







# **SUMMARY OF ANALYSIS (SAMPLE ID: SA35858)**

Order ID: OR10580 **Testing Location:** Customer ID: 2161 Arkansas River Valley Relief Cultivation Lot Number: 232 S. Broadview St. 5601 Old Greenwood Rd Suite C M00065C13135119172

Greenbrier, AR 72058 Fort Smith, AR 72903 License: ADH 113 License: 00065C Cultivar (Strain) or Sample Description: Crunch Berries

**Production Run:** 3038H20230714CBS-2 Sample Type: Primary Matrix: Flower

Mass: 14Grams

**Date Collected:** 08/21/2023 **Date Received:** 08/21/2023

**Date Completed:** 08/25/2023

\*This page is simply a summary of the analysis performed. For analytical details, please consult the individual Certificate(s) of Analysis for each of the specific test(s) performed. All contaminant action levels are referenced from the State of Arkansas MMJ testing guidelines

> PASS/FAIL Water Activity (aw) **Moisture Content (%)** 0.574 @ 24.1°C **PASS** 12.5

Moisture content/water activity action levels are referenced from the State of Arkansas MMJ testing guidelines.

Moisture content levels less than 15% are recommended but the sample does not fail. Water activity levels must be less than 0.65aw.

Cannabinoi	ds (Top 3)	<u>(%)</u>	mg/g
THO	CA	31.8	318
Δ9-Τ	HC	0.905	9.05
CBC	GA .	0.497	4.97
TOTAL	CBD	-	-
TOTAL	THC	28.8	288
TOTAL CAN	NABINOIDS	33.4	334
Terpenes (Top 5)		<u>(%)</u>	µg/g
α-Pin	ene	0.704	7040
β-Myr	cene	0.479	4790
β-Pin	ene	0.252	2520
d-Limo	onene	0.0605	605
α-Bisa	bolol		
TOTAL TE	RPENES	1.50	15000
<u>Contaminants</u>	Contaminants PASS/FAIL		re Upon Receipt

<b>Contaminants</b>	PASS/FAIL
Heavy Metals:	PASS
Microbiology:	PASS
Pesticides:	PASS





Scan the QR code to verify results.

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Cultivar (Strain) or Sample Description: Crunch Berries







# **CERTIFICATE OF ANALYSIS (SAMPLE ID: SA35858)**

Testing Location:Customer ID: 2161Order ID: OR10580Sample Type: PrimaryArkansasRiver Valley Relief CultivationLot Number:Matrix: Flower232 S. Broadview St.5601 Old Greenwood Rd Suite CM00065C13135119172Mass: 14Grams

 Greenbrier, AR 72058
 Fort Smith, AR 72903
 Production Run:
 Date Collected: 08/21/2023

 License: ADH 113
 License: 00065C
 3038H20230714CBS-2
 Date Received: 08/21/2023

# CANNABINOID (POTENCY) PROFILE (SOP: SOP-CANN-001)

Analysis Date/Time: 08/22/2023 1747 Method: HPLC/DAD Moisture Content (%): 12.5

Analyst: PW Instrument: Agilent 1100 Water Activity (aw): 0.574 @ 24.1°C

<u>Cannabinoid</u>	Result (%)	Result (mg/g)	LOD (mg/g)	LOQ (mg/g)	Result (mg/ mL)	<u>Per</u> Serving (mg)	Per Unit (mg)
CBC	ND	ND	0.0446	0.104	-	-	-
CBCA	ND	ND	0.139	0.323	-	-	-
CBD	ND	ND	0.315	0.735	-	-	-
CBDA	ND	ND	0.116	0.271	-	-	-
CBDV	ND	ND	0.0505	0.118	-	-	-
CBDVA	ND	ND	0.135	0.314	-	-	-
CBG	ND	ND	0.204	0.477	-	-	-
CBGA	0.497	4.97	0.290	0.342	-	4.35	4.35
CBL	ND	ND	0.236	0.551	-	-	-
CBN	ND	ND	0.108	0.253	-	-	-
CBNA	ND	ND	0.117	0.273	-	-	-
Δ9-ΤΗС	0.905	9.05	0.130	0.303	-	7.92	7.92
Δ8-ΤΗС	ND	ND	0.203	0.473	-	-	-
THCA	31.8	318	0.0705	0.165	-	278	278
THCV	ND	ND	0.169	0.394	-	-	-
THCVA	0.140	1.40	0.0540	0.126	-	1.23	1.23
TOTAL	33.4	334		,		292	292
TOTAL CBC	-	-		,		-	-
TOTAL CBD	-	-			-	-	-
TOTAL CBDV	-	-			-	-	-
TOTAL CBG	0.436	4.36			-	3.82	3.82
TOTAL CBN	-	-			-	-	-
TOTAL THC	28.8	288			-	252	252
TOTAL THCV	0.122	1.22			-	1.06	1.06

Abbreviations: DAD - Diode Array Detector, HPLC - High Pressure Liquid Chromatography, RL - Reporting Limit, RPD - Relative Percent Difference, RSD - Relative Standard Deviation, DET - Detected (less than LOQ), LOD - Limit of Detection, LOQ - Limit of Quantitation, UM - Measurement Uncertainty

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**Date Completed:** 08/25/2023

SERVING MASS (g): 1.00 SERVINGS/UNIT: 1

"-" Not detected above LOD.

Deviations from standard operating procedure: None

Recoveries for all analyte standards: 90-110% Replicate Uncertainties: <5% RSD, <20% RPD Sample/Reagent Blanks: <RL for all analytes

Values for plant matter are adjusted for moisture content.

Total CBC = (CBCA x 0.877) + CBC Total CBD = (CBDA x 0.877) + CBD Total CBDV = (CBDVA x 0.867) + CBDV Total CBG = (CBGA x 0.878) + CBG Total CBN = (CBNA x 0.876) + CBN Total THC = (THCA x 0.877) +  $\Delta$ 9-THC Total THCV = (THCVA x 0.867) + THCV

Percentage results are reported by mass.

mg/g results are reported as mass component per mass material.







License: ADH 113







## **CERTIFICATE OF ANALYSIS (SAMPLE ID: SA35858)**

Customer ID: 2161 Order ID: OR10580 **Testing Location:** Arkansas River Valley Relief Cultivation Lot Number: 232 S. Broadview St. 5601 Old Greenwood Rd Suite C M00065C13135119172 Greenbrier, AR 72058

Fort Smith, AR 72903 **Production Run:** 3038H20230714CBS-2 License: 00065C

Cultivar (Strain) or Sample Description: Crunch Berries

Sample Type: Primary

Matrix: Flower Mass: 14Grams

**Date Collected:** 08/21/2023 **Date Received:** 08/21/2023

**Date Completed:** 08/25/2023

### TERPENOID PROFILE

**Analysis Date/Time:**08/22/2023 2002 Method: GC/MS **Deviations from SOP: Analyst:** KF Instrument: Agilent 7890/5975 None

•			
<u>Terpene</u>	<u>Result</u> (μg/g)	Result (%)	
α-Bisabolol	ND	-	
Camphene	ND	-	The state of the s
δ-3-Carene	ND	-	
β-Caryophyllene	<loq< td=""><td>-</td><td></td></loq<>	-	
Caryophyllene oxide	ND	-	
p-Cymene	ND	-	
Eucalyptol	ND	-	
Geraniol	ND	-	
Guaiol	ND	-	Abbreviations: GC - Gas
α-Humulene	ND	-	Chromatography, MS - Mass
Isopulegol	ND	-	Spectrometry, RL - Reporting Limit
d-Limonene	605	0.0605	Abbreviations: ND - Not Detected, , LOD - Limit of Detection, LOQ - Limit
Linalool	ND	-	of Quantitation
β-Myrcene	4790	0.479	This information is provided as a service and makes no claims of efficacy and/or
cis-Nerolidol	ND	-	safety of this product.
trans-Nerolidol	ND	-	Results are applicable only for the sample(s) analyzed and for the specific
α-Ocimene	ND	-	analysis conducted.
β-Ocimene	ND	-	This report is for informational purposes only and should not be used to diagnose,
α-Pinene	7040	0.704	treat, or prevent any
β-Pinene	2520	0.252	medical-related symptoms.
α-Terpinene	ND	-	The statements and results herein have not been approved and/or endorsed by
γ-Terpinene	ND	-	the FDA.
Terpinolene	ND	-	
TOTAL	15000	1.50	Reporting Limit (μg/g)

Reporting Limit (µg/g): 48.9

"-" Not detected above LOD.





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08/25/2023



License: ADH 113





3038H20230714CBS-2



# **CERTIFICATE OF ANALYSIS (SAMPLE ID: SA35858)**

Testing Location:Customer ID: 2161Order ID: OR10580Sample Type: PrimaryArkansasRiver Valley Relief CultivationLot Number:Matrix: Flower

232 S. Broadview St. 5601 Old Greenwood Rd Suite C M00065C13135119172 Mass: 14Grams
Greenbrier, AR 72058 Fort Smith, AR 72903 Production Run: Date Collected: 08/21/2023

Cultivar (Strain) or Sample Description: Crunch Berries

Date Completed: 08/25/2023

# PESTICIDES PROFILE (SOP: SOP-PEST-001)

Analysis Date/Time: 01/01/1900 1200 Method: LC/MS/MS Deviations from SOP:

Analyst: KF Instrument: Shimadzu LC-8050 None

License: 00065C

<u>Pesticide</u>	Result (μg/g)	<u>LOD</u> (μg/g)	LOQ (µg/g)	<u>Action</u> <u>Level</u> (μg/g)	<u>Pesticide</u>	Result (μg/g)	<u>LOD</u> (μg/g)	LOQ (µg/g)	Action Level (µg/g)
Abamectin (71751-41-2)	-	0.0489	0.391	0.5	Kresoxim-methyl	2	0.0489	0.391	0.4
Acephate (30560-19-1)	-	0.0489	0.391	0.4	(143390-89-0)		0.0400	0.004	0.0
Acequinocyl (57960-19-7)	-	0.0489	0.391	2	Malathion (121-75-5)	-	0.0489	0.391	0.2
Acetamiprid (135410-20-7)	-	0.0489	0.391	0.2	Metalaxyl (57837-19-1) Methiocarb (2032-65-7)	-	0.0489 0.0489	0.391 0.391	0.2 0.2
Aldicarb (116-06-3)	-	0.0489	0.391	0.4	Methomyl (16752-77-5)	-	0.0489	0.391	0.4
Azoxystrobin (131860-33-8)	-	0.0489	0.391	0.2	Methyl parathion (298-0-0)	-	0.0489	0.391	0.2
Bifenazate (149877-41-8)	-	0.0489	0.391	0.2	MGK 264 (113-48-4)	-	0.0489	0.391	0.2
Bifenthrin (82657-04-3)	-	0.0489	0.391	0.2	Myclobutanil	_	0.0489	0.391	0.2
Boscalid (188425-85-6)	-	0.0489	0.391	0.4	(88671-89-0)				
Carbaryl (63-25-2)	-	0.0489	0.391	0.2	Naled (300-76-5)	-	0.0489	0.391	0.5
Carbofuran (1563-66-2)	-	0.0489	0.391	0.2	Oxamyl (23135-22-0)	-	0.0489	0.391	1
Chlorantraniliprole (800008-45-7)	-	0.0489	0.391	0.2	Paclobutrazol (76738-62-0)	-	0.0489	0.391	0.4
Chlorfenapyr (122453-73-0)	-	0.0489	0.391	1	Permethrins (52645-53-1) Phosmet (732-11-6)	-	0.0489 0.0489	0.391 0.391	0.2 0.2
Chlorpyrifos (2921-88-2)	_	0.0489	0.391	0.2	Piperonyl butoxide				
Clofentezine (74115-24-5)		0.0489	0.391	0.2	(51-03-6)	-	0.0489	0.391	2
Cyfluthrin (68359-37-5)	_	0.0489	0.391	1	Prallethrins (2331-36-9)	-	0.0489	0.391	0.2
Cypermethrin (52315-07-8)	-	0.0489	0.391	1	Propiconazole (60207-90-1))	-	0.0489	0.391	0.4
Daminozide (1596-84-5)		0.0489	0.391	1	Propoxur (114-26-1)	-	0.0489	0.391	0.2
DDVP (62-73-7)		0.0489	0.391	0.1	Pyrethrins (8003-34-7)	-	0.0489	0.391	1
Diazinon (333-41-5)		0.0489	0.391	0.2	Pyridaben (96489-71-3)	-	0.0489	0.391	0.2
Dimethoate (60-51-5)		0.0489	0.391	0.2	Spinosad (168316-95-8)	-	0.0489	0.391	0.2
Ethoprophos (13194-48-4)	_	0.0489	0.391	0.2	Spiromesifen		0.0489	0.391	0.2
Etofenprox (80844-07-1)	_	0.0489	0.391	0.4	(283594-90-1)		0.0403	0.551	0.2
Etoxazole (153233-91-1)	-	0.0489	0.391	0.2	Spirotetramat (203313-25-1)	_	0.0489	0.391	0.2
Fenoxycarb (72490-01-8)	_	0.0489	0.391	0.2	Spiroxamine				
(E)-Fenpyroximate (134098-61-6)	-	0.0489	0.391	0.4	(118134-30-8)	-	0.0489	0.391	0.4
Fipronil (120068-37-3)		0.0489	0.391	0.4	Tebuconazole (80443-41-0)	-	0.0489	0.391	0.4
Flonicamid (158062-67-0)		0.0489	0.391	1	Thiacloprid		0.0400	0.004	0.0
Fludioxinil (131341-86-1)		0.0489	0.391	0.4	(111988-49-9)	-	0.0489	0.391	0.2
Hexythiazox (78587-05-0)		0.0489	0.391	1	Thiamethoxam		0.0489	0.391	0.2
Imazalil (35554-44-0)		0.0489	0.391	0.2	(153719-23-4)				
Imidacloprid (138261-41-3)	-	0.0489	0.391	0.4	Trifloxystrobin (141517-21-7)	-	0.0489	0.391	0.2



Color Key

**Date Received:** 08/21/2023

# RESULT < AL

"DET" detected less than LOQ

"-" not detected above LOD

Permethrins measured as the cumulative residue of the *cis*- and *trans*- permethrin isomers.

Pyrethrins measured as the cumulative residue of the pyrethrin I, cinerin I, and jasmolin I isomers.

Action levels are referenced from the

State of Arkansas MMJ testing guidelines.

A value of "-" for the action level means that analyte is not currently regulated by the regulations referenced above.

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Abbreviations: LC - Liquid Chromatography, MS - Mass Spectrometry, RL - Reporting Limit, AL - Action Level, CAS - Chemical Abstract Services, LOD - Limit of Detection, LOQ - Limit of Quantification

<u>Pesticide</u>	Synonym(s)	<u>Pesticide</u>	Synonym(s)	<u>Pesticide</u>	Synonym(s)
Cyfluthrin	Baythroid	Myclobutanil	Systhane	Propiconazole	Tilt
DDVP	Dichlorvos	Naled	Dibrom	Propoxur	Baygon
Ethoprophos	Prophos	Phosmet	Imidan		













# **CERTIFICATE OF ANALYSIS (SAMPLE ID: SA35858)**

Testing Location:Customer ID: 2161Order ID: OR10580Sample Type: PrimaryArkansasRiver Valley Relief CultivationLot Number:Matrix: Flower232 S. Broadview St.5601 Old Greenwood Rd Suite CM00065C13135119172Mass: 14Grams

 Greenbrier, AR 72058
 Fort Smith, AR 72903
 Production Run:
 Date Collected: 08/21/2023

 License: ADH 113
 License: 00065C
 3038H20230714CBS-2
 Date Received: 08/21/2023

Cultivar (Strain) or Sample Description: Crunch Berries

Date Completed: 08/25/2023

## **HEAVY METAL PROFILE (SOP: SOP-ICP-200.6)**

Analysis Date/Time: 08/24/2023 2129 (ICP/OES) Method: ICP/MS Deviations from SOP:

Analysis Date/Time: - (DMA) Instrument: Agilent 7500ce None

**Analyst:** KF

<u>Heavy Metal</u>	<u>Result</u> (μg/kg)	<u>LOD</u> (µg/kg)	LOQ (µg/kg)	<u>Action Level</u> (μg/kg)
Arsenic (As)	-	59.3	93.8	200
Cadmium (Cd)	-	59.3	93.8	200
Lead (Pb)	-	59.3	93.8	500
Mercury (Hg)	-	59.3	93.8	100



Abbreviations: ICP - Inductively-Coupled Plasma, OES - Optical Emission Spectroscopy,
DMA - Direct Mercury Analyzer, RL - Reporting Limit, AL - Action Level, LOD - Limit of Detection, LOQ - Limit of Quantitation

#### Color Key

RESULT < AL RESULT > AL

"DET" detected less than LOQ

"-" not detected above LOD

Action levels for heavy metals are referenced from the State of Arkansas MMJ testing guidelines.

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### **CERTIFICATE OF ANALYSIS (SAMPLE ID: SA35858)**

Testing Location:Customer ID: 2161Sample ID: SA35858Sample Type: PrimaryArkansasRiver Valley Relief CultivationLot Number:Matrix: Flower

 232 S. Broadview St.
 5601 Old Greenwood Rd Suite C
 M00065C13135119172
 Mass: 14Grams

 Greenbrier, AR 72058
 Fort Smith, AR 72903
 Production Run:
 Date Collected: 08/21/2023

 License: ADA 05 H273
 License: 00065C
 3038H20230714CBS-2
 Date Received: 08/21/2023

Cultivar (Strain) or Sample Description: Crunch Berries

Date Completed: 08/25/2023

## MICROBIOLOGICAL PROFILE (SOP: SOP-Micro-001)

Analysis Date/Time: 08/24/2023 1021 Method: Hardy Diagnostics CompactDry Deviations from SOP:

Analyst: PW Instrument: Thermo Incubator None

Bacteria/Microbe	Result (CFU/g)	Action Level (CFU/g)
Aerobic Plate Count	NT	-
Coliforms, Total	Absent	1
Escherichia Coli (E. Coli)	Absent	100
Mold/Yeast	NT	-
Pseudomonas aeruginosa	NT	-
Salmonella spp.	NT	-
Staphylococcus aureus	NT	-



Abbreviations: EC - Escherichia Coli, CFU - Colony-Forming Unit, RL - Reporting Limit, AL - Action Level, TNTC - Too Numerous To Count, NT - Not Tested Absent - Not Detected Above RL, Present - Detected Above RL

Color Key

RESULT < AL RESULT > AL

Reporting Limit (CFU/g)

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