

HIGH NORTH ID:
00365766
Date: 2023-08-10
Certificate: 1691696419



High North Inc.
241 Hanlan Rd, Unit 7
Woodbridge, ON, L4L 3R7
1-416-864-6119
LIC-P4PNJMAC20-2022

Client: BLACK KETTLE FARMS
22051 56 AVE ,
LANGLEY, BC, V2Y 2M8
Name: 1199519 BC LTD
778.918.0911
blackkettle000@gmail.com

Product: Donkey Butter
Lot: DB-23-01
Matrix: Flower
Sub-matrix: Dried Flower
Sampled: 2023-08-01
Received: 2023-08-04

Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			22.3630	223.6293
Total CBD [(CBDA x 0.877) + CBD]			0.0729	0.7288
THCA-A	0.015	0.06	24.8824	248.8242
CBGA	0.015	0.06	0.7246	7.2459
D9-THC	0.015	0.06	0.5411	5.4105
CBDA	0.015	0.06	0.0831	0.8310
CBG	0.015	0.06	0.0783	0.7832
CBC	0.015	0.06	ND	ND
D8-THC	0.015	0.06	ND	ND
CBN	0.015	0.06	ND	ND
THCV	0.015	0.06	ND	ND
CBD	0.015	0.06	ND	ND
CBDV	0.015	0.06	ND	ND
Total of all quantified cannabinoids:			26.3095	263.0948

Terpene Analysis	LOD (%)	LOQ (%)	wt%
Trans-Caryophyllene	0.0011	0.005	0.5109
(R)-(+)-Limonene	0.0006	0.005	0.3318
Farnesene*	0.0029	0.010	0.2553
Beta-Myrcene	0.0004	0.005	0.1961
Alpha-Humulene	0.0002	0.005	0.1404
Alpha-Terpeneol	0.0007	0.005	0.0852
Linalool	0.0006	0.005	0.0767
(R)-Endo-(+)-Fenchyl Alcohol	0.0005	0.005	0.0680
Beta-Pinene	0.0004	0.005	0.0606
Alpha-Pinene	0.0002	0.005	0.0539
Alpha-Bisabolol	0.0011	0.005	0.0313

Abbreviations: wt% = percentage of weight, CFU = colony forming units, ppm = Parts per million, ppb = Parts per billion, ND = None Detected, BLQ = Below Limit of Quantification, LOQ = Limit of Quantification, LOD = Limit of Detection, RL = Reporting Limit, * = Mixture of Isomers

Authorized by:


Gui Scharlack
QA Specialist

Terpene Analysis	LOD (%)	LOQ (%)	wt%
trans-Nerolidol	0.0005	0.005	0.0228
Camphene	0.0009	0.005	0.0134
Caryophyllene oxide	0.0009	0.005	0.0130
Borneol	0.0005	0.005	0.0089
Terpinolene	0.0005	0.005	BLQ
Fenchone	0.0003	0.005	BLQ
Squalene	0.0015	0.005	ND
Phytol*	0.0030	0.010	ND
Nootkatone	0.0009	0.005	ND
Farnesol*	0.0032	0.010	ND
Phytane	0.0006	0.005	ND
(+)-Cedrol	0.0004	0.005	ND
Guaiol	0.0013	0.005	ND
cis-Nerolidol	0.0012	0.005	ND
Valencene	0.0006	0.005	ND
Eugenol	0.0010	0.005	ND
Alpha-Cedrene	0.0004	0.005	ND
Geranyl acetate	0.0007	0.005	ND
Carvacrol	0.0005	0.005	ND
Thymol	0.0006	0.005	ND
d-Valerolactam (2-piperidone)	0.0015	0.005	ND
(-)-Piperitone	0.0012	0.005	ND
Isobornyl Acetate	0.0005	0.005	ND
Carvone	0.0006	0.005	ND
Pulegone	0.0006	0.005	ND
Verbenone	0.0006	0.005	ND
Citral*	0.0015	0.005	ND
Geraniol	0.0005	0.005	ND
Safranal	0.0004	0.005	ND
Nerol	0.0007	0.005	ND
Citronellol	0.0008	0.005	ND
Octyl Acetate	0.0005	0.005	ND
Terpinen-4-ol	0.0017	0.005	ND
Camphor	0.0005	0.005	ND
Isoborneol	0.0005	0.005	ND
Menthol (Hexahydrothymol)	0.0013	0.005	ND
Menthone*	0.0015	0.005	ND
Isopulegol	0.0010	0.005	ND
Alpha-Thujone	0.0010	0.005	ND
Sabinene Hydrate	0.0006	0.005	ND
Gamma-Terpinene	0.0002	0.005	ND
Eucalyptol	0.0011	0.005	ND
Cymene*	0.0004	0.005	ND

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Terpene Analysis	LOD (%)	LOQ (%)	wt%
Ocimene	0.0017	0.005	ND
Alpha-Terpinene	0.0004	0.005	ND
Alpha-Phellandrene	0.0010	0.005	ND
(1S)-3-Carene	0.0009	0.005	ND
Sabinene	0.0003	0.005	ND
Total of all quantified terpenes:			1.868
Moisture Analysis	9.61%		

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Details of Testing

Cannabinoid Analysis

LAB-MTD-020: Determination of 11 Cannabinoids in Cannabis Flower (LOQ 0.06%), Fresh Flower (LOQ 0.015%), Oil (LOQ 0.03%) and Concentrates (LOQ 0.6%) by HPLC and UHPLC

LAB-MTD-021: Determination of Cannabinoids of Individually Isolated Sample by HPLC/UHPLC

LAB-MTD-023: Determination of 11 Cannabinoids in Cannabis Tablets and Granules (LOQ 0.025%) by HPLC/UHPLC

LAB-MTD-030: Determination of 11 Cannabinoids in Cannabis Topicals (LOQ 0.005%) by HPLC/UHPLC

LAB-MTD-039: Determination of 11 Cannabinoids in Cannabis Edibles; Liquid Edibles (LOQ 0.0005%) and Solid Edibles (LOQ 0.005%) by HPLC

LAB-MTD-051: Assay of Cannabinoids in Cannabis Flower as per DAB by HPLC

LAB-MTD-052: Identification of CBD and THCA as per DAB by Thin-Layer Chromatography

Terpene Analysis

LAB-MTD-044: Determination of Terpene Content in Cannabis Dried Flower, Fresh Flower and Extracts by GC-MS

Pesticide Analysis

LAB-MTD-010: Determination of Health Canada Pesticide Residues and Toxins in Dried Cannabis Flower by LC-MS/MS and GC-MS/MS

LAB-MTD-040: Determination of EP Pesticide Residues in Cannabis Oil and Related Products by GC-MS/MS

LAB-MTD-041: Determination of EP Pesticide Residues in Cannabis Flower and Related Products by GC-MS/MS

LAB-MTD-046: Determination of Health Canada Pesticides and Toxins in Cannabis Extracts by LC-MS/MS

LAB-MTD-048: Determination of Health Canada Pesticide Residues and Toxins in Fresh Cannabis Flower by LC-MS/MS and GC-MS/MS

Mycotoxin Analysis

LAB-MTD-010: Determination of Health Canada Pesticide Residues and Toxins in Dried Cannabis Flower by LC-MS/MS and GC-MS/MS

LAB-MTD-029: Determination of Toxins in Tablet Samples by LC-MS/MS

LAB-MTD-037: Determination of Mycotoxins in Topical/Cream Samples by LC-MS/MS

LAB-MTD-046: Determination of Health Canada Pesticides and Toxins in Cannabis Extracts by LC-MS/MS

LAB-MTD-048: Determination of Health Canada Pesticide Residues and Toxins in Fresh Cannabis Flower by LC-MS/MS and GC-MS/MS

Flavonoid Analysis

LAB-MTD-045: Determination of Flavonoids in Cannabis Dried Flower, Fresh Flower, and Extracts by LC-MS/MS

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Details of Testing

Microbial Analysis

MIC-MTD-001: Microbial Analysis of Cannabis Flower and Oil by qPCR
MIC-MTD-006: Determination of Viruses in Cannabis via qPCR and ELISA
MIC-MTD-007: Microbial Analysis of Cannabis by Culture Techniques
MIC-MTD-009: Cannabis Gender Determination by qPCR
MIC-MTD-010: Identification A and Identification B of Cannabis by DAB Monograph
MIC-MTD-011: Analysis of Shigella Species in Cannabis and Cannabis Infused Products
MIC-MTD-008: Analysis of Listeria Monocytogenes in Cannabis and Cannabis Infused Products

Moisture Analysis

LAB-MTD-017: Determination of Moisture Content in Cannabis Flower
LAB-MTD-031: Water Activity Meter Setup and Operation
LAB-MTD-053: Determination of Moisture Content by Loss on Drying Technique using Vacuum Oven

Sample Appearance and Foreign Matter

LAB-MTD-022: Sample Appearance and Detection of Foreign Matter Content in Cannabis Samples

Total Ash Analysis

LAB-MTD-043: Total Ash by Muffle Furnace in Cannabis Products

Residual Solvents Analysis

LAB-MTD-036: Determination of Residual Solvents in Cannabis Oil by GC-MS
LAB-MTD-028: Determination of Residual Solvents in Tablet Samples by GC-MS
LAB-MTD-034: Determination of Propane and Butane in Cannabis Oil by GC-MS
LAB-MTD-038: Determination of Toluene in Cannabis Isolate by GC-MS
LAB-MTD-054: Determination of Acetic Acid in Flavour, Cannabis Vape Mix Oil and Cannabis Infused Flower by GC-MS

Peroxide Value, p-Anisidine and Acidity (FFA) Analysis

LAB-MTD-049: Determination of Peroxide Value, p-Anisidine, and Acidity (FFA)

Heavy Metal Analysis

LAB-MTD-027: Determination of Heavy Metals in Cannabis Samples (Cream/Topicals, Tablets and Edibles) by ICP-MS
LAB-MTD-050: Multi-Element Analysis of Cannabis Dried Flower, Fresh Flower, Extracts, and Rolling Papers by ICP-MS

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