

AT - HL1

 Sample ID: BIA241212S0020
 Strain: Animal Tsunami

 Produced:
 Collected:
 Received: 12/13/2024
 Completed: 12/20/2024
 Batch#:

 Client
Knotted Root
 Lic. # SCLT0404
 294 Farm Rd.
 Arlington, VT 05250

 Matrix: Plant
 Type: Flower - Cured
 Sample Size: 9.62 g
 Lot#:


Summary

Test	Date Tested	Result
Sample		Complete
Cannabinoids	12/18/2024	Complete
Moisture	12/13/2024	10.50% - Complete
Water Activity	12/13/2024	0.524 aw - Complete
Terpenes	12/17/2024	Complete
Microbials	12/16/2024	Complete

Cannabinoids

Completed

27.50% Total THC	0.06% Total CBD	32.72% Total Cannabinoids
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Analyte	LOQ	Results	Results	Mass
	mg/g	%	mg/g	mg/serving
CBDVa	0.0005	<LOQ	<LOQ	
CBDV	0.0012	<LOQ	<LOQ	
CBDa	0.0008	0.06	0.6	
CBGa	0.0008	1.14	11.4	
CBG	0.0019	0.11	1.1	
CBD	0.0019	<LOQ	<LOQ	
THCV	0.0021	<LOQ	<LOQ	
CBN	0.0013	<LOQ	<LOQ	
Δ9-THC	0.0020	0.35	3.5	
Δ8-THC	0.0019	<LOQ	<LOQ	
Δ10-THC	0.0002	0.10	1.0	
CBC	0.0024	<LOQ	<LOQ	
THCa	0.0034	30.95	309.5	
Total THC		27.50	274.95	
Total CBD		0.06	0.56	
Total		32.72	327.18	0.00

Analyst: 056

Cannabinoids Methodology: High Performance Liquid Chromatography (HPLC) using PerkinElmer FLEXAR™ with Photo Diode Array Detector (PDA)

Total CBD and total THC are calculated values, to account for assumed decarboxylation from the acid form (THCA or CBDA) to the neutral form, causing weight loss of the acid group. These values are calculated as follows:

$$\text{Total THC} = (\text{THCA} \times 0.877) + \Delta 9\text{-THC}$$

$$\text{Total CBD} = (\text{CBDA} \times 0.877) + \text{CBD Reagent}$$

Blanks: < LOQs for all analytes

LOQ = The lowest quantity that this method can reliably detect. Any cannabinoid that was not detected is assumed to be less than the stated LOQ (<LOQ).

All results reflect dry weight of material, based on % moisture of the sample.

Measurement of Uncertainty (MU): the parameter, associated with the result of a measurement, that characterizes the dispersion of the values that could reasonably be attributed to the particular quantity subject to measurement. Δ9-THC MU = ±0.005% Total THC MU = ±0.007%

All other cannabinoid MU values are available upon request.

All moisture and water activity analysis is determined by dewpoint measurement using an AQUALAB water activity meter.




 Luke Emerson-Mason
 Laboratory Director
 12/20/2024

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Terpenes

Completed

Analyte	LOQ	Results	Results
	mg/g	mg/g	%
Limonene	0.010	10.277	1.028
Ocimene	0.010	4.483	0.448
β-Pinene	0.010	3.551	0.355
β-Myrcene	0.010	3.403	0.340
α-Pinene	0.010	2.685	0.268
β-Caryophyllene	0.010	2.101	0.210
Linalool	0.010	1.564	0.156
α-Humulene	0.010	0.658	0.066
Terpinolene	0.010	0.402	0.040
Camphene	0.010	0.381	0.038
Geraniol	0.010	0.171	0.017
Guaiol	0.010	0.138	0.014
α-Bisabolol	0.010	0.045	0.005
γ-Terpinene	0.010	0.024	0.002
3-Carene	0.010	<LOQ	<LOQ
α-Terpinene	0.010	<LOQ	<LOQ
Caryophyllene Oxide	0.010	<LOQ	<LOQ
cis-Nerolidol	0.010	<LOQ	<LOQ
Eucalyptol	0.010	<LOQ	<LOQ
Isopulegol	0.010	<LOQ	<LOQ
p-Cymene	0.010	<LOQ	<LOQ
trans-Nerolidol	0.010	<LOQ	<LOQ
Total		29.883	2.988

Primary Aromas



Analyst: 045

LOQ = The lowest quantity this method can reliably detect. Any terpene that was not detected is assumed to be less than the stated LOQ (<LOQ).

Terpene Methodology: Headspace Sampler, Gas Chromatography-Mass Spectrometry (GC-MS), using Perkin Elmer Clarus® SQ8 GC MS

Reagent Blanks: < LOQs for all analytes

All results reflect dry weight of material, based on % moisture of the sample.

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Pathogens

Completed

Pathogens	LOD	Results
	CFU/g	CFU/g
Aspergillus	5	Not Detected
Shiga Toxin E. Coli	5	Not Detected
Salmonella SPP	5	Not Detected

Analyst: 018

Test Methodology: Bio-Rad IQ-Check PCR Kits

cfu/g = colony forming units per gram

LOD = The lowest quantity that this method can reliably detect. Any microbial growth that was not detected is assumed to be less than the stated LOD (<LOD).

Reagent Blanks: <LOD for all analytes




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LP, SSH, RPOG, AT, MF - HL1

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Pesticides

Completed

Category 1 Pesticides	LOQ	Results
	PPM	PPM
Chlorpyrifos	0.0010	<LOQ
Imazalil	0.0010	<LOQ
Category 2 Pesticides	LOQ	Results
	PPM	PPM
Abamectin	0.0100	<LOQ
Acephate	0.0010	<LOQ
Acequinocyl	0.0010	<LOQ
Azoxystrobin	0.0010	<LOQ
Bifenazate	0.0010	<LOQ
Bifenthrin	0.0010	<LOQ
Carbaryl	0.0010	<LOQ
Cypermethrin	0.0100	<LOQ
Etoxazole	0.0010	<LOQ
Imidacloprid	0.0010	<LOQ
Myclobutanil	0.0010	<LOQ
Pyrethrins	0.0020	<LOQ
Spinosyn A	0.0010	<LOQ
Spinosyn D	0.0010	<LOQ

Analyst: 048

Pesticides Methodology: Liquid Chromatography with Tandem Mass Spectrometry using PerkinElme QSight® LX50 UHPLC and QSight 220 Mass Spectrometer

LOQ = The lowest quantity this method can reliably detect. Any pesticide or mycotoxins that was not detected is assumed to be less than the stated LOQ (<LOQ).

ppm = parts per million

All moisture and water activity analysis is determined by dewpoint measurement using an AQUALAB water activity meter.




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