

HIGH NORTH ID:  
00262888  
Date: 2022-11-14  
Certificate: 1668461079



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

Client: Sweetgrass Cannabis      Strain: MS  
6672 Highway 6 ,      Lot: 22110301 / C5R204MS  
Ymir, BC, V0G2K0      Matrix: Flower  
Name: Brandon Grieve-Heringa      Sub-matrix: Dried Flower  
250-352-9333      Sampled: 2022-11-03  
brandon@sweetgrasscannabis.c      Received: 2022-11-09  
a

## Certificate of Analysis

<b>Terpene Analysis</b>	LOD (%)	LOQ (%)	wt%
Beta-Myrcene	0.0003	0.005	2.104
Farnesene*	0.0009	0.005	0.703
Trans-Caryophyllene	0.0002	0.005	0.58
(R)-(+)-Limonene	0.0001	0.005	0.228
Alpha-Humulene	0.0010	0.005	0.226
Linalool	0.0003	0.005	0.148
Ocimene*	0.0004	0.005	0.124
Guaiol	0.0003	0.005	0.121
alpha-Bisabolol	0.0003	0.005	0.107
Beta-Pinene	0.0002	0.005	0.031
Terpineol*	0.0001	0.005	0.027
Caryophyllene oxide	0.0008	0.005	0.024
(R)-Endo-(+)-Fenchyl	0.0003	0.005	0.018
Alpha-Pinene	0.0003	0.005	0.016
Citronellol	0.0003	0.005	BLQ
Terpinolene	0.0003	0.005	BLQ
Camphene	0.0002	0.005	BLQ
Phytol*	0.0013	0.010	ND
(+)-Cedrol	0.0010	0.005	ND
trans-Nerolidol	0.0004	0.005	ND

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:

Ryan Lee  
Quality Assurance

<b>Terpene Analysis</b>	LOD (%)	LOQ (%)	wt%
cis-Nerolidol	0.0003	0.005	ND
Valencene	0.0002	0.005	ND
Eugenol	0.0004	0.010	ND
Alpha-Cedrene	0.0002	0.005	ND
Geranyl acetate	0.0002	0.005	ND
Pulegone	0.0002	0.005	ND
Geraniol	0.0007	0.005	ND
Nerol	0.0002	0.005	ND
Camphor + Borneol*	0.0003	0.010	ND
Isoborneol	0.0002	0.005	ND
Hexahydrothymol	0.0005	0.005	ND
Isopulegol	0.0004	0.005	ND
Fenchone*	0.0003	0.005	ND
Sabinene Hydrate	0.0001	0.005	ND
Gamma-Terpinene	0.0003	0.005	ND
Eucalyptol	0.0007	0.005	ND
p-Cymene	0.0003	0.005	ND
Alpha-Terpinene	0.0003	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>4.457</b>

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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%), Concentrates (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%)

Method LAB-MTD-039: Determination of 5 Cannabinoids in Cannabis Edibles; Liquid Edibles (LOQ 0.0002%) and Solid Edibles (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

Method LAB-MTD-040: Determination of EP Pesticide Residue in Cannabis Oil by GCMSMS

Method LAB-MTD-041: Determination of EP Pesticide Residues in Cannabis Flower and Related Products by GCMSMS

### **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

Information is accurate unless otherwise stated. The results of this report are reflective only to material and product analyzed as received. This report shall not be reproduced, without written approval from High North Laboratories. Test Results are confidential unless explicitly waived otherwise.

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## Details of Testing

### **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)

Method MIC-MTD-006: Determination of Viruses in Cannabis via qPCR and ELISA

### **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

### **Total Ash Analysis**

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

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Authorized by:



Ryan Lee  
Quality Assurance

## CERTIFICATE OF ANALYSIS

### Client information

**Sweetgrass Cannabis**  
6672 Nelson Nelway Hwy  
Ymir, Canada, V0G 2K0

### COA information

COA number **221117\_36055\_PAR9824\_V2**  
COA Date **17-Nov-2022**  
Analysis Request ID **PAR9824**

### Sample information

Sample Name **22110301 / C5R204MS**  
Sample ID **22110301 / C5R204MS**  
Laboratory ID **PAT33666**  
Method Ref. **AOAC 2007.01**

Sample Receiving Date **09-Nov-2022**  
Receiving Temperature **21°C**  
Analysis Date **14-Nov-2022**

### Results Information

Aflatoxins	Results	Unit	LOQ
Aflatoxin B1	<0.002	ppm	0.002
Aflatoxin B2	<0.002	ppm	0.002
Aflatoxin G1	<0.002	ppm	0.002
Aflatoxin G2	<0.002	ppm	0.002
Total Aflatoxins (B1,B2,G1,G2)	<0.002	ppm	0.002

Authorized by: Laboratory Manager

Signature:



### Details of testing

1. This COA has been revised from COA Number: 221114\_35531\_PAR9824
2. LOQ- Limit of quantification
3. Results only apply to the items tested and to the sample(s) as received.
4. This report may not be distributed or reproduced except in full.



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scanning the QR code

## Sample information

Sample Name	22110301 / C5R204MS	Sample Receiving Date	09-Nov-2022
Sample ID	22110301 / C5R204MS	Receiving Temperature	21°C
Laboratory ID	PAT33666	Analysis Date	11-Nov-2022
Method Ref.	PAT-SOP106, USP233		

## Results Information

Heavy Metals	Results	Unit	LOQ	Specification
Arsenic	<0.025	ppm	0.025	< 0.2ppm
Cadmium	<0.020	ppm	0.02	< 0.3ppm
Lead	<0.010	ppm	0.01	< 0.5ppm
Mercury	<0.005	ppm	0.005	< 0.1ppm

Authorized by: Laboratory Manager

Signature:



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## Sample information

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Sample Name	<b>22110301 / C5R204MS</b>	Sample Receiving Date	<b>09-Nov-2022</b>
Sample ID	<b>22110301 / C5R204MS</b>	Receiving Temperature	<b>21°C</b>
Laboratory ID	<b>PAT33666</b>	Analysis Date	<b>10-Nov-2022</b>
Method Ref.	<b>USP561</b>		

## Results Information

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Foreign Material	Results	Unit	LOQ
Grey Mold and Bud Rot	0	/g	N/A
Insect and Vermin	0	/g	N/A
Other Extraneous substances	0	/g	N/A
Spider Mite	0	/g	N/A
Stalks	0	/g	N/A

Authorized by: Laboratory Manager

Signature:



## Details of testing

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## Sample information

Sample Name	<b>22110301 / C5R204MS</b>	Sample Receiving Date	<b>09-Nov-2022</b>
Sample ID	<b>22110301 / C5R204MS</b>	Receiving Temperature	<b>21°C</b>
Laboratory ID	<b>PAT33666</b>	Analysis Date	<b>13-Nov-2022</b>
Method Ref.	<b>5991-9285EN</b>		

## Cannabinoids Profile

Compounds	Results (%w/w)	Results (mg/g)	LOQ(%)
CBC	0.032	0.320	0.010
CBD	0.014	0.140	0.010
CBDA	0.066	0.660	0.010
CBDV	<0.010	<0.100	0.010
CBG	0.132	1.320	0.010
CBGA	2.257	22.570	0.010
CBN	<0.010	<0.100	0.010
D8-THC	<0.010	<0.100	0.010
D9-THC	0.888	8.880	0.010
THCA-A	30.119	301.190	0.010
THCV	<0.010	<0.100	0.010
<b>Total THC</b>	<b>27.302</b>	<b>273.024</b>	
<b>Total CBD</b>	<b>0.072</b>	<b>0.719</b>	

**27.302%**  
Total THC

**0.072%**  
Total CBD

Total THC = THC + (THCA\*0.877), Total CBD = CBD + (CBDA\*0.877)

Total THC/CBD is calculated using the formulas to take into account the loss of carboxyl group during decarboxylation step.

Authorized by: Laboratory Manager

Signature:



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2. LOQ- Limit of quantification
3. % w/w: percent (weight of analyte/ weight of product)
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## Sample information

Sample Name	22110301 / C5R204MS	Sample Receiving Date	09-Nov-2022
Sample ID	22110301 / C5R204MS	Receiving Temperature	21°C
Laboratory ID	PAT33666	Analysis Date	14-Nov-2022
Method Ref.	AOAC 2007.01		

## Pesticides Dried Cannabis Results Information

Compound Detected	Results (ppm)	Canada	RDL
No Compounds Detected			

Compounds Not Detected	Results (ppm)	Canada	RDL
Abamectin	ND	0.1	0.02
Acephate	ND	0.02	0.02
Acequinocyl	ND	0.03	0.02
Acetamiprid	ND	0.1	0.02
Aldicarb	ND	1	0.02
Allethrin	ND	0.2	0.02
Azadirachtin	ND	1	0.02
Azoxystrobin	ND	0.02	0.01
Benzovindiflupyr	ND	0.02	0.01
Bifenazate	ND	0.02	0.02
Bifenthrin	ND	1	0.02
Boscalid	ND	0.02	0.01
Buprofezin	ND	0.02	0.01
Carbaryl	ND	0.05	0.02
Carbofuran	ND	0.02	0.01
Chlorantraniliprole	ND	0.02	0.01
Chlorphenapyr	ND	0.05	0.05
Chlorpyrifos	ND	0.04	0.01
Clofentezine	ND	0.02	0.01
Clothianidin	ND	0.05	0.02
Coumaphos	ND	0.02	0.01
Cyantraniliprole	ND	0.02	0.01
Cyfluthrin	ND	0.2	0.1
Cypermethrin	ND	0.3	0.02
Cyprodinil	ND	0.25	0.02
Daminozide	ND	0.1	0.05
Deltamethrin	ND	0.5	0.02
Diazinon	ND	0.02	0.01
Dichlorvos	ND	0.1	0.02
Dimethoate	ND	0.02	0.01
Dimethomorph	ND	0.05	0.02
Dinotefuran	ND	0.1	0.02
Dodemorph	ND	0.05	0.02
Endosulfan sulfate	ND	0.05	0.02
Endosulfan-alpha	ND	0.2	0.1
Endosulfan-beta	ND	0.05	0.01
Ethoprophos	ND	0.02	0.01
Etofenprox	ND	0.05	0.01

Compounds Not Detected	Results (ppm)	Canada	RDL
Etoazole	ND	0.02	0.01
Etridiazole	ND	0.03	0.01
Fenoxycarb	ND	0.02	0.01
Fenpyroximate	ND	0.02	0.02
Fensulfothion	ND	0.02	0.01
Fenthion	ND	0.02	0.01
Fenvalerate	ND	0.1	0.05
Fipronil	ND	0.06	0.01
Flonicamid	ND	0.05	0.02
Fludioxonil	ND	0.02	0.01
Fluopyram	ND	0.02	0.01
Hexythiazox	ND	0.01	0.01
Imazalil	ND	0.05	0.01
Imidacloprid	ND	0.02	0.01
Iprodione	ND	1	0.5
Kinoprene	ND	0.5	0.05
Kresoxim-methyl	ND	0.02	0.01
Malathion	ND	0.02	0.01
Metalaxyl	ND	0.02	0.01
Methiocarb	ND	0.02	0.01
Methomyl	ND	0.05	0.02
Methoprene	ND	2	0.5
Mevinphos	ND	0.05	0.02
MGK-264	ND	0.05	0.02
Myclobutanil	ND	0.02	0.01
Naled	ND	0.1	0.02
Novaluron	ND	0.05	0.02
Oxamyl	ND	3	0.02
Paclobutrazol	ND	0.02	0.01
Parathion-methyl	ND	0.05	0.02
Permethrin	ND	0.5	0.1
Phenothrin	ND	0.05	0.02
Phosmet	ND	0.02	0.01
Piperonyl butoxide	ND	0.2	0.02
Pirimicarb	ND	0.02	0.01
Prallethrin	ND	0.05	0.02
Propiconazole	ND	0.1	0.01
Propoxur	ND	0.02	0.01
Pyraclostrobin	ND	0.02	0.01
Pyrethrins	ND	0.05	0.025
Pyridaben	ND	0.05	0.02
Quintozene	ND	0.02	0.01
Resmethrin	ND	0.1	0.02
Spinetoram	ND	0.02	0.01
Spinosad	ND	0.1	0.01
Spirodiclofen	ND	0.25	0.02
Spiromesifen	ND	3	0.02
Spirotetramat	ND	0.02	0.02
Spiroxamine	ND	0.1	0.01
Tebuconazole	ND	0.05	0.01
Tebuconazole	ND	0.05	0.01
Tebufenozide	ND	0.02	0.01

Compounds Not Detected	Results (ppm)	Canada	RDL
Teflubenzuron	ND	0.05	0.02
Tetrachlorvinphos	ND	0.02	0.01
Tetramethrin	ND	0.1	0.02
Thiacloprid	ND	0.02	0.01
Thiamethoxam	ND	0.02	0.01
Thiophanate-methyl	ND	0.05	0.02
Trifloxystrobin	ND	0.02	0.01

Authorized by: Laboratory Manager

Signature: 

**Details of testing**

1. *This COA has been revised from COA Number: 221114\_35531\_PAR9824*
2. *ppm (w/w): parts per million by weight, MRL: Maximum residue limits, RDL: Reporting detection limits*
3. *The compounds are ND (not detected) at or above the RDL*
4. *Health Canada and/or United States MRL are taken from Health Canada & Global MRL Database (where applicable) on the date of COA preparation*
5. *Results only apply to the items tested and to the sample(s) as received.*
6. *This report may not be distributed or reproduced except in full*



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\*\*\*\*\* This is end of the Certificate of Analysis \*\*\*\*\*

## CERTIFICATE OF ANALYSIS

### Client information

**Sweetgrass Cannabis**  
6672 Nelson Nelway Hwy  
Ymir, Canada, V0G 2K0

### COA information

COA number           **221117\_36056\_PAR9824\_V2**  
COA Date              **17-Nov-2022**  
Analysis Request ID   **PAR9824**

### Sample information

Sample Name    **22110301 / C5R204MS**  
Sample ID       **22110301 / C5R204MS**  
Laboratory ID   **PAT33666**

Sample Receiving Date   **09-Nov-2022**  
Receiving Temperature   **21°C**

### Results information

Analysis Date	Test	Method Ref.	Results	Units	Specifications (EP 5.1.8. Microbiology)
13-Nov-2022	Escherichia coli	PAT-AM-003	Negative	/g	Negative
12-Nov-2022	Aerobic Microbial Count	PAT-AM-002	100	CFU/g	<=500000
13-Nov-2022	Bile-Tolerant Gram Negative Bacteria	PAT-AM-002	<100	CFU/g	<=10000
13-Nov-2022	Salmonella spp.	PAT-AM-004	Negative	/25g	Negative
13-Nov-2022	Yeast and Mold Count	PAT-AM-002	1700	CFU/g	<=50000

Authorized by:   Laboratory Manager

Signature:



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