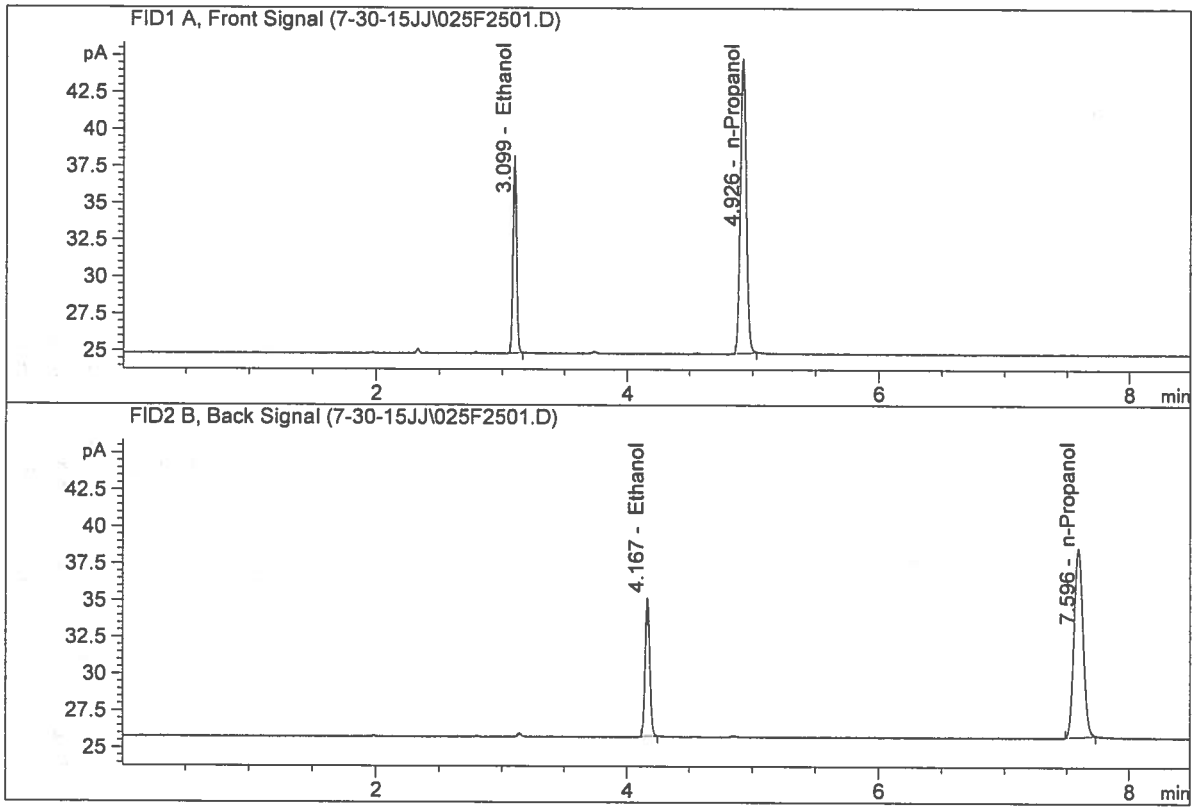
Reported Result
0.202

Calibration and control data are stored centrally.

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

ISP Forensic Services Blood Alcohol Report

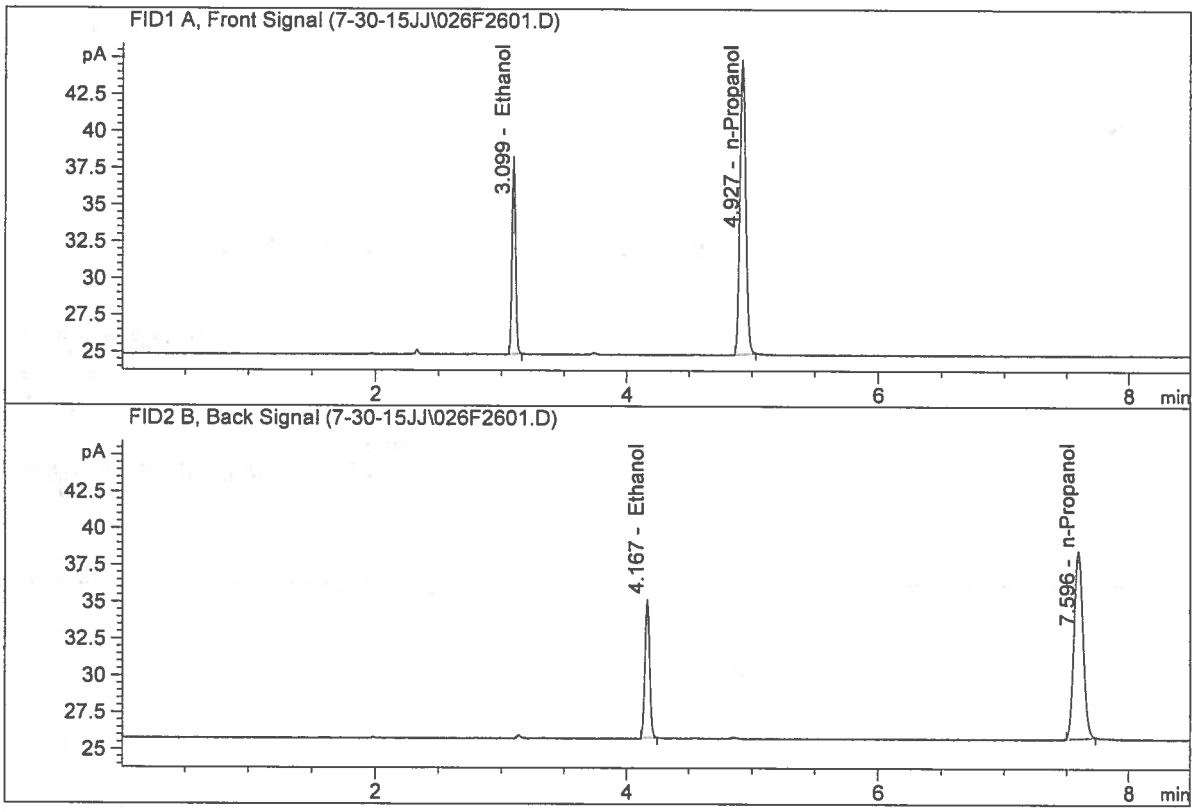
Sample Name : QC-2-A
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	25.74890	0.2017	g/100cc
2.	Ethanol	Column 2:	25.56831	0.2013	g/100cc
3.	n-Propanol	Column 1:	65.17870	1.0000	g/100cc
4.	n-Propanol	Column 2:	64.28056	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : QC-2-B
Laboratory : Coeur d' Alene
Injection Date : Jul 30, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	25.93505	0.2031	g/100cc
2.	Ethanol	Column 2:	25.71619	0.2026	g/100cc
3.	n-Propanol	Column 1:	65.19958	1.0000	g/100cc
4.	n-Propanol	Column 2:	64.20614	1.0000	g/100cc

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VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-1 **Analysis Date(s): 31 Jul 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.0824	0.0818	0.0006	0.0821	0.0810
(g/100cc)	0.0801	0.0798	0.0003	0.0799	

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-96GF641

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

Overall Mean (g/100cc)	Low	High	5% of Mean
0.081	**0.076**	**0.086**	**0.005**

Reported Result
0.081

Calibration and control data are stored centrally.

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

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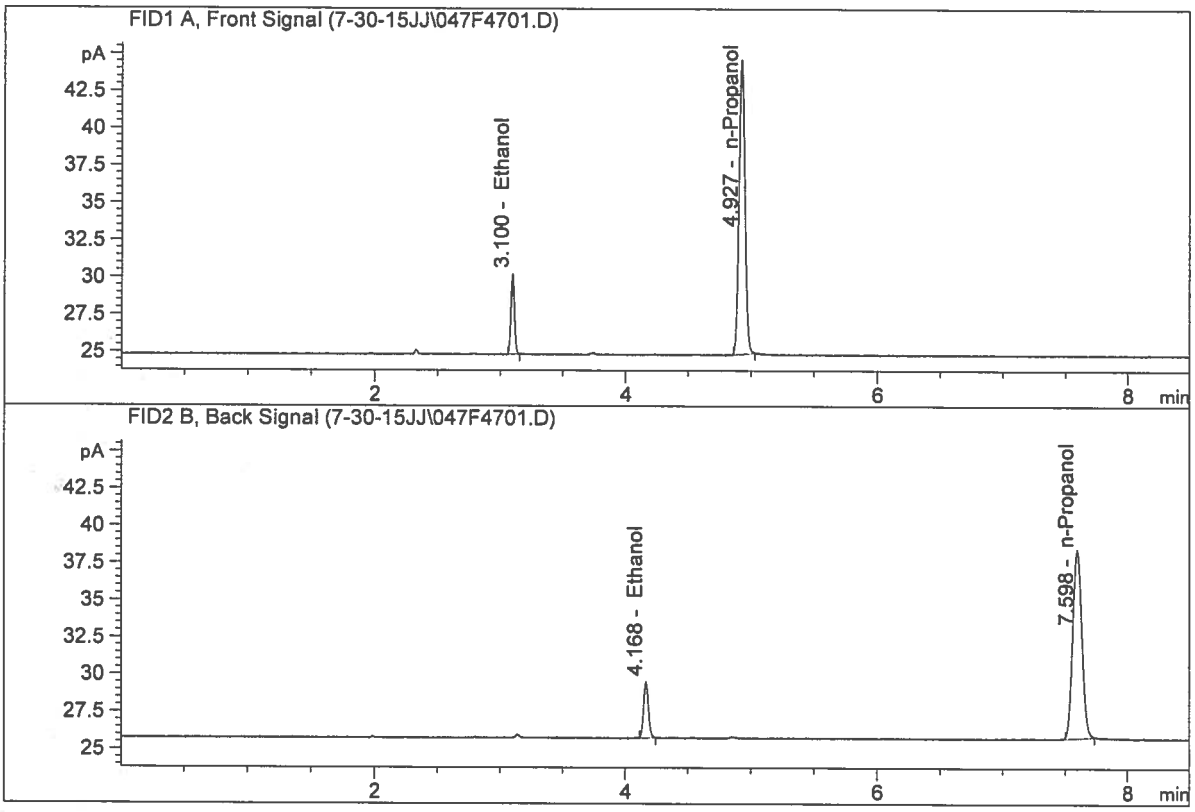
ISP Forensic Services Blood Alcohol Report

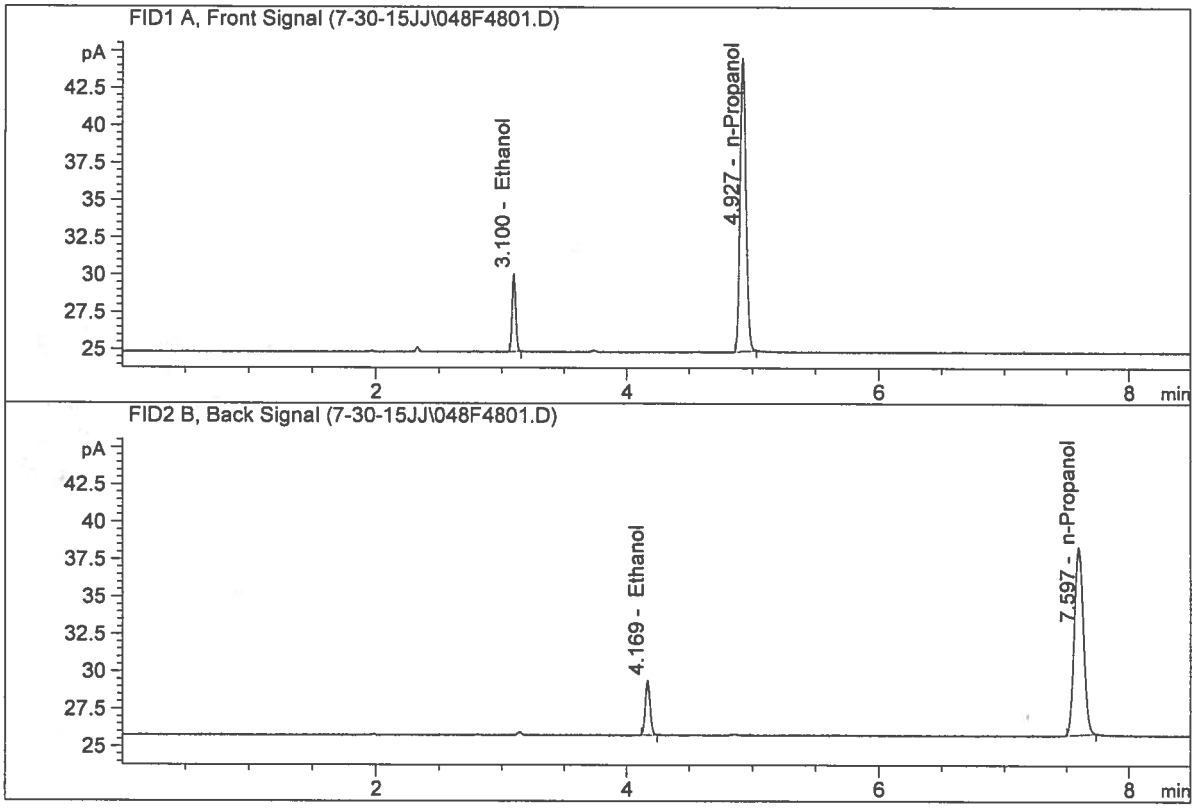
Sample Name : QC-1-A
Laboratory : Coeur d' Alene
Injection Date : Jul 31, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	10.40263	0.0824	g/100cc
2.	Ethanol	Column 2:	10.29136	0.0818	g/100cc
3.	n-Propanol	Column 1:	64.42352	1.0000	g/100cc
4.	n-Propanol	Column 2:	63.67882	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : QC-1-B
Laboratory : Coeur d' Alene
Injection Date : Jul 31, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	10.06501	0.0801	g/100cc
2.	Ethanol	Column 2:	9.97746	0.0798	g/100cc
3.	n-Propanol	Column 1:	64.16901	1.0000	g/100cc
4.	n-Propanol	Column 2:	63.29895	1.0000	g/100cc

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VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC-2 **Analysis Date(s): 31 Jul 2015**

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean
Sample Results	0.2057	0.2047	0.0010	0.2052	0.2059
(g/100cc)	0.2072	0.2060	0.0012	0.2066	

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-96GF641

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

Overall Mean (g/100cc)	Low	High	5% of Mean
0.205	0.194	0.216	0.011

Reported Result
0.205

Calibration and control data are stored centrally.

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

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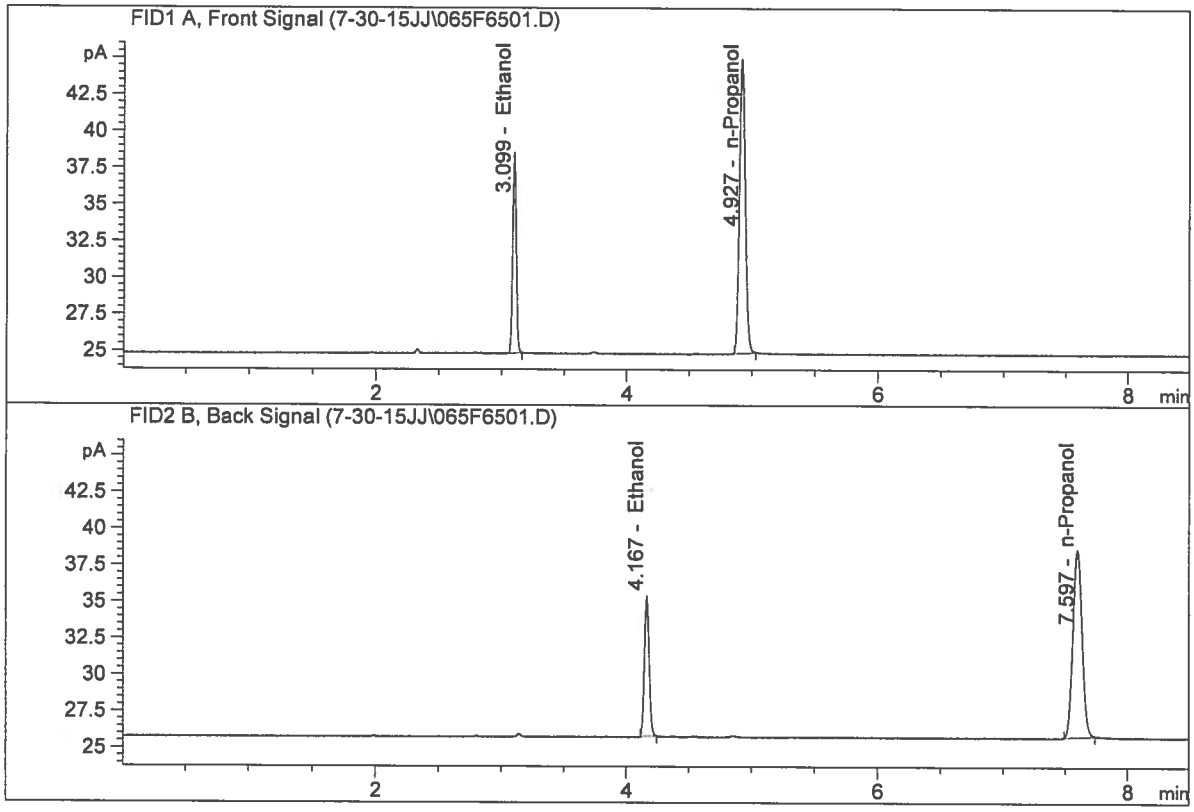
ISP Forensic Services Blood Alcohol Report

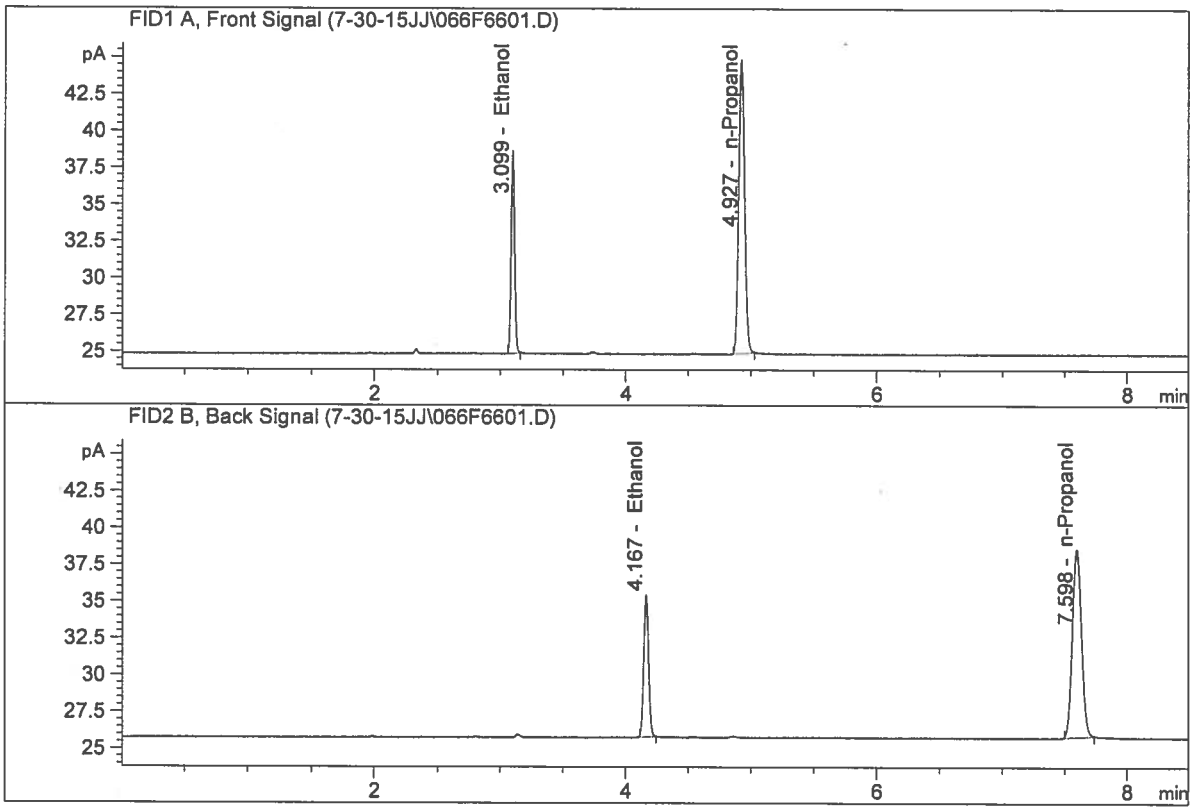
Sample Name : QC-2-A
Laboratory : Coeur d' Alene
Injection Date : Jul 31, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	26.46418	0.2057	g/100cc
2.	Ethanol	Column 2:	26.24142	0.2047	g/100cc
3.	n-Propanol	Column 1:	65.67515	1.0000	g/100cc
4.	n-Propanol	Column 2:	64.85007	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : QC-2-B
Laboratory : Coeur d' Alene
Injection Date : Jul 31, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	26.49548	0.2072	g/100cc
2.	Ethanol	Column 2:	26.27214	0.2060	g/100cc
3.	n-Propanol	Column 1:	65.28860	1.0000	g/100cc
4.	n-Propanol	Column 2:	64.52032	1.0000	g/100cc

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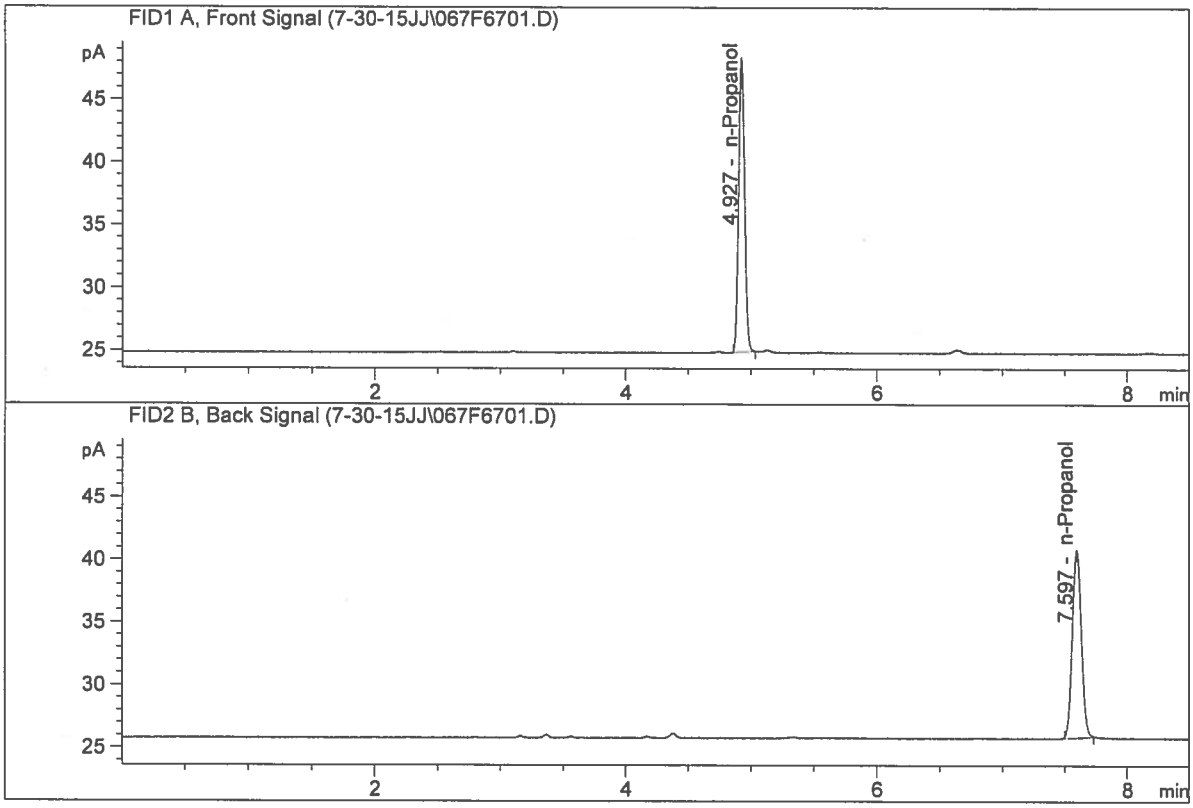
ISP Forensic Services Blood Alcohol Report

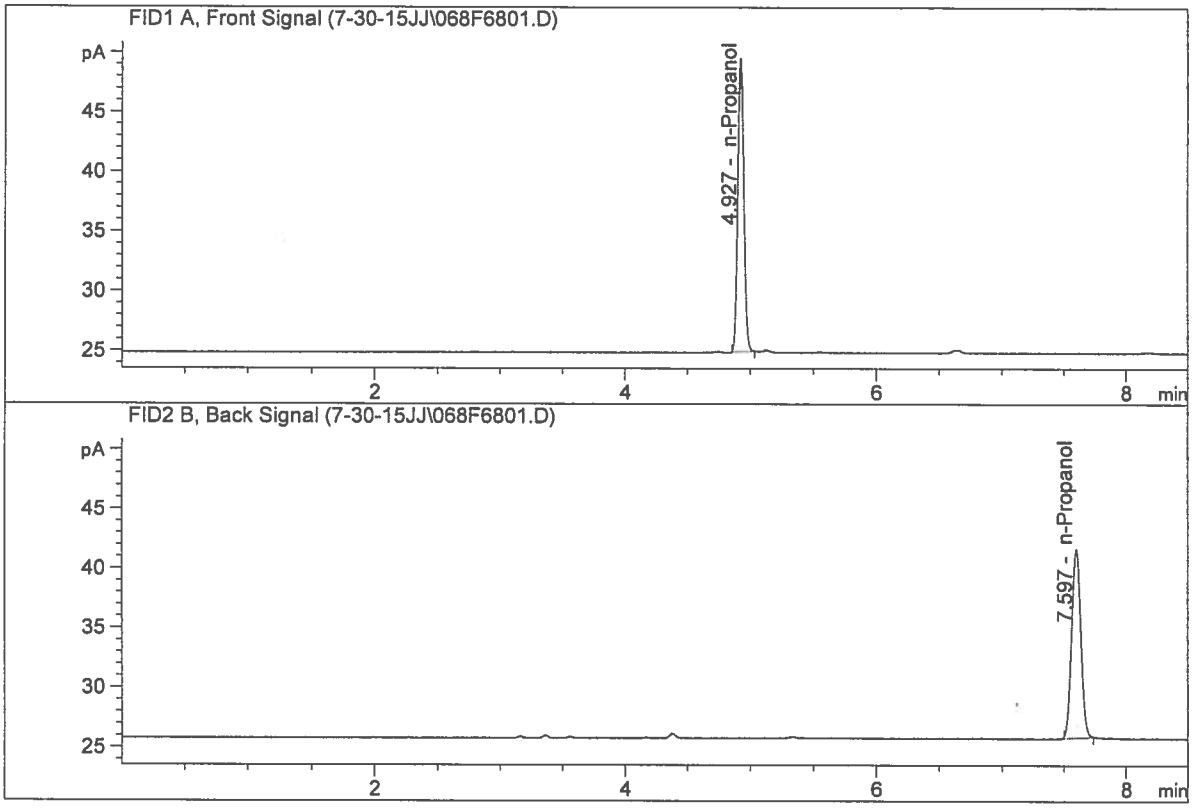
Sample Name : ISTD BLANK
Laboratory : Coeur d' Alene
Injection Date : Jul 31, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	0.00000	0.0000	g/100cc
2.	Ethanol	Column 2:	0.00000	0.0000	g/100cc
3.	n-Propanol	Column 1:	76.26292	1.0000	g/100cc
4.	n-Propanol	Column 2:	75.45161	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

Sample Name : ISTD BLANK
Laboratory : Coeur d' Alene
Injection Date : Jul 31, 2015
Method : ALCOHOL.M
Acq. Instrument: CN10742044-IT00725005



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	0.00000	0.0000	g/100cc
2.	Ethanol	Column 2:	0.00000	0.0000	g/100cc
3.	n-Propanol	Column 1:	80.16965	1.0000	g/100cc
4.	n-Propanol	Column 2:	79.64728	1.0000	g/100cc