HIGH NORTH ID:
00430535
Date: 2024-01-24
Certificate: 1706139030

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

Client:	Black Rose Reserve Inc. 44 Beasley Drive, Unit #1, Kitchener, ON, N2E1Y6	Product:	19Paths
		Lot:	IT-001-24
		Matrix:	Oil
Name:	Sean Rozon 4167990925 sean.rozon@blackrosereserve.ca	Sub-matrix:	Topical
		Sampled:	2024-01-16
		Received:	2024-01-17

Certificate of Analysis

Cannabinoid Analysis	LOD (%)	LOQ (%)	wt%	mg/g
Total THC [(THCA x 0.877) + D9-THC]			ND	ND
Total CBD [(CBDA x 0.877) + CBD]			0.3543	3.5430
CBD	0.0005	0.001	0.3543	3.5430
CBDV	0.0005	0.001	BLQ	BLQ
CBCA	0.0005	0.001	ND	ND
THCA-A	0.0005	0.001	ND	ND
CBC	0.0005	0.001	ND	ND
D8-THC	0.0005	0.001	ND	ND
D9-THC	0.0005	0.001	ND	ND
CBCVA	0.0005	0.001	ND	ND
CBN	0.0005	0.001	ND	ND
THCVA	0.0005	0.001	ND	ND
CBCV	0.0005	0.001	ND	ND
THCV	0.0005	0.001	ND	ND
CBG	0.0005	0.001	ND	ND
CBGA	0.0005	0.001	ND	ND
CBDA	0.0005	0.001	ND	ND
CBDVA	0.0005	0.001	ND	ND
Total of all quantified cannabinoids:			0.3543	3.5430

Visual Inspection/Olfactory	Result
Foreign Matter	None Detected

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

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QA Specialist

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Mycotoxin Analysis	LOD (ppb)	LOQ (ppb)	RL (ppb)	Result (ppb)	Status
Aflatoxin-B1	0.4000	2	2	ND	PASS
Aflatoxin-B2	0.4000	2		ND	
Aflatoxin-G1	0.3000	2		ND	
Aflatoxin-G2	0.5000	2		ND	
Sum of Aflatoxins:			4	0	PASS
Ochratoxin-A	1.7000	20	20	ND	PASS

Microbial Analysis	LOD (CFU/g)	RL (CFU/g)	Result (CFU/g)	Status
Total Aerobic Count	10	100,000	85	PASS
Total Yeast and Mold Count	10	1,000	< 10	PASS
Bile-Tolerant Gram-Negative	10	1,000	< 10	PASS
Salmonella			Absent in 10g	PASS
S.aureus/P.aeruginosa			Absent in 1g	PASS
E.coli			Absent in 10g	PASS

Heavy Metals Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Arsenic	0.033	0.2	0.2	ND	PASS
Cadmium	0.007	0.04	0.3	ND	PASS
Lead	0.013	0.46	0.5	ND	PASS
Mercury	0.004	0.04	0.1	ND	PASS

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Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Abamectin	0.0218	0.25	0.25	ND	PASS
Acephate	0.0022	0.05	0.05	ND	PASS
Acequinocyl	0.0047	0.05	0.05	ND	PASS
Acetamiprid	0.0028	0.10	0.10	ND	PASS
Aldicarb	0.0796	1.00	1.00	ND	PASS
Allethrin	0.0365	0.20	0.20	ND	PASS
Azadirachtin	0.0149	1.00	1.00	ND	PASS
Azoxystrobin	0.0008	0.02	0.02	ND	PASS
Benzovindiflupyr	0.0018	0.02	0.02	ND	PASS
Bifenazate	0.0009	0.05	0.05	ND	PASS
Bifenthrin	0.0369	1.00	1.00	ND	PASS
Boscalid	0.0011	0.02	0.02	ND	PASS
Buprofezin	0.0012	0.02	0.02	ND	PASS
Carbaryl	0.0014	0.05	0.05	ND	PASS
Carbofuran	0.0010	0.02	0.02	ND	PASS
Chlorantraniliprole	0.0017	0.02	0.02	ND	PASS
Chlorfenapyr	0.7181	1.50	1.50	ND	PASS
Chlorpyrifos	0.0724	0.50	0.50	ND	PASS
Clofentezine	0.0016	0.02	0.02	ND	PASS
Clothianidin	0.0020	0.05	0.05	ND	PASS
Coumaphos	0.0021	0.02	0.02	ND	PASS
Cyantraniliprole	0.0024	0.02	0.02	ND	PASS
Cyfluthrin	0.1386	1.00	1.00	ND	PASS
Cypermethrin	0.1288	1.00	1.00	ND	PASS
Cyprodinil	0.0014	0.25	0.25	ND	PASS
Daminozide	0.0056	0.10	0.10	ND	PASS
Deltamethrin	0.0547	1.00	1.00	ND	PASS
Diazinon	0.0019	0.02	0.02	ND	PASS
Dichlorvos	0.0115	0.10	0.10	ND	PASS
Dimethoate	0.0008	0.02	0.02	ND	PASS
Dimethomorph	0.0011	0.05	0.05	ND	PASS
Dinotefuran	0.0029	0.10	0.10	ND	PASS
Dodemorph	0.0029	0.05	0.05	ND	PASS
Endosulfan-alpha	0.7470	2.50	2.50	ND	PASS
Endosulfan-beta	0.5482	2.50	2.50	ND	PASS
Endosulfan sulfate	0.2185	2.50	2.50	ND	PASS
Ethoprophos	0.0011	0.02	0.02	ND	PASS
Etofenprox	0.0021	0.05	0.05	ND	PASS
Etoxazole	0.0011	0.02	0.02	ND	PASS
Etridiazole	0.0215	0.15	0.15	ND	PASS
Fenoxycarb	0.0012	0.02	0.02	ND	PASS
Fenpyroximate	0.0019	0.02	0.02	ND	PASS
Fensulfothion	0.0009	0.02	0.02	ND	PASS
Fenthion	0.0021	0.02	0.02	ND	PASS

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Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Fenvalerate	0.0144	0.10	0.10	ND	PASS
Fipronil	0.0015	0.06	0.06	ND	PASS
Flonicamid	0.0046	0.05	0.05	ND	PASS
Fludioxonil	0.0015	0.02	0.02	ND	PASS
Fluopyram	0.0006	0.02	0.02	ND	PASS
Hexythiazox	0.0012	0.01	0.01	ND	PASS
Imazalil	0.0025	0.05	0.05	ND	PASS
Imidacloprid	0.0010	0.02	0.02	ND	PASS
Iprodione	0.0607	1.00	1.00	ND	PASS
Kinoprene	0.1272	1.25	1.25	ND	PASS
Kresoxim-methyl	0.0111	0.15	0.15	ND	PASS
Malathion	0.0009	0.02	0.02	ND	PASS
Metalaxyl	0.0006	0.02	0.02	ND	PASS
Methiocarb	0.0010	0.02	0.02	ND	PASS
Methomyl	0.0012	0.05	0.05	ND	PASS
Methoprene	0.1356	2.00	2.00	ND	PASS
Mevinphos	0.0016	0.05	0.05	ND	PASS
MGK-264	0.0039	0.05	0.05	ND	PASS
Myclobutanil	0.0016	0.02	0.02	ND	PASS
Naled	0.0163	0.20	0.20	ND	PASS
Novaluron	0.0042	0.05	0.05	ND	PASS
Oxamyl	0.0456	3.00	3.00	ND	PASS
Paclobutrazol	0.0014	0.02	0.02	ND	PASS
Parathion-methyl	0.0050	0.05	0.05	ND	PASS
Permethrin	0.0192	0.50	0.50	ND	PASS
Phenothrin	0.0057	0.05	0.05	ND	PASS
Phosmet	0.0020	0.02	0.02	ND	PASS
Piperonyl butoxide	0.2722	1.25	1.25	ND	PASS
Pirimicarb	0.0005	0.02	0.02	ND	PASS
Prallethrin	0.0087	0.05	0.05	ND	PASS
Propiconazole	0.0073	0.10	0.10	ND	PASS
Propoxur	0.0019	0.02	0.02	ND	PASS
Pyraclostrobin	0.0006	0.02	0.02	ND	PASS
Pyrethrins	0.0028	0.05	0.05	ND	PASS
Pyridaben	0.0012	0.05	0.05	ND	PASS
Quintozene	0.0065	0.02	0.02	ND	PASS
Resmethrin	0.0028	0.10	0.10	ND	PASS
Spinetoram	0.0014	0.02	0.02	ND	PASS
Spinosad	0.0013	0.10	0.10	ND	PASS
Spirodiclofen	0.0128	0.25	0.25	ND	PASS
Spiromesifen	0.5285	3.00	3.00	ND	PASS
Spirotetramat	0.0012	0.10	0.10	ND	PASS
Spiroxamine	0.0018	0.10	0.10	ND	PASS
Tebuconazole	0.0022	0.05	0.05	ND	PASS

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Pesticides Analysis	LOD (ppm)	LOQ (ppm)	RL (ppm)	Result (ppm)	Status
Tebufenozide	0.0007	0.02	0.02	ND	PASS
Teflubenzuron	0.0049	0.05	0.05	ND	PASS
Tetrachlorvinphos	0.0011	0.02	0.02	ND	PASS
Tetramethrin	0.0057	0.10	0.10	ND	PASS
Thiacloprid	0.0009	0.02	0.02	ND	PASS
Thiamethoxam	0.0011	0.02	0.02	ND	PASS
Thiophanate-methyl	0.0031	0.05	0.05	ND	PASS
Trifloxystrobin	0.0006	0.02	0.02	ND	PASS

Comments

Pesticide analysis performed using method not validated for this matrix.

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Details of Testing

Cannabinoid Analysis

LAB-MTD-020: Determination of 16 Cannabinoids in Cannabis Flowers, Extracts, Topicals, Tablets and Isolates by HPLC
LAB-MTD-039: Determination of 11 Cannabinoids in Cannabis Edibles 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 2.8.13 Pesticide Residues in Cannabis Extracts by GC-MS/MS
LAB-MTD-041: Determination of EP 2.8.13/USP 561 Pesticide Residues in Cannabis Flower by GC-MS/MS and 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
LAB-MTD-055: Determination of Israel Pesticide Residues in Dried/Fresh Cannabis 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

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

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

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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
MIC-MTD-012: Microbial Analysis of Cannabis and Cannabis Infused Products by TEMPO

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
LAB-MTD-056: Determination of Moisture Content by Karl Fischer Titration

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

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
LAB-MTD-058: Determination of Palladium (Pd) in Cannabis Dried Flower, Fresh Flower and Extracts by ICP-MS

pH Analysis

MIC-MTD-013: Determination of pH using pH Meter

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