

NC Controlled Substance License #: NC-DHHS-1002881
 DEA Controlled Substance License #: RD0577986
 ISO 17025 Certification: PENDING

9
ANALYTICAL
Delta 9 Analytical
 Professional, Accurate, Responsive

Laboratory Location
 6308 Angus Drive, Ste B
 Raleigh NC 27617
 919-673-7153 / 919-450-1870
 frank@delta9analytical.com
 michael@delta9analytical.com

Client Name: RIPD	Sample ID: 6930	Sample Name: RIPD2G9202022
Client Address:	Received Date: 09212022	Sample Type: Disposable
Grower/Processor Lic#: FL 2022-N-1966262	Reported Date: 09272022	Sample Matrix: Concentrate
	Test(s) Ordered: C + P	Sample Size: 2.5g Test Size: 2.5g

CANNABINOID SUMMARY
TOTAL CANNABINOIDS: 83.01%
Δ8-THC: 72.53%
THCp: 8.3384%
THCh: 0.583%
THCjd: 0.417%
TOTAL THC: 0.282%



CANNABINOIDS (Liquid Chromatography Mass Spectrometry - LCMS)

ANALYTE	MASS (%)	MASS (mg/g)	LOQ (%)	ANALYTE	MASS (%)	MASS (mg/g)	LOQ (%)
Cannabinol (CBN)	0.6586	6.586	0.022	9R-Hexahydrocannabinol	ND	ND	0.022
Δ8-THC	72.53	725.3	0.022	9S-Hexahydrocannabinol	ND	ND	0.022
Cannabichromene (CBC)	ND	ND	0.022	Cannabidiolic Acid (CBDA)	ND	ND	0.022
Cannabigerol (CBG)	ND	ND	0.022	THCjd	0.417	4.171	0.022
Cannabidiol (CBD)	ND	ND	0.022	THCh	0.583	5.830	0.022
Cannabigerolic Acid (CBGA)	ND	ND	0.022	***Δ9-THC	0.282	2.822	0.022
Cannabidivarin (CBDV)	ND	ND	0.022	**TOTAL CANNABINOIDS	83.01	830.1	
Cannabidivarin Acid (CBDVA)	ND	ND	0.022	*TOTAL THC	0.282	2.822	
Cannabicitran (CBT)	0.1977	1.977	0.022	*TOTAL CBD	ND	ND	
6aR,9S-Δ10-THC	ND	ND	0.022	*TOTAL CBG	ND	ND	
6aR,9R-Δ10-THC	ND	ND	0.022	*TOTAL CBDV	ND	ND	
THC-O-Acetate	ND	ND	0.022	TOTAL Δ10-THC	ND	ND	
THCp	8.3384	83.34	0.022	TOTAL HHC	ND	ND	

*Calculated as follows: Total CBD/G/V = CBD/GA/VA% (0.877) + CBD/G/V%. Total THC = THCA% (0.877) + Δ9-THC %. **Total Cannabinoids is the absolute sum of all cannabinoids detected. **ND = Not Detected; NT = Not Tested.**

RESULT CERTIFICATION

09272022
 Frank P. Mauro COO/Michael R. Horton CSO & Date

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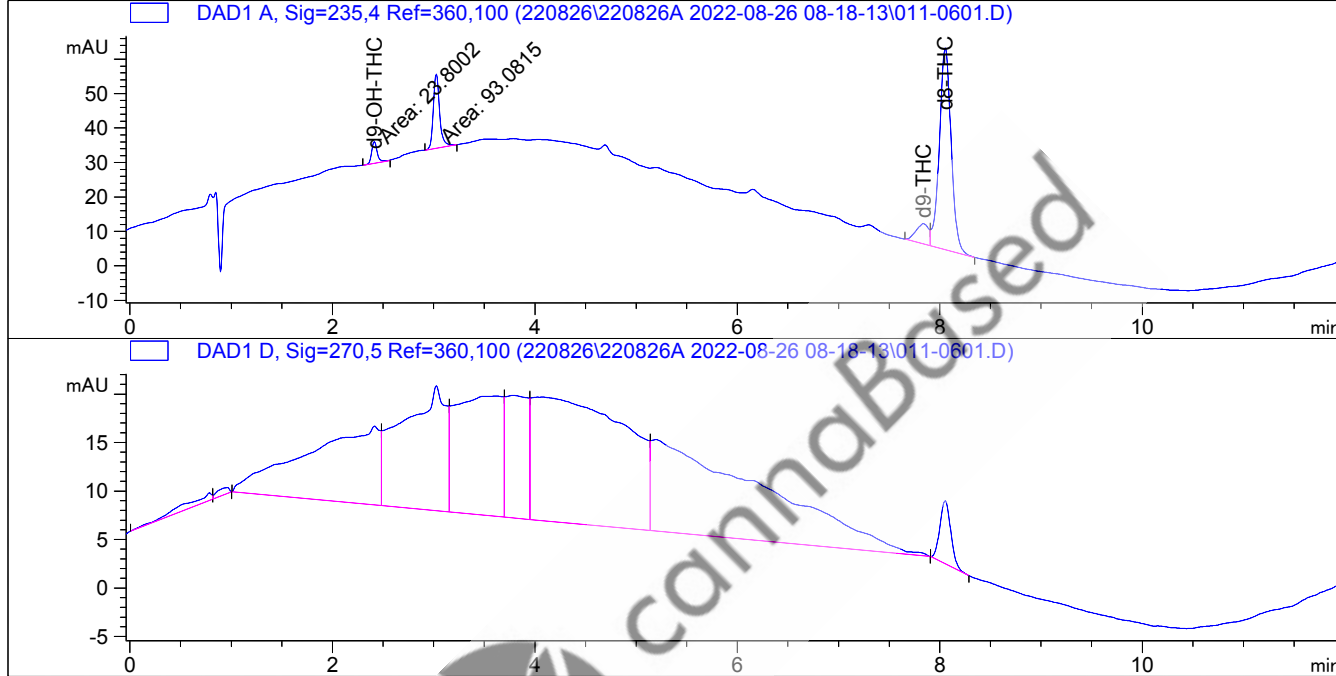
=====
Acq. Operator   :                               Seq. Line :    6
Acq. Instrument : Instrument 1                 Location  : Vial 11
Injection Date  : 8/26/2022 9:39:04 AM        Inj       :    1
                                                Inj Volume: 2.0 µl

Acq. Method    : C:\CHEM32\1\DATA\220826\220826A 2022-08-26 08-18-13\APL-24E21-SPEC_A.M
Last changed   : 8/26/2022 9:26:02 AM
                (modified after loading)

Analysis Method : C:\CHEM32\1\METHODS\APL-21D22-OFFLINE.M
Last changed   : 8/26/2022 9:57:22 AM
                (modified after loading)

Method Info    : Cannabinoid Method
  
```

Additional Info : Peak(s) manually integrated



ESTD Percent Report

```

Sorted By      : Signal
Calib. Data Modified : 8/26/2022 9:57:40 AM
Multiplier:    : 1.0000
Dilution:      : 1.0000
Sample Amount: : 209.33850 [ng/ul]
Use Multiplier & Dilution Factor with ISTDs
  
```

Signal 1: DAD1 A, Sig=235,4 Ref=360,100

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount %	Grp	Name
1.800	-	-	-	-	-	OBT299
2.413	MM	23.80016	2.83405	32.220915	-	d9-OH-THC
2.550	-	-	-	-	-	CBDV
3.250	-	-	-	-	-	CBD-A
3.600	-	-	-	-	-	CBG-A
3.900	-	-	-	-	-	CBG
4.100	-	-	-	-	-	CBD
4.330	-	-	-	-	-	d9-THCV

RetTime [min]	Type	Area [mAU*s]	Amt/Area	Amount %	Grp	Name
4.500		-	-	-		d8-THCV
5.500		-	-	-		CBDH
6.150		-	-	-		CBN
6.600		-	-	-		CMCBDv
7.350		-	-	-		CBDP
7.839	BV	50.81136	2.36835e-1	5.748547		d9-THC
8.054	VB	473.98288	2.69364e-1	60.989260		d8-THC
9.450		-	-	-		9S-HHC
9.900		-	-	-		9R-HHC
10.000		-	-	-		(6aR, 9R)-d10-THC
10.500		-	-	-		CBC
15.800		-	-	-		d9-THC-OAc
16.050		-	-	-		d9THCP
16.700		-	-	-		d8THCP
17.850		-	-	-		d8-THC-OAc
21.000		-	-	-		THC-A - moved
22.900		-	-	-		MCBDP

Totals : 98.958722

2 Warnings or Errors :

Warning : Calibration warnings (see calibration table listing)

Warning : Calibrated compound(s) not found

*** End of Report ***



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TERPENE SUMMARY

TOTAL: 0.4562%

PRIMARY AROMAS

Fresh, Earthy, Piney,
Woody, Spicy, Citrusy

TERPENES (GC FID)

ANALYTE	MASS (%)	MASS (mg/g)	LOQ (%)	ANALYTE	MASS (%)	MASS (mg/g)	LOQ (%)
α -Pinene	0.1228	1.228	0.005	<i>cis</i> -Nerolidol 1	ND	ND	0.005
β -Pinene	0.1137	1.137	0.005	<i>trans</i> -Nerolidol 2	ND	ND	0.005
β -Myrcene	0.0690	0.6902	0.005	Eucalyptol	ND	ND	0.005
δ -Limonene	0.0416	0.4158	0.005	α -Ocimene 1	ND	ND	0.005
Linalool	0.0405	0.4052	0.005	α -Terpinene	ND	ND	0.005
β -Caryophyllene	0.0179	0.179	0.005	Terpinolene	ND	ND	0.005
Caryophyllene Oxide	0.0099	0.0990	0.005	Isopulegol	ND	ND	0.005
α -Humulene	0.0098	0.0984	0.005	β -Ocimene 2	ND	ND	0.005
Guaiol	0.0095	0.0951	0.005	3-Carene	ND	ND	0.005
α -Bisabolol	0.0082	0.0818	0.005	γ -Terpinene	ND	ND	0.005
Geraniol	0.0075	0.0755	0.005	<i>p</i> -Cymene	ND	ND	0.005
Camphene	0.0057	0.0568	0.005				

ND = Not Detected

RESULT CERTIFICATION

 08142022

Frank P. Mauro COO/Michael R. Horton CSO & Date

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PESTICIDES (61 pesticides by Liquid Chromatography Mass Spectrometry - LCMS) ND = Not Detected

ANALYTE	LOQ (PPB)	MASS (PPB)	ANALYTE	LOQ (PPB)	MASS (PPB)	ANALYTE	LOQ (PPB)	MASS (PPB)
Abamectin	100	ND	Diazinon	100	ND	Myclobutanil	100	ND
Acephate	100	ND	Dimethoate	100	ND	Oxamyl	100	ND
Acequinocyl	100	ND	Dimethomorph	100	ND	Paclobutrazol	100	ND
Acetamiprid	100	ND	Ethoprophos	100	ND	Permethrin	100	ND
Aldicarb	100	ND	Etofenprox	100	ND	Phosmet	100	ND
Azoxystrobin	100	ND	Etoxazole	100	ND	Piperonyl Butoxide	100	ND
Bifenazate	100	ND	Fenhexamid	100	ND	Prallethrin	100	ND
Bifenthrin	100	ND	Fenoxycarb	100	ND	Propiconazole	100	ND
Boscalid	100	ND	Fenpyrozimate	100	ND	Propoxur	100	ND
Carbaryl	100	ND	Fipronil	100	ND	Pyrethrins	100	ND
Carbofuran	100	ND	Fonicamid	100	ND	Pyridaben	100	ND
Chlorantranilprole	100	ND	Fludioxonil	100	ND	Spinetoram	100	ND
Chlordane	100	ND	Hexythiazox	100	ND	Spinosad	100	ND
Chlorfenapyr	100	ND	Imazalil	100	ND	Spinoxamine	100	ND
Chlorpyrifos	100	ND	Imidacloprid	100	ND	Spiromesifen	100	ND
Clofentezine	100	ND	Kresoxim Methyl	100	ND	Spirotetramat	100	ND
Coumaphos	100	ND	Malathion	100	ND	Tebuconazole	100	ND
Cyfluthrin	100	ND	Metaxyl	100	ND	Thiacloprid	100	ND
Cypermethrin	100	ND	Methiocarb	100	ND	Thiamethoxam	100	ND
Daminozide	100	ND	Methomyl	100	ND	Trifloxystrobin	100	ND
DDVP Dichlorvos	100	ND	Mevinphos	100	ND			

ANALYTICAL



RESULT CERTIFICATION

 09272022

Frank P. Mauricio COO/Michael R. Horton CSO & Date

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DEA No. RA0571996
FL License # CMTL-0003
CLIA No. 10D1094068

Certificate of Analysis

Compliance Test

Batch # 9-beta-oh
Batch Date: 2022-06-06
Extracted From: Industrial Hemp

Test Reg State: Oregon

Production Facility: USA
Production Date: 2022-06-06

Order Date: 2022-06-06
Sample # AACX392

Sampling Date: 2022-06-07
Lab Batch Date: 2022-06-07
Completion Date: 2022-06-10

Initial Gross Weight: 68.841 g



Product Image

Heavy Metals Passed	Mycotoxins Passed	Pesticides Passed	Additional Pesticides Passed	Residual Solvents Passed
Moisture Tested	Listeria Monocytogenes Passed	Staphylococcus Aureus Passed	Vitamin E Tested	

Potency Panel Not Included

Heavy Metals

Specimen Weight: 249.670 mg

Dilution Factor: 200

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

Passed

SOP13.048 (ICP-MS)

Mycotoxins

Specimen Weight: 254.900 mg

Dilution Factor: 5.885

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

Passed

SOP13.007 (LCMS)

Moisture

Specimen Weight: N/A Dilution Factor: 1.000

Analyte	Action Level (%)	Result (%)
Moisture	15	1.370

Tested

SOP13.015 (Moisture Meter)

Staphylococcus Aureus

Specimen Weight: 245.200 mg

Dilution Factor: 1.000

Analyte	Result
Staphylococcus aureus	Absence

Passed

SOP13.010 (qPCR)

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

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



Definitions and Abbreviations used in this report: Total CBD = CBD + (CBD-A * 0.877), *Total CBDV = CBDV + (CBDVA * 0.87), Total THC = THCA-A * 0.877 + Delta 9 THC, Total THCV = THCV + (THCVA * 0.87), CBG Total = (CBGA * 0.877) + CBG, CBN Total = (CBNA * 0.877) + CBN, Total CBC = CBC + (CBCA * 0.877), Total THC-O-Acetate = Delta 8 THC-O-Acetate + Delta 9 THC-O-Acetate, Other Cannabinoids Total = Total Cannabinoids - All the listed cannabinoids on the summary section, Total Detected Cannabinoids = Delta6a10a-THC + Delta8-THC + Total CBN + CBT + Delta8-THCV + Total CBG + Total CBD + Total THCV + CBL + Total THC + Total CBC + Total CBDV + Delta10-THC + Total THC-O-Acetate, Analyte Details above show the Dry Weight Concentrations unless specified as 12% moisture concentration. (mg/ml) = Milligrams per Milliliter, LOQ = Limit of Quantitation, LOD = Limit of Detection, Dilution = Dilution Factor (ppb) = Parts per Billion, (%) = Percent, (cfu/g) = Colony Forming Unit per Gram (cfu/g) = Colony Forming Unit per Gram, , LOD = Limit of Detection, (µg/g) = Microgram per Gram (ppm) = Parts per Million, (ppm) = (µg/g), (aw) = aw (area ratio) = Area Ratio, (mg/Kg) = Milligram per Kilogram

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Compliance Test

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 Extracted From: Industrial Hemp

Test Reg State: Oregon

Production Facility: USA
 Production Date: 2022-06-06

Order Date: 2022-06-06
 Sample # AACX392

Sampling Date: 2022-06-07
 Lab Batch Date: 2022-06-07
 Completion Date: 2022-06-10

Initial Gross Weight: 68.841 g

Pesticides **Passed**
 Specimen Weight: 254.900 mg SOP13.039 (GCMS)

Dilution Factor: 5.885

Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Action Level (ppb)	Result (ppb)
Abamectin	28.23	300	<LOQ	Imazalil	30	100	<LOQ
Acephate	30	3000	<LOQ	Imidacloprid	30	3000	<LOQ
Acequinocyl	48	2000	<LOQ	Kresoxim Methyl	30	1000	<LOQ
Acetamiprid	30	3000	<LOQ	Malathion	30	2000	<LOQ
Aldicarb	30	100	<LOQ	Metalaxyl	10	3000	<LOQ
Azoxystrobin	10	3000	<LOQ	Methiocarb	30	100	<LOQ
Bifenazate	30	3000	<LOQ	Methomyl	30	100	<LOQ
Bifenthrin	30	500	<LOQ	Mevinphos	30	100	<LOQ
Carbaryl	10	500	<LOQ	Myclobutanil	30	3000	<LOQ
Chlorfenapyr	48	100	<LOQ	Naled	30	500	<LOQ
Chlorpyrifos	30	100	<LOQ	Oxamyl	30	500	<LOQ
Clofentazine	30	500	<LOQ	Pacllobutrazol	30	100	<LOQ
Coumaphos	30	100	<LOQ	Parathion-methyl	48	100	<LOQ
Cyfluthrin	30	1000	<LOQ	Pentachloronitro benzene	30	200	<LOQ
Cypermethrin	30	1000	<LOQ	Permethrin	30	1000	<LOQ
Daminozide	30	100	<LOQ	Phosmet	30	200	<LOQ
Diazinon	30	200	<LOQ	Piperonylbutoxid e	30	3000	<LOQ
Dichlorvos	30	100	<LOQ	Prallethrin	30	400	<LOQ
Dimethoate	30	100	<LOQ	Propiconazole	30	1000	<LOQ
Dimethomorph	30	3000	<LOQ	Propoxur	30	100	<LOQ
Ethoprofos	30	100	<LOQ	Pyrethrins	30	1000	<LOQ
Etofenprox	30	100	<LOQ	Pyridaben	30	3000	<LOQ
Etoxazole	30	1500	<LOQ	Spinetoram	30	3000	<LOQ
Fenhexamid	30	3000	<LOQ	Spiromesifen	30	3000	<LOQ
Fenoxycarb	30	100	<LOQ	Spirotetramat	30	3000	<LOQ
Fenpyroximate	30	2000	<LOQ	Spiroxamine	30	100	<LOQ
Fipronil	30	100	<LOQ	Tebuconazole	30	1000	<LOQ
Fonicamid	30	2000	<LOQ	Thiacloprid	30	100	<LOQ
Fludioxonil	30	3000	<LOQ	Thiamethoxam	30	1000	<LOQ
Hexythiazox	30	2000	<LOQ	Trifloxystrobin	30	3000	<LOQ

Residual Solvents - FL (CBD) **Passed**
 Specimen Weight: 12.000 mg SOP13.039 (GCMS)

Dilution Factor: 500.000

Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)	Analyte	LOQ (ppm)	Action Level (ppm)	Result (ppm)
1,1-Dichloroethane	0.16	8	<LOQ	Heptane	1.39	5000	<LOQ
1,2-Dichloroethane	0.04	5	<LOQ	Hexane	1.17	290	<LOQ
Acetone	2.08	5000	<LOQ	Isopropyl alcohol	1.39	500	<LOQ
Acetonitrile	1.17	410	<LOQ	Methanol	0.69	3000	<LOQ
Benzene	0.02	2	<LOQ	Methylene chloride	2.43	600	<LOQ
Butanes	2.5	2000	<LOQ	Pentane	2.08	5000	<LOQ
Chloroform	0.04	60	<LOQ	Propane	5.83	2100	<LOQ
Ethanol	2.78	5000	<LOQ	Toluene	2.92	890	<LOQ
Ethyl Acetate	1.11	5000	<LOQ	Total Xylenes	2.92	2170	<LOQ
Ethyl Ether	1.39	5000	<LOQ	Trichloroethylene	0.49	80	<LOQ
Ethylene Oxide	0.1	5	<LOQ				

Additional Pesticides **Passed**
 Specimen Weight: 254.900 mg SOP13.007 (LCMS)

Dilution Factor: 5.885

Analyte	LOQ (ppb)	Result (ppb)	Analyte	LOQ (ppb)	Result (ppb)
Diquat	24	<LOQ	Paraquat	24	<LOQ
Glyphosate	24	<LOQ			

Vitamin E (Tocopheryl Acetate) **Tested**
 Specimen Weight: 254.900 mg SOP13.007 (LC-MS)

Dilution Factor: 5.885

Analyte	Result (ppb)
Vitamin E Acetate	<LOQ

Listeria Monocytogenes **Passed**
 Specimen Weight: 1009.700 mg SOP13.010 (qPCR)

Dilution Factor: 1.000

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

Xueli Gao Lab Toxicologist
 Ph.D., DABT
 Aixia Sun Lab Director/Principal Scientist
 D.H.Sc., M.Sc., B.Sc., MT (AAB)



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