

# TB-21

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

Sample Type: Tinctures  
 Sample Date: 2/13/2020  
 Analysis Date: 2/18/2020  
 Report Date: 2/25/2020

Metric Batch ID:  
 Metric Sample ID:

Harvest/Process Date: 10/31/2019  
 Report ID: LS-200221-34  
 Sample Plan ID: SP-200213-1-A  
 Sample Procedure: 160721\_LAB-SOP\_SampleCollection-v007

## Potency

Potency Analysis Date: 2/18/2020  
 Potency Batch ID: CAN\_021820E  
 Potency Method: JAOAC 2015.1

**2.77 mg/mL** Total CBD  
 0.248%



**<LOQ** Total THC  
 <LOQ

Samples: ZSN-GXH-RTS, MGJ-WRN-DJW



Analyte	Description	LOQ	RPD (%)	Min.	Max.	Avg.	Unit: mg/mL
<b>Δ9THC</b>	Delta-9 Tetrahydrocannabinol	0.29	0.00	<LOQ	<LOQ	<LOQ	
<b>THCA</b>	Tetrahydrocannabinolic acid	0.29	0.00	ND	ND	ND	
<b>CBD</b>	Cannabidiol	0.29	2.91	2.73	2.81	2.77	
<b>CBDA</b>	Cannabidiolic acid	0.29	0.00	ND	<LOQ	<LOQ	
<b>Δ8THC</b>	Delta-8 Tetrahydrocannabinol*	0.29	0.00	ND	ND	ND	
<b>THCV</b>	Tetrahydrocannabivarin*	0.29	0.00	ND	ND	ND	
<b>CBG</b>	Cannabigerol*	0.29	0.00	<LOQ	<LOQ	<LOQ	
<b>CBGA</b>	Cannabigerolic acid*	0.29	0.00	ND	<LOQ	<LOQ	
<b>CBC</b>	Cannabichromene*	0.29	0.00	<LOQ	<LOQ	<LOQ	
<b>CBCA</b>	Cannabichromenic acid*	0.29	0.00	ND	ND	ND	
<b>CBN</b>	Cannabinol	0.29	0.00	ND	ND	ND	
<b>Total THC</b>	Δ9THC + (THCA × 0.877)		0.00	<LOQ	<LOQ	<LOQ	
<b>Total CBD</b>	CBD + (CBDA × 0.877)		2.91	2.73	2.81	2.77	
<b>Total</b>			2.91	2.73	2.81	2.77	

## Compliance

Pesticides	Within limits	Analysis Date: 2/18/2020	Pass 
Potency	Within limits	Analysis Date: 2/18/2020	Pass 

  
 Bryce Kidd, Ph.D.  
 Lab Director

  
 Aaron Troyer  
 Chief Science Officer



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Pesticides Analysis Date: 2/18/2020  
 Pesticides Batch ID: PST\_021820A

Method: EN 15662  
 Unit: µg/g (ppm)

Pass 

Analyte	MGJ-WRN-DJW	ZSN-GXH-RTS	Limits	LOQ	Notes	Status	Analyte	MGJ-WRN-DJW	ZSN-GXH-RTS	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							

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 Sample Date: 2/13/2020  
 Analysis Date: 2/18/2020  
 Report Date: 2/25/2020

Metric Batch ID:  
 Metric Sample ID:

Harvest/Process Date: 10/31/2019  
 Report ID: LS-200221-34  
 Sample Plan ID: SP-200213-1-A  
 Sample Procedure: 160721\_LAB-SOP\_SampleCollection-v007

## Pesticides Quality Control Data

Pesticides QC Analysis Date: 2/18/2020  
 Pesticides QC Batch ID: PST\_O21820A  
 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	1.49	1.00	149	50 - 150		Metalaxyl	ND	0.1	0.960	1.00	96.0	50 - 150	
Acephate	ND	0.1	1.04	1.00	104	50 - 150		Methiocarb	ND	0.1	0.879	1.00	87.9	50 - 150	
Acequinocyl	ND	1.5	ND	1.00	<b>0.00</b>	50 - 150	ND	Methomyl	ND	0.1	0.438	1.00	<b>43.8</b>	50 - 150	ME
Acetamiprid	ND	0.1	0.873	1.00	87.3	50 - 150		Methyl Parathion	ND	0.2	0.725	1.00	72.5	30 - 150	
Aldicarb	ND	0.1	0.743	1.00	74.3	50 - 150		MGK-264	ND	0.2	0.511	0.600	85.2	50 - 150	
Azoxystrobin	ND	0.1	0.830	1.00	83.0	50 - 150		Myclobutanil	ND	0.1	0.871	1.00	87.1	50 - 150	
Bifenazate	ND	0.1	3.74	1.00	<b>374</b>	50 - 150	HB	Naled	ND	0.2	2.47	1.00	<b>247</b>	50 - 150	HB
Bifenthrin	ND	0.1	0.936	1.00	93.6	50 - 150		Oxamyl	ND	0.1	0.643	1.00	64.3	50 - 150	
Boscalid	ND	0.1	1.18	1.00	118	50 - 150		Paclobutrazol	ND	0.1	0.764	1.00	76.4	50 - 150	
Carbaryl	ND	0.1	0.640	1.00	64.0	50 - 150		Permethrins	ND	0.1	1.06	1.00	106	50 - 150	
Carbofuran	ND	0.1	0.629	1.00	62.9	50 - 150		Phosmet	ND	0.1	1.08	1.00	108	50 - 150	
Chlorantraniliprole	ND	0.1	0.976	1.00	97.6	50 - 150		Piperonyl Butoxide	ND	0.1	0.879	1.00	87.9	50 - 150	
Chlorfenapyr	ND	0.1	1.20	1.00	120	50 - 150		Prallethrin	ND	0.1	1.05	1.00	105	50 - 150	
Chlorpyrifos	ND	0.1	0.981	1.00	98.1	50 - 150		Propiconazole	ND	0.1	1.15	1.00	115	50 - 150	
Clofentezine	ND	0.1	0.924	1.00	92.4	50 - 150		Propoxur	ND	0.1	0.607	1.00	60.7	50 - 150	
Cyfluthrin	ND	0.5	1.18	1.00	118	50 - 150		Pyrethrins	ND	0.5	0.588	1.00	58.8	50 - 150	
Cypermethrin	ND	0.1	1.36	1.00	136	50 - 150		Pyridaben	ND	0.1	1.13	1.00	113	50 - 150	
Daminozide	ND	0.5	ND	1.00	<b>0.00</b>	10 - 150	ND	Spinosad	ND	0.1	1.39	1.00	139	50 - 150	
Diazinon	ND	0.1	1.08	1.00	108	50 - 150		Spiromesifen	ND	0.1	1.60	1.00	<b>160</b>	50 - 150	ME
Dichlorvos (DDVP)	ND	0.5	0.580	1.00	58.0	50 - 150		Spirotetramat	ND	0.1	1.24	1.00	124	50 - 150	
Dimethoate	ND	0.1	0.832	1.00	83.2	50 - 150		Spiroxamine	ND	0.1	1.28	1.00	128	50 - 150	
Ethofenprophos	ND	0.1	1.12	1.00	112	50 - 150		Tebuconazole	ND	0.1	1.29	1.00	129	50 - 150	
Etofenprox	ND	0.1	1.18	1.00	118	50 - 150		Thiacloprid	ND	0.1	0.850	1.00	85.0	50 - 150	
Etoxazole	ND	0.1	0.704	1.00	70.4	50 - 150		Thiamethoxam	ND	0.1	0.685	1.00	68.5	50 - 150	
Fenoxycarb	ND	0.1	1.45	1.00	145	50 - 150		Trifloxystrobin	ND	0.1	1.47	1.00	147	50 - 150	
Fenpyroximate	ND	0.1	1.16	1.00	116	50 - 150									
Fipronil	ND	0.1	1.47	1.00	147	50 - 150									
Flonicamid	ND	0.1	0.692	1.00	69.2	50 - 150									
Fludioxonil	ND	0.1	1.32	1.00	132	50 - 150									
Hexythiazox	ND	0.1	0.592	1.00	59.2	50 - 150									
Imazalil	ND	0.1	0.872	1.00	87.2	50 - 150									
Imidacloprid	ND	0.1	1.18	1.00	118	50 - 150									
Kresoxim-methyl	ND	0.1	1.15	1.00	115	50 - 150									
Malathion	ND	0.1	1.06	1.00	106	50 - 150									

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**Sample Date:** 2/13/2020  
**Analysis Date:** 2/18/2020  
**Report Date:** 2/25/2020

**Metric Batch ID:**  
**Metric Sample ID:**

**Harvest/Process Date:** 10/31/2019  
**Report ID:** LS-200221-34  
**Sample Plan ID:** SP-200213-1-A  
**Sample Procedure:** 160721\_LAB-  
SOP\_SampleCollection-v007

## Qualifier Flag Descriptions

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

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:

Metro Sample ID:

Harvest/Process Date: 11/25/2019

Report ID:

**LS-191204-28**

(503) 290-4079

### Potency

Potency Analysis Date: 12/3/2019  
Potency 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	
<b>Total THC</b>	<b>Δ9THC + (THCA × 0.877)</b>		5.85	0.947	0.996	0.972	
<b>Total CBD</b>	<b>CBD + (CBDA × 0.877)</b>		0.685	16.4	16.5	16.5	
<b>Total</b>			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.



