



Certificate ID: **36104 (Prelim)**

Received: **7/20/18**

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Hemplucid
104 Mountain Way Drive
Orem, UT 84058
Attn: Chase Hudson

Client Sample ID: **HL-Base**

Lot Number:

Matrix: **Concentrates/Extracts - CO2**

| | | |
|--|--|--------------------------|
| Authorization: Jon Podgorni, Lab Manager | Signature:  | Date: 8/9/2018 |
|--|--|--------------------------|



The data contained within this report was collected in accordance with the requirements of ISO/IEC17025:2005. I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.






CN: Cannabinoid Profile & Potency [WI-10-04]

Analyst: **RAS**

Test Date: **8/1/2018**

The client sample was analyzed for plant-based cannabinoids by Convergence Chromatography (CC). The collected data was compared to data collected for certified reference standards at known concentrations.

36104-CN

| ID | Weight % | Conc. | | |
|----------------|-------------------|--------------------|---|---------------------------------|
| Δ9-THC | 2.94 wt % | 29.43 mg/g |  | |
| THCV | ND | ND | | |
| CBD | 60.85 wt % | 608.47 mg/g |  | |
| CBDV | 0.58 wt % | 5.83 mg/g |  | |
| CBG | 1.19 wt % | 11.92 mg/g |  | |
| CBC | 2.14 wt % | 21.36 mg/g |  | |
| CBN | ND | ND | | |
| THCA | ND | ND | | |
| CBDA | ND | ND | | |
| CBGA | ND | ND | | |
| Total | 67.70 wt% | 677.00 mg/g | 0% | Cannabinoids (wt%) 60.8% |
| Max THC | 2.94 wt% | 29.43 mg/g | | |
| Max CBD | 60.85 wt% | 608.47 mg/g | | |

Ratio of Total CBD to THC 20.7:1

Max THC (and Max CBD) are calculated values for total cannabinoids after heating, assuming complete decarboxylation of the acid to the neutral form. It is calculated based on the weight loss of the acid group during decarboxylation: $Max\ THC = (0.877 \times THCA) + THC$. ND = None detected above the limits of detection (LLD)

EA: Elemental Analysis [WI-10-13]

Analyst: JFD

Test Date: 8/2/2018

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

36104-EA

| Symbol | Metal | Conc. ¹ | MDL | Limits ² | Status |
|--------|------------|--------------------|------------|---------------------|--------|
| Al | Aluminum | 495 ug/kg | 5 ug/kg | - | |
| As | Arsenic | 6 ug/kg | 4 ug/kg | 150 ug/kg | PASS |
| Cd | Cadmium | ND | 1 ug/kg | 150 ug/kg | PASS |
| Ca | Calcium | 567 ug/kg | 500 ug/kg | - | |
| Cr | Chromium | 32 ug/kg | 5 ug/kg | 2500 ug/kg | PASS |
| Co | Cobalt | ND | 10 ug/kg | - | |
| Cu | Copper | ND | 500 ug/kg | 10000 ug/kg | PASS |
| Fe | Iron | 701 ug/kg | 5 ug/kg | - | |
| Pb | Lead | 28 ug/kg | 2 ug/kg | 500 ug/kg | PASS |
| Mg | Magnesium | ND | 500 ug/kg | - | |
| Mn | Manganese | ND | 500 ug/kg | - | |
| Hg | Mercury | ND | 2 ug/kg | 150 ug/kg | PASS |
| Mo | Molybdenum | ND | 5000 ug/kg | 1000 ug/kg | PASS |
| Ni | Nickel | ND | 500 ug/kg | 150 ug/kg | PASS |
| P | Phosphorus | ND | 500 ug/kg | - | |
| K | Potassium | 13,042 ug/kg | 5 ug/kg | - | |
| Se | Selenium | 15 ug/kg | 10 ug/kg | - | |
| Ag | Silver | ND | 10 ug/kg | - | |
| S | Sulfur | 3,757 ug/kg | 5 ug/kg | - | |
| Sn | Tin | ND | 5000 ug/kg | - | |
| Zn | Zinc | 5,045 ug/kg | 5 ug/kg | - | |

1) ND = None detected to the Method Detection Limit (MDL)

2) USP recommended maximum daily limits for inhalational drug product.

MB1: Microbiological Contaminants [WI-10-09]

Analyst: MS

Test Date: 7/23/2018

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

36104-MB1

| Symbol | Analysis | Results | Units | Limits* | Status |
|--------|---|---------|-------|--------------|--------|
| AC | Total Aerobic Bacterial Count | <100 | CFU/g | 10,000 CFU/g | PASS |
| CC | Total Coliform Bacterial Count | <100 | CFU/g | 100 CFU/g | PASS |
| EB | Total Bile Tolerant Gram Negative Count | <100 | CFU/g | 100 CFU/g | PASS |
| YM | Total Yeast & Mold | <100 | CFU/g | 1,000 CFU/g | PASS |

Note: All recorded Microbiological tests are within the established limits.

MB2: Pathogenic Bacterial Contaminants [WI-10-10]

Analyst: matt

Test Date: 7/24/2018

This test method was performed in accordance with the requirements of ISO/IEC 17025. These results relate only to the test article listed in this report. Reports may not be reproduced except in their entirety.

36104-MB2

| Test ID | Analysis | Results | Units | Limits* | Status |
|------------|----------------|----------|-------|--------------|--------|
| 36104-ECPT | E. coli (O157) | Negative | NA | Non Detected | PASS |
| 36104-SPT | Salmonella | Negative | NA | Non Detected | PASS |

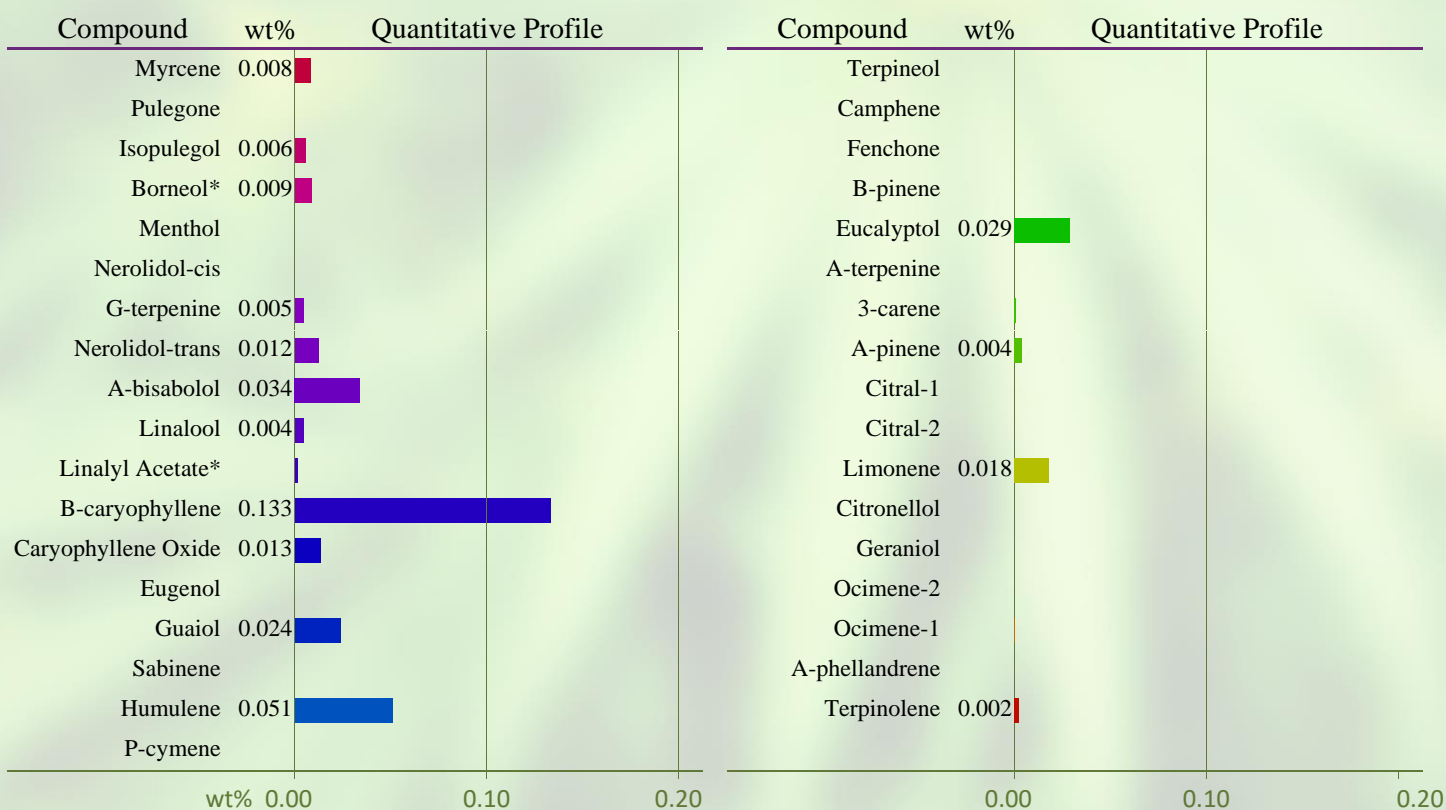
Note: All recorded pathogenic bacteria tests passed.

TP: Terpenes Profile [WI-10-08]

Analyst: CJH

Test Date: 7/28/2018

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

36104-TP

Total Terpene: 0.4 wt%

* Indicates qualitative calculation based on recorded peak areas.

The client sample was analyzed by Head-Space Gas Chromatography (HS-GC). The collected data was compared to data collected for certified reference standards at known concentrations.

36104-VC

| Compound | CAS | Amount ¹ | Limit ² | Status |
|--------------------|----------|---------------------|--------------------|--------|
| Propane | 74-98-6 | 18 ppm | N/A | - |
| Isobutane | 75-28-5 | ND | 5,000 ppm | PASS |
| Butane | 106-97-8 | ND | 5,000 ppm | PASS |
| Methanol | 67-56-1 | 21 ppm | 3,000 ppm | PASS |
| Pentane | 109-66-0 | ND | 5,000 ppm | PASS |
| Ethanol | 64-17-5 | 152 ppm | 5,000 ppm | PASS |
| Ethyl Ether | 60-29-7 | ND | 5,000 ppm | PASS |
| 2,2-Dimethylbutane | 75-83-2 | 10 ppm | N/A | - |
| Acetone | 67-64-1 | 338 ppm | 5,000 ppm | PASS |
| Isopropanol | 67-63-0 | 9 ppm | 5,000 ppm | PASS |
| Acetonitrile | 75-05-8 | ND | 410 ppm | PASS |
| Hexane | 110-54-3 | 78 ppm | 290 ppm | PASS |
| 1-Propanol | 71-23-8 | 5 ppm | 5,000 ppm | PASS |
| Ethyl Acetate | 141-78-6 | 19 ppm | 5,000 ppm | PASS |
| Heptane | 142-82-5 | ND | 5,000 ppm | PASS |

1) ND = None detected above 5 ppm.

2) In ppm, based on USP recommended limits for residual solvents, adopted by the Massachusetts Department of Public Health on 3/31/16. Butane/Propane limits are based on limits established for state of Colorado.

END OF REPORT