






















*B. Wylee*

**Worklist: 2062**

<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>	
C2017-2269	1	99469	AM 25/AM 26 Blood MultiDrug/	
C2017-2307	1	100047	AM 25/AM 26 Blood MultiDrug/	
C2017-2361	1	100476	AM 25/AM 26 Blood MultiDrug/	
C2017-2362	1	100478	AM 25/AM 26 Blood MultiDrug/	
C2017-2411	1	101035	AM 25/AM 26 Blood MultiDrug/	
C2017-2415	1	101057	AM 25/AM 26 Blood MultiDrug/	
C2017-2435	1	101153	AM 25/AM 26 Blood MultiDrug/	
C2017-2436	1	101155	AM 25/AM 26 Blood MultiDrug/	
C2017-2437	1	101157	AM 25/AM 26 Blood MultiDrug/	
C2017-2438	1	101159	AM 25/AM 26 Blood MultiDrug/	
C2017-2439	1	101161	AM 25/AM 26 Blood MultiDrug/	
C2017-2450	1	101403	AM 25/AM 26 Blood MultiDrug/	
C2017-2451	1	101410	AM 25/AM 26 Blood MultiDrug/	
M2017-5023	1	100814	AM 25/AM 26 Blood MultiDrug/	
M2017-5027	1	100815	AM 25/AM 26 Blood MultiDrug/	
M2017-5037	2	100817	AM 25/AM 26 Blood MultiDrug/	
M2017-5054	1	100816	AM 25/AM 26 Blood MultiDrug/	
M2017-5088	1	101259	AM 25/AM 26 Blood MultiDrug/	
M2017-5180	1	101260	AM 25/AM 26 Blood MultiDrug/	
M2017-5196	2	101261	AM 25/AM 26 Blood MultiDrug/	
M2017-5292	2	101055	AM 25/AM 26 Blood MultiDrug/	



# Multi-Drug Screen in Blood by LC-MS/MS

Extraction Date: 12-4-17

Analyst: Anne Nord

Plate lot#: 0515207

Plate Expiration: 10/18/2018

Mobile phase A: 10mM Ammonium Formate  
0.5M Ammonium Hydroxide

Mobile phase B 0.1% Formic acid in MeOH  
Ethyl Acetate

Blank Blood Lot: 17J20718

Column: Phenomenex Phenyl Hexyl (4.6x50mm: 2.6 um)

LCMS-QQQ ID: 62340

## Pre-Analytic:

- 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.
- 2. Ensure correct column is installed and begin mobile phase flow allow to equilibrate ~ 30 minutes.
- 3. Create worklist:

## Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250µL blood (calibrated pipette) Pipette ID: 1926134** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID66759*
- 4. Pipette **250µL 0.5M ammonium hydroxide** buffer in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **300µL of blood+base** mixture to corresponding wells of SLE+ plate.
- 7. Apply positive pressure for approx. 4 seconds (or until no liquid remains on top of sorbent).  
**(Load at 85-100 PSI- Selector to the right)** Manifold ID: 66729  
Wait 5 minutes
- 8. Add **900µL ethyl acetate** and allow to flow for 5 minutes under gravity.
- 9. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left)**
- 10. Add **900µL ethyl acetate** and allow to flow for 5 minutes under gravity.
- 11. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left)**
- 12. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.  
*SPE Dry ID66819*
- 13. Reconstitute in **100µL 100% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

## POST- ANALYTIC

- 1. Create batch and process data.  
Worklist path: 120417 blood screen AM 25-26 Batch Name: <sup>A</sup>12-4-17 120417 MDS P1
- 2. Evaluate samples, S/N of primary transition >5 and S/N of secondary transition >3 or evaluation of peak symmetry and resolution. Within +/- 2% or 0.1 min RT of administrative control. > 1/5 the response of administrative control.
- 3. Did all QCs pass for each analyte? Y/N Naloxone not evaluated.
- 4. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

## COMMENTS:

Naloxone not evaluated

Compound Method		p1 cal 1-1a		p1 cal 1-1a Results				Qualifier 1 M...		Qualifier 1 R...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.			
6-MAM	328.2 -> 165...	12/5/2017 9:07 AM	5.280	1106	6.60	328.2 -> 211...	9.96	6-MAM-D6	5.219	47903					
7-Aminoclonazepam	286.1 -> 121...	12/5/2017 9:07 AM	5.531	4187	Infinity	286.1 -> 222...	Infinity	7-Aminoclonazepam-D4	5.510	16409					
Acetyl Fentanyl	323.2 -> 105...	12/5/2017 9:07 AM	6.177	26137	20.54	323.2 -> 188...	96.96	Acetyl Fentanyl-D5	6.175	14790...					
Acetyl Norfentanyl	219.1 -> 84.2	12/5/2017 9:07 AM	4.969	6697	1550.30	219.1 -> 56.3	12.38	Acetyl Norfentanyl-D5	4.929	433476					
a-hydroxyalprazolam	325.1 -> 297...	12/5/2017 9:07 AM	6.379	7839	34.94	325.1 -> 215...	81.79	a-hydroxyalprazolam-D5	6.398	35300					
alpha-PVP	232.2 -> 91.0	12/5/2017 9:07 AM	5.804	84220	9428.61	232.2 -> 77.1	27.94	alpha-PVP-d8	5.761	449673					
Alprazolam	309.1 -> 281...	12/5/2017 9:07 AM	6.485	55259	8052.09	309.1 -> 205...	126.40	Alprazolam-D5	6.464	220616					
Amphetamine	136.1 -> 91.1	12/5/2017 9:07 AM	4.911	90370	23.43	136.1 -> 119...	33.60	Amphetamine-D11	4.870	104052					
Bupropion	240.1 -> 184...	12/5/2017 9:07 AM	6.067	5715	Infinity	240.1 -> 131...	Infinity	Bupropion-D9	5.986	47024					
Carisoprodol	261.2 -> 176...	12/5/2017 9:07 AM	6.127	57570	9961.34	261.2 -> 55.3	59.68	Carisoprodol-D7	6.126	411833					
Citalopram	325.2 -> 109...	12/5/2017 9:07 AM	6.176	183247	64.42	325.2 -> 262...	40.54	Citalopram-D6	6.175	896750					
Clonazepam	316.1 -> 269...	12/5/2017 9:07 AM	6.320	21653	200.73	316.1 -> 213...	47.66	Clonazepam-D4	6.320	36587					
Codeine	300.2 -> 215...	12/5/2017 9:07 AM	5.225	7789	22.02	300.2 -> 165...	932.54	Codeine-D6	5.161	31392					
Cyclobenzaprine	276.2 -> 214...	12/5/2017 9:07 AM	6.531	115846	822.52	276.2 -> 231...	219.13	Cyclobenzaprine-D3	6.510	593056					
Dextromethorphan	272.2 -> 171...	12/5/2017 9:07 AM	6.269	60333	127.62	272.2 -> 147...	421.93	Dextromethorphan-D3	6.268	284860					
Dextroproprian	258.2 -> 157...	12/5/2017 9:07 AM	5.556	45837	4512.58	258.2 -> 133...	99.14	Dextroproprian-D3	5.535	241731					
Diazepam	285.1 -> 193...	12/5/2017 9:07 AM	6.711	37148	79.18	285.1 -> 153...	76.39	Diazepam-D5	6.690	174250					
Dihydrocodeine	302.2 -> 198...	12/5/2017 9:07 AM	4.999	21307	65.37	302.2 -> 128...	27.42	Dihydrocodeine-D6	4.957	112175					
Diphenhydramine	256.2 -> 167...	12/5/2017 9:07 AM	6.169	273874	120.59	256.2 -> 152...	130.85	Diphenhydramine-D3	6.168	15161...					
Doxylamine	271.2 -> 182...	12/5/2017 9:07 AM	5.819	256957	49.50	271.2 -> 167...	62.63	Doxylamine-D5	5.818	13168...					
EDDP	279.2 -> 235...	12/5/2017 9:07 AM	6.143	159591	170.49	279.2 -> 250...	6767.19	EDDP-D3	6.164	72159					
Fentanyl	337.2 -> 105...	12/5/2017 9:07 AM	6.377	30143	37.75	337.2 -> 188...	Infinity	Fentanyl-D5	6.357	13774...					
Fluoxetine	310.1 -> 44.3	12/5/2017 9:07 AM	6.383	251292	3354.84	310.1 -> 148...	Infinity	Oxycodone-D6	5.139	213512					
Hydrocodone	300.2 -> 198...	12/5/2017 9:07 AM	5.448	25507	Infinity	300.2 -> 128...	Infinity	Hydrocodone-D6	5.405	182152					
Hydromorphone	286.2 -> 184...	12/5/2017 9:07 AM	4.779	15164	Infinity	286.2 -> 157...	7.68	Hydromorphone-D6	4.718	52461					
Ketamine	238.1 -> 125...	12/5/2017 9:07 AM	6.007	81433	988.92	238.1 -> 220...	Infinity	Ketamine-D4	5.965	347954					
Meprobramate	219.1 -> 158...	12/5/2017 9:07 AM	5.621	23774	650.42	219.1 -> 97.1	31.85	Meprobramate-D7	5.600	127355					
Methadone	310.2 -> 265...	12/5/2017 9:07 AM	6.484	197467	45.41	310.2 -> 105...	8220.80	Methadone-D9	6.483	11971...					
Methamphetamine	150.1 -> 91.1	12/5/2017 9:07 AM	5.093	83070	Infinity	150.1 -> 119...	11.52	Methamphetamine-D11	5.052	185161					
Morphine	286.2 -> 201...	12/5/2017 9:07 AM	4.498	3516	8.70	286.2 -> 165...	28.49	Morphine-D6	4.437	2697					
Naloxone	328.2 -> 309...	12/5/2017 9:07 AM				328.2 -> 211...		Naloxone-D5	5.320	268					
Naltrexol	344.2 -> 326...	12/5/2017 9:07 AM	5.075	69634	755.73	344.2 -> 308...	3162.62	Naltrexol-D3	5.054	288469					
Naltrexone	342.2 -> 324...	12/5/2017 9:07 AM	5.319	44250	40.33	342.2 -> 55.3	Infinity	Naltrexone-D3	5.258	211176					
Norbuprenorphine	414.3 -> 101...	12/5/2017 9:07 AM	5.948	6586	870.19	414.3 -> 57.3	21.52	Norbuprenorphine-D3	5.948	29030					
Nordiazepam	271.1 -> 140...	12/5/2017 9:07 AM	6.574	26916	174.76	271.1 -> 208...	182.48	Nordiazepam-D5	6.552	82448					
Norfentanyl	233.2 -> 84.2	12/5/2017 9:07 AM	5.436	133233	1409.17	233.2 -> 55.3	Infinity	Norfentanyl-D5	5.415	610027					
Norhydrocodone	286.2 -> 199...	12/5/2017 9:07 AM	5.042	2783	Infinity	286.2 -> 171...	Infinity	Norhydrocodone-D3	5.042	51610					
Noroxycodone	302.1 -> 284...	12/5/2017 9:07 AM	4.959	23035	55.67	302.1 -> 186...	7.24	Noroxycodone-D3	4.937	101400					
O-desmethyl-tramadol	250.2 -> 58.3	12/5/2017 9:07 AM	4.986	171704	44.09	250.2 -> 42.3	3265.71	O-desmethyl-tramadol...	4.986	855883					
Oxazepam	287.1 -> 240...	12/5/2017 9:07 AM	6.406	25215	17.29	287.1 -> 268...	13.31	Oxazepam-D5	6.386	129006					
Oxycodone	316.2 -> 298...	12/5/2017 9:07 AM	5.180	40085	31.16	316.2 -> 241...	93.14	Oxycodone-D6	5.139	213512					
Oxymorphone	302.1 -> 284...	12/5/2017 9:07 AM	4.454	35022	Infinity	302.1 -> 227...	3495.88	Oxymorphone-D3	4.433	166912					
Phentermine	150.1 -> 65.2	12/5/2017 9:07 AM	5.214	27491	Infinity	150.1 -> 133...	Infinity	Phentermine-D5	5.194	315876					
Promethazine	285.1 -> 86.2	12/5/2017 9:07 AM	6.570	382830	521.92	285.1 -> 71.3	273.26	Promethazine-D3	6.569	19866...					
Quetiapine	384.2 -> 253...	12/5/2017 9:07 AM	6.660	237643	13827...	384.2 -> 221...	27812...	Quetiapine-D8	6.638	343538					
Sertraline	306.1 -> 158...	12/5/2017 9:07 AM	6.689	54988	12167...	306.1 -> 275...	435.22	Sertraline-D3	6.687	276478					

Not evaluated

Compound Method		p1 cal 1-1a	p1 cal 1-1a Results				Qualifier 1 M...		Qualifier 1 R...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.		
Temazepam	301.1 -> 255..	12/5/2017 9:07 AM	6.527	77871	90.62	301.1 -> 283...	MI	Infinity	Infinity	Temazepam-D5	6.527	383299		
Tramadol	264.2 -> 58.3	12/5/2017 9:07 AM	5.555	229312	Infinity	264.2 -> 43.3	MI	Infinity	Infinity	Tramadol-13C-D3	5.554	10808..		
Trazodone	372.2 -> 176..	12/5/2017 9:07 AM	6.822	248647	Infinity	372.2 -> 148...	MI	340.37	340.37	Trazodone-D6	6.802	11176..		
Venlafaxine	278.2 -> 58.3	12/5/2017 9:07 AM	5.899	227403	Infinity	278.2 -> 260...	MI	9.61	9.61	Venlafaxine-D6	5.898	10797..		
Zolpidem	308.2 -> 235..	12/5/2017 9:07 AM	6.384	229612	34669...	308.2 -> 263...	MI	214.05	214.05	Zolpidem-D6	6.382	11745..		

Compound Method		p1 negative			p1 negative Results			Qualifier 1 M...		Qualifier...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.			
6-MAM	328.2 -> 165...	12/4/2017 3:21 PM					328.2 -> 211...			6-MAM-D6	5.219	45334			
7-Aminoclonazepam	286.1 -> 121...	12/4/2017 3:21 PM					286.1 -> 222...			7-Aminoclonazepam-D4	5.510	80849			
Acetyl Fentanyl	323.2 -> 105...	12/4/2017 3:21 PM					323.2 -> 188...			Acetyl Fentanyl-D5	6.134	1306847			
Acetyl Norfentanyl	219.1 -> 84.2	12/4/2017 3:21 PM					219.1 -> 56.3			Acetyl Norfentanyl-D5	4.929	414404			
a-hydroxyalprazolam	325.1 -> 297...	12/4/2017 3:21 PM					325.1 -> 215...			a-hydroxyalprazolam-D5	6.378	35300			
alpha-PVP	232.2 -> 91.0	12/4/2017 3:21 PM					232.2 -> 77.1			alpha-PVP-d8	5.741	515877			
Alprazolam	309.1 -> 281...	12/4/2017 3:21 PM	6.322	4157	611.03		309.1 -> 205...			Alprazolam-D5	6.464	208786			
Amphetamine	136.1 -> 91.1	12/4/2017 3:21 PM	4.931	19506	5.40		136.1 -> 119...			Amphetamine-D11	4.850	101645			
Bupropion	240.1 -> 184...	12/4/2017 3:21 PM					240.1 -> 131...			Bupropion-D9	5.965	446259			
Carisoprodol	261.2 -> 176...	12/4/2017 3:21 PM					261.2 -> 55.3			Carisoprodol-D7	6.106	364822			
Citalopram	325.2 -> 109...	12/4/2017 3:21 PM	6.155	1671	1.50		325.2 -> 262...			Citalopram-D6	6.154	818457			
Clonazepam	316.1 -> 269...	12/4/2017 3:21 PM					316.1 -> 213...			Clonazepam-D4	6.320	38625			
Codeine	300.2 -> 215...	12/4/2017 3:21 PM					300.2 -> 165...			Codeine-D6	5.140	27106			
Cyclobenzaprine	276.2 -> 214...	12/4/2017 3:21 PM	6.511	386	Infinity		276.2 -> 231...		0.82	Cyclobenzaprine-D3	6.510	546500			
Dextromethorphan	272.2 -> 171...	12/4/2017 3:21 PM	6.329	226	0.35		272.2 -> 147...		0.86	Dextromethorphan-D3	6.248	260732			
Dextrophan	258.2 -> 157...	12/4/2017 3:21 PM	5.556	414	1.42		258.2 -> 133...			Dextrophan-D3	5.535	229719			
Diazepam	285.1 -> 193...	12/4/2017 3:21 PM					285.1 -> 153...			Diazepam-D5	6.690	173912			
Dihydrocodeine	302.2 -> 198...	12/4/2017 3:21 PM					302.2 -> 128...			Dihydrocodeine-D6	4.936	103582			
Diphenhydramine	256.2 -> 167...	12/4/2017 3:21 PM					256.2 -> 152...			Diphenhydramine-D3	6.148	1416474			
Doxylamine	271.2 -> 182...	12/4/2017 3:21 PM					271.2 -> 167...			Doxylamine-D5	5.818	1188763			
EDDP	279.2 -> 235...	12/4/2017 3:21 PM	6.164	264	0.64		279.2 -> 250...		2.55	EDDP-D3	6.164	87221			
Fentanyl	337.2 -> 105...	12/4/2017 3:21 PM					337.2 -> 188...			Fentanyl-D5	6.336	1243885			
Fluoxetine	310.1 -> 44.3	12/4/2017 3:21 PM					310.1 -> 148...			Oxycodone-D6	5.119	209374			
Hydrocodone	300.2 -> 198...	12/4/2017 3:21 PM					300.2 -> 128...			Hydrocodone-D6	5.385	152738			
Hydromorphone	286.2 -> 184...	12/4/2017 3:21 PM					286.2 -> 157...			Hydromorphone-D6	4.698	52561			
Ketamine	238.1 -> 125...	12/4/2017 3:21 PM					238.1 -> 220...			Ketamine-D4	5.965	341348			
Meperbamate	219.1 -> 158...	12/4/2017 3:21 PM					219.1 -> 97.1			Meperbamate-D7	5.600	124339			
Methadone	310.2 -> 265...	12/4/2017 3:21 PM					310.2 -> 105...			Methadone-D9	6.463	1073790			
Methamphetamine	150.1 -> 91.1	12/4/2017 3:21 PM	5.133	34252	1.49		150.1 -> 119...			Methamphetamine-D11	5.052	200921			
Morphine	286.2 -> 201...	12/4/2017 3:21 PM					286.2 -> 165...			Morphine-D6	4.437	2383			
Naloxone	328.2 -> 309...	12/4/2017 3:21 PM					328.2 -> 211...			Naloxone-D5					
Naltrexol	344.2 -> 326...	12/4/2017 3:21 PM	5.258	4794	2229.31		344.2 -> 308...			Naltrexol-D3	5.054	263404			
Naltrexone	342.2 -> 324...	12/4/2017 3:21 PM					342.2 -> 55.3			Naltrexone-D3	5.237	180142			
Norbuprenorphine	414.3 -> 101...	12/4/2017 3:21 PM					414.3 -> 57.3			Norbuprenorphine-D3	5.948	25411			
Nordiazepam	271.1 -> 140...	12/4/2017 3:21 PM					271.1 -> 208...			Nordiazepam-D5	6.552	87146			
Norfentanyl	233.2 -> 84.2	12/4/2017 3:21 PM	5.415	591	2.42		233.2 -> 55.3		0.94	Norfentanyl-D5	5.395	627214			
Norhydrocodone	286.2 -> 199...	12/4/2017 3:21 PM					286.2 -> 171...			Norhydrocodone-D3	5.042	50362			
Noroxycodone	302.1 -> 284...	12/4/2017 3:21 PM					302.1 -> 186...			Noroxycodone-D3	4.937	101649			
O-desmethyl-tramadol	250.2 -> 58.3	12/4/2017 3:21 PM	4.946	3156	1.45		250.2 -> 42.3		0.44	O-desmethyl-tramadol-...	4.966	779734			
Oxazepam	287.1 -> 240...	12/4/2017 3:21 PM					287.1 -> 268...			Oxazepam-D5	6.386	145525			
Oxycodone	316.2 -> 298...	12/4/2017 3:21 PM					316.2 -> 241...			Oxycodone-D6	5.119	209374			
Oxymorphone	302.1 -> 284...	12/4/2017 3:21 PM					302.1 -> 227...			Oxymorphone-D3	4.413	177362			
Phentemine	150.1 -> 65.2	12/4/2017 3:21 PM					150.1 -> 133...			Phentemine-D5	5.194	299747			
Promethazine	285.1 -> 86.2	12/4/2017 3:21 PM	6.570	933	1.89		285.1 -> 71.3		0.75	Promethazine-D3	6.569	1910201			
Quetiapine	384.2 -> 253...	12/4/2017 3:21 PM	6.660	1234	9.96		384.2 -> 221...		1.27	Quetiapine-D8	6.618	299861			
Sepraline	306.1 -> 158...	12/4/2017 3:21 PM					306.1 -> 275...			Sepraline-D3	6.667	281695			

Compound Method		p1 negative		p1 negative Results				Qualifier 1 M...		Qualifie..		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.			
Temazepam	301.1 -> 255...	12/4/2017 3:21 PM				<input type="checkbox"/>	301.1 -> 283...	<input type="checkbox"/>		Temazepam-D5	6.527	417106			
Tramadol	264.2 -> 58.3	12/4/2017 3:21 PM				<input type="checkbox"/>	264.2 -> 43.3	<input type="checkbox"/>		Tramadol-13C-D3	5.534	1080989			
Trazodone	372.2 -> 176...	12/4/2017 3:21 PM				<input type="checkbox"/>	372.2 -> 148...	<input type="checkbox"/>		Trazodone-D6	6.781	990323			
Venlafaxine	278.2 -> 58.3	12/4/2017 3:21 PM				<input type="checkbox"/>	278.2 -> 260...	<input type="checkbox"/>		Venlafaxine-D6	5.898	992229			
Zolpidem	308.2 -> 235...	12/4/2017 3:21 PM	6.384	1413	228.48	<input type="checkbox"/>	308.2 -> 263...	<input type="checkbox"/>	1.63	Zolpidem-D6	6.382	1054836			

Compound Method		p1 external control		p1 external control Results		Qualifier 1 M...		Qualifier 1...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.	
6-MAM	328.2 -> 165...	12/4/2017 3:40 PM					328.2 -> 211...			6-MAM-D6	5.219	44157	
7-Aminoclonazepam	286.1 -> 121...	12/4/2017 3:40 PM					286.1 -> 222...			7-Aminoclonazepam-D4	5.510	93563	
Acetyl Fentanyl	323.2 -> 105...	12/4/2017 3:40 PM					323.2 -> 188...			Acetyl Fentanyl-D5	6.155	12767...	
Acetyl Norfentanyl	219.1 -> 84.2	12/4/2017 3:40 PM					219.1 -> 56.3			Acetyl Norfentanyl-D5	4.929	414028	
a-hydroxyalprazolam	325.1 -> 297...	12/4/2017 3:40 PM					325.1 -> 215...			a-hydroxyalprazolam-D5	6.378	33721	
alpha-PVP	232.2 -> 91.0	12/4/2017 3:40 PM					232.2 -> 77.1			alpha-PVP-d8	5.741	524928	
Alprazolam	309.1 -> 281...	12/4/2017 3:40 PM	6.302	4115	30.79		309.1 -> 205...			Alprazolam-D5	6.484	204085	
Amphetamine	136.1 -> 91.1	12/4/2017 3:40 PM	4.931	26978	12.83		136.1 -> 119...			Amphetamine-D11	4.850	90904	
Bupropion	240.1 -> 184...	12/4/2017 3:40 PM					240.1 -> 131...			Bupropion-D9	5.986	457667	
Carisoprodol	261.2 -> 176...	12/4/2017 3:40 PM					261.2 -> 55.3			Carisoprodol-D7	6.106	381500	
Citalopram	325.2 -> 109...	12/4/2017 3:40 PM					325.2 -> 262...			Citalopram-D6	6.154	801912	
Clonazepam	316.1 -> 269...	12/4/2017 3:40 PM					316.1 -> 213...			Clonazepam-D4	6.320	36331	
Codeine	300.2 -> 214...	12/4/2017 3:40 PM	5.204	54529	77.38		300.2 -> 165...		1378...	Codeine-D6	5.140	30715	
Cyclobenzaprine	276.2 -> 215...	12/4/2017 3:40 PM					276.2 -> 231...			Cyclobenzaprine-D3	6.510	569006	
Dextromethorphan	272.2 -> 171...	12/4/2017 3:40 PM					272.2 -> 147...			Dextromethorphan-D3	6.248	262584	
Dextropropfan	258.2 -> 157...	12/4/2017 3:40 PM					258.2 -> 133...			Dextropropfan-D3	5.535	221231	
Diazepam	285.1 -> 193...	12/4/2017 3:40 PM					285.1 -> 153...			Diazepam-D5	6.690	172061	
Dihydrocodeine	302.2 -> 198...	12/4/2017 3:40 PM					302.2 -> 128...			Dihydrocodeine-D6	4.936	105329	
Diphenhydramine	256.2 -> 167...	12/4/2017 3:40 PM	6.169	33482...	448.02		256.2 -> 152...		242.58	Diphenhydramine-D3	6.148	14689...	
Doxylamine	271.2 -> 182...	12/4/2017 3:40 PM					271.2 -> 167...			Doxylamine-D5	5.818	12090...	
EDDP	279.2 -> 235...	12/4/2017 3:40 PM					279.2 -> 250...			EDDP-D3	6.164	95358	
Fentanyl	337.2 -> 105...	12/4/2017 3:40 PM					337.2 -> 188...			Fentanyl-D5	6.336	12663...	
Fluoxetine	310.1 -> 44.3	12/4/2017 3:40 PM					310.1 -> 148...			Oxycodone-D6	5.119	208695	
Hydrocodone	300.2 -> 198...	12/4/2017 3:40 PM	5.204	24701	11.22		300.2 -> 128...		Infinity	Hydrocodone-D6	5.385	160319	
Hydromorphone	286.2 -> 184...	12/4/2017 3:40 PM					286.2 -> 157...			Hydromorphone-D6	4.698	49597	
Ketamine	238.1 -> 125...	12/4/2017 3:40 PM					238.1 -> 220...			Ketamine-D4	5.965	365565	
Meproramate	219.1 -> 158...	12/4/2017 3:40 PM					219.1 -> 97.1			Meproramate-D7	5.600	124222	
Methadone	310.2 -> 265...	12/4/2017 3:40 PM					310.2 -> 105...			Methadone-D9	6.483	10768...	
Methamphetamine	150.1 -> 91.1	12/4/2017 3:40 PM	5.093	31964	2.15		150.1 -> 119...			Methamphetamine-D11	5.052	196653	
Morphine	286.2 -> 201...	12/4/2017 3:40 PM	4.478	64647	Infinity		286.2 -> 165...		999.67	Morphine-D6	4.417	2343	
Naloxone	328.2 -> 309...	12/4/2017 3:40 PM					328.2 -> 211...			Naloxone-D5	5.320	254	
Naltrexol	344.2 -> 326...	12/4/2017 3:40 PM	5.278	4088	8.82		344.2 -> 308...			Naltrexol-D3	5.034	245540	
Naltrexone	342.2 -> 324...	12/4/2017 3:40 PM					342.2 -> 55.3			Naltrexone-D3	5.237	176548	
Norbuprenorphine	414.3 -> 101...	12/4/2017 3:40 PM					414.3 -> 57.3			Norbuprenorphine-D3	5.948	25238	
Nordiazepam	271.1 -> 140...	12/4/2017 3:40 PM					271.1 -> 208...			Nordiazepam-D5	6.552	89025	
Norfentanyl	233.2 -> 84.2	12/4/2017 3:40 PM					233.2 -> 55.3			Norfentanyl-D5	5.395	586277	
Norhydrocodone	286.2 -> 199...	12/4/2017 3:40 PM					286.2 -> 171...			Norhydrocodone-D3	5.022	49185	
Noroxycodone	302.1 -> 284...	12/4/2017 3:40 PM					302.1 -> 186...			Noroxycodone-D3	4.937	99372	
O-desmethyl-tramadol	250.2 -> 58.3	12/4/2017 3:40 PM	4.966	1879	1.24		250.2 -> 42.3		0.73	O-desmethyl-tramadol-...	4.966	775437	
Oxazepam	287.1 -> 240...	12/4/2017 3:40 PM					287.1 -> 268...			Oxazepam-D5	6.386	137627	
Oxycodone	316.2 -> 298...	12/4/2017 3:40 PM					316.2 -> 241...			Oxycodone-D6	5.119	208695	
Oxymorphone	302.1 -> 284...	12/4/2017 3:40 PM					302.1 -> 227...			Oxymorphone-D3	4.413	171281	
Phentemine	150.1 -> 65.2	12/4/2017 3:40 PM					150.1 -> 133...			Phentemine-D5	5.194	282943	
Promethazine	285.1 -> 86.2	12/4/2017 3:40 PM	6.509	265	0.81		285.1 -> 71.3		1.23	Promethazine-D3	6.569	19034...	
Quetiapine	384.2 -> 253...	12/4/2017 3:40 PM					384.2 -> 221...			Quetiapine-D8	6.618	305173	
Sepraline	306.1 -> 158...	12/4/2017 3:40 PM					306.1 -> 275...			Sepraline-D3	6.667	287346	

Compound Method		p1 external control		p1 external control Results			Qualifier 1 M...		Qualifier 1 ...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.		
Temazepam	301.1 -> 255...	12/4/2017 3:40 PM					301.1 -> 283...			Temazepam-D5	6.527	394579		
Tramadol	264.2 -> 58.3	12/4/2017 3:40 PM					264.2 -> 43.3			Tramadol-13C-D3	5.534	10888...		
Trazodone	372.2 -> 176...	12/4/2017 3:40 PM					372.2 -> 148...			Trazodone-D6	6.781	10003...		
Venlafaxine	278.2 -> 58.3	12/4/2017 3:40 PM					278.2 -> 260...			Venlafaxine-D6	5.898	10392...		
Zolpidem	308.2 -> 235...	12/4/2017 3:40 PM	6.587	1395	239.06		308.2 -> 263...		1.72	Zolpidem-D6	6.382	10956...		



Compound Method		p2 cal 1-1b			p2 cal 1-1b Results			Qualifier 1 M...		Qualifier 1 R...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.			
7-aminoflunitrazepam	284.1 -> 135...	12/4/2017 3:11 PM	5.700	31298	8177.46	284.1 -> 93.2		85.05	7-aminoflunitrazepam-D7	5.679	159476				
alpha-hydroxymidazolam	342.1 -> 324...	12/4/2017 3:11 PM	6.468	59258	54.88	342.1 -> 203...		4116.24	alpha-hydroxymidazolam...	6.447	320863				
Amitriptyline	278.2 -> 91.2	12/4/2017 3:11 PM	6.620	181259	Infinity	278.2 -> 105...		Infinity	Amitriptyline-D3	6.619	539743				
Amoxapine	314.1 -> 271...	12/4/2017 3:11 PM	6.594	53366	76.45	314.1 -> 193...		3197.22	Amitriptyline-D3	6.619	539743				
Benzoylcegonine	290.1 -> 168...	12/4/2017 3:11 PM	5.312	14677	8111.24	290.1 -> 105...		Infinity	Benzoylcegonine-D8	5.289	4839				
Carbamazepine	237.1 -> 193...	12/4/2017 3:11 PM	6.137	26973	11032...	237.1 -> 194...		Infinity	Carbamazepine-13C6	6.136	1209655				
Chlordiazepoxide	300.1 -> 227...	12/4/2017 3:11 PM	6.596	39585	51.78	300.1 -> 282...		20.70	Chlordiazepoxide-D5	6.595	299882				
Clomipramine	315.2 -> 86.2	12/4/2017 3:11 PM	6.878	336925	393.34	315.2 -> 58.3		1426.14	Clomipramine-D3	6.856	1852310				
Cocaine	304.2 -> 182...	12/4/2017 3:11 PM	5.780	147262	21756...	304.2 -> 105...		8760.92	Cocaine-D3	5.758	679053				
Desipramine	267.2 -> 72.3	12/4/2017 3:11 PM	6.459	277788	Infinity	267.2 -> 44.3		Infinity	Desipramine-D3	6.459	1349274				
Doxepin	280.2 -> 107...	12/4/2017 3:11 PM	6.335	131983	Infinity	280.2 -> 77.2		Infinity	Doxepin-D3	6.314	650891				
Estazolam	295.1 -> 267...	12/4/2017 3:11 PM	6.393	53010	140.91	295.1 -> 205...		310.16	Estazolam-D5	6.392	249573				
Flunitrazepam	314.1 -> 268...	12/4/2017 3:11 PM	6.431	45802	Infinity	314.1 -> 239...		209.84	Flunitrazepam-D7	6.410	8868				
Flurazepam	388.2 -> 315...	12/4/2017 3:11 PM	6.405	153263	35.57	388.2 -> 317...		22.36	Zopiclone-D4	6.364	183915				
Imipramine	281.2 -> 86.2	12/4/2017 3:11 PM	6.558	410620	75859...	281.2 -> 58.3		228.84	Imipramine-D3	6.557	1166748				
Levamisole	205.1 -> 91.2	12/4/2017 3:11 PM	5.344	56217	Infinity	205.1 -> 178...		19.11	Cocaine-D3	5.758	679053				
Maprotiline	278.2 -> 91.2	12/4/2017 3:11 PM	6.498	67118	Infinity	278.2 -> 117...		Infinity	Meperidine-D4	5.809	315559				
MDA	180.1 -> 163...	12/4/2017 3:11 PM	5.044	43902	410.87	180.1 -> 105...		Infinity	MDA-D5	5.044	237641				
MDEA	208.1 -> 163...	12/4/2017 3:11 PM	5.323	100805	12473...	208.1 -> 105...		144.29	MDEA-D6	5.323	535184				
MDMA	194.1 -> 163...	12/4/2017 3:11 PM	5.184	86037	437.66	194.1 -> 105...		Infinity	MDMA-D6	5.183	47205				
Meperidine	248.2 -> 220...	12/4/2017 3:11 PM	5.809	58685	118.15	248.2 -> 174...		Infinity	Meperidine-D4	5.809	315359				
Methylphenidate	234.2 -> 84.2	12/4/2017 3:11 PM	5.668	301453	224.44	234.2 -> 56.3		Infinity	Meperidine-D4	5.809	315359				
Metoprolol	268.2 -> 116...	12/4/2017 3:11 PM	5.519	22420	239.11	268.2 -> 56.3		138.14	Meperidine-D4	5.809	315359				
Midazolam	326.1 -> 223...	12/4/2017 3:11 PM	6.632	22122	89.52	326.1 -> 249...		55.24	Midazolam-D4	6.611	388284				
Mirtazapine	266.2 -> 195...	12/4/2017 3:11 PM	6.399	193229	82.69	266.2 -> 72.3		45.40	Midazolam-D4	6.611	388284				
Mirtazapine	399.2 -> 174...	12/4/2017 3:11 PM	6.384	69123	489.20	399.2 -> 238...		4267.42	Carbamazepine-13C6	6.136	1209665				
Normeperidine	234.1 -> 42.3	12/4/2017 3:11 PM	5.689	70589	773.48	234.1 -> 160...		4995.82	Normeperidine-D4	5.688	247630				
Norpropoxyphene	326.2 -> 44.3	12/4/2017 3:11 PM	6.327	40228	Infinity	326.2 -> 252...		1797.71	Norpropoxyphene-D5	6.326	167059				
Nortriptyline	264.2 -> 91.2	12/4/2017 3:11 PM	6.501	119122	Infinity	264.2 -> 233...		Infinity	Nortriptyline-D3	6.520	456190				
Ondansetron	294.2 -> 184...	12/4/2017 3:11 PM	6.067	101158	52.76	294.2 -> 212...		78.48	Pentazocine-13C3	5.762	484120				
Pentazocine	286.2 -> 218...	12/4/2017 3:11 PM	5.762	121880	50.15	286.2 -> 41.3		45.29	Pentazocine-13C3	5.762	484120				
Phenazepam	349.0 -> 206...	12/4/2017 3:11 PM	6.508	55118	7711.51	349.0 -> 183...		7036.63	Phenazepam-D4	6.487	19380				
Phencyclidine	244.2 -> 86.2	12/4/2017 3:11 PM	6.014	207466	925.09	244.2 -> 91.1		Infinity	Phencyclidine-D5	6.013	1027838				
Phenylethanolamine	253.1 -> 104...	12/4/2017 3:11 PM	6.033	3260	21.91	253.1 -> 182...		20.65	Phenylethanolamine-D10	6.013	14666				
Prazepam	325.1 -> 271...	12/4/2017 3:11 PM	6.937	189530	595.07	325.1 -> 140...		574.48	Prazepam-D5	6.935	836412				
Primidone	219.1 -> 91.2	12/4/2017 3:11 PM	5.385	11411	7.69	219.1 -> 162...		27.59	Prazepam-D5	6.935	836412				
Propoxyphene	340.2 -> 58.3	12/4/2017 3:11 PM	6.428	238110	9033.17	340.2 -> 266...		33.96	Propoxyphene-D11	6.365	279909				
Protriptyline	264.2 -> 155...	12/4/2017 3:11 PM	6.420	556151	73084...	264.2 -> 161...		Infinity	Nortriptyline-D3	6.520	456190				
Pseudoephedrine	166.1 -> 148...	12/4/2017 3:11 PM	4.702	743088	104.33	166.1 -> 133...		372.98	Pseudoephedrine-D3	4.680	382227				
Tapentadol	222.2 -> 107...	12/4/2017 3:11 PM	5.547	149409	Infinity	222.2 -> 121...		40887...	Tapentadol-D3	5.546	779898				
Trimipramine	295.2 -> 100...	12/4/2017 3:11 PM	6.658	403414	2349.43	295.2 -> 58.3		Infinity	Trimipramine-D3	6.657	2093570				
Verapamil	455.3 -> 165...	12/4/2017 3:11 PM	6.383	186006	22233...	455.3 -> 150...		5077.24	Trimipramine-D3	6.657	2093570				
Zaleplon	306.1 -> 236...	12/4/2017 3:11 PM	6.228	59799	128.34	306.1 -> 264...		120.38	Zaleplon-D4	6.227	228398				
Zopiclone	389.1 -> 244...	12/4/2017 3:11 PM	6.364	15181	39.94	389.1 -> 216...		43.33	Zopiclone-D4	6.364	183915				

Compound Method		p2 negative		p2 negative Results			Qualifier 1 M...		Qualifier...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.		
7-aminoflunitrazepam	284.1 -> 135...	12/4/2017 3:31 PM					284.1 -> 93.2			7-aminoflunitrazepam-D7	5.679	131991		
alpha-hydroxymidazolam	342.1 -> 324...	12/4/2017 3:31 PM					342.1 -> 203...			alpha-hydroxymidazolam-...	6.447	306317		
Amiripyliline	278.2 -> 91.2	12/4/2017 3:31 PM					278.2 -> 105...			Amiripyliline-D3	6.619	487421		
Amoxapine	314.1 -> 271...	12/4/2017 3:31 PM					314.1 -> 193...			Amiripyliline-D3	6.619	487421		
Benzylecgonine	290.1 -> 168...	12/4/2017 3:31 PM					290.1 -> 105...			Benzylecgonine-D8	5.289	4012		
Carbamazepine	237.1 -> 193...	12/4/2017 3:31 PM					237.1 -> 194...			Carbamazepine-13C6	6.136	11452...		
Chlordiazepoxide	300.1 -> 227...	12/4/2017 3:31 PM					300.1 -> 282...			Chlordiazepoxide-D5	6.595	269358		
Clompiramine	315.2 -> 86.2	12/4/2017 3:31 PM					315.2 -> 58.3			Clompiramine-D3	6.856	14844...		
Cocaine	304.2 -> 182...	12/4/2017 3:31 PM					304.2 -> 105...			Cocaine-D3	5.758	603787		
Desipramine	267.2 -> 72.3	12/4/2017 3:31 PM					267.2 -> 44.3			Desipramine-D3	6.479	12452...		
Doxepin	280.2 -> 107...	12/4/2017 3:31 PM					280.2 -> 77.2			Doxepin-D3	6.314	604857		
Estazolam	295.1 -> 267...	12/4/2017 3:31 PM					295.1 -> 205...			Estazolam-D5	6.392	252563		
Flunitrazepam	314.1 -> 268...	12/4/2017 3:31 PM					314.1 -> 239...			Flunitrazepam-D7	6.451	9364		
Flurazepam	388.2 -> 315...	12/4/2017 3:31 PM					388.2 -> 317...			Zopiclone-D4	6.364	176161		
Imipramine	281.2 -> 86.2	12/4/2017 3:31 PM					281.2 -> 58.3			Imipramine-D3	6.557	10851...		
Levamisole	205.1 -> 91.2	12/4/2017 3:31 PM					205.1 -> 178...			Cocaine-D3	5.758	603787		
Meprilone	278.2 -> 91.2	12/4/2017 3:31 PM					278.2 -> 117...			Meperidine-D4	5.809	284775		
MDA	180.1 -> 163...	12/4/2017 3:31 PM					180.1 -> 105...			Meperidine-D4	5.809	284775		
MDEA	208.1 -> 163...	12/4/2017 3:31 PM					208.1 -> 105...			MDEA-D5	5.044	215962		
MDMA	194.1 -> 163...	12/4/2017 3:31 PM					194.1 -> 105...			MDEA-D6	5.323	473418		
Meperidine	248.2 -> 220...	12/4/2017 3:31 PM					248.2 -> 174...			MDMA-D6	5.183	45704		
Methylphenidate	234.2 -> 84.2	12/4/2017 3:31 PM					234.2 -> 56.3			Meperidine-D4	5.809	284775		
Metoprolol	268.2 -> 116...	12/4/2017 3:31 PM					268.2 -> 56.3			Meperidine-D4	5.809	284775		
Midazolam	326.1 -> 223...	12/4/2017 3:31 PM					326.1 -> 249...			Meperidine-D4	5.809	284775		
Mirtazapine	266.2 -> 195...	12/4/2017 3:31 PM					266.2 -> 72.3			Midazolam-D4	6.611	357192		
Mirtazapine	399.2 -> 174...	12/4/2017 3:31 PM					399.2 -> 238...			Midazolam-D4	6.611	357192		
Normeperidine	234.1 -> 42.3	12/4/2017 3:31 PM					234.1 -> 160...			Carbamazepine-13C6	6.136	11452...		
Norpropoxyphene	326.2 -> 44.3	12/4/2017 3:31 PM					326.2 -> 252...			Normeperidine-D4	5.708	251153		
Nortriptyline	264.2 -> 91.2	12/4/2017 3:31 PM					264.2 -> 233...			Norpropoxyphene-D5	6.306	152370		
Ondansetron	294.2 -> 184...	12/4/2017 3:31 PM					294.2 -> 212...			Nortriptyline-D3	6.520	420447		
Pentazocine	286.2 -> 218...	12/4/2017 3:31 PM					286.2 -> 41.3			Pentazocine-13C3	5.762	449174		
Phenazepam	349.0 -> 206...	12/4/2017 3:31 PM					349.0 -> 183...			Pentazocine-13C3	5.762	449174		
Phencyclidine	244.2 -> 86.2	12/4/2017 3:31 PM					244.2 -> 91.1			Phenazepam-D4	6.487	20357		
Phenyloln	253.1 -> 104...	12/4/2017 3:31 PM					253.1 -> 182...			Phencyclidine-D5	6.013	952095		
Prazepam	325.1 -> 271...	12/4/2017 3:31 PM					325.1 -> 140...			Phencyclidine-D5	6.033	14633		
Propoxyphene	340.2 -> 58.3	12/4/2017 3:31 PM					340.2 -> 266...			Phenyloln-D10	6.935	783402		
Protriptyline	264.2 -> 155...	12/4/2017 3:31 PM					264.2 -> 161...			Prazepam-D5	6.935	783402		
Pseudoephedrine	166.1 -> 148...	12/4/2017 3:31 PM					166.1 -> 133...			Prazepam-D5	6.935	783402		
Tapentadol	222.2 -> 107...	12/4/2017 3:31 PM					222.2 -> 121...			Propoxyphene-D11	6.406	247994		
Trimipramine	295.2 -> 100...	12/4/2017 3:31 PM					295.2 -> 58.3			Propoxyphene-D11	6.520	247994		
Verapamil	455.3 -> 165...	12/4/2017 3:31 PM					455.3 -> 150...			Pseudoephedrine-D3	4.680	329053		
Zaleplon	306.1 -> 236...	12/4/2017 3:31 PM					306.1 -> 264...			Nortriptyline-D3	6.546	674679		
Zopiclone	389.1 -> 244...	12/4/2017 3:31 PM					389.1 -> 216...			Tapentadol-D3	5.546	674679		

Compound Method		p2 external control		p2 external control Results		Qualifier 1 M...		Qualifier 1...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Name	RT	Resp.	
7-aminoflunitrazepam	284.1 -> 135...	12/4/2017 3:50 PM				284.1 -> 93.2				7-aminoflunitrazepam-D7	5.679	147001	
alpha-hydroxymidazolam	342.1 -> 324...	12/4/2017 3:50 PM				342.1 -> 203...				alpha-hydroxymidazolam-...	6.447	294323	
Amtripyline	278.2 -> 91.2	12/4/2017 3:50 PM	6.620	17190...	Infinity	278.2 -> 105...		371.38		Amtripyline-D3	6.598	466202	
Amoxapine	314.1 -> 271...	12/4/2017 3:50 PM				314.1 -> 193...				Amtripyline-D3	6.598	466202	
Benzoylcegonine	290.1 -> 168...	12/4/2017 3:50 PM				290.1 -> 105...				Benzoylcegonine-D8	5.289	4735	
Carbamazepine	237.1 -> 193...	12/4/2017 3:50 PM				237.1 -> 194...				Carbamazepine-13C6	6.136	11214...	
Chlordiazepoxide	300.1 -> 227...	12/4/2017 3:50 PM				300.1 -> 282...				Chlordiazepoxide-D5	6.595	262762	
Ciomipramine	315.2 -> 86.2	12/4/2017 3:50 PM				315.2 -> 58.3				Ciomipramine-D3	6.856	16628...	
Cocaine	304.2 -> 182...	12/4/2017 3:50 PM				304.2 -> 105...				Cocaine-D3	5.758	629832	
Desipramine	267.2 -> 72.3	12/4/2017 3:50 PM	6.418	120954	Infinity	267.2 -> 44.3		Infinity		Desipramine-D3	6.459	12273...	
Doxepin	280.2 -> 107...	12/4/2017 3:50 PM				280.2 -> 77.2				Desipramine-D3	6.314	610098	
Estazolam	295.1 -> 267...	12/4/2017 3:50 PM				295.1 -> 205...				Doxepin-D3	6.314	610098	
Flunitrazepam	314.1 -> 268...	12/4/2017 3:50 PM				314.1 -> 239...				Estazolam-D5	6.392	244074	
Flurazepam	388.2 -> 315...	12/4/2017 3:50 PM				388.2 -> 317...				Flunitrazepam-D7	6.410	8442	
Imipramine	281.2 -> 86.2	12/4/2017 3:50 PM				281.2 -> 58.3				Zopiclone-D4	6.364	152128	
Levamisole	205.1 -> 91.2	12/4/2017 3:50 PM				205.1 -> 178...				Imipramine-D3	6.557	10850...	
Maprotiline	278.2 -> 91.2	12/4/2017 3:50 PM				278.2 -> 117...				Cocaine-D3	5.758	629832	
MDA	180.1 -> 163...	12/4/2017 3:50 PM				180.1 -> 105...				Meperidine-D4	5.809	297855	
MDEA	208.1 -> 163...	12/4/2017 3:50 PM				208.1 -> 105...				MDEA-D5	5.044	215958	
MDMA	194.1 -> 163...	12/4/2017 3:50 PM				194.1 -> 105...				MDEA-D6	5.323	470932	
Meperidine	248.2 -> 220...	12/4/2017 3:50 PM				248.2 -> 174...				MDMA-D6	5.183	46235	
Methylphenidate	234.2 -> 84.2	12/4/2017 3:50 PM				234.2 -> 56.3				Meperidine-D4	5.809	297855	
Metoprolol	268.2 -> 116...	12/4/2017 3:50 PM				268.2 -> 56.3				Meperidine-D4	5.809	297855	
Midazolam	326.1 -> 223...	12/4/2017 3:50 PM				326.1 -> 249...				Midazolam-D4	6.611	348998	
Mirtazapine	266.2 -> 195...	12/4/2017 3:50 PM	6.399	16677...	475.58	266.2 -> 72.3		155.34		Midazolam-D4	6.611	348998	
Mitragynine	399.2 -> 174...	12/4/2017 3:50 PM				399.2 -> 238...				Carbamazepine-13C6	6.136	11214...	
Normeperidine	234.1 -> 42.3	12/4/2017 3:50 PM				234.1 -> 160...				Normeperidine-D4	5.708	236028	
Norpropoxyphene	326.2 -> 44.3	12/4/2017 3:50 PM				326.2 -> 252...				Normeperidine-D4	6.306	146863	
Nortriptyline	264.2 -> 91.2	12/4/2017 3:50 PM				264.2 -> 233...				Nortriptyline-D3	6.520	418296	
Ondansetron	294.2 -> 184...	12/4/2017 3:50 PM				294.2 -> 212...				Pentazocine-13C3	5.762	432634	
Pentazocine	286.2 -> 218...	12/4/2017 3:50 PM				286.2 -> 41.3				Pentazocine-13C3	5.762	432634	
Phenazepam	349.0 -> 206...	12/4/2017 3:50 PM				349.0 -> 183...				Phenazepam-D4	6.487	20585	
Phencyclidine	244.2 -> 86.2	12/4/2017 3:50 PM				244.2 -> 91.1				Phenazepam-D4	6.013	994840	
Phenyltoin	253.1 -> 104...	12/4/2017 3:50 PM				253.1 -> 182...				Phencyclidine-D5	6.033	12221	
Prazepam	325.1 -> 271...	12/4/2017 3:50 PM				325.1 -> 140...				Phenyltoin-D10	6.033	12221	
Primidone	219.1 -> 91.2	12/4/2017 3:50 PM				219.1 -> 162...				Prazepam-D5	6.935	805453	
Propoxyphene	340.2 -> 58.3	12/4/2017 3:50 PM				340.2 -> 266...				Prazepam-D5	6.935	805453	
Protriptyline	264.2 -> 155...	12/4/2017 3:50 PM				264.2 -> 161...				Propoxyphene-D11	6.385	256670	
Pseudoephedrine	166.1 -> 148...	12/4/2017 3:50 PM				166.1 -> 133...				Nortriptyline-D3	6.520	418296	
Tapentadol	222.2 -> 107...	12/4/2017 3:50 PM				222.2 -> 121...				Pseudoephedrine-D3	4.701	314240	
Trimipramine	295.2 -> 100...	12/4/2017 3:50 PM				295.2 -> 58.3				Tapentadol-D3	5.546	689746	
Verapamil	455.3 -> 165...	12/4/2017 3:50 PM				455.3 -> 150...				Trimipramine-D3	6.657	18762...	
Zaleplon	306.1 -> 236...	12/4/2017 3:50 PM				306.1 -> 264...				Trimipramine-D3	6.657	18762...	
Zopiclone	389.1 -> 244...	12/4/2017 3:50 PM				389.1 -> 216...				Zaleplon-D4	6.227	184469	
										Zopiclone-D4	6.364	152128	

response from  
MTHLZ@PINC  
or

Toxicology AM method 25 external prep information

working solution 10000 ng/ml in meoh mirtazapine, amitriptyline, codeine, diphenhydramine, 20000 ng/ml meoh morphine

Stock solution 1mg/ml 100 ul each for all except morphine 200 ul in 9400 ul meoh

Ppd 3/31/17 Exp: 3/31/18 lot 92117 by Amn

Drug	lot	expiration
Morphine	fe08141515	11/1/2020
mirtazapine	fe04201503	4/1/2020
amitriptyline	fn07081401	9/1/2019
codeine	fe10271401	11/1/2019
diphenhydramine	fn09161502	9/1/2020

AM 25 control 100 ul working solution (92117) in 9900 ul neg blood

ppd 3/21/17 Exp 6/21/17 lot 62117

Ppd 6-26-17 Exp 9-26-17 lot 92617 (may be listed as 92117)

ppd 9-22-17 Exp 12-22-17 Lot 12-22-17

neg blood lot 321632-1

neg blood lot 321632-1

neg blood lot 17J20718

by Amn

by Amn

by Amn

Concentration 100ng/ml amitriptyline, codeine, diphenhydramine, mirtazapine  
200/ng/ml morphine

# THC and Metabolites Screen in Blood by LC-MS/MS

Extraction Date: 12-~~8~~<sup>\*</sup>-17

Analyst: Anne Nord

Plate lot#: 0515037  
4

Plate Expiration: 9/28/2018

**Mobile phase A:** 10mM Ammonium Formate  
0.1% Formic Acid in Water

**Mobile phase B:** 0.1% Formic acid in MeOH  
Hexane

**Blank Blood Lot:** 17J20718

**Column:** Phenomenex Phenyl Hexyl (4.6x50mm: 2.6 um)

**LCMS-QQQ ID:** 62340

## Pre-Analytic:

- 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.
- 2. Ensure correct column is installed and begin mobile phase flow allow to equilibrate ~ 30 minutes.
- 3. Create worklist:

## Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **1000 µL blood (calibrated pipette) Pipette ID: 2609543** in wells of analytical (standards) plate.
  - Blank blood for locations containing standards/QCs and internal standards
  - Sample blood for locations containing only internal standards
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **500 µL 0.1% formic acid** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **800 µL of blood+base** mixture to corresponding wells of SLE+ plate.
- 7. Apply positive pressure for approx. 4 seconds (or until no liquid remains on top of sorbent).  
*(Load at 85-100 PSI- Selector to the right) Manifold ID: 66792*
- 8. Wait 5 minutes.
- 9. Add **2.25 mL MTBE** (add in 3 increments of 750uL).
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 12. Add **2.25 mL hexane** (add in 3 increments of 750uL).
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.  
*SPE Dry ID: 66819*
- 16. Reconstitute in **100µL 100% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

## Post-Analytic

- 1. Create batch and process data.  
Worklist path: 120417 blood screen AM 25-26 Batch Name: 120417 cann screen
- 2. For unknown samples, calculated concentration > 3ng THC, THC-OH and > 5ng Carboxy-THC and +/- 2% or +/- 0.100 min (whichever is greater) retention time of calibrators?
- 3. Did all QCs pass for each analyte? Y/N
- 4. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: \_

# ISP FORENSICS - Cd'A

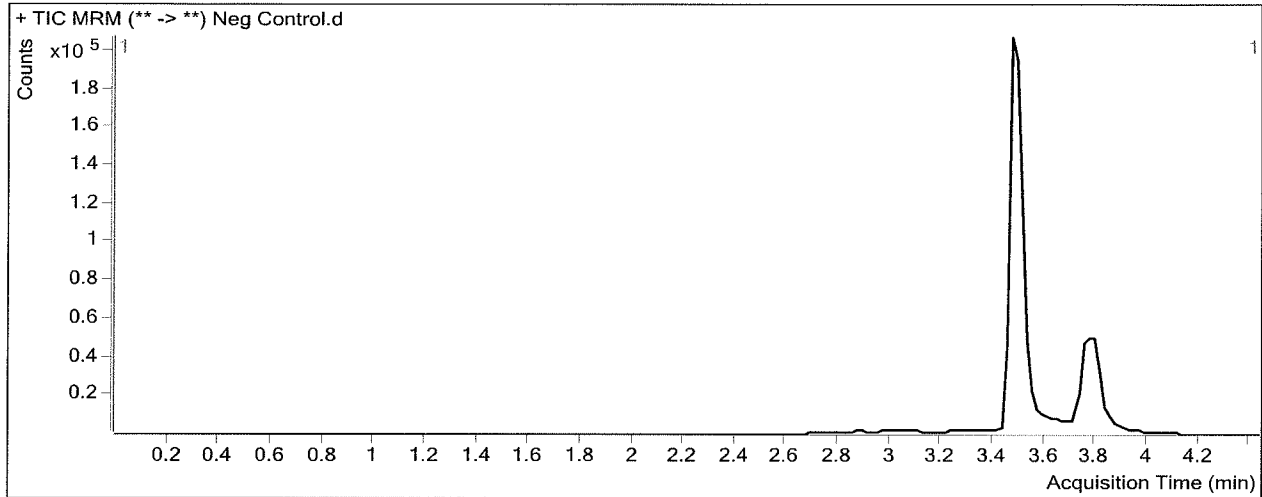
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 11:47 **Data File** Neg Control.d  
**Sample Type** Sample **Sample Name** Neg Control  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-a2 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen negative blood lot 17J20718

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	1935	646531	0.0030	1.2352
THC-COOH	3.506	7533	135966	0.0554	4.2454

# ISP FORENSICS - Cd'A

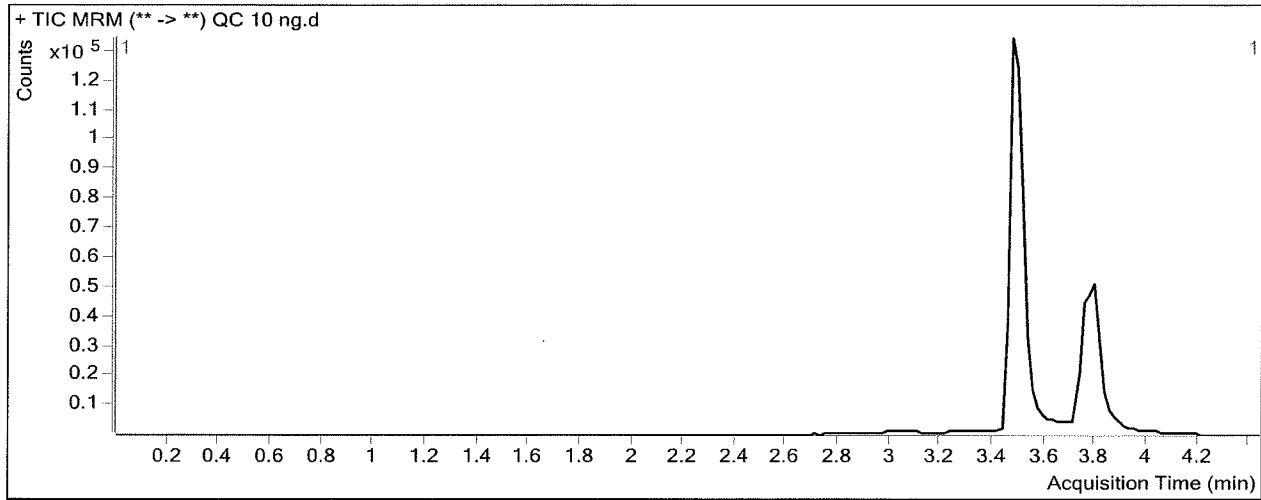
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 12:07 **Data File** QC 10 ng.d  
**Sample Type** QC **Sample Name** QC 10 ng  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-H1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



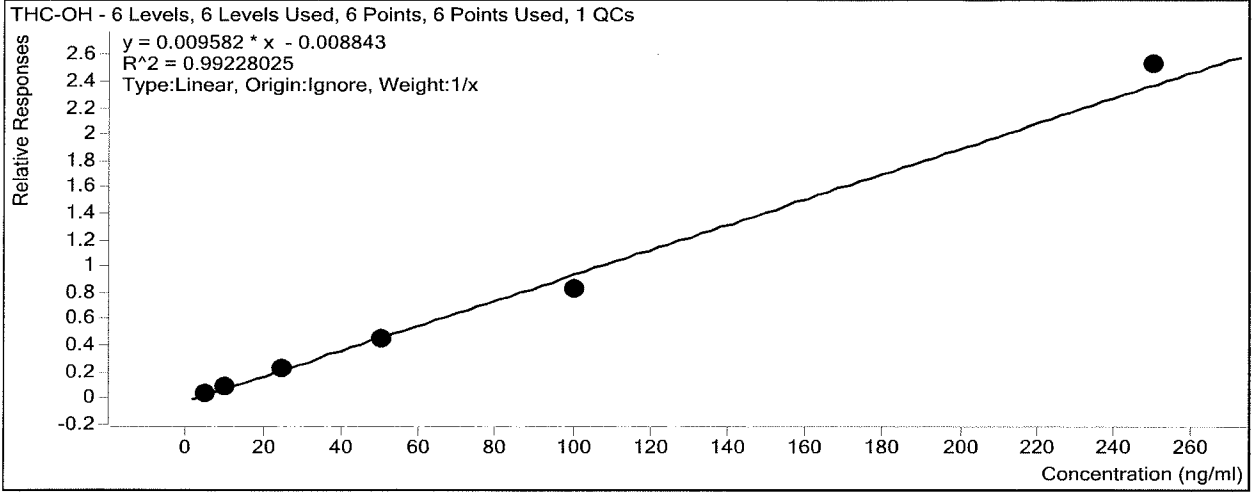
### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	34882	388607	0.0898	10.2907
THC-COOH	3.506	15978	73558	0.2172	13.1737
THC	3.840	1282	12859	0.0997	10.8148

# ISP Forensics Calibration Curve Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.bin  
**Last Calib Update** 12/5/2017 3:27 PM **Analyst Name** ISP TOX

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



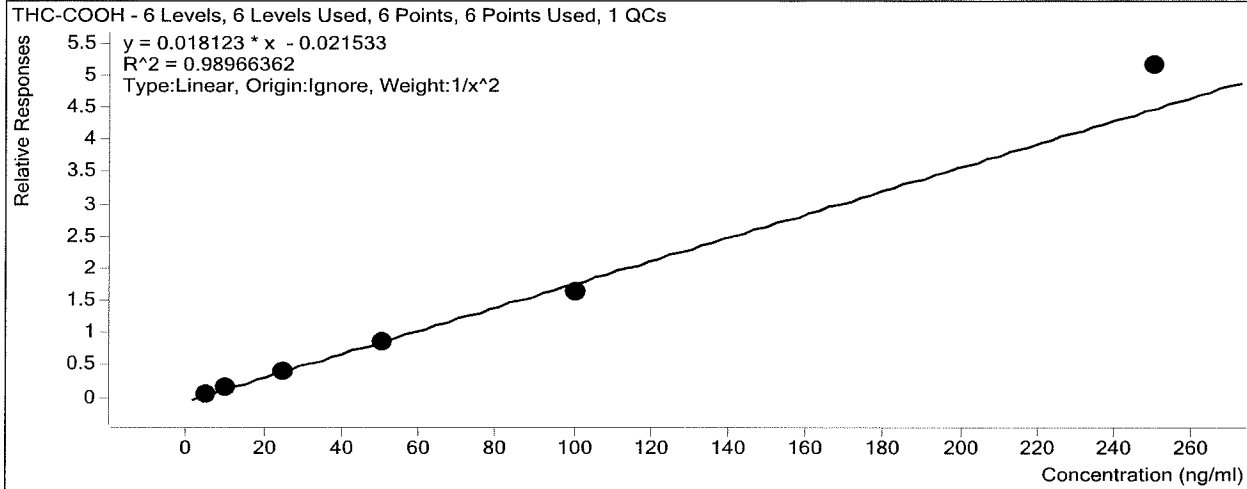
Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng	2	<input checked="" type="checkbox"/>	5	5.8	115.5
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	9.9	99.4
QC 10 ng	3	<input checked="" type="checkbox"/>	10	10.3	102.9
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	23.9	95.6
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	48.0	96.0
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	87.6	87.6
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	264.8	105.9



# ISP Forensics Calibration Curve Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.bin  
**Last Calib Update** 12/5/2017 3:27 PM **Analyst Name** ISP TOX

**Target Compound** *THC-COOH*  
**Internal Standard** *THC-COOH-d9*

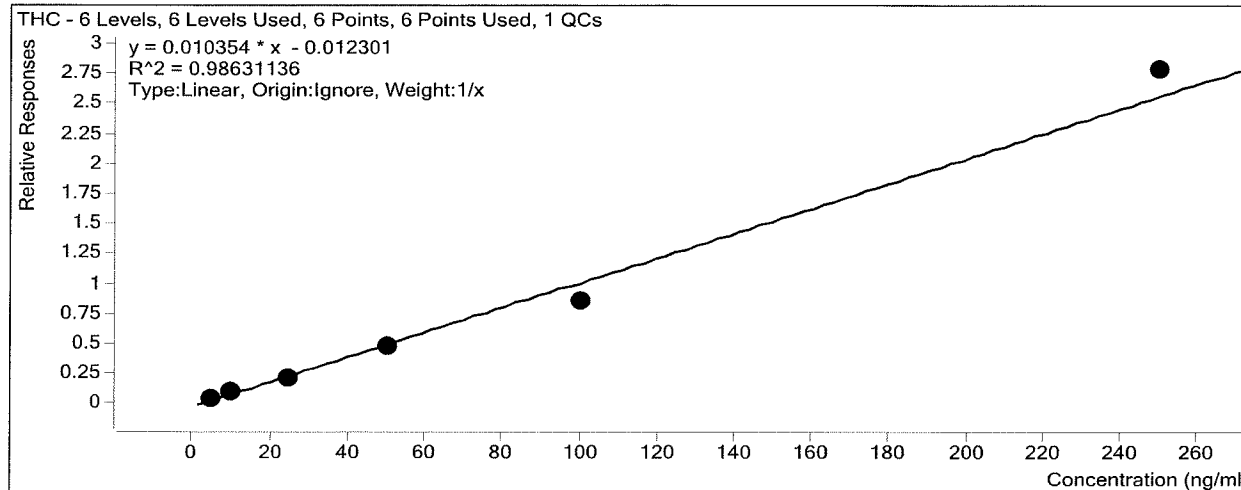


Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng	2	<input checked="" type="checkbox"/>	5	5.0	99.8
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	10.4	103.7
QC 10 ng	3	<input checked="" type="checkbox"/>	10	13.2	131.7
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	23.4	93.7
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	48.8	97.6
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	90.9	90.9
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	285.7	114.3

# ISP Forensics Calibration Curve Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.bin  
**Last Calib Update** 12/5/2017 3:27 PM **Analyst Name** ISP TOX

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



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
cal 2 - 5ng	2	<input checked="" type="checkbox"/>	5	6.0	120.5
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	10.5	104.7
QC 10 ng	3	<input checked="" type="checkbox"/>	10	10.8	108.1
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	22.3	89.1
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	46.5	93.1
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	84.6	84.6
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	270.1	108.0

# ISP FORENSICS - Cd'A

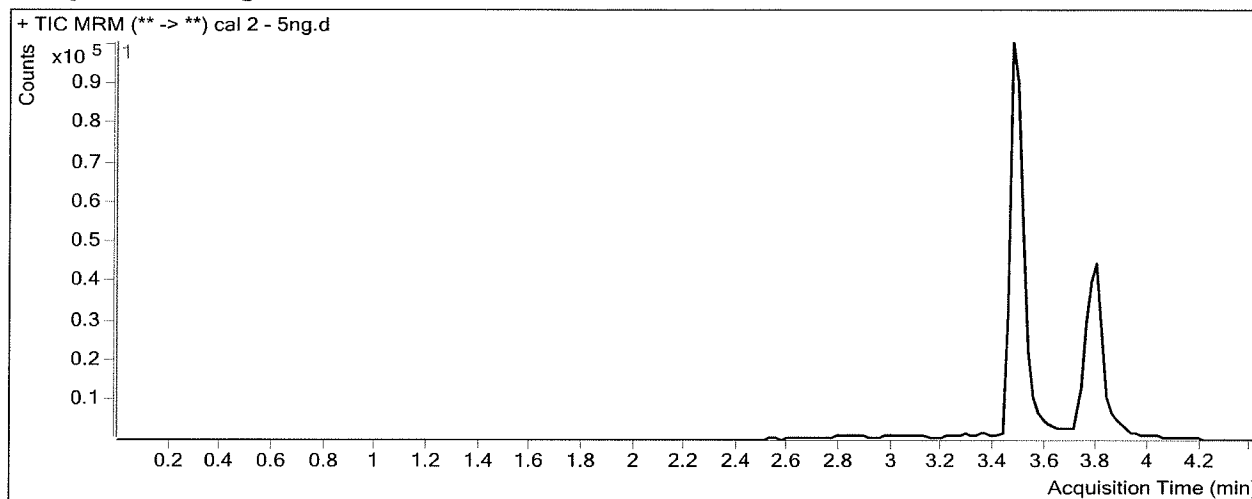
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 11:14 **Data File** cal 2 - 5ng.d  
**Sample Type** Calibration **Sample Name** cal 2 - 5ng  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-B1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	13651	293590	0.0465	5.7754
THC-COOH	3.506	4262	61856	0.0689	4.9903
THC	3.840	490	9775	0.0501	6.0266

# ISP FORENSICS - Cd'A

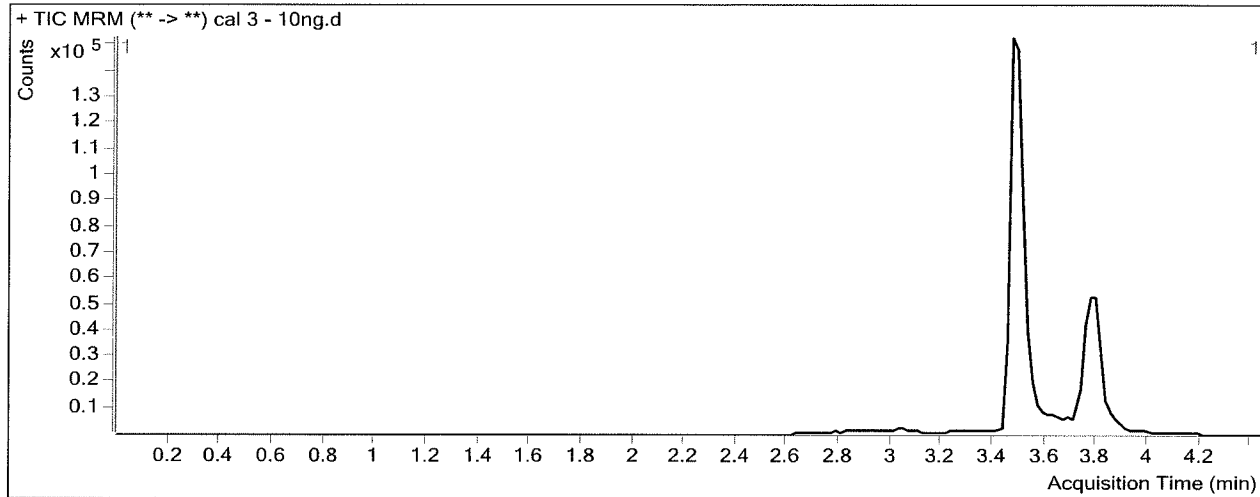
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 11:20 **Data File** cal 3 - 10ng.d  
**Sample Type** Calibration **Sample Name** cal 3 - 10ng  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-C1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	37725	436635	0.0864	9.9398
THC-COOH	3.526	17260	103703	0.1664	10.3719
THC	3.840	1049	10916	0.0961	10.4682

# ISP FORENSICS - Cd'A

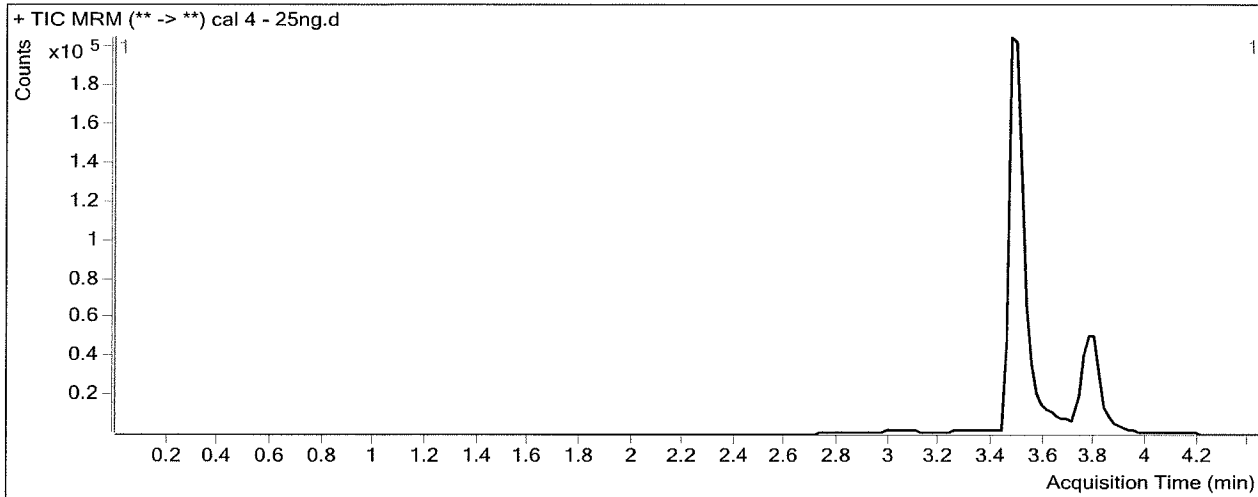
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 11:27 **Data File** cal 4 - 25ng.d  
**Sample Type** Calibration **Sample Name** cal 4 - 25ng  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-D1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	117822	535312	0.2201	23.8935
THC-COOH	3.526	56777	140864	0.4031	23.4285
THC	3.840	2611	11960	0.2183	22.2722

# ISP FORENSICS - Cd'A

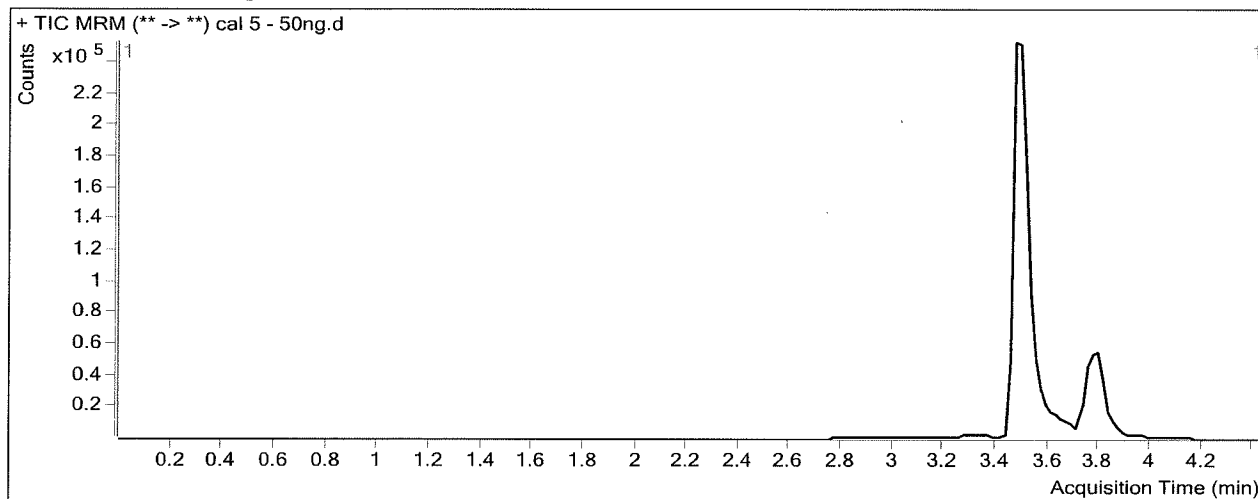
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 11:34 **Data File** cal 5 - 50ng.d  
**Sample Type** Calibration **Sample Name** cal 5 - 50ng  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-E1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	248057	549701	0.4513	48.0181
THC-COOH	3.526	114823	133020	0.8632	48.8189
THC	3.840	5807	12366	0.4696	46.5389

# ISP FORENSICS - Cd'A

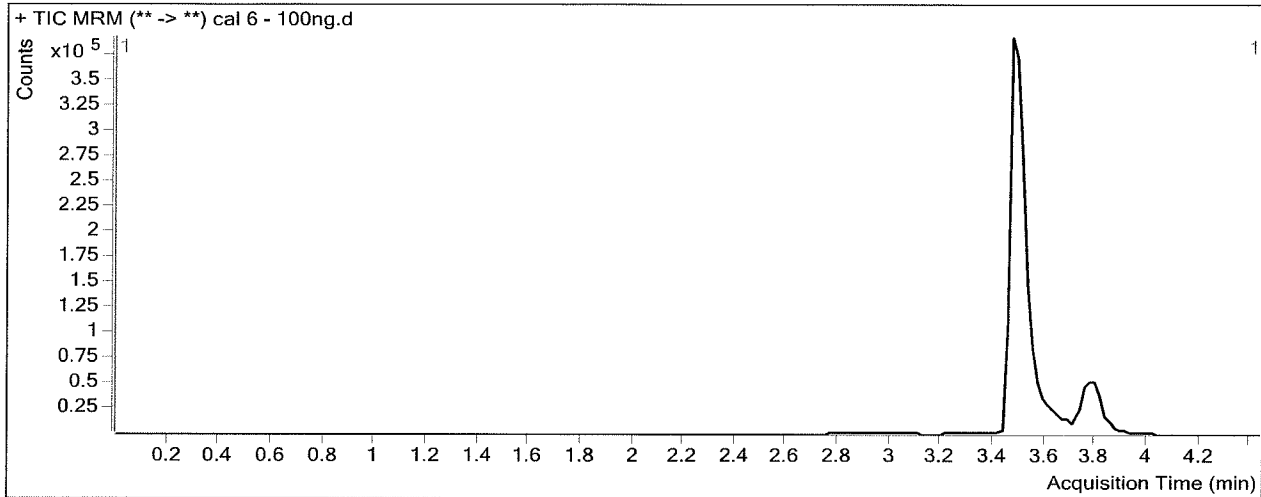
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 11:40 **Data File** cal 6 - 100ng.d  
**Sample Type** Calibration **Sample Name** cal 6 - 100ng  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-F1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	544718	656192	0.8301	87.5577
THC-COOH	3.526	253699	156127	1.6250	90.8514
THC	3.840	12114	14031	0.8634	84.5700

# ISP FORENSICS - Cd'A

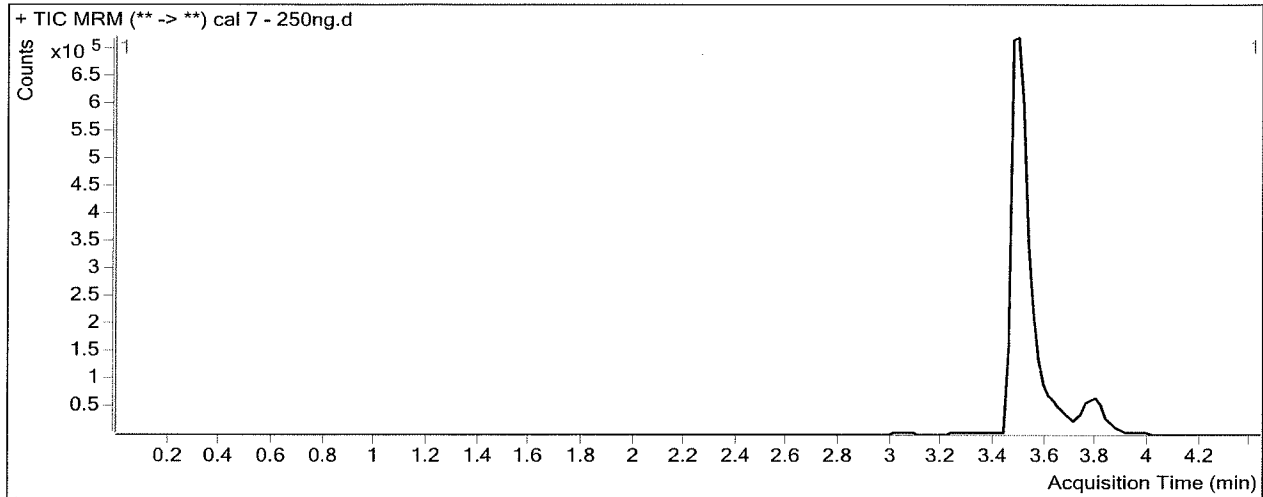
## Cannabinoid Screen Report

**Batch Data Path** C:\MyFiles\anord\Documents\blood data\120417 screen\QuantResults\120417 cann screen.batch.  
**Analysis Time** 12/5/2017 3:27 PM **Analyst Name** anord  
**Report Time** 12/6/2017 9:10 AM **Reporter Name** ISP Tox  
**Last Calib Update** 12/5/2017 3:27 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2017-12-04 11:53 **Data File** cal 7 - 250ng.d  
**Sample Type** Calibration **Sample Name** cal 7 - 250ng  
**Dilution** 1 **Acq Method** Screen THC 8-2017.m  
**Position** P1-G1 **Sample Info**  
**Inj Vol** -1 **Comment** AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	1624831	642588	2.5286	264.8155
THC-COOH	3.526	740774	143678	5.1558	285.6796
THC	3.840	40568	14568	2.7847	270.1241