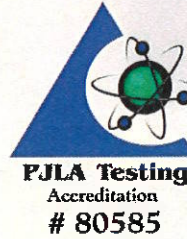
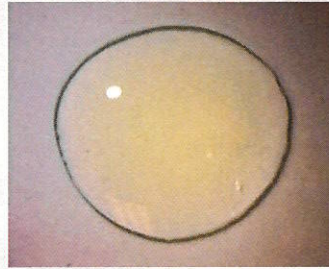


Certificate ID: **86086**      Received: **8/31/20**  
 Client Sample ID: **7 Hangover Recovery with Caffeine - 2oz Shot**  
 Lot Number: **20234**  
 Matrix: **Water Soluble - Tinctures**



Authorization: Chris Hudalla, Chief Science Officer	Signature: <i>Christopher Hudalla</i>	Date: 9/11/2020
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The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2017. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**CN: Cannabinoid Profile & Potency [WI-10-17 & WI-10-17-01]**      Analyst: *JFD*      Test Date: *9/3/2020*

The client sample was analyzed for plant-based cannabinoids by Liquid Chromatography (LC). The collected data was compared to data collected for certified reference standards at known concentrations.

**86086-CN**

ID	Weight %	Concentration (mg/mL)			
D9-THC	ND	ND			
THCV	ND	ND			
CBD	<LOQ	<LOQ			
CBDV	ND	ND			
CBG	ND	ND			
CBC	ND	ND			
CBN	ND	ND			
THCA	ND	ND			
CBDA	ND	ND			
CBGA	ND	ND			
D8-THC	ND	ND			
exo-THC	ND	ND			
Total	<LOQ	<LOQ	0%	Cannabinoids (wt%)	0.0%
Max THC	ND	ND			
Max CBD	<LOQ	<LOQ			

Limit of Quantitation (LOQ) = 0.0108 wt%

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: Max THC = (0.877 x THCA) + THC. This calculation does not include other cannabinoid isomers (eg. D8-THC and exo-THC). ND = None detected above the limits of detection (LOD), which is one third of LOQ.

**END OF REPORT**





# ARL

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## Certificate of Analysis

### Client Information

PurHealth RX  
14663 S. Heritage Crest Way  
Bluffdale, UT  
84065 USA  
801.903.7789

### Sample Information

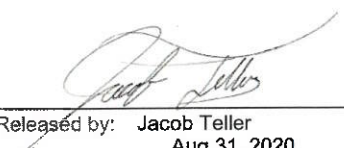
ARL ID: 365474  
Date Received: 8/25/2020  
Description: 7 Hangover Recovery w/ Caffeine (Beginning, Middle, End)  
Lot#: 20234

Analysis	Method	MDL	Specification	Results	UOM	Lab ID
Complete Micro Profile Pseudomonas	USP, AOAC					1
Total Plate Count	USP <2021>	10	Record Only	None Detected	cfu's/g	1
Coliforms	AOAC 991.14	10	Record Only	None Detected	cfu's/g	1
E. coli	USP <2022>	Absent	Record Only	Absent	cfu's/10g	1
Staphylococcus aureus	USP <2022>	Absent	Record Only	Absent	cfu's/10g	1
Salmonella	USP <2022>	Absent	Record Only	Absent	cfu's/10g	1
Pseudomonas aeruginosa	USP <62>	Absent	Record Only	Absent	cfu's/10g	1
Yeast	USP <2021>	10	Record Only	None Detected	cfu's/g	1
Mold	USP <2021>	10	Record Only	None Detected	cfu's/g	1

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Released by:  Jacob Teller

Aug 31, 2020

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\* ARL is an ISO/IEC 17025:2017 Accredited Laboratory. Uncertainty data for ISO-scoped methods is available upon request. Certificate and Supplement also available upon request.

This Certificate of Analysis represents data only for the sample provided and does not constitute a guarantee of quality for the entire production lot.



**HM: Heavy Metal Analysis [WT-10-13]**

Analyst: JFD

Test Date: 3/29/2018

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**25691-HM**

Symbol	Metal	Conc. <sup>1</sup>	Units	MDL	Use Limits <sup>2</sup>		Units	Status
					All	Ingestion		
As	Arsenic	ND	µg/kg	4	200	1500	µg/kg	PASS
Cd	Cadmium	3	µg/kg	1	200	500	µg/kg	PASS
Hg	Mercury	3	µg/kg	2	100	1500	µg/kg	PASS
Pb	Lead	37	µg/kg	2	500	1000	µg/kg	PASS

1) ND = None detected to Lowest Limits of Detection (LLD)

2) MA Dept. of Public Health: Protocol for MMJ and MIPS, Exhibit 4(a) for all products.

3) USP exposure limits based on daily oral dosing of 1g of concentrate for a 110 lb person.

**MB1: Microbiological Contaminants [WT-10-09]**

Analyst: Alyson

Test Date: 3/29/2018

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**25691-MB1**

Symbol	Analysis	Results	Units	Limits*	Status
AC	Total Aerobic Bacterial Count	<100	CFU/g	10,000 CFU/g	PASS
CC	Total Coliform Bacterial Count	<100	CFU/g	100 CFU/g	PASS
EB	Total Bile Tolerant Gram Negative Count	<100	CFU/g	100 CFU/g	PASS
YM	Total Yeast & Mold	<100	CFU/g	1,000 CFU/g	PASS

Note: All recorded Microbiological tests are within the established limits.

**MB2: Pathogenic Bacterial Contaminants [WT-10-10]**

Analyst: matt

Test Date: 3/29/2018

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

**25691-MB2**

Test ID	Analysis	Results	Units	Limits*	Status
25691-ECPT	E. coli (O157)	Negative	NA	Non Detected	PASS
25691-SPT	Salmonella	Negative	NA	Non Detected	PASS

Note: All recorded pathogenic bacteria tests passed.



**PST: Pesticide Analysis [WI-10-11]**

Analyst: KSB

Test Date: 3/29/2018

The client sample was analyzed for pesticides using Liquid Chromatography with Mass Spectrometric detection (LC/MS/MS). The method used for sample prep was based on the European method for pesticide analysis (EN 15662).

**25691-PST**

Analyte	CAS	Result	Units	LLD	Limits (ppb)	Status
Abamectin	71751-41-2	ND	ppb	0.2	10	PASS
Azoxystrobin	131860-33-8	ND	ppb	0.1	10	PASS
Bifenazate	149877-41-8	ND	ppb	0.1	10	PASS
Bifenthrin	82657-04-3	ND	ppb	0.2	10	PASS
Cyfluthrin	68359-37-5	ND	ppb	0.5	10	*
Daminozide	1596-84-5	ND	ppb	10	10	PASS
Dichlorvos	62-73-7	ND	ppb	3	10	*
Etoxazole	153233-91-1	ND	ppb	0.1	10	PASS
Fenoxycarb	72490-01-8	ND	ppb	0.1	10	PASS
Imazalil	35554-44-0	ND	ppb	0.1	10	PASS
Imidacloprid	138261-41-3	ND	ppb	0.1	10	PASS
Myclobutanil	88671-89-0	ND	ppb	0.1	10	PASS
Paclobutrazol	76738-62-0	ND	ppb	0.1	10	PASS
Piperonyl butoxide	51-03-6	ND	ppb	0.1	10	PASS
Pyrethrin	8003-34-7	ND	ppb	0.1	10	PASS
Spinosad	168316-95-8	ND	ppb	0.1	10	PASS
Spiromesifen	283594-90-1	ND	ppb	0.1	10	PASS
Spirotetramat	203313-25-1	ND	ppb	0.1	10	PASS
Trifloxystrobin	141517-21-7	ND	ppb	0.1	10	PASS

\* Testing limits established by the Massachusetts Department of Public Health, Protocol for Sampling and Analysis of Finished Medical Marijuana Products and Marijuana-Infused Products for Massachusetts Registered Medical Marijuana Dispensaries, Exhibit 5. ND indicates "none detected" above the lower limit of detection (LLD). Analytes marked with (\*) indicate analytes for which no recovery was observed for a pre-spiked matrix sample.



**VC: Analysis of Volatile Organic Compounds [WI-10-07]**

Analyst: CJH

Test Date: 3/29/2018

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

**25691-VC**

Compound	CAS	Amount <sup>1</sup>	Limit <sup>2</sup>	Status
Propane	74-98-6	ND	N/A	-
Butane	106-97-8	ND	5,000 ppm	PASS
Methanol	67-56-1	ND	3,000 ppm	PASS
Ethanol	64-17-5	ND	5,000 ppm	PASS
2,2-dimethylbutane		ND	N/A	-
Acetone	67-64-1	ND	5,000 ppm	PASS
Isopropanol	67-63-0	ND	5,000 ppm	PASS
2,3-dimethylbutane	79-29-8	ND	N/A	-
3-methylpentane	96-14-0	ND	N/A	-
Hexane	110-54-3	ND	290 ppm	PASS
1-propanol	71-23-8	ND	5,000 ppm	PASS
Toluene	108-88-3	ND	890 ppm	PASS

1) ND = None detected above 5 ppm.

2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

**END OF REPORT**