

TB-24

Danodan Hempworks
6019 NE MLK JR. BLVD.
PORTLAND, OR 97217
(503) 290-4079

Sample Type: Tinctures
Sample Date: 9/18/2020
Analysis Date: 9/24/2020
Report Date: 9/25/2020

Metric Batch ID:
Metric Sample ID:

Harvest/Process Date: 12/2/2019
Report ID: LS-200925-2
Sample Plan ID: SP-200918-1-B
Sample Procedure: 160721_LAB-SOP_SampleCollection-v008

Potency

Potency Analysis Date: 9/24/2020
Potency Batch ID: CAN_092420C
Potency Method: JAOAC 2015.1

2.67 mg/mL Total CBD
0.238%



0.109 mg/mL Total THC
970%

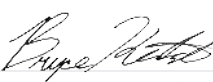
Samples: FMN-NJR-HDX, WMC-FCR-NFF



Analyte	Description	LOQ	RPD (%)	Min.	Max.	Avg.	Unit: mg/mL
Δ9THC	Delta-9 Tetrahydrocannabinol	0.090	4.12	0.106	0.111	0.109	
THCA	Tetrahydrocannabinolic acid	0.090	0.00	ND	ND	ND	
CBD	Cannabidiol	0.090	1.76	2.65	2.69	2.67	
CBDA	Cannabidiolic acid	0.090	0.00	<LOQ	<LOQ	<LOQ	
Δ8THC	Delta-8 Tetrahydrocannabinol*	0.090	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.090	0.00	ND	ND	ND	
CBG	Cannabigerol*	0.090	0.00	<LOQ	<LOQ	<LOQ	
CBGA	Cannabigerolic acid*	0.090	0.00	ND	ND	ND	
CBC	Cannabichromene*	0.090	0.00	<LOQ	<LOQ	<LOQ	
CBCA	Cannabichromenic acid*	0.090	0.00	ND	ND	ND	
CBN	Cannabinol	0.090	0.00	ND	ND	ND	
Total THC	Δ9THC + (THCA × 0.877)		4.12	0.106	0.111	0.109	
Total CBD	CBD + (CBDA × 0.877)		1.76	2.65	2.69	2.67	
Total			1.85	2.75	2.80	2.78	

Compliance

Pesticides	Within limits	Analysis Date: 9/24/2020	Pass 
Potency	Within limits	Analysis Date: 9/24/2020	Pass 


Bryce Kidd, Ph.D.
Lab Director


Aaron Troyer
Chief Science Officer



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Sample Procedure: 160721_LAB-SOP_SampleCollection-v008



Pesticides Sample Data

Pesticides Analysis Date: 9/24/2020
Pesticides Batch ID: PST_092420A

Method: EN 15662
Unit: µg/g (ppm)

Pass 

Analyte	WMC-FCR-NFF	FMN-NJR-HDX	Limits	LOQ	Notes	Status	Analyte	WMC-FCR-NFF	FMN-NJR-HDX	Limits	LOQ	Notes	Status
Abamectin	ND	ND	0.5	0.1		Pass	Metalaxyl	ND	ND	0.2	0.1		Pass
Acephate	ND	ND	0.4	0.1		Pass	Methiocarb	ND	ND	0.2	0.1		Pass
Acequinocyl	ND	ND	2.0	1.5		Pass	Methomyl	ND	ND	0.4	0.1		Pass
Acetamiprid	ND	ND	0.2	0.1		Pass	Methyl Parathion	ND	ND	0.2	0.2		Pass
Aldicarb	ND	ND	0.4	0.1		Pass	MGK-264	ND	ND	0.2	0.2		Pass
Azoxystrobin	ND	ND	0.2	0.1		Pass	Myclobutanil	ND	ND	0.2	0.1		Pass
Bifenazate	ND	ND	0.2	0.1		Pass	Naled	ND	ND	0.5	0.2		Pass
Bifenthrin	ND	ND	0.2	0.1		Pass	Oxamyl	ND	ND	1.0	0.1		Pass
Boscalid	ND	ND	0.4	0.1		Pass	Paclobutrazol	ND	ND	0.4	0.1		Pass
Carbaryl	ND	ND	0.2	0.1		Pass	Permethrins	ND	ND	0.2	0.1		Pass
Carbofuran	ND	ND	0.2	0.1		Pass	Phosmet	ND	ND	0.2	0.1		Pass
Chlorantraniliprole	ND	ND	0.2	0.1		Pass	Piperonyl Butoxide	ND	ND	2.0	0.1		Pass
Chlorfenapyr	ND	ND	1.0	0.1		Pass	Prallethrin	ND	ND	0.2	0.1		Pass
Chlorpyrifos	ND	ND	0.2	0.1		Pass	Propiconazole	ND	ND	0.4	0.1		Pass
Clofentezine	ND	ND	0.2	0.1		Pass	Propoxur	ND	ND	0.2	0.1		Pass
Cyfluthrin	ND	ND	1.0	0.5		Pass	Pyrethrins	ND	ND	1.0	0.5		Pass
Cypermethrin	ND	ND	1.0	0.1		Pass	Pyridaben	ND	ND	0.2	0.1		Pass
Daminozide	ND	ND	1.0	0.5		Pass	Spinosad	ND	ND	0.2	0.1		Pass
Diazinon	ND	ND	0.2	0.1		Pass	Spiromesifen	ND	ND	0.2	0.1		Pass
Dichlorvos (DDVP)	ND	ND	1.0	0.5		Pass	Spirotetramat	ND	ND	0.2	0.1		Pass
Dimethoate	ND	ND	0.2	0.1		Pass	Spiroxamine	ND	ND	0.4	0.1		Pass
Ethoprophos	ND	ND	0.2	0.1		Pass	Tebuconazole	ND	ND	0.4	0.1		Pass
Etofenprox	ND	ND	0.4	0.1		Pass	Thiacloprid	ND	ND	0.2	0.1		Pass
Etoxazole	ND	ND	0.2	0.1		Pass	Thiamethoxam	ND	ND	0.2	0.1		Pass
Fenoxycarb	ND	ND	0.2	0.1		Pass	Trifloxystrobin	ND	ND	0.2	0.1		Pass
Fenpyroximate	ND	ND	0.4	0.1		Pass							
Fipronil	ND	ND	0.4	0.1		Pass							
Flonicamid	ND	ND	1.0	0.1		Pass							
Fludioxonil	ND	ND	0.4	0.1		Pass							
Hexythiazox	ND	ND	1.0	0.1		Pass							
Imazalil	ND	ND	0.2	0.1		Pass							
Imidacloprid	ND	ND	0.4	0.1		Pass							
Kresoxim-methyl	ND	ND	0.4	0.1		Pass							
Malathion	ND	ND	0.2	0.1		Pass							

TB-24

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6019 NE MLK JR. BLVD.
PORTLAND, OR 97217
(503) 290-4079

Sample Type: Tinctures
Sample Date: 9/18/2020
Analysis Date: 9/24/2020
Report Date: 9/25/2020

Metric Batch ID:

Metric Sample ID:

Harvest/Process Date: 12/2/2019
Report ID: LS-200925-2
Sample Plan ID: SP-200918-1-B
Sample Procedure: 160721_LAB-SOP_SampleCollection-v008

Pesticides Quality Control Data

Pesticides QC Analysis Date: 9/24/2020
Pesticides QC Batch ID: PST_092420A
Method: EN 15662
Unit: µg/g (ppm)

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes	Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Abamectin	ND	0.1	0.945	1.00	94.5	50 - 150		Metalaxyl	ND	0.1	0.968	1.00	96.8	50 - 150	
Acephate	ND	0.1	0.888	1.00	88.8	50 - 150		Methiocarb	ND	0.1	0.984	1.00	98.4	50 - 150	
Acequinocyl	ND	1.5	1.10	1.00	110	50 - 150		Methomyl	ND	0.1	0.954	1.00	95.4	50 - 150	
Acetamiprid	ND	0.1	0.929	1.00	92.9	50 - 150		Methyl Parathion	ND	0.2	2.05	1.00	205	30 - 150	HB
Aldicarb	ND	0.1	0.929	1.00	92.9	50 - 150		MGK-264	ND	0.2	0.306	0.600	51.0	50 - 150	
Azoxystrobin	ND	0.1	1.01	1.00	101	50 - 150		Myclobutanil	ND	0.1	1.01	1.00	101	50 - 150	
Bifenazate	ND	0.1	1.70	1.00	170	50 - 150	ME	Naled	ND	0.2	1.01	1.00	101	50 - 150	
Bifenthrin	ND	0.1	1.02	1.00	102	50 - 150		Oxamyl	ND	0.1	0.984	1.00	98.4	50 - 150	
Boscalid	ND	0.1	0.966	1.00	96.6	50 - 150		Paclobutrazol	ND	0.1	0.969	1.00	96.9	50 - 150	
Carbaryl	ND	0.1	0.974	1.00	97.4	50 - 150		Permethrins	ND	0.1	1.22	1.00	122	50 - 150	
Carbofuran	ND	0.1	0.906	1.00	90.6	50 - 150		Phosmet	ND	0.1	1.01	1.00	101	50 - 150	
Chlorantraniliprole	ND	0.1	1.04	1.00	104	50 - 150		Piperonyl Butoxide	ND	0.1	1.43	1.00	143	50 - 150	
Chlorfenapyr	ND	0.1	0.387	1.00	38.7	50 - 150	LR	Prallethrin	ND	0.1	1.17	1.00	117	50 - 150	
Chlorpyrifos	ND	0.1	1.07	1.00	107	50 - 150		Propiconazole	ND	0.1	1.20	1.00	120	50 - 150	
Clofentezine	ND	0.1	0.821	1.00	82.1	50 - 150		Propoxur	ND	0.1	0.954	1.00	95.4	50 - 150	
Cyfluthrin	ND	0.5	1.14	1.00	114	50 - 150		Pyrethrins	ND	0.5	0.883	1.00	88.3	50 - 150	
Cypermethrin	ND	0.1	1.23	1.00	123	50 - 150		Pyridaben	ND	0.1	1.12	1.00	112	50 - 150	
Daminozide	ND	0.5	0.209	1.00	20.9	10 - 150		Spinosad	ND	0.1	1.09	1.00	109	50 - 150	
Diazinon	ND	0.1	1.00	1.00	100	50 - 150		Spiromesifen	ND	0.1	1.13	1.00	113	50 - 150	
Dichlorvos (DDVP)	ND	0.5	1.31	1.00	131	50 - 150		Spirotetramat	ND	0.1	0.996	1.00	99.6	50 - 150	
Dimethoate	ND	0.1	0.962	1.00	96.2	50 - 150		Spiroxamine	ND	0.1	0.753	1.00	75.3	50 - 150	
Ethoprophos	ND	0.1	1.02	1.00	102	50 - 150		Tebuconazole	ND	0.1	0.975	1.00	97.5	50 - 150	
Etofenprox	ND	0.1	0.985	1.00	98.5	50 - 150		Thiacloprid	ND	0.1	0.973	1.00	97.3	50 - 150	
Etoxazole	ND	0.1	1.10	1.00	110	50 - 150		Thiamethoxam	ND	0.1	0.947	1.00	94.7	50 - 150	
Fenoxycarb	ND	0.1	1.07	1.00	107	50 - 150		Trifloxystrobin	ND	0.1	1.01	1.00	101	50 - 150	
Fenpyroximate	ND	0.1	0.910	1.00	91.0	50 - 150									
Fipronil	ND	0.1	0.870	1.00	87.0	50 - 150									
Flonicamid	ND	0.1	0.984	1.00	98.4	50 - 150									
Fludioxonil	ND	0.1	0.455	1.00	45.5	50 - 150	ME								
Hexythiazox	ND	0.1	1.16	1.00	116	50 - 150									
Imazalil	ND	0.1	1.24	1.00	124	50 - 150									
Imidacloprid	ND	0.1	0.897	1.00	89.7	50 - 150									
Kresoxim-methyl	ND	0.1	0.981	1.00	98.1	50 - 150									
Malathion	ND	0.1	0.982	1.00	98.2	50 - 150									

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PORTLAND, OR 97217
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Sample Type: Tinctures
Sample Date: 9/18/2020
Analysis Date: 9/24/2020
Report Date: 9/25/2020

Metric Batch ID:

Metric Sample ID:

Harvest/Process Date: 12/2/2019
Report ID: LS-200925-2
Sample Plan ID: SP-200918-1-B
Sample Procedure: 160721_LAB-
SOP_SampleCollection-v008

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

HOW TO READ OUR CERTIFICATE OF ANALYSIS (COA)

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.



**LIGHTSCALE
LABS**

2535 N Ross Ave
Portland, OR 97227
(503) 493-2535

info@lightscale.com
ORLAP #4112
OLCC #010-1003340D344

Shot-15-12

Danodan Hempworks

(503) 290-4079

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

Metro Batch ID:
Metro Sample ID:

Harvest/Process Date: 11/25/2019

Report ID:

LS-191204-28

Potency

Potency Analysis Date: 12/3/2019
Potency Batch ID: CAN_120319C
Potency Method: JAOAC 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	5.05	0.947	0.996	0.972	
THCA	Tetrahydrocannabinolic acid	0.28	0.00	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	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.28	0.00	ND	ND	ND	
CBG	Cannabigerol*	0.28	0.493	0.441	0.444	0.443	
CBGA	Cannabigerolic acid*	0.28	0.00	ND	ND	ND	
CBC	Cannabichromene*	0.28	4.72	0.586	0.615	0.601	
CBCA	Cannabichromenic acid*	0.28	0.00	ND	ND	ND	
CBN	Cannabinol	0.28	0.00	<LOQ	<LOQ	<LOQ	
Total THC	Δ9THC + (THCA × 0.877)		5.05	0.947	0.996	0.972	
Total CBD	CBD + (CBDA × 0.877)		0.605	16.4	16.5	16.5	
Total			0.977	18.4	18.6	18.5	

Compliance

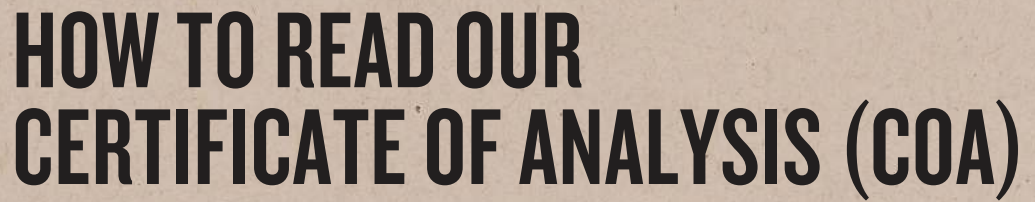
Pesticides	Within limits	Analysis Date: 12/3/2019	Pass
Solvents	Within limits	Analysis Date: 12/3/2019	Pass
Potency	Within limits	Analysis Date: 12/3/2019	Pass

Bryce Kidd
Bryce Kidd, Ph.D.
Lab Director

Aaron Troyer
Aaron Troyer
Chief Science Officer



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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.

	2030 N Rouse Ave Durham, NC 27727 (919) 493-2029		info@lightslabs.com ORCLAP #4102 OLC-USP-000100340000044				
	Shot-15-12						
	Dandelion Hempseeds						
(015) 260-4079	Sample Type: Tinctures Sample Date: 12/22/2019 Analysis Date: 12/22/2019 Report Date: 12/16/2019		Matrix Batch ID: Matrix Sample ID:				
	Solvents Analysis Date: 12/15/2019 Solvents Batch ID: HES_200318A		Method: EPA 8200A (Shimadzu GC/MS)				
	Residual Solvents Sample Data		Pass LS-191204-28				
Analysis	ZHH-PFD-FWD	TTT-GMS-SHT	RPD (%)	Limits	LOQ	Name	Status
1,4-Dioxane	ND	ND	0.00	280.0	50.0	Pass	
2-Octanol	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	
Acetonitrile	ND	ND	0.00	410.0	50.0	Pass	
Benzene	ND	ND	0.00	2.0	2.0	Pass	
Benzoin	ND	ND	0.00	5000.0	250.0	Pass	
Cumene	ND	ND	0.00	70.0	50.0	Pass	
Cyclohexane	ND	ND	0.00	3800.0	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 Oxide	ND	ND	0.00	50.0	50.0	Pass	
Heptane	ND	ND	0.00	5000.0	250.0	Pass	
Hexanes	ND	ND	0.00	250.0	50.0	Pass	
Isopropyl (2-Propanol)	ND	ND	0.00	5000.0	50.0	Pass	
Isopropyl 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	600.0	50.0	Pass	
Xylenes	ND	ND	0.00	2170.0	50.0	Pass	

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