



# JOY ORGANICS

## CERTIFICATE OF ANALYSIS

**PRODUCT NAME:** Joy Organics CBD Softgels  
**PRODUCT STRENGTH:** 25 mg  
**FILL LOT NUMBER:** 21082A  
**SOFTGEL LOT NUMBER:** [21090LL1](#)  
**BEST BY DATE:** 08/01/2022

*\*Click on the links to view third-party reports\**

### Physical Attributes

| Test                    | Method  | Specification  | Results |
|-------------------------|---------|--|---------|
| Color                   | SOP-100 | Golden to Amber  | PASS    |
| Odor                    | SOP-100 | N/A  | PASS    |
| Appearance              | SOP-100 | Dry, ovoid softgel capsules in container with lid and shrinkband   | PASS    |
| Primary Package Eval.   | SOP-132 | Container clean and free of filth. Container caps tight and shrinkbands intact                                   | PASS    |
| Secondary Package Eval. | SOP-132 | Labeling Compliance Checked, Cartons sturdy and clean. Sufficient cushion material exists. Box taped and secure. | PASS    |

### Review of Third-Party Analysis

| Panel  | Method  | Specification   | Results*         | Pass/Fail |
|--|---------|---|------------------|-----------|
| <b>Potency - Total CBD</b>   | SOP-111 | 25-31.25 mg CBD LOQ**:<br>10 PPM† (0.001%)  | <b>27.8 mg</b>   | PASS      |
| <b>Potency - D9-THC</b>  | SOP-111 | None Detected LOQ: 10 PPM (0.001%)  | <b>ND</b>        | PASS      |
| <b>Compliant Pesticide Panel</b>   | SOP-111 | WIP-100008 : Product specification for Softgels, Oregon Action limits apply                       | <b>ND</b>        | PASS      |
| <b>Microbial - Total Plate Count</b>                                       | SOP-111 | Complies with USP 61/62   | <b>BELOW LOD</b> | PASS      |
| <b>Microbial - Yeast and Mold</b>  | SOP-111 | Complies with USP 61/62   | <b>BELOW LOD</b> | PASS      |
| <b>Microbial - Coliforms and bacteria (including ecoli and salmonella)</b> | SOP-111 | Complies with USP 61/62   | <b>BELOW LOD</b> | PASS      |
| <b>CA Compliant Heavy Metal Panel</b>                                      | SOP-111 | Arsenic (As): ≤1.5 PPM<br>Cadmium (Cd): ≤0.5 PPM<br>Mercury (Hg): ≤1.0 PPM<br>Lead (Pb): ≤0.5 PPM | <b>ND</b>        | PASS      |

\*\* Level of Quantitation, † Parts Per Million

Quality Certified by: Kei Horikawa 03/30/2021  
 Kei Horikawa Date  
 Quality Control Manager

certificate ID  
**1BM60**

# Nano Softgels 25mg

# 7USC1639 Certificate of Analysis



Lot# 21090L11

rec'd 2/16/2021 12:56:01 PM

order 9845

total  
cannabinoids

**28.6mg**

per

THC tot ND

CBD tot 27.8mg

This Product Has Been  
Tested and Complies  
with 7USC1639o(1)

Stillwater  
Laboratories



| Potency per capsule                | MSP-7.5.1.4   | LOD         | LOQ         | error (95%CI k=2) |
|------------------------------------|---------------|-------------|-------------|-------------------|
| <b>total cannabinoids</b>          | <b>28.6mg</b> | <b>0.15</b> | <b>0.46</b> | <b>±0.69mg</b>    |
| <b>total THC‡</b>                  | <b>ND</b>     | <b>0.15</b> | <b>0.46</b> | <b>±0.46mg</b>    |
| <b>total THC (THC+THCa)</b>        | <b>ND</b>     | <b>0.15</b> | <b>0.46</b> | <b>±0.46mg</b>    |
| <b>total CBD‡</b>                  | <b>27.8mg</b> | <b>0.15</b> | <b>0.46</b> | <b>±0.68mg</b>    |
| <b>total CBD (CBD+CBDA)</b>        | <b>27.8mg</b> | <b>0.15</b> | <b>0.46</b> | <b>±0.68mg</b>    |
| tetrahydrocannabinolic acid (THCa) | ND            | 0.16        | 0.47        | ±0.47mg           |
| Δ9-tetrahydrocannabinol (Δ9 THC)   | ND            | 0.15        | 0.44        | ±0.44mg           |
| Δ8-tetrahydrocannabinol (Δ8 THC)   | ND            | 0.20        | 0.59        | ±0.59mg           |
| tetrahydrocannabivarin (THCv)      | ND            | 0.16        | 0.49        | ±0.49mg           |
| cannabidiolic acid (CBDA)          | ND            | 0.13        | 0.40        | ±0.40mg           |
| cannabidiol (CBD)                  | 27.8mg        | 0.15        | 0.46        | ±0.68mg           |
| cannabidivarin (CBDv)              | ND            | 0.15        | 0.46        | ±0.46mg           |
| cannabigerolic acid (CBGA)         | ND            | 0.14        | 0.41        | ±0.41mg           |
| cannabigerol (CBG)                 | 0.5mg         | 0.09        | 0.26        | ±0.26mg           |
| cannabinol (CBN)                   | ND            | 0.08        | 0.25        | ±0.25mg           |
| cannabichromene (CBC)              | <LOQ          | 0.15        | 0.46        | ±0.46mg           |

| Microbial          | MSP-7.5.1.10 | limit    | LOD | LOQ  | error    | result |
|--------------------|--------------|----------|-----|------|----------|--------|
| E.coli             | ND           | 0CFU     | 0.0 | 10.1 | ±0.1CFU  | PASS   |
| Salmonella sp.     | ND           | 0CFU     | 0.0 | 10.1 | ±0.1CFU  | PASS   |
| molds              | ND           | 10000CFU | 1.7 | 15.0 | ±5.0CFU  | PASS   |
| Ochratoxin A       | ND           | 20 ppb   | 0.5 | 1.4  | ±1.4 ppb | PASS   |
| Aflatoxin B1B2G1G2 | ND           | 20 ppb   | 0.5 | 1.4  | ±1.4 ppb | PASS   |

| Solvents          | MSP-7.5.1.7 | limit     | LOD | LOQ | error    | result |
|-------------------|-------------|-----------|-----|-----|----------|--------|
| Acetone           | ND          | 5000 ppm  | 0.7 | 2.0 | ±2.0 ppm | PASS   |
| Acetonitrile      | ND          | 410 ppm   | 0.6 | 1.8 | ±1.8 ppm | PASS   |
| Benzene           | ND          | 0 ppm     | 0.0 | 1.0 | ±0.1 ppm | PASS   |
| Butane            | ND          | 5000 ppm  | 1.3 | 4.0 | ±4.0 ppm | PASS   |
| Chloroform        | ND          | 0 ppm     | 0.1 | 0.2 | ±0.2 ppm | PASS   |
| Cyclohexane       | ND          | 0 ppm     | 0.5 | 1.5 | ±1.5 ppm | PASS   |
| Ethanol           | ND          | 10000 ppm | 0.7 | 2.0 | ±2.0 ppm | PASS   |
| Heptane           | ND          | 5000 ppm  | 0.4 | 1.2 | ±1.2 ppm | PASS   |
| Hexane            | ND          | 290 ppm   | 0.5 | 1.5 | ±1.5 ppm | PASS   |
| Isopropyl alcohol | ND          | 5000 ppm  | 0.6 | 1.8 | ±1.8 ppm | PASS   |
| Methanol          | ND          | 3000 ppm  | 0.5 | 1.5 | ±1.5 ppm | PASS   |
| Pentane           | ND          | 5000 ppm  | 0.2 | 0.5 | ±0.5 ppm | PASS   |
| Propane           | ND          | 5000 ppm  | 0.5 | 1.5 | ±1.5 ppm | PASS   |
| Toluene           | ND          | 890 ppm   | 0.3 | 0.9 | ±0.9 ppm | PASS   |
| Xylenes           | ND          | 2170 ppm  | 0.3 | 1.0 | ±1.0 ppm | PASS   |

| Metals  | MSP-7.5.1.11 | limit    | LOD | LOQ | error    | result |
|---------|--------------|----------|-----|-----|----------|--------|
| Arsenic | ND           | 1500 ppb | 0.6 | 1.7 | ±1.7 ppb | PASS   |
| Cadmium | ND           | 500 ppb  | 0.6 | 1.9 | ±1.9 ppb | PASS   |
| Lead    | ND           | 500 ppb  | 1.0 | 2.9 | ±2.9 ppb | PASS   |
| Mercury | ND           | 300 ppb  | 0.5 | 1.5 | ±1.5 ppb | PASS   |

| Pesticides      | MSP-7.5.1.8 | limit     | LOD   | LOQ   | error      | result |
|-----------------|-------------|-----------|-------|-------|------------|--------|
| Pyrethrin       | ND          | 1.00 ppm  | 0.003 | 0.009 | ±0.009 ppm | PASS   |
| Pyridaben       | ND          | 3.00 ppm  | 0.001 | 0.003 | ±0.003 ppm | PASS   |
| Spinetoram      | ND          | 3.00 ppm  | 0.004 | 0.011 | ±0.011 ppm | PASS   |
| Spinosad        | ND          | 3.00 ppm  | 0.007 | 0.022 | ±0.022 ppm | PASS   |
| Spiromesifen    | ND          | 12.00 ppm | 0.003 | 0.010 | ±0.010 ppm | PASS   |
| Spirotetramat   | ND          | 13.00 ppm | 0.003 | 0.008 | ±0.008 ppm | PASS   |
| Spiroxamine     | ND          | 0.00 ppm  | 0.001 | 0.003 | ±0.003 ppm | PASS   |
| Tebuconazole    | ND          | 2.00 ppm  | 0.006 | 0.017 | ±0.017 ppm | PASS   |
| Thiacloprid     | ND          | 0.10 ppm  | 0.001 | 0.004 | ±0.004 ppm | PASS   |
| Thiamethoxam    | ND          | 4.50 ppm  | 0.003 | 0.010 | ±0.010 ppm | PASS   |
| Trifloxystrobin | ND          | 30.00 ppm | 0.003 | 0.008 | ±0.008 ppm | PASS   |

| Pesticides          | MSP-7.5.1.8 | limit     | LOD   | LOQ   | error      | result |
|---------------------|-------------|-----------|-------|-------|------------|--------|
| Abamectin           | ND          | 0.30 ppm  | 0.008 | 0.024 | ±0.024 ppm | PASS   |
| Acephate            | ND          | 5.00 ppm  | 0.008 | 0.025 | ±0.025 ppm | PASS   |
| Acequinocyl         | ND          | 4.00 ppm  | 0.007 | 0.021 | ±0.021 ppm | PASS   |
| Acetamiprid         | ND          | 5.00 ppm  | 0.006 | 0.017 | ±0.017 ppm | PASS   |
| Aldicarb            | ND          | 0.00 ppm  | 0.002 | 0.007 | ±0.007 ppm | PASS   |
| Azoxystrobin        | ND          | 40.00 ppm | 0.002 | 0.007 | ±0.007 ppm | PASS   |
| Bifenazate          | ND          | 5.00 ppm  | 0.002 | 0.005 | ±0.005 ppm | PASS   |
| Bifenthrin          | ND          | 0.50 ppm  | 0.001 | 0.003 | ±0.003 ppm | PASS   |
| Boscalid            | ND          | 10.00 ppm | 0.023 | 0.069 | ±0.069 ppm | PASS   |
| Carbaryl            | ND          | 0.50 ppm  | 0.009 | 0.027 | ±0.027 ppm | PASS   |
| Carbofuran          | ND          | 0.00 ppm  | 0.002 | 0.006 | ±0.006 ppm | PASS   |
| Chloanthraniliprole | ND          | 4.00 ppm  | 0.022 | 0.066 | ±0.066 ppm | PASS   |
| Chlorfenapyr        | ND          | 0.00 ppm  | 0.006 | 0.018 | ±0.018 ppm | PASS   |
| Chlorpyrifos        | ND          | 0.00 ppm  | 0.046 | 0.137 | ±0.137 ppm | PASS   |
| Clofentazine        | ND          | 0.50 ppm  | 0.008 | 0.025 | ±0.025 ppm | PASS   |
| Coumaphos           | ND          | 0.00 ppm  | 0.006 | 0.018 | ±0.018 ppm | PASS   |
| Cyfluthrin          | ND          | 1.00 ppm  | 0.008 | 0.025 | ±0.025 ppm | PASS   |
| Cypermethrin        | ND          | 1.00 ppm  | 0.006 | 0.018 | ±0.018 ppm | PASS   |
| Daminozide          | ND          | 0.00 ppm  | 0.031 | 0.094 | ±0.094 ppm | PASS   |
| Dichlorvos          | ND          | 0.00 ppm  | 0.016 | 0.048 | ±0.048 ppm | PASS   |
| Diazinon            | ND          | 0.20 ppm  | 0.001 | 0.004 | ±0.004 ppm | PASS   |
| Dimethoate          | ND          | 0.00 ppm  | 0.002 | 0.007 | ±0.007 ppm | PASS   |
| Etoxazole           | ND          | 1.50 ppm  | 0.004 | 0.013 | ±0.013 ppm | PASS   |
| Fenoxycarb          | ND          | 0.00 ppm  | 0.004 | 0.012 | ±0.012 ppm | PASS   |
| Fenpyroximate       | ND          | 2.00 ppm  | 0.001 | 0.004 | ±0.004 ppm | PASS   |
| Fipronil            | ND          | 0.00 ppm  | 0.008 | 0.025 | ±0.025 ppm | PASS   |
| Flonicamid          | ND          | 2.00 ppm  | 0.111 | 0.332 | ±0.332 ppm | PASS   |
| Fludioxonil         | ND          | 30.00 ppm | 0.007 | 0.022 | ±0.022 ppm | PASS   |
| Hexythiazox         | ND          | 2.00 ppm  | 0.001 | 0.003 | ±0.003 ppm | PASS   |
| Imazail             | ND          | 0.00 ppm  | 0.007 | 0.022 | ±0.022 ppm | PASS   |
| Imidacloprid        | ND          | 3.00 ppm  | 0.001 | 0.004 | ±0.004 ppm | PASS   |
| Malathion           | ND          | 5.00 ppm  | 0.006 | 0.017 | ±0.017 ppm | PASS   |
| Metalaxyl           | ND          | 15.00 ppm | 0.008 | 0.025 | ±0.025 ppm | PASS   |
| Methiocarb          | ND          | 0.00 ppm  | 0.004 | 0.012 | ±0.012 ppm | PASS   |
| Methomyl            | ND          | 0.10 ppm  | 0.001 | 0.002 | ±0.002 ppm | PASS   |
| Methyl parathion    | ND          | 0.00 ppm  | 0.001 | 0.004 | ±0.004 ppm | PASS   |
| Mevinphos           | ND          | 0.00 ppm  | 0.006 | 0.018 | ±0.018 ppm | PASS   |
| Myclobutanil        | ND          | 9.00 ppm  | 0.001 | 0.003 | ±0.003 ppm | PASS   |
| Naled               | ND          | 0.50 ppm  | 0.006 | 0.018 | ±0.018 ppm | PASS   |
| Oxamyl              | ND          | 0.20 ppm  | 0.003 | 0.008 | ±0.008 ppm | PASS   |
| Paclobutrazol       | ND          | 0.00 ppm  | 0.003 | 0.009 | ±0.009 ppm | PASS   |
| Permethrin          | ND          | 20.00 ppm | 0.011 | 0.034 | ±0.034 ppm | PASS   |
| Phosmet             | ND          | 0.20 ppm  | 0.003 | 0.010 | ±0.010 ppm | PASS   |
| Piperonylbutoxide   | ND          | 8.00 ppm  | 0.011 | 0.034 | ±0.034 ppm | PASS   |
| Prallethrin         | ND          | 0.40 ppm  | 0.004 | 0.013 | ±0.013 ppm | PASS   |
| Propiconazole       | ND          | 20.00 ppm | 0.004 | 0.013 | ±0.013 ppm | PASS   |
| Propoxur            | ND          | 0.00 ppm  | 0.006 | 0.019 | ±0.019 ppm | PASS   |

SECURITY FEATURE: WATERMARK MUST MATCH CERTIFICATE ID AND ISSUE DATE

Certified by:

QA Manager

Kyle Larson, MSc  
Deputy Director

Jacob Harris



ISO/IEC 17025:2017



Certificate #4961.01

https://portal.a2la.org/  
scopepdf/4961-01.pdf

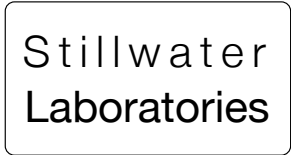
Stillwater Laboratories Inc.

MT License L0001, L00007  
6073 US93N Suite 5, Olney MT 59927  
406-881-2019

INSTRUMENTS: Potency by HPLC (LC2030C-UV), solvents and terpenes by GCMS (QP2020/HS20), pesticides and mycotoxins by LCMSMS (LC8060), microbial by qPCR (AriaMx) and plating (Hardy Diagnostics), metals by ICPMS (ICPMS-2030)

All testing was completed onsite at 6073 US93N, Olney MT. Potency (cannabinoid concentration) is calculated as: [cannabinoid] = [cannabinoid]<sub>HPLC</sub> x volume<sub>dilution</sub>/m<sub>dry</sub>. ... Decarboxyated cannabinoid concentration is calculated XXX<sub>total</sub> = 0.877 x XXXa + XXX. Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; LOD is the limit of detection (3.3s), LOQ is the limit of quantification (3xLOD), and experimental error is calculated from weighing, dilution, and interpolation error using the formula s<sub>y</sub><sup>2</sup> = Σ (df/di)<sup>2</sup>s<sub>i</sub><sup>2</sup> where i is the contributor to error. The 95% confidence range is calculated from: (concentration) ± t<sub>c,95</sub> x s<sub>y</sub>. Sampling error is not considered in error calculations. ND = not detected (< LOD), NT = not tested, NL = no limit, NA = not applicable. ‡ = decarbed

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21082A

<https://portal.a2la.org/scopepdf/4961-01.pdf>

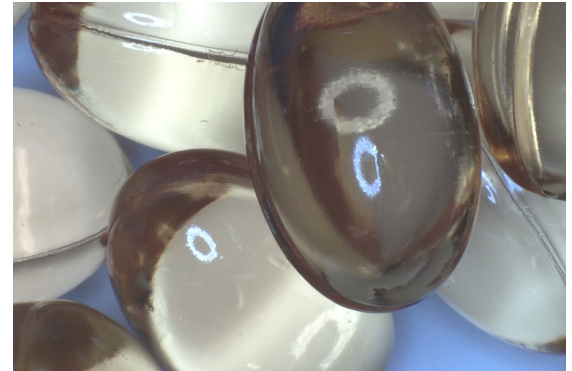
Sample Handling

test ID **10232.1** sample wt 17.3 g  
 type gelcap order **10232**  
 lab ID **1CW68** sample date 3/25/2021  
 unit capsule unit weight **0.5 g**

Methods

|            | method      | equipment    |
|------------|-------------|--------------|
| weights    | MSP-7.3.1.3 | AUX120.1     |
| potency    | MSP-7.5.1.5 | LC-2030      |
| terpenes   | MSP-7.5.1.7 | QP2020/HS20  |
| pesticides | MSP-7.5.1.8 | LC-8060      |
| mycotoxins | MSP-7.5.1.8 | LC-8060      |
| microbial  | MSP-7.5.1.1 | AriaMx/Hardy |
| solvents   | MSP-7.5.1.6 | QP2020/HS20  |
| metals     | MSP-7.5.1.1 | ICPMS2030    |

gelcap



|         |             |                 |          |   |                 |   |                 |   |                 |
|---------|-------------|-----------------|----------|---|-----------------|---|-----------------|---|-----------------|
| Potency | per capsule | estimated error | Terpenes | % | estimated error | % | estimated error | % | estimated error |
|---------|-------------|-----------------|----------|---|-----------------|---|-----------------|---|-----------------|

not tested

terpenes  
not tested / not required

|          |          |       |     |                 |          |       |     |                    |       |     |
|----------|----------|-------|-----|-----------------|----------|-------|-----|--------------------|-------|-----|
| Solvents | MT limit | 1CW68 | LOQ | Pesticides (MT) | MT limit | 1CW68 | LOQ | Pesticides (other) | 1CW68 | LOQ |
|----------|----------|-------|-----|-----------------|----------|-------|-----|--------------------|-------|-----|

pesticides  
not tested / not required

not tested /  
not required

|              |          |       |     |
|--------------|----------|-------|-----|
| Toxic Metals | MT limit | 1CW68 | LOQ |
|--------------|----------|-------|-----|

metals  
not tested / not required

| Microbial      | MT limit  | 1CW68 | LOQ        |
|----------------|-----------|-------|------------|
| <i>E. coli</i> | 10 CFU    | 0 CFU | <10 CFU/g  |
| Salmonella sp. | 10 CFU    | 0 CFU | <10 CFU/g  |
| molds          | 10000 CFU | 0 CFU | <10k CFU/g |

Comments

• All testing was completed onsite at 6073 US93N, Olney MT •• Potency (cannabinoid concentration) is calculated from the equation: [cannabinoid] = [cannabinoid]<sub>HPLC</sub> x volume<sub>dilution</sub>/m<sub>dry</sub>. Terpene concentration is calculated from the equation: [terpene] = (terpene mass)<sub>GCMS</sub> / m<sub>dry</sub>. ••• Decarboxyted cannabinoid concentration is calculated from the equation XXX<sub>total</sub> = 0.877 x XXX<sub>a</sub> + XXX •••• Standards are used to calibrate the resulting data and estimate error using a standard estimate of error method; this is combined with error from weighing and dilution using the propagation of error formula s<sub>g</sub><sup>2</sup> = Σ(∂f/∂i)<sup>2</sup>s<sub>i</sub><sup>2</sup> where i is the contributor to error. The 95% confidence range is calculated from the equation: (concentration) ± t<sub>CL90</sub> x s<sub>g</sub>. Sampling error is not

Certified by:

Kyle Larson, MSc (Biology)  
 Deputy Director  
 6073 US93N, Olney MT 59927  
 406-881-2019 rdb@stwlabs.com