










**Worklist: 2257**

reviewed 3/23/18

3/16/2018

*BWylee*

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
C2017-2265	1	110257	AM 25/AM 26 Blood MultiDrug/	
C2018-0228	1	106745	AM 25/AM 26 Blood MultiDrug/	
C2018-0234	1	106765	AM 25/AM 26 Blood MultiDrug/	
C2018-0235	1	107470	AM 25/AM 26 Blood MultiDrug/	
C2018-0264	1	107197	AM 25/AM 26 Blood MultiDrug/	
C2018-0266	1	107232	AM 25/AM 26 Blood MultiDrug/	
C2018-0315	1	107651	AM 25/AM 26 Blood MultiDrug/	
C2018-0317	1	107692	AM 25/AM 26 Blood MultiDrug/	
C2018-0432	2	109113	AM 25/AM 26 Blood MultiDrug/	
C2018-0476	1	109547	AM 25/AM 26 Blood MultiDrug/	
C2018-0477	1	109551	AM 25/AM 26 Blood MultiDrug/	
C2018-0497	2	110058	AM 25/AM 26 Blood MultiDrug/	
C2018-0504	1	110077	AM 25/AM 26 Blood MultiDrug/	
C2018-0505	1	110079	AM 25/AM 26 Blood MultiDrug/	
C2018-0525	1	110300	AM 25/AM 26 Blood MultiDrug/	



# AM# 25: Multi-Drug Screen in Blood by LC-MS/MS

Extraction Date: 3-19-18  
Plate lot#: 0515207

Analyst: Anne Nord  
Plate Expiration: 10/18/2018

**Mobile phase A:** 10mM Amm Form  
0.5M Ammonium Hydroxide

**Mobile phase B:** 0.1% Formic Acid in MeOH  
Ethyl Acetate LC Methanol

**Blank Blood Lot:** 17J20718

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

**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: <sup>390993 amn</sup>1926134** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **250µL 0.5M ammonium hydroxide** 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. 10-15 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 **900uL ethyl acetate.**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 12. Add **900uL ethyl acetate.**
- 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% LC MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

## Post-Analytic

- 1. Open quantitation software and create a new quantitation batch.  
Batch Name: 03192018 blood screen am 25-26 Worklist path: 31918 mds p1, 31918 mds p2
- 2. Make necessary changes to integration limits
- 3. 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. > 1/3 the response of administrative control.
- 4. Did all QCs pass for each analyte? Y / N \_\_\_\_\_
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: *\_ P2 did not initially inject for, calibrator, negative control, external control, c2018-0477-1 samples were reconstituted and injected at the end of the run.*



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

ppd 12/29/17 Exp 3/29/18 Lot 32918

neg blood lot 321632-1	by Amn
neg blood lot 321632-1	by Amn
neg blood lot 17120718	by Amn
neg blood lot 17120718	by Amn

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

Compound Method			p1 cal 1-1a				p1 cal 1-1a Results				Qualifier 1 M...				Qualifier 1 Results				ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Area	S/N	MI	Transition	Area	Name	RT	Resp.					
6-MAM	328.2 -> 165...	3/19/2018 2:28 PM	5.360	1169	8.17		328.2 -> 211...		100.89	973			328.2 -> 211...		6-MAM-D6	5.319	37948					
7-aminoclonazepam	286.1 -> 121...	3/19/2018 2:28 PM	5.509	17204	261.78		286.1 -> 222...		93.52	11920			286.1 -> 222...		7-Aminoclonazepam-D4	5.488	71348					
Acetyl Fentanyl	323.2 -> 105...	3/19/2018 2:28 PM	6.420	19390	9.52		323.2 -> 188...		1393.29	13696			323.2 -> 188...		Acetyl Fentanyl-D5	6.398	1094100					
Acetyl Norfentanyl	219.1 -> 84.2	3/19/2018 2:28 PM	4.928	6488	2238.65		219.1 -> 56.3		25.04	2254			219.1 -> 56.3		Acetyl Norfentanyl-D5	4.908	334749					
a-hydroxyalprazolam	325.1 -> 297...	3/19/2018 2:28 PM	6.399	4988	33.63		325.1 -> 215...		68.27	2927			325.1 -> 215...		a-hydroxyalprazolam-D5	6.378	25322					
alpha-PVP	232.2 -> 91.0	3/19/2018 2:28 PM	5.946	95401	230.06		232.2 -> 77.1		70.30	35854			232.2 -> 77.1		alpha-PVP-d8	5.862	453460					
Alprazolam	309.1 -> 281...	3/19/2018 2:28 PM	6.485	32075	176.70		309.1 -> 205...		606.48	33311			309.1 -> 205...		Alprazolam-D5	6.463	137324					
Amphetamine	136.1 -> 91.1	3/19/2018 2:28 PM	4.891	101449	30.01		136.1 -> 119...		70.63	39062			136.1 -> 119...		Amphetamine-D11	4.830	83403					
Bupropion	240.1 -> 184...	3/19/2018 2:28 PM	6.209	91663	Infinity		240.1 -> 131...		4281.95	42855			240.1 -> 131...		Bupropion-D9	6.148	406306					
Carisoprodol	261.2 -> 176...	3/19/2018 2:28 PM	6.126	45043	6020.93		261.2 -> 55.3		48.78	49435			261.2 -> 55.3		Carisoprodol-D7	6.105	260764					
Citalopram	325.2 -> 109...	3/19/2018 2:28 PM	6.216	143377	133.09		325.2 -> 262...		684.50	30561			325.2 -> 262...		Citalopram-D6	6.195	611465					
Clonazepam	316.1 -> 269...	3/19/2018 2:28 PM	6.321	19198	284.16		316.1 -> 213...		28.81	5290			316.1 -> 213...		Clonazepam-D4	6.320	29413					
Codeine	300.2 -> 215...	3/19/2018 2:28 PM	5.344	5842	22.96		300.2 -> 165...		33.66	5686			300.2 -> 165...		Codeine-D6	5.282	25797					
Cyclobenzaprine	276.2 -> 214...	3/19/2018 2:28 PM	6.612	87286	112.31		276.2 -> 231...		34.01	24293			276.2 -> 231...		Cyclobenzaprine-D3	6.591	407778					
Dextromethorphan	272.2 -> 171...	3/19/2018 2:28 PM	6.308	41176	123.21		272.2 -> 147...		48.25	33681			272.2 -> 147...		Dextromethorphan-D3	6.308	182748					
Dextropropran	258.2 -> 157...	3/19/2018 2:28 PM	5.554	27927	90.83		258.2 -> 133...		292.84	18306			258.2 -> 133...		Dextropropran-D3	5.533	154797					
Diazepam	285.1 -> 193...	3/19/2018 2:28 PM	6.711	28749	41.20		285.1 -> 153...		127.93	19299			285.1 -> 153...		Diazepam-D5	6.690	119378					
Dihydrocodeine	302.2 -> 198...	3/19/2018 2:28 PM	5.039	17561	66.38		302.2 -> 128...		2897.47	10459			302.2 -> 128...		Dihydrocodeine-D6	4.997	76556					
Diphenhydramine	256.2 -> 167...	3/19/2018 2:28 PM	6.229	205731	132.93		256.2 -> 152...		76.62	50081			256.2 -> 152...		Diphenhydramine-D3	6.208	1069392					
Doxylamine	271.2 -> 182...	3/19/2018 2:28 PM	5.819	179564	189.97		271.2 -> 167...		329.88	1256...			271.2 -> 167...		Doxylamine-D5	5.797	921603					
EDDP	279.2 -> 235...	3/19/2018 2:28 PM	6.163	153121	1002.72		279.2 -> 250...		122.91	51187			279.2 -> 250...		EDDP-D3	6.163	67342					
Fentanyl	337.2 -> 105...	3/19/2018 2:28 PM	6.620	23114	17.57		337.2 -> 188...		197.85	14279			337.2 -> 188...		Fentanyl-D5	6.599	1076734					
Fluoxetine	310.1 -> 44.3	3/19/2018 2:28 PM	6.403	187000	515.97		310.1 -> 148...		47.08	6160			310.1 -> 148...		Fluoxetine-D6	6.402	919247					
Hydrocodone	300.2 -> 198...	3/19/2018 2:28 PM	5.528	1218	Infinity		300.2 -> 128...		Infinity	4761			300.2 -> 128...		Hydrocodone-D6	5.506	105382					
Hydromorphone	286.2 -> 184...	3/19/2018 2:28 PM	4.840	11891	170.01		286.2 -> 157...		61.66	8517			286.2 -> 157...		Hydromorphone-D6	4.758	46097					
Ketamine	238.1 -> 125...	3/19/2018 2:28 PM	6.148	21102	Infinity		238.1 -> 220...		Infinity	8296			238.1 -> 220...		Ketamine-D4	6.148	148286					
Meprobamate	219.1 -> 158...	3/19/2018 2:28 PM	5.599	16368	62.23		219.1 -> 97.1		30.40	17088			219.1 -> 97.1		Meprobamate-D7	5.598	85793					
Methadone	310.2 -> 265...	3/19/2018 2:28 PM	6.504	147299	Infinity		310.2 -> 105...		366.81	1452...			310.2 -> 105...		Methadone-D9	6.503	760350					
Methamphetamine	150.1 -> 91.1	3/19/2018 2:28 PM	5.051	165059	20.23		150.1 -> 119...		10.76	42364			150.1 -> 119...		Methamphetamine-D11	5.030	231386					
Morphine	286.2 -> 201...	3/19/2018 2:28 PM	4.560	3397	26.34		286.2 -> 165...		23.70	2294			286.2 -> 165...		Morphine-D6	4.498	1774					
Naloxone	328.2 -> 309...	3/19/2018 2:28 PM	5.971	22962	Infinity		328.2 -> 211...		37.10	10120			328.2 -> 211...		Naloxone-D5	5.890	195369					
Naltrexol	344.2 -> 326...	3/19/2018 2:28 PM	5.135	48804	56.10		344.2 -> 308...		132.77	9458			344.2 -> 308...		Naltrexol-D3	5.115	193561					
Naltrexone	342.2 -> 324...	3/19/2018 2:28 PM	5.461	27600	2618.58		342.2 -> 55.3		53.39	25094			342.2 -> 55.3		Naltrexone-D3	5.419	107969					
Norbuprenorphine	414.3 -> 101...	3/19/2018 2:28 PM	6.008	5273	65.87		414.3 -> 57.3		719.95	5902			414.3 -> 57.3		Norbuprenorphine-D3	6.008	22210					
Nordiazepam	271.1 -> 140...	3/19/2018 2:28 PM	6.573	19363	69.45		271.1 -> 208...		24.43	12138			271.1 -> 208...		Nordiazepam-D5	6.552	58536					
Norfentanyl	233.2 -> 84.2	3/19/2018 2:28 PM	5.414	107434	28767.05		233.2 -> 55.3		15124...	40677			233.2 -> 55.3		Norfentanyl-D5	5.393	467678					
Norhydrocodone	286.2 -> 199...	3/19/2018 2:28 PM	5.042	1141	13.77		286.2 -> 171...		Infinity	587			286.2 -> 171...		Norhydrocodone-D3	5.022	35673					
Noroxycodone	302.1 -> 284...	3/19/2018 2:28 PM	4.937	18342	Infinity		302.1 -> 186...		46.80	6342			302.1 -> 186...		Noroxycodone-D3	4.936	90680					
O-desmethyl-tramadol	250.2 -> 58.3	3/19/2018 2:28 PM	4.986	139518	1230.13		250.2 -> 42.3		35.52	7735			250.2 -> 42.3		O-desmethyl-tramadol-...	4.965	608222					
Oxazepam	287.1 -> 240...	3/19/2018 2:28 PM	6.386	22389	87.17		287.1 -> 268...		13.21	10261			287.1 -> 268...		Oxazepam-D5	6.385	114606					
Oxycodone	316.2 -> 298...	3/19/2018 2:28 PM	5.240	34773	Infinity		316.2 -> 241...		Infinity	12077			316.2 -> 241...		Oxycodone-D6	5.199	158971					
Oxymorphone	302.1 -> 284...	3/19/2018 2:28 PM	4.475	35541	35.64		302.1 -> 227...		64.25	7548			302.1 -> 227...		Oxymorphone-D3	4.434	161418					
Phentermine	150.1 -> 65.2	3/19/2018 2:28 PM	5.193	20120	Infinity		150.1 -> 133...		Infinity	358			150.1 -> 133...		Phentermine-D5	5.193	317435					
Promethazine	285.1 -> 86.2	3/19/2018 2:28 PM	6.751	312597	1049.40		285.1 -> 71.3		Infinity	70394			285.1 -> 71.3		Promethazine-D3	6.730	1747291					
Quetiapine	384.2 -> 253...	3/19/2018 2:28 PM	6.719	165509	3567.98		384.2 -> 221...		33974...	89140			384.2 -> 221...		Quetiapine-D8	6.698	220956					
Sertraline	306.1 -> 158...	3/19/2018 2:28 PM	6.769	43301	215.35		306.1 -> 275...		5024.37	41011			306.1 -> 275...		Sertraline-D3	6.748	206054					

8A

Compound Method		p1 cal 1-1a		p1 cal 1-1a Results			Qualifier 1 M...		Qualifier 1 Results			ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Area	Name	RT	Resp.		
Temazepam	301.1 -> 255...	3/19/2018 2:28 PM	6.527	57100	Infinity		301.1 -> 283...		Infinity	21019	Temazepam-D5	6.526	272083		
Tramadol	264.2 -> 58.3	3/19/2018 2:28 PM	5.573	185756	Infinity		264.2 -> 43.3		Infinity	8753	Tramadol-13C-D3	5.553	836466		
Trazodone	372.2 -> 176...	3/19/2018 2:28 PM	6.882	178513	521.67		372.2 -> 148...		1976.54	1270...	Trazodone-D6	6.861	766830		
Venlafaxine	278.2 -> 58.3	3/19/2018 2:28 PM	5.919	179304	51.33		278.2 -> 260...		Infinity	33319	Venlafaxine-D6	5.918	777564		
Zolpidem	308.2 -> 235...	3/19/2018 2:28 PM	6.424	160455	555.19		308.2 -> 263...		1269.13	59319	Zolpidem-D6	6.423	773446		

Compound Method			p1 negative				p1 negative 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	Area	MI	S/N	Area	Name	Resp.	RT	Resp.	
6-MAM	328.2 -> 165...	3/19/2018 2:48 PM					328.2 -> 211...							6-MAM-D6	5.299	34353		
7-aminoclonazepam	286.1 -> 121...	3/19/2018 2:48 PM					286.1 -> 222...							7-Aminoclonazepam-D4	5.508	67930		
Acetyl Fentanyl	323.2 -> 105...	3/19/2018 2:48 PM					323.2 -> 188...							Acetyl Fentanyl-D5	6.419	11383...		
Acetyl Norfentanyl	219.1 -> 84.2	3/19/2018 2:48 PM					219.1 -> 56.3							Acetyl Norfentanyl-D5	4.908	339829		
a-hydroxylprazolam	325.1 -> 297...	3/19/2018 2:48 PM					325.1 -> 215...							a-hydroxylprazolam-D5	6.378	28035		
alpha-PVP	232.2 -> 91.0	3/19/2018 2:48 PM					232.2 -> 77.1							alpha-PVP-d8	5.883	424782		
Alprazolam	309.1 -> 281...	3/19/2018 2:48 PM	6.302	4107	1230.23		309.1 -> 205...							Alprazolam-D5	6.463	149628		
Amphetamine	136.1 -> 91.1	3/19/2018 2:48 PM	4.911	20805	11.93		136.1 -> 119...							Amphetamine-D11	4.850	78559		
Bupropion	240.1 -> 184...	3/19/2018 2:48 PM					240.1 -> 131...							Bupropion-D9	6.148	360896		
Carisoprodol	261.2 -> 176...	3/19/2018 2:48 PM					261.2 -> 55.3							Carisoprodol-D7	6.105	292510		
Citalopram	325.2 -> 109...	3/19/2018 2:48 PM					325.2 -> 262...							Citalopram-D6	6.195	631462		
Clonazepam	316.1 -> 269...	3/19/2018 2:48 PM					316.1 -> 213...							Clonazepam-D4	6.320	29981		
Codeine	300.2 -> 215...	3/19/2018 2:48 PM					300.2 -> 165...							Codeine-D6	5.282	23188		
Cyclobenzaprine	276.2 -> 214...	3/19/2018 2:48 PM					276.2 -> 231...							Cyclobenzaprine-D3	6.591	417453		
Dextromethorphan	272.2 -> 171...	3/19/2018 2:48 PM					272.2 -> 147...							Dextromethorphan-D3	6.308	195008		
Dextropropion	258.2 -> 157...	3/19/2018 2:48 PM	5.882	311	0.95		258.2 -> 133...							Dextropropion-D3	5.533	161889		
Diazepam	285.1 -> 193...	3/19/2018 2:48 PM					285.1 -> 153...							Diazepam-D5	6.690	129231		
Dihydrocodeine	302.2 -> 198...	3/19/2018 2:48 PM					302.2 -> 128...							Dihydrocodeine-D6	4.976	79549		
Diphenhydramine	256.2 -> 167...	3/19/2018 2:48 PM					256.2 -> 152...							Diphenhydramine-D3	6.208	11145...		
Doxylamine	271.2 -> 182...	3/19/2018 2:48 PM					271.2 -> 167...							Doxylamine-D5	5.797	925074		
EDDP	279.2 -> 235...	3/19/2018 2:48 PM					279.2 -> 250...							EDDP-D3	6.163	67619		
Fentanyl	337.2 -> 105...	3/19/2018 2:48 PM					337.2 -> 188...							Fentanyl-D5	6.599	11076...		
Fluoxetine	310.1 -> 44.3	3/19/2018 2:48 PM					310.1 -> 148...							Fluoxetine-D6	6.402	999989		
Hydrocodone	300.2 -> 198...	3/19/2018 2:48 PM					300.2 -> 128...							Hydrocodone-D6	5.527	118982		
Hydromorphone	286.2 -> 184...	3/19/2018 2:48 PM					286.2 -> 157...							Hydromorphone-D6	4.758	46936		
Ketamine	238.1 -> 125...	3/19/2018 2:48 PM					238.1 -> 220...							Ketamine-D4	6.148	135443		
Meprobamate	219.1 -> 158...	3/19/2018 2:48 PM					219.1 -> 97.1							Meprobamate-D7	5.598	97318		
Methadone	310.2 -> 265...	3/19/2018 2:48 PM					310.2 -> 105...							Methadone-D9	6.503	784990		
Methamphetamine	150.1 -> 91.1	3/19/2018 2:48 PM	5.072	64684	6.11		150.1 -> 119...							Methamphetamine-D11	5.030	233057		
Morphine	286.2 -> 201...	3/19/2018 2:48 PM					286.2 -> 165...							Morphine-D6	4.498	2052		
Naloxone	328.2 -> 309...	3/19/2018 2:48 PM					328.2 -> 211...							Naloxone-D5	5.890	183202		
Naltrexol	344.2 -> 326...	3/19/2018 2:48 PM					344.2 -> 308...							Naltrexol-D3	5.115	195669		
Naltrexone	342.2 -> 324...	3/19/2018 2:48 PM					342.2 -> 55.3							Naltrexone-D3	5.419	144603		
Norbuprenorphine	414.3 -> 101...	3/19/2018 2:48 PM					414.3 -> 57.3							Norbuprenorphine-D3	6.008	21854		
Nordiazepam	271.1 -> 140...	3/19/2018 2:48 PM					271.1 -> 208...							Nordiazepam-D5	6.552	67957		
Norfentanyl	233.2 -> 199...	3/19/2018 2:48 PM					233.2 -> 55.3							Norfentanyl-D5	5.393	505724		
Norhydrocodone	286.2 -> 199...	3/19/2018 2:48 PM					286.2 -> 171...							Norhydrocodone-D3	5.022	37957		
Noroxycodone	302.1 -> 284...	3/19/2018 2:48 PM					302.1 -> 186...							Noroxycodone-D3	4.936	88575		
O-desmethyl-tramadol	250.2 -> 58.3	3/19/2018 2:48 PM					250.2 -> 42.3							O-desmethyl-tramadol...	4.965	610426		
Oxazepam	287.1 -> 240...	3/19/2018 2:48 PM					287.1 -> 268...							Oxazepam-D5	6.365	123602		
Oxycodone	316.2 -> 298...	3/19/2018 2:48 PM					316.2 -> 241...							Oxycodone-D6	5.199	163468		
Oxymorphone	302.1 -> 284...	3/19/2018 2:48 PM					302.1 -> 227...							Oxymorphone-D3	4.434	169375		
Phentermine	150.1 -> 65.2	3/19/2018 2:48 PM					150.1 -> 133...							Phentermine-D5	5.193	299591		
Promethazine	285.1 -> 86.2	3/19/2018 2:48 PM					285.1 -> 71.3							Promethazine-D3	6.730	17244...		
Quetiapine	384.2 -> 253...	3/19/2018 2:48 PM					384.2 -> 221...							Quetiapine-D8	6.698	219419		
Sertraline	306.1 -> 158...	3/19/2018 2:48 PM					306.1 -> 275...							Sertraline-D3	6.748	210954		

Compound Method		p1 negative			p1 negative 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	Area	Name	RT	Resp.		
Temazepam	301.1 -> 255..	3/19/2018 2:48 PM					301.1 -> 283..				Temazepam-D5	6.526	308832		
Tramadol	264.2 -> 58.3	3/19/2018 2:48 PM					264.2 -> 43.3				Tramadol-13C-D3	5.573	849749		
Trazodone	372.2 -> 176..	3/19/2018 2:48 PM					372.2 -> 148..				Trazodone-D6	6.861	799195		
Venlafaxine	278.2 -> 58.3	3/19/2018 2:48 PM					278.2 -> 260..				Venlafaxine-D6	5.918	787378		
Zolpidem	308.2 -> 235..	3/19/2018 2:48 PM					308.2 -> 263..				Zolpidem-D6	6.423	788309		

Compound Method			p1 external control			p1 external control Results			Qualifier 1 M...			Qualifier 1 Results			ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Area	Name	Area	RT	Resp.					
6-MAM	328.2 -> 165...	3/19/2018 3:07 PM					328.2 -> 211...				6-MAM-D6		5.319	33846					
7-aminoclonazepam	286.1 -> 121...	3/19/2018 3:07 PM					286.1 -> 222...				7-Aminoclonazepam-D4		5.488	65098					
Acetyl Fentanyl	323.2 -> 105...	3/19/2018 3:07 PM					323.2 -> 188...				Acetyl Fentanyl-D5		6.419	11026...					
Acetyl Norfentanyl	219.1 -> 84.2	3/19/2018 3:07 PM					219.1 -> 56.3				Acetyl Norfentanyl-D5		4.908	317323					
a-hydroxyalprazolam	325.1 -> 297...	3/19/2018 3:07 PM					325.1 -> 215...				a-hydroxyalprazolam-D5		6.378	25419					
alpha-PVP	232.2 -> 91.0	3/19/2018 3:07 PM					232.2 -> 77.1				alpha-PVP-d8		5.883	432437					
Alprazolam	309.1 -> 281...	3/19/2018 3:07 PM					309.1 -> 205...				Alprazolam-D5		6.463	136362					
Amphetamine	136.1 -> 91.1	3/19/2018 3:07 PM	4.911	17047	10.43		136.1 -> 119...				Amphetamine-D11		4.830	82238					
Bupropion	240.1 -> 184...	3/19/2018 3:07 PM					240.1 -> 131...				Bupropion-D9		6.189	244206					
Carisoprodol	261.2 -> 176...	3/19/2018 3:07 PM					261.2 -> 55.3				Carisoprodol-D7		6.105	196175					
Citalopram	325.2 -> 109...	3/19/2018 3:07 PM					325.2 -> 262...				Citalopram-D6		6.195	518012					
Clonazepam	316.1 -> 269...	3/19/2018 3:07 PM					316.1 -> 213...				Clonazepam-D4		6.320	26818					
Codeine	300.2 -> 215...	3/19/2018 3:07 PM	5.344	52682	44.85		300.2 -> 165...		191.33	48606	Codeine-D6		5.282	22482					
Cyclobenzaprine	276.2 -> 214...	3/19/2018 3:07 PM					276.2 -> 231...				Cyclobenzaprine-D3		6.611	399419					
Dextromethorphan	272.2 -> 171...	3/19/2018 3:07 PM					272.2 -> 147...				Dextromethorphan-D3		6.308	187505					
Dextropran	258.2 -> 157...	3/19/2018 3:07 PM	5.882	341	0.87		258.2 -> 133...				Dextropran-D3		5.533	156285					
Diazepam	285.1 -> 193...	3/19/2018 3:07 PM					285.1 -> 153...				Diazepam-D5		6.690	118495					
Dihydrocodeine	302.2 -> 198...	3/19/2018 3:07 PM					302.2 -> 128...				Dihydrocodeine-D6		4.997	74404					
Diphenhydramine	256.2 -> 167...	3/19/2018 3:07 PM	6.229	19357...	745.17		256.2 -> 152...		Infinity	5108...	Diphenhydramine-D3		6.208	10099...					
Doxylamine	271.2 -> 182...	3/19/2018 3:07 PM					271.2 -> 167...				Doxylamine-D5		5.797	874483					
EDDP	279.2 -> 235...	3/19/2018 3:07 PM					279.2 -> 250...				EDDP-D3		6.163	60276					
Fentanyl	337.2 -> 105...	3/19/2018 3:07 PM					337.2 -> 188...				Fentanyl-D5		6.599	10577...					
Fluoxetine	310.1 -> 44.3	3/19/2018 3:07 PM					310.1 -> 148...				Fluoxetine-D6		6.402	974637					
Hydrocodone	300.2 -> 198...	3/19/2018 3:07 PM	5.344	30081	3458.79		300.2 -> 128...		Infinity	37519	Hydrocodone-D6		5.527	113050					
Hydromorphone	286.2 -> 184...	3/19/2018 3:07 PM					286.2 -> 157...				Hydromorphone-D6		4.758	40157					
Ketamine	238.1 -> 125...	3/19/2018 3:07 PM					238.1 -> 220...				Ketamine-D4		6.148	94663					
Meprobamate	219.1 -> 158...	3/19/2018 3:07 PM					219.1 -> 97.1				Meprobamate-D7		5.598	90677					
Methadone	310.2 -> 265...	3/19/2018 3:07 PM					310.2 -> 105...				Methadone-D9		6.503	743982					
Methamphetamine	150.1 -> 91.1	3/19/2018 3:07 PM	5.072	91909	24.95		150.1 -> 119...				Methamphetamine-D11		5.030	262740					
Morphine	286.2 -> 201...	3/19/2018 3:07 PM	4.580	53042	508.56		286.2 -> 165...		244.90	42367	Morphine-D6		4.518	1472					
Naloxone	328.2 -> 309...	3/19/2018 3:07 PM					328.2 -> 211...				Naloxone-D5		5.890	181637					
Naltrexol	344.2 -> 326...	3/19/2018 3:07 PM					344.2 -> 308...				Naltrexol-D3		5.115	183587					
Naltrexone	342.2 -> 324...	3/19/2018 3:07 PM					342.2 -> 55.3				Naltrexone-D3		5.419	130884					
Norbuprenorphine	414.3 -> 101...	3/19/2018 3:07 PM					414.3 -> 57.3				Norbuprenorphine-D3		6.008	22278					
Nordiazepam	271.1 -> 140...	3/19/2018 3:07 PM					271.1 -> 208...				Nordiazepam-D5		6.552	60904					
Norfentanyl	233.2 -> 84.2	3/19/2018 3:07 PM					233.2 -> 55.3				Norfentanyl-D5		5.393	471260					
Norhydrocodone	286.2 -> 199...	3/19/2018 3:07 PM					286.2 -> 171...				Norhydrocodone-D3		5.022	36064					
Noroxycodone	302.1 -> 284...	3/19/2018 3:07 PM					302.1 -> 186...				Noroxycodone-D3		4.936	85828					
O-desmethyl-tramadol	250.2 -> 58.3	3/19/2018 3:07 PM					250.2 -> 42.3				O-desmethyl-tramadol-...		4.965	596474					
Oxazepam	287.1 -> 240...	3/19/2018 3:07 PM					287.1 -> 268...				Oxazepam-D5		6.365	112319					
Oxycodone	316.2 -> 298...	3/19/2018 3:07 PM					316.2 -> 241...				Oxycodone-D6		5.199	154733					
Oxymorphone	302.1 -> 284...	3/19/2018 3:07 PM					302.1 -> 227...				Oxymorphone-D3		4.434	145870					
Phentermine	150.1 -> 65.2	3/19/2018 3:07 PM					150.1 -> 133...				Phentermine-D5		5.193	318023					
Promethazine	285.1 -> 86.2	3/19/2018 3:07 PM					285.1 -> 71.3				Promethazine-D3		6.730	16313...					
Quetiapine	384.2 -> 253...	3/19/2018 3:07 PM					384.2 -> 221...				Quetiapine-D8		6.698	206014					
Sertraline	306.1 -> 158...	3/19/2018 3:07 PM					306.1 -> 275...				Sertraline-D3		6.748	193319					



Compound Method		p1 external control			p1 external control Results			Qualifier 1 M...		Qualifier 1 Results			ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Area	Name	RT	Resp.			
Temazepam	301.1 -> 255...	3/19/2018 3:07 PM					301.1 -> 283...				Temazepam-D5	6.526	280771			
Tramadol	264.2 -> 58.3	3/19/2018 3:07 PM					264.2 -> 43.3				Tramadol-13C-D3	5.553	840366			
Trazodone	372.2 -> 176...	3/19/2018 3:07 PM					372.2 -> 148...				Trazodone-D6	6.861	768525			
Venlafaxine	278.2 -> 58.3	3/19/2018 3:07 PM					278.2 -> 260...				Venlafaxine-D6	5.918	766238			
Zolpidem	308.2 -> 235...	3/19/2018 3:07 PM					308.2 -> 263...				Zolpidem-D6	6.423	773529			

Compound Method		p2 negative		p2 negative Results			Qualifier 1 R...		ISTD Method		ISTD Results		
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Area	Name	RT	Resp.
7-aminoflunitrazepam	284.1 -> 135...	3/19/2018 2:57 PM					284.1 -> 93.2				7-aminoflunitrazepam-D7	5.699	27021
alpha-hydroxymidazolam	342.1 -> 324...	3/19/2018 2:57 PM					342.1 -> 203...				alpha-hydroxymidazolam...	6.448	207222
Amitriptyline	278.2 -> 91.2	3/19/2018 2:57 PM					278.2 -> 105...				Amitriptyline-D3	6.740	364558
Amoxapine	314.1 -> 271...	3/19/2018 2:57 PM					314.1 -> 193...				Amitriptyline-D3	6.740	364558
Benzoylcegonine	290.1 -> 168...	3/19/2018 2:57 PM					290.1 -> 105...				Benzoylcegonine-D8	5.289	4662
Carbamazepine	237.1 -> 193...	3/19/2018 2:57 PM					237.1 -> 194...				Carbamazepine-13C6	6.137	825036
Chlordiazepoxide	300.1 -> 227...	3/19/2018 2:57 PM					300.1 -> 282...				Chlordiazepoxide-D5	6.596	180627
Clomipramine	315.2 -> 86.2	3/19/2018 2:57 PM					315.2 -> 58.3				Clomipramine-D3	7.038	10989...
Cocaine	304.2 -> 182...	3/19/2018 2:57 PM					304.2 -> 105...				Cocaine-D3	5.861	444189
Desipramine	267.2 -> 72.3	3/19/2018 2:57 PM					267.2 -> 44.3				Desipramine-D3	6.520	929645
Doxepin	280.2 -> 107...	3/19/2018 2:57 PM					280.2 -> 77.2				Doxepin-D3	6.416	438023
Estazolam	295.1 -> 267...	3/19/2018 2:57 PM					295.1 -> 205...				Estazolam-D5	6.392	181495
Flunitrazepam	314.1 -> 268...	3/19/2018 2:57 PM					314.1 -> 239...				Flunitrazepam-D7	6.431	4960
Flurazepam	388.2 -> 315...	3/19/2018 2:57 PM					388.2 -> 317...				Zopiclone-D4	6.425	103353
Imipramine	281.2 -> 86.2	3/19/2018 2:57 PM					281.2 -> 58.3				Imipramine-D3	6.659	786920
Levamisole	205.1 -> 91.2	3/19/2018 2:57 PM					205.1 -> 178...				Cocaine-D3	5.861	444189
Maprotiline	278.2 -> 91.2	3/19/2018 2:57 PM	6.519	5558	Infinity		278.2 -> 117...				Meperidine-D4	5.932	215255
MDA	180.1 -> 163...	3/19/2018 2:57 PM					180.1 -> 105...				MDA-D5	5.044	162360
MDEA	208.1 -> 163...	3/19/2018 2:57 PM					208.1 -> 105...				MDEA-D6	5.343	323496
MDMA	194.1 -> 163...	3/19/2018 2:57 PM					194.1 -> 105...				MDMA-D6	5.183	33704
Meperidine	248.2 -> 220...	3/19/2018 2:57 PM					248.2 -> 174...				Meperidine-D4	5.932	215255
Methylphenidate	234.2 -> 84.2	3/19/2018 2:57 PM					234.2 -> 56.3				Meperidine-D4	5.932	215255
Metoprolol	268.2 -> 116...	3/19/2018 2:57 PM					268.2 -> 56.3				Meperidine-D4	5.932	215255
Midazolam	326.1 -> 223...	3/19/2018 2:57 PM					326.1 -> 249...				Midazolam-D4	6.632	239899
Mirtazapine	266.2 -> 195...	3/19/2018 2:57 PM					266.2 -> 72.3				Midazolam-D4	6.632	239899
Mitragynine	399.2 -> 174...	3/19/2018 2:57 PM					399.2 -> 238...				Carbamazepine-13C6	6.137	825036
Normeperidine	234.1 -> 42.3	3/19/2018 2:57 PM					234.1 -> 160...				Normeperidine-D4	5.708	175312
Norpropoxyphene	326.2 -> 44.3	3/19/2018 2:57 PM					326.2 -> 252...				Norpropoxyphene-D5	6.347	89227
Nortriptyline	284.2 -> 91.2	3/19/2018 2:57 PM					284.2 -> 233...				Nortriptyline-D3	6.561	241921
Ondansetron	294.2 -> 184...	3/19/2018 2:57 PM					294.2 -> 212...				Pentazocine-13C3	5.803	325074
Pentazocine	286.2 -> 218...	3/19/2018 2:57 PM					286.2 -> 41.3				Pentazocine-13C3	5.803	325074
Phenazepam	349.0 -> 206...	3/19/2018 2:57 PM					349.0 -> 183...				Phenazepam-D4	6.507	14446
Phencyclidine	244.2 -> 86.2	3/19/2018 2:57 PM					244.2 -> 91.1				Phencyclidine-D5	6.054	646889
Phenytolol	253.1 -> 104...	3/19/2018 2:57 PM	5.952	2069	Infinity		253.1 -> 182...				Phenytolol-D10	6.033	10502
Praxepam	325.1 -> 271...	3/19/2018 2:57 PM					325.1 -> 140...				Praxepam-D5	6.934	544474
Primidone	219.1 -> 91.2	3/19/2018 2:57 PM	5.548	2329	0.59		219.1 -> 162...				Praxepam-D5	6.934	544474
Propoxyphene	340.2 -> 58.3	3/19/2018 2:57 PM					340.2 -> 266...				Propoxyphene-D11	6.507	173273
Protriptyline	264.2 -> 155...	3/19/2018 2:57 PM					264.2 -> 161...				Nortriptyline-D3	6.561	241921
Pseudoephedrine	166.1 -> 148...	3/19/2018 2:57 PM					166.1 -> 133...				Pseudoephedrine-D3	4.680	265190
Tapentadol	222.2 -> 107...	3/19/2018 2:57 PM					222.2 -> 121...				Tapentadol-D3	5.568	490314
Trimipramine	295.2 -> 100...	3/19/2018 2:57 PM					295.2 -> 58.3				Trimipramine-D3	6.800	14994...
Verapamil	455.3 -> 165...	3/19/2018 2:57 PM					455.3 -> 150...				Trimipramine-D3	6.800	14994...
Zaleplon	306.1 -> 236...	3/19/2018 2:57 PM					306.1 -> 264...				Zaleplon-D4	6.228	136114
Zopiclone	389.1 -> 244...	3/19/2018 2:57 PM					389.1 -> 216...				Zopiclone-D4	6.425	103353

Compound Method			p2 cal 1-1b				p2 cal 1-1b Results				Qualifier 1 M...				Qualifier 1 Results				ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT /	Resp.	S/N	MI	Transition	MI	S/N	MI	Transition	MI	S/N	Area	Name	RT	Resp.					
Pseudoephedrine	166.1 -> 148...	3/20/2018 8:47 AM	4.681	584976	213.11		166.1 -> 133...		663.19		166.1 -> 133...		663.19	1208...	Pseudoephedrine-D3	4.680	289449					
MDA	180.1 -> 163...	3/20/2018 8:47 AM	5.064	30741	1304.10		180.1 -> 105...		465.80		180.1 -> 105...		465.80	22626	MDA-D5	5.044	170307					
MDMA	194.1 -> 163...	3/20/2018 8:47 AM	5.184	58320	Infinity		194.1 -> 105...		358.02		194.1 -> 105...		358.02	41389	MDMA-D6	5.183	32603					
Benzylecgonine	290.1 -> 168...	3/20/2018 8:47 AM	5.312	13715	120.70		290.1 -> 105...		881.45		290.1 -> 105...		881.45	9284	Benzylecgonine-D8	5.289	4652					
MDEA	208.1 -> 163...	3/20/2018 8:47 AM	5.344	62385	Infinity		208.1 -> 105...		38.88		208.1 -> 105...		38.88	51780	MDEA-D6	5.323	320577					
Primidone	219.1 -> 91.2	3/20/2018 8:47 AM	5.405	7221	7.18		219.1 -> 162...		54.42		219.1 -> 162...		54.42	4664	Przepam-D5	6.934	519726					
Levamisole	205.1 -> 91.2	3/20/2018 8:47 AM	5.488	32708	36.04		205.1 -> 178...		Infinity		205.1 -> 178...		Infinity	25249	Cocaine-D3	5.861	445432					
Metoprolol	268.2 -> 116...	3/20/2018 8:47 AM	5.539	16497	289.56		268.2 -> 56.3		1255.80		268.2 -> 56.3		1255.80	17936	Meperidine-D4	5.932	215040					
Tapentadol	222.2 -> 107...	3/20/2018 8:47 AM	5.568	102040	Infinity		222.2 -> 121...		Infinity		222.2 -> 121...		Infinity	38833	Tapentadol-D3	5.568	490439					
7-aminoflunitrazepam	284.1 -> 135...	3/20/2018 8:47 AM	5.722	5416	84.93		284.1 -> 93.2		12.36		284.1 -> 93.2		12.36	2452	7-aminoflunitrazepam-D7	5.699	29102					
Methylphenidate	234.2 -> 84.2	3/20/2018 8:47 AM	5.730	197925	125.28		234.2 -> 56.3		378.89		234.2 -> 56.3		378.89	47264	Meperidine-D4	5.932	215040					
Normeperidine	234.1 -> 42.3	3/20/2018 8:47 AM	5.730	51920	155.68		234.1 -> 160...		Infinity		234.1 -> 160...		Infinity	34826	Normeperidine-D4	5.708	179418					
Pentazocine	286.2 -> 218...	3/20/2018 8:47 AM	5.803	77224	122.05		286.2 -> 41.3		113.59		286.2 -> 41.3		113.59	96358	Pentazocine-13C3	5.803	334906					
Cocaine	304.2 -> 182...	3/20/2018 8:47 AM	5.882	97627	19138....		304.2 -> 105...		Infinity		304.2 -> 105...		Infinity	23638	Cocaine-D3	5.861	445432					
Meperidine	248.2 -> 220...	3/20/2018 8:47 AM	5.932	41142	128.68		248.2 -> 174...		79.27		248.2 -> 174...		79.27	24946	Meperidine-D4	5.932	215040					
Phenylethylamine	253.1 -> 104...	3/20/2018 8:47 AM	6.033	2280	Infinity		253.1 -> 182...		9.74		253.1 -> 182...		9.74	2700	Phenylethylamine-D10	6.033	10029					
Phencyclidine	244.2 -> 86.2	3/20/2018 8:47 AM	6.055	134114	3994.71		244.2 -> 91.1		42.50		244.2 -> 91.1		42.50	96266	Phencyclidine-D5	6.034	634777					
Carbamazepine	237.1 -> 193...	3/20/2018 8:47 AM	6.137	18589	67.90		237.1 -> 194...		Infinity		237.1 -> 194...		Infinity	1509...	Carbamazepine-13C6	6.137	805597					
Ondansetron	294.2 -> 184...	3/20/2018 8:47 AM	6.210	67158	85.06		294.2 -> 212...		433.33		294.2 -> 212...		433.33	34549	Pentazocine-13C3	5.803	334906					
Zaleplon	306.1 -> 236...	3/20/2018 8:47 AM	6.228	35098	214.02		306.1 -> 264...		149.64		306.1 -> 264...		149.64	25289	Zaleplon-D4	6.228	128645					
Norpropoxyphene	326.2 -> 44.3	3/20/2018 8:47 AM	6.348	22985	42.14		326.2 -> 252...		643.68		326.2 -> 252...		643.68	7471	Norpropoxyphene-D5	6.347	98003					
Estazolam	295.1 -> 267...	3/20/2018 8:47 AM	6.394	35543	8963.11		295.1 -> 205...		149.73		295.1 -> 205...		149.73	29257	Estazolam-D5	6.392	165526					
Zopiclone	389.1 -> 244...	3/20/2018 8:47 AM	6.425	7713	82.49		389.1 -> 216...		56.97		389.1 -> 216...		56.97	3726	Zopiclone-D4	6.425	84694					
Flunitrazepam	314.1 -> 268...	3/20/2018 8:47 AM	6.432	26941	58.86		314.1 -> 239...		165.55		314.1 -> 239...		165.55	9773	Flunitrazepam-D7	6.410	5165					
Doxepin	280.2 -> 107...	3/20/2018 8:47 AM	6.437	87413	Infinity		280.2 -> 77.2		21.04		280.2 -> 77.2		21.04	30320	Doxepin-D3	6.416	410077					
Protriptyline	264.2 -> 155...	3/20/2018 8:47 AM	6.440	359660	2164.29		264.2 -> 161...		Infinity		264.2 -> 161...		Infinity	32	Nortriptyline-D3	6.561	235908					
alpha-hydroxymidazolam	342.1 -> 324...	3/20/2018 8:47 AM	6.468	34945	242.36		342.1 -> 203...		357.41		342.1 -> 203...		357.41	22321	alpha-hydroxymidazolam...	6.448	189498					
Phenazepam	349.0 -> 206...	3/20/2018 8:47 AM	6.508	35200	828.30		349.0 -> 183...		6553.04		349.0 -> 183...		6553.04	25503	Phenazepam-D4	6.487	11659					
Maprotiline	278.2 -> 91.2	3/20/2018 8:47 AM	6.519	48497	Infinity		278.2 -> 117...		6843.48		278.2 -> 117...		6843.48	29214	Meperidine-D4	5.932	215040					
Desipramine	267.2 -> 72.3	3/20/2018 8:47 AM	6.520	195100	Infinity		267.2 -> 44.3		10634...		267.2 -> 44.3		10634...	90123	Desipramine-D3	6.500	920115					
Propoxyphene	340.2 -> 58.3	3/20/2018 8:47 AM	6.550	175095	2235.43		340.2 -> 266...		5281.24		340.2 -> 266...		5281.24	35721	Propoxyphene-D11	6.507	172596					
Mirtazapine	266.2 -> 195...	3/20/2018 8:47 AM	6.562	142585	1553.98		266.2 -> 72.3		240.31		266.2 -> 72.3		240.31	96380	Midazolam-D4	6.632	243300					
Nortriptyline	264.2 -> 91.2	3/20/2018 8:47 AM	6.562	77124	Infinity		264.2 -> 233...		6012.53		264.2 -> 233...		6012.53	63423	Nortriptyline-D3	6.561	235908					
Verapamil	455.3 -> 165...	3/20/2018 8:47 AM	6.586	138771	25939...		455.3 -> 150...		101.22		455.3 -> 150...		101.22	40660	Trimipramine-D3	6.800	15441...					
Chlordiazepoxide	300.1 -> 227...	3/20/2018 8:47 AM	6.596	24237	Infinity		300.1 -> 282...		23.23		300.1 -> 282...		23.23	10599	Chlordiazepoxide-D5	6.596	176948					
Miltiragynine	399.2 -> 174...	3/20/2018 8:47 AM	6.607	52250	330.50		399.2 -> 238...		3363.08		399.2 -> 238...		3363.08	22168	Carbamazepine-13C6	6.137	805597					
Flurazepam	388.2 -> 315...	3/20/2018 8:47 AM	6.628	109899	22387...		388.2 -> 317...		82.21		388.2 -> 317...		82.21	25940	Zopiclone-D4	6.425	84694					
Midazolam	326.1 -> 223...	3/20/2018 8:47 AM	6.633	16226	183.04		326.1 -> 249...		172.82		326.1 -> 249...		172.82	14409	Midazolam-D4	6.632	243300					
Imipramine	281.2 -> 86.2	3/20/2018 8:47 AM	6.680	278318	1198.70		281.2 -> 58.3		1051.46		281.2 -> 58.3		1051.46	1587...	Imipramine-D3	6.659	808557					
Amoxapine	314.1 -> 271...	3/20/2018 8:47 AM	6.695	33579	Infinity		314.1 -> 193...		Infinity		314.1 -> 193...		Infinity	19194	Amiripramine-D3	6.740	368732					
Amitriptyline	278.2 -> 91.2	3/20/2018 8:47 AM	6.762	119127	99.40		278.2 -> 105...		Infinity		278.2 -> 105...		Infinity	62923	Amitriptyline-D3	6.740	368732					
Trimipramine	295.2 -> 100...	3/20/2018 8:47 AM	6.820	321564	5249.86		295.2 -> 58.3		516.49		295.2 -> 58.3		516.49	1897...	Trimipramine-D3	6.800	15441...					
Przepam	325.1 -> 271...	3/20/2018 8:47 AM	6.936	113713	323.64		325.1 -> 140...		135.81		325.1 -> 140...		135.81	29968	Przepam-D5	6.934	519726					
Clomipramine	315.2 -> 86.2	3/20/2018 8:47 AM	7.060	217401	162.55		315.2 -> 58.3		Infinity		315.2 -> 58.3		Infinity	1310...	Clomipramine-D3	7.038	11389...					

8

ok reports with minor errors

A

Compound Method			p2 external control			p2 external control Results			Qualifier 1 M...			Qualifier 1 Results			ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	S/N	MI	Transition	MI	S/N	Area	Name	RT	Resp.	Area	Name	RT	Resp.	
7-aminoflunitrazepam	284.1 -> 135...	3/19/2018 3:17 PM					284.1 -> 93.2				7-aminoflunitrazepam-D7	5.679	31586					
alpha-hydroxymidazolam	342.1 -> 324...	3/19/2018 3:17 PM					342.1 -> 203...				alpha-hydroxymidazolam-...	6.448	189255					
Amitriptyline	278.2 -> 91.2	3/19/2018 3:17 PM	6.762	10509...	Infinity		278.2 -> 105...		Infini...	5318...	Amitriptyline-D3	6.740	358113					
Amoxapine	314.1 -> 271...	3/19/2018 3:17 PM					314.1 -> 193...				Amitriptyline-D3	6.740	358113					
Benzoyllecgonine	290.1 -> 168...	3/19/2018 3:17 PM					290.1 -> 105...				Benzoyllecgonine-D8	5.289	3657					
Carbamazepine	337.1 -> 193...	3/19/2018 3:17 PM					237.1 -> 194...				Carbamazepine-13C6	6.116	516305					
Chlordiazepoxide	300.1 -> 227...	3/19/2018 3:17 PM					300.1 -> 282...				Chlordiazepoxide-D5	6.596	163769					
Clomipramine	315.2 -> 86.2	3/19/2018 3:17 PM					315.2 -> 58.3				Clomipramine-D3	7.038	10995...					
Cocaine	304.2 -> 182...	3/19/2018 3:17 PM					304.2 -> 105...				Cocaine-D3	5.861	447798					
Desipramine	267.2 -> 72.3	3/19/2018 3:17 PM	6.561	101972	Infinity		267.2 -> 47.2		88.14	14300	Desipramine-D3	6.500	897314					
Doxepin	280.2 -> 107...	3/19/2018 3:17 PM					280.2 -> 77.2				Doxepin-D3	6.437	413398					
Estazolam	295.1 -> 267...	3/19/2018 3:17 PM					295.1 -> 205...				Estazolam-D5	6.392	166231					
Flunitrazepam	314.1 -> 268...	3/19/2018 3:17 PM					314.1 -> 239...				Flunitrazepam-D7	6.410	5861					
Flurazepam	388.2 -> 315...	3/19/2018 3:17 PM					388.2 -> 317...				Zopiclone-D4	6.425	79115					
Imipramine	281.2 -> 86.2	3/19/2018 3:17 PM					281.2 -> 58.3				Imipramine-D3	6.659	781088					
Levamisole	205.1 -> 91.2	3/19/2018 3:17 PM					205.1 -> 178...				Cocaine-D3	5.861	447798					
Maprotiline	278.2 -> 91.2	3/19/2018 3:17 PM					278.2 -> 117...				Meperidine-D4	5.912	214360					
MDA	180.1 -> 163...	3/19/2018 3:17 PM					180.1 -> 105...				MDA-D5	5.044	166372					
MDEA	208.1 -> 163...	3/19/2018 3:17 PM					208.1 -> 105...				MDEA-D6	5.343	298901					
MDMA	194.1 -> 163...	3/19/2018 3:17 PM					194.1 -> 105...				MDMA-D6	5.183	34443					
Meperidine	248.2 -> 220...	3/19/2018 3:17 PM					248.2 -> 174...				Meperidine-D4	5.912	214360					
Methyphenidate	234.2 -> 84.2	3/19/2018 3:17 PM					234.2 -> 56.3				Meperidine-D4	5.912	214360					
Metoprolol	268.2 -> 116...	3/19/2018 3:17 PM					268.2 -> 56.3				Meperidine-D4	5.912	214360					
Midazolam	326.1 -> 223...	3/19/2018 3:17 PM					326.1 -> 249...				Midazolam-D4	6.632	236238					
Mirtazapine	266.2 -> 195...	3/19/2018 3:17 PM	6.562	13053...	4765.27		266.2 -> 72.3		Infini...	8969...	Midazolam-D4	6.632	236238					
Mitragynine	399.2 -> 174...	3/19/2018 3:17 PM					399.2 -> 238...				Carbamazepine-13C6	6.116	516305					
Normeperidine	234.1 -> 42.3	3/19/2018 3:17 PM					234.1 -> 160...				Normeperidine-D4	5.708	165810					
Norpropoxyphene	326.2 -> 44.3	3/19/2018 3:17 PM					326.2 -> 252...				Norpropoxyphene-D5	6.347	88234					
Notriptyline	264.2 -> 91.2	3/19/2018 3:17 PM					264.2 -> 233...				Notriptyline-D3	6.561	224140					
Ondansetron	294.2 -> 184...	3/19/2018 3:17 PM					294.2 -> 212...				Pentazocine-13C3	5.803	327375					
Pentazocine	286.2 -> 218...	3/19/2018 3:17 PM					286.2 -> 41.3				Pentazocine-13C3	5.803	327375					
Phenazepam	349.0 -> 206...	3/19/2018 3:17 PM					349.0 -> 183...				Phenazepam-D4	6.507	12692					
Phencyclidine	244.2 -> 86.2	3/19/2018 3:17 PM					244.2 -> 91.1				Phencyclidine-D5	6.054	606405					
Phenytol	253.1 -> 104...	3/19/2018 3:17 PM	5.911	2354	5.78		253.1 -> 182...				Phenytol-D10	6.033	9976					
Praxepam	325.1 -> 271...	3/19/2018 3:17 PM					325.1 -> 140...				Praxepam-D5	6.934	530114					
Primidone	219.1 -> 91.2	3/19/2018 3:17 PM					219.1 -> 162...				Praxepam-D5	6.934	530114					
Propoxyphene	340.2 -> 58.3	3/19/2018 3:17 PM					340.2 -> 266...				Propoxyphene-D11	6.507	162243					
Protriptyline	264.2 -> 155...	3/19/2018 3:17 PM					264.2 -> 161...				Notriptyline-D3	6.561	224140					
Pseudoephedrine	166.1 -> 148...	3/19/2018 3:17 PM					166.1 -> 133...				Pseudoephedrine-D3	4.680	255682					
Tapentadol	222.2 -> 107...	3/19/2018 3:17 PM					222.2 -> 121...				Tapentadol-D3	5.568	488788					
Trimipramine	295.2 -> 100...	3/19/2018 3:17 PM					295.2 -> 58.3				Trimipramine-D3	6.800	14527...					
Verapamil	455.3 -> 165...	3/19/2018 3:17 PM					455.3 -> 150...				Trimipramine-D3	6.800	14527...					
Zaleplon	306.1 -> 236...	3/19/2018 3:17 PM					306.1 -> 264...				Zaleplon-D4	6.228	108117					
Zopiclone	389.1 -> 244...	3/19/2018 3:17 PM					389.1 -> 216...				Zopiclone-D4	6.425	79115					

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

Extraction Date: 3-19-18

Analyst: Anne Nord

Plate lot#: 0515037

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 *Pipette K52558g +*
  - 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: 03192018 blood screen AM25-26 Batch Name: 31918 can 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

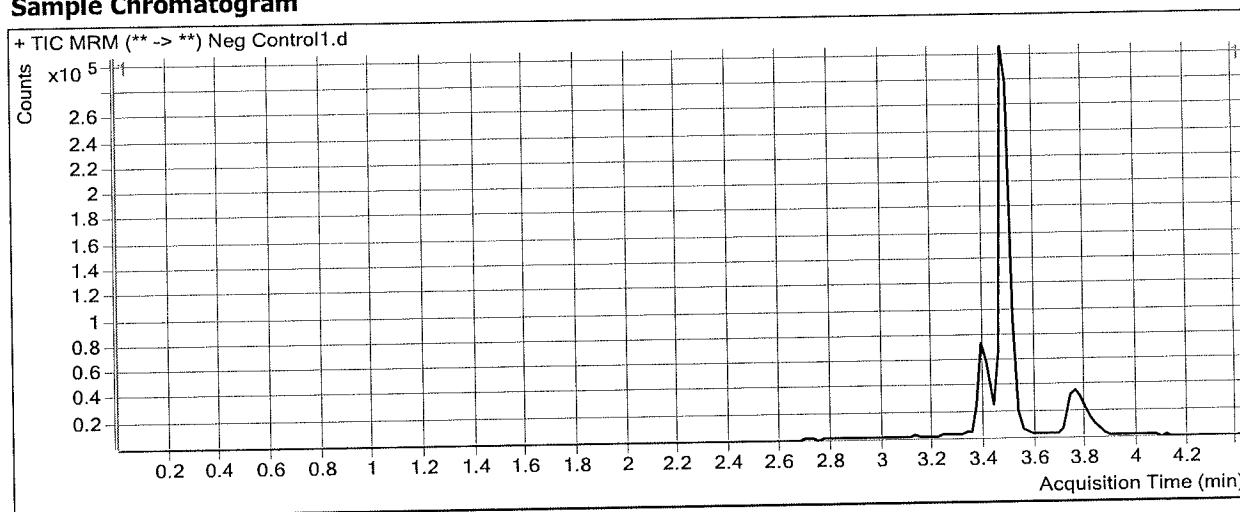
## Cannabinoid Screen Report

Batch Data Path D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
Analysis Time 3/20/2018 1:34 PM Analyst Name ISP Tox  
Report Time 3/20/2018 1:36 PM Reporter Name ISP Tox  
Last Calib Update 3/20/2018 1:34 PM Batch State Processed

### Analysis Info

Acq Time 2018-03-19 13:27 Data File Neg Control1.d  
Sample Type Sample Sample Name Neg Control  
Dilution 1 Acq Method Screen THC 8-2017.m  
Position P1-h3 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-COOH	3.386	7591	242837	0.0313	0.0000

# ISP FORENSICS - Cd'A

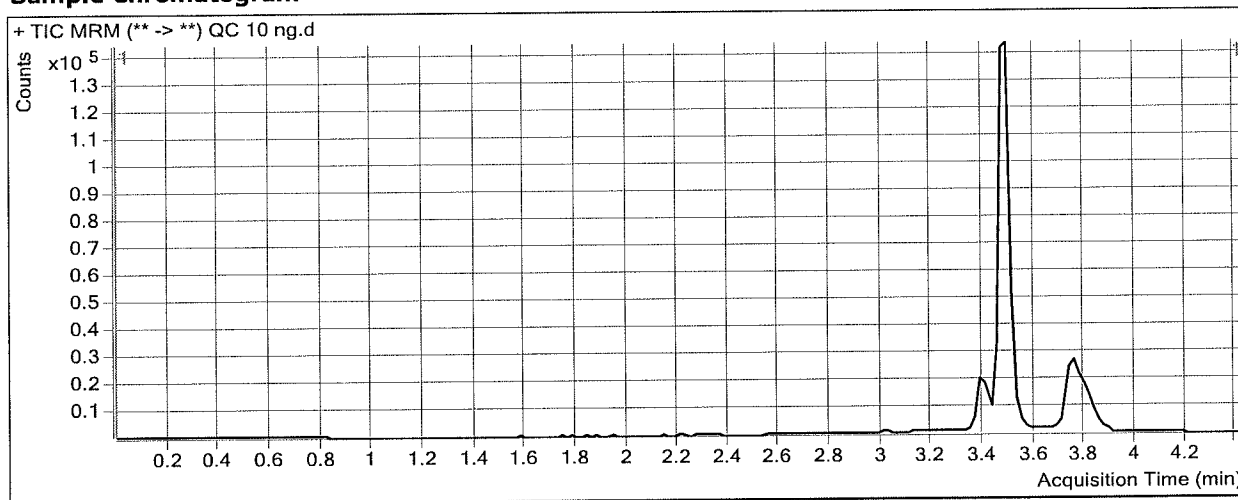
## Cannabinoid Screen Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
**Analysis Time** 3/20/2018 1:34 PM **Analyst Name** ISP Tox  
**Report Time** 3/20/2018 1:36 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/20/2018 1:34 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2018-03-19 11:41 **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

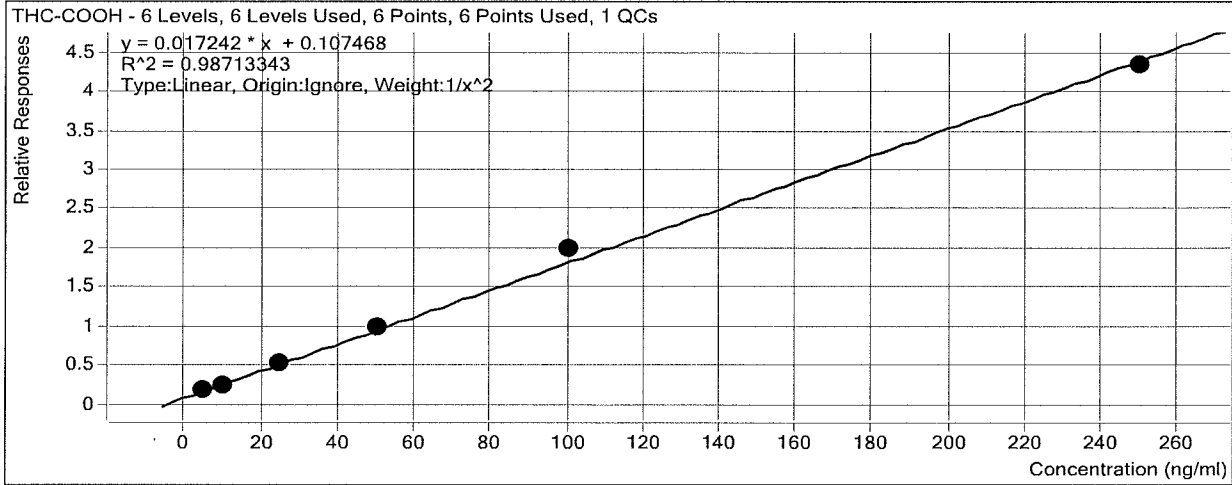
Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-COOH	3.406	18341	48600	0.3774	15.6543
THC-OH	3.493	37141	401888	0.0924	9.4132
THC	3.820	2198	18835	0.1167	9.4445

# ISP Forensics Calibration Curve Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin

**Last Calib Update** 3/20/2018 1:34 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	5.4	107.8
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	8.4	83.7
QC 10 ng	3	<input checked="" type="checkbox"/>	10	15.7	156.5
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	24.7	98.8
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	50.9	101.8
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	109.8	109.8
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	245.4	98.2

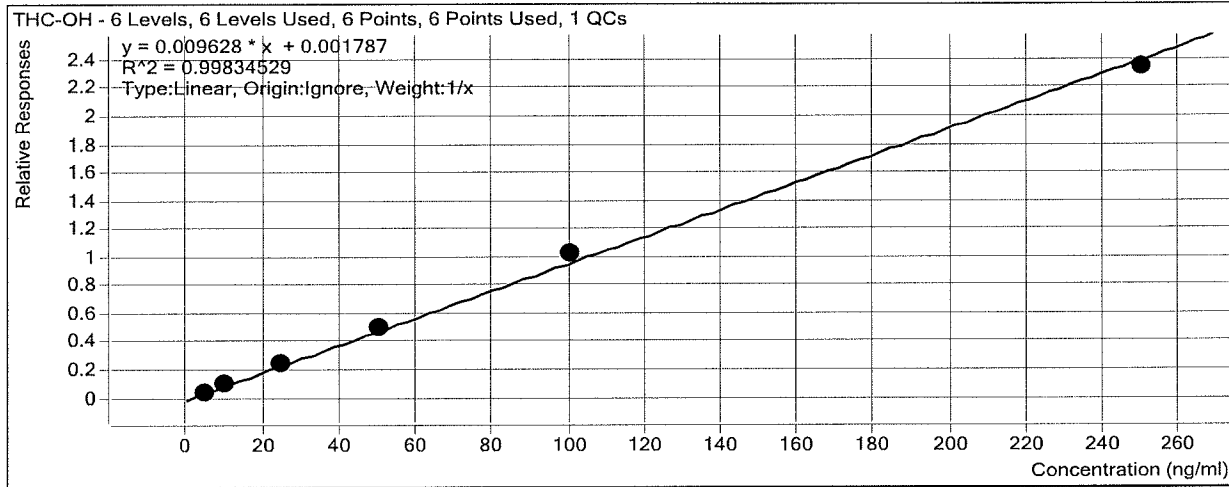


# ISP Forensics Calibration Curve Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin

**Last Calib Update** 3/20/2018 1:34 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	4.7	94.9
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	10.0	100.2
QC 10 ng	3	<input checked="" type="checkbox"/>	10	9.4	94.1
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	24.8	99.1
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	51.3	102.5
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	105.9	105.9
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	243.3	97.3

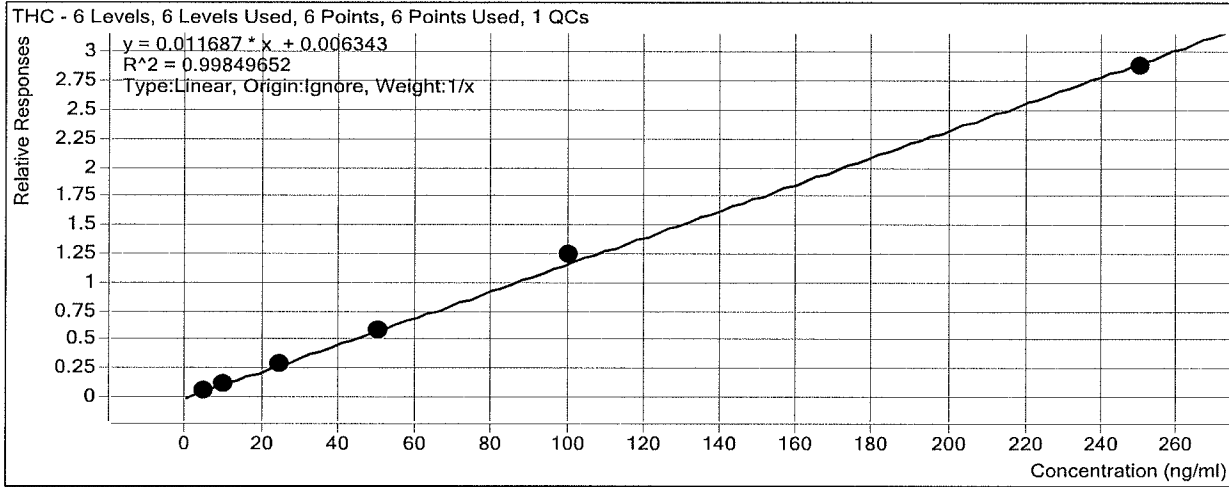
# ISP Forensics Calibration Curve Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin

**Last Calib Update** 3/20/2018 1:34 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	5.3	105.3
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	9.7	96.5
QC 10 ng	3	<input checked="" type="checkbox"/>	10	9.4	94.4
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	23.9	95.7
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	49.0	98.1
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	106.0	106.0
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	246.1	98.4

# ISP FORENSICS - Cd'A

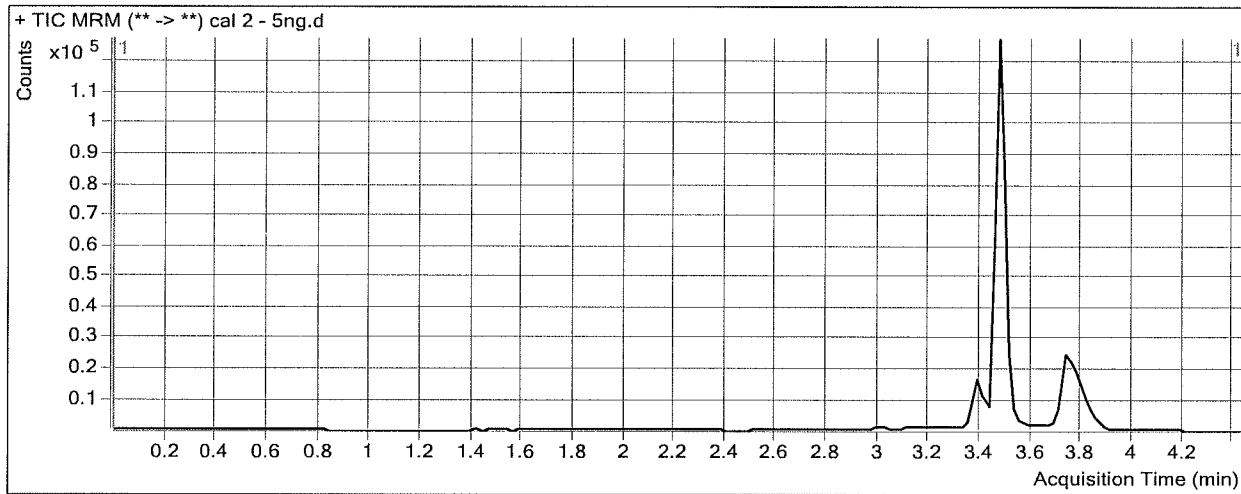
## Cannabinoid Screen Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
**Analysis Time** 3/20/2018 1:34 PM **Analyst Name** ISP Tox  
**Report Time** 3/20/2018 1:36 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/20/2018 1:34 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2018-03-19 10:48 **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-COOH	3.386	9110	45460	0.2004	5.3890
THC-OH	3.473	16014	337350	0.0475	4.7449
THC	3.820	1028	15142	0.0679	5.2643

# ISP FORENSICS - Cd'A

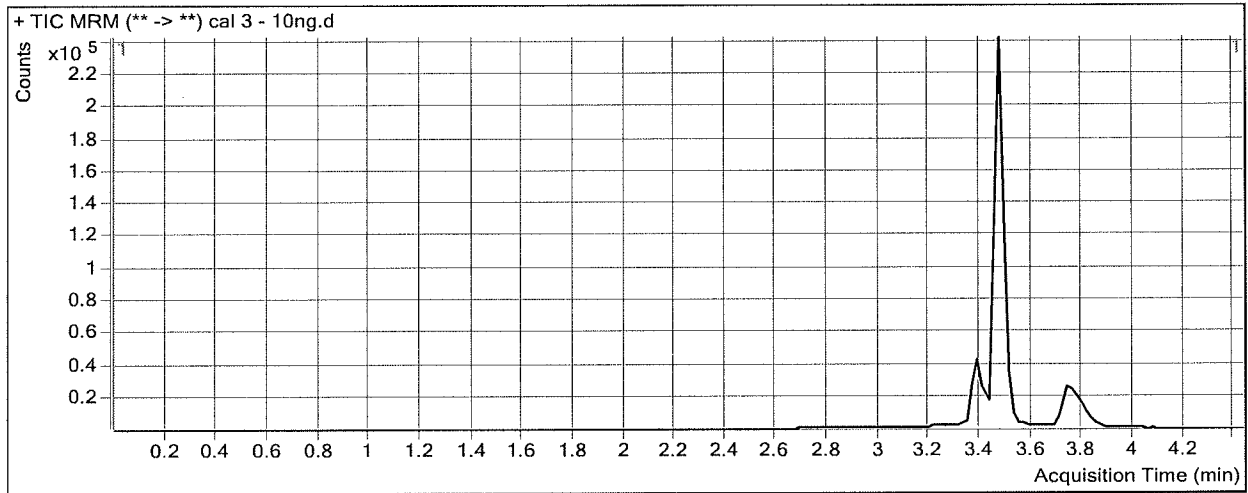
## Cannabinoid Screen Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
**Analysis Time** 3/20/2018 1:34 PM **Analyst Name** ISP Tox  
**Report Time** 3/20/2018 1:36 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/20/2018 1:34 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2018-03-19 10:55 **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-COOH	3.386	26472	105163	0.2517	8.3665
THC-OH	3.473	56926	579109	0.0983	10.0243
THC	3.820	1964	16482	0.1191	9.6514

# ISP FORENSICS - Cd'A

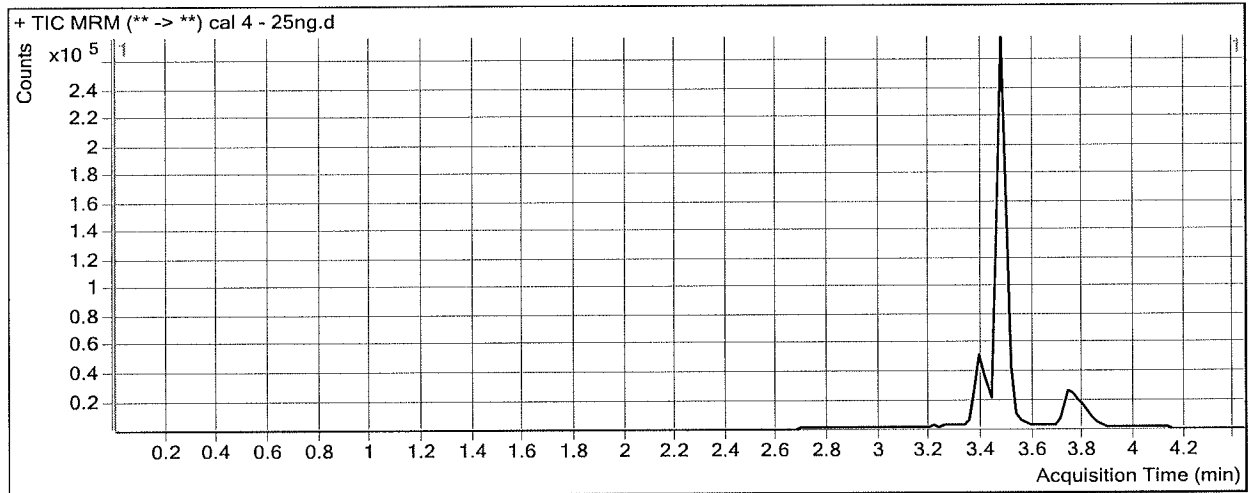
## Cannabinoid Screen Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
**Analysis Time** 3/20/2018 1:34 PM **Analyst Name** ISP Tox  
**Report Time** 3/20/2018 1:36 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/20/2018 1:34 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2018-03-19 11:02 **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-COOH	3.386	52678	98803	0.5332	24.6889
THC-OH	3.473	139899	581912	0.2404	24.7850
THC	3.820	4680	16370	0.2859	23.9166

# ISP FORENSICS - Cd'A

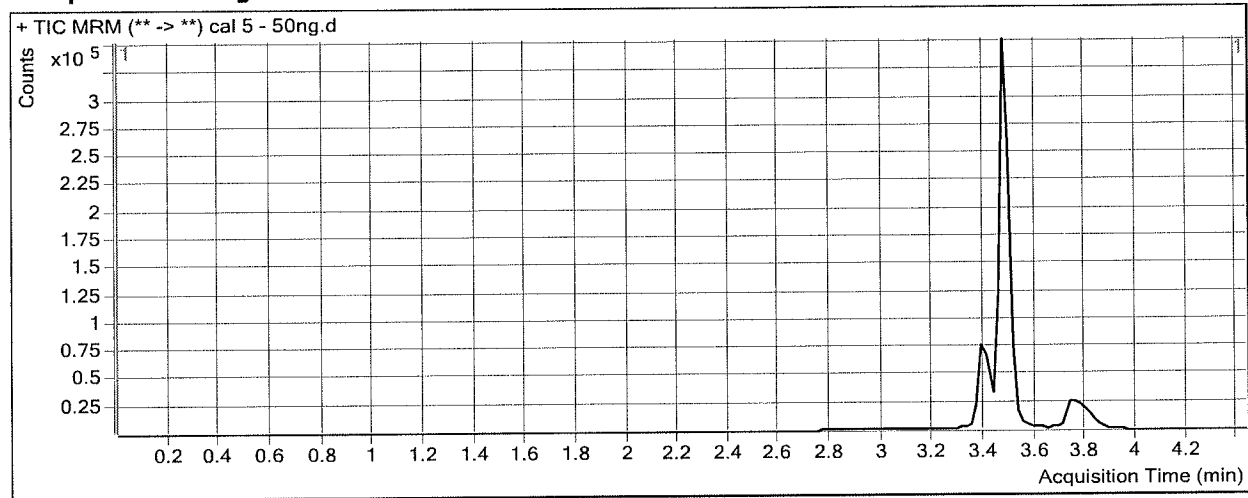
## Cannabinoid Screen Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
**Analysis Time** 3/20/2018 1:34 PM **Analyst Name** ISP Tox  
**Report Time** 3/20/2018 1:36 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/20/2018 1:34 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2018-03-19 11:08 **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-COOH	3.406	109280	110911	0.9853	50.9108
THC-OH	3.473	305608	616981	0.4953	51.2620
THC	3.820	10176	17566	0.5793	49.0259

# ISP FORENSICS - Cd'A

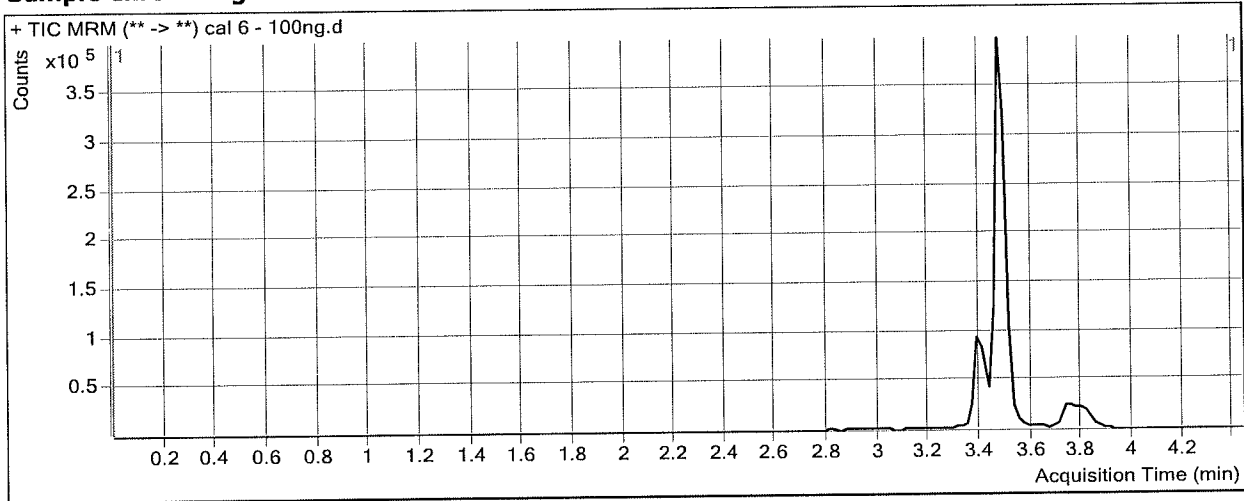
## Cannabinoid Screen Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
**Analysis Time** 3/20/2018 1:34 PM **Analyst Name** ISP Tox  
**Report Time** 3/20/2018 1:36 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/20/2018 1:34 PM **Batch State** Processed

### Analysis Info

<b>Acq Time</b>	2018-03-19 11:15	<b>Data File</b>	cal 6 - 100ng.d
<b>Sample Type</b>	Calibration	<b>Sample Name</b>	cal 6 - 100ng
<b>Dilution</b>	1	<b>Acq Method</b>	Screen THC 8-2017.m
<b>Position</b>	P1-F1	<b>Sample Info</b>	
<b>Inj Vol</b>	-1	<b>Comment</b>	AM 26 Cannabinoid screen

### Sample Chromatogram



### Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-COOH	3.406	173073	86487	2.0012	109.8276
THC-OH	3.473	534317	523296	1.0211	105.8675
THC	3.820	20185	16205	1.2456	106.0396

# ISP FORENSICS - Cd'A

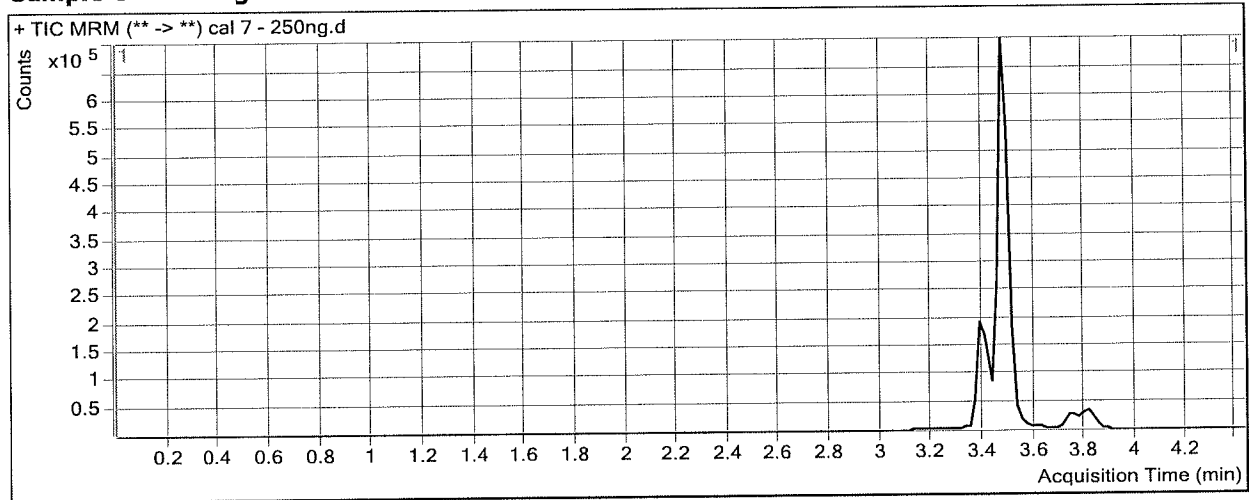
## Cannabinoid Screen Report

**Batch Data Path** D:\2018 Data\03192018 blood screen AM 25-26\QuantResults\31918 cann screen.batch.bin  
**Analysis Time** 3/20/2018 1:34 PM **Analyst Name** ISP Tox  
**Report Time** 3/20/2018 1:36 PM **Reporter Name** ISP Tox  
**Last Calib Update** 3/20/2018 1:34 PM **Batch State** Processed

### Analysis Info

**Acq Time** 2018-03-19 11:28 **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-COOH	3.386	401921	92644	4.3383	245.3760
THC-OH	3.473	1295021	552390	2.3444	243.3162
THC	3.820	52584	18243	2.8825	246.1021