FOOD & ENVIRONMENT SAFETY ANALYTICAL LAB

Sample ID: 47450521-7
Date Issued: 6/5/25
Batch Result: Pass

Certificate of Analysis

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Northern Lights

Client: Modern Distribution

Sample Name: Northern Lights
Batch Number: PLD52125NL

Matrix: Plant
Unit Mass: 1 g per unit

Sample ID: 47450521-7
Date Received: 5/21/2025

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Total CBD	**ND**
Delta 9-THC	**0.09 %**
THCA	**30.24 %**
Total Cannabinoids	**30.34 %**

Analysis Summary

Residual Pesticides	Pass
Mycotoxins	Pass
Heavy Metals	Pass
Microbial Impurities	Pass

Cannabinoid Analysis

Complete

Analyte	LOD (%)	LOQ (%)	Mass (%)	Mass (mg/g)
CBDV	0.0035	0.011	ND	ND
CBD	0.0030	0.0090	ND	ND
CBG	0.0038	0.011	ND	ND
CBDA	0.0017	0.0052	ND	ND
CBN	0.00080	0.0024	ND	ND
Delta 9-THC	**0.0022**	**0.0067**	**0.095**	**0.95**
Delta 8-THC	0.0020	0.0059	ND	ND
CBC	0.00070	0.0021	ND	ND
THCA	**0.0024**	**0.0073**	**30.243**	**302.43**
Total CBD			ND	ND
Total THC			**26.62**	**266.18**
Total Cannabinoids			**30.34**	**303.38**

Date Tested: 5/23/2025

Total THC = THCa * 0.877 + d9-THC + d8-THC; Total CBD = CBDa * 0.877 + CBD

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References: limit of detection (LOD), limit of quantitation (LOQ), not detected (ND), not tested (NT)

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Pesticide Analysis

Pass

Analyte	LOQ (ppm)	Limit (ppm)	Mass (ppm)	Status
Abamectin	0.050	0.10	ND	Pass
Acephate	0.050	0.10	ND	Pass
Acequinocyl	0.050	0.10	ND	Pass
Acetamiprid	0.050	0.10	ND	Pass
Aldicarb	0.050	0.00	ND	Pass
Azoxystrobin	0.050	0.10	ND	Pass
Bifenazate	0.050	0.10	ND	Pass
Bifenthrin	0.050	3.00	ND	Pass
Boscalid	0.050	0.10	ND	Pass
Captan	0.050	0.70	ND	Pass
Carbaryl	0.050	0.50	ND	Pass
Carbofuran	0.050	0.00	ND	Pass
Chlorantraniliprole	0.050	10.00	ND	Pass
Chlordane	0.050	0.00	ND	Pass
Chlorfenapyr	0.050	0.00	ND	Pass
Chlorpyrifos	0.050	0.00	ND	Pass
Clofentezine	0.050	0.10	ND	Pass
Coumaphos	0.050	0.00	ND	Pass
Cyfluthrin	0.050	2.00	ND	Pass
Cypermethrin	0.050	1.00	ND	Pass
Daminozide	0.050	0.00	ND	Pass
DDVP	0.050	0.00	ND	Pass
Diazinon	0.050	0.10	ND	Pass
Dimethoate	0.050	0.00	ND	Pass
Dimethomorph	0.050	2.00	ND	Pass
Ethoprophos	0.050	0.00	ND	Pass
Etofenprox	0.050	0.00	ND	Pass
Etoxazole	0.050	0.10	ND	Pass
Fenhexamid	0.050	0.10	ND	Pass
Fenoxycarb	0.050	0.00	ND	Pass
Fenpyroximate	0.050	0.10	ND	Pass
Fipronil	0.050	0.00	ND	Pass
Flonicamid	0.050	0.10	ND	Pass
Fludioxonil	0.050	0.10	ND	Pass
Hexythiazox	0.050	0.10	ND	Pass
Imazalil	0.050	0.00	ND	Pass
Imidacloprid	0.050	5.00	ND	Pass
Kresoxim Methyl	0.050	0.10	ND	Pass
Malathion	0.050	0.50	ND	Pass
Metalaxyl	0.050	2.00	ND	Pass
Methiocarb	0.050	0.00	ND	Pass
Methomyl	0.050	1.00	ND	Pass
Methyl Parathion	0.050	0.00	ND	Pass
Mevinphos	0.050	0.00	ND	Pass
Myclobutanil	0.050	0.10	ND	Pass
Naled	0.050	0.10	ND	Pass
Oxamyl	0.050	0.50	ND	Pass
Paclobutrazol	0.050	0.00	ND	Pass
Pentachloronitrobenzene	0.050	0.10	ND	Pass
Permethrin	0.050	0.50	ND	Pass
Phosmet	0.050	0.10	ND	Pass
Piperonyl Butoxide	0.050	3.00	ND	Pass
Prallethrin	0.050	0.10	ND	Pass
Propiconazole	0.050	0.10	ND	Pass

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Pesticide Analysis

Pass

Analyte	LOQ (ppm)	Limit (ppm)	Mass (ppm)	Status
Propoxur	0.050	0.00	ND	Pass
Pyrethrins	0.050	0.50	ND	Pass
Pyridaben	0.050	0.10	ND	Pass
Spinetoram	0.050	0.10	ND	Pass
Spinosad	0.050	0.10	ND	Pass
Spiromesifen	0.050	0.10	ND	Pass
Spirotetramat	0.050	0.10	ND	Pass
Spiroxamine	0.050	0.00	ND	Pass
Tebuconazole	0.050	0.10	ND	Pass
Thiacloprid	0.050	0.00	ND	Pass
Thiamethoxam	0.050	5.00	ND	Pass
Trifloxystrobin	0.050	0.10	ND	Pass

Date Tested: 5/28/2025

Mycotoxins

Pass

Analyte	LOQ (µg/g)	Limit (µg/g)	Mass (µg/g)	Status
Aflatoxin B1	0.02	0.02	ND	Pass
Aflatoxin B2	0.02	0.02	ND	Pass
Aflatoxin G1	0.02	0.02	ND	Pass
Aflatoxin G2	0.02	0.02	ND	Pass
Ochratoxin A	0.02	0.02	ND	Pass

Date Tested: 5/28/2025

Heavy Metals Analysis

Pass

Analyte	LOQ (µg/g)	Limit (µg/g)	Mass (µg/g)	Status
Arsenic	0.050	0.200	ND	Pass
Cadmium	0.050	0.200	ND	Pass
Lead	0.125	0.500	0.195	Pass
Mercury	0.025	0.100	ND	Pass

Date Tested: 5/29/2025

Microbial Analysis

Pass

Test	Result (CFU/g)	Status
Aspergillus flavus	Absent / 1g	Pass
Aspergillus fumigatus	Absent / 1g	Pass
Aspergillus niger	Absent / 1g	Pass
Aspergillus terreus	Absent / 1g	Pass
Shiga-toxin producing *Escherichia coli*	Absent / 1g	Pass
Salmonella	Absent / 1g	Pass

Date Tested: 5/30/2025

CFU = Colony Forming Units

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Method References:

Hemp Profile (SOP HPLC Hemp by UV-Detection)

Multi-Residue Pesticide Analysis - (AOAC_200701)

Official Methods of Analysis, AOAC Official Method 2007.01, Pesticide Residues in Foods by Acetonitrile Extraction and Partitioning with Magnesium Sulfate, AOAC INTERNATIONAL (modified).

CEN Standard Method EN 15662: Food of plant origin - Determination of pesticide residues using GC-MS and/or LC-MS/MS following acetonitrile extraction/partitioning and clean-up by dispersive SPE - QuEChERS method.

Mycotoxins Analysis - 5 compounds (FDA_MYC)

Determination of Mycotoxins in Corn, Peanut Butter and Wheat Flour Using Stable Isotope Dilution Assay (SIDA) and Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) (modified).

Heavy Metals Analysis - 4 elements (EPA_200.8)

Methods for the Determination of Metals in Environmental Standards - Supplement 1, EPA-600/R-94-111, May 1994.

"Determination of Metals and Trace Elements in Water and Wastes by Inductively Coupled Plasma-Mass Spectrometry", USEPA Method 200.8, Revision 5.1, EMMC Version (modified).

Microbial Analysis - (FDABAM_4A_5_18)

U.S. Food and Drug Administration, Bacteriological Analytical Manual, Chapter 4A, Diarrheagenic Escherichia coli; Chapter 5, Salmonella; Chapter 18, Yeasts, Molds and Mycotoxins (modified).

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