

KPU - AGC Hops Service

Certificate of Analysis

Report Number:

41-GS

Customer:	Guy Shepherd
Date of Arrival:	Nov.17, 22
Date of Analysis:	Nov.22, 22
Date of Report:	Nov.23, 22
Hop/Sample Name:	Blend #3
Sample Form:	Pellet
Mass of Hops (g):	218



Kwantlen Polytechnic University
12666 72nd Ave
Surrey, BC
V3W 2M8

Alpha/Beta Acid Analysis - ASBC Hops-14 Method

Percent (%) by Mass

Alpha Acids	
Cohumulone	2.05
n+Adhumulone	5.93
Total Alpha Acids	7.98
Beta Acids	
Colupulone	2.31
n+Adlupulone	2.64
Total Beta Acids	4.95
HSI	0.22

Essential Oil Analysis - EBC 7.12 Method

 $\mu\text{g per g of Hops}$

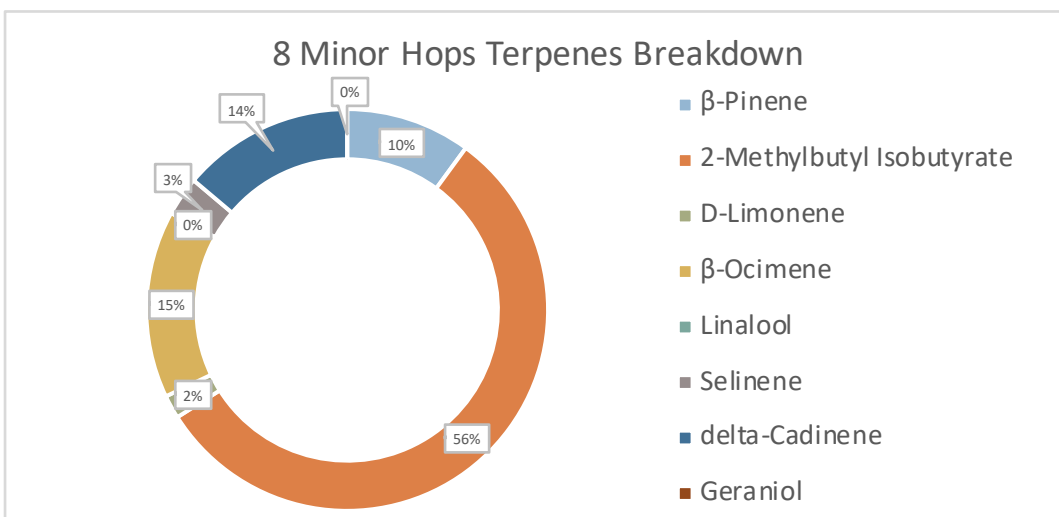
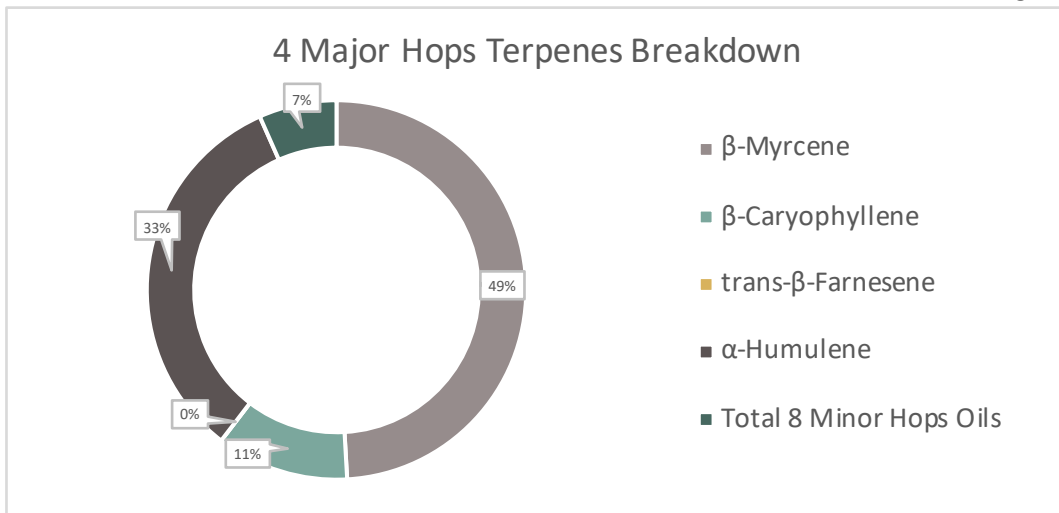
Percent (%) by Hops Mass

β -Myrcene	1178	0.12
β -Caryophyllene	271	0.03
trans- β -Farnesene	0	0.00
α -Humulene	791	0.08
Total 4 Major Hops Oils	2240	0.22

Relative Conc. of 8 "Other" Oils to β -Myrcene $\mu\text{g per g of Hops}$

Percent (%) by Hops Mass

β -Pinene	16	0.002
2-Methylbutyl Isobutyrate	89	0.009
D-Limonene	3	0.000
β -Ocimene	24	0.002
Linalool	0	0.000
Selinene	5	0.001
delta-Cadinene	22	0.002
Geraniol	0	0.000
Total 8 Minor Hops Oils	159	0.02



Analytical methods as noted in link below:

https://www.kpu.ca/sites/default/files/Applied%20Genomics%20Centre/KPU_Hops_Testing_Info.pdf

Terms and Conditions:

https://www.kpu.ca/sites/default/files/Applied%20Genomics%20Centre/KPU_Hops_Testing_Services_Terms_and_Conditions.pdf

Samples kept for 1 month post-testing

Data reviewed by:

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