Quantitative Analysis for Ethanol & Qualitative Analysis for Other Volatiles

Analytical Method(s): 1.0

Device: Hamilton MICROLAB 600 Liquid Processor/Dilutor Serial Number: ML600HC11378

Run Date: 12/11/18-12/12/18 Calibration Date: 12/11/18 Volatiles Quality Assurance Controls

	0.99994	Column2	1.00000	Column 1	•	Curve Fit:	
	OK	FN06041502	Lot#	07	Multi-Component mixture: Exp date: Sept. 2020	nt mixture:	Multi-Compone
	g/100cc						
	0.2046 g/100cc	0.1832-0.2238		0.2035	1803028	Mar-22	Level 2
	0.2014 g/100cc						
	g/100cc						
	0.0869 g/100cc	0.0731-0.0893		0.0812	1801036	Jan-22	Level 1
	0.0804 g/100cc		-				
	Overall Results	Acceptable Range	Target Value Ac	Target	Tot #	Expiration	Control level Expiration
Candiation Date. 12/11/	Calibration						

	Mean	0.0512	#DIV/0!	0.1	0.1986	0.299	#DIA/0i	0.5009
	Precision	0.0015	0	0.0005	0.0021	0.0013	0	0.0013
	Column 2	0.0520		0.1003	0.1976	0.2984		0.5016
	Column 1	0.0505		0.0998	0.1997	0.2997		0.5003
	Acceptable Range Column 1 Column 2 Precision	0.045 - 0.055	0.072 - 0.088	0.090 - 0.110	0.180 - 0.220	0.270 - 0.330	0.360 - 0.440	0.450 - 0.550
	Target Value	0.050	0.080	0.100	0.200	0.300	0.400	0.500
Ethanol Calibration Reference Material	Cerilliant Lot #	FN06231406		FN08101601	FN12011401	FN02121601		FN08031602
ibration Refe	Expiration	Jul-19		Aug-21	Dec-19	Feb-21		Sep-21
Ethanol Cali	Calibrator level Expiration	0.050	0800	0.100	0.200	0.300	0.400	0.500

REVIEWED

By Rachel Cutler at 7:10 pm, Dec 12, 2018

7	Agueous Cont	trols			
Control level	Expiration	Cerilliant Lot#	Target Value	Acceptable Range	Overall Results
0.080	May-22	FN04171701	0.08000	0.076 - 0.084	0.080 g/100cc

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

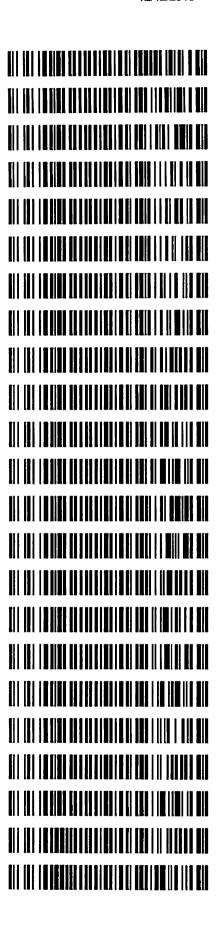
Issued: 4/22/2015
Volatiles QA/QC data spreadsheet Rev 5

Issuing Authority: Quality Manager



Worklist: 2835

LAB CASE M2018-5815	ITEM 3	TASK ID 134232	DESCRIPTION Alcohol Analysis
M2018-5917	1	133125	Alcohol Analysis
M2018-5955	1	133408	Alcohol Analysis
M2018-5956	1	133419	Alcohol Analysis
M2018-5958	1	133421	Alcohol Analysis
M2018-5959	1	133422	Alcohol Analysis
M2018-5960	1	133423	Alcohol Analysis
M2018-5961	1	133424	Alcohol Analysis
M2018-5983	1	133467	Alcohol Analysis
M2018-5987	1	133480	Alcohol Analysis
M2018-5988	1	133481	Alcohol Analysis
M2018-5994	1	133501	Alcohol Analysis
M2018-6005	1	133575	Alcohol Analysis
M2018-6025	1	133600	Alcohol Analysis
M2018-6026	1	133601	Alcohol Analysis
M2018-6044	1	133702	Alcohol Analysis
M2018-6045	1	133709	Alcohol Analysis
M2018-6060	1	133777	Alcohol Analysis
M2018-6061	1	133780	Alcohol Analysis
M2018-6062	1	133788	Alcohol Analysis
M2018-6063	1	133804	Alcohol Analysis
P2018-3281	2	133784	Alcohol Analysis
P2018-3307	1	132784	Alcohol Analysis

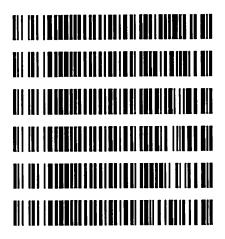


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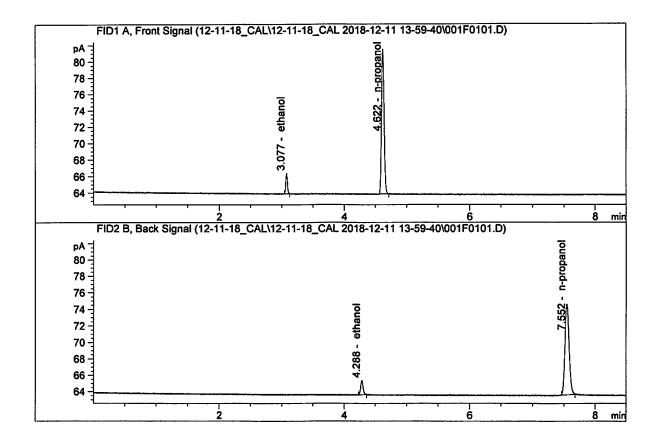
Worklist: 2835

LAB CASE P2018-3308	<u>ITEM</u> 1	TASK ID 132785	DESCRIPTION Alcohol Analysis
P2018-3310	1	132790	Alcohol Analysis
P2018-3332	1	132855	Alcohol Analysis
P2018-3333	1	132899	Alcohol Analysis
P2018-3341	1	132957	Alcohol Analysis
P2018-3370	1	133186	Alcohol Analysis



Sample Name : 0.050 FN06231406

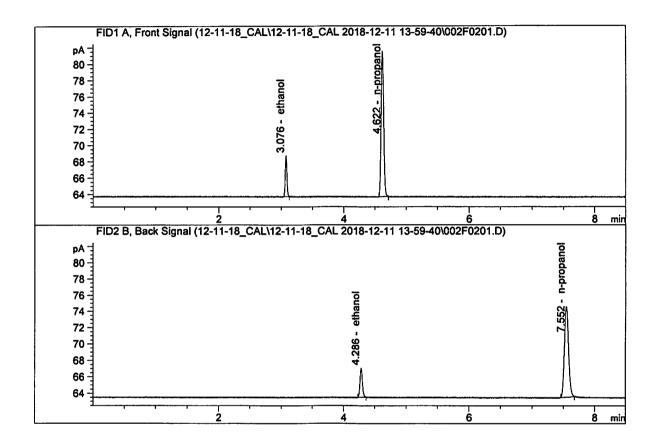
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	4.51683	0.0505	g/100cc
2.	Ethanol	Column 2:	4.66970	0.0520	g/100cc
3.	n-Propanol	Column 1:	50.11460	1.0000	g/100cc
4.	n-Propanol	Column 2:	52.56495	1.0000	g/100cc

Sample Name : 0.100 FN08101601

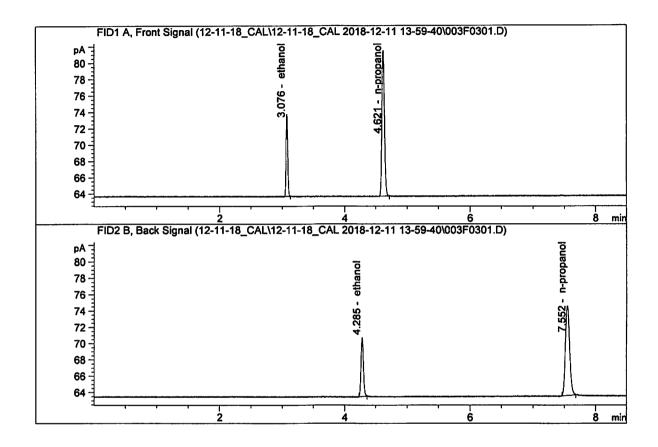
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units	
1.	Ethanol	Column 1:	9.16088	0.0998	g/100cc	_
2.	Ethanol	Column 2:	9.51851	0.1003	g/100cc	
З.	n-Propanol	Column 1:	50.70458	1.0000	g/100cc	
4.	n-Propanol	Column 2:	52.77800	1.0000	g/100cc	

Sample Name : 0.200 FN12011401

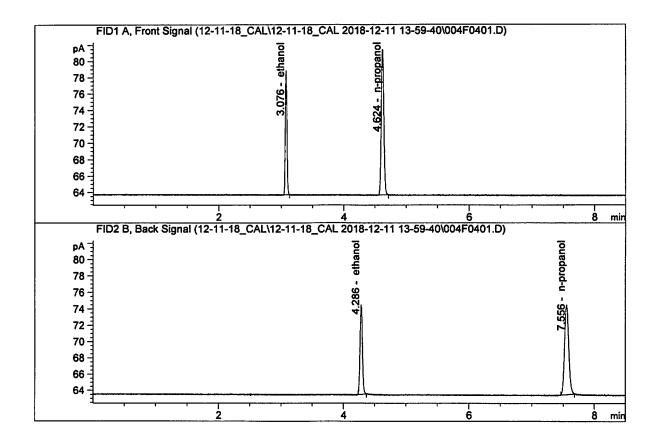
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units
	Ethanol	Column 1:	18.38613	0.1997	g/100cc
	Ethanol	Column 2:	19.14837	0.1976	g/100cc
	n-Propanol	Column 1:	50.54507	1.0000	g/100cc
4.	n-Propanol	Column 2:	52.49086	1.0000	g/100cc

Sample Name : 0.300 FN02121601

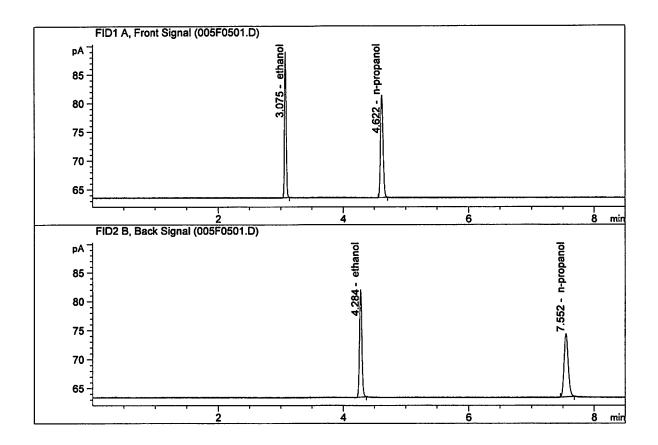
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units	
1.	Ethanol	Column 1:	27.62826	0.2997	g/100cc	
2.	Ethanol	Column 2:	29.04338	0.2984	g/100cc	
3.	n-Propanol	Column 1:	50.49660	1.0000	g/100cc	
4.	n-Propanol	Column 2:	52.24192	1.0000	g/100cc	

Sample Name : 0.500 FN08031602

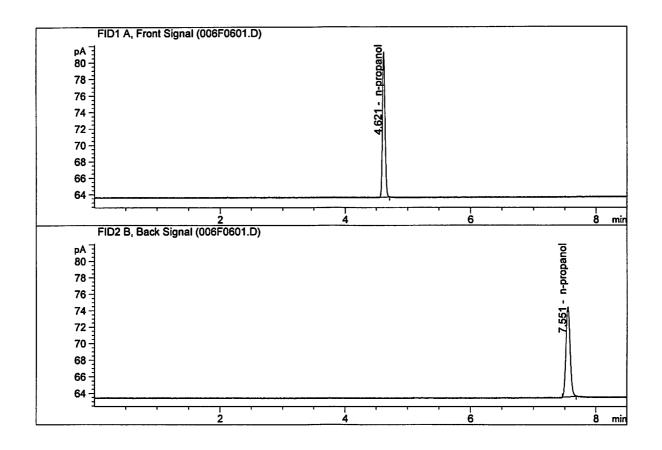
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	46.18552	0.5003	g/100cc
2.	Ethanol	Column 2:	49.01530	0.5016	g/100cc
З.	n-Propanol	Column 1:	50.48219	1.0000	g/100cc
4.	n-Propanol	Column 2:	52.07859	1.0000	g/100cc

Sample Name : INTERNAL STANDARD BLANK

Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



# 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-Propand	ol Column 1:	49.96477	1.0000	g/100cc	
4. n-Propand	ol Column 2:	51.62820	1.0000	g/100cc	

Sample Summary

Sequence table: C:\Chem32\1\Data\12-11-18_CAL\12-11-18_CAL 2018-12-11 13-59-40\12-11-18_

CAL.S

Data directory path: C:\Chem32\1\Data\12-11-18_CAL\12-11-18_CAL 2018-12-11 13-59-40\

Logbook: C:\Chem32\1\Data\12-11-18_CAL\12-11-18_CAL 2018-12-11 13-59-40\12-11-18_

CAL.LOG

Sequence start: 12/11/2018 2:14:18 PM

Sequence Operator: SYSTEM Operator: SYSTEM

Method file name: C:\Chem32\1\Data\12-11-18_CAL\12-11-18_CAL 2018-12-11 13-59-40\ALCOHOL.M

Run #	Location	Inj #	Sample Name	Sample Amt [g/100cc]	Multip.* Dilution	File name	Cal	# Cmp
1	1	1	0.050 FN06231406	-	1.0000	001F0101.D	*	4
2	2	1	0.100 FN08101601	-	1.0000	002F0201.D	*	4
3	3	1	0.200 FN12011401	-	1.0000	003F0301.D	*	4
4	4	1	0.300 FN02121601	-	1.0000	004F0401.D	*	4
5	5	1	0.500 FN08031602	-	1.0000	005F0501.D	*	4
6	6	1	INTERNAL STANDAR	-	1.0000	006F0601.D		2

```
______
                   Calibration Table
_____
_____
               General Calibration Setting
 .....
                     Tuesday, December 11, 2018 3:04:51 PM
Calib. Data Modified :
Signals calculated separately: No
Rel. Reference Window :
                    0.000 %
                    0.100 min
Abs. Reference Window:
                    0.000 %
Rel. Non-ref. Window :
Abs. Non-ref. Window :
                    0.100 min
Uncalibrated Peaks : not reported
Partial Calibration : Yes, identified peaks are recalibrated
Correct All Ret. Times: No, only for identified peaks
                   Linear
Curve Type
Origin
               :
                     Ignored
Weight
                      Equal
Recalibration Settings:
                   Average all calibrations
Floating Average New 75%
Average Response :
Average Retention Time:
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 Name
 # [q/100cc]
----
     1.00000 n-propanol
      1.00000 n-propanol
  ------
______
                    Signal Details
Signal 1: FID1 A, Front Signal
Signal 2: FID2 B, Back Signal
                    Overview Table
```

```
Area Rsp.Factor Ref ISTD # Compound
   RT Sig Lvl Amount
               [g/100cc]
2.586 1 1 1.00000 3.69669 2.70512e-1 No No 1 methanol 2.809 1 1 1.00000 4.26100 2.34687e-1 No No 2 Acetaldehyde
  2.977 2 1 1.00000 4.26100 2.34687e-1 No No 2 Acetaldehyde
3.075 1 1 5.00000e-2 4.51683 1.10697e-2 No No 1 ethanol
          2 1.00000e-1 9.16088 1.09160e-2
           3 2.00000e-1 18.38613 1.08778e-2
4 3.00000e-1 27.62826 1.08584e-2
5 5.00000e-1 46.18552 1.08259e-2
  3.388 2 1 1.00000 4.26062 2.34707e-1 No No 2 methanol
  3.628 1 1 1.00000 9.73055 1.02769e-1 No No 1 isopropyl alcohol
  4.285 2 1 5.00000e-2 4.66970 1.07073e-2 No No 2 ethanol
           2 1.00000e-1 9.51851 1.05058e-2
           3 2.00000e-1 19.14837 1.04448e-2
           4 3.00000e-1 29.04338 1.03294e-2
5 5.00000e-1 49.01530 1.02009e-2
  4.308 1 1 1.00000 6.49940 1.53860e-1 No No 1 acetone
  4.620 1 1 1.00000 50.11460 1.99543e-2 No Yes 1 n-propanol
              1.00000 50.70458 1.97221e-2
1.00000 50.54507 1.97843e-2
           2
           3
           4 1.00000 50.49660 1.98033e-2
           5 1.00000 50.48219 1.98090e-2
  4.661 2 1 1.00000 6.89301 1.45075e-1 No No 2 acetone
4.969 2 1 1.00000 10.70642 9.34019e-2 No No 2 isopropyl alcohol
  7.550 2 1 1.00000 52.56495 1.90241e-2 No Yes 2 n-propanol
           2
              1.00000 52.77800 1.89473e-2
              1.00000 52.49086 1.90509e-2
1.00000 52.24192 1.91417e-2
           3
           5 1.00000 52.07859 1.92017e-2
                           Peak Sum Table
***No Entries in table***
______
61 Warnings or Errors (10 first messages follow) :
Warning: Curve requires more calibration points., (methanol)
Warning: Curve requires more calibration points. at 2.586 min, signal 1
Warning: Curve requires more calibration points. at 2.809 min, signal 1
Warning: Curve requires more calibration points. at 2.977 min, signal 2
Warning: Curve requires more calibration points. at 3.388 min, signal 2
Warning: Curve requires more calibration points. at 3.628 min, signal 1
Warning: Curve requires more calibration points. at 4.308 min, signal 1
Warning: Curve requires more calibration points. at 4.62 min, signal 1
Warning: Curve requires more calibration points. at 4.661 min, signal 2
Warning: Curve requires more calibration points. at 4.969 min, signal 2
```

Calibration Curves

_____ 0.07 0.06 0.05 0.04 -0.03 -0.02 0.01 -0 0.5 1

Amount Ratio

methanol at exp. RT: 2.586

FID1 A, Front Signal

1.00000 Correlation: Residual Std. Dev.: 0.00000

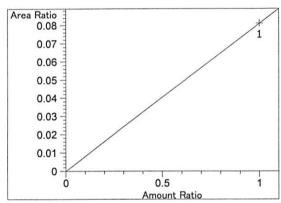
Formula: y = mx + b

7.37648e-2 m :

0.00000

x: Amount Ratio

y: Area Ratio



Acetaldehyde at exp. RT: 2.809

FID1 A, Front Signal

Correlation: 1.00000

Residual Std. Dev.: 0.00000

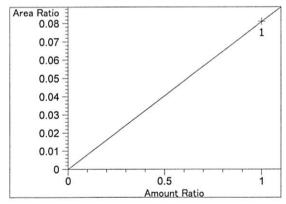
Formula: y = mx + b

8.10616e-2 m:

0.00000

x: Amount Ratio

y: Area Ratio



Acetaldehyde at exp. RT: 2.977

FID2 B, Back Signal

1.00000 Correlation:

0.00000 Residual Std. Dev.:

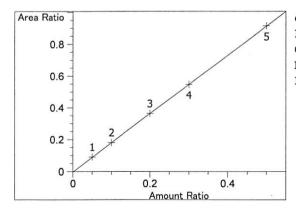
Formula: y = mx + b

8.10616e-2 m:

b: 0.00000

x: Amount Ratio

y: Area Ratio



ethanol at exp. RT: 3.075

FID1 A, Front Signal

Correlation: 1.00000

Residual Std. Dev.: 0.00074

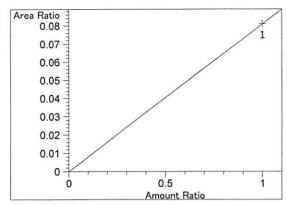
Formula: y = mx + b

1.83356 m:

-2.40276e-3

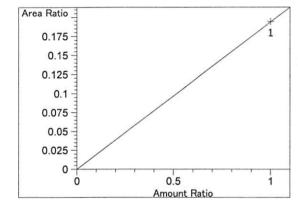
x: Amount Ratio

y: Area Ratio

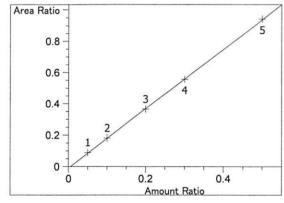


methanol at exp. RT: 3.388
FID2 B, Back Signal
Correlation: 1.00000
Residual Std. Dev.: 0.00000
Formula: y = mx + b
 m: 8.10545e-2

m: 8.105456 b: 0.00000 x: Amount Ratio y: Area Ratio



b: 0.00000 x: Amount Ratio y: Area Ratio



ethanol at exp. RT: 4.285

FID2 B, Back Signal

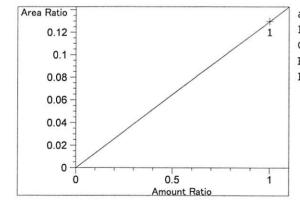
Correlation: 0.99994

Residual Std. Dev.: 0.00426

Formula: y = mx + b

m: 1.89574

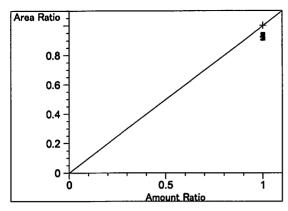
b: -9.79940e-3 x: Amount Ratio y: Area Ratio



acetone at exp. RT: 4.308 FID1 A, Front Signal

Correlation: 1.00000 Residual Std. Dev.: 0.00000

Formula: y = mx + b
m: 1.29691e-1
b: 0.00000
x: Amount Ratio
y: Area Ratio



n-propanol at exp. RT: 4.620

FID1 A, Front Signal

Correlation: 1.00000

Residual Std. Dev.: 0.00000

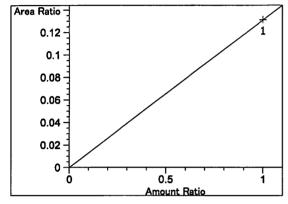
Formula: y = mx + b

m: 1.00000

b: 0.00000

x: Amount Ratio

y: Area Ratio



acetone at exp. RT: 4.661

FID2 B, Back Signal

Correlation: 1.00000

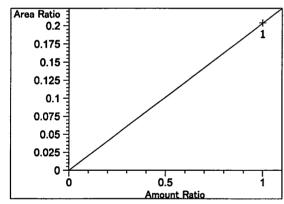
Residual Std. Dev.: 0.00000

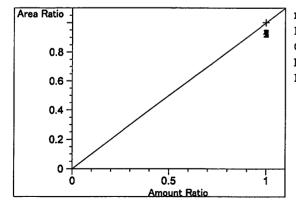
Formula: y = mx + b

m: 1.31133e-1

b: 0.00000

x: Amount Ratio
y: Area Ratio





n-propanol at exp. RT: 7.550

FID2 B, Back Signal

Correlation: 1.00000

Residual Std. Dev.: 0.00000

Formula: y = mx + b

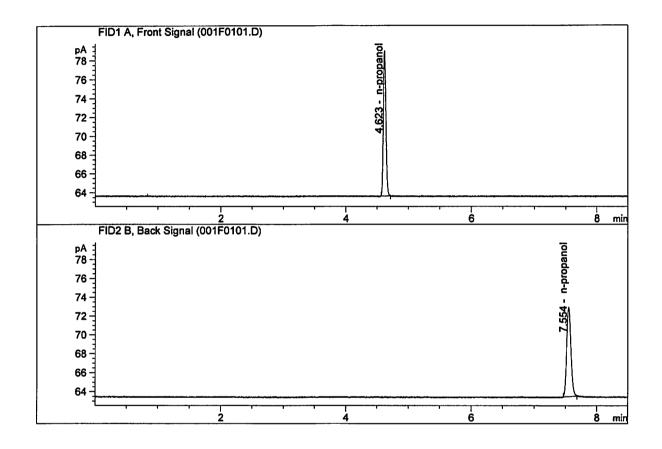
m: 1.00000

b: 0.00000

x: Amount Ratio
y: Area Ratio

Sample Name : INTERNAL STD BLK 1

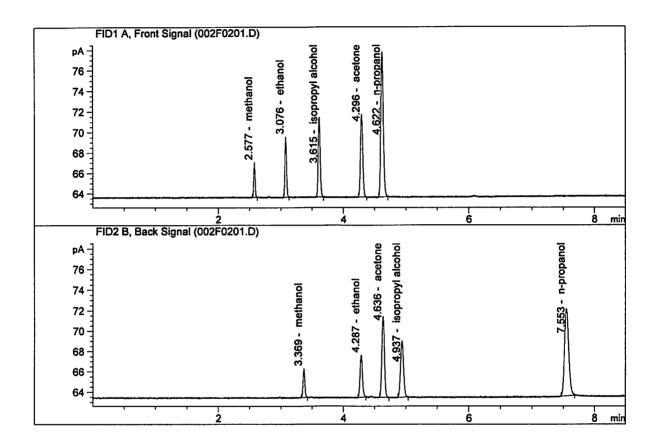
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	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:	43.61349	1.0000	g/100cc
4.	n-Propanol	Column 2:	45.03731	1.0000	g/100cc

Sample Name : MIX VOL FN06041502

Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	10.53064	0.1454	g/100cc
2.	Ethanol	Column 2:	10.92680	0.1463	g/100cc
3.	n-Propanol	Column 1:	39.84533	1.0000	g/100cc
4.	n-Propanol	Column 2:	40.85156	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC1-1

Analysis Date(s): 11 Dec 2018

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.0806	0.0810	0.0004	0.0808	0.0804	
(g/100cc)	0.0801	0.0802	0.0001	0.0801		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M

Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results	Uncertainty of Measurement (UM%): 5.00%			
Overall Mean (g/100cc)	Low	High	5% of Mean	
0.080	0.076	0.084	0.004	
R				
	0.080		ombooden ja sied kalkunkoole, eska sepäännin popusa sityin pinnin ja saasa sityin ja saasa sityin ja saasa si	

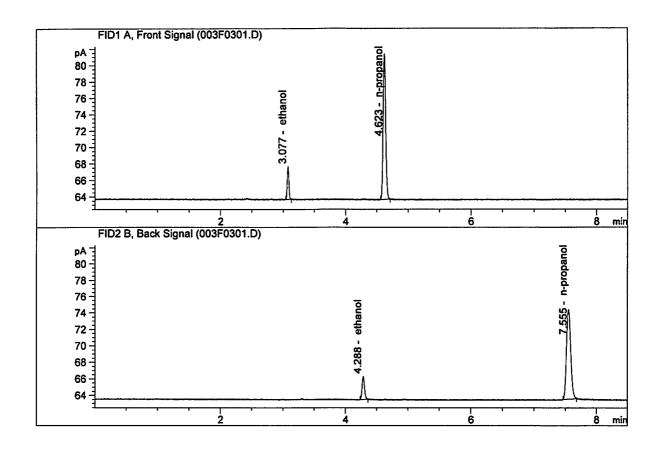
Calibration and control data are stored centrally.

Issued: 12/30/2016

Volatiles BAC Calculation Spreadsheet Rev 4

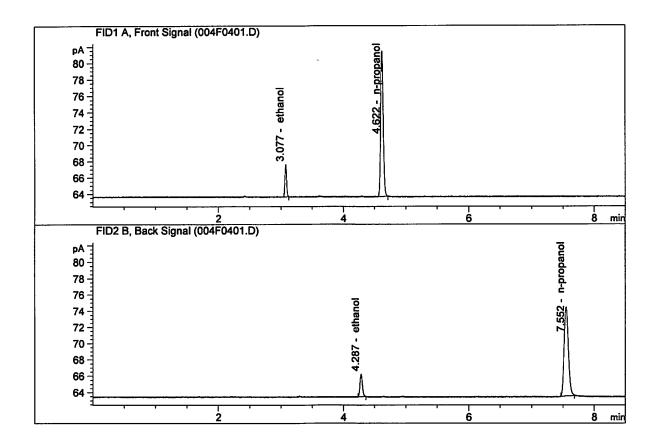
Issuing Authority: Quality Manager

Sample Name : QC1-1-A
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column		Area	Amount	Units
1.	Ethanol	Column	1:	7.30552	0.0806	g/100cc
2.	Ethanol	Column	2:	7.44102	0.0810	g/100cc
3.	n-Propanol	Column	1:	50.27646	1.0000	g/100cc
4.	n-Propanol	Column	2:	51.76587	1.0000	g/100cc

Sample Name : QC1-1-B
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Aŗea	Amount	Units
1.	Ethanol	Column 1:	7.30554	0.0801	g/100cc
2.	Ethanol	Column 2:	7.40059	0.0802	g/100cc
3.	n-Propanol	Column 1:	50.59834	1.0000	g/100cc
4.	n-Propanol	Column 2:	52.01742	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: 0.08 FN04171701 Analysis Date(s): 11 Dec 2018

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.0804	0.0802	0.0002	0.0803	0.0807	
(g/100cc)	0.0813	0.0810	0.0003	0.0811		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M

Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results	Uncertainty of Measurement (UM%): 5.00%			
Overall Mean (g/100cc)	Low	High	5% of Mean	
0.080	0.076	0.084	0.004	
R	Reported Result			
	0.080			

Calibration and control data are stored centrally.

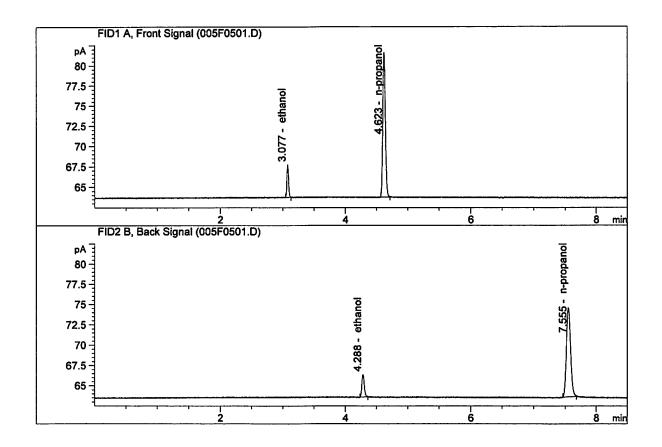
Issued: 12/30/2016

Volatiles BAC Calculation Spreadsheet Rev 4

Issuing Authority: Quality Manager

Sample Name : 0.08 FN04171701-A

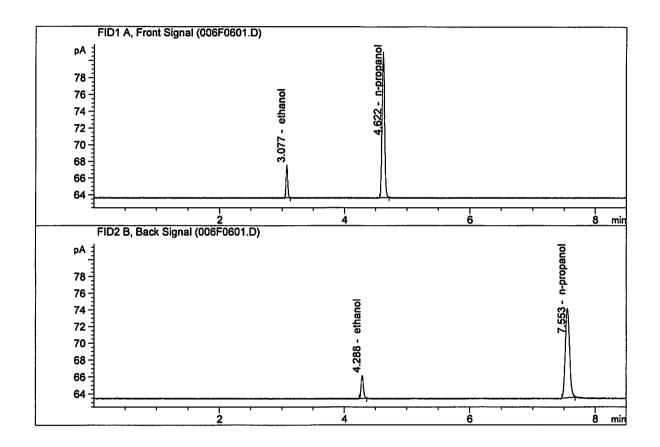
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	7.37577	0.0804	g/100cc
2.	Ethanol	Column 2:	7.43290	0.0802	g/100cc
3.	n-Propanol	Column 1:	50.84544	1.0000	g/100cc
4.	n-Propanol	Column 2:	52.27395	1.0000	g/100cc

Sample Name : 0.08 FN04171701-B

Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units
2.	Ethanol Ethanol n-Propanol	Column 1: Column 2: Column 1:	7.22380 7.28329 49.25043	0.0813 0.0810 1.0000	g/100cc g/100cc g/100cc
	n-Propanol	Column 2:	50.63509	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

Laboratory No.: QC2-1

Analysis Date(s): 11 Dec 2018

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.2012	0.2013	0.0001	0.2012	0.2014	
(g/100cc)	0.2024	0.2007	0.0017	0.2015		

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M

Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results	Uncertain	Uncertainty of Measurement (UM%): 5.00%			
Overall Mean (g/100cc)	Low	High	5% of Mean		
0.201	0.190	0.212	0.011		
	ang, kanad pang pang pang pang pang pang pang pang				
	0.201				

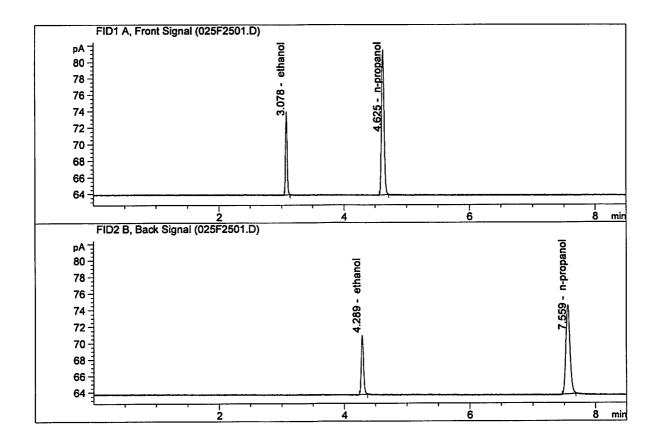
Calibration and control data are stored centrally.

Issued: 12/30/2016

Volatiles BAC Calculation Spreadsheet Rev 4

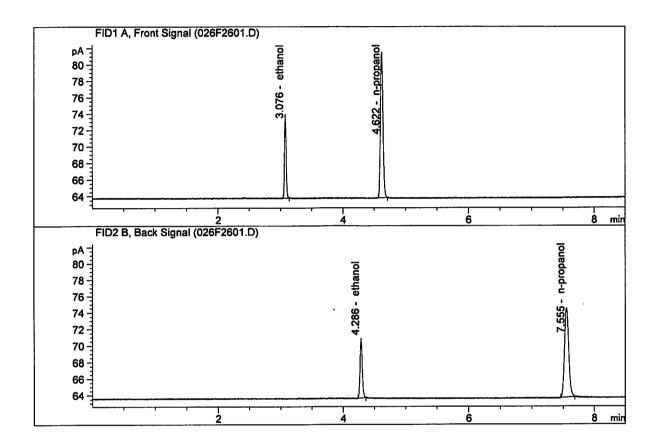
Issuing Authority: Quality Manager

Sample Name : QC2-1-A
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units	
1.		Column 1:	18.42398	0.2012	g/100cc	
2.	Ethanol	Column 2:	19.18984	0.2013	g/100cc	
з.	n-Propanol	Column 1:	50.25730	1.0000	g/100cc	
4.	n-Propanol	Column 2:	51.62061	1.0000	g/100cc	

Sample Name : QC2-1-B
Laboratory : Meridian
Injection Date : Dec 11, 2018
Method : ALCOHOL.M



#	Compound	Column	Area	Amount	Units
1.	Ethanol	Column 1:	18.59929	0.2024	g/100cc
	Ethanol	Column 2:	19.22455	0.2007	g/100cc
3.	n-Propanol	Column 1:	50.45006	1.0000	g/100cc
4.	n-Propanol	Column 2:	51.87365	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

QC1-2

Laboratory No.: QC2-2 Jc Analysis Date(s): 12 Dec 2018

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.0869	0.0872	0.0003	0.0870	0.0869	
(g/100cc)	0.0866	0.0872	0.0006	0.0869	0.0809	

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M

Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results	Uncertaint	y of Measuren	nent (UM%): 5.00%
Overall Mean (g/100cc)	Low	High	5% of Mean
0.086	0.081	0.091	0.005
Re			

Calibration and control data are stored centrally.

Issued: 12/30/2016

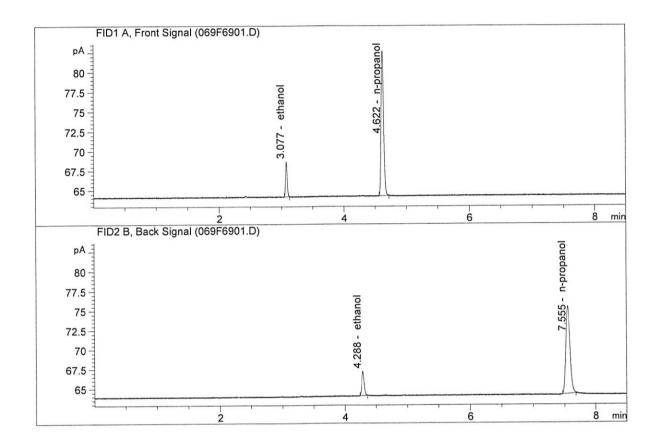
Volatiles BAC Calculation Spreadsheet Rev 4

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

QC-1-2-A

Sample Name : QC2 2-A 36 Laboratory : Meridian Injection Date : Dec 12, 2018 Method : ALCOHOL.M

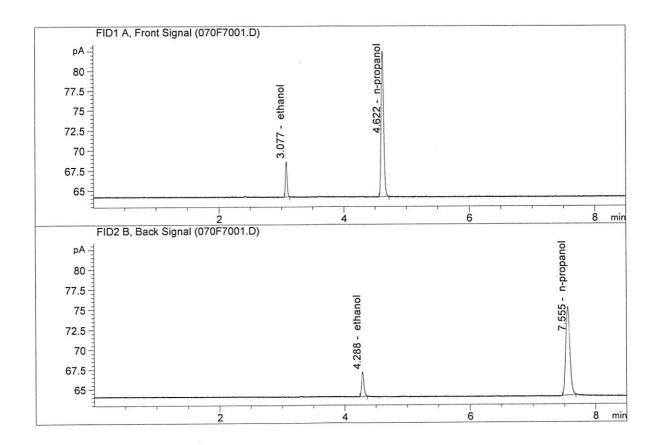


#	Compound	Column		Area	Amount	Units
1.	Ethanol	Column	1:	8.20600	0.0869	g/100cc
2.	Ethanol	Column	2:	8.30464	0.0872	g/100cc
3.	n-Propanol	Column	1:	52.28993	1.0000	g/100cc
4.	n-Propanol	Column	2:	53.38423	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

QC1-2-B

Sample Name : QC2-2-B 36 Laboratory : Meridian Injection Date : Dec 12, 2018 Method : ALCOHOL.M



#	Compound	Column		Area	Amount	Units
1.	Ethanol	Column	1:	8.12832	0.0866	g/100cc
2.	Ethanol	Column	2:	8.22884	0.0872	g/100cc
3.	n-Propanol	Column	1:	51.95936	1.0000	g/100cc
4.	n-Propanol	Column	2:	52.94055	1.0000	g/100cc

VOLATILES DETERMINATION CASEFILE WORKSHEET

QC 2-2

Laboratory No.: QC1-2-36

Analysis Date(s): 11 Dec 2018

	Column 1 FID A	Column 2 FID B	Column Precision	Mean Value	Over-all Mean	
Sample Results	0.2049	0.2051	0.0002	0.2050	0.2046	
(g/100cc)	0.2048	0.2037	0.0011	0.2042	0.2040	

Analysis Method

Refer to Blood Alcohol Method #1

Instrument Information

Instrument method is stored centrally.

Refer to Instrument Method: ALCOHOL.M

Hamilton Auto-Dilutor Serial Number: ML600HC11378

Reporting of Results	Uncertainty of Measurement (UM%): 5.00%				
Overall Mean (g/100cc)	Low	High	5% of Mean		
0.204	0.193	0.215	0.011		

Reported Result	
0.204	

Calibration and control data are stored centrally.

Issued: 12/30/2016

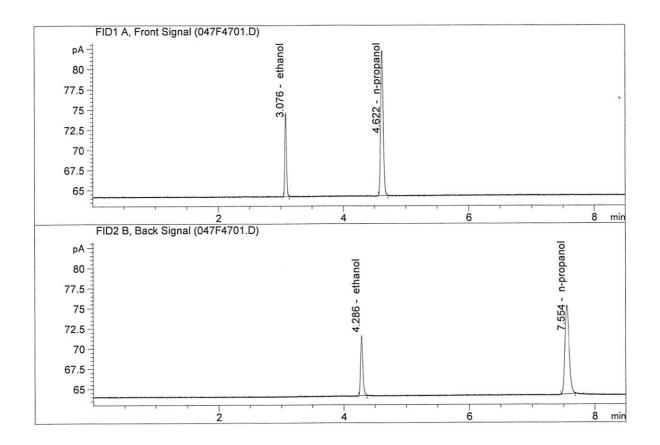
Volatiles BAC Calculation Spreadsheet Rev 4

Issuing Authority: Quality Manager

ISP Forensic Services Blood Alcohol Report

QC-2-2-A

Sample Name : QC1 2 A \(\)(Laboratory : Meridian Injection Date : Dec 11, 2018 Method : ALCOHOL.M

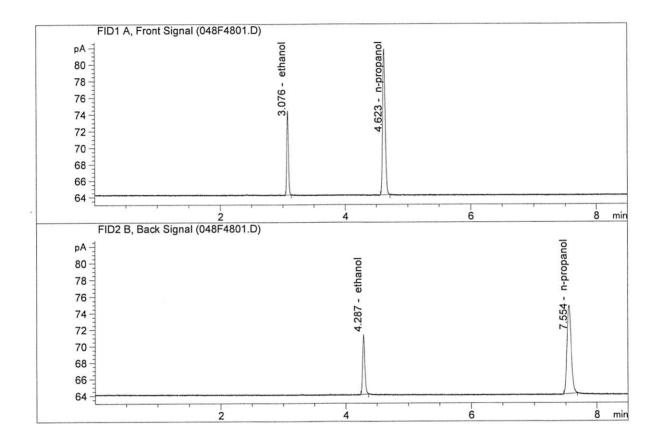


#	Compound	Column		Area	Amount	Units
1.	Ethanol	Column	1:	19.09749	0.2049	g/100cc
2.	Ethanol	Column	2:	19.85040	0.2051	g/100cc
3.	n-Propanol	Column	1:	51.15067	1.0000	g/100cc
4.	n-Propanol	Column	2:	52.37576	1.0000	g/100cc

ISP Forensic Services Blood Alcohol Report

QC2-2-B

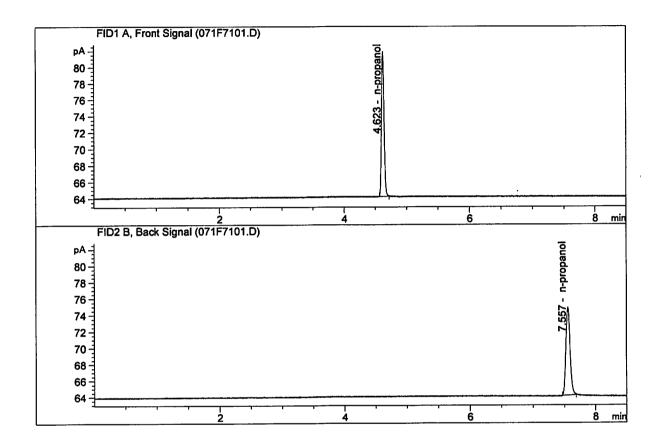
Sample Name : QC1-2-B J C
Laboratory : Meridian
Injection Date : Dec 12, 2018
Method : ALCOHOL.M



#	Compound	Column		Area	Amount	Units
1.	Ethanol	Column	1:	18.64239	0.2048	g/100cc
2000	Ethanol	Column		19.25765	0.2037	g/100cc
3.	n-Propanol	Column	1:	49.97160	1.0000	g/100cc
4.	n-Propanol	Column	2:	51.17344	1.0000	g/100cc

Sample Name : INTERNAL STD BLK

Laboratory : Meridian
Injection Date : Dec 12, 2018
Method : ALCOHOL.M



#	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:	50.20108	1.0000	g/100cc
4.	n-Propanol	Column 2:	51.22251	1.0000	g/100cc

Sample Summary

Sequence table: C:\Chem32\1\Data\12-11-18_SAMPLES\12-11-18_SAMPLES 2018-12-11 15-34-54\12

11-18 SAMPLES.S

Data directory path: C:\Chem32\1\Data\12-11-18_SAMPLES\12-11-18_SAMPLES 2018-12-11 15-34-54\
Logbook: C:\Chem32\1\Data\12-11-18_SAMPLES\12-11-18_SAMPLES 2018-12-11 15-34-54\12

11-18_SAMPLES.LOG

Sequence start: 12/11/2018 3:49:43 PM

Sequence Operator: SYSTEM Operator: SYSTEM

Method file name: C:\Chem32\1\Data\12-11-18_SAMPLES\12-11-18_SAMPLES 2018-12-11 15-34-54

\ALCOHOL.M

Run	Location		Sample Name	Sample Amt	Multip.*	File name	Cal #
#		#		[g/100cc]	Dilution		Cmp
							-
1	1	1	INTERNAL STD BLK	-		001F0101.D	2
2	2	1	MIX VOL FN060415	-		002F0201.D	10
3	3	1	QC1-1-A	-		003F0301.D	4
4	4	1	QC1-1-B	-		004F0401.D	4
5	5	1	0.08 FN04171701-	-		005F0501.D	4
6	6	1	0.08 FN04171701-	-	1.0000	006F0601.D	4
7	7	1	M2018-5815-3-A	-	1.0000	007F0701.D	2
8	8	1	M2018-5815-3-B	-	1.0000	008F0801.D	2
9	9	1	M2018-5917-1-A	-	1.0000	009F0901.D	4
10	10	1	M2018-5917-1-B	-	1.0000	010F1001.D	4
11	11	1	M2018-5955-1-A	-	1.0000	011F1101.D	2
12	12	1	M2018-5955-1-B	-	1.0000	012F1201.D	2
13	13	1	M2018-5956-1-A	-	1.0000	013F1301.D	4
14	14	1	M2018-5956-1-B	-	1.0000	014F1401.D	4
15	15	1	M2018-5958-1-A	-	1.0000	015F1501.D	4
	16	1	M2018-5958-1-B	_	1.0000	016F1601.D	4
	17	1	M2018-5959-1-A	-	1.0000	017F1701.D	4
	18	1	M2018-5959-1-B	_	1.0000	018F1801.D	4
	19	1	M2018-5960-1-A	-	1.0000	019F1901.D	4
	20		M2018-5960-1-B	_	1.0000	020F2001.D	4
	21	1	M2018-5961-1-A	_	1.0000	021F2101.D	4
	22		M2018-5961-1-B	_	1.0000	022F2201.D	4
	23		M2018-5983-1-A	_	1.0000	023F2301.D	4
	24		M2018-5983-1-B	-	1.0000	024F2401.D	4
	25		QC2-1-A	_	1.0000	025F2501.D	4
	26		QC2-1-B	_	1.0000	026F2601.D	4
	27		M2018-5987-1-A	_	1.0000	027F2701.D	4
	28		M2018-5987-1-B	_	1.0000	028F2801.D	4
	29		M2018-5988-1-A	_	1.0000	029F2901.D	4
	30		M2018-5988-1-B	_		030F3001.D	4
	31		M2018-5994-1-A	-	1.0000	031F3101.D	2
	32		M2018-5994-1-B	_		032F3201.D	2
	33		M2018-6005-1-A	_	1.0000	033F3301.D	4
	34		M2018-6005-1-B	_	1.0000	034F3401.D	4
	35		M2018-6025-1-A	_	1.0000	035F3501.D	6
	36		M2018-6025-1-B	_		036F3601.D	6
	37	1	M2018-6026-1-A	_	1.0000	037F3701.D	2
	38		M2018-6026-1-B	_		038F3801.D	2
	39		M2018-6044-1-A	-	1.0000	039F3901.D	2
	40		M2018-6044-1-B	-	1.0000	040F4001.D	2
	41		M2018-6045-1-A	_		041F4101.D	4
	42		M2018-6045-1-B	-	1.0000	042F4201.D	4
	43		M2018-6060-1-A	_	1.0000	043F4301.D	5
	- -	_					

Run	Location	Ini	Sample Name	Sample Amt	Multip.*	File name	Cal #
#		#		[g/100cc]	Dilution		Cmp
		 					-
44	44	1	M2018-6060-1-B	_	1.0000	044F4401.D	4
45	45	1	M2018-6061-1-A	_	1.0000	045F4501.D	4
46	46			-	1.0000	046F4601.D	4
47	47	1	QC1-2-A. QC 2-2-A	-	1.0000	047F4701.D	4
48	48		QC1-2-B QC-2-2-B	-	1.0000	048F4801.D	4
49	49	1	M2018-6062-1-A		1.0000	049F4901.D	4
50	50	1	M2018-6062-1-B	-	1.0000	050F5001.D	4
51	51	1	M2018-6063-1-A	-	1.0000	051F5101.D	4
52	52	1	M2018-6063-1-B	-	1.0000	052F5201.D	4
53	53	1	P2018-3281-2-A	-	1.0000	053F5301.D	4
54	54	1	P2018-3281-2-B	-	1.0000	054F5401.D	4
55	55	1	P2018-3307-1-A	-	1.0000	055F5501.D	4
56	56	1	P2018-3307-1-B	-	1.0000	056F5601.D	4
57	57	1	P2018-3308-1-A	-	1.0000	057F5701.D	4
58	58	1	P2018-3308-1-B	_	1.0000	058F5801.D	4
59	59	1	P2018-3310-1-A	_	1.0000	059F5901.D	2
60	60	1	P2018-3310-1-B	-	1.0000	060F6001.D	2
61	61	1	P2018-3332-1-A	=	1.0000	061F6101.D	4
62	62	1	P2018-3332-1-B	-	1.0000	062F6201.D	4
63	63	1	P2018-3333-1-A	-	1.0000	063F6301.D	4
64	64	1	P2018-3333-1-B	-	1.0000	064F6401.D	4
65	65	1	P2018-3341-1-A	-	1.0000	065F6501.D	2
66	66	1	P2018-3341-1-B	-	1.0000	066F6601.D	2
67	67	1	P2018-3370-1-A	-		067F6701.D	4
68	68		P2018-3370-1-B	-	1.0000	068F6801.D	4
69	69		QC2-2-A & QC1-2-			069F6901.D	4
70	70	1	QC2-2-B JG QC1-2 .	B -		070F7001.D	4
71	71	1	INTERNAL STD BLK	-	1.0000	071F7101.D	2

Method file name: C:\Chem32\1\Data\12-11-18_SAMPLES\12-11-18_SAMPLES 2018-12-11 15-34-54 \SHUTDOWN.M

Run	Location	Inj	Sample Name	Sample Amt	Multip.*	File name	Cal	#
#		#		[g/100cc]				Cmp
				-				
72	72	1	EMPTY	-	1.0000	072F7201.D		0