

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	2300
9	2301
10	2303
11	2304
12	2305
13	2302
14	2256
15	2259
16	2260
17	2261
18	Fluka 100
19	2300
20	2301
21	2303
22	2304
23	2305
24	2302
25	2256
26	2259
27	2260
28	2261
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	08/17
Cerilliant 100	FN0681501	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:	0.200 g/210L
Lot #:	201604C
Manufacture Date:	4/5/2016
Expireation Date	4/5/2018

Operator: BK

Date: 4/27/16

Alcohol Analysis QC Summary

Report Date	4/27/2016
Reviewer	Brett Kirkland

ABK

Run Summary Data		Ethanol				n-Propanol			
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area	Conc.
4/27/2016	A	Vols Mix	041513dkr	1.426	12603.33	0.0381	2.024	241506.30	0.0000
4/27/2016	A	Blank			0.00			238468.91	0.0246
4/27/2016	A	CER 025	FN081712-01	1.425	8251.11	0.0995	2.023	240017.63	0.2009
4/27/2016	A	CER 100	FN0681501	1.424	32629.85	0.4002	2.023	240702.56	0.0503
4/27/2016	A	CER 200	FN032712-01	1.424	66134.34	0.2403	2.024	241507.82	0.2405
4/27/2016	A	CER 400	FN012712-01	1.424	132443.23	0.2404	2.024	241160.59	0.2402
4/27/2016	A	Cerilliant 50	FN010912-01	1.399	16395.18	0.2401	2.000	240357.39	0.2403
4/27/2016	A	2300	201604C	1.399	79350.07	0.2403	2.024	240922.68	0.2405
4/27/2016	A	2301	201604C	1.425	79537.15	0.2404	2.024	241302.60	0.2402
4/27/2016	A	2303	201604C	1.425	78864.89	0.2402	2.024	239333.89	0.2401
4/27/2016	A	2304	201604C	1.425	78957.34	0.2403	2.024	239768.85	0.2403
4/27/2016	A	2305	201604C	1.399	77430.36	0.2403	2.024	235289.25	0.2403
4/27/2016	A	2302	201604C	1.425	78094.53	0.2418	2.023	237049.62	0.2384
4/27/2016	A	2256	201604C	1.425	79227.57	0.2393	2.012	238982.95	0.2399
4/27/2016	A	2259	201604C	1.421	78849.53	0.2399	2.024	241257.01	0.0971
4/27/2016	A	2260	201604C	1.414	79263.09	0.2385	2.015	241590.71	0.2386
4/27/2016	A	2261	201604C	1.425	78196.13	0.2413	2.024	237763.02	0.2401
4/27/2016	A	Fluka 100	SZBE029XV	1.395	31650.69	0.2411	1.996	238764.92	0.2413
4/27/2016	A	2300	201604C	1.416	79701.94	0.2402	2.024	243763.35	0.2401
4/27/2016	A	2301	201604C	1.393	80316.24	0.2402	2.024	245570.84	0.2411
4/27/2016	A	2303	201604C	1.425	76504.85	0.2402	2.024	231241.18	0.2402
4/27/2016	A	2304	201604C	1.425	78782.74	0.2402	2.024	239362.28	0.2402
4/27/2016	A	2305	201604C	1.425	78971.63	0.2402	2.024	238973.42	0.2402
4/27/2016	A	2302	201604C	1.425	79423.49	0.2402	2.024	241216.92	0.2402
4/27/2016	A	2256	201604C	1.425	79705.02	0.2403	1.997	242066.70	0.2403
4/27/2016	A	2259	201604C	1.396	79367.63	0.2390	2.022	240986.42	0.2390
4/27/2016	A	2260	201604C	1.423	80247.72	0.2402	2.000	244940.78	0.2402
4/27/2016	A	2261	201604C	1.399	80451.27	0.2913	2.023	244372.51	0.2913
4/27/2016	A	Fluka 300	SZBE029XV	1.424	97305.82			243560.34	

%CV = 1.21%

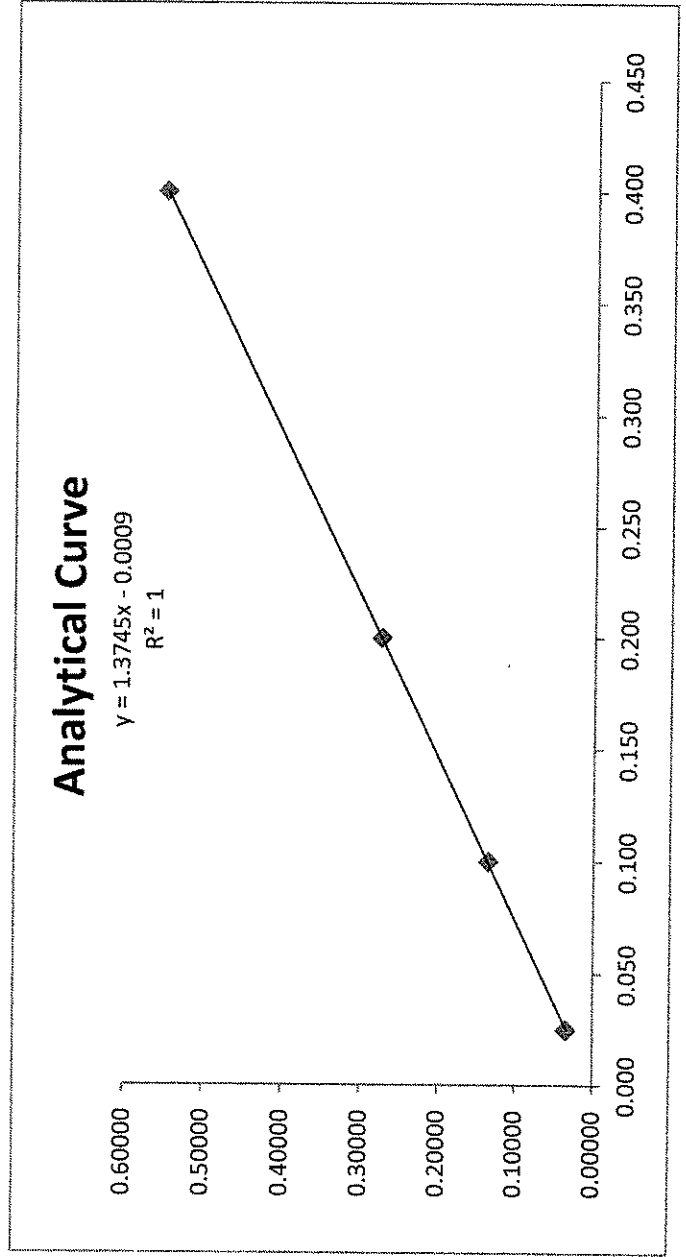
ALCOHOL ANALYSIS QC SUMMARY

Report Date	4/27/2016
Reviewer	Brett Kirkland

BK

RUN SUMMARY DATA				Ethanol		n-Propanol		
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
4/27/2016	A	CER 025	FN081712-01	1.425	8251.11	0.0246	2.024	240017.63
4/27/2016	A	CER 100	FN0681501	1.425	32629.85	0.0995	2.023	240702.56
4/27/2016	A	CER 200	FN032712-01	1.424	66134.34	0.2009	2.023	241507.82
4/27/2016	A	CER 400	FN012712-01	1.424	132443.23	0.4002	2.023	241160.59

Summary		Standard	g/dL	Ratio	Calc.	Diff
Slope	1.3745	Blank	0.000	0.00000	0.00000	0.00000
Intercept	-0.0009	CER 025	0.025	0.03438	0.02565	0.00065
Standard Error	0.000980954	CER 100	0.100	0.13556	0.09927	-0.00073
R-Squared	1.0000	CER 200	0.200	0.27384	0.19987	-0.00013
		CER 400	0.400	0.54919	0.40021	0.00021



Source: Alcohol Countermeasure Systems, Inc.

Lot	201604C
Level	0.200 g/210L
Manufacture Date	4/5/2016
Expiration Date	4/5/2018

BK

Bottle	Result (g/100mL)
2300	0.2403
	0.2385
2301	0.2405
	0.2386
2303	0.2404
	0.2413
2304	0.2402
	0.2401
2305	0.2401
	0.2411
2302	0.2403
	0.2402
2256	0.2418
	0.2402
2259	0.2384
	0.2403
2260	0.2393
	0.2390
2261	0.2399
	0.2402

Mean	0.2400
Std. Dev.	0.0009
Min	0.2384
Max	0.2418