

# Hawaiian Haze

FARM BILL  
COMPLIANTSAMPLE ID  
**145023**SAMPLE NAME  
**Hawaiian Haze**MATRIX  
**Flower**COLLECTED  
**11/12/2019 15:25**RECEIVED  
**11/12/2019 15:25**DISTRIBUTOR INFO  
**Top Shelf Hemp Co**CULTIVATOR INFO  
**Kind Remedies****TOTAL  
CBD****11.66 %****TOTAL  
THC****0.0605 %****TOTAL  
CANNABINOIDS****13.75 %****TOTAL  
TERPENES****1.23 %****Chemical Residue**

No Analytes Detected

**Chemical Residue GC**

No Analytes Detected

**Microbial Plating**

Yeast: 2.313E+4 CFU/g, APC: 77.00 CFU/g, Mold: 39.00 CFU/g

**Moisture Content**

Moisture Content: 10.54 %

**Heavy Metals**

Cadmium: 0.0963 ug/g, Lead: 0.0534 ug/g, Mercury: &lt;LL0Q



Indicates that the hemp product passes  
some of the strictest testing standards available  
for cannabis and hemp.

### CANNABINOID ANALYSIS

- ❶ Total THC,CBD value(s) are corrected for moisture, and the acids have undergone a calculation to mimic decarboxylation
- ❷ Total Cannabinoid value(s) are corrected for moisture content
- ❸ Individual Analyte value(s) are corrected for moisture content

TOTAL THC: 0.6049 mg/g (0.0605 %)  
 TOTAL CBD: 116.6 mg/g (11.66 %)  
 TOTAL CANNABINOIDS: 137.5 mg/g (13.75 %)

UNIT OF MEASUREMENT: Milligrams per Gram(mg/g)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
THCa	0.6898 mg/g (0.0690 %)	0.2500	0.5000	CBDv	ND	0.2500	0.5000
D9THC	ND	0.2500	0.5000	CBGa	3.813 mg/g (0.3813 %)	0.2500	0.5000
D8THC	ND	0.2500	0.5000	CBG	ND	0.2500	0.5000
THCv	ND	0.2500	0.5000	CBN	ND	0.2500	0.5000
CBDa	133.0 mg/g (13.30 %)	0.2500	0.5000	CBC	ND	0.2500	0.5000
CBD	ND	0.2500	0.5000				

#### ADDITIONAL INFORMATION

Method: SOP-TECH-001  
 Instrument: UPLC-DAD

Sample Prepped 11/14/2019 13:48  
 Sample Analyzed 11/14/2019 15:05

Sample Approved 11/15/2019 08:55

### CHEMICAL RESIDUE ANALYSIS

UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Abamectin	ND	0.0200	0.0400	0.1000	Acephate	ND	0.0200	0.0400	0.1000
Acequinocyl	ND	0.0200	0.0400	0.1000	Acetamiprid	ND	0.0200	0.0400	0.1000
Aldicarb	ND	0.0200	0.0400	0.0	Azoxystrobin	ND	0.0200	0.0400	0.2000
Bifenazate	ND	0.0200	0.0400	0.1000	Bifenthrin	ND	0.0200	0.0400	3.000
Boscalid	ND	0.0200	0.0400	0.1000	Carbaryl	ND	0.0200	0.0400	0.5000
Carbofuran	ND	0.0200	0.0400	0.0	Chlorantraniliprole	ND	0.0200	0.0400	10.00
Chlorfenapyr	ND	0.0200	0.0400	0.0	Chlorpyrifos	ND	0.0200	0.0400	0.0
Clofentezine	ND	0.0200	0.0400	0.1000	Coumaphos	ND	0.0200	0.0400	0.0
Cyfluthrin	ND	0.1000	0.2000	2.000	Cypermethrin	ND	0.0400	0.1000	1.000
Daminozide	ND	0.0200	0.0400	0.0	Diazinon	ND	0.0200	0.0400	0.1000
Dichlorvos	ND	0.0200	0.0400	0.0	Dimethoate	ND	0.0200	0.0400	0.0
Dimethomorph	ND	0.0196	0.0392	2.000	Ethoprophos	ND	0.0200	0.0400	0.0
Etofenprox	ND	0.0200	0.0400	0.0	Etiozole	ND	0.0200	0.0400	0.1000
Fenhexamid	ND	0.0200	0.0400	0.1000	Fenoxycarb	ND	0.0200	0.0400	0.0
Fenpyroximate	ND	0.0200	0.0400	0.1000	Fipronil	ND	0.0200	0.0400	0.0
Flonicamid	ND	0.0200	0.0400	0.1000	Fludioxonil	ND	0.0200	0.0400	0.1000
Hexythiazox	ND	0.0200	0.0400	0.1000	Imazalil	ND	0.0200	0.0400	0.0
Imidacloprid	ND	0.0200	0.0400	5.000	KresoximMethyl	ND	0.0200	0.0400	0.1000
Malathion	ND	0.0200	0.0400	0.5000	Metalaxyl	ND	0.0200	0.0400	2.000
Methiocarb	ND	0.0200	0.0400	0.0	Methomyl	ND	0.0200	0.0400	1.000
Mevinphos	ND	0.0200	0.0400	0.0	Myclobutanil	ND	0.0200	0.0400	0.1000

Naled	ND	0.0200	0.0400	0.1000
Paclobutrazol	ND	0.0200	0.0400	0.0
Phosmet	ND	0.0200	0.0400	0.1000
Prallethrin	ND	0.0200	0.0400	0.1000
Propoxur	ND	0.0200	0.0400	0.0
Pyridaben	ND	0.0200	0.0400	0.1000
Spinosad	ND	0.0198	0.0395	0.1000
Spirotetramat	ND	0.0200	0.0400	0.1000
Tebuconazole	ND	0.0200	0.0400	0.1000
Thiamethoxam	ND	0.0200	0.0400	5.000

Oxamyl	ND	0.0200	0.0400	0.5000
Permethrins	ND	0.0198	0.0396	0.5000
PiperonylButoxide	ND	0.0200	0.0400	3.000
Propiconazole	ND	0.0200	0.0400	0.1000
Pyrethrins	ND	0.0078	0.0158	0.5000
Spinetoram	ND	0.0200	0.0400	0.1000
Spiromesifen	ND	0.0200	0.0400	0.1000
Spiroxamine	ND	0.0200	0.0400	0.0
Thiacloprid	ND	0.0200	0.0400	0.0
Trifloxystrobin	ND	0.0200	0.0400	0.1000

### ADDITIONAL INFORMATION

Method: SOP-TECH-002  
Instrument: LC-MS/MS

Sample Prepped 11/14/2019 12:27  
Sample Analyzed 11/14/2019 15:05

Sample Approved 11/15/2019 16:02

## CHEMICAL RESIDUE GC ANALYSIS

UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Captan	ND	0.1000	0.2000	0.7000
MethylParathion	ND	0.0400	0.1000	0.0

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Chlordane	ND	0.0400	0.1000	0.0
PCNB	ND	0.0200	0.0400	0.1000

### ADDITIONAL INFORMATION

Method: SOP-TECH-010  
Instrument: GC-MS/MS

Sample Prepped 11/14/2019 12:27  
Sample Analyzed 11/14/2019 15:05

Sample Approved 11/15/2019 19:15

## TERPENE ANALYSIS

UNIT OF MEASUREMENT: Milligrams per Gram(mg/g)

ANALYTE	RESULT	LOD	LLOQ
Limonene	0.5169 mg/g (0.0517 %)	0.0200	0.0400
Gamma-Terpinene	0.1028 mg/g (0.0103 %)	0.0200	0.0400
Linalool	0.3498 mg/g (0.0350 %)	0.0200	0.0400
Alpha-Bisabolol	0.4006 mg/g (0.0401 %)	0.0200	0.0400
Alpha-Pinene	1.846 mg/g (0.1846 %)	0.0200	0.0400
Eucalyptol	ND (ND)	0.0200	0.0400
Terpinolene	0.0726 mg/g (0.0073 %)	0.0200	0.0400
B-Myrcene	5.293 mg/g (0.5293 %)	0.0200	0.0400
Alpha-Terpinene	ND	0.0200	0.0400
Guaiol	ND	0.0200	0.0400
Caryophyllene Oxide	0.1014 mg/g (0.0101 %)	0.0200	0.0400

ANALYTE	RESULT	LOD	LLOQ
Delta-3-Carene	ND	0.0200	0.0400
Nerolidol	0.4178 mg/g (0.0418 %)	0.0200	0.0400
Geraniol	ND	0.0200	0.0400
Isopulegol	ND	0.0200	0.0400
Beta-Pinene	0.9249 mg/g (0.0925 %)	0.0200	0.0400
Ocimene	ND	0.0200	0.0400
P-Cymene	0.4888 mg/g (0.0489 %)	0.0200	0.0400
Beta-Caryophyllene	1.185 mg/g (0.1185 %)	0.0200	0.0400
Alpha-Humulene	0.5127 mg/g (0.0513 %)	0.0200	0.0400
Camphene	0.0952 mg/g (0.0095 %)	0.0200	0.0400

### ADDITIONAL INFORMATION

Method: SOP-TECH-004  
Instrument: HS-GC-FID

Sample Prepped 11/14/2019 16:31  
Sample Analyzed 11/14/2019 16:31

Sample Approved 11/15/2019 14:50

### MICROBIAL PLATE ANALYSIS

UNIT OF MEASUREMENT: Colony Forming Unit(CFU)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
Coliform	ND	0.0	10.00	E.coli	ND	0.0	10.00
Mold	39.00 CFU/g	0.0	10.00	Yeast	2.313E+4 CFU/g	0.0	10.00
APC	77.00 CFU/g	0.0	10.00				

#### ADDITIONAL INFORMATION

Method: SOP-TECH-005, SOP-TECH-006      Sample Prepped 11/14/2019 15:16      Sample Approved 11/18/2019 17:17  
Instrument: PetriFilm/Incubator      Sample Analyzed 11/18/2019 12:49

### MOISTURE CONTENT ANALYSIS

UNIT OF MEASUREMENT: Percent Moisture Content(%)

ANALYTE	RESULT	LOD	LLOQ	ANALYTE	RESULT	LOD	LLOQ
Moisture Content	10.54 %	0.0	0.0				

#### ADDITIONAL INFORMATION

Method: SOP-TECH-017      Sample Prepped 11/14/2019 16:37      Sample Approved 11/14/2019 18:15  
Instrument: Moisture Analyzer      Sample Analyzed 11/14/2019 16:38

### HEAVY METALS ANALYSIS

UNIT OF MEASUREMENT: Micrograms per Gram(ug/g)

ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL	ANALYTE	RESULT	LOD	LLOQ	ACTION LEVEL
Arsenic	ND	0.0200	0.0500	0.2000	Cadmium	0.0963 ug/g	0.0050	0.0500	0.2000
Lead	0.0534 ug/g	0.0100	0.0500	0.5000	Mercury	<LLOQ	0.0030	0.0500	0.1000

#### ADDITIONAL INFORMATION

Method: SOP-TECH-013      Sample Prepped 11/14/2019 09:28      Sample Approved 11/15/2019 13:36  
Instrument: ICP-MS      Sample Analyzed 11/15/2019 07:26

This report applies to the sample investigated and is not necessarily indicative of the quality or condition of apparently identical or similar products. This report provides technical results for a specific sample and the report shall not be altered, modified, supplemented, or abstracted in any manner. Any violation of these conditions renders the report and its results void.

All LQC samples required by state regulations were performed and met the acceptance criteria.

**DATA REVIEWED AND APPROVED BY**11/20/2019

Swetha Kaul, PhD  
Chief Scientific Officer

Date