

Hemp Proficiency Testing

Summary All Labs Trueness



Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Result1	Result2	Result3	Unit	Lab Value	Z score	Population of Lab Values			
											Rob Mean	n	Rob StDev	Flag
Δ9-THC														
1	Δ9-THC	001.99	Other	114				%					1	
1	Δ9-THC	001.10	HPLC-UVVIS	110	<0.1600	<0.1600	<0.1600	%	<0.1600				1	
1	Δ9-THC	001.10	HPLC-UVVIS	136	0.01	0.02	0.06	%	0.03	-3.71	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	108	0.1012	0.0929	0.1032	%	0.0991	-1.31	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	141	0.0971	0.1033	0.1028	%	0.101	-1.24	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	106	0.179	0.056	0.075	%	0.103	-1.16	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	118	0.121	0.115	0.089	%	0.108	-0.99	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	129	0.1072	0.1120	0.1118	%	0.11	-0.92	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	111	0.1126	0.1177	0.1233	%	0.118	-0.65	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	116	0.1300	0.1130	0.1240	%	0.122	-0.5	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	142	0.1284	0.1242	0.1227	%	0.125	-0.4	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	104	0.12	0.14	0.12	%	*0.127	-0.35	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	113	0.1278	0.1300	0.1279	%	0.129	-0.28	0.1367	28	0.0287	0
1	Δ9-THC	001.99	Other	137	0.1270	0.1255	0.1343	%	0.129	-0.27	0.1367	28	0.0287	0

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	
1	Δ9-THC	001.99	Other	131	0.13	0.13	0.14	%	*0.133	-0.12	0.1367	28	0.0287	0
1	Δ9-THC	001.30	HPLC-MS	102	0.1263	0.1459	0.1338	%	0.135	-0.05	0.1367	28	0.0287	0
1	Δ9-THC	001.30	HPLC-MS	122	0.1307	0.1309	0.1511	%	0.138	0.03	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	125	0.1217	0.1549	0.1377	%	0.138	0.05	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	123	0.1502	0.1400	0.1301	%	0.14	0.12	0.1367	28	0.0287	0
1	Δ9-THC	001.30	HPLC-MS	105	0.143	0.148	0.135	%	*0.142	0.19	0.1367	28	0.0287	0
1	Δ9-THC	001.30	HPLC-MS	119	0.132	0.1449	0.1505	%	0.142	0.2	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	140	0.1436	0.1413	0.1488	%	0.145	0.28	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	101	0.1541	0.1415	0.1511	%	0.149	0.43	0.1367	28	0.0287	0
1	Δ9-THC	001.30	HPLC-MS	139	0.1662	0.1507	0.1491	%	0.155	0.65	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	109	0.1626	0.1499	0.1739	%	*0.162	0.89	0.1367	28	0.0287	0
1	Δ9-THC	001.99	Other	120	0.1607	0.1747	0.1683	%	*0.168	1.09	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	135	0.1528	0.1606	0.2118	%	0.175	1.34	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	124	.1780	.1790	.1800	%	0.179	1.47	0.1367	28	0.0287	0
1	Δ9-THC	001.99	Other	132	.1756	.1828	.1889	%	0.182	1.59	0.1367	28	0.0287	0
1	Δ9-THC	001.10	HPLC-UVVIS	117	0.2900	0.2900	0.2800	%	0.287	5.22	0.1367	28	0.0287	0

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2	Δ9-THC	001.10	HPLC-UVVIS	106	0.094	0.095	0.015	%	0.068	-3.74	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	136	0.08	0.12	0.09	%	0.0967	-2.9	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	111	0.1382	0.1464	0.1648	%	0.15	-1.33	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	108	0.1611	0.1543	0.1507	%	0.155	-1.17	0.1949	29	0.0339	0

Sam Num	Analyte	Code	Method	Lab Num							Population of Lab Values			
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
2	Δ9-THC	001.10	HPLC-UVVIS	118	0.161	0.157	0.169	%	0.162	-0.96	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	129	0.1614	0.1680	0.1641	%	0.164	-0.9	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	141	0.1513	0.1841	0.1774	%	0.171	-0.71	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	104	0.17	0.17	0.19	%	*0.177	-0.54	0.1949	29	0.0339	0
2	Δ9-THC	001.30	HPLC-MS	122	0.1769	0.1774	0.1830	%	0.179	-0.47	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	110	0.1810	0.1821	0.1732	%	0.179	-0.48	0.1949	29	0.0339	0
2	Δ9-THC	001.30	HPLC-MS	105	0.186	0.177	0.192	%	*0.185	-0.29	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	116	0.1850	0.1910	0.1870	%	0.188	-0.21	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	113	0.1914	0.1936	0.1826	%	0.189	-0.17	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	142	0.2032	0.2121	0.1612	%	0.192	-0.08	0.1949	29	0.0339	0
2	Δ9-THC	001.30	HPLC-MS	102	0.1935	0.2109	0.1840	%	0.196	0.04	0.1949	29	0.0339	0
2	Δ9-THC	001.99	Other	137	0.2001	0.1939	0.1974	%	0.197	0.07	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	123	0.2072	0.1851	0.2085	%	0.2	0.16	0.1949	29	0.0339	0
2	Δ9-THC	001.30	HPLC-MS	139	0.1918	0.2047	0.2055	%	0.201	0.17	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	125	0.1835	0.2255	0.2025	%	0.204	0.26	0.1949	29	0.0339	0
2	Δ9-THC	001.30	HPLC-MS	119	0.1813	0.2277	0.2195	%	0.209	0.43	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	140	0.2194	0.2145	0.2029	%	0.212	0.51	0.1949	29	0.0339	0
2	Δ9-THC	001.99	Other	131	0.23	0.2	0.21	%	*0.213	0.54	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	109	0.2288	0.2092	0.2203	%	*0.219	0.72	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	101	0.2177	0.2184	0.2275	%	0.221	0.78	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	135	0.2338	0.2268	0.2163	%	0.226	0.91	0.1949	29	0.0339	0
2	Δ9-THC	001.99	Other	120	0.2301	0.2400	0.2372	%	*0.236	1.21	0.1949	29	0.0339	0

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											Rob Mean	n	Rob StDev	Flag
2	Δ9-THC	001.10	HPLC-UVVIS	124	.2500	.2460	.2500	%	0.249	1.59	0.1949	29	0.0339	0
2	Δ9-THC	001.99	Other	132	.2432	.2536	.2522	%	0.25	1.62	0.1949	29	0.0339	0
2	Δ9-THC	001.10	HPLC-UVVIS	117	0.3400	0.3500	0.3400	%	0.343	4.38	0.1949	29	0.0339	0

Δ9-THCA**HM18NOV-1**

1	Δ9-THCA	002.10	HPLC-UVVIS	111	<0.0050	0.0960	<0.0050	%	0.0353					1
1	Δ9-THCA	002.10	HPLC-UVVIS	142	0.0666	0.0537	0.0721	%	0.0641	-1.52	0.1046	26	0.0265	0
1	Δ9-THCA	002.99	Other	132	.0724	.0747	.0754	%	0.0742	-1.15	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	113	0.0764	0.0776	0.0758	%	0.0766	-1.05	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	118	0.089	0.091	0.061	%	0.0803	-0.91	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	140	0.0822	0.0805	0.0848	%	0.0825	-0.83	0.1046	26	0.0265	0
1	Δ9-THCA	002.99	Other	137	0.0820	0.0808	0.0859	%	0.0829	-0.82	0.1046	26	0.0265	0
1	Δ9-THCA	002.30	HPLC-MS	102	0.1014	0.0831	0.0717	%	0.0854	-0.72	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	124	.0720	.0920	.0940	%	0.086	-0.7	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	141	0.0805	0.1043	0.0825	%	0.0891	-0.58	0.1046	26	0.0265	0
1	Δ9-THCA	002.30	HPLC-MS	105	0.0909	0.0931	0.0845	%	*0.0895	-0.57	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	108	0.1031	0.0860	0.0852	%	0.0914	-0.5	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	123	0.1033	0.1085	0.0952	%	0.102	-0.08	0.1046	26	0.0265	0
1	Δ9-THCA	002.30	HPLC-MS	119	0.0961	0.1049	0.1095	%	0.104	-0.04	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	116	0.1070	0.0950	0.1090	%	0.104	-0.03	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	129	0.1063	0.1105	0.1038	%	0.107	0.09	0.1046	26	0.0265	0

Samples: HMNOV18-1 and HMNOV18-2

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					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
1	Δ9-THCA	002.10	HPLC-UVVIS	104	0.07	0.12	0.13	%	*0.107	0.08	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	125	0.0922	0.1026	0.1399	%	0.112	0.26	0.1046	26	0.0265	0
1	Δ9-THCA	002.30	HPLC-MS	139	0.1260	0.1122	0.1087	%	0.116	0.42	0.1046	26	0.0265	0
1	Δ9-THCA	002.99	Other	131	0.12	0.13	0.11	%	*0.12	0.58	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	106	0.101	0.129	0.135	%	0.122	0.64	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	135	0.1209	0.1236	0.1352	%	0.127	0.83	0.1046	26	0.0265	0
1	Δ9-THCA	002.30	HPLC-MS	122	0.1319	0.1312	0.1327	%	0.132	1.03	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	109	0.1246	0.1366	0.1375	%	*0.133	1.07	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	101	0.1536	0.1552	0.1554	%	0.155	1.89	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	110	<0.1600	<0.1600	0.2239	%	0.181					1
1	Δ9-THCA	002.10	HPLC-UVVIS	136	0.21	0.2	0.21	%	0.207	3.85	0.1046	26	0.0265	0
1	Δ9-THCA	002.10	HPLC-UVVIS	117	0.2700	0.2800	0.2900	%	0.28	6.61	0.1046	26	0.0265	0

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2	Δ9-THCA	002.10	HPLC-UVVIS	142	0.1152	0.0807	0.1148	%	0.104	-1.57	0.1747	28	0.0452	0
2	Δ9-THCA	002.99	Other	132	.1066	.1049	.1051	%	0.106	-1.53	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	113	0.1305	0.1314	0.1239	%	0.129	-1.02	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	111	0.1239	0.1320	0.1440	%	0.133	-0.92	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	140	0.1442	0.1404	0.1329	%	0.139	-0.79	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	118	0.137	0.147	0.143	%	0.142	-0.72	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	108	0.1546	0.1444	0.1359	%	0.145	-0.66	0.1747	28	0.0452	0
2	Δ9-THCA	002.30	HPLC-MS	102	0.1684	0.1438	0.1283	%	0.147	-0.62	0.1747	28	0.0452	0

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					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
2	Δ9-THCA	002.99	Other	137	0.1506	0.1465	0.1470	%	0.148	-0.59	0.1747	28	0.0452	0
2	Δ9-THCA	002.30	HPLC-MS	105	0.151	0.151	0.15	%	*0.151	-0.53	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	141	0.1585	0.1578	0.1527	%	0.156	-0.41	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	106	0.171	0.134	0.172	%	0.159	-0.35	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	110	0.1700	0.1777	<0.1600	%	0.169	-0.12	0.1747	28	0.0452	0
2	Δ9-THCA	002.30	HPLC-MS	119	0.149	0.1874	0.1821	%	0.173	-0.04	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	116	0.1600	0.1810	0.1770	%	0.173	-0.04	0.1747	28	0.0452	0
2	Δ9-THCA	002.30	HPLC-MS	139	0.1726	0.1763	0.1782	%	0.176	0.02	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	104	0.15	0.19	0.2	%	*0.18	0.12	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	123	0.1914	0.1764	0.1768	%	0.182	0.15	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	129	0.1806	0.1900	0.1741	%	0.182	0.15	0.1747	28	0.0452	0
2	Δ9-THCA	002.99	Other	131	0.19	0.19	0.18	%	*0.187	0.26	0.1747	28	0.0452	0
2	Δ9-THCA	002.30	HPLC-MS	122	0.1880	0.2007	0.1976	%	0.195	0.46	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	135	0.2473	0.1754	0.198	%	0.207	0.71	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	109	0.2097	0.2	0.2169	%	*0.209	0.76	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	101	0.2163	0.2375	0.2268	%	0.227	1.15	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	124	.2510	.2500	.2480	%	0.25	1.66	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	136	0.25	0.26	0.25	%	0.253	1.74	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	125	0.1727	0.4202	0.1957	%	0.263	1.95	0.1747	28	0.0452	0
2	Δ9-THCA	002.10	HPLC-UVVIS	117	0.3400	0.3400	0.3400	%	0.34	3.65	0.1747	28	0.0452	0

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					Result1	Result2	Result3	Unit				Rob Mean	n	Rob StDev	Flag						
CBD																					
HM18NOV-1																					
1	CBD	003.10	HPLC-UVVIS	118	1.237	1.193	0.934	%	1.12	-1.92	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	111	1.0993	1.1699	1.1371	%	1.14	-1.84	1.4495	28	0.1706	0							
1	CBD	003.30	HPLC-MS	122	1.1843	1.1730	1.1405	%	1.17	-1.66	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	110	1.2504	1.1709	1.2453	%	1.22	-1.33	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	108	1.3590	1.3480	1.298	%	1.34	-0.67	1.4495	28	0.1706	0							
1	CBD	003.30	HPLC-MS	119	1.2165	1.4234	1.3969	%	1.35	-0.61	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	136	1.28	1.38	1.4	%	1.35	-0.56	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	142	1.4218	1.3715	1.3417	%	1.38	-0.42	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	116	1.4120	1.3390	1.3930	%	1.38	-0.4	1.4495	28	0.1706	0							
1	CBD	003.30	HPLC-MS	102	1.3268	1.3637	1.4913	%	1.39	-0.33	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	141	1.4368	1.3848	1.4148	%	1.41	-0.22	1.4495	28	0.1706	0							
1	CBD	003.30	HPLC-MS	105	1.45	1.43	1.36	%	*1.41	-0.21	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	135	1.4107	1.4405	1.4745	%	1.44	-0.04	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	129	1.3423	1.4260	1.5374	%	1.44	-0.08	1.4495	28	0.1706	0							
1	CBD	003.99	Other	131	1.47	1.41	1.44	%	*1.44	-0.06	1.4495	28	0.1706	0							
1	CBD	003.99	Other	137	1.427	1.419	1.505	%	1.45	0	1.4495	28	0.1706	0							
1	CBD	003.99	Other	132	1.3839	1.4330	1.5210	%	1.45	-0.02	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	123	1.585	1.488	1.439	%	1.5	0.32	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	140	1.4920	1.4714	1.5448	%	1.5	0.31	1.4495	28	0.1706	0							
1	CBD	003.10	HPLC-UVVIS	117	1.5000	1.5100	1.5100	%	1.51	0.34	1.4495	28	0.1706	0							

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	
1	CBD	003.10	HPLC-UVVIS	113	1.4906	1.5415	1.5137	%	1.52	0.39	1.4495	28	0.1706	0
1	CBD	003.30	HPLC-MS	139	1.6106	1.5437	1.4496	%	1.53	0.5	1.4495	28	0.1706	0
1	CBD	003.10	HPLC-UVVIS	125	1.3470	1.7402	1.6676	%	1.58	0.79	1.4495	28	0.1706	0
1	CBD	003.10	HPLC-UVVIS	109	1.5929	1.5655	1.7107	%	*1.62	1.02	1.4495	28	0.1706	0
1	CBD	003.10	HPLC-UVVIS	106	1.654	1.544	1.81	%	1.67	1.29	1.4495	28	0.1706	0
1	CBD	003.10	HPLC-UVVIS	104	1.61	1.81	1.76	%	*1.73	1.62	1.4495	28	0.1706	0
1	CBD	003.10	HPLC-UVVIS	101	1.6495	1.8348	1.9631	%	1.82	2.15	1.4495	28	0.1706	0
1	CBD	003.10	HPLC-UVVIS	124	6.453	6.48	6.489	%	6.47	29.46	1.4495	28	0.1706	0

HM18NOV-2

2	CBD	003.10	HPLC-UVVIS	111	1.4031	1.4897	1.5043	%	1.47	-2.34	1.9769	28	0.2184	0
2	CBD	003.30	HPLC-MS	122	1.5671	1.5654	1.5326	%	1.56	-1.93	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	118	1.647	1.589	1.637	%	1.62	-1.61	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	110	1.6190	1.6729	1.7752	%	1.69	-1.32	1.9769	28	0.2184	0
2	CBD	003.99	Other	132	1.7900	1.8404	1.8842	%	1.84	-0.64	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	116	1.7230	1.8780	1.9350	%	1.85	-0.6	1.9769	28	0.2184	0
2	CBD	003.30	HPLC-MS	102	1.8338	1.8018	1.9167	%	1.85	-0.58	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	108	1.7950	1.9040	1.8370	%	1.85	-0.6	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	141	1.9249	1.8388	1.8758	%	1.88	-0.44	1.9769	28	0.2184	0
2	CBD	003.30	HPLC-MS	119	1.6341	2.0736	1.9667	%	1.89	-0.39	1.9769	28	0.2184	0
2	CBD	003.30	HPLC-MS	139	1.8525	1.9283	1.9281	%	1.9	-0.34	1.9769	28	0.2184	0
2	CBD	003.99	Other	131	1.95	1.93	1.89	%	*1.92	-0.25	1.9769	28	0.2184	0

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	
2	CBD	003.30	HPLC-MS	105	1.8	1.93	2.04	%	*1.92	-0.25	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	142	1.9459	2.2540	1.7372	%	1.98	0.01	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	129	1.9154	2.0491	1.9942	%	1.99	0.04	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	135	1.9365	2.0752	1.9886	%	2	0.11	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	117	2.0200	1.9900	2.0200	%	2.01	0.15	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	123	2.079	1.93	2.019	%	2.01	0.15	1.9769	28	0.2184	0
2	CBD	003.99	Other	137	2.095	2.038	2.075	%	2.07	0.42	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	136	1.98	2.23	2.02	%	2.08	0.46	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	113	2.0727	2.1350	2.0714	%	2.09	0.53	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	106	2.124	2.127	2.152	%	2.13	0.72	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	109	2.1291	2.1099	2.2024	%	*2.15	0.78	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	140	2.3068	2.2552	2.1049	%	2.22	1.12	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	125	1.9359	2.4297	2.3599	%	2.24	1.21	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	104	2.28	2.16	2.36	%	*2.27	1.33	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	101	2.1886	2.2240	2.4117	%	2.27	1.36	1.9769	28	0.2184	0
2	CBD	003.10	HPLC-UVVIS	124	9.138	9.104	9.17	%	9.14	32.79	1.9769	28	0.2184	0

CBDA**HM18NOV-1**

1	CBDA	004.99	Other	132	3.2579	3.3077	3.4665	%	3.34	-1.28	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	110	3.4948	3.3108	3.4432	%	3.42	-1.16	4.1433	25	0.6246	0
1	CBDA	004.30	HPLC-MS	139	3.7047	3.4483	3.1082	%	3.42	-1.16	4.1433	25	0.6246	0

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
1	CBDA	004.10	HPLC-UVVIS	136	3.32	3.63	3.75	%	3.57	-0.92	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	142	3.7674	3.3041	3.7112	%	3.59	-0.88	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	118	4.08	3.978	3.029	%	3.7	-0.72	4.1433	25	0.6246	0
1	CBDA	004.99	Other	137	3.66	3.61	3.843	%	3.7	-0.7	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	111	3.5724	3.9115	3.7033	%	3.73	-0.66	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	116	3.7260	3.7470	3.8540	%	3.78	-0.59	4.1433	25	0.6246	0
1	CBDA	004.30	HPLC-MS	119	3.4915	4.033	3.9821	%	3.84	-0.49	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	108	4.0300	3.9200	3.8180	%	3.92	-0.35	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	129	3.9271	3.8492	4.1246	%	3.97	-0.28	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	106	4.007	3.776	4.439	%	4.07	-0.11	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	140	4.1332	4.0749	4.3498	%	4.19	0.07	4.1433	25	0.6246	0
1	CBDA	004.30	HPLC-MS	105	4.15	4.72	3.98	%	*4.28	0.22	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	125	4.1082	4.5228	4.4097	%	4.35	0.33	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	123	4.682	4.302	4.161	%	4.38	0.38	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	117	4.4200	4.4400	4.4500	%	4.44	0.47	4.1433	25	0.6246	0
1	CBDA	004.30	HPLC-MS	122	4.3595	4.4599	4.6314	%	4.48	0.54	4.1433	25	0.6246	0
1	CBDA	004.99	Other	131	4.63	4.55	4.48	%	*4.55	0.66	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	141	4.5822	4.6235	4.7103	%	4.64	0.79	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	135	4.8818	5.0147	5.0614	%	4.99	1.35	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	101	4.8646	5.2082	5.4469	%	5.17	1.65	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	109	5.3161	5.3541	5.8714	%	*5.51	2.19	4.1433	25	0.6246	0
1	CBDA	004.10	HPLC-UVVIS	104	6.37	6.32	6.36	%	*6.35	3.53	4.1433	25	0.6246	0

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
HM18NOV-2														
2	CBDA	004.30	HPLC-MS	139	4.8867	5.2704	4.6687	%	4.94	-1.62	6.4068	25	0.9058	0
2	CBDA	004.99	Other	132	5.0876	5.0157	5.0877	%	5.06	-1.48	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	110	5.2071	5.3446	5.4090	%	5.32	-1.2	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	111	5.4668	5.7666	5.6759	%	5.64	-0.85	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	142	5.9326	5.5948	5.5729	%	5.7	-0.78	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	106	5.863	5.846	5.933	%	5.88	-0.58	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	116	5.7080	6.2640	5.9740	%	5.98	-0.47	6.4068	25	0.9058	0
2	CBDA	004.99	Other	137	6.117	5.935	5.994	%	6.02	-0.43	6.4068	25	0.9058	0
2	CBDA	004.30	HPLC-MS	122	5.9404	6.0149	6.1009	%	6.02	-0.43	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	118	6	5.933	6.184	%	6.04	-0.41	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	136	5.87	6.44	5.91	%	6.07	-0.37	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	108	6.0190	6.2330	6.1090	%	6.12	-0.32	6.4068	25	0.9058	0
2	CBDA	004.30	HPLC-MS	119	5.294	6.6423	6.4688	%	6.14	-0.3	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	129	6.3020	6.5855	6.2305	%	6.37	-0.04	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	140	6.7856	6.6296	6.1449	%	6.52	0.12	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	123	6.909	6.341	6.676	%	6.64	0.26	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	117	6.8100	6.7900	6.8500	%	6.82	0.45	6.4068	25	0.9058	0
2	CBDA	004.99	Other	131	7.03	7	6.81	%	*6.95	0.6	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	141	6.9747	6.9645	7.0933	%	7.01	0.67	6.4068	25	0.9058	0
2	CBDA	004.30	HPLC-MS	105	6.85	7.43	6.97	%	*7.08	0.75	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	125	7.3829	7.0502	7.2299	%	7.22	0.9	6.4068	25	0.9058	0

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	
2	CBDA	004.10	HPLC-UVVIS	101	7.2105	7.1743	7.2989	%	7.23	0.91	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	135	7.6264	8.1031	7.7563	%	7.83	1.57	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	109	8.1262	7.9283	8.3045	%	*8.12	1.89	6.4068	25	0.9058	0
2	CBDA	004.10	HPLC-UVVIS	104	9.34	8.91	9.65	%	*9.3	3.19	6.4068	25	0.9058	0

CBN**HM18NOV-1**

1	CBN	005.10	HPLC-UVVIS	125	<0.002	<0.002	<0.002	%	<0.002					1
1	CBN	005.10	HPLC-UVVIS	111	<0.0050	<0.0050	<0.0050	%	<0.0050					1
1	CBN	005.10	HPLC-UVVIS	142	<0.0067	<0.0067	<0.0067	%	<0.0067					1
1	CBN	005.10	HPLC-UVVIS	140	<0.01	<0.01	<0.01	%	<0.01					1
1	CBN	005.99	Other	132	<0.0100	<0.0100	<0.0100	%	<0.0100					1
1	CBN	005.10	HPLC-UVVIS	109	<0.0100	<0.0100	<0.0100	%	*<0.0100					1
1	CBN	005.10	HPLC-UVVIS	141	<0.012	<0.012	<0.012	%	<0.012					1
1	CBN	005.20	HPLC-MS	102	<0.014	<0.014	<0.014	%	<0.014					1
1	CBN	005.20	HPLC-MS	105	<0.0144	<0.0144	<0.0144	%	*<0.0144					1
1	CBN	005.10	HPLC-UVVIS	104	<0.02	<0.02	<0.02	%	*<0.02					1
1	CBN	005.10	HPLC-UVVIS	118	<0.02	<0.02	<0.02	%	<0.02					1
1	CBN	005.99	Other	137	<0.0200	<0.0200	<0.0200	%	<0.0200					1
1	CBN	005.30	GC-FID	112	<0.0200	<0.0200	<0.0200	%	<0.0200					1
1	CBN	005.10	HPLC-UVVIS	108	<0.03	<0.03	<0.03	%	<0.03					1
1	CBN	005.99	Other	131	<0.03	<0.03	<0.03	%	*<0.03					1

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
1	CBN	005.10	HPLC-UVVIS	123	<0.0448	<0.0453	<0.0476	%	<0.0448					1
1	CBN	005.10	HPLC-UVVIS	117	<0.0600	<0.0600	<0.0600	%	<0.0600					1
1	CBN	005.40	GC-MS	127	<0.1500	<0.1500	<0.1500	%	*<0.1500					1
1	CBN	005.10	HPLC-UVVIS	110	<0.1600	<0.1600	<0.1600	%	<0.1600					1
1	CBN	005.10	HPLC-UVVIS	135	0	0	0	%	0					2
1	CBN	005.10	HPLC-UVVIS	129	0.0012	0.0015	0.0015	%	0.0014	-0.9	0.0502	14	0.0543	0
1	CBN	005.20	HPLC-MS	139	0.0019	0.0025	0.0011	%	0.0018	-0.89	0.0502	14	0.0543	0
1	CBN	005.20	HPLC-MS	122	0.0029	0.0029	0.0031	%	0.003	-0.87	0.0502	14	0.0543	0
1	CBN	005.30	GC-FID	138	0.0115	0.0081	0.0078	%	0.0091	-0.76	0.0502	14	0.0543	0
1	CBN	005.10	HPLC-UVVIS	124	.0100	.0110	.0120	%	0.011	-0.72	0.0502	14	0.0543	0
1	CBN	005.40	GC-MS	143	0.0179	0.0183	0.0182	%	0.0181	-0.59	0.0502	14	0.0543	0
1	CBN	005.10	HPLC-UVVIS	116	0.0290	<0.0250	0.0400	%	0.0313	-0.35	0.0502	14	0.0543	0
1	CBN	005.30	GC-FID	116	0.0385	<0.0300	0.0354	%	0.0346	-0.29	0.0502	14	0.0543	0
1	CBN	005.10	HPLC-UVVIS	101	0.0476	0.0485	0.0485	%	0.0482	-0.04	0.0502	14	0.0543	0
1	CBN	005.30	GC-FID	106	<0.062	0.0647	<0.062	%	0.0629					1
1	CBN	005.30	GC-FID	107	0.0952	0.0922	0.0909	%	0.0928	0.78	0.0502	14	0.0543	0
1	CBN	005.30	GC-FID	139	0.1186	0.1019	0.0991	%	0.107	1.04	0.0502	14	0.0543	0
1	CBN	005.30	GC-FID	114	0.1178	0.1040	0.0982	%	0.107	1.04	0.0502	14	0.0543	0
1	CBN	005.10	HPLC-UVVIS	106	0.109	0.1	0.111	%	0.107	1.04	0.0502	14	0.0543	0
1	CBN	005.10	HPLC-UVVIS	136	0.22	0.22	0.23	%	0.223	3.19	0.0502	14	0.0543	0

Sam Num	Analyte	Code	Method	Lab Num	Result1	Result2	Result3	Unit	Lab Value	Z score	Population of Lab Values			
											Rob Mean	n	Rob StDev	Flag
HM18NOV-2														
2	CBN	005.10	HPLC-UVVIS	125	<0.002	<0.002	<0.002	%	<0.002					1
2	CBN	005.10	HPLC-UVVIS	111	<0.0050	<0.0050	<0.0050	%	<0.0050					1
2	CBN	005.10	HPLC-UVVIS	142	<0.0067	<0.0067	<0.0067	%	<0.0067					1
2	CBN	005.10	HPLC-UVVIS	140	<0.01	<0.01	<0.01	%	<0.01					1
2	CBN	005.10	HPLC-UVVIS	141	<0.012	<0.012	<0.012	%	<0.012					1
2	CBN	005.20	HPLC-MS	102	<0.014	<0.014	<0.014	%	<0.014					1
2	CBN	005.20	HPLC-MS	105	<0.0144	<0.0144	<0.0144	%	*<0.0144					1
2	CBN	005.10	HPLC-UVVIS	104	<0.02	<0.02	<0.02	%	*<0.02					1
2	CBN	005.10	HPLC-UVVIS	118	<0.02	<0.02	<0.02	%	<0.02					1
2	CBN	005.99	Other	137	<0.0200	<0.0200	<0.0200	%	<0.0200					1
2	CBN	005.30	GC-FID	112	<0.0200	<0.0200	<0.0200	%	<0.0200					1
2	CBN	005.99	Other	131	<0.03	<0.03	<0.03	%	*<0.03					1
2	CBN	005.10	HPLC-UVVIS	108	<0.03	<0.03	<0.03	%	<0.03					1
2	CBN	005.10	HPLC-UVVIS	123	<0.0442	<0.0471	<0.0476	%	<0.0442					1
2	CBN	005.10	HPLC-UVVIS	117	<0.0600	<0.0600	<0.0600	%	<0.0600					1
2	CBN	005.40	GC-MS	127	<0.1500	<0.1500	<0.1500	%	*<0.1500					1
2	CBN	005.10	HPLC-UVVIS	110	<0.1600	<0.1600	<0.1600	%	<0.1600					1
2	CBN	005.10	HPLC-UVVIS	135	0	0	0	%	0					2
2	CBN	005.10	HPLC-UVVIS	129	0.0026	0.0029	0.0028	%	0.0028	-0.87	0.0663	16	0.0734	0
2	CBN	005.20	HPLC-MS	139	0.0034	0.0024	0.0026	%	0.0028	-0.86	0.0663	16	0.0734	0
2	CBN	005.20	HPLC-MS	122	0.0026	0.0024	0.0026	%	0.0025	-0.87	0.0663	16	0.0734	0

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	
2	CBN	005.10	HPLC-UVVIS	109	0.01	<0.0100	0.0097	%	*0.0099	-0.77	0.0663	16	0.0734	0
2	CBN	005.10	HPLC-UVVIS	124	.0160	.0160	.0160	%	0.016	-0.68	0.0663	16	0.0734	0
2	CBN	005.30	GC-FID	138	0.0197	0.0128	0.0173	%	0.0166	-0.68	0.0663	16	0.0734	0
2	CBN	005.10	HPLC-UVVIS	116	<0.0250	<0.0250	0.0320	%	0.0273					1
2	CBN	005.40	GC-MS	143	0.0331	0.0333	0.0357	%	0.034	-0.44	0.0663	16	0.0734	0
2	CBN	005.99	Other	132	.0241	.0548	.0242	%	0.0344	-0.43	0.0663	16	0.0734	0
2	CBN	005.30	GC-FID	116	0.0400	<0.0300	0.0363	%	0.0354	-0.42	0.0663	16	0.0734	0
2	CBN	005.30	GC-FID	106	<0.062	0.067	0.069	%	0.066	0	0.0663	16	0.0734	0
2	CBN	005.10	HPLC-UVVIS	101	0.0657	0.0734	0.0697	%	0.0696	0.05	0.0663	16	0.0734	0
2	CBN	005.30	GC-FID	107	0.1317	0.1477	0.1365	%	0.139	0.99	0.0663	16	0.0734	0
2	CBN	005.30	GC-FID	139	0.1336	0.1390	0.1524	%	0.142	1.03	0.0663	16	0.0734	0
2	CBN	005.30	GC-FID	114	0.1611	0.1403	0.1458	%	0.149	1.13	0.0663	16	0.0734	0
2	CBN	005.10	HPLC-UVVIS	106	0.165	0.165	0.163	%	0.164	1.34	0.0663	16	0.0734	0
2	CBN	005.10	HPLC-UVVIS	136	0.22	0.25	0.23	%	0.233	2.28	0.0663	16	0.0734	0

Total Δ9-THC**HM18NOV-1**

1	Total Δ9-THC	006.40	GC-FID	106	0.097	0.162	0.082	%	0.114	-2.7	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	111	0.1126	0.2019	0.1233	%	0.146	-1.91	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	110	<0.1600	<0.1600	0.1964	%	0.172					1
1	Total Δ9-THC	006.40	GC-FID	143	0.1817	0.1765	0.1711	%	0.176	-1.15	0.2233	37	0.0406	0
1	Total Δ9-THC	006.40	GC-FID	138	0.1805	0.1805	0.1721	%	0.178	-1.12	0.2233	37	0.0406	0

Sam Num	Analyte	Code	Method	Lab Num							Population of Lab Values			
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
1	Total Δ9-THC	006.10	HPLC-UVVIS	141	0.1677	0.1948	0.1751	%	0.179	-1.09	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	108	0.1917	0.1683	0.1779	%	0.179	-1.08	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	118	0.199	0.195	0.142	%	0.179	-1.1	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	142	0.1868	0.1713	0.1859	%	0.181	-1.03	0.2233	37	0.0406	0
1	Total Δ9-THC	006.40	GC-FID	114	0.2005	0.1798	0.1702	%	0.184	-0.98	0.2233	37	0.0406	0
1	Total Δ9-THC	006.99	Other	137	0.1989	0.1970	0.2090	%	0.202	-0.53	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	129	0.2004	0.2089	0.2028	%	0.204	-0.47	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	106	0.267	0.169	0.193	%	0.21	-0.34	0.2233	37	0.0406	0
1	Total Δ9-THC	006.30	HPLC-MS	102	0.2152	0.2188	0.1967	%	0.21	-0.32	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	136	.1942	.1954	.2442	%	0.211	-0.3	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	116	0.2238	0.1963	0.2196	%	0.213	-0.25	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	140	0.2157	0.2119	0.2231	%	0.217	-0.16	0.2233	37	0.0406	0
1	Total Δ9-THC	006.40	GC-FID	121	0.1990	0.2054	0.2554	%	0.22	-0.08	0.2233	37	0.0406	0
1	Total Δ9-THC	006.30	HPLC-MS	105	0.223	0.23	0.209	%	*0.221	-0.06	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	104	0.19	0.25	0.23	%	*0.223	0	0.2233	37	0.0406	0
1	Total Δ9-THC	006.40	GC-FID	112	0.2487	0.2243	0.2130	%	0.229	0.13	0.2233	37	0.0406	0
1	Total Δ9-THC	006.50	GC-MS	128	0.2542	0.2207	0.2136	%	0.229	0.15	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	123	0.2408	0.2351	0.2136	%	0.23	0.16	0.2233	37	0.0406	0
1	Total Δ9-THC	006.30	HPLC-MS	119	0.2163	0.237	0.2465	%	0.233	0.25	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	125	0.2026	0.2449	0.2604	%	0.236	0.31	0.2233	37	0.0406	0
1	Total Δ9-THC	006.50	GC-MS	127	0.2672	0.2218	0.2185	%	*0.236	0.31	0.2233	37	0.0406	0
1	Total Δ9-THC	006.99	Other	131	0.23	0.24	0.24	%	*0.237	0.33	0.2233	37	0.0406	0

Sam Num	Analyte	Code	Method	Lab Num	Result1	Result2	Result3	Unit	Lab Value	Z score	Population of Lab Values			
											Rob Mean	n	Rob StDev	Flag
1	Total Δ9-THC	006.40	GC-FID	139	0.2367	0.2485	0.2367	%	0.241	0.43	0.2233	37	0.0406	0
1	Total Δ9-THC	006.40	GC-FID	107	0.2095	0.2396	0.2755	%	0.242	0.45	0.2233	37	0.0406	0
1	Total Δ9-THC	006.99	Other	132	0.2391	0.2483	0.2550	%	0.247	0.6	0.2233	37	0.0406	0
1	Total Δ9-THC	006.40	GC-FID	116	0.2498	0.2415	0.2555	%	0.249	0.63	0.2233	37	0.0406	0
1	Total Δ9-THC	006.30	HPLC-MS	139	0.2766	0.2491	0.2444	%	0.257	0.82	0.2233	37	0.0406	0
1	Total Δ9-THC	006.30	HPLC-MS	122	0.2626	0.2621	0.2838	%	0.269	1.14	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	109	0.2718	0.2697	0.2946	%	*0.279	1.36	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	101	0.2888	0.2777	0.2874	%	0.285	1.51	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	135	0.2589	0.2689	0.3305	%	0.286	1.55	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	124	0.2607	0.2704	0.3297	%	0.287	1.57	0.2233	37	0.0406	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	117	0.5200	0.5400	0.5400	%	0.533	7.64	0.2233	37	0.0406	0

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2	Total Δ9-THC	006.40	GC-FID	106	0.119	0.199	0.216	%	0.178	-2.53	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	106	0.244	0.213	0.166	%	0.208	-2.05	0.3335	38	0.0614	0
2	Total Δ9-THC	006.40	GC-FID	138	0.2414	0.2399	0.2285	%	0.237	-1.58	0.3335	38	0.0614	0
2	Total Δ9-THC	006.40	GC-FID	143	0.2452	0.2398	0.2479	%	0.244	-1.45	0.3335	38	0.0614	0
2	Total Δ9-THC	006.40	GC-FID	114	0.2836	0.2448	0.2633	%	0.264	-1.13	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	111	0.2468	0.2622	0.2910	%	0.267	-1.09	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	142	0.3042	0.2829	0.2619	%	0.283	-0.82	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	108	0.2967	0.2810	0.2699	%	0.283	-0.83	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	118	0.281	0.286	0.294	%	0.287	-0.76	0.3335	38	0.0614	0

Sam Num	Analyte	Code	Method	Lab Num							Population of Lab Values			
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
2	Total Δ9-THC	006.10	HPLC-UVVIS	110	0.3500	0.3368	0.1821	%	0.29	-0.71	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	141	0.2903	0.3225	0.3113	%	0.308	-0.41	0.3335	38	0.0614	0
2	Total Δ9-THC	006.40	GC-FID	112	0.3330	0.3039	0.2973	%	0.311	-0.36	0.3335	38	0.0614	0
2	Total Δ9-THC	006.30	HPLC-MS	105	0.318	0.309	0.324	%	*0.317	-0.27	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	136	.2993	.3480	.3093	%	0.319	-0.24	0.3335	38	0.0614	0
2	Total Δ9-THC	006.50	GC-MS	128	0.3278	0.3130	0.3187	%	0.32	-0.22	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	129	0.3198	0.3347	0.3167	%	0.324	-0.16	0.3335	38	0.0614	0
2	Total Δ9-THC	006.50	GC-MS	127	0.3791	0.2992	0.2955	%	*0.325	-0.14	0.3335	38	0.0614	0
2	Total Δ9-THC	006.30	HPLC-MS	102	0.3412	0.337	0.2965	%	0.325	-0.14	0.3335	38	0.0614	0
2	Total Δ9-THC	006.99	Other	137	0.3322	0.3230	0.3264	%	0.327	-0.1	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	104	0.31	0.33	0.36	%	*0.333	0	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	140	0.3458	0.3377	0.3194	%	0.334	0.01	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	116	0.3253	0.3497	0.3422	%	0.339	0.09	0.3335	38	0.0614	0
2	Total Δ9-THC	006.99	Other	132	0.3366	.3455	.3444	%	0.342	0.14	0.3335	38	0.0614	0
2	Total Δ9-THC	006.30	HPLC-MS	139	0.3431	0.3594	0.3617	%	0.355	0.35	0.3335	38	0.0614	0
2	Total Δ9-THC	006.40	GC-FID	139	0.3324	0.3736	0.3658	%	0.357	0.39	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	123	0.3751	0.3398	0.3635	%	0.359	0.42	0.3335	38	0.0614	0
2	Total Δ9-THC	006.40	GC-FID	107	0.3429	0.3494	0.3836	%	0.359	0.41	0.3335	38	0.0614	0
2	Total Δ9-THC	006.30	HPLC-MS	119	0.312	0.3921	0.3792	%	0.361	0.45	0.3335	38	0.0614	0
2	Total Δ9-THC	006.40	GC-FID	121	0.3593	0.3638	0.3644	%	0.363	0.47	0.3335	38	0.0614	0
2	Total Δ9-THC	006.30	HPLC-MS	122	0.3649	0.3781	0.3806	%	0.375	0.67	0.3335	38	0.0614	0
2	Total Δ9-THC	006.99	Other	131	0.4	0.36	0.37	%	*0.377	0.7	0.3335	38	0.0614	0

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Result1	Result2	Result3	Unit	Lab Value	Z score	Population of Lab Values			
											Rob Mean	n	Rob StDev	Flag
2	Total Δ9-THC	006.40	GC-FID	116	0.3881	0.4012	0.3938	%	0.394	0.99	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	109	0.4127	0.3846	0.4105	%	*0.403	1.13	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	135	0.4507	0.3806	0.3899	%	0.407	1.2	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	101	0.4074	0.4267	0.4264	%	0.42	1.41	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	125	0.3350	0.5940	0.3741	%	0.434	1.64	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	124	0.4701	0.4731	0.4798	%	0.474	2.29	0.3335	38	0.0614	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	117	0.6400	0.6400	0.6400	%	0.64	4.99	0.3335	38	0.0614	0

Total CBD**HM18NOV-1**

1	Total CBD	007.40	GC-FID	114	>2.0	>2.0	>2.0	%	>2.0					1
1	Total CBD	007.10	HPLC-UVVIS	108	0.5013	0.5111	0.5156	%	0.509	-5.58	4.9892	34	0.8028	0
1	Total CBD	007.40	GC-FID	106	1.045	2.936	0.661	%	1.55	-4.29	4.9892	34	0.8028	0
1	Total CBD	007.50	GC-MS	128	3.0377	3.2106	3.4402	%	3.23	-2.19	4.9892	34	0.8028	0
1	Total CBD	007.40	GC-FID	116	4.3120	3.7734	3.8085	%	3.96	-1.28	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	110	4.3154	4.0745	4.2650	%	4.22	-0.96	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	118	4.815	4.681	3.59	%	4.36	-0.78	4.9892	34	0.8028	0
1	Total CBD	007.99	Other	132	4.2411	4.3339	4.5611	%	4.38	-0.76	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	111	4.2323	4.6003	4.3849	%	4.41	-0.73	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	136	4.1916	4.5635	4.6887	%	4.48	-0.63	4.9892	34	0.8028	0
1	Total CBD	007.30	HPLC-MS	139	4.8595	4.5678	4.1754	%	4.53	-0.57	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	142	4.7258	4.2692	4.5964	%	4.53	-0.57	4.9892	34	0.8028	0

Sam Num	Analyte	Code	Method	Lab Num							Population of Lab Values			
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	Flag
1	Total CBD	007.40	GC-FID	107	3.7958	5.1665	4.9484	%	4.64	-0.44	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	116	4.6797	4.6251	4.7730	%	4.69	-0.37	4.9892	34	0.8028	0
1	Total CBD	007.99	Other	137	4.6377	4.5858	4.8762	%	4.7	-0.36	4.9892	34	0.8028	0
1	Total CBD	007.30	HPLC-MS	119	4.2785	4.9603	4.8892	%	4.71	-0.35	4.9892	34	0.8028	0
1	Total CBD	007.40	GC-FID	143	4.9405	4.8872	4.7879	%	4.87	-0.15	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	129	4.7864	4.8018	5.1547	%	4.91	-0.09	4.9892	34	0.8028	0
1	Total CBD	007.50	GC-MS	127	5.9837	4.8977	4.5720	%	*5.15	0.2	4.9892	34	0.8028	0
1	Total CBD	007.30	HPLC-MS	105	5.09	5.57	4.85	%	*5.17	0.23	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	140	5.1169	5.0451	5.3596	%	5.17	0.23	4.9892	34	0.8028	0
1	Total CBD	007.40	GC-FID	138	4.9379	5.2608	5.3843	%	5.19	0.26	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	106	5.168	4.856	5.703	%	5.24	0.32	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	123	5.691	5.26	5.088	%	5.35	0.44	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	125	4.9499	5.7067	5.5349	%	5.4	0.51	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	117	5.3700	5.4100	5.4100	%	5.4	0.51	4.9892	34	0.8028	0
1	Total CBD	007.99	Other	131	5.53	5.4	5.37	%	*5.43	0.55	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	141	5.4553	5.4396	5.5458	%	5.48	0.61	4.9892	34	0.8028	0
1	Total CBD	007.30	HPLC-MS	122	5.5438	5.6328	5.7719	%	5.65	0.82	4.9892	34	0.8028	0
1	Total CBD	007.40	GC-FID	112	6.2169	5.6611	5.3899	%	5.76	0.96	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	135	5.692	5.8384	5.9134	%	5.81	1.03	4.9892	34	0.8028	0
1	Total CBD	007.40	GC-FID	139	5.9683	6.2819	6.0264	%	6.09	1.37	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	101	5.9157	6.4024	6.7400	%	6.35	1.7	4.9892	34	0.8028	0
1	Total CBD	007.10	HPLC-UVVIS	109	6.2551	6.2611	6.8599	%	*6.46	1.83	4.9892	34	0.8028	0

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values						
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean
1	Total CBD	007.10	HPLC-UVVIS	104	7.19	7.35	7.33	%	*7.29	2.87	4.9892
											34
											0.8028
											0

HM18NOV-2

2	Total CBD	007.40	GC-FID	114	>2.0	>2.0	>2.0	%	>2.0			1		
2	Total CBD	007.10	HPLC-UVVIS	108	0.5067	0.5092	0.5510	%	0.522	-6.4	7.4384	34	1.0813	0
2	Total CBD	007.40	GC-FID	106	1.745	4	4.337	%	3.36	-3.77	7.4384	34	1.0813	0
2	Total CBD	007.50	GC-MS	128	3.9170	3.5947	3.4778	%	3.66	-3.49	7.4384	34	1.0813	0
2	Total CBD	007.40	GC-FID	116	6.2504	6.2529	5.6867	%	6.06	-1.27	7.4384	34	1.0813	0
2	Total CBD	007.30	HPLC-MS	139	6.1382	6.5505	6.0226	%	6.24	-1.11	7.4384	34	1.0813	0
2	Total CBD	007.99	Other	132	6.2518	6.2392	6.3461	%	6.28	-1.07	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	110	6.1856	6.3601	6.5189	%	6.35	-1	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	111	6.1975	6.5470	6.4820	%	6.41	-0.95	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	118	6.909	6.793	7.061	%	6.92	-0.48	7.4384	34	1.0813	0
2	Total CBD	007.40	GC-FID	143	7.0505	6.8599	7.2217	%	7.04	-0.36	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	142	7.1488	7.1606	6.8088	%	7.04	-0.37	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	116	6.7289	7.3715	7.1742	%	7.09	-0.32	7.4384	34	1.0813	0
2	Total CBD	007.30	HPLC-MS	119	6.2769	7.8989	7.6398	%	7.27	-0.15	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	106	7.266	7.254	7.355	%	7.29	-0.14	7.4384	34	1.0813	0
2	Total CBD	007.40	GC-FID	107	6.9785	7.1266	7.8431	%	7.32	-0.11	7.4384	34	1.0813	0
2	Total CBD	007.40	GC-FID	138	7.1812	7.4170	7.4325	%	7.34	-0.09	7.4384	34	1.0813	0
2	Total CBD	007.99	Other	137	7.4700	7.2444	7.3332	%	7.35	-0.08	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	136	7.1280	7.888	7.203	%	7.41	-0.03	7.4384	34	1.0813	0

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	
2	Total CBD	007.30	HPLC-MS	122	7.5075	7.5803	7.6335	%	7.57	0.13	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	129	7.4423	7.8245	7.4583	%	7.58	0.13	7.4384	34	1.0813	0
2	Total CBD	007.40	GC-FID	112	8.2627	7.5912	7.5323	%	7.8	0.33	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	123	8.138	7.491	7.873	%	7.83	0.37	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	140	8.2578	8.0693	7.4940	%	7.94	0.46	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	117	7.9900	7.9500	8.0300	%	7.99	0.51	7.4384	34	1.0813	0
2	Total CBD	007.99	Other	131	8.12	8.07	7.86	%	*8.02	0.53	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	141	8.0417	7.9467	8.0966	%	8.03	0.55	7.4384	34	1.0813	0
2	Total CBD	007.30	HPLC-MS	105	7.81	8.45	8.15	%	*8.14	0.65	7.4384	34	1.0813	0
2	Total CBD	007.50	GC-MS	127	8.9365	7.4967	8.0810	%	*8.17	0.68	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	125	8.4107	8.6127	8.7005	%	8.57	1.05	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	101	8.5122	8.516	8.813	%	8.61	1.09	7.4384	34	1.0813	0
2	Total CBD	007.40	GC-FID	139	8.4382	9.1890	8.7798	%	8.8	1.26	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	135	8.6249	9.1816	8.7909	%	8.87	1.32	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	109	9.2557	9.063	9.4854	%	*9.27	1.69	7.4384	34	1.0813	0
2	Total CBD	007.10	HPLC-UVVIS	104	10.47	9.97	10.83	%	*10.4	2.76	7.4384	34	1.0813	0

Moisture**HM18NOV-1**

1	Moisture	500.99	Other	132	4.73	%	4.73						1	
1	Moisture	500.10	Oven	117	7.7600	7.86	7.7700	%	7.8	-1.3	8.9931	9	0.9203	0
1	Moisture	500.10	Oven	109	8.71	7.78	8.28	%	8.26	-0.8	8.9931	9	0.9203	0

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values									
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev	
1	Moisture	500.10	Oven	110	8.2700	8.8000	8.4300	%	8.5	-0.54	8.9931	9	0.9203	0
1	Moisture	500.10	Oven	120	8.809	8.508		%	8.66	-0.36	8.9931	9	0.9203	0
1	Moisture	500.10	Oven	118	8.73	N/A	N/A	%	8.73					1
1	Moisture	500.10	Oven	127	6.5467	11.7092	8.3984	%	8.88	-0.12	8.9931	9	0.9203	0
1	Moisture	500.99	Other	131	8.81	9.36	9.17	%	9.11	0.13	8.9931	9	0.9203	0
1	Moisture	500.10	Oven	139	9.3757	9.6007		%	9.49	0.54	8.9931	9	0.9203	0
1	Moisture	500.10	Oven	129	9.35	9.92	10.33	%	9.87	0.95	8.9931	9	0.9203	0
1	Moisture	500.10	Oven	105	11.8			%	11.8					1
1	Moisture	500.10	Oven	104	12.67	12.67	12.67	%	12.7	4	8.9931	9	0.9203	0

HM18NOV-2

2	Moisture	500.99	Other	141				%						1
2	Moisture	500.99	Other	132			1.57	%	1.57					1
2	Moisture	500.10	Oven	110	6.9200	7.2100	7.2200	%	7.12	-1	8.712	9	1.593	0
2	Moisture	500.10	Oven	117	7.4200	7.3200	7.3800	%	7.37	-0.84	8.712	9	1.593	0
2	Moisture	500.10	Oven	109	7.21	7.89	7.48	%	7.53	-0.74	8.712	9	1.593	0
2	Moisture	500.10	Oven	127	7.1497	7.9017	7.7985	%	7.62	-0.69	8.712	9	1.593	0
2	Moisture	500.99	Other	131	8.48	8.94	8.73	%	8.72	0	8.712	9	1.593	0
2	Moisture	500.10	Oven	120	9.256	9.18		%	9.22	0.32	8.712	9	1.593	0
2	Moisture	500.10	Oven	139	9.6390	9.4636		%	9.55	0.53	8.712	9	1.593	0
2	Moisture	500.10	Oven	129	9.72	10.61	10.23	%	10.2	0.93	8.712	9	1.593	0
2	Moisture	500.10	Oven	105	11.8			%	11.8					1

Samples: HMNOV18-1 and HMNOV18-2

All Labs Trueness

Issue Date: 1/4/2019

Sam Num	Analyte	Code	Method	Lab Num	Population of Lab Values								
					Result1	Result2	Result3	Unit	Lab Value	Z score	Rob Mean	n	Rob StDev
2	Moisture	500.10	Oven	104	12.58	12.58	12.58	%	12.6	2.43	8.712	9	1.593
2	Moisture	500.10	Oven	118	N/A	N/A	N/A	%	N/A				1

Flag definitions: 1 (Lab Value not used because there were less than 2 numeric lab results), 2 (Lab Value not used because there were less than 2 numeric lab results greater than 0).

Asterick on Lab Value denotes results were reported on an oven-dried basis. No asterick on Lab Value denotes results were reported on as-received basis.