

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

## ST-30 23B25C

Batch ID or Lot Number: <b>23B25C</b>	Test, Test ID and Methods: Various	Matrix: Concentrate	Page 1 of 6
Reported: <b>17Feb2023</b>	Started: 16Feb2023	Received: 16Feb2023	


## Pesticides


Test ID: T000235352

Methods: TM17

(LC-QQ LC MS/MS)	Dynamic Range (ppb)	Result (ppb)		Dynamic Range (ppb)	Result (ppb)	
Abamectin	297 - 2792	ND		Malathion	302 - 2702	ND
Acephate	41 - 2796	ND		Metalaxyl	41 - 2735	ND
Acetamiprid	44 - 2777	ND		Methiocarb	42 - 2747	ND
Azoxystrobin	45 - 2726	ND		Methomyl	40 - 2767	ND
Bifenazate	41 - 2722	ND		MGK 264 1	169 - 1608	ND
Boscalid	41 - 2792	ND		MGK 264 2	110 - 1130	ND
Carbaryl	41 - 2718	ND		Myclobutanil	40 - 2752	ND
Carbofuran	45 - 2698	ND		Naled	44 - 2720	ND
Chlorantraniliprole	41 - 2742	ND		Oxamyl	43 - 2765	ND
Chlorpyrifos	38 - 2737	ND		Paclobutrazol	44 - 2698	ND
Clofentezine	273 - 2731	ND		Permethrin	288 - 2744	ND
Diazinon	291 - 2730	ND		Phosmet	42 - 2720	ND
Dichlorvos	263 - 2800	ND		Prophos	295 - 2742	ND
Dimethoate	41 - 2748	ND		Propoxur	44 - 2713	ND
E-Fenpyroximate	294 - 2737	ND		Pyridaben	310 - 2696	ND
Etofenprox	44 - 2698	ND		Spinosad A	35 - 2226	ND
Etoxazole	309 - 2713	ND		Spinosad D	52 - 493	ND
Fenoxycarb	45 - 2730	ND		Spiromesifen	285 - 2749	ND
Fipronil	42 - 2729	ND		Spirotetramat	289 - 2741	ND
Flonicamid	50 - 2770	ND		Spiroxamine 1	18 - 1159	ND
Fludioxonil	307 - 2813	ND		Spiroxamine 2	4 - 1599	ND
Hexythiazox	42 - 2732	ND		Tebuconazole	289 - 2696	ND
Imazalil	291 - 2750	ND		Thiacloprid	43 - 2750	ND
Imidacloprid	43 - 2771	ND		Thiamethoxam	41 - 2792	ND
Kresoxim-methyl	40 - 2749	ND		Trifloxystrobin	46 - 2706	ND

## Final Approval

  
Karen Winternheimer  
17Feb2023  
01:56:00 PM MST  
PREPARED BY / DATE

  
Sam Smith  
17Feb2023  
01:59:00 PM MST  
APPROVED BY / DATE

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## ST-30 23B25C


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## Cannabinoids - Colorado Compliance

Test ID: T000235350  
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	1.661	5.434	ND	ND	# of Servings = 1
Cannabichromenic Acid (CBCA)	1.520	4.971	ND	ND	Sample Weight=28g
Cannabidiol (CBD)	4.687	13.700	211.153	7.54	
Cannabidiolic Acid (CBDA)	4.807	14.052	ND	ND	
Cannabidivarin (CBDV)	1.108	3.240	ND	ND	
Cannabidivarinic Acid (CBDVA)	2.005	5.862	ND	ND	
Cannabigerol (CBG)	0.943	3.085	ND	ND	
Cannabigerolic Acid (CBGA)	3.943	12.898	ND	ND	
Cannabinol (CBN)	1.231	4.025	ND	ND	
Cannabinolic Acid (CBNA)	2.691	8.800	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	4.698	15.366	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	4.267	13.956	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	3.780	12.365	ND	ND	
Tetrahydrocannabivarin (THCV)	0.858	2.806	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	3.334	10.906	ND	ND	
<b>Total Cannabinoids</b>			<b>211.153</b>	<b>7.54</b>	
Total Potential THC			ND	ND	
Total Potential CBD			211.153	7.54	

### Final Approval

  
Sam Smith  
17Feb2023  
02:04:00 PM MST  
PREPARED BY / DATE

  
Karen Winternheimer  
17Feb2023  
02:08:00 PM MST  
APPROVED BY / DATE

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## ST-30 23B25C


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## Cannabinoids - Colorado Compliance

Test ID: T000235351  
Methods: TM14 (HPLC-DAD): Potency – Standard

Cannabinoid Analysis	LOD (mg)	LOQ (mg)	Result (mg)	Result (mg/g)	Notes
Cannabichromene (CBC)	1.785	5.839	ND	ND	# of Servings = 1
Cannabichromenic Acid (CBCA)	1.633	5.341	ND	ND	Sample Weight=28g
Cannabidiol (CBD)	5.036	14.721	209.549	7.48	
Cannabidiolic Acid (CBDA)	5.165	15.098	ND	ND	
Cannabidivarin (CBDV)	1.191	3.482	ND	ND	
Cannabidivarinic Acid (CBDVA)	2.155	6.298	ND	ND	
Cannabigerol (CBG)	1.014	3.315	ND	ND	
Cannabigerolic Acid (CBGA)	4.237	13.859	ND	ND	
Cannabinol (CBN)	1.322	4.325	ND	ND	
Cannabinolic Acid (CBNA)	2.891	9.456	ND	ND	
Delta 8-Tetrahydrocannabinol (Delta 8-THC)	5.048	16.511	ND	ND	
Delta 9-Tetrahydrocannabinol (Delta 9-THC)	4.585	14.995	ND	ND	
Delta 9-Tetrahydrocannabinolic Acid (THCA-A)	4.062	13.286	ND	ND	
Tetrahydrocannabivarin (THCV)	0.922	3.016	ND	ND	
Tetrahydrocannabivarinic Acid (THCVA)	3.583	11.719	ND	ND	
<b>Total Cannabinoids</b>			<b>209.549</b>	<b>7.48</b>	
Total Potential THC			ND	ND	
Total Potential CBD			209.549	7.48	

### Final Approval

  
Sam Smith  
17Feb2023  
02:04:00 PM MST  
PREPARED BY / DATE

  
Karen Winternheimer  
17Feb2023  
02:08:00 PM MST  
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## Residual Solvents - Colorado Compliance

Test ID: T000235355  
Methods: TM04 (GC-MS): Residual

Solvents	Dynamic Range (ppm)	Result (ppm)	Notes
Propane	93 - 1863	ND	
Butanes (Isobutane, n-Butane)	193 - 3851	ND	
Methanol	59 - 1179	ND	
Pentane	95 - 1903	ND	
Ethanol	93 - 1857	ND	
Acetone	94 - 1875	ND	
Isopropyl Alcohol	95 - 1906	ND	
Hexane	6 - 114	ND	
Ethyl Acetate	98 - 1952	ND	
Benzene	0.2 - 3.8	ND	
Heptanes	93 - 1866	ND	
Toluene	17 - 338	ND	
Xylenes (m,p,o-Xylenes)	125 - 2502	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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## Mycotoxins - Colorado Compliance

Test ID: T000235356  
Methods: TM18 (UHPLC-QQQ)  
LCMS/MS: Mycotoxins

	Dynamic Range (ppb)	Result (ppb)	Notes
Ochratoxin A	3.17 - 130.97	ND	N/A
Aflatoxin B1	0.92 - 32.28	ND	
Aflatoxin B2	0.95 - 32.32	ND	
Aflatoxin G1	1.01 - 32.35	ND	
Aflatoxin G2	1.04 - 32.82	ND	
Total Aflatoxins (B1, B2, G1, and G2)		ND	

### Final Approval

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


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

## Microbial Contaminants - Colorado Compliance

Test ID: T000235353  
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
Salmonella	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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## Heavy Metals - Colorado Compliance

Test ID: T000235354  
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



<https://results.botanacor.com/api/v1/coas/uuid/946e836e-fe6a-470e-95ad-4be94c23eeab>

**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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