AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

Heavy Metals

CS0449_212041-009_HM

Client Sample ID: 6004217-002
Sample Description: Humble Honey 33.3mg/ml
Receive sample: 20-Jan-21
Initiate analyses: 22-Jan-21

[redacted]

Analyst: Tia Young	Analyst Signature:	Analyst Date: Jan 27, 2021
Reviewed by: Helen Goudreau	Reviewer Signature:	Reviewer Date: Jan 27, 2021

Test Type: Heavy Metal Content
Technical Procedure: A0036-01

Results:

Chemical Analyzed	Concentration (µg/g)
Arsenic (As 75)	<0.001
Cadmium (Cd 111)	<0.001
Cadmium (Cd 114)	0.001
Mercury (Hg 200)	<0.001
Mercury (Hg 202)	<0.001
Lead (Pb 206)	0.011
Lead (Pb 207)	0.011
Lead (Pb 208)	0.011

PJLA Testing ISO/IEC 17025:2017 Accreditation # 101161

Concentration of metals was determined by ICP-MS with an Avazyme method utilizing certified reference standards for each chemical analyzed.
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Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

CS0449_212041-009_P

Pesticides

[redacted]

Client Sample ID: 6004217-002

Sample Description: Humble Honey 33.3mg/ml

Received sample: 20-Jan-21

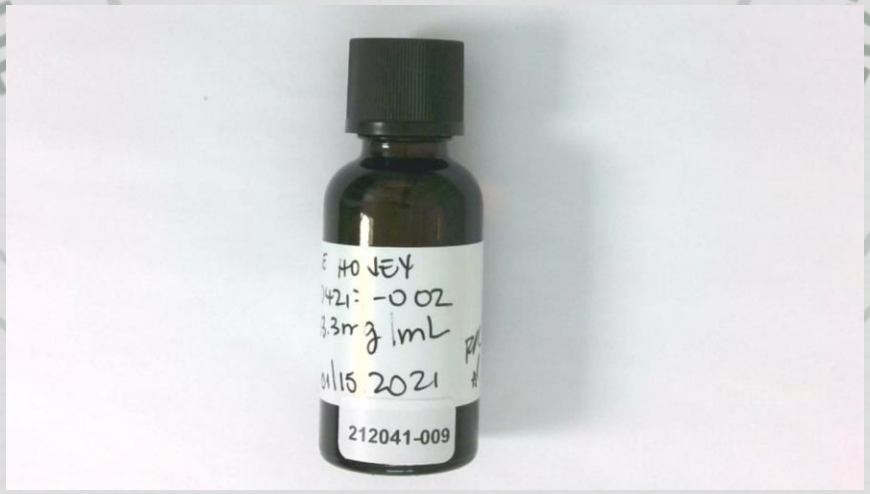
Initiated analyses: 22-Jan-21

Analyst: Harris Middlesworth	Signature:	Date: Jan 22, 2021
Reviewed by: Caroline Vieregge	Signature:	Date: Jan 22, 2021

Analysis of concentration (conc.) of Pesticides in customer supplied material with UHPLC-MS/MS.

Results

Pesticide	Concentration (ppb)
NO PESTICIDE DETECTED	None*



* None = not detected at or above the LOQ (limit of quantitation); LOQs on pages 2 and 3

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PJLA Testing ISO/IEC 17025:2017 Accreditation # 101161

AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

CS0449_212041-009_P

Pesticides

[redacted]

Client Sample ID: 6004217-002

[redacted]

Sample Description: Humble Honey 33.3mg/ml

[redacted]

Pesticides in the method and the limits of quantitation (LOQ)

Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb
2,4-D	10	Carbetamide	10	Dimethomorph I	10	Fluazifop	10
3-hydroxycarbofuran	10	Carbofuran	10	Dimethomorph II	10	Fluazinam	10
6-Benzylaminopurine	10	Carboxin	10	Dimoxystrobin	10	Fludioxonil	10
Abamectin B1a	300	Carfentrazone-ethyl	10	Diniconazole	10	Flufenacet	10
Acephate	10	Chlorantraniliprole	10	Dinotefuran	10	Flufenoxuron	10
Acequinocyl	30	Chlorfenapyr	10	Dioxacarb	10	Flumetralin	10
Acetamiprid	10	Chlorfluazuron	10	Diuron	10	Flumioxazin	30
Acibenzolar-S-methyl	30	Chlorothalonil	10	Doramectin	300	Fluometuron	10
Aldicarb	300	Chlorotoluron	10	Emamectin B1a	10	Fluopyram	10
Aldicarb Sulfone	10	Chloroxuron	10	Endosulfan sulfate	10	Fluoxastrobin	10
Aldicarb Sulfoxide	10	Chlorpyrifos	10	Epoxiconazole	10	Fluquinconazole	10
Allethrin	10	Cinerin I	300	Eprinomectin	10	Fluridone	10
Ametryn	10	Cinerin II	300	Etaconazole I	10	Flusilazole	10
Aminocarb	10	Clethodim I	10	Etaconazole II	10	Flutolanil	10
Aminopyralid	30	Clethodim II	10	Ethiofencarb	10	Flutraifol	10
Amitraz	10	Clofentazine	10	Ethiprole	10	Fluxapyroxad	10
Atrazine	10	Clomazone	10	Ethirimol	10	Fomesafen	10
Azadirachtin	10	Clothianidin	10	Ethoprophos	10	Forchlorfenuron	10
Azoxystrobin	10	Coumaphos	10	Etofenprox	10	Formetanate	10
Benalaxyl	10	Cyazofamid	10	Etoxazole	10	Fuberdiazole	10
Bendiocarb	10	Cycluron	10	Etridiazole	30	Furalaxyl	10
Benzovindiflupyr	10	Cymoxanil	10	Fenamidone	10	Furathiocarb	10
Benzoximate	10	Cypermethrin	30	Fenarimol	10	Hexaconazole	10
Bifenazate	30	Cyproconazole I	10	Fenazaquin	10	Hexaflumuron	10
Bifenthrin	10	Cyproconazole II	10	Fenbuconazole	10	Hexythiazox	10
Bitertanol	10	Cyprodinil	10	Fenhexamid	10	Imazalil	10
Boscalid	10	Cyromazine	10	Fenobucarb	10	Imidacloprid	10
Bromuconazole I	10	Daminozide	100	Fenoxycarb	10	Indoxacarb	10
Bromuconazole II	10	Deltamethrin	10	Fenpropimorph	10	Ipconazole	10
Bupirimate	10	Desmedipham	10	Fenpyroximate	10	Iprodione	10
Buprofezin	10	Diazinon	10	Fensulfothion	10	Iprovalicarb	10
Butafenacil	10	Dichlorvos	10	Fenthion	10	Isoprocarb	10
Butocarboxim	10	Dicrotophos	10	Fenuron	10	Isoproturon	10
Butoxycarboxim	10	Diethofencarb	10	Fipronil	10	Ivermectin	300
Captan	10	Difenoconazole	10	Fipronil Desulfinyl	10	Jasmolin I	10
Carbaryl	10	Diflubenzuron	10	Fipronil Sulfone	10	Jasmolin II	10
Carbendazim	10	Dimethoate	10	Flonicamid	10	Kinoprene	300

Certified by AVAZYME AGRICULTURE AND FOOD TESTING SOLUTIONS

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AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

CS0449_212041-009_P

Pesticides

[redacted]

Client Sample ID: 6004217-002

Sample Description: Humble Honey 33.3mg/ml

Pesticides in the method and the limits of quantitation (LOQ)

Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb
Kresoxym-methyl	10	Oxadixyl	10	Siduron	10	Triflumizole	10
Linuron	10	Oxamyl	10	Simetryn	10	Triflumuron	10
Lufenuron	10	Oxathiapiprolin	10	Spinetoram J	10	Triticonazole	10
Malathion	10	Paclobutrazol	10	Spinetoram L	10	Vamidothion	10
Mandipropamid	10	Penconazole	10	Spinosyn A	10	Zoxamide	10
Mefenacet	10	Pencycuron	10	Spinosyn D	10		
Mepanipyrim	10	Pentachloronitrobenzene	10	Spirodiclofen	10		
Mepronil	10	Permethrin	30	Spiromesifen	300		
Mesotrione	30	Phenothrin	10	Spirotetramat	10		
Metaflumizone	10	Phosmet	10	Spiroxamine I	10		
Metalaxyl	10	Picoxystrobin	10	Spiroxamine II	10		
Metconazole	10	Piperonyl Butoxide	10	Sulfentrazone	10		
Methabenzthiazuron	10	Pirimicarb	10	Tebuconazole	10		
Methamidophos	30	Prallethrin	10	Tebufenozide	10		
Methiocarb	10	Prochloraz	10	Tebufenpyrad	10		
Methiocarb Sulfoxide	10	Procymidone	300	Tebuthiuron	10		
Methomyl	10	Promecarb	10	Teflubenzuron	10		
Methoprotryne	10	Prometon	10	Tembotrione	10		
Methoxyfenozide	10	Prometryne	10	Temephos	10		
Methyl parathion	10	Propamocarb	10	Terbumeton	10		
Metobromuron	10	Propargite	10	Terbutryn	10		
Metolachlor	10	Propham	100	Tetrachlorvinphos	10		
Metribuzin	10	Propiconazole	10	Tetraconazole	10		
Mevinphos I	10	Propoxur	10	Tetramethrin I	30		
Mevinphos II	10	Prothioconazole	30	Tetramethrin II	30		
Mexacarbate	10	Pymetrozine	10	Thiabendazole	10		
MGK-264 I	30	Pyracarbolid	10	Thiacloprid	10		
MGK-264 II	30	Pyraclostrobin	10	Thiamethoxam	10		
Monocrotophos	10	Pyrethrin I	30	Thidiazuron	10		
Monolinuron	10	Pyrethrin II	30	Thiencarbazone-Methyl	10		
Myclobutanil	10	Pyridaben	10	Thiobencarb	10		
Naled	30	Pyrimethanil	30	Thiophanate-methyl	10		
Neburon	10	Pyriproxyfen	10	Triadimefon	10		
Nitenpyram	10	Quinoxyfen	10	Triadimenol	10		
Novaluron	10	Resmethrin	10	Trichlorfon	10		
Nuarimol	30	Rotenone	10	Tricyclazole	10		
Omethoate	10	Secbumeton	10	Trifloxystrobin	10		

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Χαρολινε ςιερεγγε

Standard Pathogen Panel

AVAZYME
Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS # CS0449-212041-009-SP

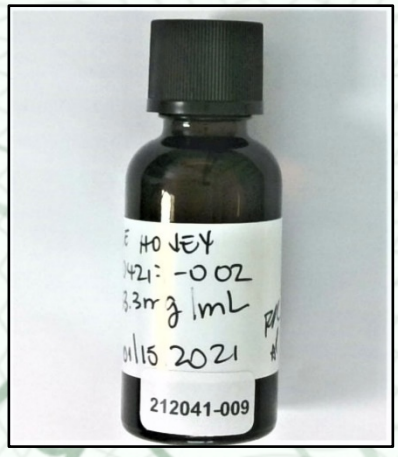
Sponsor Sample ID: 6004217-002

Sample Description: Humble Honey 33.3 mg/ml

Company Name: [redacted]

Address Line 1: [redacted]

Address Line 2: [redacted]



Date Received: 20-Jan-21

Analyses Initiated: 20-Jan-21

Analyst: Brooke Brannen	Analyst Signature: Brooke Brannen (Feb 1, 2021 11:00 EST)	Analyst Date: Feb 1, 2021
Reviewer: Jen Heath	Reviewer Signature:	Reviewer Date: Feb 1, 2021

Initial Tests:

Test Name (AOAC Method Identification*)	Test Results (CFU/g)	Comments
E. coli (AOAC 991.14)	<10	None.
Coliform Count (AOAC 991.14)	<10	None.
Enterobacteriaceae Count (AOAC 2003.01)	<10	None.
S. aureus Count (AOAC 2003.11)	<10	None.
Yeast Count (AOAC 2014.05)	<10	None.
Mold Count (AOAC 2014.05)	<10	None.

***AOAC Number is a standard identification number that identifies the testing medium used.**

Test Name (Method Identification)	Test Results	Comments
Listeria (FDA BAM Chapter 10)	Negative	No secondary testing required.

Secondary Tests:

Test Name (Method Identification)	Test Status	Test Results
E. coli Confirmation (FDA BAM Ch. 4/4a ; API 20E Serological Confirmation)	Not Required	N/A
Salmonella Confirmation (AOAC 2014.01)	Not Required	N/A
Listeria Confirmation (FDA BAM Ch. 10 ; API Listeria – Serological Confirmation)	Not Required	N/A

All microbiology test systems are validated on the day of use with appropriate positive and negative controls. Avazyme cannot warrant the absolute negative presence of any microorganism, only attest that the test was carried out via appropriate methods and shows a negative result.

Testing was performed according to established AOAC, BAM, and API methods. Using these methods, none of the following organisms were detected at or above our limit of detection:

Listeria monocytogenes, *E. coli* O157:H7, *Staphylococcus aureus*, and *Salmonella enterica*.

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Accreditation # 101161

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Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

Cannabinoids

CS0449_212041-009_C

Client Sample ID: 6004217-002

[redacted]

Sample Description: Humble Honey 33.3mg/ml

Receive sample: 20-Jan-21

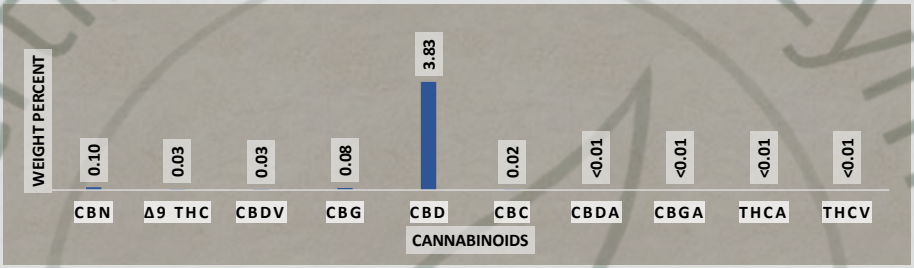
Initiate analyses: 21-Jan-21

Analyst:	Analyst Signature:	Analyst Date:
Tonya Powell		Jan 26, 2021
Reviewed by: Dave Minser	**Reviewer Signature:**	**Reviewer Date:** Jan 26, 2021

Test Type: Total Cannabinoid Profile

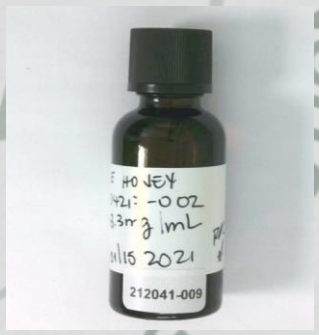
Technical Procedure: TP A0033 & A0049

Results:



Cannabinoid	MoU (+/-)	% Weight	Concentration (mg/mL)
CBN	0.0039	0.10	0.93
Δ9 THC	0.0012	0.03	0.29
CBDV	0.0012	0.03	0.28
CBG	0.003	0.08	0.71
CBD	0.153	3.83	36.40
CBC	0.0008	0.02	0.20
CBDA	NA	<0.01	<0.095
CBGA	NA	<0.01	<0.095
THCA	NA	<0.01	<0.095
THCV	NA	<0.01	<0.095
	*** total THC**	**0.03**	**0.29**
	*** total CBD**	**3.83**	**36.40**
	*** total CBG**	**0.08**	**0.71**
	total	**4.09**	**38.81**
		ratio: Total CBD/THC	**127.7**

density = 0.95



* total THC is calculated by Δ9 THC + 0.877xTHCA *total CBD is calculated by CBD + 0.877xCBDA

*total CBG is calculated by CBG + 0.878xCBGA

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MoU "measurement of uncertainty"

Concentration of cannabinoids were determined by Shimadzu LC2030 Plus with an Avazyme intra lab validated method utilizing certified reference standards for each chemical analyzed.

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ISO/IEC 17025:2017
Accreditation # 101161

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Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS
CS0449_212041-009_M

Mycotoxins

Client Sample ID:	**6004217-002**	**CS0449**
Sample Description:	**Humble Honey 33.3mg/ml**	[redacted]
Receive sample:	**20-Jan-21**	[redacted]
Initiate analyses:	**21-Jan-21**	[redacted]

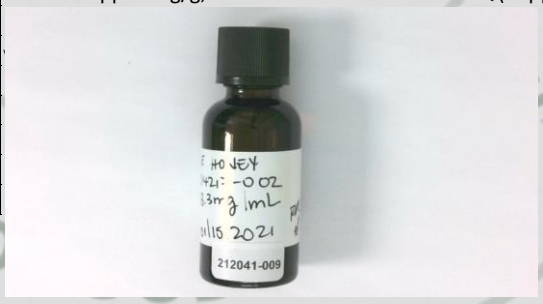
Analyst: Jacob Edwards	**Signature:** Jacob Edwards (Jan 26, 2021 10:52 EST)	**Date:** Jan 26, 2021
Reviewed by: Harris Middlesworth	**Signature:**	**Date:** Jan 26, 2021

Analysis requested: **Analysis of concentration of mycotoxins in customer supplied material**

Results:

Mycotoxin	Concentration Detected	Mycotoxin	Concentration Detected
B1 Fumonisin	**ND**	Cytochalasin J	**ND**
B2 Fumonisin	**ND**	Cytochalasin H	**ND**
15-Acetyl-DON	**ND**	19,20-Epoxycytochalasin C	**ND**
3-Acetyl-DON	**ND**	19,20-Epoxycytochalasin D	**ND**
Deoxynivalenol	**ND**	Chaetoglobosin A	**ND**
Nivalenol	**ND**	Dihydrocytochalasin B	**ND**
Cytochalasin B	**ND**	Neosolaniol	**ND**
Cytochalasin D	**ND**	Monoacetoxyscirpenol	**ND**
Cytochalasin A	**ND**	HT2-Toxin	**ND**
Cytochalasin E	**ND**	Ochratoxin B	**ND**
Cytochalasin C	**ND**	Alternariol	**ND**
Aflatoxin G2	**ND**	Alternariol ME	**ND**
Aflatoxin G1	**ND**	Sterigmatocystin	**ND**
Aflatoxin B1	**ND**	T2-Tetraol	**ND**
Aflatoxin B2	**ND**		
Zearalenone	**ND**		
Tenuazonic Acid	**ND**		
Diacetoxyscirpenol	**ND**		
Moniliformin	**ND**		
T2	**ND**		
Ochratoxin A	**ND**		
Fusarenone X	**ND**		

ppb = ng/g, ND= Not Detected Above LOQ (10ppb)



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Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

Residual Solvents

CS0449_212041-009_RS

Client Sample ID: 6004217-002
Sample Description: Humble Honey 33.3mg/ml
Receive sample: 20-Jan-21
Initiate analyses: 27-Jan-21

[redacted]

Analyst:	Analyst Signature:	Analyst Date:
Daren Stephens		Feb 9, 2021
Reviewed by:	**Reviewer Signature:**	**Reviewer Date:**
Tia Young		Feb 9, 2021

Test Type: Residual Solvents
Technical Procedure: TP A0040
Results:

Chemical Analyzed	Concentration (ppm)	Low Quantitation Limit (ppm)
Propane	ND	5.00
n-Butane	ND	2.50
Isobutane	ND	2.50
Neopentane	ND	1.67
Methanol	ND	20.0
Ethylene oxide	ND	5.00
2-Methylbutane	ND	1.67
n-Pentane	ND	1.67
Ethanol	760	5.00
Diethyl ether	ND	5.00
Acetone	ND	5.00
1,1-Dichloroethene	ND	5.00
Isopropanol	14.6	5.00
2,2-Dimethylbutane	ND	1.00
2,3-Dimethylbutane	ND	1.00
Methylene chloride	ND	5.00
2-Methylpentane	ND	1.00
Acetonitrile	ND	5.00
3-Methylpentane	ND	1.00
n-Hexane	ND	1.00
Ethyl acetate	ND	5.00
Tetrahydrofuran	ND	5.00
Chloroform	ND	0.20
Cyclohexane	ND	5.00
Benzene	ND	0.05
1,2-Dichloroethane	ND	5.00
Isopropyl acetate	ND	5.00
n-Heptane	ND	5.00
Trichloroethene	ND	5.00
1,4-Dioxane	ND	5.00
Toluene	ND	5.00
Ethylbenzene	ND	1.25
m-Xylene/p-Xylene	ND	2.50
o-Xylene	ND	1.25
Cumene	ND	5.00

ND: Not Detected
Present: matched to NIST database, not confirmed by reference standard
Confirmed: present and identified by comparison to reference standard

PJLA Testing
ISO/IEC 17025:2017
Accreditation # 101161

Concentrations were determined by GC-MS with an Avazyme method utilizing certified reference standards for each chemical analyzed.
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