

Prepared for:  
**BLUEBIRD BOTANICALS**  
PO BOX 271724  
Louisville, CO USA 80027

## 15VDC-30

Batch ID or Lot Number: <b>3310287058</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 1 of 7
Reported: <b>19Feb2023</b>	Started: 17Feb2023	Received: 16Feb2023	

## Residual Solvents - Colorado Compliance

Test ID: T000235081  
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	106 - 2117	ND	
Butanes (Isobutane, n-Butane)	219 - 4376	ND	
Methanol	67 - 1340	ND	
Pentane	108 - 2163	ND	
Ethanol	105 - 2110	ND	
Acetone	107 - 2130	ND	
Isopropyl Alcohol	108 - 2165	ND	
Hexane	6 - 130	ND	
Ethyl Acetate	111 - 2218	ND	
Benzene	0.2 - 4.3	ND	
Heptanes	106 - 2121	ND	
Toluene	19 - 384	ND	
Xylenes (m,p,o-Xylenes)	142 - 2843	ND	

### Final Approval

  
Karen Winternheimer  
19Feb2023  
08:55:00 AM MST  
PREPARED BY / DATE

  
Sam Smith  
19Feb2023  
08:58:00 AM MST  
APPROVED BY / DATE

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## Cannabinoids - Colorado Compliance

Test ID: T000235077

Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.065	0.213	0.962	1.02	Density = 0.94g/mL
Cannabichromenic Acid (CBCA)	0.060	0.195	ND	ND	
Cannabidiol (CBD)	0.184	0.538	32.063	34.11	
Cannabidiolic Acid (CBDA)	0.189	0.552	<LOQ	<LOQ	
Cannabidivarin (CBDV)	0.044	0.127	0.137	0.15	
Cannabidivarinic Acid (CBDVA)	0.079	0.230	ND	ND	
Cannabigerol (CBG)	0.037	0.121	0.633	0.67	
Cannabigerolic Acid (CBGA)	0.155	0.507	ND	ND	
Cannabinol (CBN)	0.048	0.158	<LOQ	<LOQ	
Cannabinolic Acid (CBNA)	0.106	0.346	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.185	0.604	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.168	0.548	0.937	1.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.149	0.486	ND	ND	
Tetrahydrocannabivarin (THCV)	0.034	0.110	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.131	0.428	ND	ND	
<b>Total Cannabinoids</b>			<b>34.732</b>	<b>36.95</b>	
Total Potential THC			0.937	1.00	
Total Potential CBD			32.063	34.11	

### Final Approval

  
Karen Winternheimer  
20Feb2023  
12:28:00 PM MST  
PREPARED BY / DATE

  
Sam Smith  
20Feb2023  
12:40:00 PM MST  
APPROVED BY / DATE

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## Cannabinoids - Colorado Compliance

Test ID: T000235076

Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg/mL)	LOQ (mg/mL)	Result (mg/mL)	Result (mg/g)	Notes
Cannabichromene (CBC)	0.063	0.206	0.952	1.01	Density = 0.94g/mL
Cannabichromenic Acid (CBCA)	0.058	0.188	ND	ND	
Cannabidiol (CBD)	0.178	0.519	31.714	33.74	
Cannabidiolic Acid (CBDA)	0.182	0.533	<LOQ	<LOQ	
Cannabidivarin (CBDV)	0.042	0.123	0.138	0.15	
Cannabidivarinic Acid (CBDVA)	0.076	0.222	ND	ND	
Cannabigerol (CBG)	0.036	0.117	0.616	0.66	
Cannabigerolic Acid (CBGA)	0.149	0.489	ND	ND	
Cannabinol (CBN)	0.047	0.153	<LOQ	<LOQ	
Cannabinolic Acid (CBNA)	0.102	0.334	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	0.178	0.583	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	0.162	0.529	0.940	1.00	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	0.143	0.469	ND	ND	
Tetrahydrocannabivarin (THCV)	0.033	0.106	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	0.126	0.413	ND	ND	
<b>Total Cannabinoids</b>			<b>34.360</b>	<b>36.56</b>	
Total Potential THC			0.940	1.00	
Total Potential CBD			31.714	33.74	

### Final Approval

  
Karen Winternheimer  
20Feb2023  
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Sam Smith  
20Feb2023  
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## Mycotoxins - Colorado Compliance

Test ID: T000235082  
Methods: TM18 (UHPLC-QQQ)  
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.18 - 131.76	ND	N/A
Aflatoxin B1	0.92 - 32.48	ND	
Aflatoxin B2	0.96 - 32.51	ND	
Aflatoxin G1	1.02 - 32.54	ND	
Aflatoxin G2	1.05 - 33.02	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

### Final Approval

  
Sam Smith  
23Feb2023  
07:44:00 AM MST  
PREPARED BY / DATE

  
Karen Winternheimer  
23Feb2023  
07:50:00 AM MST  
APPROVED BY / DATE

## Heavy Metals - Colorado Compliance

Test ID: T000235080  
Methods: TM19 (ICP-MS): Heavy Metals

	Dynamic Range (ppm)	Result (ppm)	Notes
Arsenic	0.05 - 5.11	ND	
Cadmium	0.05 - 4.94	ND	
Mercury	0.04 - 4.39	ND	
Lead	0.04 - 4.02	ND	

### Final Approval

  
Sam Smith  
23Feb2023  
03:06:00 PM MST  
PREPARED BY / DATE

  
Karen Winternheimer  
23Feb2023  
03:13:00 PM MST  
APPROVED BY / DATE

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## Microbial Contaminants - Colorado Compliance

Test ID: T000235079  
Methods: TM25 (qPCR) TM24, TM26,  
TM27 (Culture Plating): Microbial  
(Colorado Panel)

	Method	LOD	Quantitation Range	Result	Notes
STEC	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	Free from visual mold, mildew, and foreign matter
<i>Salmonella</i>	TM25: PCR	10 <sup>0</sup> CFU/25g	NA	Absent	
Total Yeast and Mold*	TM24: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	
Total Aerobic Count*	TM26: Culture Plating	10 <sup>2</sup> CFU/g	1.0x10 <sup>3</sup> - 1.5x10 <sup>5</sup>	None Detected	
Total Coliforms*	TM27: Culture Plating	10 <sup>1</sup> CFU/g	1.0x10 <sup>2</sup> - 1.5x10 <sup>4</sup>	None Detected	

### Final Approval



Brett Hudson  
23Feb2023  
12:42:00 PM MST

PREPARED BY / DATE



Brianne Maillot  
23Feb2023  
03:44:00 PM MST

APPROVED BY / DATE

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## Pesticides

Test ID: T000235078

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	324 - 2773	ND		Malathion	281 - 2698	ND
Acephate	43 - 2752	ND		Metalaxyl	43 - 2701	ND
Acetamiprid	41 - 2704	ND		Methiocarb	41 - 2737	ND
Azoxystrobin	44 - 2701	ND		Methomyl	40 - 2714	ND
Bifenazate	40 - 2705	ND		MGK 264 1	165 - 1598	ND
Boscalid	38 - 2737	ND		MGK 264 2	115 - 1120	ND
Carbaryl	38 - 2718	ND		Myclobutanil	47 - 2715	ND
Carbofuran	42 - 2692	ND		Naled	44 - 2707	ND
Chlorantraniliprole	42 - 2746	ND		Oxamyl	41 - 2726	ND
Chlorpyrifos	47 - 2711	ND		Paclobutrazol	42 - 2699	ND
Clofentezine	266 - 2736	ND		Permethrin	308 - 2683	ND
Diazinon	290 - 2714	ND		Phosmet	40 - 2707	ND
Dichlorvos	279 - 2716	ND		Prophos	283 - 2743	ND
Dimethoate	41 - 2688	ND		Propoxur	41 - 2692	ND
E-Fenpyroximate	298 - 2729	ND		Pyridaben	315 - 2709	ND
Etofenprox	38 - 2714	ND		Spinosad A	32 - 2216	ND
Etoxazole	308 - 2695	ND		Spinosad D	50 - 489	ND
Fenoxycarb	42 - 2730	ND		Spiromesifen	288 - 2726	ND
Fipronil	55 - 2633	ND		Spirotetramat	296 - 2731	ND
Flonicamid	48 - 2766	ND		Spiroxamine 1	17 - 1160	ND
Fludioxonil	318 - 2730	ND		Spiroxamine 2	21 - 1551	ND
Hexythiazox	41 - 2719	ND		Tebuconazole	300 - 2703	ND
Imazalil	287 - 2706	ND		Thiacloprid	41 - 2706	ND
Imidacloprid	42 - 2706	ND		Thiamethoxam	40 - 2736	ND
Kresoxim-methyl	38 - 2772	ND		Trifloxystrobin	44 - 2703	ND

## Final Approval

  
Karen Winternheimer  
24Feb2023  
08:30:00 AM MST  
PREPARED BY / DATE

  
Sam Smith  
24Feb2023  
08:32:00 AM MST  
APPROVED BY / DATE

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<https://results.botanacor.com/api/v1/coas/uuid/6fc5efed-47b8-4446-811d-85e04133c999>

**Definitions**  
LOD = Limit of Detection, ULOQ = Upper Limit of Quantitation, LLOQ = Lower Limit of Quantitation, PPB = Parts per Billion, % = % (w/w) = Percent (weight of analyte / weight of product). ND = None Detected (defined by dynamic range of the method). Total Potential Delta 9-THC or CBD is calculated to take into account the loss of a carboxyl group during decarboxylation step, using the following formulas: Total Potential Delta 9-THC = Delta 9-THC + (Delta 9-THCa \*(0.877)) and Total CBD = CBD + (CBDa \*(0.877)). Fail equates to a concentration level of Delta 9-THC, on a dry weight basis, higher than 0.3 percent + or - the measurement uncertainty. Total Potential THC is calculated using the following formulas to take into account the loss of a carboxyl group during decarboxylation step. Total THC = THC + (THCa \*(0.877)). ALOQ = Above Limit Of Quantitation (defined by dynamic range of the method), CFU/g = Colony Forming Units per Gram. Values recorded in scientific notation, a common microbial practice of expressing numbers that are too large to be conveniently written in decimal form. Examples: 10<sup>2</sup> = 100 CFU, 10<sup>3</sup> = 1,000 CFU, 10<sup>4</sup> = 10,000 CFU, 10<sup>5</sup> = 100,000 CFU.

Testing results are based solely upon the sample submitted to SC Laboratories, Inc., in the condition it was received. SC Laboratories, Inc., warrants that all analytical work is conducted professionally in accordance with all applicable standard laboratory practices using validated methods. Data was generated using an unbroken chain of comparison to NIST traceable Reference Standards and Certified Reference Materials. This report may not be reproduced, except in full, without the written approval of SC Laboratories, Inc. ISO/IEC 17025:2017 Accredited by A2LA. Some tests listed on this COA may not be within our scope of A2LA accreditation. Please visit [A2LA for more details](#).



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