

# Roar Vapor LLC

367 Vann Drive  
Jackson, TN 38305

Carbonyl Assay  
Samples Received 9/22/14

Product Name  
*Truth Serum*

Analysis Report  
(0914-170)

HPLC/UV Analysis For  
Diacetyl  
2,3-Pentanedione (aka: Acetyl propionyl)



**Enthalpy Analytical, Inc.**

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / [www.enthalpy.com](http://www.enthalpy.com)  
800-1 Capitola Drive Durham, NC 27713-4385



Company:	Roar Vapor LLC
Sample Condition:	Samples received in good condition.
Notes:	Chain of custody verified.

Method / Parameter	Analyte(s)
HPLC/UV Analysis	Diacetyl
	2,3-Pentanedione <i>(aka: Acetyl propionyl)</i>

**Summary of Method:**

An aliquot of e-Liquid and/or e-Liquid flavors are derivatized with 2,4-dinitrophenylhydrazine (DNPH). After the derivatization reaction is complete, samples are neutralized with pyridine and analyzed using an HPLC equipped with a UV detector. In this analysis, the limit of detection is 0.572 ug/mL for 'Diacetyl' and 0.601 ug/mL for '2,3-Pentanedione'.

Company	Roar Vapor LLC	# Samples	1
Analyst	WJG	Sample(s) Received	9/22/14
Parameters	HPLC/UV Analysis	Client Project:	na
Job #	0914-170		

Enthalpy Code	Sample Name	Notes	Diacetyl (ug/mL)	2,3-Pentanedione (ug/mL)
0914-170-119	Truth Serum		Not Detected	Not Detected

**QC Notes:**

'Diacetyl' and '2,3-Pentanedione' were not detected above the minimum detection limit.

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized.

This analytical report was prepared in Portable Document Format (.PDF) and contains 2 pages.

Report Issued: 7/6/2015



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