

Certificate of Analysis

Sample ID: ZTB24
 Report ID: TR-ZTB24

Testing for Compliance

Report Date: 10/21/2019

Grower's Name:

Zoe Therapeutics

Contact:

Chris Shirley
 chrisshirleyflc@gmail.com
 (541) 227-2071

Registration No:

AG-R1053208AHS

Harvest Lot Location Address:

1751 Draper Valley Rd.
 Selma, OR 97538

Date Sampled: 10/17/2019

Sampled by: Shuguo Ma

Sample Name: Batch 24

Sample Type: Hemp Flower

Harvest Time: N/A

Description of the sample, sampling condition. Environmental conditions that may impact interpretation of the test result:

Hemp buds. Sample appeared normal. There were no any environmental conditions that may impact interpretation of the test result.

Summary of Test Results

Items	Value	Pass/Fail
Total THC:	< LOQ	N/A
Total CBD:	23.4%	N/A
Water Activity:	0.522 at 22.8 °C	Pass
Moisture Content:	12.0%	Pass
Pesticides:	< LOQ	Pass

State limit for water activity is 0.65 and 15% for moisture content.

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable. These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Certificate of Analysis

Sample ID: ZTB24
 Report ID: TR-ZTB24

Testing for Compliance

Report Date: 10/21/2019

Moisture Content Analysis

Testing method: SOP-004 Analyzed by: Yujing Wen Analyzed date: 10/19/2019

Batch ID: MC101919

Analyte	Result
Water	12.0%

Water Activity Analysis

Testing method: SOP-009 Analyzed by: Yujing Wen Analyzed date: 10/19/2019

Batch ID: WA101919

Analyte	Result	Temperature
Water Activity	0.522	22.8°C

Potency Analysis

Testing method: SOP-002 Analyzed by: Yujing Wen Analyzed date: 10/18/2019

Batch ID: PO101819

Analyte	Result, %	LOQ, %
THCV	< LOQ	0.1
THCA	< LOQ	0.1
DEALTA9-THC	< LOQ	0.1
DEALTA8-THC	< LOQ	0.1
CBN	< LOQ	0.1
CBG	< LOQ	0.1
CBDA	26.0	0.1
CBD	0.6	0.1
CBC	0.2	0.1
Total THC: $\Delta 9+0.877 \times \text{THCA}$	< LOQ	N/A
Total CBD: $\text{CBD}+0.877 \times \text{CBDA}$	23.4	N/A
Total Cannabinoids:	26.8	N/A

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable.
 These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Certificate of Analysis

Sample ID: ZTB24
 Report ID: TR-ZTB24

Report Date: 10/21/2019

Pesticides Analysis (Unit: ppm)

Testing method: SOP-010 Analyzed by: Yujing Wen Analyzed date: 10/19/2019

Batch ID: PE101919

Analyte	Result	LOQ	State Action Level
Abamectin	< LOQ	0.25	0.5
Acephate	< LOQ	0.20	0.4
Acequinocyl	< LOQ	1.00	2.0
Acetamiprid	< LOQ	0.10	0.2
Aldicarb	< LOQ	0.20	0.4
Azoxystrobin	< LOQ	0.10	0.2
Bifenazate	< LOQ	0.10	0.2
Bifenthrin	< LOQ	0.10	0.2
Boscalid	< LOQ	0.20	0.4
Carbaryl	< LOQ	0.10	0.2
Carbofuran	< LOQ	0.10	0.2
Chloranthraniliprole	< LOQ	0.10	0.2
Chlorfenapyr	< LOQ	1.00	1.0
Chlorpyrifos	< LOQ	0.10	0.2
Clofentezine	< LOQ	0.10	0.2
Cyfluthrin	< LOQ	0.50	1.0
Cypermethrin	< LOQ	0.50	1.0
Daminozide	< LOQ	0.50	1.0
DDVP (Dichlorvos)	< LOQ	0.50	1.0
Diazinon	< LOQ	0.10	0.2
Dimethoate	< LOQ	0.10	0.2
Ethoprophos	< LOQ	0.10	0.2
Etofenprox	< LOQ	0.20	0.4
Etoxazole	< LOQ	0.10	0.2
Fenoxycarb	< LOQ	0.10	0.2
Fenpyroximate	< LOQ	0.20	0.4
Fipronil	< LOQ	0.20	0.4
Flonicamid	< LOQ	0.50	1.0
Fludioxonil	< LOQ	0.20	0.4
Hexythiazox	< LOQ	0.50	1.0

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable.
 These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Certificate of Analysis

Sample ID: ZTB24
 Report ID: TR-ZTB24

Testing for Compliance

Report Date: 10/21/2019

Imazalil	< LOQ	0.10	0.2
Imidacloprid	< LOQ	0.20	0.4
Kresoxim-Methyl	< LOQ	0.20	0.4
Malathion	< LOQ	0.10	0.2
Metalaxyl	< LOQ	0.10	0.2
Methiocarb	< LOQ	0.10	0.2
Methomyl	< LOQ	0.20	0.4
Methyl_Parathion	< LOQ	0.20	0.2
MGK-264	< LOQ	0.10	0.2
Myclobutanil	< LOQ	0.10	0.2
NALED (Dibrom)	< LOQ	0.25	0.5
Oxamyl	< LOQ	0.50	1.0
Paclobutrazol	< LOQ	0.20	0.4
Permethrins	< LOQ	0.10	0.2
Phosmet	< LOQ	0.10	0.2
Piperonyl_Butoxide	< LOQ	1.00	2.0
Prallethrin	< LOQ	0.10	0.2
Propiconazole	< LOQ	0.20	0.4
Propoxur	< LOQ	0.10	0.2
Pyrethrin	< LOQ	0.50	1.0
Pyridaben	< LOQ	0.10	0.2
Spinosad	< LOQ	0.10	0.2
Spiromesifen	< LOQ	0.10	0.2
Spirotetramat	< LOQ	0.10	0.2
Spiroxamine	< LOQ	0.20	0.4
Tebuconazole	< LOQ	0.20	0.4
Thiacloprid	< LOQ	0.10	0.2
Thiamethoxam	< LOQ	0.10	0.2
Trifloxystrobin	< LOQ	0.10	0.2

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable.
 These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Quality Control Results

Potency Analysis

Test Method: SOP-002 by LC/MS/MS

Blank: MBLK-PO101819		Date analyzed: 10/18/2019
Analyte	Result, %	LOQ, %
THCV	< LOQ	0.1
CBD	< LOQ	0.1
CBG	< LOQ	0.1
CBDA	< LOQ	0.1
CBN	< LOQ	0.1
Delta-9 THC	< LOQ	0.1
Delta-8 THC	< LOQ	0.1
CBC	< LOQ	0.1
THCA	< LOQ	0.1

LCS: LCS- PO101819		Date analyzed: 10/18/2019
Analyte	% Recovery	% Recovery Criteria
THCV	98	70-130
THCA	96	70-130
DEALTA9-THC	102	70-130
DEALTA8-THC	109	70-130
CBN	97	70-130
CBG	101	70-130
CBDA	73	70-130
CBD	103	70-130
CBC	112	70-130

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable. These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Quality Control Results

Pesticide Analysis (Unit: ppm)

Testing method: SOP-010 by LC/MS/MS

Blank: MBLK-PE101919		Date analyzed: 10/19/2019	
Analyte	Result	LOQ	State Action Level
Abamectin	< LOQ	0.25	0.5
Acephate	< LOQ	0.20	0.4
Acequinocyl	< LOQ	1.00	2.0
Acetamiprid	< LOQ	0.10	0.2
Aldicarb	< LOQ	0.20	0.4
Azoxystrobin	< LOQ	0.10	0.2
Bifenazate	< LOQ	0.10	0.2
Bifenthrin	< LOQ	0.10	0.2
Boscalid	< LOQ	0.20	0.4
Carbaryl	< LOQ	0.10	0.2
Carbofuran	< LOQ	0.10	0.2
Chloranthraniliprole	< LOQ	0.10	0.2
Chlorfenapyr	< LOQ	1.00	1.0
Chlorpyrifos	< LOQ	0.10	0.2
Clofentezine	< LOQ	0.10	0.2
Cyfluthrin	< LOQ	0.50	1.0
Cypermethrin	< LOQ	0.50	1.0
Daminozide	< LOQ	0.50	1.0
DDVP (Dichlorvos)	< LOQ	0.50	1.0
Diazinon	< LOQ	0.10	0.2
Dimethoate	< LOQ	0.10	0.2
Ethoprophos	< LOQ	0.10	0.2
Etofenprox	< LOQ	0.20	0.4
Etoxazole	< LOQ	0.10	0.2
Fenoxycarb	< LOQ	0.10	0.2
Fenpyroximate	< LOQ	0.20	0.4

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable.
 These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Certificate of Analysis

Sample ID: ZTB24
 Report ID: TR-ZTB24

Testing for Compliance

Report Date: 10/21/2019

Fipronil	< LOQ	0.20	0.4
Flonicamid	< LOQ	0.50	1.0
Fludioxonil	< LOQ	0.20	0.4
Hexythiazox	< LOQ	0.50	1.0
Imazalil	< LOQ	0.10	0.2
Imidacloprid	< LOQ	0.20	0.4
Kresoxim-Methyl	< LOQ	0.20	0.4
Malathion	< LOQ	0.10	0.2
Metalaxyl	< LOQ	0.10	0.2
Methiocarb	< LOQ	0.10	0.2
Methomyl	< LOQ	0.20	0.4
Methyl_Parathion	< LOQ	0.20	0.2
MGK-264	< LOQ	0.10	0.2
Myclobutanil	< LOQ	0.10	0.2
NALED (Dibrom)	< LOQ	0.25	0.5
Oxamyl	< LOQ	0.50	1.0
Paclobutrazol	< LOQ	0.20	0.4
Permethrins	< LOQ	0.10	0.2
Phosmet	< LOQ	0.10	0.2
Piperonyl_Butoxide	< LOQ	1.00	2.0
Prallethrin	< LOQ	0.10	0.2
Propiconazole	< LOQ	0.20	0.4
Propoxur	< LOQ	0.10	0.2
Pyrethrin	< LOQ	0.50	1.0
Pyridaben	< LOQ	0.10	0.2
Spinosad	< LOQ	0.10	0.2
Spiromesifen	< LOQ	0.10	0.2
Spirotetramat	< LOQ	0.10	0.2
Spiroxamine	< LOQ	0.20	0.4
Tebuconazole	< LOQ	0.20	0.4
Thiacloprid	< LOQ	0.10	0.2
Thiamethoxam	< LOQ	0.10	0.2
Trifloxystrobin	< LOQ	0.10	0.2

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable.
 These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Certificate of Analysis

Sample ID: ZTB24
 Report ID: TR-ZTB24

Testing for Compliance

Report Date: 10/21/2019

LCS: LCS-PE101919		Date analyzed: 10/19/2019		
Analyte	% Recovery	% Recovery Criteria	LOQ	State Action Level
Abamectin	103	10-190	0.25	0.5
Acephate	89	30-170	0.20	0.4
Acequinocyl	91	10-190	1.00	2.0
Acetamiprid	82	30-170	0.10	0.2
Aldicarb	115	30-170	0.20	0.4
Azoxystrobin	108	30-170	0.10	0.2
Bifenazate	111	10-190	0.10	0.2
Bifenthrin	58	30-170	0.10	0.2
Boscalid	106	30-170	0.20	0.4
Carbaryl	99	30-170	0.10	0.2
Carbofuran	116	30-170	0.10	0.2
Chloranthraniliprole	139	30-170	0.10	0.2
Chlorfenapyr	140	10-190	1.00	1.0
Chlorpyrifos	81	30-170	0.10	0.2
Clofentezine	106	30-170	0.10	0.2
Cyfluthrin	92	30-170	0.50	1.0
Cypermethrin	98	30-170	0.50	1.0
Daminozide	122	30-170	0.50	1.0
DDVP (Dichlorvos)	126	30-170	0.50	1.0
Diazinon	139	30-170	0.10	0.2
Dimethoate	100	30-170	0.10	0.2
Ethoprophos	129	30-170	0.10	0.2
Etofenprox	106	30-170	0.20	0.4
Etoxazole	143	30-170	0.10	0.2
Fenoxycarb	120	30-170	0.10	0.2
Fenpyroximate	152	30-170	0.20	0.4
Fipronil	139	10-190	0.20	0.4
Flonicamid	107	10-190	0.50	1.0
Fludioxonil	108	10-190	0.20	0.4
Hexythiazox	87	30-170	0.50	1.0
Imazalil	131	30-170	0.10	0.2

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable.
 These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Certificate of Analysis

Sample ID: ZTB24
 Report ID: TR-ZTB24

Testing for Compliance

Report Date: 10/21/2019

Imidacloprid	86	30-170	0.20	0.4
Kresoxim-Methyl	141	30-170	0.20	0.4
Malathion	130	30-170	0.10	0.2
Metalaxyl	141	30-170	0.10	0.2
Methiocarb	109	30-170	0.10	0.2
Methomyl	96	30-170	0.20	0.4
Methyl_Parathion	71	10-190	0.20	0.2
MGK-264	57	10-190	0.10	0.2
Myclobutanil	126	30-170	0.10	0.2
NALED (Dibrom)	78	30-170	0.25	0.5
Oxamyl	75	10-190	0.50	1.0
Paclobutrazol	119	30-170	0.20	0.4
Permethrins	111	30-170	0.10	0.2
Phosmet	113	30-170	0.10	0.2
Piperonyl_Butoxide	99	30-170	1.00	2.0
Prallethrin	113	30-170	0.10	0.2
Propiconazole	139	30-170	0.20	0.4
Propoxur	112	30-170	0.10	0.2
Pyrethrin	125	30-170	0.50	1.0
Pyridaben	148	30-170	0.10	0.2
Spinosad	141	10-190	0.10	0.2
Spiromesifen	136	30-170	0.10	0.2
Spirotetramat	99	30-170	0.10	0.2
Spiroxamine	134	30-170	0.20	0.4
Tebuconazole	119	30-170	0.20	0.4
Thiacloprid	74	30-170	0.10	0.2
Thiamethoxam	86	30-170	0.10	0.2
Trifloxystrobin	106	30-170	0.10	0.2

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable.
 These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.

Certificate of Analysis

Sample ID: ZTB24
Report ID: TR-ZTB24

Testing for Compliance

Report Date: 10/21/2019

Attachments:

Note: if answer is Yes for following items, statement is attached. Otherwise, no attachment.

Deviation occurred in test? Answer: No	Opinion and interpretation provided? Answer: No
--	---

Comments: "N/A" if there is no comment made
N/A

Shuguo Ma, Ph.D, Quality Manager

Signature: 

Date: 21Oct2019

LOQ: the limit of quantitation, which is the lowest amount of analyte in a sample that can be quantitatively determined by an analytical method with a suitable precision and accuracy. N/A: not applicable. These results are specific to the sample included in this report. The report may not be reproduced except in full, with written approval from MW Labs.