

Using Lightscale Labs, we perform all tests required under state law for recreational cannabis, medical cannabis, and industrial hemp. Chromatography is used for all required tests, a technique where liquid or gas separates different cannabinoids, pesticides, and residual solvents so that each can be identified and measured precisely.

PAGE I CANNABINOID POTENCY



TEST & HARVEST DATES

Here you can see the dates related to this particular batch of product, including when it was processed, sampled, analyzed, and when the report was finished.



CBD & THC CONTENT

Total CBD and THC content in mg/ml and percentage.



MAJOR & MINOR CANNABINOIDS

Δ9-THC, THCA, CBD, CBDA, and CBN in accordance with OAR 333-007-0430, plus minor cannabinoids.



CHECKLIST RESULTS

PASS or FAIL results for Pesticides, Solvents, and Potency within this COA.



2535 N Ross Ave
Portland, OR 97227
(503) 493-2535
info@lightscale.com
ORELAP #4112
OLCC #010-10033400344

Shot-15-12

Danodan Hempworks

Sample Type: Tinctures
Sample Date: 12/2/2019
Analysis Date: 12/3/2019
Report Date: 12/9/2019

Metro Batch ID:

Harvest/Process Date: 11/25/2019

Report ID:

LS-191204-28

(503) 290-4079

Metro Sample ID:

Potency

Potency Analysis Date: 12/3/2019
Sample Batch ID: CAN_120319C
Potency Method: JADAC 2015.1

16.5 mg/mL Total CBD
1.51%

0.972 mg/mL Total THC
0.0892%

Samples: ZJH-PDF-PFD, TTT-GNB-SHT
Density = 1.09 g/mL



Analyte	Description	LOQ	RPD (%)	Min.	Max.	Avg.	Unit: mg/mL
Δ9THC	Delta-9 Tetrahydrocannabinol	0.28	5.85	0.947	0.996	0.972	
THCA	Tetrahydrocannabinolic acid	0.28	0.80	ND	ND	ND	
CBD	Cannabidiol	0.28	0.534	16.1	16.2	16.1	
CBDA	Cannabidiolic acid	0.28	4.24	0.352	0.367	0.360	
Δ8THC	Delta-8 Tetrahydrocannabinol*	0.28	0.80	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.28	0.80	ND	ND	ND	
CBG	Cannabigerol*	0.28	0.493	0.441	0.444	0.443	
CBGA	Cannabigerolic acid*	0.28	0.80	ND	ND	ND	
CBC	Cannabichromene*	0.28	4.72	0.586	0.615	0.601	
CBCA	Cannabichromenic acid*	0.28	0.80	ND	ND	ND	
CBN	Cannabinol	0.28	0.80	<LOQ	<LOQ	<LOQ	
Total THC	Δ9THC + (THCA × 0.877)		5.85	0.947	0.996	0.972	
Total CBD	CBD + (CBDA × 0.877)		0.685	16.4	16.5	16.5	
Total			0.977	18.4	18.6	18.5	

Compliance

Pesticides	Within limits	Analysis Date: 12/3/2019	Pass <input checked="" type="checkbox"/>
Solvents	Within limits	Analysis Date: 12/3/2019	Pass <input checked="" type="checkbox"/>
Potency	Within limits	Analysis Date: 12/3/2019	Pass <input checked="" type="checkbox"/>

Bryce Kidd
Bryce Kidd, Ph.D.
Lab Director

Aaron Troyer
Aaron Troyer
Chief Science Officer



Lightscale Labs is accredited by ORELAP (Lab #4112) for analysis in compliance with OAR 333-064 and OAR 333-087. Results pertain to submitted samples only. Unless otherwise noted, samples were received in good condition and Quality Control samples met acceptance criteria. This Certificate shall not be reproduced except in full, without the written approval of Lightscale Labs. Results marked with an asterisk (*) are not within scope of accreditation and for informational purposes only.

HOW TO READ OUR CERTIFICATE OF ANALYSIS (COA)

PAGE 2-3 PESTICIDE DATA



All cannabis must be tested for the presence of a number of different contaminants, including pesticides. Danodan uses hemp that is grown using organic techniques, ensuring we use only the purest, cleanest hemp.

PAGE 4-5 RESIDUAL SOLVENT DATA



Certain solvents can be harmful to human health and safety if they remain in the final product. If a producer uses a solvent or concentrate in their product, thorough testing is required to ensure that potential residual amounts are below recognized safety limits. Danodan uses a high-purity concentrate in our yellow and red label products, so Residual Solvent testing is required. Our blue label products do not use any solvents or concentrates; therefore, no Residual Solvent testing is needed for blue label products.

Shot-15-12

Harvest/Process Date: 11/25/2019
Report ID: LS-191204-28

Analyte	ZLN-PDF-PPD	TTI-CMS-SMT	Limits	LOQ	Notes	Status
Azinphos	ND	ND	0.5	0.1	Pass	Pass
Acetamiprid	ND	ND	0.4	0.1	Pass	Pass
Acetamiprid	ND	ND	2.0	1.5	Pass	Pass
Acetamiprid	ND	ND	0.2	0.1	Pass	Pass
Aldicarb	ND	ND	0.4	0.1	Pass	Pass
Azinphos	ND	ND	0.2	0.1	Pass	Pass
Bifenthrin	ND	ND	0.2	0.1	Pass	Pass
Bifenthrin	ND	ND	0.2	0.1	Pass	Pass
Bifenthrin	ND	ND	0.4	0.1	Pass	Pass
Carbaryl	ND	ND	0.2	0.1	Pass	Pass
Carbaryl	ND	ND	0.2	0.1	Pass	Pass
Chlorantraniliprole	ND	ND	0.2	0.1	Pass	Pass
Chlorantraniliprole	ND	ND	1.0	0.1	Pass	Pass
Chlorpyrifos	ND	ND	0.2	0.1	Pass	Pass
Chlorpyrifos	ND	ND	0.2	0.1	Pass	Pass
Cyfluthrin	ND	ND	1.0	0.5	Pass	Pass
Cyfluthrin	ND	ND	1.0	0.1	Pass	Pass
Cypermethrin	ND	ND	1.0	0.1	Pass	Pass
Deltamethrin	ND	ND	1.0	0.5	Pass	Pass
Deltamethrin	ND	ND	0.2	0.1	Pass	Pass
Deltamethrin (DOP)	ND	ND	1.0	0.5	Pass	Pass
Deltamethrin	ND	ND	0.2	0.1	Pass	Pass
Ethioniazole	ND	ND	0.2	0.1	Pass	Pass
Ethioniazole	ND	ND	0.4	0.1	Pass	Pass
Ethioniazole	ND	ND	0.2	0.1	Pass	Pass
Fenoxycarb	ND	ND	0.2	0.1	Pass	Pass
Fenoxycarb	ND	ND	0.4	0.1	Pass	Pass
Fenoxycarb	ND	ND	0.4	0.1	Pass	Pass
Flonicamid	ND	ND	1.0	0.1	Pass	Pass
Flonicamid	ND	ND	0.4	0.1	Pass	Pass
Flonicamid	ND	ND	1.0	0.1	Pass	Pass
Hexachlorocyclopentadiene	ND	ND	0.2	0.1	Pass	Pass
Hexachlorocyclopentadiene	ND	ND	0.4	0.1	Pass	Pass
Malathion	ND	ND	0.2	0.1	Pass	Pass

Shot-15-12

Harvest/Process Date: 11/25/2019
Report ID: LS-191204-28

Analyte	ZLN-PDF-PPD	TTI-CMS-SMT	RPD (%)	Limits	LOQ	Notes	Status
1,4-Dioxane	ND	ND	0.00	300.0	50.0		Pass
2-Butanol	ND	ND	0.00	5000.0	250.0		Pass
2-Ethoxyethanol	ND	ND	0.00	100.0	50.0		Pass
Acetone	ND	ND	0.00	5000.0	250.0		Pass
Acetone	ND	ND	0.00	450.0	50.0		Pass
Benzene	ND	ND	0.00	2.0	2.0		Pass
Butane	ND	ND	0.00	5000.0	250.0		Pass
Butane	ND	ND	0.00	70.0	50.0		Pass
Cyclohexane	ND	ND	0.00	3000.0	50.0		Pass
Ethyl Acetate	ND	ND	0.00	5000.0	250.0		Pass
Ethyl Ether	ND	ND	0.00	5000.0	250.0		Pass
Ethylene Glycol	ND	ND	0.00	620.0	250.0		Pass
Ethylene Glycol	ND	ND	0.00	50.0	50.0		Pass
Heptane	ND	ND	0.00	5000.0	250.0		Pass
Hexane	ND	ND	0.00	200.0	50.0		Pass
Isopropanol (i-Propanol)	ND	ND	0.00	5000.0	250.0		Pass
Isopropanol Acetate	ND	ND	0.00	5000.0	250.0		Pass
Methanol	<LOQ	<LOQ	0.00	3000.0	250.0		Pass
Dichloromethane	ND	ND	0.00	600.0	50.0		Pass
Pentane	ND	ND	0.00	5000.0	250.0		Pass
Propane	ND	ND	0.00	5000.0	250.0		Pass
Tetrahydrofuran	ND	ND	0.00	720.0	50.0		Pass
Toluene	ND	ND	0.00	850.0	50.0		Pass
Xylene	ND	ND	0.00	2170.0	50.0		Pass

LOQ - (Limit of Quantitation):
The lowest quantity of a substance that can be reliably measured. If a product measures <LOQ, that means that the substance was detected, but at levels below which it can be accurately measured. This is different from ND, which means that none of that substance was detected.

RPD (%) - Relative Percent Difference:
Each sample we send to the lab is tested multiple times, and the results of the various tests are averaged to give the final results. RPD represents the average variation in measurement of a certain substance between multiple rounds of testing

Calm-06

Danodan Hempworks
 AG-R1058171HH
 6019 NE MLK JR. BLVD.
 PORTLAND, OR 97217
 360-281-3251

Harvest/Process Date: 6/1/2023
 Sample Date: 6/2/2023
 Analysis Date: 6/15/2023
 Report Date: 6/19/2023
 Report ID: LS-230606-8

Client Batch ID:
 Metrc Batch ID:
 Metrc Sample ID:

Sample Type: Tinctures
 Sample Plan:
 MB-FM-JB-WN_20230602_2B
 Sample Procedure:
 160721_LAB-SOP_SampleCollection-v010

Potency

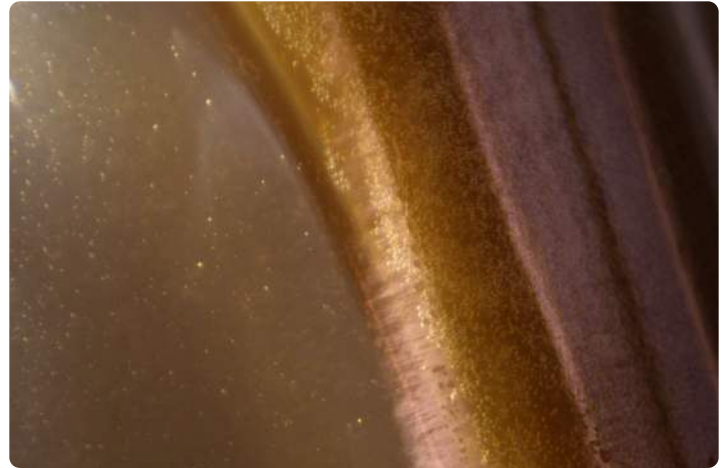
Potency Analysis Date: 6/15/2023
 Potency Batch ID: CAN_061623A
 Potency Method: JAOAC 2015.1

Unit Potency:
 30 ml retail unit, 1.089 g/mL density
 18.03 mg THC/456.5 mg CBD per retail unit
 1.2 mg THC per 2.0 ml serving
 30.43 mg CBD per 2.0 ml serving

15.2 mg/mL Total CBD
1.40%

0.601 mg/mL Total THC
0.0552%

Samples: DGH-MJN-MSW, CMG-GMX-PGN



Analyte	Description	LOQ	RPD (%)	Min.	Max.	Avg.	Unit: mg/mL
Δ9THC	Delta-9 Tetrahydrocannabinol	0.054	1.45	0.597	0.605	0.601	
THCA	Tetrahydrocannabinolic acid	0.054	0.00	ND	ND	ND	
CBD	Cannabidiol	0.054	3.10	14.7	15.1	14.9	
CBDA	Cannabidiolic acid	0.054	3.38	0.317	0.328	0.322	
Δ8THC	Delta-8 Tetrahydrocannabinol	0.054	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.054	0.00	ND	ND	ND	
CBG	Cannabigerol*	0.054	2.16	0.500	0.511	0.505	
CBGA	Cannabigerolic acid*	0.054	0.00	ND	ND	ND	
CBC	Cannabichromene*	0.054	2.61	0.783	0.804	0.794	
CBCA	Cannabichromenic acid*	0.054	0.00	ND	ND	ND	
CBN	Cannabinol*	0.054	0.00	0.107	0.107	0.107	
THCVA	Tetrahydrocannabivarinic acid*	0.054	0.00	ND	ND	ND	
CBDVA	Cannabidivarinic acid*	0.054	0.00	ND	ND	ND	
CBDV	Cannabidivarin*	0.054	109	ND	0.185	0.0926	
CBNA	Cannabinolic acid*	0.054	0.00	ND	ND	ND	
CBL	Cannabicyclol*	0.054	0.00	ND	ND	ND	
Total THC	Δ9THC + (THCA × 0.877)		1.45	0.597	0.605	0.601	
Total CBD	CBD + (CBDA × 0.877)		3.10	15.0	15.5	15.2	
Total			4.03	17.0	17.8	17.3	

Compliance

Potency Within limits Analysis Date: 6/15/2023 Pass 

Aaron Troyer
 Chief Science Officer



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Calm-06

Danodan Hempworks
 AG-R1058177IHH
 6019 NE MLK JR. BLVD.
 PORTLAND, OR 97217
 360-281-3251

Harvest/Process Date: 6/1/2023
Sample Date: 6/2/2023
Analysis Date: 6/15/2023
Report Date: 6/19/2023
Report ID: LS-230606-8

Client Batch ID:
Metrc Batch ID:
Metrc Sample ID:

Sample Type: Tinctures
Sample Plan:
 MB-FM-JB-WN_20230602_2B
Sample Procedure:
 160721_LAB-SOP_SampleCollection-v010



Potency Quality Control Data

Potency QC Analysis Date: 6/15/2023
 Potency QC Batch ID: CAN_061623A

Method: JAOAC 2015.1
 Unit: µg/g (ppm)

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Δ9THC	ND	0.050	132.6	124.2	107	90 - 110	
THCA	ND	0.050	84.41	79.36	106	90 - 110	
CBD	ND	0.050	157.9	148.6	106	90 - 110	
CBDA	ND	0.050	86.08	81.40	106	90 - 110	
Δ8THC	ND	0.050	11.49	11.60	99.0	90 - 110	

POTENCY - LIMIT OF DETECTION

Verified: 060221

Method: 160819_LAB-SOP_MethodValidation-CannabinoidPotency-v002.docx

Matrix	Analyte	LOD (ppm)	LOD (mg/g)
EXTRACT	Δ9THC	2.8	0.0028
	THCA	0.56	0.00056
	CBD	2.22	0.00222
	CBDA	0.52	0.00052
FLOWER	Δ9THC	1.88	0.00188
	THCA	5.32	0.00532
	CBD	1.31	0.00131
	CBDA	0.78	0.00078

Calm-06

Danodan Hempworks
AG-R1058177IHH
6019 NE MLK JR. BLVD.
PORTLAND, OR 97217
360-281-3251

Harvest/Process Date: 6/1/2023
Sample Date: 6/2/2023
Analysis Date: 6/15/2023
Report Date: 6/19/2023
Report ID: LS-230606-8

Client Batch ID:
Metrac Batch ID:

Metrac Sample ID:

Sample Type: Tinctures
Sample Plan:
MB-FM-JB-WN_20230602_2B
Sample Procedure:
160721_LAB-SOP_SampleCollection-v010

Qualifier Flag Descriptions

J	Reported result is an estimate - the value is less than the minimum calibration level but greater than the estimated detection limit (EDL)
U	The analyte was not detected in the sample at the estimated detection limit (EDL)
E	Exceeds calibration range
D	Dilution data - result was obtained from the analysis of a dilution
B	Analyte found in sample and associated blank
C	Co-eluting compound
R	Relative Percent Difference (RPD) outside control limits
NR	Analyte not reported because of problems in sample preparation or analysis
ND	Non-Detect
X	Results from reinjection/repeat/re-column data
EMC	Estimated maximum possible concentration - indicates that a peak is detected but did not meet the method required criteria
M	Manual integration
PS	Peaks split
HB	Control acceptance criteria are exceeded high and the associated sample is below the detection limit
LB	Control acceptance criteria are exceeded low and the associated sample exceeds the regulatory limit
ME	Marginal Exceedance
LR	Low Recovery Analyte
LOQ	Limit of Quantitation



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 23-006588/D004.R000
Report Date: 06/15/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/02/23 15:25

Customer: Danodan Hemp Works
Product identity: Calm-06
Client/Metric ID: .
Laboratory ID: 23-006588-0002

Summary

Metals:

Less than LOQ for all analytes.

Microbiology:

Less than LOQ for all analytes.



12423 NE Whitaker Way
 Portland, OR 97230
 503-254-1794



Report Number: 23-006588/D004.R000
Report Date: 06/15/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/02/23 15:25

Customer: Danodan Hemp Works
 6019 NE MLK Jr Blvd
 Portland Oregon 97211
 United States of America (USA)

Product identity: Calm-06
Client/Metric ID: .
Sample Date:
Laboratory ID: 23-006588-0002
Evidence of Cooling: No
Temp: 26.3
Relinquished by: client

Sample Results

Microbiology

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Aerobic Plate Count	< LOQ		cfu/g	10	2307878	06/05/23 AOAC 990.12 (Petrifilm) ^P		
E.coli	< LOQ		cfu/g	10	2307876	06/05/23 AOAC 991.14 (Petrifilm) ^P		
Total Coliforms	< LOQ		cfu/g	10	2307876	06/05/23 AOAC 991.14 (Petrifilm) ^P		
Staphylococcus aureus	< LOQ		cfu/g	10	2307879	06/04/23 AOAC 2003.07		
Mold (RAPID Petrifilm)	< LOQ		cfu/g	10	2307877	06/05/23 AOAC 2014.05 (RAPID) ^P		
Yeast (RAPID Petrifilm)	< LOQ		cfu/g	10	2307877	06/05/23 AOAC 2014.05 (RAPID) ^P		
Pseudomonas spp.	< LOQ		cfu/g	10	2307883	06/05/23 ISO 13720:1995		

Allergens

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Allergens: Gluten	< LOQ		mg/kg	5.0	2307922	06/05/23 AOAC 2012.01 ^P		

Metals

Analyte	Result	Limits	Units	LOQ	Batch	Analyzed Method	Status	Notes
Arsenic ^Y	< LOQ	0.200	mg/kg	0.0877	2307999	06/07/23 AOAC 2013.06 (mod.) ^P	pass	
Cadmium ^Y	< LOQ	0.200	mg/kg	0.0877	2307999	06/07/23 AOAC 2013.06 (mod.) ^P	pass	
Lead ^Y	< LOQ	0.500	mg/kg	0.2000	2308053	06/14/23 AOAC 2013.06 (mod.) ^P	pass	
Mercury ^Y	< LOQ	0.100	mg/kg	0.0438	2307999	06/07/23 AOAC 2013.06 (mod.) ^P	pass	



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 23-006588/D004.R000
Report Date: 06/15/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/02/23 15:25

Abbreviations

Limits: Action Levels per OAR-333-007-0400, OAR-333-007-0210, OAR-333-007-0220, CCR title 16-division 42. BCC-section 5723

Limit(s) of Quantitation (LOQ): The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence.

Ⓐ = ISO/IEC 17025:2017 accredited method.

Ⓜ = TNI accredited analyte.

Units of Measure

cfu/g = Colony forming units per gram

mg/kg = Milligram per kilogram = parts per million (ppm)

% wt = $\mu\text{g/g}$ divided by 10,000

Approved Signatory

Derrick Tanner
General Manager



12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 23-006588/D004.R000
Report Date: 06/15/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/02/23 15:25





12423 NE Whitaker Way
Portland, OR 97230
503-254-1794



Report Number: 23-006588/D004.R000
Report Date: 06/15/2023
ORELAP#: OR100028
Purchase Order:
Received: 06/02/23 15:25

Explanation of QC Flag Comments:

Code	Explanation
Q	Matrix interferences affecting spike or surrogate recoveries.
Q1	Quality control result biased high. Only non-detect samples reported.
Q2	Quality control outside QC limits. Data considered estimate.
Q3	Sample concentration greater than four times the amount spiked.
Q4	Non-homogenous sample matrix, affecting RPD result and/or % recoveries.
Q5	Spike results above calibration curve.
Q6	Quality control outside QC limits. Data acceptable based on remaining QC.
R	Relative percent difference (RPD) outside control limit.
R1	RPD non-calculable, as sample or duplicate results are less than five times the LOQ.
R2	Sample replicates RPD non-calculable, as only one replicate is within the analytical range.
LOQ1	Quantitation level raised due to low sample volume and/or dilution.
LOQ2	Quantitation level raised due to matrix interference.
B	Analyte detected in method blank, but not in associated samples.
B1	The sample concentration is greater than 5 times the blank concentration.
B2	The sample concentration is less than 5 times the blank concentration.