

Hemp Proficiency Testing

Summary Statistics



Samples: HM19NOV

Issue Date: 12/20/2019

By Analyte

HM19NOV-1 (hemp)

Analyte	Code	Trueness (Lab Value)				Horwitz %RSD	Precision (Lab RSDr)		
		Rob Mean	n	Rob StDev	%RSD		Rob Mean	min	max
Δ9-THC (%AR)	001	0.1609	47	0.021	13	5.25	3.39	0	15.8
Δ9-THCA (%AR)	002	0.1592	48	0.0279	17.6	5.26	4.06	0	36
CBD (%AR)	003	1.5907	42	0.1467	9.22	3.72	3.73	0.24	12
CBDA (%AR)	004	5.1949	41	0.5387	10.4	3.12	2.81	0.2	13.2
CBN (%AR)	005	0.0229	13	0.0225	98.4	7.03	4.72	0	30.8
Total Δ9-THC (%AR)	006	0.2999	60	0.0378	12.6	4.78	3.34	0	14.4
Total CBD (%AR)	007	6.1813	46	0.502	8.12	3.04	2.58	0.24	12.2
Moisture (%AR)	500	7.2112	16	1.9531	27.1	2.97	2.5	0.32	13.8
Δ9-THC (%DW)	501	0.1626	12	0.0214	13.2	5.24	6.3	0	44.4
Δ9-THCA (%DW)	502	0.1588	13	0.0434	27.3	5.26	5.07	0	45
CBD (%DW)	503	1.6896	12	0.2545	15.1	3.69	2.28	0.27	12.2
CBDA (%DW)	504	5.403	12	0.5704	10.6	3.1	2.26	0.29	8.65
Total Δ9-THC (%DW)	506	0.2996	15	0.047	15.7	4.78	3.46	0	13.1

Total CBD (%DW)	507	6.3661	14	0.8074	12.7	3.02	2.65	0.31	7.94
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HM19NOV-2 (hemp)

Analyte	Code	Trueness (Lab Value)				Horwitz %RSD	Precision (Lab RSDr)		
		Rob Mean	n	Rob StDev	%RSD		Rob Mean	min	max
Δ9-THC (%AR)	001	0.0351	42	0.0056	15.9	6.6	5.68	0	31.5
Δ9-THCA (%AR)	002	0.038	43	0.0104	27.5	6.52	5.64	0	129
CBD (%AR)	003	0.4412	42	0.0411	9.31	4.51	3.27	0.5	11.1
CBDA (%AR)	004	1.407	41	0.1467	10.4	3.79	2.74	0	13.9
CBN (%AR)	005	0.0148	6	0.0139	93.9	7.51	10.89	0	43.1
Total Δ9-THC (%AR)	006	0.0686	56	0.0138	20.1	5.96	5.6	0	33.8
Total CBD (%AR)	007	1.6881	46	0.1669	9.89	3.69	2.68	0	12
Moisture (%AR)	500	5.7585	16	1.5411	26.8	3.07	3.63	0.5	30.9
Δ9-THC (%DW)	501	0.0343	9	0.0039	11.4	6.62	8.99	0	31.5
Δ9-THCA (%DW)	502	0.039	9	0.0107	27.4	6.49	9.8	0	25
CBD (%DW)	503	0.4552	12	0.0389	8.55	4.49	3.98	0	10.5
CBDA (%DW)	504	1.4152	12	0.2074	14.7	3.79	3.06	0.42	8.76
Total Δ9-THC (%DW)	506	0.0682	11	0.0179	26.3	5.97	8.22	0	17.6
Total CBD (%DW)	507	1.7103	14	0.2225	13	3.68	2.68	0.68	9.33

By Method Group

HM19NOV-1 (hemp)

Analyte	Code	Trueness (Lab Value)				Horwitz %RSD	Precision (Lab RSDr)		
		Rob Mean	n	Rob StDev	%RSD		Rob Mean	min	max
Δ9-THC (%AR)	LC	0.1601	43	0.0201	12.6	5.25	3.26	0	15.8
Δ9-THCA (%AR)	LC	0.1586	44	0.028	17.7	5.26	3.84	0	36
CBD (%AR)	LC	1.5899	39	0.1614	10.2	3.72	3.68	0.24	12
CBDA (%AR)	LC	5.1976	38	0.5677	10.9	3.12	2.77	0.2	13.2
CBN (%AR)	LC	0.0227	10	0.0265	117	7.04	3.87	0	9.91
Total Δ9-THC (%AR)	GC	0.3032	13	0.0452	14.9	4.77	4.77	1.16	11.6
Total Δ9-THC (%AR)	LC	0.2958	42	0.0354	12	4.79	2.77	0	14.4
Total CBD (%AR)	GC	6.3872	6	0.5082	7.96	3.02	3.8	1.67	9.99
Total CBD (%AR)	LC	6.1441	37	0.5365	8.73	3.04	2.33	0.24	12.2
Δ9-THC (%DW)	LC	0.1603	9	0.0211	13.1	5.25	7.57	0	44.4
Δ9-THCA (%DW)	LC	0.1469	10	0.0449	30.5	5.32	4.46	0	45
CBD (%DW)	LC	1.6866	10	0.3229	19.1	3.69	2.23	0.27	12.2
CBDA (%DW)	LC	5.2426	10	0.9406	17.9	3.11	2.45	0.29	8.65
Total Δ9-THC (%DW)	LC	0.2856	10	0.0538	18.8	4.82	4.01	0	13.1
Total CBD (%DW)	LC	6.351	10	0.7309	11.5	3.02	2.41	0.31	6.44

HM19NOV-2 (hemp)

Analyte	Code	Trueness (Lab Value)				Horwitz %RSD	Precision (Lab RSDr)		
		Rob Mean	n	Rob StDev	%RSD		Rob Mean	min	max
Δ9-THC (%AR)	LC	0.035	38	0.0055	15.7	6.6	5.61	0	26.3

Δ9-THCA (%AR)	LC	0.0383	39	0.0111	29.1	6.51	5.63	0	129
CBD (%AR)	LC	0.4417	39	0.0439	9.94	4.51	3.28	0.5	11.1
CBDA (%AR)	LC	1.4112	38	0.1452	10.3	3.79	2.67	0	13.9
Total Δ9-THC (%AR)	GC	0.0765	12	0.0184	24	5.87	6.86	0.72	24.3
Total Δ9-THC (%AR)	LC	0.0663	39	0.0128	19.4	6	5.18	0	33.8
Total CBD (%AR)	GC	1.8462	6	0.1294	7.01	3.64	4.52	0.2	7.77
Total CBD (%AR)	LC	1.6721	37	0.1466	8.77	3.69	2.43	0	12
Δ9-THC (%DW)	LC	0.0345	7	0.0042	12.3	6.61	8.06	0	15.7
Δ9-THCA (%DW)	LC	0.0386	7	0.0123	31.8	6.5	8.91	0	15.2
CBD (%DW)	LC	0.4509	10	0.0457	10.1	4.5	4.33	0	10.5
CBDA (%DW)	LC	1.3911	10	0.2441	17.5	3.8	3.13	0.42	8.76
Total Δ9-THC (%DW)	LC	0.0622	8	0.0232	37.3	6.05	7.82	0	15.7
Total CBD (%DW)	LC	1.6571	10	0.2418	14.6	3.7	2.76	0.68	9.33

By Method

HM19NOV-1 (hemp)

Analyte	Code		Trueness (Lab Value)				Horwitz %RSD	Precision (Lab RSDr)		
			Rob Mean	n	Rob StDev	%RSD		Rob Mean	min	max
Δ9-THC (%AR)	001.02	AOAC 2018.11, diode array	0.1678	8	0.0244	14.6	5.22	3.5	2.28	4.84
Δ9-THC (%AR)	001.10	LC-UV, other	0.1631	22	0.0216	13.3	5.24	2.82	0	11
Δ9-THC (%AR)	001.30	LC-MS, other	0.1546	8	0.0206	13.3	5.28	5.03	0.45	15.8
Δ9-THCA (%AR)	002.02	AOAC 2018.11, diode array	0.1686	8	0.0206	12.2	5.21	10.46	1.41	36
Δ9-THCA (%AR)	002.10	LC-UV, other	0.1544	23	0.0281	18.2	5.28	3.51	1.2	13.3
Δ9-THCA (%AR)	002.30	LC-MS, other	0.1653	8	0.0222	13.4	5.23	4.6	0.46	11.1

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CBD (%AR)	003.02	AOAC 2018.11, diode array	1.5937	6	0.1991	12.5	3.72	4.19	0.24	8.28
CBD (%AR)	003.10	LC-UV, other	1.6242	21	0.1497	9.22	3.71	3.16	0.3	7.01
CBD (%AR)	003.30	LC-MS, other	1.5674	8	0.1401	8.94	3.73	5.58	0.65	12
CBDA (%AR)	004.10	LC-UV, other	5.2134	21	0.5933	11.4	3.12	2.6	0.2	8.37
CBDA (%AR)	004.30	LC-MS, other	5.2216	8	0.5259	10.1	3.11	4.97	0.23	13.2
Total Δ9-THC (%AR)	006.02	AOAC 2018.11, diode array	0.3182	7	0.0367	11.5	4.74	6.54	0.61	14.4
Total Δ9-THC (%AR)	006.10	LC-UV, other	0.2926	22	0.0336	11.5	4.8	2.78	0	8.56
Total Δ9-THC (%AR)	006.30	LC-MS, other	0.2995	8	0.0351	11.7	4.78	2.94	0.16	12.8
Total Δ9-THC (%AR)	006.40	GC-FID	0.2921	11	0.035	12	4.8	4.66	1.16	11.6
Total CBD (%AR)	007.10	LC-UV, other	6.1375	20	0.5824	9.49	3.04	2.28	0.24	7.1
Total CBD (%AR)	007.30	LC-MS, other	6.1321	8	0.5325	8.68	3.04	4.73	0.34	12.2
Moisture (%AR)	500.99	Other	6.8411	11	2.0768	30.4	2.99	2.14	0.32	13.8

HM19NOV-2 (hemp)

Analyte	Code		Trueness (Lab Value)				Horwitz %RSD	Precision (Lab RSDr)		
			Rob Mean	n	Rob StDev	%RSD		Rob Mean	min	max
Δ9-THC (%AR)	001.10	LC-UV, other	0.0341	19	0.007	20.5	6.62	5.04	0	26.3
Δ9-THC (%AR)	001.30	LC-MS, other	0.0336	8	0.0039	11.5	6.64	5.31	0.31	16.4
Δ9-THCA (%AR)	002.02	AOAC 2018.11, diode array	0.0433	7	0.012	27.7	6.39	11.17	0.5	48.7
Δ9-THCA (%AR)	002.10	LC-UV, other	0.0392	19	0.0154	39.4	6.49	5.55	0	129
Δ9-THCA (%AR)	002.30	LC-MS, other	0.0388	8	0.0038	9.83	6.5	5.59	0.49	14.8
CBD (%AR)	003.02	AOAC 2018.11, diode array	0.4409	6	0.0663	15	4.51	1.84	0.73	8.3
CBD (%AR)	003.10	LC-UV, other	0.4512	21	0.041	9.09	4.5	3.24	0.5	6.23
CBD (%AR)	003.30	LC-MS, other	0.4295	8	0.0377	8.78	4.53	4.25	0.86	10.3
CBDA (%AR)	004.10	LC-UV, other	1.405	21	0.1695	12.1	3.79	2.66	0	6.49

CBDA (%AR)	004.30	LC-MS, other	1.4469	8	0.0991	6.85	3.78	3.24	0.44	13.9
Total Δ9-THC (%AR)	006.10	LC-UV, other	0.0636	19	0.018	28.3	6.03	4.69	0	13.3
Total Δ9-THC (%AR)	006.30	LC-MS, other	0.0672	9	0.0059	8.85	5.98	4.98	0.83	12.3
Total Δ9-THC (%AR)	006.40	GC-FID	0.0733	11	0.0146	20	5.91	6.84	0.72	24.3
Total CBD (%AR)	007.10	LC-UV, other	1.6695	20	0.1568	9.39	3.7	2.48	0	5.43
Total CBD (%AR)	007.30	LC-MS, other	1.6975	8	0.1041	6.13	3.69	3.12	0.12	12
Moisture (%AR)	500.99	Other	5.5919	12	1.7238	30.8	3.08	3.93	0.5	30.9

%AR and % refer to concentration in percent on as-received basis. %DW refers to concentration in percent on dry weight basis.

Data summarized for trueness and precision if 6 or more Lab values and 6 or more Lab RSDr values were available.