

Hemp Proficiency Testing

Summary All Labs Trueness



Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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	001.10	HPLC-UVVIS	130	<0.005	<0.005	<0.005	%	<0.005				1	
1	Δ9-THC	001.10	HPLC-UVVIS	111	<0.0050	<0.0050	<0.0050	%	<0.0050				1	
1	Δ9-THC	001.10	HPLC-UVVIS	137	<0.0200	<0.0200	<0.0200	%	<0.0200				1	
1	Δ9-THC	001.10	HPLC-UVVIS	117	<0.0600	<0.0600	<0.0600	%	<0.0600				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	0.01	0.04	%	0.02	-1.78	0.0287	24	0.0049	0
1	Δ9-THC	001.99	Other	115	0.0232	0.0211	0.0212	%	0.0218	-1.41	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	129	0.02	0.03	0.02	%	0.0233	-1.1	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	113	0.024	0.0244	0.0242	%	0.0242	-0.92	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	116	0.023	0.028	0.02	%	0.0237	-1.03	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	108	0.026	0.0252	0.0258	%	0.0257	-0.62	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	118	0.026	0.027	0.027	%	0.0267	-0.42	0.0287	24	0.0049	0
1	Δ9-THC	001.99	Other	120	0.028	0.0261		%	0.027	-0.34	0.0287	24	0.0049	0
1	Δ9-THC	001.30	HPLC-MS	122	0.0271	0.0273	0.0271	%	0.0272	-0.32	0.0287	24	0.0049	0

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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	Δ9-THC	001.10	HPLC-UVVIS	125	0.0275	0.0285	0.027	%	0.0277	-0.21	0.0287	24	0.0049	0
1	Δ9-THC	001.30	HPLC-MS	102	0.0284	0.0261	0.0287	%	0.0277	-0.2	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	123	0.0261	0.0255	0.0325	%	0.028	-0.14	0.0287	24	0.0049	0
1	Δ9-THC	001.30	HPLC-MS	105	0.0257	0.0284	0.0289	%	0.0277	-0.21	0.0287	24	0.0049	0
1	Δ9-THC	001.30	HPLC-MS	119	0.0272	0.0301	0.0297	%	0.029	0.06	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	109	0.0278	0.0279	0.0306	%	0.0288	0.01	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	142	0.0302	0.0308	0.0312	%	0.0307	0.41	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	101	0.0292	0.0331	0.0306	%	0.031	0.46	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	124	0.032	0.034	0.026	%	0.0307	0.4	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	140	0.0313	0.0326	0.0317	%	0.0319	0.65	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	141	0.0322	0.0384	0.0296	%	0.0334	0.96	0.0287	24	0.0049	0
1	Δ9-THC	001.30	HPLC-MS	139	0.0325	0.0322	0.0357	%	0.0335	0.97	0.0287	24	0.0049	0
1	Δ9-THC	001.99	Other	131	0.05	<0.04	<0.04	%	0.0433					1
1	Δ9-THC	001.10	HPLC-UVVIS	104	0.0146	0.112	0.0191	%	0.0486	4.07	0.0287	24	0.0049	0
1	Δ9-THC	001.99	Other	132	0.0512	0.0515	0.0494	%	0.0507	4.5	0.0287	24	0.0049	0
1	Δ9-THC	001.10	HPLC-UVVIS	135	0.055	0.0526	0.0664	%	0.058	6	0.0287	24	0.0049	0

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2	Δ9-THC	001.10	HPLC-UVVIS	110	<0.1600	<0.1600	<0.1600	%	<0.1600					1
2	Δ9-THC	001.10	HPLC-UVVIS	130	0.0064	0.0065	0.0064	%	0.0064	-4.23	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	104	0.0736	0.0678	0.0691	%	0.0702	-1.35	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	111	0.078	0.0652	0.0769	%	0.0734	-1.21	0.1	29	0.0221	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	101	0.0851	0.0745	0.0889	%	0.0828	-0.78	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	118	0.089	0.082	0.077	%	0.0827	-0.79	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	113	0.081	0.0865	0.0808	%	0.0828	-0.78	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	116	0.083	0.0875	0.081	%	0.0838	-0.73	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	137	0.0851	0.0856	0.0874	%	0.086	-0.63	0.1	29	0.0221	0
2	Δ9-THC	001.30	HPLC-MS	119	0.0843	0.0942	0.0868	%	0.0884	-0.52	0.1	29	0.0221	0
2	Δ9-THC	001.30	HPLC-MS	105	0.0911	0.0961	0.0892	%	0.0921	-0.36	0.1	29	0.0221	0
2	Δ9-THC	001.99	Other	131	0.1	0.1	0.08	%	0.0933	-0.3	0.1	29	0.0221	0
2	Δ9-THC	001.99	Other	120	0.0961	0.0925		%	0.0943	-0.26	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	108	0.0982	0.0908	0.0993	%	0.0961	-0.18	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	129	0.1	0.09	0.1	%	0.0967	-0.15	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	125	0.0881	0.1045	0.1024	%	0.0983	-0.08	0.1	29	0.0221	0
2	Δ9-THC	001.30	HPLC-MS	122	0.0971	0.0984	0.0972	%	0.0976	-0.11	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	123	0.1024	0.0997	0.096	%	0.0994	-0.03	0.1	29	0.0221	0
2	Δ9-THC	001.30	HPLC-MS	139	0.0938	0.1001	0.1025	%	0.0988	-0.06	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	109	0.0963	0.1028	0.105	%	0.101	0.06	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	140	0.1003	0.1033	0.1019	%	0.102	0.08	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	141	0.1091	0.1037	0.0937	%	0.102	0.1	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	124	0.116	0.106	0.104	%	0.109	0.39	0.1	29	0.0221	0
2	Δ9-THC	001.30	HPLC-MS	102	0.1118	0.1084	0.1349	%	0.118	0.83	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	142	0.1175	0.1104	0.1289	%	0.119	0.86	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	135	0.1569	0.1743	0.1422	%	0.158	2.61	0.1	29	0.0221	0

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											Rob Mean	n	Rob StDev	Flag
2	Δ9-THC	001.99	Other	132	0.1583	0.1588	0.1667	%	0.161	2.77	0.1	29	0.0221	0
2	Δ9-THC	001.99	Other	115	0.1863	0.1747	0.1778	%	0.18	3.6	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	117	0.24	0.24	0.24	%	0.24	6.33	0.1	29	0.0221	0
2	Δ9-THC	001.10	HPLC-UVVIS	136	0	0.39	0.39	%	0.39	13.12	0.1	29	0.0221	0

Δ9-THCA**HM18OCT-1**

1	Δ9-THCA	002.10	HPLC-UVVIS	113	<0.0020	<0.0020	<0.0020	%	<0.0020					1
1	Δ9-THCA	002.10	HPLC-UVVIS	142	<0.0067	<0.0067	<0.0067	%	<0.0067					1
1	Δ9-THCA	002.99	Other	132	<0.01	<0.01	<0.01	%	<0.01					1
1	Δ9-THCA	002.30	HPLC-MS	102	<0.013	<0.013	<0.013	%	<0.013					1
1	Δ9-THCA	002.30	HPLC-MS	105	<0.0144	<0.0144	<0.0144	%	<0.0144					1
1	Δ9-THCA	002.10	HPLC-UVVIS	118	<0.02	<0.02	<0.02	%	<0.02					1
1	Δ9-THCA	002.10	HPLC-UVVIS	116	<0.0200	<0.0200	<0.0200	%	<0.0200					1
1	Δ9-THCA	002.10	HPLC-UVVIS	137	<0.0200	<0.0200	<0.0200	%	<0.0200					1
1	Δ9-THCA	002.10	HPLC-UVVIS	123	<0.0245	<0.0246	<0.0245	%	<0.0245					1
1	Δ9-THCA	002.10	HPLC-UVVIS	104	<0.0300	<0.0300	<0.0300	%	<0.0300					1
1	Δ9-THCA	002.10	HPLC-UVVIS	130	<0.05	<0.05	<0.05	%	<0.05					1
1	Δ9-THCA	002.99	Other	131	<0.06	<0.06	<0.0568	%	<0.06					1
1	Δ9-THCA	002.10	HPLC-UVVIS	117	<0.0600	<0.0600	<0.0600	%	<0.0600					1
1	Δ9-THCA	002.10	HPLC-UVVIS	110	<0.1600	<0.1600	<0.1600	%	<0.1600					1
1	Δ9-THCA	002.10	HPLC-UVVIS	135	0	0	0	%	0					2

Samples: HMOCT18-1 and HMOCT18-2

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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	Δ9-THCA	002.10	HPLC-UVVIS	136	0	0	0	%	0					2
1	Δ9-THCA	002.10	HPLC-UVVIS	125	0.0043	0.0068	0.0053	%	0.0055	-0.9	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	129	0.004	0.005	0.005	%	0.0047	-0.95	0.0224	12	0.0187	0
1	Δ9-THCA	002.30	HPLC-MS	119	0.0059	0.0057	0.0058	%	0.0058	-0.89	0.0224	12	0.0187	0
1	Δ9-THCA	002.30	HPLC-MS	139	0.0086	0.0079	0.0071	%	0.0079	-0.77	0.0224	12	0.0187	0
1	Δ9-THCA	002.30	HPLC-MS	122	0.0148	0.0143	0.0141	%	0.0144	-0.43	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	109	0.0198	0.0204	0.0217	%	0.0206	-0.09	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	140	0.0472	0.0114	0.0118	%	0.0235	0.06	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	101	0.0228	0.0242	0.023	%	0.0233	0.05	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	141	0.0204	0.023	0.0259	%	0.0231	0.04	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	111	<0.0050	0.0495	0.0616	%	0.0387	0.87	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	108	0.0798	0.0766	0.0812	%	0.0792	3.04	0.0224	12	0.0187	0
1	Δ9-THCA	002.10	HPLC-UVVIS	124	0.61	0.57	0.056	%	0.412	20.83	0.0224	12	0.0187	0

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2	Δ9-THCA	002.10	HPLC-UVVIS	110	<0.1600	<0.1600	<0.1600	%	<0.1600					1
2	Δ9-THCA	002.10	HPLC-UVVIS	142	0.0483	0.0471	0.0492	%	0.0482	-1.8	0.1097	27	0.0341	0
2	Δ9-THCA	002.99	Other	132	0.0534	0.0516	0.0461	%	0.0504	-1.74	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	141	0.0667	0.0626	0.0675	%	0.0656	-1.29	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	108	0.0798	0.0801	0.0812	%	0.0804	-0.86	0.1097	27	0.0341	0
2	Δ9-THCA	002.30	HPLC-MS	102	0.0824	0.0792	0.0781	%	0.0799	-0.87	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	130	0.0809	0.0867	0.0777	%	0.0818	-0.82	0.1097	27	0.0341	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-THCA	002.30	HPLC-MS	105	0.0798	0.0777	0.09	%	0.0825	-0.8	0.1097	27	0.0341	0
2	Δ9-THCA	002.99	Other	131	0.12	0.13	0.012	%	0.0873	-0.66	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	129	0.1	0.1	0.09	%	0.0967	-0.38	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	137	0.0979	0.0996	0.096	%	0.0978	-0.35	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	111	0.1124	0.0909	0.1029	%	0.102	-0.22	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	113	0.1038	0.1023	0.1025	%	0.103	-0.2	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	125	0.1177	0.1113	0.0952	%	0.108	-0.05	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	118	0.111	0.111	0.109	%	0.11	0.02	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	135	0.1293	0.1372	0.0662	%	0.111	0.04	0.1097	27	0.0341	0
2	Δ9-THCA	002.30	HPLC-MS	119	0.108	0.1203	0.1141	%	0.114	0.13	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	116	0.111	0.1225	0.118	%	0.117	0.22	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	123	0.1139	0.1143	0.1322	%	0.12	0.31	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	124	0.122	0.12	0.119	%	0.12	0.31	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	140	0.1341	0.1199	0.1175	%	0.124	0.42	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	104	0.1215	0.131	0.1373	%	0.13	0.59	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	109	0.1411	0.1405	0.1426	%	0.141	0.93	0.1097	27	0.0341	0
2	Δ9-THCA	002.30	HPLC-MS	139	0.1344	0.146	0.1483	%	0.143	0.97	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	101	0.1464	0.1396	0.1519	%	0.146	1.06	0.1097	27	0.0341	0
2	Δ9-THCA	002.30	HPLC-MS	122	0.1551	0.1631	0.163	%	0.16	1.49	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	136	0.22	0.29	0.29	%	0.267	4.61	0.1097	27	0.0341	0
2	Δ9-THCA	002.10	HPLC-UVVIS	117	0.27	0.28	0.27	%	0.273	4.8	0.1097	27	0.0341	0

Sam Num	Analyte	Code	Method	Lab Num						Lab Value	Z score	Population of Lab Values			
					Result1	Result2	Result3	Unit				Rob Mean	n	Rob StDev	Flag
CBD															
HM18OCT-1															
1	CBD	003.10	HPLC-UVVIS	111	0.5723	0.5461	0.6125	%	0.577	-2.11	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	141	0.6663	0.6445	0.6648	%	0.659	-1.28	0.7854	28	0.099	0	
1	CBD	003.30	HPLC-MS	119	0.6786	0.6418	0.683	%	0.668	-1.19	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	104	0.6769	0.7603	0.6208	%	0.686	-1	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	113	0.6959	0.6996	0.704	%	0.7	-0.86	0.7854	28	0.099	0	
1	CBD	003.30	HPLC-MS	105	0.7	0.707	0.711	%	0.706	-0.8	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	118	0.665	0.77	0.722	%	0.719	-0.67	0.7854	28	0.099	0	
1	CBD	003.30	HPLC-MS	102	0.7336	0.7358	0.7456	%	0.738	-0.48	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	137	0.7178	0.7353	0.7598	%	0.738	-0.48	0.7854	28	0.099	0	
1	CBD	003.99	Other	131	0.76	0.74	0.72	%	0.74	-0.46	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	108	0.7549	0.7359	0.7418	%	0.744	-0.42	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	110	0.706	0.7784	0.7947	%	0.76	-0.26	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	116	0.755	0.7895	0.737	%	0.761	-0.25	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	142	0.7802	0.6948	0.852	%	0.776	-0.1	0.7854	28	0.099	0	
1	CBD	003.30	HPLC-MS	139	0.7672	0.7575	0.8038	%	0.776	-0.09	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	140	0.7898	0.7803	0.7601	%	0.777	-0.09	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	123	0.8374	0.7285	0.8406	%	0.802	0.17	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	125	0.8461	0.8152	0.758	%	0.806	0.21	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	135	0.8221	0.8175	0.7856	%	0.808	0.23	0.7854	28	0.099	0	
1	CBD	003.10	HPLC-UVVIS	109	0.8064	0.8098	0.8159	%	0.811	0.26	0.7854	28	0.099	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	CBD	003.30	HPLC-MS	122	0.818	0.7967	0.8591	%	0.825	0.4	0.7854	28	0.099	0
1	CBD	003.10	HPLC-UVVIS	101	0.8553	0.7792	0.9061	%	0.847	0.62	0.7854	28	0.099	0
1	CBD	003.10	HPLC-UVVIS	117	0.88	0.87	0.9	%	0.883	0.99	0.7854	28	0.099	0
1	CBD	003.99	Other	132	0.9176	0.8782	0.8766	%	0.891	1.06	0.7854	28	0.099	0
1	CBD	003.10	HPLC-UVVIS	129	0.98	0.96	0.97	%	0.97	1.86	0.7854	28	0.099	0
1	CBD	003.10	HPLC-UVVIS	124	1.27	1.265	1.222	%	1.25	4.72	0.7854	28	0.099	0
1	CBD	003.99	Other	115	1.2719	1.2288	1.2469	%	1.25	4.68	0.7854	28	0.099	0
1	CBD	003.10	HPLC-UVVIS	136	3.15	3.74	3.68	%	3.52	27.65	0.7854	28	0.099	0
1	CBD	003.10	HPLC-UVVIS	130	na	na	na	%	na					1

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2	CBD	003.10	HPLC-UVVIS	111	0.5301	0.4978	0.5629	%	0.53	-1.59	0.8051	28	0.1728	0
2	CBD	003.30	HPLC-MS	119	0.5925	0.6304	0.585	%	0.603	-1.17	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	104	0.6466	0.5959	0.5703	%	0.604	-1.16	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	118	0.656	0.616	0.62	%	0.631	-1.01	0.8051	28	0.1728	0
2	CBD	003.30	HPLC-MS	105	0.683	0.631	0.641	%	0.652	-0.89	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	113	0.6685	0.6655	0.6697	%	0.668	-0.79	0.8051	28	0.1728	0
2	CBD	003.30	HPLC-MS	139	0.6477	0.7361	0.6814	%	0.688	-0.68	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	110	0.6577	0.743	0.7686	%	0.723	-0.47	0.8051	28	0.1728	0
2	CBD	003.30	HPLC-MS	122	0.7176	0.7548	0.7049	%	0.726	-0.46	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	116	0.711	0.726	0.76	%	0.732	-0.42	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	108	0.7472	0.7257	0.7237	%	0.732	-0.42	0.8051	28	0.1728	0

Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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	003.10	HPLC-UVVIS	109	0.7484	0.7488	0.7733	%	0.757	-0.28	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	140	0.7657	0.7458	0.775	%	0.762	-0.25	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	137	0.7589	0.7614	0.7729	%	0.764	-0.24	0.8051	28	0.1728	0
2	CBD	003.99	Other	131	0.75	0.8	0.77	%	0.773	-0.18	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	123	0.8599	0.7257	0.7931	%	0.793	-0.07	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	101	0.8059	0.7896	0.8409	%	0.812	0.04	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	141	0.8167	0.8206	0.8088	%	0.815	0.06	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	117	0.84	0.84	0.86	%	0.847	0.24	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	125	0.7586	0.9178	0.9165	%	0.864	0.34	0.8051	28	0.1728	0
2	CBD	003.30	HPLC-MS	102	0.8596	0.8633	0.9576	%	0.893	0.51	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	129	0.8	0.98	1.02	%	0.933	0.74	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	135	0.9827	0.9888	0.9719	%	0.981	1.02	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	142	0.9774	0.9045	1.071	%	0.984	1.04	0.8051	28	0.1728	0
2	CBD	003.99	Other	132	1.0589	1.0315	1.1409	%	1.08	1.57	0.8051	28	0.1728	0
2	CBD	003.99	Other	115	4.0127	3.7541	3.7935	%	3.85	17.64	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	136	3.4	4.09	4.07	%	3.85	17.64	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	124	4.023	3.856	3.783	%	3.89	17.84	0.8051	28	0.1728	0
2	CBD	003.10	HPLC-UVVIS	130	na	na	na	%	na					1

CBDA

HM18OCT-1

1	CBDA	004.30	HPLC-MS	122	0.0934	0.0941	0.0938	%	0.0938	-2.92	0.3631	24	0.0921	0
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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	004.30	HPLC-MS	105	0.186	0.166	0.163	%	0.172	-2.08	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	142	0.2176	0.1957	0.2183	%	0.211	-1.66	0.3631	24	0.0921	0
1	CBDA	004.99	Other	132	0.2482	0.2563	0.2346	%	0.246	-1.27	0.3631	24	0.0921	0
1	CBDA	004.30	HPLC-MS	119	0.2897	0.2756	0.2963	%	0.287	-0.82	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	141	0.3127	0.3042	0.3304	%	0.316	-0.51	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	104	0.3271	0.3173	0.3219	%	0.322	-0.45	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	125	0.3679	0.3421	0.3069	%	0.339	-0.26	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	137	0.3418	0.3516	0.3563	%	0.35	-0.14	0.3631	24	0.0921	0
1	CBDA	004.99	Other	131	0.37	0.37	0.35	%	0.363	0	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	111	0.3934	0.327	0.3697	%	0.363	0	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	116	0.378	0.378	0.34	%	0.365	0.02	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	108	0.3766	0.36	0.3648	%	0.367	0.04	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	110	0.3528	0.3831	0.372	%	0.369	0.07	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	118	0.337	0.415	0.401	%	0.384	0.23	0.3631	24	0.0921	0
1	CBDA	004.30	HPLC-MS	139	0.3895	0.3815	0.3893	%	0.387	0.26	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	129	0.42	0.4	0.39	%	0.403	0.44	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	123	0.3884	0.3832	0.4394	%	0.404	0.44	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	140	0.4196	0.4141	0.3986	%	0.411	0.52	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	135	0.4336	0.4258	0.4156	%	0.425	0.67	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	101	0.4852	0.4069	0.5057	%	0.466	1.12	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	109	0.4533	0.4785	0.4753	%	0.469	1.15	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	117	0.55	0.55	0.56	%	0.553	2.07	0.3631	24	0.0921	0

Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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	CBDA	004.10	HPLC-UVVIS	136	1.33	1.6	1.55	%	1.49	12.27	0.3631	24	0.0921	0
1	CBDA	004.10	HPLC-UVVIS	130	na	na	na	%	na					1

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2	CBDA	004.30	HPLC-MS	122	0.6488	0.6463	0.6468	%	0.647	-4.71	2.697	24	0.4352	0
2	CBDA	004.99	Other	132	1.9579	1.8524	1.8165	%	1.88	-1.89	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	142	2.1482	1.9652	2.2737	%	2.13	-1.31	2.697	24	0.4352	0
2	CBDA	004.30	HPLC-MS	119	2.2498	2.3343	2.2183	%	2.27	-0.99	2.697	24	0.4352	0
2	CBDA	004.30	HPLC-MS	139	2.4154	2.4564	2.1433	%	2.34	-0.82	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	129	2.16	2.53	2.45	%	2.38	-0.73	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	101	2.443	2.4266	2.4174	%	2.43	-0.62	2.697	24	0.4352	0
2	CBDA	004.30	HPLC-MS	105	2.51	2.46	2.37	%	2.45	-0.58	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	116	2.71	2.4845	2.524	%	2.57	-0.29	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	104	2.7897	2.6092	2.475	%	2.62	-0.17	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	111	2.7192	2.4204	2.7365	%	2.63	-0.16	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	137	2.723	2.734	2.722	%	2.73	0.07	2.697	24	0.4352	0
2	CBDA	004.99	Other	131	2.71	2.82	2.75	%	2.76	0.14	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	118	2.911	2.77	2.761	%	2.81	0.27	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	141	2.8032	2.7039	2.9672	%	2.82	0.29	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	110	2.8328	2.9391	2.7075	%	2.83	0.3	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	125	2.983	2.96	2.756	%	2.9	0.47	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	108	2.916	2.8567	2.9423	%	2.9	0.48	2.697	24	0.4352	0

Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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	140	2.9834	3.0162	2.9508	%	2.98	0.66	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	135	3.0623	3.072	3.0453	%	3.06	0.83	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	117	3.12	3.11	3.17	%	3.13	1	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	123	3.3216	3.0169	3.2402	%	3.19	1.14	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	109	3.3138	3.4075	3.5074	%	3.41	1.64	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	136	9.38	11.27	11.17	%	10.6	18.18	2.697	24	0.4352	0
2	CBDA	004.10	HPLC-UVVIS	130	na	na	na	%	na					1

CBN**HM18OCT-1**

1	CBN	005.10	HPLC-UVVIS	140	<0.001	<0.001	<0.001	%	<0.001					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	104	<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	005.20	HPLC-MS	102	<0.013	<0.013	<0.013	%	<0.013					1
1	CBN	005.20	HPLC-MS	105	<0.0144	<0.0144	<0.0144	%	<0.0144					1
1	CBN	005.10	HPLC-UVVIS	118	<0.02	<0.02	<0.02	%	<0.02					1
1	CBN	005.10	HPLC-UVVIS	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	123	<0.0245	<0.0246	<0.0245	%	<0.0245					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	117	<0.0600	<0.0600	<0.0600	%	<0.0600					1
1	CBN	005.30	GC-FID	114	<0.1000	<0.1000	<0.1000	%	<0.1000					1
1	CBN	005.40	GC-MS	127	<0.1500	<0.1500	<0.1500	%	<0.1500					1
1	CBN	005.10	HPLC-UVVIS	135	0	0	0	%	0					2
1	CBN	005.20	HPLC-MS	139	0.0035	0.0033	0.0032	%	0.0033	-0.79	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	129	0.003	0.003	0.003	%	0.003	-0.8	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	125	0.0045	0.0035	0.0031	%	0.0037	-0.77	0.028	16	0.0314	0
1	CBN	005.20	HPLC-MS	122	0.0033	0.0042	0.0032	%	0.0036	-0.78	0.028	16	0.0314	0
1	CBN	005.20	HPLC-MS	119	<0.004	0.0044	0.0045	%	0.0043	-0.75	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	108	0.0065	0.0063	0.0067	%	0.0065	-0.68	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	124	0.014	0.012	0.002	%	0.0093	-0.59	0.028	16	0.0314	0
1	CBN	005.30	GC-FID	138	<0.01	<0.01	0.0127	%	0.0109					1
1	CBN	005.10	HPLC-UVVIS	141	0.0121	0.0139	0.0184	%	0.0148	-0.42	0.028	16	0.0314	0
1	CBN	005.99	Other	115	0.0243	0.0131	0.0173	%	0.0182	-0.31	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	101	0.0192	0.0189	0.0189	%	0.019	-0.29	0.028	16	0.0314	0
1	CBN	005.30	GC-FID	116	0.0496	<0.0300	0.0387	%	0.0394	0.36	0.028	16	0.0314	0
1	CBN	005.30	GC-FID	139	0.0444	0.0576	0.04	%	0.0473	0.62	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	136	0.06	0	0.06	%	0.06	1.02	0.028	16	0.0314	0
1	CBN	005.30	GC-FID	106	0.0671	0.066	0.063	%	0.0654	1.19	0.028	16	0.0314	0
1	CBN	005.30	GC-FID	128	0.104	0.1709	0.1748	%	0.15	3.88	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	110	0.1634	0.2	0.1899	%	0.184	4.98	0.028	16	0.0314	0
1	CBN	005.10	HPLC-UVVIS	130	na	na	na	%	na					1

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
HM18OCT-2														
2	CBN	005.10	HPLC-UVVIS	140	<0.001	<0.001	<0.001	%	<0.001					1
2	CBN	005.20	HPLC-MS	119	<0.004	<0.004	<0.004	%	<0.004					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	104	<0.0100	<0.0100	<0.0100	%	<0.0100					1
2	CBN	005.10	HPLC-UVVIS	109	<0.0100	<0.0100	<0.0100	%	<0.0100					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	118	<0.02	<0.02	<0.02	%	<0.02					1
2	CBN	005.30	GC-FID	112	<0.0200	<0.0200	<0.0200	%	<0.0200					1
2	CBN	005.10	HPLC-UVVIS	137	<0.0200	<0.0200	<0.0200	%	<0.0200					1
2	CBN	005.10	HPLC-UVVIS	123	<0.0239	<0.0246	<0.0240	%	<0.0239					1
2	CBN	005.99	Other	131	<0.03	<0.03	<0.03	%	<0.03					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	141	0	0	0	%	0					2
2	CBN	005.10	HPLC-UVVIS	135	0	0	0	%	0					2
2	CBN	005.20	HPLC-MS	139	0.0008	0.0017	0.0009	%	0.0011	-0.97	0.038	15	0.038	0
2	CBN	005.20	HPLC-MS	122	0.0009	0.0007	0.0007	%	0.0008	-0.98	0.038	15	0.038	0
2	CBN	005.10	HPLC-UVVIS	129	0.002	0.002	0.002	%	0.002	-0.95	0.038	15	0.038	0

Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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	CBN	005.10	HPLC-UVVIS	125	0.0151	0.0129	0.0044	%	0.0108	-0.72	0.038	15	0.038	0
2	CBN	005.30	GC-FID	138	0.0114	<0.01	0.0156	%	0.0123	-0.67	0.038	15	0.038	0
2	CBN	005.10	HPLC-UVVIS	108	0.0054	0.0373	0.0296	%	0.0241	-0.37	0.038	15	0.038	0
2	CBN	005.99	Other	115	0.0314	0.018	0.0244	%	0.0246	-0.35	0.038	15	0.038	0
2	CBN	005.10	HPLC-UVVIS	124	0.027	0.026	0.025	%	0.026	-0.32	0.038	15	0.038	0
2	CBN	005.30	GC-FID	116	0.0491	<0.0300	0.038	%	0.039	0.03	0.038	15	0.038	0
2	CBN	005.10	HPLC-UVVIS	136	0	0	0.04	%	0.04					2
2	CBN	005.10	HPLC-UVVIS	101	0.0507	0.0198	0.0522	%	0.0409	0.08	0.038	15	0.038	0
2	CBN	005.10	HPLC-UVVIS	116	0.033	0.04	0.052	%	0.0417	0.1	0.038	15	0.038	0
2	CBN	005.30	GC-FID	139	0.0783	0.0831	0.0651	%	0.0755	0.99	0.038	15	0.038	0
2	CBN	005.30	GC-FID	106	0.077	0.083	0.084	%	0.0813	1.14	0.038	15	0.038	0
2	CBN	005.30	GC-FID	114	0.0878	0.1077	0.0892	%	0.0949	1.5	0.038	15	0.038	0
2	CBN	005.30	GC-FID	128	0.1038	0.1472	0.1499	%	0.134	2.51	0.038	15	0.038	0
2	CBN	005.10	HPLC-UVVIS	130	na	na	na	%	na					1

Total Δ9-THC**HM18OCT-1**

1	Total Δ9-THC	006.10	HPLC-UVVIS	137	<0.0375	<0.0375	<0.0375	%	<0.0375					1
1	Total Δ9-THC	006.10	HPLC-UVVIS	130	<0.0488	<0.0488	<0.0488	%	<0.0488					1
1	Total Δ9-THC	006.10	HPLC-UVVIS	117	<0.0600	<0.0600	<0.0600	%	<0.0600					1
1	Total Δ9-THC	006.40	GC-FID	114	<0.1000	<0.1000	<0.1000	%	<0.1000					1
1	Total Δ9-THC	006.50	GC-MS	127	<0.1500	<0.1500	<0.1500	%	<0.1500					1

Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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	110	<0.1600	<0.1600	<0.1600	%	<0.1600					1
1	Total Δ9-THC	006.10	HPLC-UVVIS	136	0.01	0.01	0.04	%	0.02	-1.28	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	116	0.023	0.028	0.02	%	0.0237	-1.08	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	123	0.0261	0.0255	0.0325	%	0.028	-0.84	0.0435	28	0.0184	0
1	Total Δ9-THC	006.30	HPLC-MS	105	0.0257	0.0284	0.0289	%	0.0277	-0.86	0.0435	28	0.0184	0
1	Total Δ9-THC	006.40	GC-FID	138	0.0228	0.0312	0.0335	%	0.0292	-0.78	0.0435	28	0.0184	0
1	Total Δ9-THC	006.30	HPLC-MS	102	0.0289	0.0303	0.0277	%	0.029	-0.79	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	118	0.028	0.032	0.028	%	0.0293	-0.77	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	129	0.0273	0.0297	0.029	%	0.0287	-0.81	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	142	0.0302	0.0308	0.0312	%	0.0307	-0.69	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	125	0.0313	0.033	0.0316	%	0.032	-0.63	0.0435	28	0.0184	0
1	Total Δ9-THC	006.30	HPLC-MS	119	0.0323	0.0351	0.0348	%	0.0341	-0.51	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	111	<0.0050	0.0434	0.0541	%	0.0342	-0.51	0.0435	28	0.0184	0
1	Total Δ9-THC	006.40	GC-FID	139	0.0396	0.038	0.0335	%	0.037	-0.35	0.0435	28	0.0184	0
1	Total Δ9-THC	006.40	GC-FID	112	0.0413	0.0357	0.0345	%	0.0372	-0.34	0.0435	28	0.0184	0
1	Total Δ9-THC	006.30	HPLC-MS	139	0.04	0.0391	0.0419	%	0.0403	-0.17	0.0435	28	0.0184	0
1	Total Δ9-THC	006.30	HPLC-MS	122	0.0419	0.0416	0.0412	%	0.0416	-0.11	0.0435	28	0.0184	0
1	Total Δ9-THC	006.99	Other	131	0.05	<0.04	<0.038	%	0.0427					1
1	Total Δ9-THC	006.10	HPLC-UVVIS	109	0.0452	0.0458	0.0497	%	0.0469	0.19	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	104	0.0146	0.112	0.0191	%	0.0486	0.28	0.0435	28	0.0184	0
1	Total Δ9-THC	006.99	Other	132	0.0512	0.0515	0.0494	%	0.0507	0.39	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	140	0.0727	0.0426	0.042	%	0.0524	0.49	0.0435	28	0.0184	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	006.10	HPLC-UVVIS	101	0.0492	0.0544	0.0508	%	0.0515	0.43	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	141	0.0501	0.0586	0.0523	%	0.0537	0.55	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	135	0.055	0.0526	0.0664	%	0.058	0.79	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	124	0.0742	0.0691	0.0665	%	0.0699	1.44	0.0435	28	0.0184	0
1	Total Δ9-THC	006.40	GC-FID	116	0.0861	0.0573	0.0682	%	0.0705	1.47	0.0435	28	0.0184	0
1	Total Δ9-THC	006.40	GC-FID	106	0.096	0.094	0.086	%	0.092	2.64	0.0435	28	0.0184	0
1	Total Δ9-THC	006.10	HPLC-UVVIS	108	0.0961	0.0923	0.097	%	0.0951	2.81	0.0435	28	0.0184	0
1	Total Δ9-THC	006.40	GC-FID	121	<0.1000	0.1342	<0.1000	%	0.111					1
1	Total Δ9-THC	006.40	GC-FID	128	0.1447	0.1454	0.1336	%	0.141	5.32	0.0435	28	0.0184	0

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2	Total Δ9-THC	006.10	HPLC-UVVIS	110	<0.1600	<0.1600	<0.1600	%	<0.1600					1
2	Total Δ9-THC	006.10	HPLC-UVVIS	130	0.0773	0.0825	0.0745	%	0.0781	-3.43	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	141	0.1676	0.1587	0.1528	%	0.16	-1.19	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	142	0.1599	0.1517	0.172	%	0.161	-1.15	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	111	0.1765	0.1449	0.1672	%	0.163	-1.1	0.2031	35	0.0364	0
2	Total Δ9-THC	006.30	HPLC-MS	105	0.161	0.164	0.168	%	0.164	-1.06	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	108	0.1683	0.161	0.1705	%	0.167	-1	0.2031	35	0.0364	0
2	Total Δ9-THC	006.40	GC-FID	138	0.1685	0.1748	0.1647	%	0.169	-0.93	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	137	0.171	0.173	0.1716	%	0.172	-0.86	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	129	0.179	0.179	0.176	%	0.178	-0.69	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	118	0.186	0.179	0.173	%	0.179	-0.65	0.2031	35	0.0364	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	006.40	GC-FID	114	0.1848	0.1875	0.1744	%	0.182	-0.57	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	104	0.1802	0.1827	0.1895	%	0.184	-0.52	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	116	0.1803	0.1949	0.1845	%	0.187	-0.45	0.2031	35	0.0364	0
2	Total Δ9-THC	006.30	HPLC-MS	102	0.1841	0.1779	0.2034	%	0.188	-0.4	0.2031	35	0.0364	0
2	Total Δ9-THC	006.30	HPLC-MS	119	0.179	0.1997	0.1869	%	0.189	-0.4	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	125	0.1913	0.2021	0.186	%	0.193	-0.27	0.2031	35	0.0364	0
2	Total Δ9-THC	006.99	Other	131	0.21	0.22	0.18	%	0.203	0.01	0.2031	35	0.0364	0
2	Total Δ9-THC	006.40	GC-FID	112	0.2017	0.207	0.1996	%	0.203	-0.01	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	123	0.2023	0.1999	0.212	%	0.205	0.04	0.2031	35	0.0364	0
2	Total Δ9-THC	006.99	Other	132	0.2051	0.2041	0.2071	%	0.205	0.06	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	140	0.2178	0.2084	0.205	%	0.21	0.2	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	101	0.2135	0.197	0.2221	%	0.211	0.21	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	124	0.2215	0.213	0.2092	%	0.215	0.31	0.2031	35	0.0364	0
2	Total Δ9-THC	006.40	GC-FID	139	0.2121	0.2377	0.2093	%	0.22	0.46	0.2031	35	0.0364	0
2	Total Δ9-THC	006.40	GC-FID	106	0.208	0.223	0.232	%	0.221	0.49	0.2031	35	0.0364	0
2	Total Δ9-THC	006.40	GC-FID	116	0.229	0.2127	0.224	%	0.222	0.52	0.2031	35	0.0364	0
2	Total Δ9-THC	006.30	HPLC-MS	139	0.2116	0.2282	0.2326	%	0.224	0.58	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	109	0.2201	0.226	0.23	%	0.225	0.61	0.2031	35	0.0364	0
2	Total Δ9-THC	006.40	GC-FID	128	0.2288	0.2283	0.2274	%	0.228	0.69	0.2031	35	0.0364	0
2	Total Δ9-THC	006.50	GC-MS	127	0.2434	0.2519	0.2576	%	0.251	1.31	0.2031	35	0.0364	0
2	Total Δ9-THC	006.40	GC-FID	121	0.3098	0.2187	0.2277	%	0.252	1.34	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	135	0.2703	0.2946	0.2003	%	0.255	1.43	0.2031	35	0.0364	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
2	Total Δ9-THC	006.30	HPLC-MS	122	0.2522	0.2615	0.2602	%	0.258	1.51	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	117	0.48	0.48	0.48	%	0.48	7.6	0.2031	35	0.0364	0
2	Total Δ9-THC	006.10	HPLC-UVVIS	136	0.1929	0.6443	0.6443	%	0.494	7.98	0.2031	35	0.0364	0

Total CBD**HM18OCT-1**

1	Total CBD	007.40	GC-FID	138	0.6983	1.0795	0.7767	%	0.851	-1.42	1.0906	32	0.1679	0
1	Total CBD	007.30	HPLC-MS	105	0.863	0.853	0.854	%	0.857	-1.39	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	111	0.9174	0.8328	0.9368	%	0.896	-1.16	1.0906	32	0.1679	0
1	Total CBD	007.30	HPLC-MS	122	0.9114	0.8908	0.9529	%	0.918	-1.03	1.0906	32	0.1679	0
1	Total CBD	007.30	HPLC-MS	119	0.9327	0.8835	0.9429	%	0.92	-1.02	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	141	0.9406	0.9113	0.9546	%	0.936	-0.92	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	108	0.7068	1.0516	1.0617	%	0.94	-0.9	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	142	0.971	0.8664	1.0434	%	0.96	-0.78	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	117	1.36	0.135	1.4	%	0.965	-0.75	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	104	0.9638	1.0386	0.9031	%	0.969	-0.73	1.0906	32	0.1679	0
1	Total CBD	007.40	GC-FID	128	1.3013	0.9214	0.8686	%	1.03	-0.36	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	137	1.0176	1.0437	1.0724	%	1.04	-0.27	1.0906	32	0.1679	0
1	Total CBD	007.99	Other	131	1.088	1.07	1.03	%	1.06	-0.17	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	118	0.961	1.134	1.074	%	1.06	-0.2	1.0906	32	0.1679	0
1	Total CBD	007.40	GC-FID	114	1.068	1.0738	1.0681	%	1.07	-0.12	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	116	1.0865	1.121	1.0352	%	1.08	-0.06	1.0906	32	0.1679	0

Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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	Total CBD	007.10	HPLC-UVVIS	110	1.0154	1.1143	1.1209	%	1.08	-0.04	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	125	1.1687	1.1152	1.0271	%	1.1	0.08	1.0906	32	0.1679	0
1	Total CBD	007.99	Other	132	1.1353	1.103	1.0823	%	1.11	0.1	1.0906	32	0.1679	0
1	Total CBD	007.30	HPLC-MS	139	1.1088	1.0921	1.1452	%	1.12	0.15	1.0906	32	0.1679	0
1	Total CBD	007.40	GC-FID	116	1.1167	1.2411	0.9917	%	1.12	0.15	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	140	1.1579	1.1435	1.1097	%	1.14	0.28	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	123	1.1781	1.0646	1.226	%	1.16	0.39	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	135	1.2023	1.1909	1.15	%	1.18	0.54	1.0906	32	0.1679	0
1	Total CBD	007.40	GC-FID	112	1.1493	1.2115	1.2307	%	1.2	0.63	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	109	1.204	1.2295	1.2327	%	1.22	0.78	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	101	1.2808	1.1361	1.3496	%	1.26	0.98	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	129	1.35	1.31	1.31	%	1.32	1.39	1.0906	32	0.1679	0
1	Total CBD	007.40	GC-FID	139	1.2592	1.3687	1.3244	%	1.32	1.35	1.0906	32	0.1679	0
1	Total CBD	007.50	GC-MS	127	1.7874	1.7839	1.9032	%	1.82	4.37	1.0906	32	0.1679	0
1	Total CBD	007.40	GC-FID	106	2.261	1.984	1.761	%	2	5.43	1.0906	32	0.1679	0
1	Total CBD	007.10	HPLC-UVVIS	136	4.3164	5.1432	5.0394	%	4.83	22.29	1.0906	32	0.1679	0

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2	Total CBD	007.40	GC-FID	114	>2.0000	>2.0000	>2.0000	%	>2.0000				1	
2	Total CBD	007.30	HPLC-MS	122	1.3664	1.4011	1.3517	%	1.37	-4.08	3.167	31	0.4399	0
2	Total CBD	007.30	HPLC-MS	119	2.5656	2.6775	2.5304	%	2.59	-1.31	3.167	31	0.4399	0
2	Total CBD	007.99	Other	132	2.776	2.6561	2.734	%	2.72	-1.01	3.167	31	0.4399	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 CBD	007.40	GC-FID	106	2.827	2.599	2.787	%	2.74	-0.98	3.167	31	0.4399	0
2	Total CBD	007.30	HPLC-MS	139	2.766	2.8904	2.5611	%	2.74	-0.97	3.167	31	0.4399	0
2	Total CBD	007.30	HPLC-MS	105	2.88	2.79	2.72	%	2.8	-0.84	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	111	2.9148	2.6205	2.9629	%	2.83	-0.76	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	142	2.8614	2.628	3.065	%	2.85	-0.72	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	108	3.3045	3.231	2.1293	%	2.89	-0.63	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	104	3.0931	2.8842	2.7409	%	2.91	-0.59	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	101	2.9485	2.9177	2.9609	%	2.94	-0.51	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	116	3.0877	2.9049	2.9735	%	2.99	-0.41	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	129	2.69	3.2	3.17	%	3.02	-0.33	3.167	31	0.4399	0
2	Total CBD	007.40	GC-FID	116	2.9221	3.3019	2.9056	%	3.04	-0.28	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	118	3.209	3.045	3.042	%	3.1	-0.16	3.167	31	0.4399	0
2	Total CBD	007.40	GC-FID	138	3.1644	3.0028	3.1613	%	3.11	-0.13	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	137	3.1476	3.1598	3.1607	%	3.16	-0.02	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	140	3.3429	3.2319	2.9219	%	3.17	0	3.167	31	0.4399	0
2	Total CBD	007.99	Other	131	3.13	3.27	3.18	%	3.19	0.06	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	110	3.142	3.3206	3.1431	%	3.2	0.08	3.167	31	0.4399	0
2	Total CBD	007.40	GC-FID	128	3.5159	3.1375	3.1535	%	3.27	0.23	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	141	3.2751	3.1919	3.4111	%	3.29	0.29	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	125	3.3747	3.5137	3.3335	%	3.41	0.55	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	123	3.773	3.3715	3.6348	%	3.59	0.97	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	117	3.57	3.57	3.64	%	3.59	0.97	3.167	31	0.4399	0

Samples: HMOCT18-1 and HMOCT18-2

All Labs Trueness

Issue Date: 12/13/2018

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 CBD	007.40	GC-FID	112	3.6836	3.6192	3.6105	%	3.64	1.07	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	135	3.6683	3.683	3.6427	%	3.66	1.13	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	109	3.6547	3.7372	3.8492	%	3.75	1.32	3.167	31	0.4399	0
2	Total CBD	007.50	GC-MS	127	3.6775	3.7318	4.0708	%	3.83	1.5	3.167	31	0.4399	0
2	Total CBD	007.40	GC-FID	139	3.887	4.2775	3.7788	%	3.98	1.85	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	136	11.6263	13.9738	13.8661	%	13.2	22.71	3.167	31	0.4399	0
2	Total CBD	007.10	HPLC-UVVIS	130	na	na	na	%	na					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).