

# Certificate of Analysis

For R&D Use Only - Not a California Compliance Certificate.

## Northern Lights

**Client:**

Sample Name: Northern Lights  
Batch Number: PLD10324NL

Matrix: Plant  
Unit Mass: 1 g per unit

Sample ID: 56841003-19  
Date Received: 10/3/2024



|                           |                |
|---------------------------|----------------|
| <b>Total CBD</b>          | <b>ND</b>      |
| <b>Delta 9-THC</b>        | <b>0.24 %</b>  |
| <b>THCA</b>               | <b>29.14 %</b> |
| <b>Total Cannabinoids</b> | <b>29.38 %</b> |

### 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            |
| <b>Delta 9-THC</b>        | <b>0.0022</b> | <b>0.0067</b> | <b>0.242</b>  | <b>2.42</b>   |
| Delta 8-THC               | 0.0020        | 0.0059        | ND            | ND            |
| CBC                       | 0.00070       | 0.0021        | ND            | ND            |
| <b>THCA</b>               | <b>0.0024</b> | <b>0.0073</b> | <b>29.136</b> | <b>291.36</b> |
| Total CBD                 |               |               | ND            | ND            |
| <b>Total THC</b>          |               |               | <b>25.79</b>  | <b>257.94</b> |
| <b>Total Cannabinoids</b> |               |               | <b>29.38</b>  | <b>293.78</b> |

*Marie*  
Approved By:  
Marie True, M.S.  
Laboratory Manager

Date Tested: 10/4/2024

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   |
| Paclobotrazol           | 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: 10/4/2024

## 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: 10/4/2024

## 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        | 0.154       | Pass   |
| Mercury | 0.025      | 0.100        | ND          | Pass   |

Date Tested: 10/4/2024

## Microbial Analysis

Pass

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

Date Tested: 10/7/2024

CFU = Colony Forming Units

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**Method References:****Testing Location****Cannabinoid Profile (UNODC)****FESA Labs - Santa Ana, CA**

Official Methods of Analysis, Method 2018.11.AOAC INTERNATIONAL (modified), Lukas Vaclavik, Frantisek Benes, Alex Krmela, Veronika Svobodova, Jana Hajsolva, and Katerina Mastovska, "Quantification of Cannabinoids in Cannabis Dried Plant Materials, Concentrates, and Oils Liquid Chromatography-Diode Array Detection Technique with Optional Mass Spectrometric Detection," First Action Method, Journal of AOAC International, Future Issue

United Nations Office on Drugs and Crime - Recommended methods for identification and analysis of cannabis and cannabis products

**Multi-Residue Pesticide Analysis - (AOAC\_200701)****FESA Labs - Santa Ana, CA**

*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)****FESA Labs - Santa Ana, CA**

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)****FESA Labs - Santa Ana, CA**

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)****FESA Labs - Santa Ana, CA**

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

**Testing Location:****FESA Labs**

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