

HIGH NORTH ID:  
00074614  
Date: 2021-08-13  
Certificate: 1628863019



High North Inc.  
241 Hanlan Rd, Unit 7  
Woodbridge, ON, L4L 3R7  
1-416-864-6119  
LIC-P4PNJMAC20-2019

Client: Mother Labs  
#115 343 70th STREET,  
SASKATOON, SK, CANADA,  
Saskatoon, SK, S7P0E3

Name: [REDACTED]

Strain: King Sherb v3  
Lot: SAM2108-014  
Matrix: Flower  
Sub-matrix: Dried Flower  
Sampled: 2021-08-09  
Received: 2021-08-10

## Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
<b>Total THC [(THCA x 0.877) + D9-THC]</b>			<b>26.026</b>	<b>260.26</b>
Total CBD [(CBDA x 0.877) + CBD]			0.085	0.845
THCA-A	0.0090	0.03	29.378	293.785
CBGA	0.0041	0.03	1.065	10.646
D9-THC	0.0093	0.03	0.261	2.611
CBG	0.0094	0.03	0.155	1.546
CBDA	0.0100	0.03	0.096	0.964
CBC	0.0060	0.03	ND	ND
D8-THC	0.0137	0.03	ND	ND
THCV	0.0093	0.03	ND	ND
CBN	0.0067	0.03	ND	ND
CBD	0.0069	0.03	ND	ND
CBDV	0.0090	0.03	ND	ND

**Total of all quantified cannabinoids:** **30.955** **309.552**

Terpene Analysis	LOD (%)	LOQ (%)	wt%
(R)-(+)-Limonene	0.0001	0.005	0.67
Trans-Caryophyllene	0.0002	0.005	0.528
Beta-Myrcene	0.0003	0.005	0.177
Farnesene*	0.0009	0.005	0.151
Alpha-Humulene	0.0010	0.005	0.138
Linalool	0.0003	0.005	0.137
Beta-Pinene	0.0002	0.005	0.095
Terpineol*	0.0001	0.005	0.081
(R)-Endo-(+)-Fenchyl	0.0003	0.005	0.068
Alpha-Pinene	0.0003	0.005	0.066

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:

  
Will Zhang, Quality Assurance Specialist

<b>Terpene Analysis</b>	LOD (%)	LOQ (%)	wt%
alpha-Bisabolol	0.0003	0.005	0.028
trans-Nerolidol	0.0004	0.005	0.022
Camphene	0.0002	0.005	0.018
Caryophyllene oxide	0.0008	0.005	0.012
Terpinolene	0.0003	0.005	0.008
Phytol*	0.0013	0.010	BLQ
Citronellol	0.0003	0.005	0.005
Geraniol	0.0007	0.005	BLQ
Nerol	0.0002	0.005	BLQ
Sabinene Hydrate	0.0001	0.005	BLQ
Fenchone*	0.0003	0.005	BLQ
Gamma-Terpinene	0.0003	0.005	BLQ
Alpha-Terpinene	0.0003	0.005	BLQ
(+)-Cedrol	0.0010	0.005	ND
Guaiol	0.0003	0.005	ND
Valencene	0.0002	0.005	ND
cis-Nerolidol	0.0003	0.005	ND
Eugenol	0.0004	0.010	ND
Alpha-Cedrene	0.0002	0.005	ND
Pulegone	0.0002	0.005	ND
Geranyl acetate	0.0002	0.005	ND
Camphor + Borneol*	0.0003	0.010	ND
Hexahydrothymol	0.0005	0.005	ND
Isoborneol	0.0002	0.005	ND
Isopulegol	0.0004	0.005	ND
Ocimene*	0.0004	0.005	ND
p-Cymene	0.0003	0.005	ND
Eucalyptol	0.0007	0.005	ND
Alpha-Phellandrene	0.0002	0.005	ND
(1S)-3-Carene	0.0007	0.005	ND
Sabinene	0.0013	0.005	ND
<b>Total of all quantified terpenes:</b>			<b>2.204</b>

**Moisture Analysis** 12.31%

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## Details of Testing

### **Cannabinoid Analysis**

Analysis of 11 Cannabinoids by HPLC & UHPLC

Method LAB-MTD-020: Flower (LOQ 0.06%), Oil (LOQ 0.03%), Extracts (LOQ 0.6%)

Method LAB-MTD-021: Isolates (LOQ 0.06%)

Method LAB-MTD-023: Tablets & Granules (LOQ 0.025%)

Method LAB-MTD-030: Topicals (LOQ 0.005%)

### **Terpene Analysis**

Profile of 42 terpenes by GC/MS

Method LAB-MTD-035: Cannabis Flower, Oil

### **Pesticide Analysis**

Determination of 96 Pesticide Residues by LC/MS/MS and GC/MS/MS

Method LAB-MTD-010: Cannabis Flower, Oil

### **Mycotoxin Analysis**

Determination of Aflatoxins B1, B2, G1, G2 and Ochratoxin-A by LC/MS/MS

Method LAB-MTD-010: Cannabis Flower, Oil

Method LAB-MTD-029: Tablets

Method LAB-MTD-037: Topicals

### **Heavy Metal Analysis**

Determination of Heavy Metal contamination (Arsenic, Cadmium, Lead & Mercury) by ICP/MS

Method LAB-MTD-027: Cannabis Flower, Oil, Topicals, Tablets

### **Residual Solvents Analysis**

Determination of 24 Residual Solvents by GC/MS

Method LAB-MTD-036: Cannabis Oil

Method LAB-MTD-028: Tablets

### **Determination of Butane and Propane Residual Solvents in Cannabis Oil**

Method LAB-MTD-034 (GC/MS): Cannabis Oil

### **Microbial Analysis, Powdery Mildew & Gender Determination**

Molecular detection and quantitation by PCR & qPCR

Cannabis Flower, Oil, Cannabis-Infused Products

Method MIC-MTD-001 (TAMC, TYMC, BTGN, E.coli, Salmonella, Staph/Pseudomonas)

Method MIC-MTD-005: (Powdery Mildew & Gender Determination)

### **Moisture Analysis**

Water Activity & Moisture Content (Loss on Drying)

Method LAB-MTD-017 (Loss on Drying; Dry flower only)

Method LAB-MTD-031 (Water activity,  $a_w$ )

### **Foreign Matter Analysis**

Visual/Magnified Inspection for Foreign Matter

Method LAB-MTD-022

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