LIGHTSCALE LABS

2535 N Ross Ave   info@lightscale.com
Portland, OR 97227   ORELAP #4112
(503) 493-2535   OLCC #010-1003340D344

FEHO-SCI-04

Danodan Hempworks

(503) 290-4079

Sample Type: Other
Sample Date: 5/23/2019
Analysis Date: 5/24/2019
Report Date: 5/30/2019

Metrc Batch ID:

Metrc Sample ID:

Harvest/Process Date:
Report ID:
LS-190530-2

Potency

Potency Analysis Date: 5/24/2019
Potency Batch ID: CAN_052419B
Potency Method: JAOAC 2015.1

21.2 mg/g — Total THC

625 mg/g — Total CBD

Samples: TCR-JNB-FZJ

Analyte	Description	LOQ	RPD (%)	Min.	Max.	Conc.	Unit: mg/g
Δ9THC	Delta-9 Tetrahydrocannabinol	1.6	-	-	-	21.2	
THCA	Tetrahydrocannabinolic acid	1.6	-	-	-	ND	
CBD	Cannabidiol	1.6	-	-	-	593	
CBDA	Cannabidiolic acid	1.6	-	-	-	36.4	
Δ8THC	Delta-8 Tetrahydrocannabinol*	1.6	-	-	-	ND	
THCV	Tetrahydrocannabivarin*	1.6	-	-	-	ND	
CBG	Cannabigerol*	1.6	-	-	-	20.6	
CBGA	Cannabigerolic acid*	1.6	-	-	-	2.22	
CBC	Cannabichromene*	1.6	-	-	-	46.5	
CBCA	Cannabichromenic acid*	1.6	-	-	-	<LOQ	
CBN	Cannabinol	1.6	-	-	-	<LOQ	
Total THC	Δ9THC + (THCA × 0.877)		-	-	-	21.2	
Total CBD	CBD + (CBDA × 0.877)		-	-	-	625	
Total			-	-	-	720	

Compliance

Pesticides	Within limits	Analysis Date: 5/29/2019	Pass ⊘
Solvents	Within limits	Analysis Date: 5/25/2019	Pass ⊘

Ian Eustis
Lab Director

Aaron Troyer
Chief Science Officer

This data cannot be used for OLCC or OHA compliance for usable marijuana or marijuana products and is provided for Research and Development purposes only.

LS-190530-2

FEHO-SCI-04

Danodan Hempworks

(503) 290-4079

Sample Type: Other
Sample Date: 5/23/2019
Analysis Date: 5/24/2019
Report Date: 5/30/2019

Metrc Batch ID:

Metrc Sample ID:

Harvest/Process Date:

Report ID:

LS-190530-2

Pesticides
Sample Data

Pesticides Analysis Date: 5/29/2019
Pesticides Batch ID: PST_052919A

Method: EN 15662
Unit: µg/g (ppm)

Pass ✓

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

LIGHTSCALE LABS

FEHO-SCI-04

Danodan Hempworks

(503) 290-4079

Sample Type: Other
Sample Date: 5/23/2019
Analysis Date: 5/24/2019
Report Date: 5/30/2019

Metrc Batch ID:

Metrc Sample ID:

Harvest/Process Date:

Report ID:

LS-190530-2

Pesticides
Quality Control Data

Pesticides QC Analysis Date: 5/29/2019
Pesticides QC Batch ID: PST_052919A

Method: EN 15662
Unit: µg/g (ppm)

Laboratory Pesticides Quality Control Results

Method: **EN 15662** | Units: ppm (µg/g) | Batch ID: PST_052919A

Pesticide	Blank Result	LOQ	Notes	LCS Result	LCS Spike	LCS% Rec	Limits	Notes	Pesticide	Blank Result	LOQ	Notes	LCS Result	LCS Spike	LCS% Rec	Limits	Notes
Abamectin	nd	0.1		1.0	1.0	101	50 - 150		Imazalil	nd	0.1		0.9	1.0	92	50 - 150	
Acephate	nd	0.1		1.0	1.0	97	50 - 150		Imidacloprid	nd	0.1		1.0	1.0	104	50 - 150	
Acequinocyl	nd	1.0		0.6	1.0	62	50 - 150		Kresoxim-methyl	nd	0.1		1.1	1.0	107	50 - 150	
Acetamiprid	nd	0.1		1.1	1.0	106	50 - 150		Malathion	nd	0.1		1.1	1.0	110	50 - 150	
Aldicarb	nd	0.1		1.0	1.0	105	50 - 150		Metalaxyl	nd	0.1		1.0	1.0	104	50 - 150	
Azoxystrobin	nd	0.1		1.0	1.0	103	50 - 150		Methiocarb	nd	0.1		1.0	1.0	104	50 - 150	
Bifenthrin	nd	0.1		1.2	1.0	120	50 - 150		Methomyl	nd	0.1		1.0	1.0	103	50 - 150	
Bifenazate	nd	0.1		1.0	1.0	97	50 - 150		Methyl Parathion	nd	0.1		0.5	1.0	52	30 - 150	
Boscalid	nd	0.1		1.0	1.0	103	50 - 150		MGK-264	nd	0.2		0.8	0.6	128	50 - 150	
Carbaryl	nd	0.1		1.0	1.0	103	50 - 150		Myclobutanil	nd	0.1		1.1	1.0	108	50 - 150	
Carbofuran	nd	0.1		1.1	1.0	106	50 - 150		Naled	nd	0.1		1.5	1.0	148	50 - 150	
Chlorantraniliprole	nd	0.1		1.0	1.0	103	50 - 150		Oxamyl	nd	0.1		1.0	1.0	105	50 - 150	
Chlorfenapyr	nd	0.1		1.0	1.0	97	50 - 150		Paclobutrazol	nd	0.1		1.0	1.0	103	50 - 150	
Chlorpyrifos	nd	0.1		1.1	1.0	111	50 - 150		Permethrin	nd	0.1		1.0	1.0	102	50 - 150	
Clofentezine	nd	0.1		1.1	1.0	112	50 - 150		Phosmet	nd	0.1		1.1	1.0	114	50 - 150	
Cyfluthrin	nd	0.5		1.4	1.0	140	50 - 150		Piperonyl Butoxide	nd	0.1		0.9	1.0	88	50 - 150	
Cypermethrin	nd	0.1		1.1	1.0	113	50 - 150		Prallethrin	nd	0.1		1.1	1.0	112	50 - 150	
Daminozide	nd	0.5		0.1	1.0	10	10 - 150		Propiconazole	nd	0.1		1.1	1.0	107	50 - 150	
Diazinon	nd	0.1		1.0	1.0	102	50 - 150		Propoxur	nd	0.1		1.0	1.0	101	50 - 150	
Dichlorvos	nd	0.5		1.1	1.0	110	50 - 150		Pyrethrins	nd	0.2		1.1	1.0	109	50 - 150	
Dimethoate	nd	0.1		1.0	1.0	104	50 - 150		Pyridaben	nd	0.1		1.0	1.0	102	50 - 150	
Ethoprophos	nd	0.1		1.0	1.0	104	50 - 150		Spinosad A kps	nd	0.1		0.8	1.0	81	50 - 150	
Etofenprox	nd	0.1		1.1	1.0	108	50 - 150		Spinosad D kps	nd	0.1		0.1	0.1	73	50 - 150	
Etoxazole	nd	0.1		1.0	1.0	101	50 - 150		Spiromesifen	nd	0.1		1.1	1.0	109	50 - 150	
Fenoxycarb	nd	0.1		1.0	1.0	105	50 - 150		Spirotetramat	nd	0.1		1.1	1.0	106	50 - 150	
Fenpyroximate	nd	0.1		0.9	1.0	91	50 - 150		Spiroxamine	nd	0.1		0.7	1.0	72	50 - 150	
Fipronil	nd	0.1		1.1	1.0	109	50 - 150		Tebuconazole	nd	0.1		1.1	1.0	107	50 - 150	
Flonicamid	nd	0.1		1.4	1.0	140	50 - 150		Thiacloprid	nd	0.1		1.1	1.0	110	50 - 150	
Fludioxonil	nd	0.1		1.3	1.0	125	50 - 150		Thiamethoxam	nd	0.1		1.1	1.0	106	50 - 150	
Hexythiazox	nd	0.1		1.2	1.0	118	50 - 150		Trifloxystrobin	nd	0.1		1.0	1.0	105	50 - 150	

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

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

FEHO-SCI-04

Danodan Hempworks

(503) 290-4079

Sample Type: Other
Sample Date: 5/23/2019
Analysis Date: 5/24/2019
Report Date: 5/30/2019

Metrc Batch ID:

Metrc Sample ID:

Harvest/Process Date:

Report ID:

LS-190530-2

Residual Solvents
Sample Data

Solvents Analysis Date: 5/25/2019
Solvents Batch ID: RES_052419A

Method: EPA 5021A
Unit: μg/g (ppm)

Pass ⊘

Analyte	TCR-JNB-FZJ	RPD (%)	Limits	LOQ	Notes	Status
1,4-Dioxane	<LOQ	0.00	380.0	50.0	–	Pass
2-Butanol	<LOQ	0.00	5000.0	250.0	–	Pass
2-Ethoxyethanol	<LOQ	0.00	160.0	50.0	–	Pass
Acetone	<LOQ	0.00	5000.0	250.0	–	Pass
Acetonitrile	<LOQ	0.00	410.0	50.0	–	Pass
Benzene	<LOQ	0.00	2.0	2.0	–	Pass
Butanes	<LOQ	0.00	5000.0	250.0	–	Pass
Cumene	<LOQ	0.00	70.0	50.0	–	Pass
Cyclohexane	<LOQ	0.00	3880.0	50.0	–	Pass
Ethyl Acetate	<LOQ	0.00	5000.0	250.0	–	Pass
Ethyl Ether	<LOQ	0.00	5000.0	250.0	–	Pass
Ethylene Glycol	<LOQ	0.00	620.0	250.0	–	Pass
Ethylene Oxide	<LOQ	0.00	50.0	50.0	–	Pass
Heptane	<LOQ	0.00	5000.0	250.0	–	Pass
Hexanes	<LOQ	0.00	290.0	50.0	–	Pass
Isopropanol (2-Propanol)	203	0.00	5000.0	50.0	–	Pass
Isopropyl Acetate	<LOQ	0.00	5000.0	250.0	–	Pass
Methanol	<LOQ	0.00	3000.0	250.0	–	Pass
Dichloromethane	<LOQ	0.00	600.0	50.0	–	Pass
Pentanes	<LOQ	0.00	5000.0	250.0	–	Pass
Propane	<LOQ	0.00	5000.0	250.0	–	Pass
Tetrahydrofuran	<LOQ	0.00	720.0	50.0	–	Pass
Toluene	<LOQ	0.00	890.0	50.0	–	Pass
Xylenes	<LOQ	0.00	2170.0	50.0	–	Pass

LIGHTSCALE LABS

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

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

FEHO-SCI-04

Danodan Hempworks

(503) 290-4079

Sample Type: Other
Sample Date: 5/23/2019
Analysis Date: 5/24/2019
Report Date: 5/30/2019

Metrc Batch ID:

Metrc Sample ID:

Harvest/Process Date:

Report ID:

LS-190530-2

Residual Solvents
Quality Control Data

Solvents QC Analysis Date: 5/25/2019
Solvents QC Batch ID: RES_052419A

Method: EPA 5021A
Unit: µg/g (ppm)

Laboratory Residual Solvent Quality Control Results

Method: **EPA 5021A**	Units: **ug/mL**	Batch ID: RES_052419A

Matrix Blank / LCS Results

Analyte	Blank Result	Blank Limit	Notes	LCS Result	LCS Spike	LCS% Rec	Limits	Notes
1,4-Dioxane	< LOQ	50		1017	1000	102	70 - 130	
2-Butanol	< LOQ	50		970	1000	97	70 - 130	
2-Ethoxyethanol	< LOQ	50		958	1000	96	70 - 130	
Acetone	< LOQ	50		968	1000	97	70 - 130	
Acetonitrile	< LOQ	50		957	1000	96	70 - 130	
Benzene	< LOQ	2		21	20	103	70 - 130	
Butanes								
Butane	< LOQ	50		810	1000	81	70 - 130	
Isobutane	< LOQ	50		806	1000	81	70 - 130	
Cyclohexane	< LOQ	50		938	1000	94	70 - 130	
Ethyl acetate	< LOQ	50		941	1000	94	70 - 130	
Ethyl ether	< LOQ	50		911	1000	91	70 - 130	
Ethylbenzene	< LOQ	50		956	1000	96	70 - 130	
Ethylene glycol	< LOQ	250		770	1000	77	70 - 130	
Ethylene oxide	< LOQ	50		864	1000	86	70 - 130	
Heptane	< LOQ	50		872	1000	87	70 - 130	
Hexanes								
n-Hexane	< LOQ	50		897	1000	90	70 - 130	
2-Methylpentane	< LOQ	50		890	1000	89	70 - 130	
3-Methylpentane	< LOQ	50		926	1000	93	70 - 130	
2,2-Dimethylbutane	< LOQ	50		921	1000	92	70 - 130	
2,3-Dimethylbutane	< LOQ	50		849	1000	85	70 - 130	
Isopropanol	55	50	B	971	1000	97	70 - 130	
Isopropyl acetate	< LOQ	50		962	1000	96	70 - 130	
Cumene	< LOQ	50		958	1000	96	70 - 130	
Methanol	< LOQ	50		948	1000	95	70 - 130	
Dichloromethane	< LOQ	50		930	1000	93	70 - 130	
Pentanes								
Pentane	< LOQ	50		855	1000	86	70 - 130	
Isopentane	< LOQ	50		869	1000	87	70 - 130	
Neopentane	< LOQ	50		878	1000	88	70 - 130	
Propane	< LOQ	50		723	1000	72	70 - 130	
Tetrahydrofuran	< LOQ	50		917	1000	92	70 - 130	
Toluene	< LOQ	50		968	1000	97	70 - 130	
Xylenes								
m-Xylene	< LOQ	50		961	1000	96	70 - 130	
o/p-Xylene	< LOQ	50		1918	2000	96	70 - 130	

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

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

FEHO-SCI-04

Danodan Hempworks

(503) 290-4079

Sample Type: Other
Sample Date: 5/23/2019
Analysis Date: 5/24/2019
Report Date: 5/30/2019

Metrc Batch ID:

Metrc Sample ID:

Harvest/Process Date:

Report ID:

LS-190530-2

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