

ANALYZED BY:

Anresco Laboratories 1375 Van Dyke Avenue, San Francisco, CA 94124



CUSTOMER:

Surly Brewing Company 4811 Dusharme Dr Brooklyn Center, MN 55429

SAMPLE INFORMATION

Sample No.: 1315386

Find Wunder: Higher Vibes Blood Orange Bitters

Product Name: Matrix: Edible (Beverage)

Lot #: WSTBB105 Best By 06/18/26 Date Collected: 06/19/2025 Date Received: 06/20/2025 Date Reported: 06/24/2025

TEST SUMMARY

Mycotoxin Screen:

Pass **Cannabinoid Profile: Pesticide Residue Screen: Heavy Metal Screen:**

Pass Pass

Pass

Microbiological Screen: **Residual Solvent Screen:** **Pass** Pass

06/24/2025

Pass Foreign Material:

Method:

Instrument:

Cannabinoid Profile Pass

MF-CHEM-15 Liquid Chromatography Diode Array Detector (LC-DAD)

Limit of Detection 0.0008 mg/g Limit of Quantitation 0.0025 mg/g

Cannabinoid	mg/g	%	mg/ml	mg/serving	mg/package	Labeled mg/serving	% Difference	Status
Δ8-ΤΗС	ND	ND	ND	ND	ND	-	-	-
Δ9-ΤΗС	0.0292	0.00292	0.0299	5.29	10.58	5	5.76	Pass
Δ9-ΤΗCΑ	ND	ND	ND	ND	ND	-	-	-
THCV	ND	ND	ND	ND	ND	-	-	-
THCVA	ND	ND	ND	ND	ND	-	-	-
CBD	ND	ND	ND	ND	ND	-	-	-
CBDA	ND	ND	ND	ND	ND	-	-	-
CBC	ND	ND	ND	ND	ND	-	-	-
CBCA	ND	ND	ND	ND	ND	-	-	-
CBDV	ND	ND	ND	ND	ND	-	-	-
CBG	0.0290	0.0029	0.0297	5.25	10.50	5	5.03	-
CBGA	ND	ND	ND	ND	ND	-	-	-
CBN	ND	ND	ND	ND	ND	-	-	-
Total THC	0.0292	0.00292	0.0299	5.29	10.58	-	-	-
Total CBD	ND	ND	ND	ND	ND	-	-	-
Total Cannabinoids	0.0582	0.00582	0.0595	10.54	21.08	-	-	-
Sum of Cannabinoids	0.0582	0.00582	0.0595	10.54	21.08	-	-	-
Serving Weight (g)	181.0887							
Package Weight (g)	362.1774							

g/ml Conversion Factor 1 0231

Total THC = $\Delta 8$ -THC + $\Delta 9$ -THC + (0.877 * THCA)

Total CBD = CBD + (0.877 * CBDA)

Total Cannabinoids = Σ (neutral cannabinoids) + [0.877 * Σ (acidic cannabinoids)]

Microbiological Screen Pass

06/24/2025

Analyte	Method	Findings	Units	Status
Salmonella	MF-MICRO-11	Not Detected/25g	/1g	Pass
STEC	MF-MICRO-18	Not Detected/25g	/1g	Pass

Pesticide Residue Screen Pass

06/24/2025

Method:

Instrument: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Abamectin	0.04/0.10	ND	0.3	Pass
Acephate	0.02/0.06	ND	5.0	Pass
Acequinocyl	0.04/0.10	ND	4.0	Pass
Acetamiprid	0.017/0.05	ND	5.0	Pass

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Sample #: 1315386 Lot #: WSTBB105 Best By 06/18/26 Page **1** of **4**

Report ID: S-3



Analyte	LOD/LOQ (µg/g)	Findings (μg/g)	Limit (µg/g)	Status
Aldicarb	0.02/0.06	ND	0.02	Pass
Azoxystrobin	0.02/0.06	ND	40.0	Pass
Bifenazate	0.02/0.06	ND	5.0	Pass
Bifenthrin	0.04/0.10	ND	0.5	Pass
Boscalid	0.02/0.06	ND	10.0	Pass
Captan	0.2/0.6	ND	5.0	Pass
Carbaryl	0.02/0.06	ND	0.5	Pass
Carbofuran	0.017/0.05	ND	0.017	Pass
Chlorantraniliprole	0.02/0.06	ND	40.0	Pass
Chlordane	0.02/0.06	ND	0.02	Pass
Chlorfenapyr	0.02/0.06	ND	0.02	Pass
Chlorpyrifos	0.02/0.06	ND	0.02	Pass
Clofentezine	0.02/0.06	ND	0.5	Pass
Coumaphos	0.02/0.06	ND	0.02	Pass
Cyfluthrin	0.10/0.30	ND	1.0	Pass
Cypermethrin	0.10/0.30	ND	1.0	Pass
Daminozide	0.017/0.05	ND ND	0.017	Pass
DDVP (Dichlorvos)	0.013/0.04	ND ND	0.013	Pass
Diazinon	0.017/0.05	ND	0.2	Pass
Dimethoate	0.017/0.05	ND	0.017	Pass
Dimethomorph	0.017/0.05	ND	20.0	Pass
Ethoprop(hos)	0.02/0.06	ND	0.02	Pass
Etofenprox	0.02/0.06	ND	0.02	Pass
Etoxazole	0.02/0.06	ND	1.5	Pass
Fenhexamid	0.017/0.05	ND	10.0	Pass
Fenoxycarb	0.02/0.06	ND	0.02	Pass
Fenpyroximate	0.02/0.06	ND	2.0	Pass
Fipronil	0.02/0.06	ND	0.02	Pass
Flonicamid	0.02/0.06	ND	2.0	Pass
Fludioxonil	0.02/0.06	ND	30.0	Pass
Hexythiazox	0.02/0.06	ND	2.0	Pass
Imazalil	0.02/0.06	ND	0.02	Pass
Imidacloprid	0.02/0.06	ND	3.0	Pass
Kresoxim Methyl	0.02/0.06	ND	1.0	Pass
-		ND ND	5.0	Pass
Malathion	0.017/0.05			
Metalaxyl	0.017/0.05	ND	15.0	Pass
Methiocarb	0.02/0.06	ND	0.02	Pass
Methomyl	0.013/0.04	ND	0.1	Pass
Methyl parathion	0.02/0.06	ND	0.02	Pass
Mevinphos	0.02/0.06	ND	0.02	Pass
Myclobutanil	0.02/0.06	ND	9.0	Pass
Naled	0.017/0.05	ND	0.5	Pass
Oxamyl	0.013/0.04	ND	0.2	Pass
Paclobutrazol	0.02/0.06	ND	0.02	Pass
Pentachloronitrobenzene	0.017/0.05	ND	0.2	Pass
Permethrins	0.10/0.30	ND	20.0	Pass
Phosmet	0.02/0.06	ND	0.2	Pass
Piperonyl Butoxide	0.02/0.06	ND	8.0	Pass
Prallethrin	0.04/0.10	ND	0.4	Pass
Propiconazole	0.02/0.06	ND	20.0	Pass
Propoxur	0.013/0.04	ND	0.013	Pass
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Pyrethrins	0.15/0.50	ND	1.0	Pass
Pyridaben	0.017/0.05	ND	3.0	Pass
Spinetoram	0.02/0.06	ND	3.0	Pass
Spinosad	0.02/0.06	ND	3.0	Pass
Spiromesifen	0.04/0.10	ND	12.0	Pass
Spirotetramat	0.02/0.06	ND	13.0	Pass
Spiroxamine	0.017/0.05	ND	0.017	Pass
Tebuconazole	0.02/0.06	ND	2.0	Pass
Thiacloprid	0.013/0.04	ND	0.013	Pass
Thiamethoxam	0.02/0.06	ND	4.5	Pass



06/24/2025 **Residual Solvent Screen OPass**

Method: MF-CHEM-32

Instrument: Gas Chromatography Mass Spectrometry (GC/MS)

Analyte	LOD/LOQ (ppm)	Findings (ppm)	Limit (ppm)	Status
1,2-Dichloroethane	0.5/0.5	ND	1	Pass
Acetone	57/200	ND	5000	Pass
Acetonitrile	56/200	ND	410	Pass
Benzene	0.5/0.5	ND	1	Pass
n-Butane	45/200	ND	5000	Pass
Chloroform	0.5/0.5	ND	1	Pass
Ethanol	37/200	ND	5000	Pass
Ethyl acetate	38/200	ND	5000	Pass
Ethyl ether	37/200	ND	5000	Pass
Ethylene oxide	0.1/0.5	ND	1	Pass
n-Heptane	135/200	ND	5000	Pass
n-Hexane	49/200	ND	290	Pass
Isopropyl alcohol	57/200	ND	5000	Pass
Methanol	37/200	ND	3000	Pass
Methylene chloride	0.1/0.5	ND	1	Pass
n-Pentane	37/200	ND	5000	Pass
Propane	72/200	ND	5000	Pass
Toluene	49/200	ND	890	Pass
Total xylenes (ortho-, meta-, para-)	58/200	ND	2170	Pass
Trichloroethylene	0.5/0.5	ND	1	Pass

Heavy Metal Screen Pass

Method:

MF-CHEM-16

06/24/2025

Instrument: Inductively Coupled Plasma Mass Spectrometry (ICP-MS)

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Arsenic	0.003/0.05	ND	1.5	Pass
Cadmium	0.008/0.05	ND	0.5	Pass
Mercury	0.002/0.05	ND	3	Pass
Lead	0.01/0.125	ND	0.5	Pass

06/24/2025 Foreign Material Pass

Method: MF-CHEM-7

Analyte	Findings	Limit	Status	
Sand, Soils, Cinders, and Dirt	ND	25%	Pass	
Mold	ND	25%	Pass	
Imbedded Foreign Material	ND	25%	Pass	
Insect Fragment	ND	1 per 3g	Pass	
Hair	ND	1 per 3g	Pass	
Mammalian Excreta	ND	1 per 3g	Pass	

06/24/2025 **Mycotoxin Screen** Pass

Instrument: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)

Analyte	LOD/LOQ (µg/kg)	Findings (µg/kg)	Limit (µg/kg)	Status
Aflatoxin B1	2/5	ND	-	-
Aflatoxin B2	2/5	ND	-	-
Aflatoxin G1	2/5	ND	-	-
Aflatoxin G2	2/5	ND	-	-
Total Aflatoxins	8/20	ND	20	Pass
Ochratoxin A	6/18	ND	20	Pass

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Page 3 of 4 Report ID: S-3



ND = None Detected LOD = Limit of Detection LOQ = Limit of Quantitation



Scan to verify

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