Worklist: 1631

LAB_CASE	ITEM	TASK_ID	DESCRIPTION
M2016-3021	1	80495	AM 14 Blood Cannabinoids by
M2016-4048	1	80465	AM 14 Blood Cannabinoids by
M2016-4660	1	80466	AM 14 Blood Cannabinoids by
M2017-0376	1	80484	AM 14 Blood Cannabinoids by
M2017-0467	1	80485	AM 14 Blood Cannabinoids by
P2016-1887	1	80496	AM 14 Blood Cannabinoids by
P2016-1888	1	80497	AM 14 Blood Cannabinoids by
P2016-1986	1	80498	AM 14 Blood Cannabinoids by
P2016-2068	1	80499	AM 14 Blood Cannabinoids by
P2016-2080	1	80500	AM 14 Blood Cannabinoids by
P2016-2352	1	80468	AM 14 Blood Cannabinoids by
P2016-2354	1	80479	AM 14 Blood Cannabinoids by
P2016-2417	1	80494	AM 14 Blood Cannabinoids by
P2016-2666	3	80480	AM 14 Blood Cannabinoids by
P2016-2761	1	80481	AM 14 Blood Cannabinoids by
P2016-2901	3	80482	AM 14 Blood Cannabinoids by
P2017-0011	1	80483	AM 14 Blood Cannabinoids by
P2017-0074	1	80486	AM 14 Blood Cannabinoids by
P2017-0147	1	80487	AM 14 Blood Cannabinoids by
P2017-0209	1	80488	AM 14 Blood Cannabinoids by
P2017-0210	1	80489	AM 14 Blood Cannabinoids by
P2017-0233	1	80490	AM 14 Blood Cannabinoids by
P2017-0289	1	80491	AM 14 Blood Cannabinoids by

Worklist: 1631

LAB_CASE	ITEM	TASK_ID	DESCRIPTION
P2017-0317	1	80492	AM 14 Blood Cannabinoids by
P2017-0378	1	80493	AM 14 Blood Cannabinoids by

Vial positions verified.

Worklist Report

Worklist Path:	*C:\MassHunter\ISP Methods\worklists\CS CANN 030717.wkl*
Date Modified:	*03/07/2017 03:29:42 PM*
Date Printed:	*03/20/2017 01:16:44 PM*

Worklist Run Parameters

Operator Name:	*62340*
Run Type:	*Standard Start*
Part of Method to Run:	*Acquisition Only*
Execution for Acquisition-DA:	*Synchronous*
Acquisition Method Path:	*C:\MassHunter\ISP Methods\Acquisition*
DA Method Path:	*D:\MassHunter\methods*
Data File Path:	*C:\MassHunter\Data\2016\CANN\122316 CANN CS*
Pre-Worklist Script:	*---*
Post-Worklist Script:	*SCP_InstrumentStandby(){MH_Acq_Scripts.exe}*
Acquisition Clean Up Script:	*---*
Overlapped Injection:	*No*
Clear sample selection after run:	*Yes*
Wait Time for Ready(Min):	*10*
Threshold Disk Value(GB):	*10*
Comment:	*---*

Plate Barcode Information

Plate	Barcode
P1	
P2	

Worklist Table

Sample Position	Sample Name	Method	Data File	Sample Type	Level Name	Comment	Info.
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Blank1-r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Blank2-r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-A2	Blood: 1_5 ngmL	isp blood cannabinoids Poky 2016-3.m	B_CAL1-r001.d	Calibration	1	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @5ng/mL, all others @1 ng/mL
P2-A3	Blood: 2_10 ngmL	isp blood cannabinoids Poky 2016-3.m	B_CAL2_r001.d	Calibration	2	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @10ng/mL, all others @2 ng/mL
P2-A4	Blood: 5_25 ngmL	isp blood cannabinoids Poky 2016-3.m	B_CAL3_r001.d	Calibration	3	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @25ng/mL, all

Sample Position	Sample Name	Method	Data File	Sample Type	Level Name	Comment	Info.
							others @5 ng/mL
P2-A5	Blood: 10_50 ngmL	isp blood cannabinoids Poky 2016-3.m	B_CAL4_r001.d	Calibration	4	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @50ng/mL, all others @10 ng/mL
P2-A6	Blood: 25_125 ngmL	isp blood cannabinoids Poky 2016-3.m	B_CAL5_r001.d	Calibration	5	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @125ng/mL, all others @25 ng/mL
P2-A7	Blood: 50_250 ngmL	isp blood cannabinoids Poky 2016-3.m	B_CAL6_r001.d	Calibration	6	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @250ng/mL, all others @50 ng/mL
P2-A8	Blood: 100_500 ngmL	isp blood cannabinoids Poky 2016-3.m	B_CAL7_r001.d	Calibration	7	AM 6.1.2 Cannabinoids by LCQQQ	c-THC @500ng/mL, all others @100 ng/mL
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Carryover blank1-reinject_r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-A9	Blood Negative Control	isp blood cannabinoids Poky 2016-3.m	B-NC-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Negative Blood UTAK Lot B1013
P2-B1	Blood PC 1	isp blood cannabinoids Poky 2016-3.m	B-POS Ctrl 1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Positive Control- UTAK B1013 + WS060716
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Carryover blank2-reinject_r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	
P2-B3	M2016-4048-1	isp blood cannabinoids Poky 2016-3.m	M2016-4048-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B4	M2016-4660-1	isp blood cannabinoids Poky 2016-3.m	M2016-4660-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B5	P2016-2352-1	isp blood cannabinoids Poky 2016-3.m	P2016-2352-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B6	P2016-2354-1	isp blood cannabinoids Poky 2016-3.m	P2016-2354-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B7	P2016-2666-1	isp blood cannabinoids Poky 2016-3.m	P2016-2666-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B8	P2016-2761-1	isp blood cannabinoids Poky 2016-3.m	P2016-2761-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-B9	P2016-2901-1	isp blood cannabinoids Poky 2016-3.m	P2016-2901-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C1	P2017-0011-1	isp blood cannabinoids Poky 2016-3.m	P2017-0011-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C2				Sample			Blood

Sample Position	Sample Name	Method	Data File	Sample Type	Level Name	Comment	Info.
	M2017-0376-1	isp blood cannabinoids Poky 2016-3.m	M2017-0376-1-r001.d			AM 6.1.2 Cannabinoids by LCQQQ	
P2-C3	M2017-0467-1	isp blood cannabinoids Poky 2016-3.m	M2017-0467-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-F5	Blood PC 2	isp blood cannabinoids Poky 2016-3.m	B-POS Ctrl 2-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Positive Control- UTAK B1013 + WS060716
P2-C4	P2017-0074-1	isp blood cannabinoids Poky 2016-3.m	P2017-0074-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C5	P2017-0147-1	isp blood cannabinoids Poky 2016-3.m	P2017-0147-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C6	P2017-0209-1	isp blood cannabinoids Poky 2016-3.m	P2017-0209-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C7	P2017-0210-1	isp blood cannabinoids Poky 2016-3.m	P2017-0210-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C8	P2017-0233-1	isp blood cannabinoids Poky 2016-3.m	P2017-0233-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-C9	P2017-0289-1	isp blood cannabinoids Poky 2016-3.m	P2017-0289-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D1	P2017-0317-1	isp blood cannabinoids Poky 2016-3.m	P2017-0317-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D2	P2017-0378-1	isp blood cannabinoids Poky 2016-3.m	P2017-0378-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D3	P2016-2417-1	isp blood cannabinoids Poky 2016-3.m	P2016-2417-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D4	M2016-3021-1	isp blood cannabinoids Poky 2016-3.m	M2016-3021-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D5	P2016-1887-1	isp blood cannabinoids Poky 2016-3.m	P2016-1887-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D6	P2016-1888-1	isp blood cannabinoids Poky 2016-3.m	P2016-1888-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D7	P2016-1986-1	isp blood cannabinoids Poky 2016-3.m	P2016-1986-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D8	P2016-2068-1	isp blood cannabinoids Poky 2016-3.m	P2016-2068-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood
P2-D9	P2016-2080-1	isp blood cannabinoids Poky 2016-3.m	P2016-2080-1-r001.d	Sample		AM 6.1.2 Cannabinoids by LCQQQ	Blood

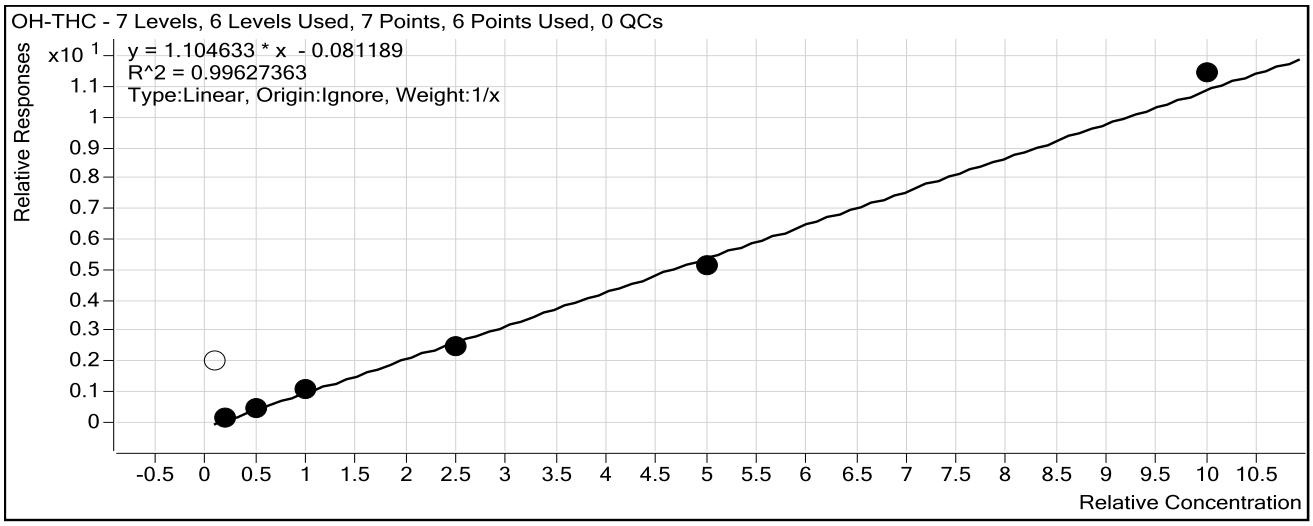
Sample Position	Sample Name	Method	Data File	Sample Type	Level Name	Comment	Info.
P2-A1	Blank	isp blood cannabinoids Poky 2016-3.m	Blank3-r001.d	Blank		AM 6.1.2 Cannabinoids by LCQQQ	Blood

ISP Forensics
Calibration Curve Report

Batch Data Path C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin

Last Calib Update 4/3/2017 9:10 AM **Analyst Name** ISP TOX

Target Compound *OH-THC*
Internal Standard *OH-THC-d3*



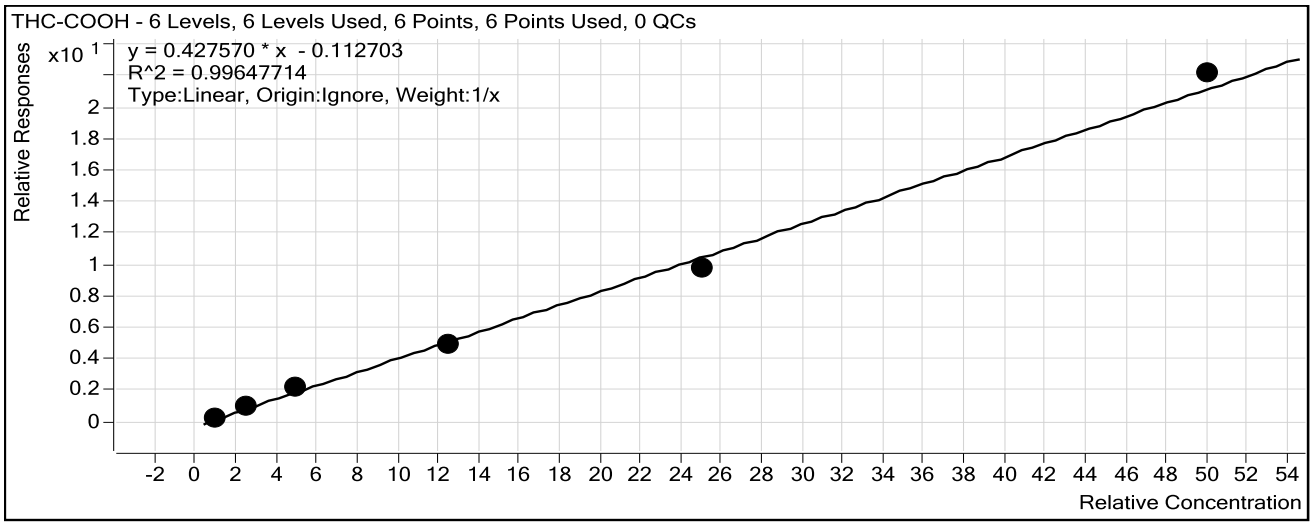
Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ngmL	1	☐	1	18.9	1890.3
Blood: 2_10 ngmL	2	☑	2	2.2	110.6
Blood: 5_25 ngmL	3	☑	5	4.7	93.5
Blood: 10_50 ngmL	4	☑	10	10.5	105.0
Blood: 25_125 ngmL	5	☑	25	23.0	92.0
Blood: 50_250 ngmL	6	☑	50	47.3	94.6
Blood: 100_500 ngmL	7	☑	100	104.3	104.3

ISP Forensics
Calibration Curve Report

Batch Data Path C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin

Last Calib Update 4/3/2017 9:10 AM **Analyst Name** ISP TOX

Target Compound *THC-COOH*
Internal Standard *THC-COOH-d3*



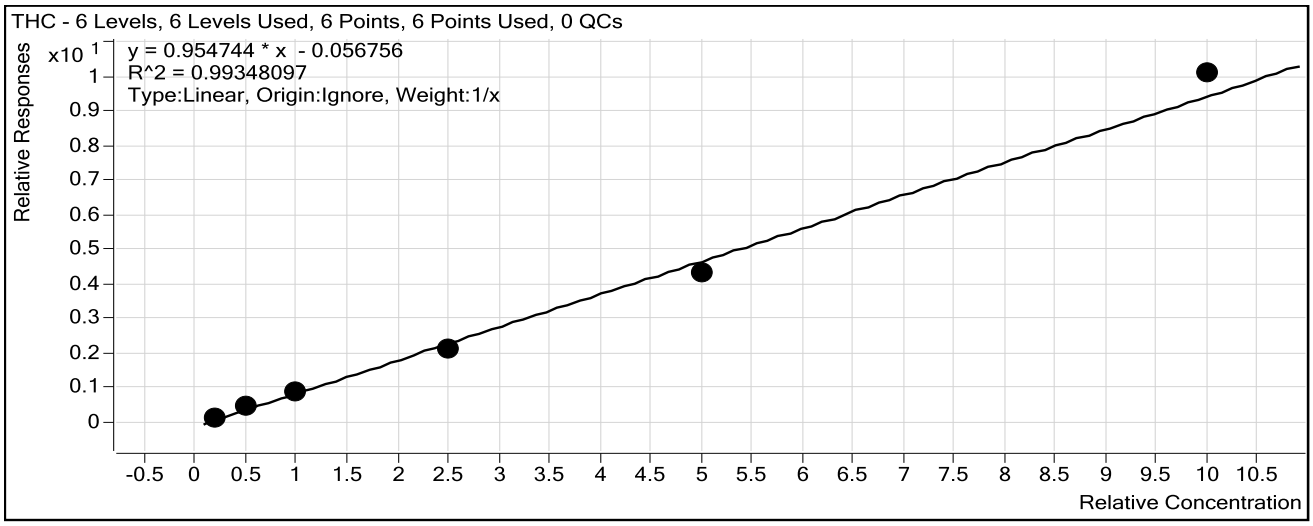
Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ngmL	1	☐	5	0.0	0.0
Blood: 2_10 ngmL	2	☑	10	10.1	101.5
Blood: 5_25 ngmL	3	☑	25	24.7	99.0
Blood: 10_50 ngmL	4	☑	50	53.6	107.3
Blood: 25_125 ngmL	5	☑	125	119.4	95.5
Blood: 50_250 ngmL	6	☑	250	231.8	92.7
Blood: 100_500 ngmL	7	☑	500	520.3	104.1

ISP Forensics
Calibration Curve Report

Batch Data Path C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin

Last Calib Update 4/3/2017 9:10 AM **Analyst Name** ISP TOX

Target Compound *THC*
Internal Standard *THC-d3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
Blood: 1_5 ngmL	1	☐	1	0.0	0.0
Blood: 2_10 ngmL	2	☑	2	2.2	108.0
Blood: 5_25 ngmL	3	☑	5	5.1	102.3
Blood: 10_50 ngmL	4	☑	10	10.1	101.4
Blood: 25_125 ngmL	5	☑	25	22.7	90.8
Blood: 50_250 ngmL	6	☑	50	45.7	91.4
Blood: 100_500 ngmL	7	☑	100	106.2	106.2

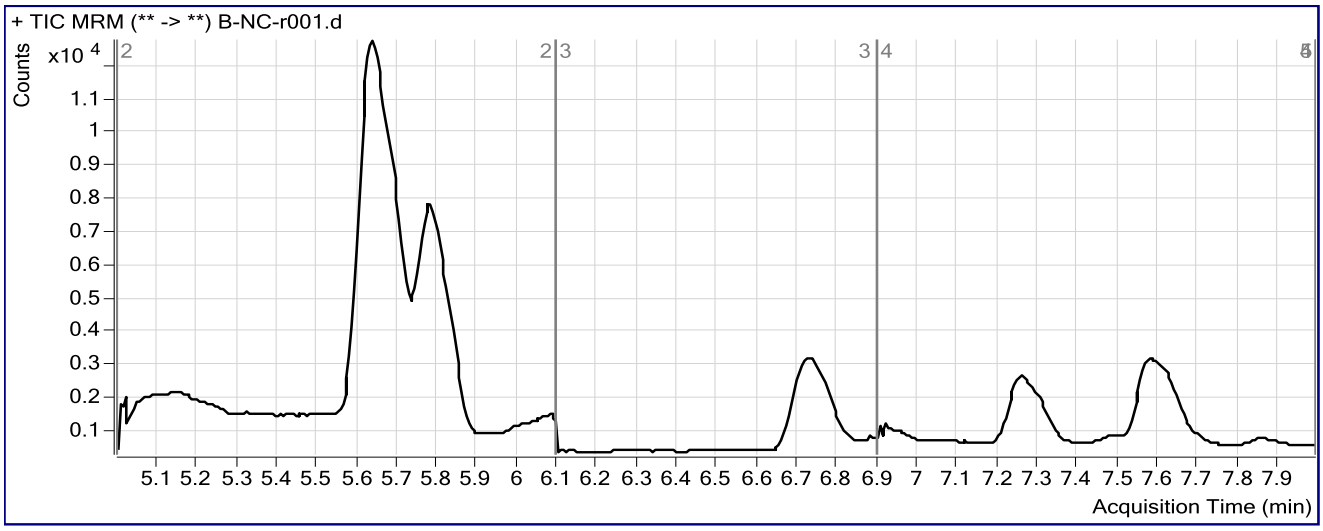
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/3/2017 9:10 AM	**Analyst Name**	ISPUser
Report Time	4/3/2017 9:12 AM	**Reporter Name**	ISPUser
Last Calib Update	4/3/2017 9:10 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-03-20 17:47	**Data File**	B-NC-r001.d
Sample Type	Sample	**Sample Name**	Blood Negative Control
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P2-A9	**Sample Info**	Negative Blood UTAK Lot B1013
Inj Vol	-1	**Comment**	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	7.490	0	7440	0.0000	0.0000

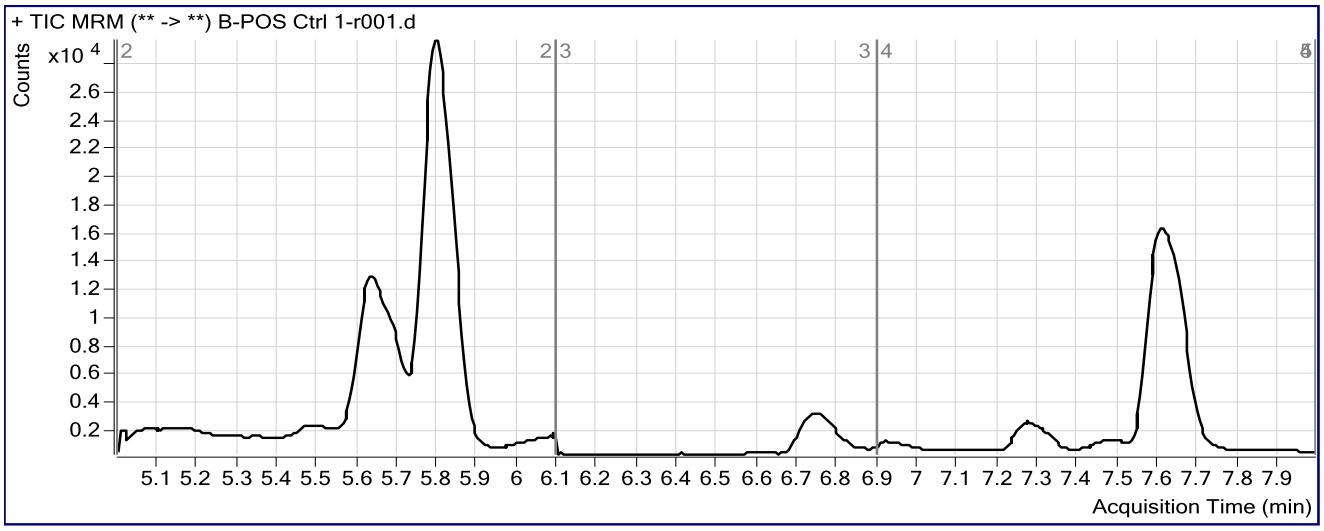
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/3/2017 9:10 AM	**Analyst Name**	ISPUser
Report Time	4/3/2017 9:12 AM	**Reporter Name**	ISPUser
Last Calib Update	4/3/2017 9:10 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-03-20 18:00	**Data File**	B-POS Ctrl 1-r001.d
Sample Type	Sample	**Sample Name**	Blood PC 1
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P2-B1	**Sample Info**	Positive Control- UTAK B1013 + WS060716
Inj Vol	-1	**Comment**	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
OH-THC	OH-THC-d3	5.718	326	59265	0.0055	0.7849
THC-COOH	THC-COOH-d3	5.799	16693	11823	1.4119	35.6578
Cannabidiol	Cannabidiol-d3	6.735	63	5178	0.0122	0.6662
THC	THC-d3	7.608	30991	6304	4.9162	52.0865

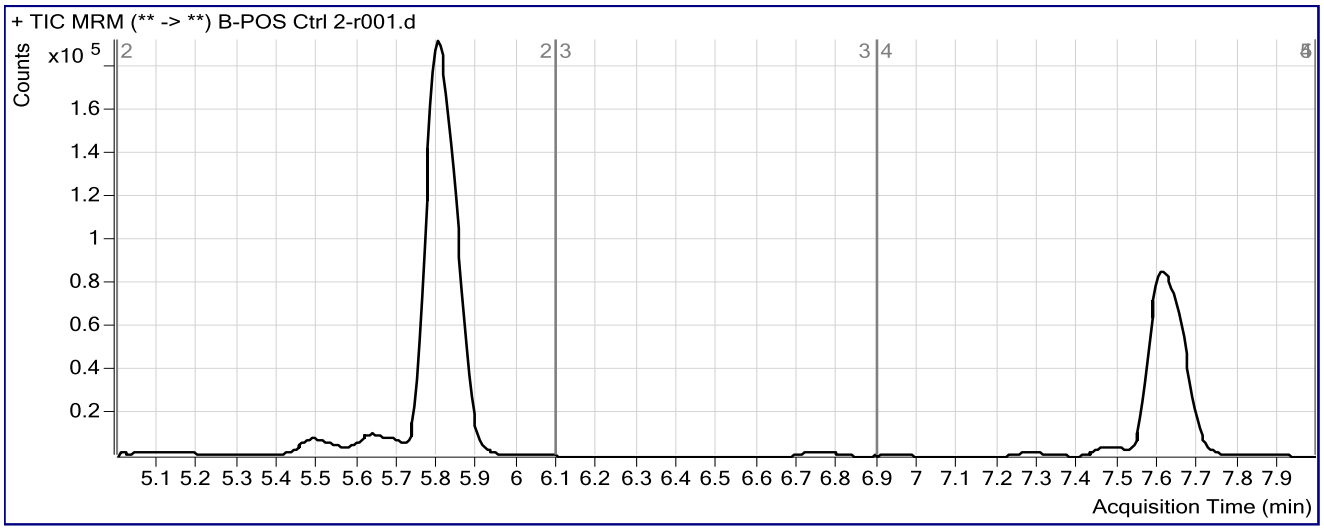
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/3/2017 9:10 AM	**Analyst Name**	ISPUser
Report Time	4/3/2017 9:13 AM	**Reporter Name**	ISPUser
Last Calib Update	4/3/2017 9:10 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-03-20 20:40	**Data File**	B-POS Ctrl 2-r001.d
Sample Type	Sample	**Sample Name**	Blood PC 2
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P2-F5	**Sample Info**	Positive Control- UTAK B1013 + WS060716
Inj Vol	-1	**Comment**	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
OH-THC	OH-THC-d3	5.712	0	46870	0.0000	0.0000
THC-COOH	THC-COOH-d3	5.804	144806	9657	14.9952	353.3437
Cannabidiol	Cannabidiol-d3	6.753	528	3849	0.1372	1.7380
THC	THC-d3	7.613	190338	3902	48.7857	511.5762

Idaho State Police
Forensic Services
Toxicology Discipline

Request for Departure from an Analytical Method

Date of Request
04-21-2017

Forensic Scientist
Celena Shrum

Analytical Method
AM 14 - LCMS-QQQ Confirmation of Cannabinoids in Blood and Urine

Request

I am requesting a deviation to exclude the THC result for PC1 and PC2 for this run and only use the carboxy results for controls. It was determined that the reason the THC was high in the control was because of the stock solution itself being higher than expected. This was determined by having another analyst remake the solutions from the same stock and re-extract (alongside the original PC1 and PC2). The results were almost identical. To eliminate the possibility that it was a potential issue with the instrument or calibrators, aliquots of PC1, PC2, and the stock solutions were sent to the Coeur d'Alene laboratory and extracted and run there. The resulting concentrations were comparable to what we got here.

A new stock solution was then used to prepare new PC1 and PC2 solutions and those samples were extracted and run (again alongside the original PC1 and PC2 from the case sample run) and the results were calculated using the same calibration curve used previously (and for the case samples). The results showed the original PC1 and PC2 concentrations were approximately the same as they were in the previous two extractions and the concentrations for the new controls were correct for the method and what we were anticipating.

The function of the control is to verify that the calibrators (both low and high) are working properly (meaning that if the calibrators are not working properly the concentrations of the controls could be off) (the low and high is done to test both ends of the calibration cure, meaning low concentration samples as well as high concentration samples). Another function of the control is to ensure that the extraction worked properly (if you don't see the compounds you are expecting or they are not at the appropriate concentrations, you know something went wrong). Since the carboxy-THC and THC both showed up in the control I can conclude that the extraction worked. The question with the THC being higher than anticipated is was there an issue with the extraction or data analysis that "added" THC to the control (actually or artificially), or was there a problem with the control itself and the extraction and data analysis worked properly? We definitively determined that the stock concentration was higher than it should've been (which lead to the controls being higher than they should've been for the THC). In addition we can rule out that the extraction or data analysis artificially "added" THC since THC was not in all samples and especially since it was not in the negative control.

Another reason I know the extraction worked properly was because the internal standards worked for all the cases (including the controls). This leads me to conclude that there was nothing wrong with any of the data generated in that run and that all of the results are accurate. The error was with the THC stock concentration itself (and the PC1 and PC2 solutions since they were prepared from that stock).

Lab Manager Review

☒ Departure approved
Comments:

☐ Departure Not Approved
Comments:

Date:

Rachel Cutler
Pocatello Laboratory Manager

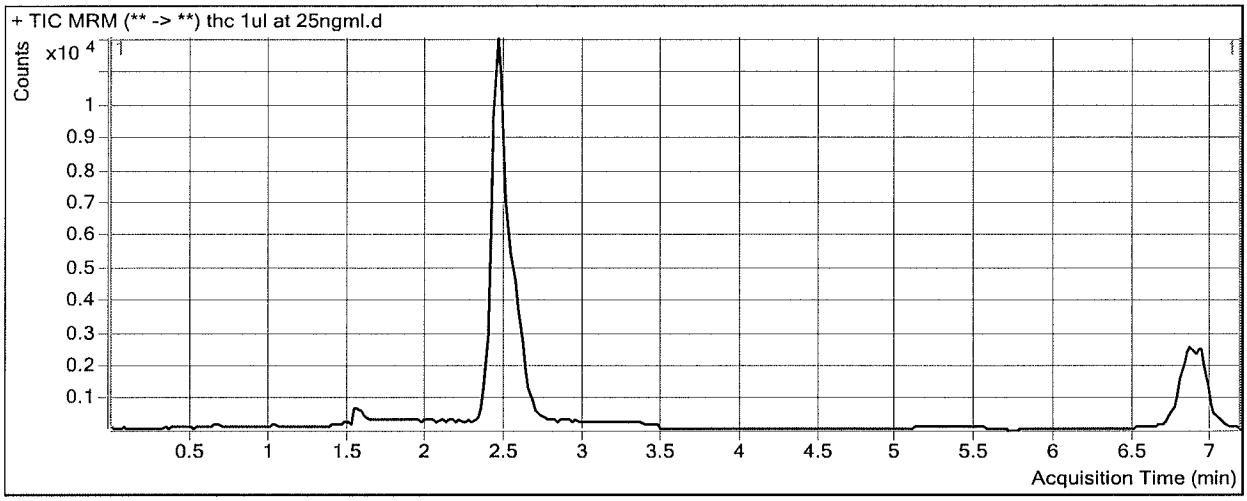
ISP FORENSICS - Cd'A Instrument # 62340
Cannabinoids Analysis Report

Batch Data Path	D:\2017 Data\4-13-17 THC Quant\QuantResults\41317 cann quant.batch.bin		
Analysis Time	4/15/2017 7:11 AM	**Analyst Name**	ISP Tox
Report Time	4/15/2017 7:13 AM	**Reporter Name**	ISP Tox
Last Calib Update	4/15/2017 7:11 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-14 15:44	**Data File**	thc 1ul at 25ngml.d
Sample Type	Sample	**Sample Name**	thc 1ul at ~~25~~ng/ml 2.5ng/ml A
Dilution	1	**Acq Method**	Quant THC 2017.m
Position	P2-A3	**Sample Info**	
Inj Vol	-1	**Comment**	AM 27 cannabinoid confirmation

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	6.934	3753	24510	0.1531	15.6141

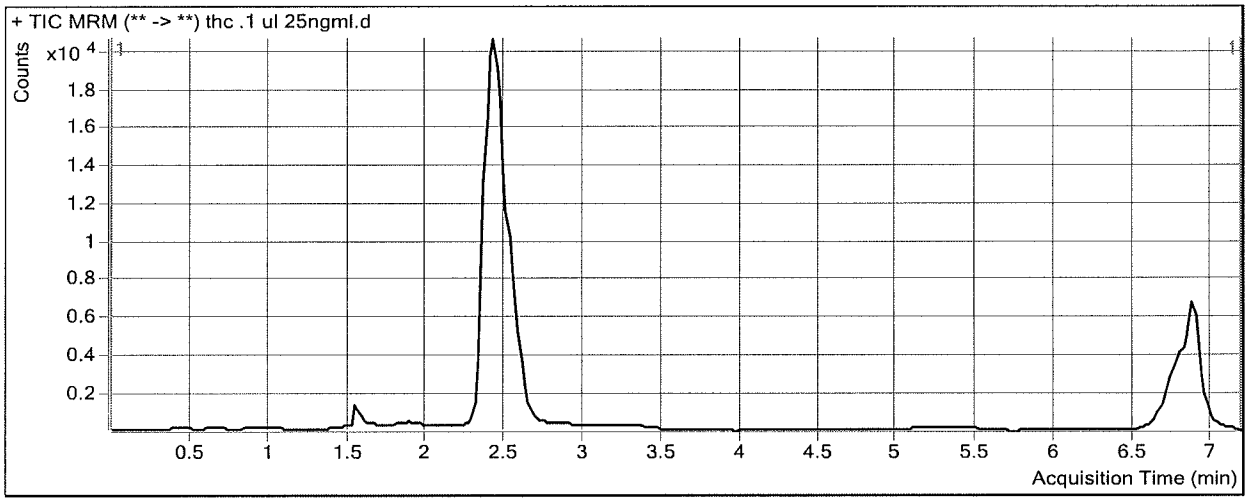
ISP FORENSICS - Cd'A Instrument # 62340
Cannabinoids Analysis Report

Batch Data Path	D:\2017 Data\4-13-17 THC Quant\QuantResults\41317 cann quant.batch.bin		
Analysis Time	4/15/2017 7:11 AM	**Analyst Name**	ISP Tox
Report Time	4/15/2017 7:13 AM	**Reporter Name**	ISP Tox
Last Calib Update	4/15/2017 7:11 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-14 15:56	**Data File**	thc .1 ul 25ngml.d
Sample Type	Sample	**Sample Name**	thc .1 ul 25ng/ml 2.5 ng/ml
Dilution	1	**Acq Method**	Quant THC 2017.m
Position	p2-b3	**Sample Info**	
Inj Vol	-1	**Comment**	AM 27 cannabinoid confirmation

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	6.873	9096	61055	0.1490	15.1751

ISP FORENSICS - Cd'A Instrument # 62340
Cannabinoids Analysis Report

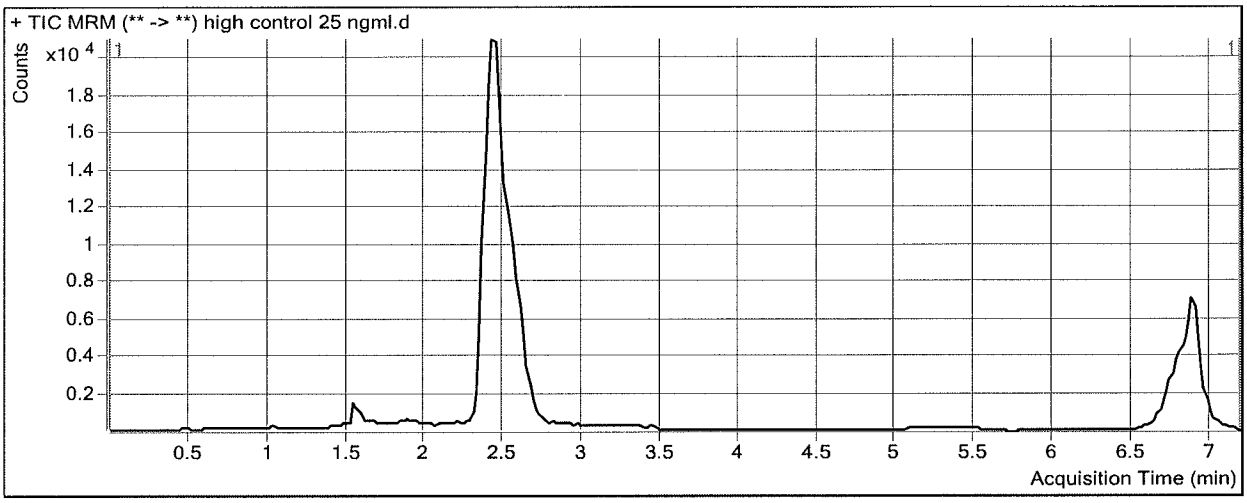
Batch Data Path	D:\2017 Data\4-13-17 THC Quant\QuantResults\41317 cann quant.batch.bin		
Analysis Time	4/15/2017 7:11 AM	**Analyst Name**	ISP Tox
Report Time	4/15/2017 7:13 AM	**Reporter Name**	ISP Tox
Last Calib Update	4/15/2017 7:11 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-14 16:08	**Data File**	high control 25 ngml.d
Sample Type	Sample	**Sample Name**	high control 25 ng/ml
Dilution	1	**Acq Method**	Quant THC 2017.m
Position	P2-C3	**Sample Info**	
Inj Vol	-1	**Comment**	AM 27 cannabinoid confirmation

2.5 ng/ml - THC ☆
CTHC - 12.5 ng/ml

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-COOH	THC-COOH-d9	2.586	12662	51440	0.2461	13.0731
THC	THC-d3	6.873	10173	57663	0.1764	18.0756

ISP FORENSICS - Cd'A Instrument # 62340
Cannabinoids Analysis Report

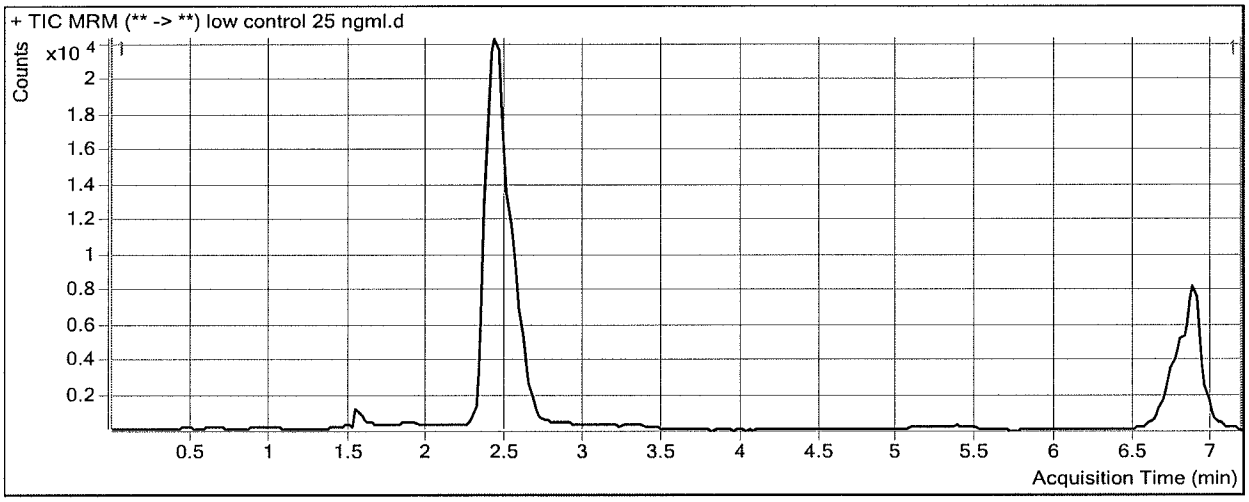
Batch Data Path	D:\2017 Data\4-13-17 THC Quant\QuantResults\41317 cann quant.batch.bin		
Analysis Time	4/15/2017 7:11 AM	**Analyst Name**	ISP Tox
Report Time	4/15/2017 7:13 AM	**Reporter Name**	ISP Tox
Last Calib Update	4/15/2017 7:11 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-14 16:20	**Data File**	low control 25 ngml.d
Sample Type	Sample	**Sample Name**	low control 25 ng/ml
Dilution	1	**Acq Method**	Quant THC 2017.m
Position	p2-d3	**Sample Info**	
Inj Vol	-1	**Comment**	AM 27 cannabinoid confirmation

THC 2.5 ng/ml A
C-THC 12.5 ng/ml

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-COOH	THC-COOH-d9	2.566	10418	53568	0.1945	10.2792
THC	THC-d3	6.873	16480	67720	0.2434	25.1544

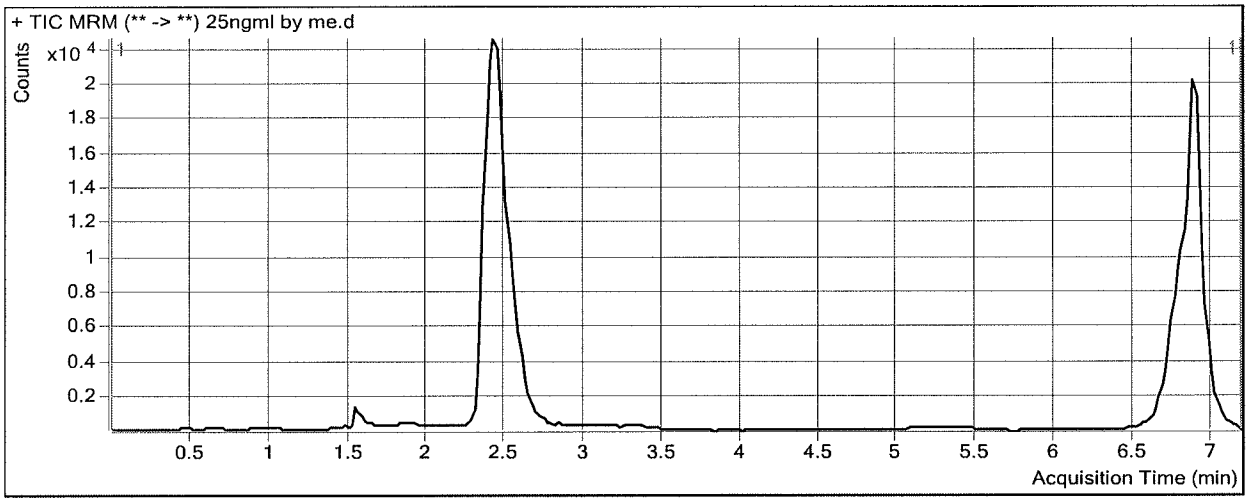
ISP FORENSICS - Cd'A Instrument # 62340
Cannabinoids Analysis Report

Batch Data Path	D:\2017 Data\4-13-17 THC Quant\QuantResults\41317 cann quant.batch.bin		
Analysis Time	4/15/2017 7:11 AM	**Analyst Name**	ISP Tox
Report Time	4/15/2017 7:13 AM	**Reporter Name**	ISP Tox
Last Calib Update	4/15/2017 7:11 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-14 16:31	**Data File**	25ngml by me.d
Sample Type	Sample	**Sample Name**	25ng/ml by me
Dilution	1	**Acq Method**	Quant THC 2017.m
Position	P2-E3	**Sample Info**	
Inj Vol	-1	**Comment**	AM 27 cannabinoid confirmation

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	6.873	97398	57565	1.6920	178.3315

Sample prepared by AMN 4-13-17 expected THC concentration 25 ng/ml

Extraction done using the PC1 working solution used in 3-20-17 run.

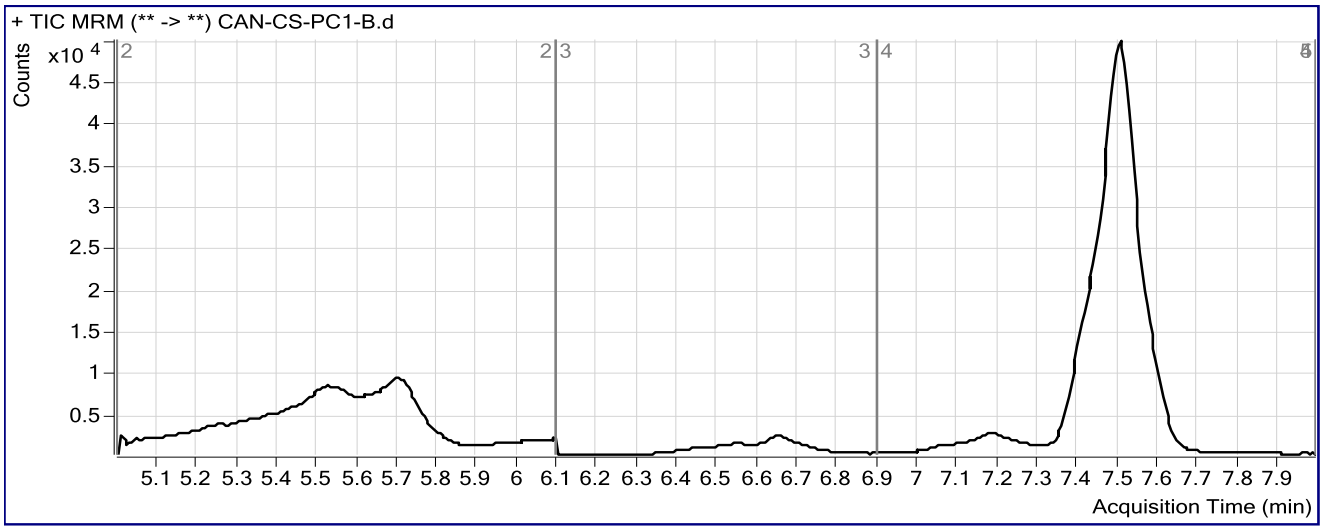
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-06 19:33	**Data File**	CAN-CS-PC1-B.d
Sample Type	Sample	**Sample Name**	PC1
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P1-F2	**Sample Info**	UTAK Negative Whole Blood LOT B1013
Inj Vol	-1	**Comment**	AM 6.1.1 Benzo and Z by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	7.501	86333	16458	5.2456	55.5371

Extraction done using the PC2 working solution used in 3-20-17 run.

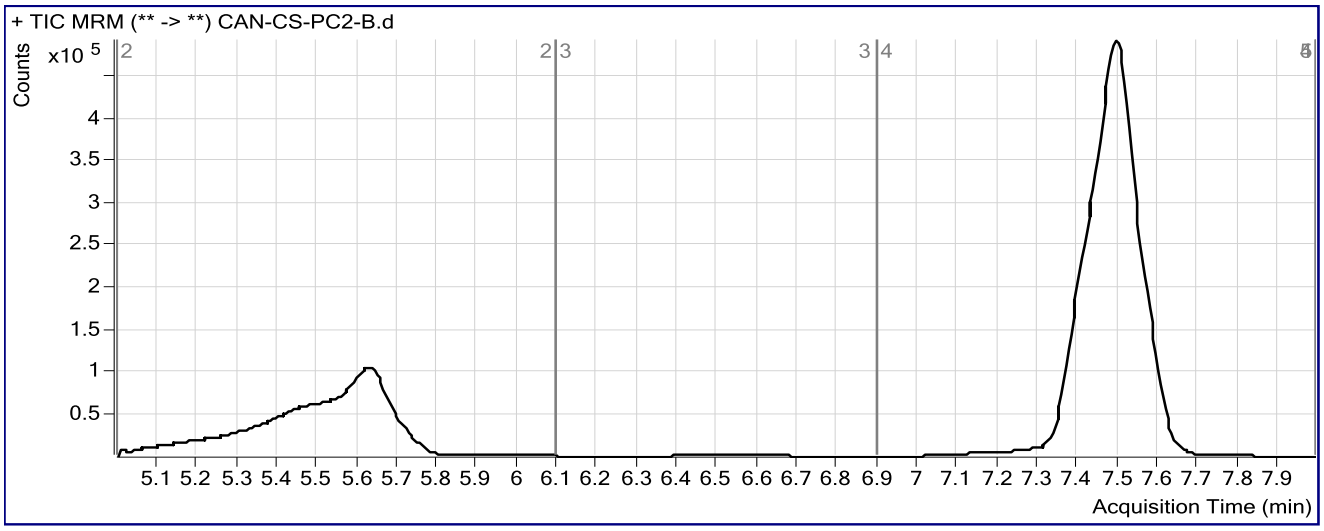
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-06 19:47	**Data File**	CAN-CS-PC2-B.d
Sample Type	Sample	**Sample Name**	PC2
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P1-F3	**Sample Info**	UTAK Negative Whole Blood LOT B1013
Inj Vol	-1	**Comment**	AM 6.1.1 Benzo and Z by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	7.490	1011509	18023	56.1223	588.4203

Extraction done using blood spiked with a THC only working solution prepared that day fromt he THC stock used to prepare PC1 and PC2 working solutions from 3-20-17.

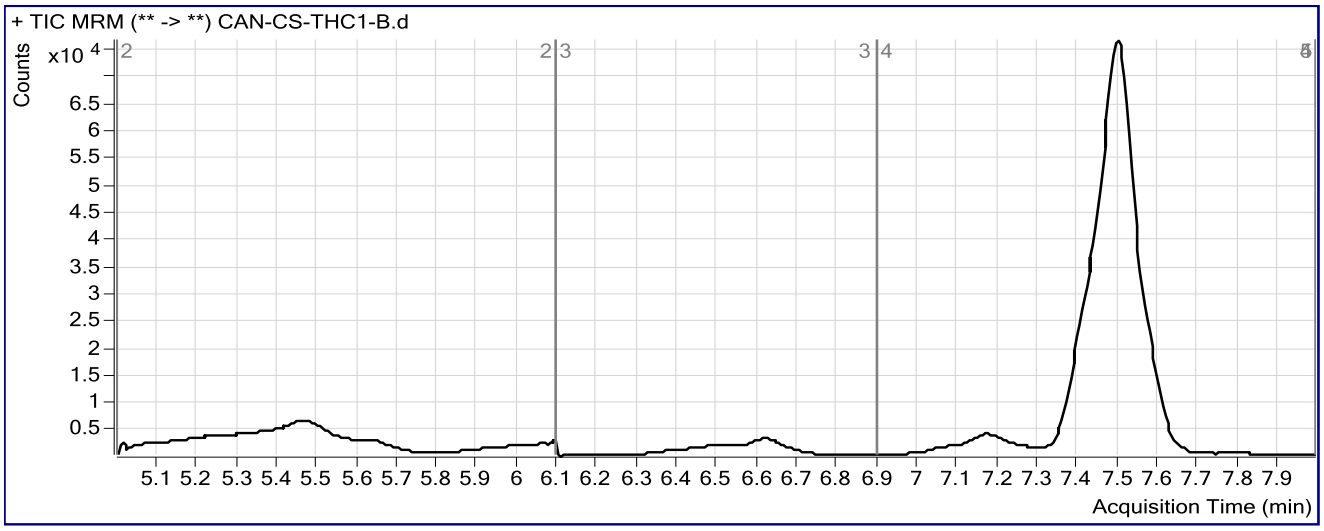
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-06 20:00	**Data File**	CAN-CS-THC1-B.d
Sample Type	Sample	**Sample Name**	THC1
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P1-F4	**Sample Info**	UTAK Negative Whole Blood LOT B1013
Inj Vol	-1	**Comment**	AM 6.1.1 Benzo and Z by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	7.496	127168	23340	5.4485	57.6625

Extraction done using blood spiked with a THC only working solution prepared that day fromt he THC stock used to prepare PC1 and PC2 working solutions from 3-20-17.

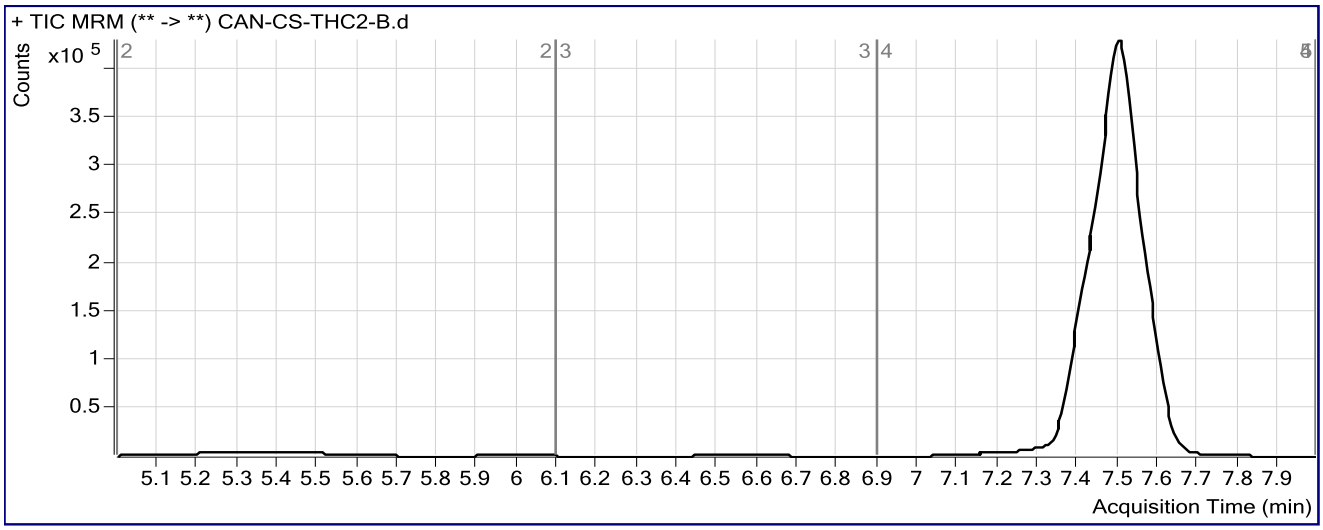
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-06 20:13	**Data File**	CAN-CS-THC2-B.d
Sample Type	Sample	**Sample Name**	THC2
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P1-F5	**Sample Info**	UTAK Negative Whole Blood LOT B1013
Inj Vol	-1	**Comment**	AM 6.1.1 Benzo and Z by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	7.496	818964	14419	56.7994	595.5120

Extraction done using the PC1 working solution used in 3-20-17 run.

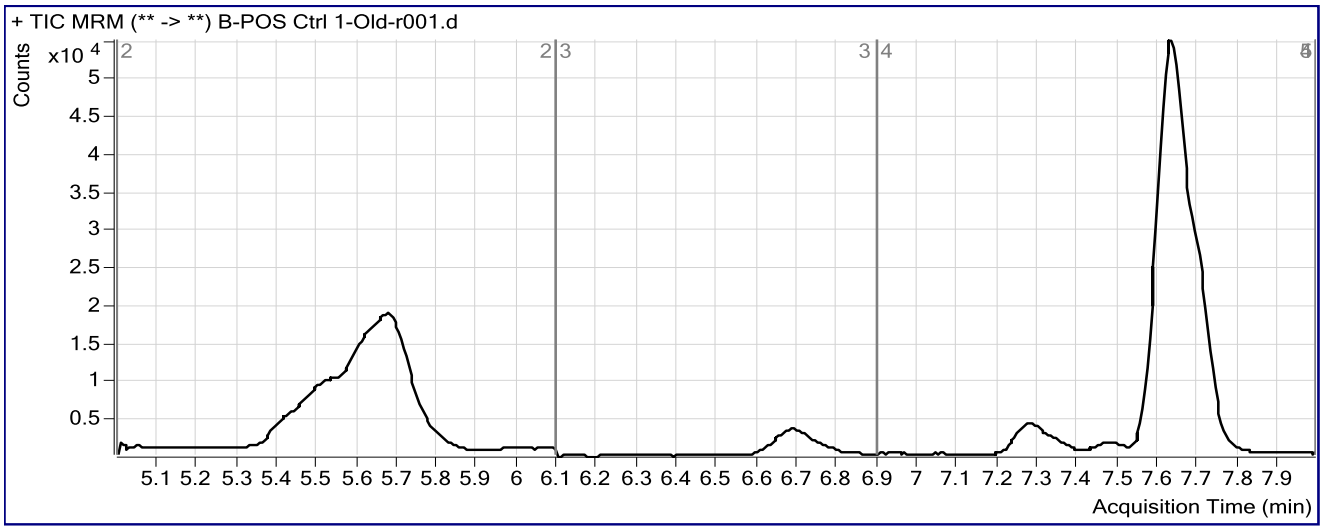
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-20 16:40	**Data File**	B-POS Ctrl 1-Old-r001.d
Sample Type	Sample	**Sample Name**	Blood PC 1 Old
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P2-A2	**Sample Info**	Positive Control- UTAK B1013 + WS060716
Inj Vol	-1	**Comment**	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-COOH	THC-COOH-d3	5.692	6771	4712	1.4369	36.2416
Cannabidiol	Cannabidiol-d3	6.697	109	9045	0.0121	0.6654
THC	THC-d3	7.630	105895	22076	4.7968	50.8361

Extraction done using the PC2 working solution used in 3-20-17 run.

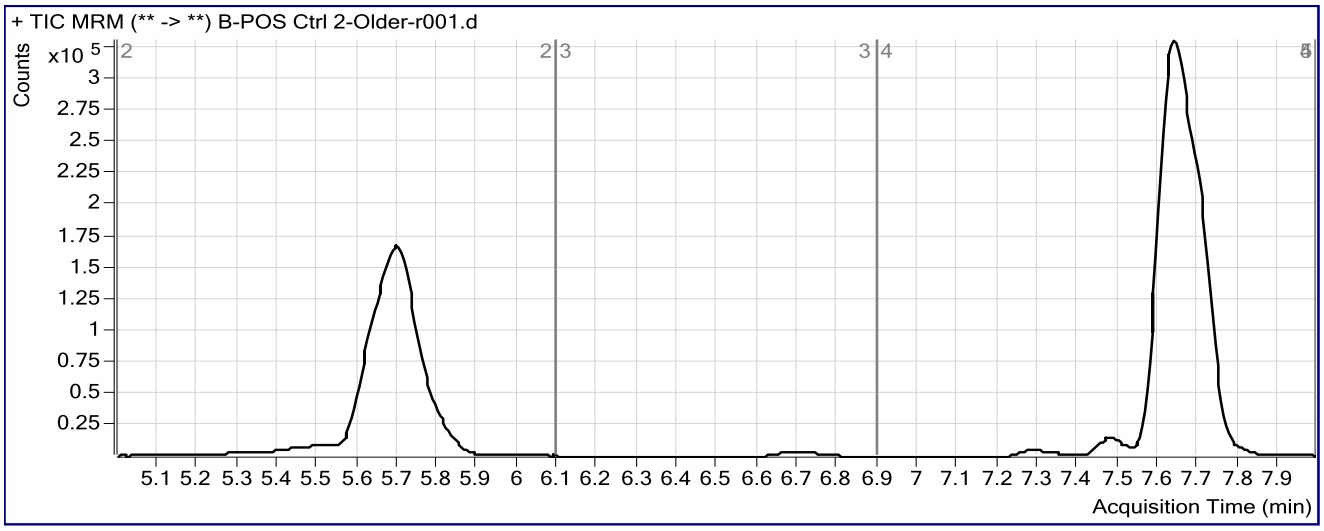
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-20 17:34	**Data File**	B-POS Ctrl 2-Older-r001.d
Sample Type	Sample	**Sample Name**	Blood PC 2 Old
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P2-A3	**Sample Info**	Positive Control- UTAK B1013 + WS060716
Inj Vol	-1	**Comment**	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-COOH	THC-COOH-d3	5.698	101662	6632	15.3284	361.1372
Cannabidiol	Cannabidiol-d3	6.703	1613	10664	0.1513	1.8584
THC	THC-d3	7.641	901796	17088	52.7723	553.3317

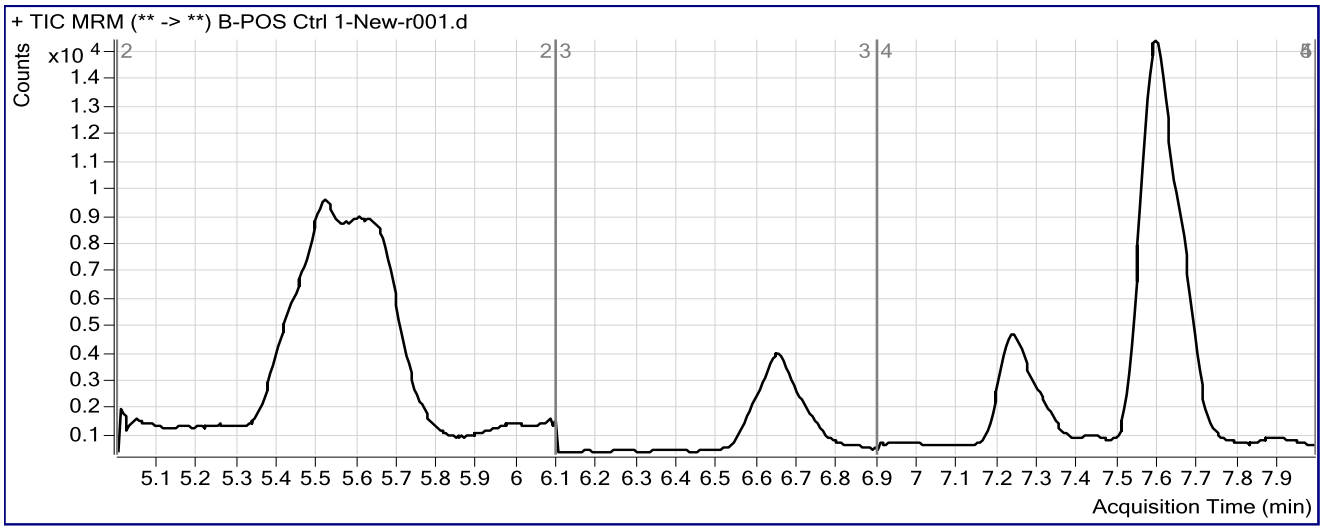
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-20 17:47	**Data File**	B-POS Ctrl 1-New-r001.d
Sample Type	Sample	**Sample Name**	Blood PC 1 New
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P2-A4	**Sample Info**	Positive Control- UTAK B1013 + WS060716
Inj Vol	-1	**Comment**	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC	THC-d3	7.591	16752	21011	0.7973	8.9452

Extraction done with working solutions prepared with different THC stock solution.

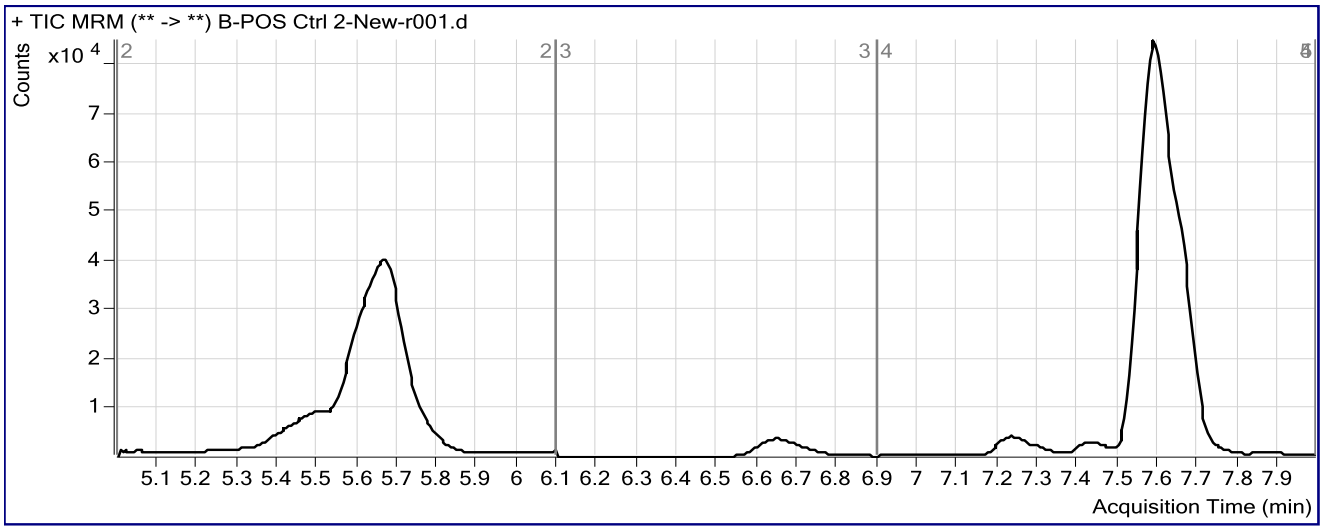
ISP FORENSICS
Pocatello
Cannabinoid Analysis Report

Batch Data Path	C:\MassHunter\Data\2017\CANN\032017 CANN CS\QuantResults\032017 CANN CS.batch.bin		
Analysis Time	4/24/2017 10:43 AM	**Analyst Name**	ISPUser
Report Time	4/24/2017 1:55 PM	**Reporter Name**	ISPUser
Last Calib Update	4/24/2017 10:43 AM	**Batch State**	Processed

Analysis Info

Acq Time	2017-04-20 18:00	**Data File**	B-POS Ctrl 2-New-r001.d
Sample Type	Sample	**Sample Name**	Blood PC 2 New
Dilution	1	**Acq Method**	isp blood cannabinoids Poky 2016-3.m
Position	P2-A5	**Sample Info**	Positive Control- UTAK B1013 + WS060716
Inj Vol	-1	**Comment**	AM 6.1.2 Cannabinoids by LCQQQ

Sample Chromatogram



Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Cannabidiol	Cannabidiol-d3	6.672	186	6375	0.0291	0.8114
THC	THC-d3	7.585	186809	18867	9.9015	104.3031