



License No. 800025015  
FL License # CMTL-0003  
CLIA No. 10D1094068

# Certificate of Analysis

R&D

**HBH**  
220 W Brandon Blvd  
Brandon, FL 33511

Batch # FV21  
Batch Date: 2021-11-01  
Extracted From: Industrial Hemp

Test Reg State: Florida

Order # HBH211210-030001  
Order Date: 2021-12-10  
Sample # AACG318

Sampling Date: 2021-12-10  
Lab Batch Date: 2021-12-10  
Completion Date: 2021-12-16

Initial Gross Weight: 21.154 g

Potency  
Tested



## Potency - 20

Specimen Weight: 180.080 mg

Tested  
(HPLC)

Analyte	Dilution (1:n)	LOD (%)	LOQ (%)	Result (mg/g)	(%)
CBDA	1500.000	0.00001	0.002	101.900	10.190
CBDVA	1500.000	0.000014	0.002	61.230	6.123
CBCA	15.000	0.000107	0.002	5.291	0.529
CBD	15.000	0.000054	0.002	4.682	0.468
THCA-A	15.000	0.000032	0.002	3.598	0.360
CBGA	15.000	0.00008	0.002	3.130	0.313
THCVA	15.000	0.000047	0.002	2.429	0.243
CBDV	15.000	0.000065	0.002	2.366	0.237
CBT	15.000	0.0002	0.002	0.948	0.095
CBG	15.000	0.000248	0.002	0.819	0.082
Delta-9 THC	15.000	0.000013	0.002	0.510	0.051
THCV	15.000	0.000007	0.002	0.455	0.045
CBC	15.000	0.000018	0.002	0.410	0.041
Delta-10 THC	15.000	0.000003	0.002	0.155	0.015
Exo-THC	15.000	0.00023	0.002		<LOQ
Delta-8 THC	15.000	0.000026	0.002		<LOQ
CBNA	15.000	0.000095	0.002		<LOQ
CBN	15.000	0.000014	0.002		<LOQ
CBL	15.000	0.000035	0.002		<LOQ
Delta-8 THCV	15.000	0.00004	0.002		<LOQ

## Potency Summary

Total THC 0.367%	Total CBD 9.405%
Total CBG 0.356%	Total CBN None Detected
Other Cannabinoids 6.436%	Total Cannabinoids 16.564%

Xueli Gao  
Ph.D., DABT  
Lab Toxicologist

Aixia Sun  
D.H.Sc., M.Sc., B.Sc., MT (AAB)  
Lab Director/Principal Scientist



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Order Date: 2021-12-16  
Sample # AACH017

Sampling Date: 2021-12-16  
Lab Batch Date: 2021-12-16  
Completion Date: 2021-12-21

Initial Gross Weight: 21.154 g



Terpenes  
Tested



Heavy Metals  
Passed



Mycotoxins  
Passed



Pesticides  
Passed



Listeria  
Monocytogenes  
Passed



Pathogenic  
Passed

Potency Panel Not Included

**Terpenes Summary**

Analyte	Result (mg/g)	(%)
beta-Myrcene	9.029	0.903%
trans-Caryophyllene	7.903	0.79%
alpha-Humulene	4.533	0.453%

**Total Terpenes: 2.146%**

Detailed Terpenes Analysis is on the following page

*Xueli Gao*  
Xueli Gao  
Lab Toxicologist  
Ph.D., DABT

*Aixia Sun*  
Aixia Sun  
Lab Director/Principal Scientist  
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Test Reg State: Florida

Order # HBH211216-020001  
Order Date: 2021-12-16  
Sample # AACH017

Sampling Date: 2021-12-16  
Lab Batch Date: 2021-12-16  
Completion Date: 2021-12-21

Initial Gross Weight: 21.154 g



## Terpenes

Specimen Weight: 153.100 mg

Tested  
(GC/GCMS)

Dilution Factor: 30.000

Analyte	LOQ (%)	Result (mg/g)	(%)	Analyte	LOQ (%)	Result (mg/g)	(%)
beta-Myrcene	0.002	9.029	0.903	trans-Caryophyllene	0.002	7.903	0.790
alpha-Humulene	0.002	4.533	0.453	(+)-Cedrol	0.002	<LOQ	
Geraniol	0.002	<LOQ		Geranyl acetate	0.002	<LOQ	
Guaiaol	0.002	<LOQ		Hexahydrothymol	0.002	<LOQ	
Isoborneol	0.002	<LOQ		Isopulegol	0.002	<LOQ	
Linalool	0.002	<LOQ		Nerol	0.002	<LOQ	
Pulegone	0.002	<LOQ		Ocimene	0.000	<LOQ	
Gamma-Terpinene	0.002	<LOQ		Sabinene	0.002	<LOQ	
Sabinene Hydrate	0.002	<LOQ		Terpinolene	0.002	<LOQ	
Total Terpeneol	0.001	<LOQ		trans-Nerolidol	0.002	<LOQ	
Fenchone	0.002	<LOQ		Fenchyl Alcohol	0.002	<LOQ	
3-Carene	0.002	<LOQ		alpha-Bisabolol	0.002	<LOQ	
alpha-Cedrene	0.002	<LOQ		alpha-Phellandrene	0.002	<LOQ	
alpha-Pinene	0.002	<LOQ		alpha-Terpinene	0.002	<LOQ	
beta-Pinene	0.002	<LOQ		(R)-(+)-Limonene	0.002	<LOQ	
Borneol	0.004	<LOQ		Camphene	0.002	<LOQ	
Camphors	0.006	<LOQ		Caryophyllene oxide	0.002	<LOQ	
cis-Nerolidol	0.002	<LOQ		Eucalyptol	0.002	<LOQ	
Farnesene	0.002	<LOQ		Valencene	0.002	<LOQ	

Total Terpenes: 2.146%

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Xueli Gao Lab Toxicologist  
Ph.D., DABT

*Aixia Sun*  
Aixia Sun Lab Director/Principal Scientist  
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Order Date: 2021-12-16  
Sample # AACH017

Sampling Date: 2021-12-16  
Lab Batch Date: 2021-12-16  
Completion Date: 2021-12-21

Initial Gross Weight: 21.154 g



## Heavy Metals

Specimen Weight: 254.200 mg

Passed  
(ICP-MS)

Dilution Factor: 2.000

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Arsenic (As)	100	1500	<LOQ	Cadmium (Cd)	100	500	<LOQ
Lead (Pb)	100	500	<LOQ	Mercury (Hg)	100	3000	<LOQ



## Mycotoxins

Specimen Weight: 163.900 mg

Passed  
(LCMS)

Dilution Factor: 9.152

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Aflatoxin B1	6	20	<LOQ	Aflatoxin B2	6	20	<LOQ
Aflatoxin G1	6	20	<LOQ	Aflatoxin G2	6	20	<LOQ
Ochratoxin A	12	20	<LOQ				

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Xueli Gao Lab Toxicologist  
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Order Date: 2021-12-16  
Sample # AACH017

Sampling Date: 2021-12-16  
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Completion Date: 2021-12-21

Initial Gross Weight: 21.154 g



## Pesticides FL V4

Specimen Weight: 163.900 mg

**Passed**  
(LCMS/GCMS)

Dilution Factor: 9.152

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abaractin	28.23	300	<LOQ	Acephate	30	3000	<LOQ
Acequinocyl	48	2000	<LOQ	Acetamiprid	30	3000	<LOQ
Aldicarb	30	100	<LOQ	Azoxystrobin	10	3000	<LOQ
Bifenazate	30	3000	<LOQ	Bifenthrin	30	500	<LOQ
Boscalid	10	3000	<LOQ	Captan	30	3000	<LOQ
Carbaryl	10	500	<LOQ	Carbofuran	10	100	<LOQ
Chlorantranilprole	10	3000	<LOQ	Chlordane	10	100	<LOQ
Chlorfenapyr	30	100	<LOQ	Chlormequat Chloride	10	3000	<LOQ
Chlorpyrifos	30	100	<LOQ	Clofentezine	30	500	<LOQ
Coumaphos	48	100	<LOQ	Cyfluthrin	30	1000	<LOQ
Cypermethrin	30	1000	<LOQ	Daminozide	30	100	<LOQ
Diazinon	30	200	<LOQ	Dichlorvos	30	100	<LOQ
Dimethoate	30	100	<LOQ	Dimethomorph	48	3000	<LOQ
Ethoprophos	30	100	<LOQ	Etofenprox	30	100	<LOQ
Etoxazole	30	1500	<LOQ	Fenhexamid	10	3000	<LOQ
Fenoxycarb	30	100	<LOQ	Fenpyroximate	30	2000	<LOQ
Fipronil	30	100	<LOQ	Flonicamid	30	2000	<LOQ
Fludioxonil	48	3000	<LOQ	Hexythiazox	30	2000	<LOQ
Imazalil	30	100	<LOQ	Imidacloprid	30	3000	<LOQ
Kresoxim Methyl	30	1000	<LOQ	Malathion	30	2000	<LOQ
Metaxalyl	10	3000	<LOQ	Methiocarb	30	100	<LOQ
Methomyl	30	100	<LOQ	methyl-Parathion	10	100	<LOQ
Mevinphos	10	100	<LOQ	Myclobutanil	30	3000	<LOQ
Naled	30	500	<LOQ	Oxamyl	30	500	<LOQ
Paclotrtrazol	30	100	<LOQ	Pentachloronitrobenzene	10	200	<LOQ
Permethrin	30	1000	<LOQ	Phosmet	30	200	<LOQ
Piperonylbutoxide	30	3000	<LOQ	Prallethrin	30	400	<LOQ
Propiconazole	30	1000	<LOQ	Propoxur	30	100	<LOQ
Pyrethrins	30	1000	<LOQ	Pyridaben	30	3000	<LOQ
Spinetoram	10	3000	<LOQ	Spinosad	30	3000	<LOQ
Spiromesifen	30	3000	<LOQ	Spirotetramat	30	3000	<LOQ
Spiroxamine	30	100	<LOQ	Tebuconazole	30	1000	<LOQ
Thiacloprid	30	100	<LOQ	Thiamethoxam	30	1000	<LOQ
Trifloxystrobin	30	3000	<LOQ				

*Xueli Gao*  
Xueli Gao Lab Toxicologist  
Ph.D., DABT

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Initial Gross Weight: 21.154 g



## Listeria Monocytogenes

Specimen Weight: 1019.040 mg

**Passed**  
(qPCR)

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result
Listeria Monocytogenes	1	Absence in 1g



## Pathogenic SAE (qPCR)

Specimen Weight: 253.430 mg

**Passed**  
(qPCR)

Dilution Factor: 1.000

Analyte	Action Level (cfu/g)	Result (cfu/g)	Analyte	Action Level (cfu/g)	Result (cfu/g)
Aspergillus (Flavus, Fumigatus, Niger, Terreus)	1	Absence in 1g	E.Coli	1	Absence in 1g
			Salmonella	1	Absence in 1g

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