

Alcohol Analysis QC Summary

Report Date	2/11/2016
Reviewer	Brett Kirkland

Run Summary Data		Ethanol				n-Propanol			
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area	Conc.
2/11/2016	A	Vols Mix	041513dkr	1.398	12486.29	0.0392	2.000	233842.41	2.000
2/11/2016	A	Blank					2.023	235091.47	
2/11/2016	A	CER 025	FN081712-01	1.398	8059.97	0.0251	1.999	238314.76	1.999
2/11/2016	A	CER 100	FN050312-01	1.398	31855.53	0.0993	1.999	234292.21	1.999
2/11/2016	A	CER 200	FN032712-01	1.395	64644.55	0.1990	1.996	236475.62	1.996
2/11/2016	A	CER 400	FN012712-01	1.398	129351.89	0.4003	1.999	235179.32	1.999
2/11/2016	A	Cerilliant 50	FN010912-01	1.398	16190.13	0.0509	2.000	235272.10	2.000
2/11/2016	A	1917	201601F	1.395	31476.90	0.0975	1.996	236681.74	1.996
2/11/2016	A	1915	201601F	1.398	31341.41	0.0979	1.999	234679.53	1.999
2/11/2016	A	1911	201601F	1.398	31276.67	0.0970	1.999	236409.83	1.999
2/11/2016	A	1914	201601F	1.399	31473.65	0.0975	2.000	236748.97	2.000
2/11/2016	A	1919	201601F	1.399	31993.50	0.0972	2.000	241320.93	2.000
2/11/2016	A	1921	201601F	1.398	31095.29	0.0968	2.000	235719.00	2.000
2/11/2016	A	1909	201601F	1.424	31495.66	0.0964	2.023	239645.64	2.023
2/11/2016	A	1907	201601F	1.398	31656.38	0.0981	1.999	236695.79	1.999
2/11/2016	A	1913	201601F	1.399	31956.96	0.0969	2.000	241981.79	2.000
2/11/2016	A	1908	201601F	1.398	31019.35	0.0970	2.000	234453.34	2.000
2/11/2016	A	Fluka 100	SZBE029XV	1.398	31556.95	0.0978	1.999	236545.15	1.999
2/11/2016	A	1917	201601F	1.398	31162.26	0.0961	1.999	237852.54	1.999
2/11/2016	A	1915	201601F	1.398	31615.38	0.0975	2.000	237773.14	2.000
2/11/2016	A	1911	201601F	1.424	31492.90	0.0969	2.023	238415.76	2.023
2/11/2016	A	1914	201601F	1.398	32094.83	0.0982	1.999	239690.44	1.999
2/11/2016	A	1919	201601F	1.398	31525.01	0.0968	2.000	238942.70	2.000
2/11/2016	A	1921	201601F	1.399	31538.11	0.0979	2.000	236314.10	2.000
2/11/2016	A	1909	201601F	1.398	31177.10	0.0974	2.000	234754.47	2.000
2/11/2016	A	1907	201601F	1.399	32181.06	0.0977	2.000	241491.23	2.000
2/11/2016	A	1913	201601F	1.395	32120.19	0.0965	1.997	244165.25	1.997
2/11/2016	A	1908	201601F	1.423	32491.77	0.0978	2.022	243597.90	2.022
2/11/2016	A	Fluka 300	SZBE029XV	1.424	99987.00	0.2943	2.023	247457.06	2.023

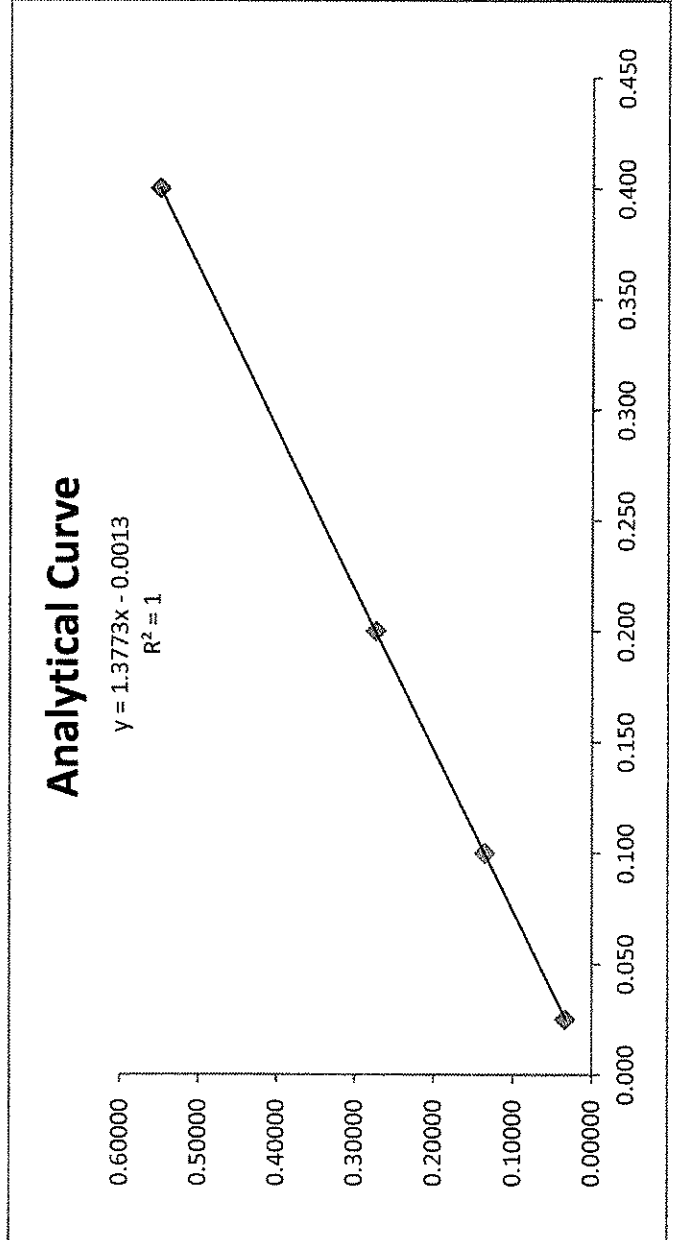
CV = 1.41%

ALCOHOL ANALYSIS QC SUMMARY

Report Date	2/11/2016
Reviewer	Brett Kirkland

RUN SUMMARY DATA				Ethanol			n-Propanol		
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area	
2/11/2016	A	CER 025	FN081712-01	1.398	8059.97	0.0251	1.999	238314.76	
2/11/2016	A	CER 100	FN050312-01	1.398	31855.53	0.0993	1.999	234292.21	
2/11/2016	A	CER 200	FN032712-01	1.395	64644.55	0.1990	1.996	236475.62	
2/11/2016	A	CER 400	FN012712-01	1.398	129351.89	0.4003	1.999	235179.32	

Summary	Standard	g/dL	Ratio	Calc.	Diff
	Blank	0.000	0.00000	0.00000	0.00000
Slope	1.3773	0.025	0.03382	0.02553	0.00053
Intercept	-0.0013	0.100	0.13596	0.09970	-0.00030
Standard Error	0.00085633	0.200	0.27337	0.19946	-0.00054
R-Squared	0.999990	0.400	0.55001	0.40031	0.00031



Source: Alcohol Countermeasure Systems, Inc.

Lot	201601F
Level	0.08 g/210L
Manufacture Date	1/26/2016
Expiration Date	1/26/2018

Bottle	Result (g/100mL)
1917	0.0975
	0.0961
1915	0.0979
	0.0975
1911	0.0970
	0.0969
1914	0.0975
	0.0982
1919	0.0972
	0.0968
1921	0.0968
	0.0979
1909	0.0964
	0.0974
1907	0.0981
	0.0977
1913	0.0969
	0.0965
1908	0.0970
	0.0978

Mean	0.0973
Std. Dev.	0.0006
Min	0.0961
Max	0.0982

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	1917
9	1915
10	1911
11	1914
12	1919
13	1921
14	1909
15	1907
16	1913
17	1908
18	Fluka 100
19	1917
20	1915
21	1911
22	1914
23	1919
24	1921
25	1909
26	1907
27	1913
28	1908
29	Fluka 300
30	
31	
32	
33	
34	
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	8/17
Cerilliant 100	FN050312-01	5/17
Cerilliant 200	FN032712-01	3/17
Cerilliant 400	FN012712-01	1/17
Cerilliant 50	FN010912-01	1/17
Fluka 100	SZBE029XV/33961	1/29/19
Fluka 300	SZBE029XV/33963	1/29/19

Reference Solution

Level Tested:	0.08 g/210L
Lot #:	201601F
Manufacture Date:	1/26/2016
Expiration Date:	1/26/2018

Operator: AK

Date: 2/11/16