

Loadlist-Alcohol Reference Solution Verification

Location	Sample
1	Volatiles Mix
2	Blank
3	Cerilliant 25
4	Cerilliant 100
5	Cerilliant 200
6	Cerilliant 400
7	Blank
8	Lipomed 50
9	176
10	177
11	178
12	179
13	180
14	188
15	189
16	191
17	192
18	193
19	Lipomed 100
20	176
21	177
22	178
23	179
24	180
25	188
26	189
27	191
28	192
29	193
30	Lipomed 300

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	0.2	min	✓
Injection Time	0.03	min	✓
Cycle Time	4.5	min	✓
Inlet temp	90	C	✓
He Carrier pressure	15	psi	✓
Column oven temp	55	C	✓
Run Time	5.0	min	✓
FID Temp	220	C	✓
Hydrogen Flow	45	mL/min	✓
Air Flow	450	mL/min	✓

Procedure Used	Eff. Date
ATP-TSOP v.5 section 4	Jan-22

Reagents, Calibrators and Controls

Materials	Lot	Exp. Date
Internal Standard	012422 TG	na
Volatiles Mixture	052121 TG	na
Water (Fisher Scientific)	213960	06/2026
Cerilliant 25	FN09081706	5/2023
Cerilliant 100	FN05311902	10/2024
Cerilliant 200	FN05101903	09/2024
Cerilliant 400	FN10051906	12/2024
Lipomed 50	10072019-A	07/2024
Lipomed 100	14082019-A	08/2024
Lipomed 300	11092018-B	09/2023

Reference Solution

Level Tested:	0.20 g/ 210 L
Lot #:	202201E
Manufacture Date:	1/18/2022
Expiration Date	1/18/2024

Operator: J. P. [Signature]  
 Date: 01/25/22

Alcohol Analysis QC Summary

*1/26/22*  
*TJ*

<b>Report Date</b>	1/25/2022
<b>Reviewer</b>	TJ Graham

Run Summary Data			Ethanol			n-Propanol		
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
1/25/2022	A	Volatiles Mix	052121 TG	1.420	28539.49	0.0408	2.017	255045.59
1/25/2022	A	Blank	213960		0.00	0.0000	2.019	250996.48
1/25/2022	A	CER 25	FN09081706	1.422	17483.85	0.0257	2.018	253994.80
1/25/2022	A	CER 100	FN05311902	1.422	69586.34	0.0997	2.018	249693.38
1/25/2022	A	CER 200	FN05101903	1.421	139637.22	0.1994	2.018	248374.02
1/25/2022	A	CER 400	FN10051906	1.421	283972.86	0.4004	2.019	250325.63
1/25/2022	A	Blank	213960		0.00	0.0000	2.018	252969.58
1/25/2022	A	Lipomed 50	10072019-A	1.420	34948.19	0.0502	2.016	252456.61
1/25/2022	A	176	202201E	1.421	169646.88	0.2423	2.018	247815.29
1/25/2022	A	177	202201E	1.421	169542.63	0.2419	2.019	248066.89
1/25/2022	A	178	202201E	1.421	171241.52	0.2426	2.018	249784.16
1/25/2022	A	179	202201E	1.421	169839.37	0.2425	2.018	247845.98
1/25/2022	A	180	202201E	1.421	171809.29	0.2413	2.018	252033.50
1/25/2022	A	188	202201E	1.421	173242.73	0.2418	2.018	253543.52
1/25/2022	A	189	202201E	1.421	170673.20	0.2426	2.018	248960.01
1/25/2022	A	191	202201E	1.422	170544.97	0.2424	2.019	248990.33
1/25/2022	A	192	202201E	1.421	170249.11	0.2427	2.019	248238.92
1/25/2022	A	193	202201E	1.419	169791.39	0.2418	2.016	248478.09
1/25/2022	A	Lipomed 100	14082019-A	1.422	68150.27	0.0980	2.019	248478.42
1/25/2022	A	176	202201E	1.422	171552.68	0.2408	2.019	252101.79
1/25/2022	A	177	202201E	1.421	170374.72	0.2415	2.018	249726.84
1/25/2022	A	178	202201E	1.421	170568.22	0.2418	2.018	249619.34
1/25/2022	A	179	202201E	1.421	170933.64	0.2414	2.018	250579.45
1/25/2022	A	180	202201E	1.421	171296.35	0.2421	2.018	250445.83
1/25/2022	A	188	202201E	1.421	172939.57	0.2423	2.018	252582.42
1/25/2022	A	189	202201E	1.421	172690.70	0.2417	2.018	252898.98
1/25/2022	A	191	202201E	1.421	171113.44	0.2424	2.018	249854.12
1/25/2022	A	192	202201E	1.420	173271.45	0.2414	2.017	254053.14
1/25/2022	A	193	202201E	1.420	172385.26	0.2421	2.017	251982.56
1/25/2022	A	Lipomed 300	11092018-B	1.419	215653.59	0.2988	2.016	255096.13

%CV = 0.89%

ALCOHOL ANALYSIS QC SUMMARY

*TJ Graham*  
1/25/22

Report Date	1/25/2022
Reviewer	TJ Graham

**RUN SUMMARY DATA**

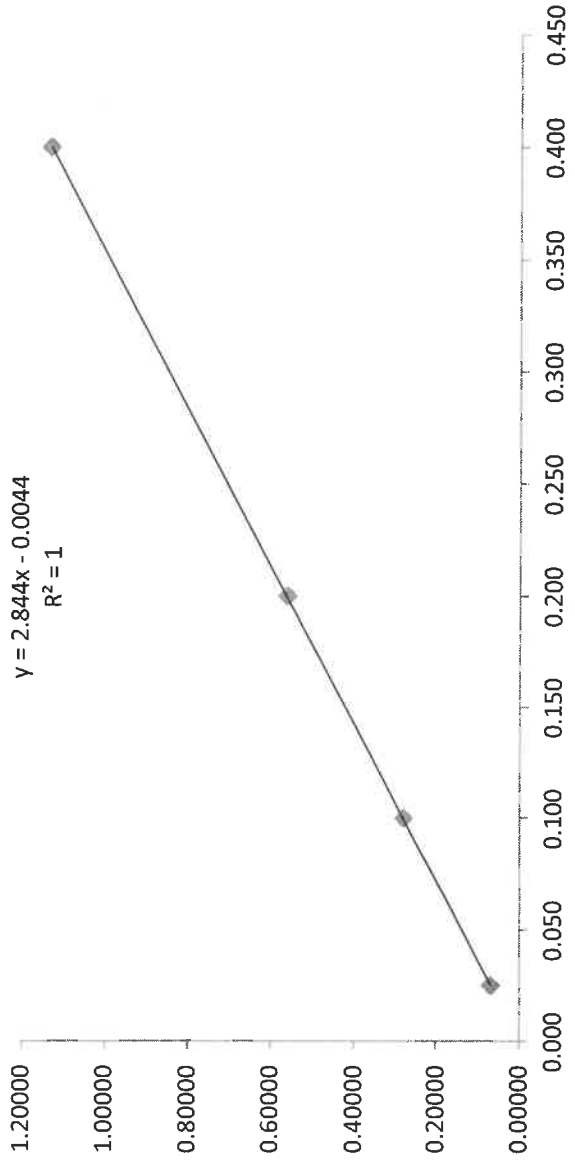
Run Date	Channel	Sample	Lot	Ethanol			n-Propanol		
				RT	Area	Conc.	RT	Area	
1/25/2022	A	CER 25	FN09081706	1.422	17483.85	0.0257	2.018	253994.80	
1/25/2022	A	CER 100	FN05311902	1.422	69586.34	0.0997	2.018	249693.38	
1/25/2022	A	CER 200	FN05101903	1.421	139637.22	0.1994	2.018	248374.02	
1/25/2022	A	CER 400	FN10051906	1.421	283972.86	0.4004	2.019	250325.63	

**Summary**

	Standard	g/dL	Ratio	Calc.	Diff
	Blank	0.000	0.00000	0.00000	0.00000
Slope	2.8440	0.025	0.06884	0.02576	0.00076
Intercept	-0.0044	0.100	0.27869	0.09955	-0.00045
Standard Error	0.002506692	0.200	0.56221	0.19924	-0.00076
R-Squared	1.0000	0.400	1.13441	0.40044	0.00044

**Analytical Curve**

$y = 2.844x - 0.0044$   
 $R^2 = 1$



Source: Alcohol Countermeasure Systems, Inc.

Lot	202201E
Level	0.20 g/ 210 L
Manufacture Date	1/18/2022
Expiration Date	1/18/2024

Bottle	Result (g/100mL)
176	0.2423
	0.2408
177	0.2419
	0.2415
178	0.2426
	0.2418
179	0.2425
	0.2414
180	0.2413
	0.2421
188	0.2418
	0.2423
189	0.2426
	0.2417
191	0.2424
	0.2424
192	0.2427
	0.2414
193	0.2418
	0.2421

Mean	0.2420
Std. Dev.	0.0005
Min	0.2408
Max	0.2427

*1/26/22*  
*JL*