

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

300 - Chemdawg RSO 10.16.19

Farmer's Friend Extracts 6451 NF Colwood Wy Portland, OR 97218 503-442-8653

Sample Type: Extracts Sample Date: 10/22/2019 Analysis Date: 10/23/2019 Report Date: 10/29/2019

Metrc Batch ID: 1A4010300016315000016871 Metrc Sample ID: 1A4010300016315000017401

Harvest/Process Date: 10/16/2019 Report ID:

LS-191029-14

Potency

Potency Analysis Date: 10/23/2019 Potency Batch ID: CAN_102319A Potency Method: JAOAC 2015.1

63.5%	Total THC
0.0688%	Total CBD
Samples: MBS-RBB-ZXS, TZC-WXS-PFD	



Analyte	Description	LOQ	RPD	Min.	Max.	Avg.	
∆9ТНС	Delta-9 Tetrahydrocannabinol	0.080	10.5	59.7	66.3	63.0	_
THCA	Tetrahydrocannabinolic acid	0.080	31.9	0.495	0.682	0.588	•
CBD	Cannabidiol	0.080	52.9	ND	0.138	0.0688	•
CBDA	Cannabidiolic acid	0.080	0.00	ND	ND	ND	
∆8THC	Delta-8 Tetrahydrocannabinol*	0.080	0.00	ND	ND	ND	
THCV	Tetrahydrocannabivarin*	0.080	7.66	0.604	0.652	0.628	•
CBG	Cannabigerol*	0.080	3.27	1.01	1.05	1.03	•
CBGA	Cannabigerolic acid*	0.080	8.34	0.542	0.589	0.565	•
CBC	Cannabichromene*	0.080	38.2	0.880	1.29	1.09	•
CBCA	Cannabichromenic acid*	0.080	0.00	ND	ND	ND	_
CBN	Cannabinol	0.080	24.3	0.302	0.385	0.343	•
Total THC	Δ9THC + (THCA × 0.877)		10.2	60.1	66.9	63.5	_
Total CBD	CBD + (CBDA × 0.877)		52.9	ND	0.138	0.0688	•
Total			9.79	63.5	71.1	67.3	

Compliance

Pesticides	Within limits	Analysis Date: 10/25/2019	Pass ⊘
Solvents	Within limits	Analysis Date: 10/24/2019	Pass ⊘
Potency	Within limits	Analysis Date: 10/23/2019	Pass ⊘

Orupe Hats Bryce Kidd, Ph.D. Lab Director

Aaron Troyer

Chief Science Officer



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Terpenes* Sample Data

Sample Type: Extracts Sample Date: 10/22/2019 Analysis Date: 10/23/2019 Report Date: 10/29/2019 Metrc Batch ID:

1A4010300016315000016871 Metrc Sample ID: 1A4010300016315000017401

Terpene Analysis Date: 10/28/2019 Terpene Batch ID: TRP_102519A Harvest/Process Date: 10/16/2019 Report ID:

LS-191029-14

Method: JAOAC 2015.1 Unit: %

Analyte	Avg.	Notes
β-Caryophyllene	1.14%	
β-Myrcene	0.559%	
Selinadiene	0.470%	
Humulene	0.407%	
Limonene	0.348%	
α-Bisabolol	0.270%	
a-Pinene	0.0873%	
Azulene	ND	
Borneol	ND	
Camphene	ND	
Camphore	ND	
Caryophyllene Oxide	ND	
Cedrol	ND	
Cymene	ND	
Eucalyptol	ND	
Fenchol	ND	
Fenchone	ND	
Geraniol	ND	
Geranyl Acetate	ND	
Guaiol	ND	
Isoborneol	ND	
Isopulegol	ND	
Linalool	ND	
Nerol	ND	
Pulegone	ND	
Sabinene	ND	
Sabinene Hydrate	ND	
Terpinolene	ND	
Valencene	ND	

Analyte	Avg.	Notes
cis-Nerolidol	ND	
trans-Nerolidol	ND	
∆3-Carene	ND	
a-Cedrene	ND	
a-Ocimene	ND	
α-Phellandrene	ND	
a-Terpinene	ND	
a-Terpineol	ND	
β-Farnesene 1	ND	
β-Farnesene 2	ND	
β-Ocimene	ND	
β-Pinene	ND	
γ-Terpinene	ND	
γ-Terpineol	ND	
Total	3.28%	



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Pesticides

Sample Data

Sample Date: 10/22/2019 Analysis Date: 10/23/2019 Report Date: 10/29/2019

Sample Type: Extracts

Metrc Batch ID:

1A4010300016315000016871 Metrc Sample ID: 1A4010300016315000017401 Harvest/Process Date: 10/16/2019 Report ID:

LS-191029-14

Pesticides Analysis Date: 10/25/2019 Pesticides Batch ID: PST_102519A Method: EN 15662 Unit: µg/g (ppm) Pass ⊘

Analyte	TZC-WXS-PFD	MBS-RBB-ZXS	Limits	LOQ	Notes	Status
Abamectin	ND	ND	0.5	0.1		Pass
Acephate	ND	ND	0.4	0.1		Pass
Acequinocyl	ND	ND	2.0	1.5		Pass
Acetamiprid	ND	ND	0.2	0.1		Pass
Aldicarb	ND	ND	0.4	0.1		Pass
Azoxystrobin	ND	ND	0.2	0.1		Pass
Bifenazate	ND	ND	0.2	0.1		Pass
Bifenthrin	ND	ND	0.2	0.1		Pass
Boscalid	ND	ND	0.4	0.1		Pass
Carbaryl	ND	ND	0.2	0.1		Pass
Carbofuran	ND	ND	0.2	0.1		Pass
Chlorantraniliprole	ND	ND	0.2	0.1		Pass
Chlorfenapyr	ND	ND	1.0	0.1		Pass
Chlorpyrifos	ND	ND	0.2	0.1		Pass
Clofentezine	ND	ND	0.2	0.1		Pass
Cyfluthrin	ND	ND	1.0	0.5		Pass
Cypermethrin	ND	ND	1.0	0.1		Pass
Daminozide	ND	ND	1.0	0.5		Pass
Diazinon	ND	ND	0.2	0.1		Pass
Dichlorvos (DDVP)	ND	ND	1.0	0.5		Pass
Dimethoate	ND	ND	0.2	0.1		Pass
Ethoprophos	ND	ND	0.2	0.1		Pass
Etofenprox	ND	ND	0.4	0.1		Pass
Etoxazole	ND	ND	0.2	0.1		Pass
Fenoxycarb	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

Analyte	TZC-WXS-PFD	MBS-RBB-ZXS	Limits	LOQ	Notes	Status
Metalaxyl	ND	ND	0.2	0.1		Pass
Methiocarb	ND	ND	0.2	0.1		Pass
Methomyl	ND	ND	0.4	0.1		Pass
Methyl Parathion	ND	ND	0.2	0.2		Pass
MGK-264	ND	ND	0.2	0.2		Pass
Myclobutanil	ND	ND	0.2	0.1		Pass
Naled	ND	ND	0.5	0.2		Pass
Oxamyl	ND	ND	1.0	0.1		Pass
Paclobutrazol	ND	ND	0.4	0.1		Pass
Permethrins	ND	ND	0.2	0.1		Pass
Phosmet	ND	ND	0.2	0.1		Pass
Piperonyl Butoxide	ND	ND	2.0	0.1		Pass
Prallethrin	ND	ND	0.2	0.1		Pass
Propiconazole	ND	ND	0.4	0.1		Pass
Propoxur	ND	ND	0.2	0.1		Pass
Pyrethrins	ND	ND	1.0	0.5		Pass
Pyridaben	ND	ND	0.2	0.1		Pass
Spinosad	ND	ND	0.2	0.1		Pass
Spiromesifen	ND	ND	0.2	0.1		Pass
Spirotetramat	ND	ND	0.2	0.1		Pass
Spiroxamine	ND	ND	0.4	0.1		Pass
Tebuconazole	ND	ND	0.4	0.1		Pass
Thiacloprid	ND	ND	0.2	0.1		Pass
Thiamethoxam	ND	ND	0.2	0.1		Pass
Trifloxystrobin	ND	ND	0.2	0.1		Pass



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Pesticides

Quality Control Data

Sample Type: Extracts Sample Date: 10/22/2019 Analysis Date: 10/23/2019 Report Date: 10/29/2019 Metrc Batch ID:

1A4010300016315000016871 Metrc Sample ID: 1A4010300016315000017401 Harvest/Process Date: 10/16/2019 Report ID:

LS-191029-14

Pesticides QC Analysis Date: 10/25/2019 Pesticides QC Batch ID: PST_102519A Method: EN 15662 Unit: µg/g (ppm)

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Abamectin	ND	0.1	0.693	1.00	69.3	50 - 150	
Acephate	ND	0.1	0.446	1.00	44.6	50 - 150	ME
Acequinocyl	ND	1.5	ND	1.00	0.00	50 - 150	LR
Acetamiprid	ND	0.1	0.952	1.00	95.2	50 - 150	
Aldicarb	ND	0.1	0.733	1.00	73.3	50 - 150	
Azoxystrobin	ND	0.1	0.806	1.00	80.6	50 - 150	
Bifenazate	ND	0.1	0.597	1.00	59.7	50 - 150	
Bifenthrin	ND	0.1	0.885	1.00	88.5	50 - 150	
Boscalid	ND	0.1	0.570	1.00	57.0	50 - 150	
Carbaryl	ND	0.1	0.720	1.00	72.0	50 - 150	
Carbofuran	ND	0.1	1.03	1.00	103	50 - 150	
Chlorantraniliprole	ND	0.1	1.15	1.00	115	50 - 150	
Chlorfenapyr	ND	0.1	0.641	1.00	64.1	50 - 150	
Chlorpyrifos	ND	0.1	0.693	1.00	69.3	50 - 150	
Clofentezine	ND	0.1	0.893	1.00	89.3	50 - 150	
Cyfluthrin	ND	0.5	0.644	1.00	64.4	50 - 150	
Cypermethrin	ND	0.1	0.995	1.00	99.5	50 - 150	
Daminozide	ND	0.5	ND	1.00	4.54	10 - 150	LR
Diazinon	ND	0.1	0.708	1.00	70.8	50 - 150	
Dichlorvos (DDVP)	ND	0.5	1.51	1.00	151	50 - 150	ME
Dimethoate	ND	0.1	0.838	1.00	83.8	50 - 150	
Ethoprophos	ND	0.1	0.508	1.00	50.8	50 - 150	
Etofenprox	ND	0.1	0.980	1.00	98.0	50 - 150	
Etoxazole	ND	0.1	0.957	1.00	95.7	50 - 150	
Fenoxycarb	ND	0.1	0.953	1.00	95.3	50 - 150	
Fenpyroximate	ND	0.1	0.710	1.00	71.0	50 - 150	
Fipronil	ND	0.1	0.937	1.00	93.7	50 - 150	
Flonicamid	ND	0.1	0.947	1.00	94.7	50 - 150	
Fludioxonil	ND	0.1	0.561	1.00	56.1	50 - 150	
Hexythiazox	ND	0.1	0.805	1.00	80.5	50 - 150	
Imazalil	ND	0.1	0.671	1.00	67.1	50 - 150	
Imidacloprid	ND	0.1	0.575	1.00	57.5	50 - 150	
Kresoxim-methyl	ND	0.1	0.649	1.00	64.9	50 - 150	
Malathion	ND	0.1	0.635	1.00	63.5	50 - 150	

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
Metalaxyl	ND	0.1	0.773	1.00	77.3	50 - 150	
Methiocarb	ND	0.1	0.905	1.00	90.5	50 - 150	
Methomyl	ND	0.1	0.718	1.00	71.8	50 - 150	
Methyl Parathion	ND	0.2	0.394	1.00	39.4	30 - 150	
MGK-264	ND	0.2	0.641	0.600	107	50 - 150	
Myclobutanil	ND	0.1	0.718	1.00	71.8	50 - 150	
Naled	ND	0.2	0.579	1.00	57.9	50 - 150	
Oxamyl	ND	0.1	0.718	1.00	71.8	50 - 150	
Paclobutrazol	ND	0.1	0.779	1.00	77.9	50 - 150	
Permethrins	ND	0.1	0.511	1.00	51.1	50 - 150	
Phosmet	ND	0.1	0.576	1.00	57.6	50 - 150	
Piperonyl Butoxide	ND	0.1	0.646	1.00	64.6	50 - 150	
Prallethrin	ND	0.1	0.667	1.00	66.7	50 - 150	
Propiconazole	ND	0.1	0.791	1.00	79.1	50 - 150	
Propoxur	ND	0.1	0.840	1.00	84.0	50 - 150	
Pyrethrins	ND	0.5	1.46	1.00	146	50 - 150	
Pyridaben	ND	0.1	0.879	1.00	87.9	50 - 150	
Spinosad	ND	0.1	0.933	1.00	93.3	50 - 150	
Spiromesifen	ND	0.1	0.991	1.00	99.1	50 - 150	
Spirotetramat	ND	0.1	0.683	1.00	68.3	50 - 150	
Spiroxamine	ND	0.1	0.508	1.00	50.8	50 - 150	
Tebuconazole	ND	0.1	0.644	1.00	64.4	50 - 150	
Thiacloprid	ND	0.1	0.880	1.00	88.0	50 - 150	
Thiamethoxam	ND	0.1	0.788	1.00	78.8	50 - 150	
Trifloxystrobin	ND	0.1	0.869	1.00	86.9	50 - 150	

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Farmer's Friend Extracts 6451 NE Colwood Wy Portland, OR 97218 503-442-8653

Residual Solvents

Sample Type: Extracts Sample Date: 10/22/2019 Analysis Date: 10/23/2019 Report Date: 10/29/2019

Metrc Batch ID:

1A4010300016315000016871 Metrc Sample ID: 1A4010300016315000017401

Solvents Analysis Date: 10/24/2019 Solvents Batch ID: RES_102419A Harvest/Process Date: 10/16/2019 Report ID:

LS-191029-14

Method: EPA 5021A Unit: μg/g (ppm)

Pass ⊘

Sample Data			Solvents batch	110. RES_102413A	UII	it: µ9/9 (ppin)	
Analyte	TZC-WXS-PFD	MBS-RBB-ZXS	RPD (%)	Limits	LOQ	Notes	Status
1,4-Dioxane	ND	ND	0.00	380.0	50.0		Pass
2-Butanol	ND	ND	0.00	5000.0	250.0		Pass
2-Ethoxyethanol	ND	ND	0.00	160.0	50.0		Pass
Acetone	<l0q< td=""><td><l0q< td=""><td>0.00</td><td>5000.0</td><td>250.0</td><td></td><td>Pass</td></l0q<></td></l0q<>	<l0q< td=""><td>0.00</td><td>5000.0</td><td>250.0</td><td></td><td>Pass</td></l0q<>	0.00	5000.0	250.0		Pass
Acetonitrile	<l0q< td=""><td><l0q< td=""><td>0.00</td><td>410.0</td><td>50.0</td><td></td><td>Pass</td></l0q<></td></l0q<>	<l0q< td=""><td>0.00</td><td>410.0</td><td>50.0</td><td></td><td>Pass</td></l0q<>	0.00	410.0	50.0		Pass
Benzene	ND	ND	0.00	2.0	2.0		Pass
Butanes	ND	ND	0.00	5000.0	250.0		Pass
Cumene	ND	ND	0.00	70.0	50.0		Pass
Cyclohexane	ND	ND	0.00	3880.0	50.0		Pass
Ethyl Acetate	<l0q< td=""><td><l0q< td=""><td>0.00</td><td>5000.0</td><td>250.0</td><td></td><td>Pass</td></l0q<></td></l0q<>	<l0q< td=""><td>0.00</td><td>5000.0</td><td>250.0</td><td></td><td>Pass</td></l0q<>	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	290.0	50.0		Pass
Isopropanol (2-Propanol)	<l0q< td=""><td><l0q< td=""><td>0.00</td><td>5000.0</td><td>50.0</td><td></td><td>Pass</td></l0q<></td></l0q<>	<l0q< td=""><td>0.00</td><td>5000.0</td><td>50.0</td><td></td><td>Pass</td></l0q<>	0.00	5000.0	50.0		Pass
Isopropyl Acetate	ND	ND	0.00	5000.0	250.0		Pass
Methanol	<l0q< td=""><td><l0q< td=""><td>0.00</td><td>3000.0</td><td>250.0</td><td></td><td>Pass</td></l0q<></td></l0q<>	<l0q< td=""><td>0.00</td><td>3000.0</td><td>250.0</td><td></td><td>Pass</td></l0q<>	0.00	3000.0	250.0		Pass
Dichloromethane	ND	ND	0.00	600.0	50.0		Pass
Pentanes	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	890.0	50.0		Pass
Xylenes	ND	ND	0.00	2170.0	50.0		Pass



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Residual Solvents

Quality Control Data

Sample Type: Extracts Sample Date: 10/22/2019 Analysis Date: 10/23/2019 Report Date: 10/29/2019 Metrc Batch ID:

1A4010300016315000016871 Metrc Sample ID: 1A4010300016315000017401 Harvest/Process Date: 10/16/2019 Report ID:

LS-191029-14

Solvents QC Analysis Date: 10/24/2019 Solvents QC Batch ID: RES_102419A Method: EPA 5021A Unit: μg/g (ppm)

Analyte	Blank	LOQ	LCS	LCS Spike	LCS Rec (%)	Limits (%)	Notes
1,4-Dioxane	ND	50.0	1090	1000	109	70 - 130	
2-Butanol	ND	250.0	1100	1000	110	70 - 130	
2-Ethoxyethanol	ND	50.0	1010	1000	101	70 - 130	
Acetone	ND	250.0	982	1000	98.2	70 - 130	
Acetonitrile	ND	50.0	1190	1000	119	70 - 130	
Benzene	ND	2.0	19.7	20.0	98.7	70 - 130	
Butanes	ND	250.0	1870	2000	93.5	70 - 130	
Cumene	ND	50.0	1140	1000	114	70 - 130	
Cyclohexane	ND	50.0	938	1000	93.8	70 - 130	
Ethyl Acetate	ND	250.0	1080	1000	108	70 - 130	
Ethyl Ether	ND	250.0	902	1000	90.2	70 - 130	
Ethylene Glycol	ND	250.0	545	1000	54.5	70 - 130	LR
Ethylene Oxide	ND	50.0	978	1000	97.8	70 - 130	
Heptane	ND	250.0	1020	1000	102	70 - 130	
Hexanes	ND	50.0	4950	5000	99.0	70 - 130	
Isopropanol (2-Propanol)	ND	50.0	1100	1000	110	70 - 130	
Isopropyl Acetate	ND	250.0	1130	1000	113	70 - 130	
Methanol	ND	250.0	968	1000	96.8	70 - 130	
Dichloromethane	ND	50.0	984	1000	98.4	70 - 130	
Pentanes	ND	250.0	2830	3000	94.2	70 - 130	
Propane	ND	250.0	687	1000	68.7	70 - 130	ME
Tetrahydrofuran	ND	50.0	1120	1000	112	70 - 130	
Toluene	ND	50.0	1100	1000	110	70 - 130	
Xylenes	ND	50.0	5000	4000	125	70 - 130	



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 Metrc Batch ID:

 1A4010300016315000016871

 Metrc Sample ID:

 1A4010300016315000017401

Harvest/Process Date: 10/16/2019 Report ID:

LS-191029-14

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