

Loadlist-Alcohol Reference Solution Verification

Location	Sample
1	Volatiles Mix
2	Blank
3	Cerilliant 025
4	Cerilliant 100
5	Cerilliant 200
6	Cerilliant 400
7	Cerilliant 50
8	0280
9	0282
10	0283
11	0286
12	0287
13	0288
14	0291
15	0290
16	0292
17	0294
18	Fluka 100
19	0280
20	0282
21	0283
22	0286
23	0287
24	0288
25	0291
26	0290
27	0292
28	0294
29	Fluka 300
30	
31	
32	
33	
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35	
36	
37	
38	
39	
40	

Instrument Parameters			
Sample Temp	60	C	✓
Needle Temp	70	C	✓
Transfer Temp	80	C	✓
Thermostat time	15	min	✓
Pressurization time	2.0	min	✓
Withdraw time	0.1	min	✓
Injection Time	0.03	min	✓
Cycle Time	4.5	min	✓
inlet temp	90	C	✓
Carrier pressure	15	psi	✓
Column oven temp	55	C	✓
Run Time	5.0	min	✓
FID Temp	200	C	✓
Hydrogen Flow	45	mL/min	✓
Air Flow	450	mL/min	✓
Helium Flow	15	mL/min	✓

Reagents, Calibrators and Controls

Materials	Lot	Exp. Date
Internal Standard	bhk2816	na
Volatiles Mixture	041513dkr	na
Cerilliant 025	FN081712-01	08/17
Cerilliant 100	FN0618150	06/2020
Cerilliant 200	FN032712-01	03/2017
Cerilliant 400	FN012712-01	01/2017
Cerilliant 50	FN010912-01	01/2017
Fluka 100 33961	SZBE029XV	1/29/19
Fluka 300 33963	SZBE029XV	1/29/19

Reference Solution

Level Tested:	0.05 g/210L
Lot #:	201603D
Manufacture Date:	3/8/2016
Expireation Date	3/8/2018

Operator: BK

Date: 4/21/16

Alcohol Analysis QC Summary

Report Date	4/21/2016
Reviewer	Brett Kirkland

6x

Run Summary Data			Ethanol				n-Propanol			
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area		
4/21/2016	A	Vol's Mix	041513dkr	1.398	12288.46	0.0392	1.999	232460.21		
4/21/2016	A	Blank					1.999	228937.81		
4/21/2016	A	CER 025	FN081712-01	1.398	7705.72	0.0254	1.999	230463.83		
4/21/2016	A	CER 100	FN06181501	1.398	32281.95	0.1003	1.999	234991.54		
4/21/2016	A	CER 200	FN032712-01	1.398	63533.42	0.1982	1.999	232758.99		
4/21/2016	A	CER 400	FN012712-01	1.398	127096.40	0.3997	1.999	233477.96		
4/21/2016	A	Cerilliant 50	FN010912-01	1.398	15825.38	0.0501	1.999	230879.95		
4/21/2016	A	0280	201603D	1.398	19562.14	0.0609	1.999	235100.25		
4/21/2016	A	0282	201603D	1.423	19361.68	0.0604	2.022	234461.79		
4/21/2016	A	0283	201603D	1.398	19142.13	0.0607	1.999	230527.48		
4/21/2016	A	0286	201603D	1.399	19374.40	0.0609	1.999	232811.30		
4/21/2016	A	0287	201603D	1.396	19408.91	0.0600	1.997	236668.48		
4/21/2016	A	0288	201603D	1.398	19323.96	0.0607	1.999	233038.39		
4/21/2016	A	0291	201603D	1.398	19213.01	0.0606	1.999	231787.78		
4/21/2016	A	0290	201603D	1.398	19072.02	0.0601	1.999	232156.16		
4/21/2016	A	0292	201603D	1.398	19344.80	0.0605	1.999	233885.70		
4/21/2016	A	0294	201603D	1.395	19012.41	0.0601	1.996	231331.90		
4/21/2016	A	Fluka 100	SZBE029XV	1.397	30495.73	0.0957	1.998	233560.94		
4/21/2016	A	0280	201306D	1.398	19375.09	0.0607	1.999	233502.45		
4/21/2016	A	0282	201306D	1.398	19360.71	0.0603	1.999	234720.11		
4/21/2016	A	0283	201306D	1.398	18841.87	0.0598	1.999	230482.95		
4/21/2016	A	0286	201306D	1.396	19895.62	0.0615	1.997	236691.77		
4/21/2016	A	0287	201306D	1.423	19472.02	0.0610	2.022	233534.62		
4/21/2016	A	0288	201306D	1.398	19567.17	0.0609	1.999	235090.48		
4/21/2016	A	0291	201306D	1.399	19306.79	0.0604	1.999	233958.66		
4/21/2016	A	0290	201306D	1.423	19168.13	0.0608	2.022	230492.70		
4/21/2016	A	0292	201306D	1.398	19502.19	0.0594	1.999	240064.75		
4/21/2016	A	0294	201306D	1.399	19930.47	0.0610	1.999	239114.12		
4/21/2016	A	Fluka 300	SZBE029XV	1.398	96734.89	0.2951	1.999	240646.57		

CV= 1.23%

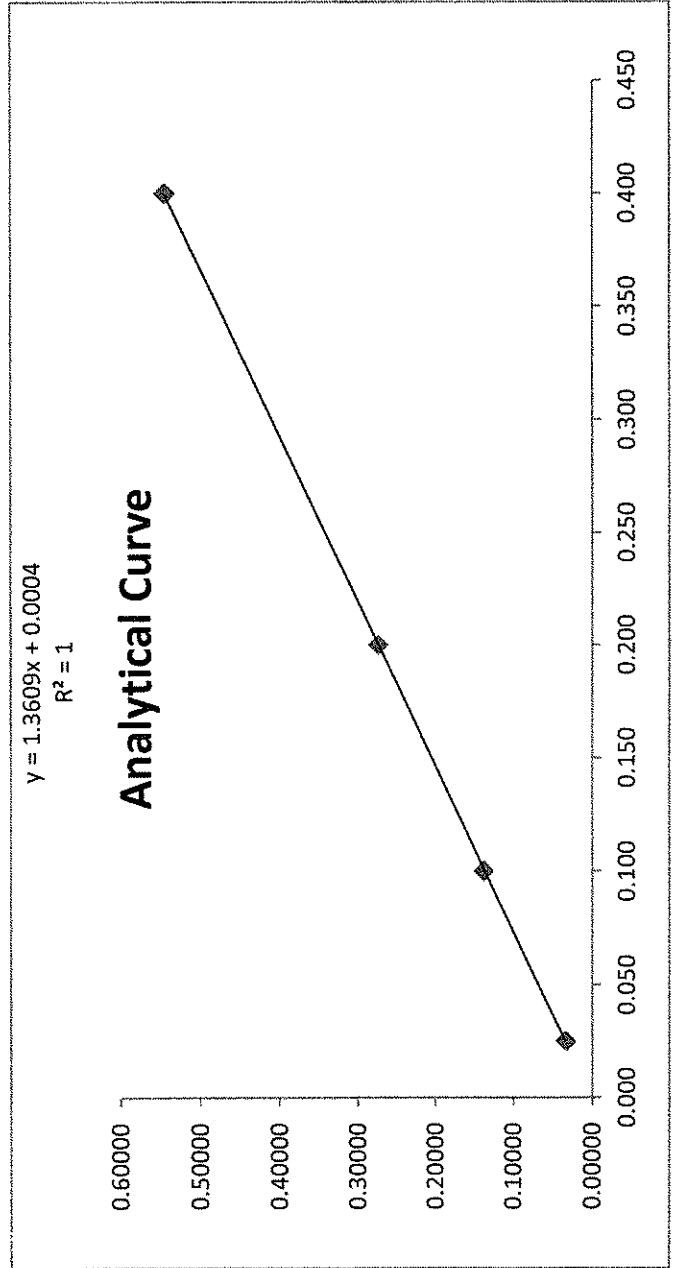
ALCOHOL ANALYSIS QC SUMMARY

Report Date	4/21/2016
Reviewer	Brett Kirkland

g/L

RUN SUMMARY DATA				Ethanol			n-Propanol	
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
4/21/2016	A	CER 025	FN081712-01	1.398	7705.72	0.0254	1.999	230463.83
4/21/2016	A	CER 100	FN06181501	1.398	32281.95	0.1003	1.999	234991.54
4/21/2016	A	CER 200	FN032712-01	1.398	63533.42	0.1982	1.999	232758.99
4/21/2016	A	CER 400	FN012712-01	1.398	127096.40	0.3997	1.999	233477.96

Summary	Standard	g/dL	Ratio	Calc.	Diff
	Blank	0.000	0.00000	0.00000	0.00000
Slope	1.3609	0.025	0.03344	0.02430	-0.00070
Intercept	0.0004	0.100	0.13737	0.10067	0.00067
Standard Error	0.001013605	0.200	0.27296	0.20030	0.00030
R-Squared	1.0000	0.400	0.54436	0.39973	-0.00027



BK

Source: Alcohol Countermeasure Systems, Inc.

Lot	201603D
Level	0.05 g/210L
Manufacture Date	3/8/2016
Expiration Date	3/8/2018

Bottle	Result (g/100mL)
0280	0.0609
	0.0607
0282	0.0604
	0.0603
0283	0.0607
	0.0598
0286	0.0609
	0.0615
0287	0.0600
	0.0610
0288	0.0607
	0.0609
0291	0.0606
	0.0604
0290	0.0601
	0.0608
0292	0.0605
	0.0594
0294	0.0601
	0.0610

Mean	0.0605
Std. Dev.	0.0005
Min	0.0594
Max	0.0615