

July 02, 2019

Steve Ellison
Superior Extractions
4459 White Bear Parkway
White Bear Lake, MN 55110

Work Order Number: 1902485

Enclosed are the results of analyses for samples received by the laboratory on 06/21/19. If there are any questions concerning this report, please feel free to contact me.

Results are not blank corrected unless noted within the report. Additionally, all test results and QC meet requirements of the 2009 NELAC standard.

All samples will be retained by Legend Technical Services, Inc. unless consumed in the analysis, for 30 days from the date of this report and then returned or discarded unless other arrangements are made.

Prepared by,

LEGEND TECHNICAL SERVICES, INC.
Approved Testing Laboratory, MDH Office of Medical Cannabis
ISO/IEC 17025:2005 Accredited, A2LA Certificate 2950.01



Emily Hoffman
Chemist II
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Superior Extractions 4459 White Bear Parkway White Bear Lake, MN 55110	LEGEND Project: Extraction Samples Project Manager: Steve Ellison	Work Order #: 1902485 Date Reported: 07/02/19
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ANALYTICAL REPORT FOR SAMPLES

Sample ID		Laboratory ID	Matrix	Date Sampled	Date Received
B190621-1	Biomass - FLOWER ONLY	1902485-01	Solid	06/21/19 00:00	06/21/19 11:17
B190621-2	Biomass - LEAF ONLY	1902485-02	Solid	06/21/19 00:00	06/21/19 11:17
B190621-3	Distillate - Batch 3	1902485-03	Solid	06/21/19 00:00	06/21/19 11:17
B190621-4	Distillate - Batch 4	1902485-04	Solid	06/21/19 00:00	06/21/19 11:17
B190621-5	Distillation - Batch 5 Heads Fraction	1902485-05	Solid	06/21/19 00:00	06/21/19 11:17
B190621-6	Distillate - Batch 5	1902485-06	Solid	06/21/19 00:00	06/21/19 11:17
B190621-7	Distillation - Batch 5 Tails Fraction	1902485-07	Solid	06/21/19 00:00	06/21/19 11:17
B190621-8	Distillation - Batch 5 Mantle Remnants	1902485-08	Solid	06/21/19 00:00	06/21/19 11:17

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TOTAL CANNABINOIDS
 Legend Technical Services, Inc.

Analyte	Result	RL	Units	Analyzed	Method	Notes
B190621-1 (1902485-01) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17						
Cannabichromene (CBC)	0.176	0.0100	%	06/25/19	HPLC	
Cannabidiol (CBD)	2.73	0.100	%	"	"	
Cannabidiolic Acid (CBDA)	11.0	1.00	%	"	"	
Cannabigerol (CBG)	<0.00200	0.00200	%	"	"	
Cannabinol (CBN)	0.00616	0.00200	%	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.218	0.0100	%	"	"	
THCA-A	0.253	0.0100	%	"	"	
Total CBD	12.4	0.977	%	"	"	
Total THC	0.440	0.0188	%	"	"	
B190621-2 (1902485-02) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17						
Cannabichromene (CBC)	0.0524	0.00200	%	06/25/19	HPLC	
Cannabidiol (CBD)	0.696	0.100	%	"	"	
Cannabidiolic Acid (CBDA)	3.93	0.100	%	"	"	
Cannabigerol (CBG)	<0.00200	0.00200	%	"	"	
Cannabinol (CBN)	<0.00200	0.00200	%	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	0.0666	0.00200	%	"	"	
THCA-A	0.0995	0.0100	%	"	"	
Total CBD	4.15	0.188	%	"	"	
Total THC	0.154	0.0108	%	"	"	
B190621-3 (1902485-03) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17						
Cannabichromene (CBC)	2.81	0.186	%	06/25/19	HPLC	
Cannabidiol (CBD)	90.5	1.86	%	"	"	
Cannabidiolic Acid (CBDA)	0.0493	0.0373	%	"	"	
Cannabigerol (CBG)	0.475	0.0373	%	"	"	
Cannabinol (CBN)	0.230	0.0373	%	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	4.09	0.186	%	"	"	
THCA-A	<0.0373	0.0373	%	"	"	
Total CBD	90.5	1.90	%	"	"	
Total THC	4.09	0.219	%	"	"	
B190621-4 (1902485-04) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17						
Cannabichromene (CBC)	2.36	0.180	%	06/25/19	HPLC	
Cannabidiol (CBD)	86.3	18.0	%	"	"	
Cannabidiolic Acid (CBDA)	<0.0361	0.0361	%	"	"	
Cannabigerol (CBG)	0.453	0.0361	%	"	"	
Cannabinol (CBN)	0.223	0.0361	%	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	4.18	0.180	%	"	"	
THCA-A	<0.0361	0.0361	%	"	"	

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Analyte	Result	RL	Units	Analyzed	Method	Notes
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B190621-4 (1902485-04) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17

Total CBD	86.3	18.1	%	06/25/19	HPLC	
Total THC	4.18	0.212	%	"	"	

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

B190621-6 (1902485-06) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17

Cannabichromene (CBC)	2.18	0.184	%	06/25/19	HPLC	
Cannabidiol (CBD)	87.6	1.84	%	"	"	
Cannabidiolic Acid (CBDA)	<0.0367	0.0367	%	"	"	
Cannabigerol (CBG)	0.467	0.0367	%	"	"	
Cannabinol (CBN)	0.183	0.0367	%	"	"	
Delta-9-Tetrahydrocannabinol (d9-THC)	4.19	0.184	%	"	"	
THCA-A	0.0475	0.0367	%	"	"	
Total CBD	87.6	1.87	%	"	"	
Total THC	4.23	0.216	%	"	"	

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

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AFLATOXINS
Legend Technical Services, Inc.

Analyte	Result	RL	Units	Analyzed	Method	Notes
B190621-6 (1902485-06) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17						
Aflatoxin B1	<3.0	3.0	ng/g	06/27/19	LC-MS/MS	M2
Aflatoxin B2	<3.0	3.0	ng/g	"	"	M2
Aflatoxin G1	<3.0	3.0	ng/g	"	"	
Aflatoxin G2	<6.0	6.0	ng/g	"	"	

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TOTAL METALS ANALYSIS
Legend Technical Services, Inc.

Analyte	Result	RL	Units	Analyzed	Method	Notes
B190621-6 (1902485-06) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17						
Arsenic	<1.0	1.0	mg/kg wet	06/25/19	EPA 6010C	
Cadmium	<0.050	0.050	mg/kg wet	"	"	
Lead	<0.75	0.75	mg/kg wet	"	"	
Mercury	<0.50	0.50	mg/kg wet	"	"	

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MICRO ANALYSES
Legend Technical Services, Inc.

Analyte	Result	RL	Units	Analyzed	Method	Notes
B190621-6 (1902485-06) Solid Sampled: 06/21/19 00:00 Received: 06/21/19 11:17						
Salmonella	<1.0	1.0	CFU/g	06/27/19	ISO 7402 / AOAC 2003.01	
Total Aerobic Bacteria	<120	120	CFU/g	"	AOAC 990.12 / ISO 4833	
Total Bile Tolerant Gram-Negative Bacteria	<71	71	CFU/g	06/26/19	"	
Total Coliform	<4.7	4.7	CFU/g	"	AOAC 991.14	
Total E.coli	<4.7	4.7	CFU/g	06/27/19	"	
Total Yeast and Mold	<4.7	4.7	CFU/g	06/28/19	AOAC 990.12 / ISO 4833	

Report Comments:

Notes and Definitions

- R7 LFB/LFBD (LCS/LCSD) RPD exceeded laboratory acceptance limit. Recoveries met acceptance criteria.
- M2 Matrix spike recovery was low, the associated blank spike recovery was acceptable.
- < Less than value listed
- RL Reporting Limit
- CFU/g Colony Forming Units per gram

Total CBD = CBD +(CBDA*0.877)

Total THC = d-9 THC + (THCA-A*0.877)

0.877 is the decarboxylation factor when converting from the acid form to the neutral form