

Universal Hemp Panel

ANALYZED BY:

Anresco Laboratories
1375 Van Dyke Avenue,
San Francisco, CA 94124
DEA# PA0202945

CUSTOMER:

Surly Brewing Company
4811 Dusharme Dr
Brooklyn Center, MN 55429

MANUFACTURER:

Surly Brewing Company
520 Malcom Ave SE
Minneapolis 55414
FDA: 13762318736, MN1589



SAMPLE INFORMATION

Sample No.: 1370280
Product Name: Surly Brewing Take Five Lime
Matrix: Edible (Carbonated Beverage)
Lot #: MT059 EXP ON 26351

Date Collected: 12/19/2025
Date Received: 12/19/2025
Date Reported: 12/30/2025

TEST SUMMARY

Cannabinoid Profile: ✔ Tested
Pesticide Residue Screen: ✔ Pass
Heavy Metal Screen: ✔ Pass
Mycotoxin Screen: ✔ Pass

Microbiological Screen: ✔ Pass
Residual Solvent Screen: ✔ Pass
Foreign Material: ✔ Pass

Customer Comment(s):

The batch was processed in a facility that holds a current and valid permit issued by a human health or food safety regulatory entity with authority over the facility, and that facility meets the human health or food safety sanitization requirements of the regulatory entity.

Cannabinoid Profile ✔ Tested

12/23/2025

Method: MF-CHEM-15
Instrument: Liquid Chromatography Diode Array Detector (LC-DAD)
Limit of Detection: 0.0008 mg/g
Limit of Quantitation: 0.0025 mg/g
Measurement of Uncertainty Average: ±6.3%

Cannabinoid	mg/g	%	mg/ml	mg/serving	mg/package	Labeled mg/serving	% Difference
Δ8-THC	ND	ND	ND	ND	ND	-	-
Δ9-THC	0.0138	0.00138	0.0138	4.88	4.88	5	2.30
Δ9-THCA	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	ND	ND	ND	ND	ND	-	-
CBGA	ND	ND	ND	ND	ND	-	-
CBN	ND	ND	ND	ND	ND	-	-
Exo-THC	ND	ND	ND	ND	ND	-	-
(6aR,9R)-Δ10-THC	ND	ND	ND	ND	ND	-	-
(6aR,9S)-Δ10-THC	ND	ND	ND	ND	ND	-	-
9(R)-Hexahydrocannabinol	ND	ND	ND	ND	ND	-	-
9(S)-Hexahydrocannabinol	ND	ND	ND	ND	ND	-	-
Δ8-THC-O-Acetate	ND	ND	ND	ND	ND	-	-
Δ9-THC-O-Acetate	ND	ND	ND	ND	ND	-	-
THC-O-Phosphate	NT	NT	NT	NT	NT	-	-
Δ8-THCP	ND	ND	ND	ND	ND	-	-
Δ9-THCP	ND	ND	ND	ND	ND	-	-
Total THC	0.0138	0.00138	0.0138	4.88	4.88	-	-
Total CBD	ND	ND	ND	ND	ND	-	-
Total Cannabinoids	0.0138	0.00138	0.0138	4.88	4.88	-	-
Sum of Cannabinoids	0.0138	0.00138	0.0138	4.88	4.88	-	-
Serving Weight (g)	353.9705						
Package Weight (g)	353.9705						
g/ml Conversion Factor	0.9971						

Total THC = Δ8-THC + Δ9-THC + (0.877 * THCA)
Total CBD = CBD + (0.877 * CBDA)
Total Cannabinoids = Σ (neutral cannabinoids) + [0.877 * Σ (acidic cannabinoids)]

Microbiological Screen ✔ Pass

12/29/2025

Measurement of Uncertainty Average: APC ±35.6%, Y&M ±31.3%

Analyte	Findings	Units	Method	Limit	Status
Salmonella	ND	/25g	AOAC 2016.01	ND	Pass
STEC	ND	/25g	MF-MICRO-18	ND	Pass
Aspergillus flavus	ND	/25g	MF-MICRO-14	ND	Pass
Aspergillus fumigatus	ND	/25g	MF-MICRO-14	ND	Pass
Aspergillus niger	ND	/25g	MF-MICRO-14	ND	Pass
Aspergillus terreus	ND	/25g	MF-MICRO-14	ND	Pass
Listeria Species	ND	/25g	AOAC 2016.07	ND	Pass
Total Aerobic Plate Count	0/10	cfu/g	FDA BAM	100000	Pass
Total Coliforms	0/10	cfu/g	FDA BAM - ECC Agar	100	Pass
E. Coli	ND	/1g	FDA BAM Modified	1	Pass
Total Enterobacteriaceae	<1	cfu/g	AOAC 2003.01	ND	Pass
Staphylococcus aureus	<1	cfu/g	AOAC 2003.07	ND	Pass
Total Yeast and Mold	0/10	cfu/g	FDA BAM	100000	Pass

Pesticide Residue Screen ✔ Pass

12/30/2025

Method: MF-CHEM-13

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

Measurement of Uncertainty Average: ±21.40%

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Abamectin	0.015/0.05	ND	0.05	Pass
Acephate	0.003/0.01	ND	0.01	Pass
Acequinocyl	0.003/0.01	ND	0.01	Pass
Acetamiprid	0.003/0.01	ND	0.01	Pass
Aldicarb	0.003/0.01	ND	0.01	Pass
Allethrin	0.015/0.05	ND	0.05	Pass
Ancymidol	0.02/0.06	ND	0.06	Pass
Anthraquinone	0.05/0.15	ND	0.25	Pass
Atrazine	0.007/0.02	ND	0.02	Pass
Azadirachtin	0.100/0.30	ND	0.3	Pass
Azoxystrobin	0.003/0.01	ND	0.01	Pass
Benzovindiflupyr	0.003/0.01	ND	0.01	Pass
Bifenazate	0.003/0.01	ND	0.01	Pass
Bifenthrin	0.003/0.01	ND	0.01	Pass
Boscalid	0.003/0.01	ND	0.01	Pass
Buprofezin	0.003/0.01	ND	0.01	Pass
Captan	0.250/0.7	ND	0.7	Pass
Carbaryl	0.003/0.01	ND	0.01	Pass
Carbofuran	0.003/0.01	ND	0.01	Pass
Chlorantraniliprole	0.003/0.01	ND	0.01	Pass
Chlordane	0.020/0.06	ND	0.06	Pass
Chlorfenapyr	0.015/0.05	ND	0.05	Pass
Chlormequat Chloride	0.03/0.10	ND	0.1	Pass
Chlorpyrifos	0.003/0.01	ND	0.01	Pass
Clothianidin	0.003/0.01	ND	0.01	Pass
Clofentezine	0.003/0.01	ND	0.01	Pass
Coumaphos	0.003/0.01	ND	0.01	Pass
Cyantraniliprole	0.003/0.01	ND	0.01	Pass
Cyfluthrin	0.015/0.05	ND	0.05	Pass
Cyhalothrin (Lambda)	0.030/0.10	ND	0.1	Pass
Cypermethrin	0.015/0.05	ND	0.05	Pass
Cyprodinil	0.03/0.10	ND	0.1	Pass
Daminozide	0.003/0.01	ND	0.01	Pass
Deltamethrin I/II	0.015/0.05	ND	0.05	Pass
DDVP (Dichlorvos)	0.003/0.01	ND	0.01	Pass
Diazinon	0.003/0.01	ND	0.01	Pass
Dimethoate	0.003/0.01	ND	0.01	Pass
Dimethomorph	0.003/0.01	ND	0.01	Pass
Dinotefuran	0.007/0.02	ND	0.02	Pass
Diuron	0.007/0.02	ND	0.02	Pass

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Dodemorph	0.003/0.01	ND	0.01	Pass
Endosulfan I (alpha)	0.015/0.05	ND	0.05	Pass
Endosulfan II (beta)	0.015/0.05	ND	0.05	Pass
Endosulfan Sulfate	0.015/0.05	ND	0.05	Pass
Ethoprop(hos)	0.003/0.01	ND	0.01	Pass
Etofenprox	0.003/0.01	ND	0.01	Pass
Etoxazole	0.003/0.01	ND	0.01	Pass
Etridiazole	0.003/0.01	ND	0.01	Pass
Fenhexamid	0.007/0.02	ND	0.02	Pass
Fenoxycarb	0.003/0.01	ND	0.01	Pass
Fenpyroximate	0.007/0.02	ND	0.02	Pass
Fensulfothion	0.003/0.01	ND	0.01	Pass
Fenthion	0.003/0.01	ND	0.01	Pass
Fenvalerate I/II	0.015/0.05	ND	0.05	Pass
Fipronil	0.003/0.01	ND	0.01	Pass
Flonicamid	0.003/0.01	ND	0.01	Pass
Fludioxonil	0.003/0.01	ND	0.01	Pass
Fluopyram	0.003/0.01	ND	0.01	Pass
Flurprimidol	0.03/0.10	ND	0.1	Pass
Hexythiazox	0.003/0.01	ND	0.01	Pass
Imazalil	0.003/0.01	ND	0.01	Pass
Imidacloprid	0.003/0.01	ND	0.01	Pass
Indole-3-butyric Acid	0.08/0.25	ND	0.25	Pass
Iprodione	0.015/0.05	ND	0.05	Pass
Kinoprene	0.015/0.05	ND	0.05	Pass
Kresoxim Methyl	0.003/0.01	ND	0.01	Pass
Malathion	0.003/0.01	ND	0.01	Pass
Metalaxyl	0.003/0.01	ND	0.01	Pass
Methiocarb	0.003/0.01	ND	0.01	Pass
Methomyl	0.003/0.01	ND	0.01	Pass
Methoprene	0.100/0.30	ND	0.3	Pass
Methyl parathion	0.003/0.01	ND	0.01	Pass
Mevinphos	0.007/0.02	ND	0.02	Pass
MGK 264	0.015/0.05	ND	0.05	Pass
Myclobutanil	0.003/0.01	ND	0.01	Pass
Naled	0.003/0.01	ND	0.01	Pass
Novaluron	0.007/0.02	ND	0.02	Pass
Oxamyl	0.003/0.01	ND	0.01	Pass
Paclobutrazol	0.003/0.01	ND	0.01	Pass
Pendimethalin	0.030/0.10	ND	0.1	Pass
Pentachloronitrobenzene	0.003/0.01	ND	0.01	Pass
Permethrins	0.015/0.05	ND	0.05	Pass
Phenothrin	0.030/0.10	ND	0.1	Pass
Phosmet	0.003/0.01	ND	0.01	Pass
Piperonyl Butoxide	0.003/0.01	ND	0.01	Pass
Pirimicarb	0.003/0.01	ND	0.01	Pass
Prallethrin	0.015/0.05	ND	0.05	Pass
Propiconazole	0.003/0.01	ND	0.01	Pass
Propoxur	0.003/0.01	ND	0.01	Pass
Pyraclostrobin	0.003/0.010	ND	0.01	Pass
Pyrethrins	0.015/0.05	ND	0.05	Pass
Pyridaben	0.003/0.01	ND	0.01	Pass
Pyriproxyfen	0.003/0.01	ND	0.01	Pass
Resmethrin	0.007/0.02	ND	0.02	Pass
Spinetoram	0.003/0.01	ND	0.01	Pass
Spinosad	0.003/0.01	ND	0.01	Pass
Spirodiclofen	0.050/0.15	ND	0.15	Pass
Spiromesifen	0.003/0.01	ND	0.01	Pass
Spirotetramat	0.003/0.01	ND	0.01	Pass
Spiroxamine	0.003/0.01	ND	0.01	Pass
Tebuconazole	0.003/0.01	ND	0.01	Pass
Tebufenozide	0.003/0.01	ND	0.01	Pass
Teflubenzuron	0.007/0.02	ND	0.02	Pass
Tetrachlorvinphos	0.003/0.01	ND	0.01	Pass
Tetramethrin	0.015/0.05	ND	0.05	Pass
Thiabendazole	0.007/0.02	ND	0.02	Pass
Thiacloprid	0.003/0.01	ND	0.01	Pass
Thiamethoxam	0.003/0.01	ND	0.01	Pass
Thiophanate Methyl	0.007/0.02	ND	0.02	Pass
Trifloxystrobin	0.003/0.01	ND	0.01	Pass

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
2-Phenylphenol	0.08/0.25	ND	0.25	Pass
3,4-Dichloroaniline	0.08/0.25	ND	0.25	Pass
Acetochlor	0.05/0.15	ND	0.5	Pass
Alachlor	0.05/0.15	ND	0.25	Pass
Ametryn	0.03/0.10	ND	0.5	Pass
Aminocarb	0.03/0.10	ND	0.25	Pass
Biphenyl	0.08/0.25	ND	0.25	Pass
Carbendazim	0.03/0.10	ND	0.5	Pass
Cycloate	0.08/0.25	ND	0.5	Pass
Cyromazine	0.03/0.10	ND	0.5	Pass
DCPA Dacthal, Chlorthal-dimethyl	0.03/0.10	ND	0.5	Pass
Diclobutrazol	0.02/0.06	ND	0.5	Pass
Diiflubenuron	0.08/0.25	ND	0.5	Pass
Diphenylamine	0.08/0.25	ND	0.5	Pass
Ethirimol	0.02/0.06	ND	0.5	Pass
Flutriafol	0.05/0.15	ND	0.5	Pass
Formetanate HCl	0.03/0.10	ND	0.1	Pass
Hexaconazole	0.05/0.15	ND	0.5	Pass
Hydramethylnon	0.05/0.15	ND	0.5	Pass
Indoxacarb	0.05/0.15	ND	0.5	Pass
Mandipropamid	0.03/0.10	ND	0.5	Pass
Metaflumizone	0.08/0.25	ND	0.5	Pass
Methoxyfenozide	0.02/0.06	ND	0.5	Pass
Metolachlor	0.05/0.15	ND	0.25	Pass
Nuarimol	0.05/0.15	ND	0.5	Pass
o,p'-DDD	0.03/0.10	ND	0.1	Pass
o,p'-DDE	0.03/0.10	ND	0.1	Pass
o,p'-DDT	0.03/0.10	ND	0.1	Pass
p,p'-DDD	0.03/0.10	ND	0.1	Pass
p,p'-DDE	0.03/0.10	ND	0.1	Pass
p,p'-DDT	0.03/0.10	ND	0.1	Pass
Pentachloroanisole	0.10/0.30	ND	0.5	Pass
Prometryne	0.02/0.06	ND	0.5	Pass
Propamocarb	0.08/0.25	ND	0.5	Pass
Propargite	0.08/0.25	ND	0.5	Pass
Propyzamide	0.05/0.15	ND	0.5	Pass
Pymetrozine	0.03/0.10	ND	0.5	Pass
Pyrimethanil	0.03/0.10	ND	0.5	Pass
Quinoxifen	0.03/0.10	ND	0.5	Pass
Sulfoxaflor	0.03/0.10	ND	0.25	Pass
Tau-Fluvalinate	0.08/0.25	ND	0.5	Pass
Terbutryn	0.02/0.06	ND	0.25	Pass
Thiobencarb	0.03/0.10	ND	0.5	Pass
Tricyclazole	0.02/0.06	ND	0.5	Pass
Triflumizole	0.05/0.15	ND	0.5	Pass

Residual Solvent Screen ✔ Pass

12/29/2025

Measurement of Uncertainty Average: $\pm 1.43\%$

Analyte	LOD/LOQ (ppm)	Findings (ppm)	Limit (ppm)	Status
1,1-Dichloroethene	2/4	ND	8	Pass
1,2-Dichloroethane	0.2/0.5	ND	1	Pass
Acetone	14/40	ND	750	Pass
Acetonitrile	14/40	ND	60	Pass
Benzene	0.2/0.5	ND	1	Pass
n-Butane	14/40	ND	800	Pass
Chloroform	0.2/0.5	ND	1	Pass
Ethanol	14/40	1190.00	5000	Pass
Ethyl acetate	14/40	ND	400	Pass
Ethyl ether	14/40	ND	500	Pass
Ethylene oxide	0.2/0.5	ND	1	Pass
n-Heptane	14/40	ND	500	Pass
n-Hexane	14/40	ND	100	Pass
Isopropyl alcohol	14/40	ND	500	Pass
Methanol	14/40	ND	250	Pass
Methylene chloride	0.2/0.5	ND	1	Pass
n-Pentane	14/40	ND	750	Pass
Propane	14/40	ND	210	Pass
Toluene	14/40	ND	150	Pass
Total xylenes (ortho-, meta-, para-)	14/40	ND	150	Pass
Trichloroethylene	0.2/0.5	ND	1	Pass

Heavy Metal Screen ✔ Pass

12/29/2025

Method: MF-CHEM-16
Instrument: Inductively Coupled Plasma Mass Spectrometry (ICP-MS)
Measurement of Uncertainty Average: $\pm 4.4\%$

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit	Status
Arsenic	0.033/0.101	ND	0.2	Pass
Cadmium	0.047/0.141	ND	0.2	Pass
Mercury	0.014/0.05	ND	0.1	Pass
Lead	0.107/0.324	ND	0.5	Pass

Foreign Material ✔ Pass

12/29/2025

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

Mycotoxin Screen ✔ Pass

12/30/2025

Method: MF-CHEM-13
Instrument: Liquid Chromatography Tandem Mass Spectrometry (LC-MS/MS) & Gas Chromatography Tandem Mass Spectrometry (GC-MS/MS)
Measurement of Uncertainty (MU): $\pm 20.21\%$

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

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

Reported by



Vu Lam
Lab Co Director



Scan to verify