

HOP QUALITY REPORT CERTIFICATE OF ANALYSIS

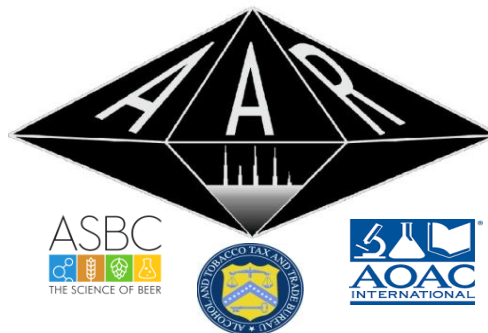
To: Wisconsin Hop Exchange

Sample ID: 24MTH02WI-01LH

Variety: Mt Hood

Product: T-90 Pellet

Date : 2/20/2025



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

Method			
Hops-4C	Moisture Analysis	% Moisture	10.8
		% Dry Matter	89.2
AAR	Xanthohumol by HPLC	NT	mg/g
Hops-12	Hop Storage Index	HSI	0.266
Hops-13	Essential Oil by Steam Distillation	mL/100g	1.49
Hops-14	Alpha and Beta Acids by HPLC	Cohumulone	24.4 (% of Total AA)
ICE-3		% Alpha Acids	4.22
		Colupulone	42.1 (% of Total BA)
		% Beta Acids	6.61
		a/b ratio	0.64
Hops-17	Hop Essential Oil by GC-FID	% area	mg/100g
	(as is)	B-Pinene	0.41 6.08
		Myrcene	31.16 522.50
		Linalool	0.55 9.53
		Caryophyllene	15.24 234.59
		Farnesene	0.08 1.44
		Humulene	34.76 530.76
		Geraniol	0.23 3.96

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

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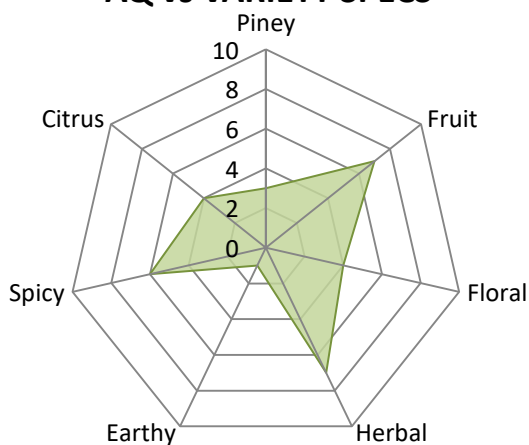
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% Moisture	10.8	Typical Range 8 - 12 %	✓
HOP QUALITY (adjusted to 10% moisture)			
Total Oil ml/100g	1.51	0.8 - 2.0 mL	✓
cohumulone	24.4	21 - 25%	✓
Alpha Acids	4.26	4.0 - 6.5%	✓
Beta Acids	6.67	4.4 - 7.2%	✓
Myrcene	31.16	25.00 - 35.00 %	✓

AROMA QUALITY (AQ)

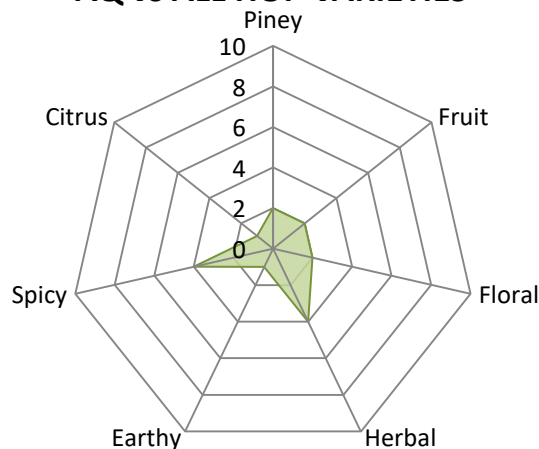
	% Area			mg/mL of Hop Oil			mg/100g of Hops (@10%H2O)		
B-Pinene	0.41	0.30 - 0.90 %	✓	4.08	3 - 9	✓	6.13	2.4 - 18	✓
Myrcene	31.16	25.00 - 35.00 %	✓	350.40	250 - 350	↑	527.43	200 - 700	✓
Linalool	0.55	0.40 - 1.00 %	✓	6.39	4 - 10	✓	9.62	3.2 - 20	✓
Caryophyllene	15.24	10.00 - 16.00 %	✓	157.32	100 - 160	✓	236.81	80 - 320	✓
Farnesene	0.08	0.01 - 1.00 %	✓	0.96	0.1 - 10	✓	1.45	0.08 - 20	✓
Humulene	34.76	30.00 - 40.00 %	✓	355.94	300 - 400	✓	535.76	240 - 800	✓
Geraniol	0.23	0.10 - 0.50 %	✓	2.66	1 - 5	✓	4.00	0.8 - 10	✓

AQ vs VARIETY SPECS



Aroma Intensity= 18

AQ vs ALL HOP VARIETIES



Aroma Intensity= 4

Signed: _____

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