

HOP QUALITY REPORT CERTIFICATE OF ANALYSIS

To: Wisconsin Hop Exchange

Sample ID: 22SSZ1104-01LH

Variety: Zuper Saazer

Whole Cone ☐

Date : 3/1/2023

Pellet ☒



Certifying Officer: Zach Lilla - Lab Manager
TTB Certified Chemist - Member AOAC - ASBC - BJCP

Method		
Hops-4C	Moisture Analysis	
	% Moisture	10.7
	% Dry Matter	89.3
AAR	Xanthohumol by HPLC	NT mg/g
Hops-12	Hop Storage Index	HSI 0.296
Hops-13	Essential Oil by Steam Distillation	mL/100g 1.09
Hops-14	Alpha and Beta Acids by HPLC	
ICE-3		
	Cohumulone	34.2 (% of Total AA)
	% Alpha Acids	5.44
	Colupulone	50.9 (% of Total BA)
	% Beta Acids	5.70
	a/b ratio	0.95
Hops-17	Hop Essential Oil by GC-FID	
	(as is)	
	% area	mg/100g
	B-Pinene	NT NT
	Myrcene	NT NT
	Linalool	NT NT
	Caryophyllene	NT NT
	Farnesene	NT NT
	Humulene	NT NT
	Geraniol	NT NT

NT=NOT TESTED

Signed: _____

Zachary Lilla - Lab Manager - TTB Certified Chemist
AAR LAB - ADVANCED ANALYTICAL RESEARCH
2517 Advance Rd Ste. A Madison WI 53718



AROMA QUALITY (AQ) HOP QUALITY REPORT

Customer : Wisconsin Hop Exchange

Sample ID: 22SSZ1104-01LH

Variety: Zuper Saazer

Whole Cone ☐

Pellet ☒

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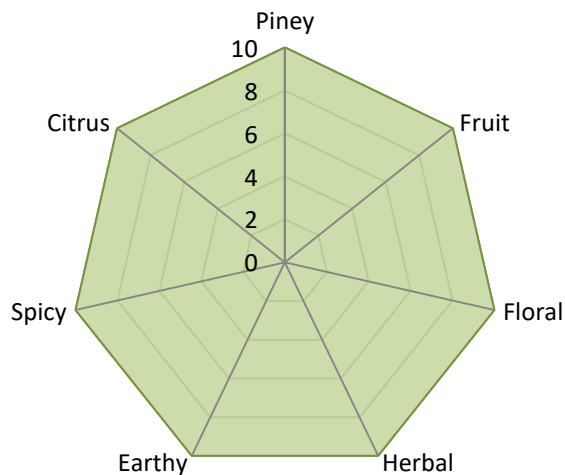
Certifying Officer: Zach Lilla - Lab Manager
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% Moisture	10.7	Typical Range	8 - 12%	☒
HOP QUALITY (adjusted to 10% moisture)				
Total Oil ml/100g	1.10		1.0 - 2.0 mL	☒
cohumulone	34.2		30 - 35%	☒
Alpha Acids	5.48		5.0 - 8.0%	☒
Beta Acids	5.75		5.0 - 8.0%	☒

AROMA QUALITY (AQ)

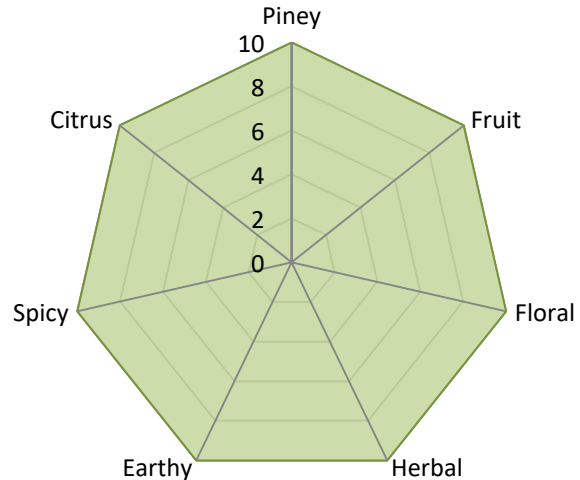
	% Area		mg/mL of Hop Oil			mg/100g of Hops (@10%H2O)		
B-Pinene	NT	0.50 - 0.80 %	NT	5 - 8		NT	5 - 16	
Myrcene	NT	45.00 - 60.00 %	NT	450 - 600		NT	450 - 1200	
Linalool	NT	0.30 - 0.60 %	NT	3 - 6		NT	3 - 12	
Caryophyllene	NT	5.00 - 9.00 %	NT	50 - 90		NT	50 - 180	
Farnesene	NT	6.00 - 9.00 %	NT	60 - 90		NT	60 - 180	
Humulene	NT	14.00 - 20.00 %	NT	140 - 200		NT	140 - 400	
Geraniol	NT	0.01 - 0.30 %	NT	0.1 - 3		NT	0.1 - 6	

AQ vs VARIETY SPECS



Aroma Intensity= 100

AQ vs ALL HOP VARIETIES



Aroma Intensity= 100

Signed: _____

Zachary Lilla - Lab Manager - TTB Certified Chemist

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