

Bylee

Worklist: 1892

<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>	
C2017-1623	1	92452	AM 25/AM 26 Blood MultiDrug/	
C2017-1676	1	92810	AM 25/AM 26 Blood MultiDrug/	
C2017-1703	1	93042	AM 25/AM 26 Blood MultiDrug/	
C2017-1719	1	93201	AM 25/AM 26 Blood MultiDrug/	
C2017-1720	1	93203	AM 25/AM 26 Blood MultiDrug/	
C2017-1738	1	93440	AM 25/AM 26 Blood MultiDrug/	
C2017-1758	1	93596	AM 25/AM 26 Blood MultiDrug/	
C2017-1759	1	93599	AM 25/AM 26 Blood MultiDrug/	
C2017-1760	1	93601	AM 25/AM 26 Blood MultiDrug/	
C2017-1761	1	93644	AM 25/AM 26 Blood MultiDrug/	
C2017-1766	1	93682	AM 25/AM 26 Blood MultiDrug/	
C2017-1767	1	93684	AM 25/AM 26 Blood MultiDrug/	
C2017-1774	1	93750	AM 25/AM 26 Blood MultiDrug/	
C2017-1775	1	93753	AM 25/AM 26 Blood MultiDrug/	
C2017-1808	1	93973	AM 25/AM 26 Blood MultiDrug/	
C2017-1821	1	94203	AM 25/AM 26 Blood MultiDrug/	
C2017-1822	1	94205	AM 25/AM 26 Blood MultiDrug/	
C2017-1823	1	94207	AM 25/AM 26 Blood MultiDrug/	
C2017-1825	1	94337	AM 25/AM 26 Blood MultiDrug/	
M2017-2649	1	88836	AM 25/AM 26 Blood MultiDrug/	
M2017-3654	1	94811	AM 25/AM 26 Blood MultiDrug/	
M2017-3719	1	94813	AM 25/AM 26 Blood MultiDrug/	
M2017-3741	1	94727	AM 25/AM 26 Blood MultiDrug/	



Worklist: 1892

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
M2017-3801	3	92837	AM 25/AM 26 Blood MultiDrug/	
M2017-3805	2	92812	AM 25/AM 26 Blood MultiDrug/	
M2017-3811	4	94728	AM 25/AM 26 Blood MultiDrug/	
M2017-3889	2	93249	AM 25/AM 26 Blood MultiDrug/	
M2017-3900	2	94812	AM 25/AM 26 Blood MultiDrug/	
M2017-3999	1	94367	AM 25/AM 26 Blood MultiDrug/	
P2017-2014	1	93087	AM 25/AM 26 Blood MultiDrug/	



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

Extraction Date: 9-12-17

Analyst: Anne Nord

PRE-ANALYTIC

Plate Lot# 0495940

Plate. Exp. 12-12-2017

1. Ensure all solutions are within expiration date.

Mobile Phase A:
10mM Amm Formate
Mobile Phase B
0.1% FA in MeOH
Blank/Negative Blood

0.5M Ammonium Hydroxide Lot #: 61417
Column: **Phenomenex Phenyl Hexyl (4.6 x 50mm; 2.6um)**

Lot #: 321623-1

2. Check levels of mobile phases and needle wash and refill as necessary. Ensure waste is not full.
 3. Begin mobile phase flow and allow system to equilibrate for approx. 30 min.
 4. Create worklist. Data path name: 91217 blood screen Am 25-26

ANALYTIC

1. Remove standards plate, blood, and samples from cold storage. Allow to reach room temperature.
 2. Pipette **250µL blood** in wells of analytical (standards) plate. Mix via aspirate and dispense.
 • 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 **250µL 0.5M ammonium hydroxide** buffer in wells of analytical (standards) 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 min.
 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 ID 66819
 13. Reconstitute in **100µL 100% 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: 91217 mds p1
 2. Make any necessary integration changes.
 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% rt of administrative control. > 1/10 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:

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: 9/21/17 lot 92117

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 in 9900 ul blood lot 62117
ppd 3/21/17 Exp 6/21/17 by AMN Concentration 100ng/ml amitriptyline, codeine, diphenhydramine, mirtazapine
200/ng/ml morphine

ppd 6-26-17 Exp 9-21-17 by AMN lot 92117

Compound Method		p1 external control		p1 external control Results		Qualifier 1 M...		Qualifier 1 R...		ISTD Method		ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.
Sertraline	306.1 -> 158..	9/12/2017 6:20 PM	6.588	125		0.89	306.1 -> 275..		4.10	Sertraline-D3	309.1 -> 275...	6.667	322880
Sufentanil	387.2 -> 238..	9/12/2017 6:20 PM	6.699	1246		4.18	387.2 -> 111..		8.53	Sufentanil-D5	392.2 -> 238...	6.679	898546
Temazepam	301.1 -> 255..	9/12/2017 6:20 PM	6.405	572		2.61	301.1 -> 283..		12.24	Temazepam-D5	306.1 -> 260...	6.527	409178
Tramadol	264.2 -> 58.3	9/12/2017 6:20 PM	5.575	4786		4.12	264.2 -> 43.3			Tramadol-13C-D3	268.2 -> 58.3	5.554	10605...
Trazodone	372.2 -> 176..	9/12/2017 6:20 PM	6.761	1894		1.44	372.2 -> 148..		2.72	Trazodone-D6	378.2 -> 182...	6.761	11791...
Venlafaxine	278.2 -> 58.3	9/12/2017 6:20 PM	5.920	126		0.27	278.2 -> 260..		50.50	Venlafaxine-D6	284.2 -> 64.3	5.919	10384...
Zolpidem	308.2 -> 235..	9/12/2017 6:20 PM	6.587	1591		4.85	308.2 -> 263..		1.61	Zolpidem-D6	314.2 -> 235...	6.362	11535...

Compound Method			p1 cal 1-2a				p1 cal 1-2a Results				Qualifier 1 M...			Qualifier 1 R...			ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.					
6-MAM	328.2 -> 165...	9/12/2017 5:41 PM	5.239	880	880	Infinity	328.2 -> 211...	880	Infinity	328.2 -> 211...	880	Infinity	6-MAM-D6	334.2 -> 165...	5.219	54018					
7-aminoclonazepam	286.1 -> 121...	9/12/2017 5:41 PM	5.572	24147	24147	157.43	286.1 -> 222...	24147	157.43	286.1 -> 222...	24147	38.45	7-Aminoclonazepam-D4	290.1 -> 121...	5.571	105110					
Acetyl Fentanyl	323.2 -> 105...	9/12/2017 5:41 PM	6.115	27245	27245	20.90	323.2 -> 188...	27245	20.90	323.2 -> 188...	27245	32.55	Acetyl Fentanyl-D5	328.2 -> 105...	6.093	1582287					
Acetyl Norfentanyl	219.1 -> 84.2	9/12/2017 5:41 PM	5.010	9292	9292	30.53	219.1 -> 56.3	9292	30.53	219.1 -> 56.3	9292	7.06	Acetyl Norfentanyl-D5	224.2 -> 84.2	4.989	460659					
a-hydroxyalprazolam	325.1 -> 297...	9/12/2017 5:41 PM	6.399	8691	8691	23.06	325.1 -> 215...	8691	23.06	325.1 -> 215...	8691	39.11	a-hydroxyalprazolam-D5	330.1 -> 302...	6.398	40810					
alpha-PVP	232.2 -> 91.0	9/12/2017 5:41 PM	5.763	129339	129339	19800.45	232.2 -> 77.1	129339	19800.45	232.2 -> 77.1	129339	51.69	alpha-PVP-d8	240.2 -> 91.1	5.721	592821					
Alprazolam	309.1 -> 281...	9/12/2017 5:41 PM	6.485	59382	59382	2395.45	309.1 -> 205...	59382	2395.45	309.1 -> 205...	59382	188.61	Alprazolam-D5	314.1 -> 286...	6.484	243948					
Amphetamine	136.1 -> 91.1	9/12/2017 5:41 PM	4.952	132300	132300	26.77	136.1 -> 119...	132300	26.77	136.1 -> 119...	132300	13.01	Amphetamine-D11	147.2 -> 130...	4.911	127001					
Bupropion	240.1 -> 184...	9/12/2017 5:41 PM	5.966	126407	126407	10636.06	240.1 -> 131...	126407	10636.06	240.1 -> 131...	126407	72.58	Bupropion-D9	249.2 -> 185...	5.945	598643					
Carisoprodol	261.2 -> 176...	9/12/2017 5:41 PM	6.147	69656	69656	193.84	261.2 -> 55.3	69656	193.84	261.2 -> 55.3	69656	59.28	Carisoprodol-D7	268.2 -> 183...	6.126	424234					
Citalopram	325.2 -> 109...	9/12/2017 5:41 PM	6.176	232246	232246	107.63	325.2 -> 262...	232246	107.63	325.2 -> 262...	232246	168.73	Citalopram-D6	331.2 -> 109...	6.175	1073730					
Clonazepam	316.1 -> 269...	9/12/2017 5:41 PM	6.341	24613	24613	57.77	316.1 -> 213...	24613	57.77	316.1 -> 213...	24613	26.33	Clonazepam-D4	320.1 -> 217...	6.340	32433					
Codeine	300.2 -> 215...	9/12/2017 5:41 PM	5.204	10919	10919	74.66	300.2 -> 165...	10919	74.66	300.2 -> 165...	10919	2484.67	Codeine-D6	306.2 -> 218...	5.161	36552					
Cyclobenzaprine	276.2 -> 214...	9/12/2017 5:41 PM	6.491	123287	123287	891.68	276.2 -> 231...	123287	891.68	276.2 -> 231...	123287	55.19	Cyclobenzaprine-D3	279.2 -> 215...	6.490	569032					
Dextromethorphan	272.2 -> 171...	9/12/2017 5:41 PM	6.248	58106	58106	7925.66	272.2 -> 147...	58106	7925.66	272.2 -> 147...	58106	39.65	Dextromethorphan-D3	275.2 -> 171...	6.248	284911					
Dextropropriphan	258.2 -> 157...	9/12/2017 5:41 PM	5.556	46173	46173	342.02	258.2 -> 133...	46173	342.02	258.2 -> 133...	46173	76.62	Dextropropriphan-D3	261.2 -> 157...	5.555	256835					
Diazepam	285.1 -> 193...	9/12/2017 5:41 PM	6.711	47371	47371	94.83	285.1 -> 153...	47371	94.83	285.1 -> 153...	47371	79.52	Diazepam-D5	290.1 -> 198...	6.690	200904					
Dihydrocodeine	302.2 -> 198...	9/12/2017 5:41 PM	5.019	25429	25429	103.17	302.2 -> 128...	25429	103.17	302.2 -> 128...	25429	23.17	Dihydrocodeine-D6	308.2 -> 202...	4.977	138452					
Diphenhydramine	256.2 -> 167...	9/12/2017 5:41 PM	6.148	287734	287734	1367.00	256.2 -> 152...	287734	1367.00	256.2 -> 152...	287734	134.98	Diphenhydramine-D3	259.2 -> 167...	6.148	1563069					
Doxylamine	271.2 -> 182...	9/12/2017 5:41 PM	5.819	268041	268041	241.44	271.2 -> 167...	268041	241.44	271.2 -> 167...	268041	505.08	Doxylamine-D5	276.2 -> 187...	5.798	1357535					
EDDP	279.2 -> 235...	9/12/2017 5:41 PM	6.185	135445	135445	22756.79	279.2 -> 250...	135445	22756.79	279.2 -> 250...	135445	42.46	EDDP-D3	282.2 -> 235...	6.184	57116					
Fentanyl	337.2 -> 105...	9/12/2017 5:41 PM	6.316	31367	31367	41.49	337.2 -> 188...	31367	41.49	337.2 -> 188...	31367	477.07	Fentanyl-D5	342.3 -> 105...	6.296	1580269					
Fluoxetine	310.1 -> 44.3	9/12/2017 5:41 PM	6.403	322271	322271	285.81	310.1 -> 148...	322271	285.81	310.1 -> 148...	322271	52.03	Oxycodone-D6	322.2 -> 304...	5.139	274178					
Hydrocodone	300.2 -> 198...	9/12/2017 5:41 PM	5.366	33067	33067	Infinity	300.2 -> 128...	33067	Infinity	300.2 -> 128...	33067	83.58	Hydrocodone-D6	306.2 -> 202...	5.344	215490					
Hydromorphone	286.2 -> 184...	9/12/2017 5:41 PM	4.779	19806	19806	57.26	286.2 -> 157...	19806	57.26	286.2 -> 157...	19806	48.70	Hydromorphone-D6	292.2 -> 185...	4.738	67662					
Ketamine	238.1 -> 125...	9/12/2017 5:41 PM	5.885	88499	88499	91.46	238.1 -> 220...	88499	91.46	238.1 -> 220...	88499	12.71	Ketamine-D4	242.1 -> 129...	5.863	375770					
Meprobamate	219.1 -> 158...	9/12/2017 5:41 PM	5.641	18328	18328	37.49	219.1 -> 97.1	18328	37.49	219.1 -> 97.1	18328	17.63	Meprobamate-D7	226.2 -> 165...	5.641	107265					
Methadone	310.2 -> 265...	9/12/2017 5:41 PM	6.484	261443	261443	641.42	310.2 -> 105...	261443	641.42	310.2 -> 105...	261443	191.51	Methadone-D9	319.3 -> 288...	6.483	1388099					
Methamphetamine	150.1 -> 91.1	9/12/2017 5:41 PM	5.153	93472	93472	Infinity	150.1 -> 119...	93472	Infinity	150.1 -> 119...	93472	Infinity	Methamphetamine-D11	161.2 -> 97.1	5.092	259308					
Morphine	286.2 -> 201...	9/12/2017 5:41 PM	4.498	4435	4435	20.40	286.2 -> 165...	4435	20.40	286.2 -> 165...	4435	12.53	Morphine-D6	292.2 -> 152...	4.437	2802					
Naloxone	328.2 -> 309...	9/12/2017 5:41 PM	5.505	27046	27046	16.99	328.2 -> 211...	27046	16.99	328.2 -> 211...	27046	3670.99	Naloxone-D5	333.2 -> 315...	5.422	217993					
Naltrexol	344.2 -> 326...	9/12/2017 5:41 PM	5.116	100286	100286	393.71	344.2 -> 308...	100286	393.71	344.2 -> 308...	100286	42.20	Naltrexol-D3	347.2 -> 329...	5.095	360554					
Naltrexone	342.2 -> 324...	9/12/2017 5:41 PM	5.258	52482	52482	124.74	342.2 -> 55.3	52482	124.74	342.2 -> 55.3	52482	36.36	Naltrexone-D3	345.2 -> 327...	5.217	243096					
Norbuprenorphine	414.3 -> 101...	9/12/2017 5:41 PM	5.969	6766	6766	76.49	414.3 -> 57.3	6766	76.49	414.3 -> 57.3	6766	130.01	Norbuprenorphine-D3	417.3 -> 101...	5.968	36411					
Nordiazepam	271.1 -> 140...	9/12/2017 5:41 PM	6.574	27466	27466	439.77	271.1 -> 208...	27466	439.77	271.1 -> 208...	27466	42.78	Nordiazepam-D5	276.1 -> 140...	6.552	90539					
Norfentanyl	233.2 -> 84.2	9/12/2017 5:41 PM	5.456	151652	151652	1847.11	233.2 -> 55.3	151652	1847.11	233.2 -> 55.3	151652	109.55	Norfentanyl-D5	238.2 -> 84.2	5.456	666435					
Norhydrocodone	286.2 -> 199...	9/12/2017 5:41 PM	5.124	2526	2526	330.08	286.2 -> 171...	2526	330.08	286.2 -> 171...	2526	159.42	Norhydrocodone-D3	289.2 -> 202...	5.103	64627					
Noroxycodone	302.1 -> 284...	9/12/2017 5:41 PM	5.020	22762	22762	30.66	302.1 -> 186...	22762	30.66	302.1 -> 186...	22762	36.14	Noroxycodone-D3	305.2 -> 287...	5.019	131512					
O-desmethyl-tramadol	250.2 -> 58.3	9/12/2017 5:41 PM	5.047	193602	193602	Infinity	250.2 -> 42.3	193602	Infinity	250.2 -> 42.3	193602	43.25	O-desmethyl-tramadol-...	256.2 -> 64.3	5.026	859413					
Oxazepam	287.1 -> 240...	9/12/2017 5:41 PM	6.406	22312	22312	19.15	287.1 -> 268...	22312	19.15	287.1 -> 268...	22312	Infinity	Oxazepam-D5	292.1 -> 246...	6.386	119853					
Oxycodone	316.2 -> 298...	9/12/2017 5:41 PM	5.180	55632	55632	45.22	316.2 -> 241...	55632	45.22	316.2 -> 241...	55632	1852.98	Oxycodone-D6	322.2 -> 304...	5.139	274178					
Oxymorphone	302.1 -> 284...	9/12/2017 5:41 PM	4.475	46447	46447	317.82	302.1 -> 227...	46447	317.82	302.1 -> 227...	46447	8.72	Oxymorphone-D3	305.2 -> 287...	4.433	204020					
Phentermine	150.1 -> 65.2	9/12/2017 5:41 PM	5.275	34107	34107	Infinity	150.1 -> 133...	34107	Infinity	150.1 -> 133...	34107	Infinity	Phentermine-D5	155.2 -> 96.2	5.255	336255					
Promethazine	285.1 -> 86.2	9/12/2017 5:41 PM	6.550	425315	425315	94864.66	285.1 -> 71.3	425315	94864.66	285.1 -> 71.3	425315	92.73	Promethazine-D3	288.2 -> 89.2	6.528	2289244					
Quetiapine	384.2 -> 253...	9/12/2017 5:41 PM	6.639	319543	319543	87918.23	384.2 -> 221...	319543	87918.23	384.2 -> 221...	319543	4695.04	Quetiapine-D8	392.2 -> 226...	6.598	404684					

Compound Method		p1 cal 1-2a			p1 cal 1-2a Results			Qualifier 1 M...		Qualifier 1 R...		ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	MI	S/N	Name	Transition	RT	Resp.	
Sertraline	306.1 -> 158...	9/12/2017 5:41 PM	6.689	67393	<input type="checkbox"/>	153.84	306.1 -> 275...	<input type="checkbox"/>	11414...	<input type="checkbox"/>	11414...	Sertraline-D3	309.1 -> 275...	6.687	340700	
Sufentanil	387.2 -> 238...	9/12/2017 5:41 PM	6.699	27867	<input type="checkbox"/>	195.92	387.2 -> 111...	<input type="checkbox"/>	60.29	<input type="checkbox"/>	60.29	Sufentanil-D5	392.2 -> 238...	6.679	1021356	
Temazepam	301.1 -> 255...	9/12/2017 5:41 PM	6.527	90568	<input type="checkbox"/>	122.26	301.1 -> 283...	<input type="checkbox"/>	17.95	<input type="checkbox"/>	17.95	Temazepam-D5	306.1 -> 260...	6.527	424912	
Tramadol	264.2 -> 58.3	9/12/2017 5:41 PM	5.575	259296	<input type="checkbox"/>	132.57	264.2 -> 43.3	<input type="checkbox"/>	6.56	<input type="checkbox"/>	6.56	Tramadol-13C-D3	268.2 -> 58.3	5.554	1190777	
Trazodone	372.2 -> 176...	9/12/2017 5:41 PM	6.782	320677	<input type="checkbox"/>	Infinity	372.2 -> 148...	<input type="checkbox"/>	354.50	<input type="checkbox"/>	354.50	Trazodone-D6	378.2 -> 182...	6.761	1329965	
Venlafaxine	278.2 -> 58.3	9/12/2017 5:41 PM	5.920	256268	<input type="checkbox"/>	4673.03	278.2 -> 260...	<input type="checkbox"/>	92.64	<input type="checkbox"/>	92.64	Venlafaxine-D6	284.2 -> 64.3	5.919	1217155	
Zolpidem	308.2 -> 235...	9/12/2017 5:41 PM	6.384	269358	<input type="checkbox"/>	780.58	308.2 -> 263...	<input type="checkbox"/>	1105.41	<input type="checkbox"/>	1105.41	Zolpidem-D6	314.2 -> 235...	6.382	1353148	

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Compound Method			p1 negative			p1 negative Results			Qualifier 1 M...			ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Transition	Name	Transition	RT	Resp.		
6-MAM	328.2 -> 165...	9/12/2017 6:01 PM					328.2 -> 211...			334.2 -> 165...	6-MAM-D6		5.219	41479		
7-aminoclonazepam	286.1 -> 121...	9/12/2017 6:01 PM					286.1 -> 222...			290.1 -> 121...	7-Aminoclonazepam-D4		5.571	111758		
Acetyl Fentanyl	323.2 -> 105...	9/12/2017 6:01 PM					323.2 -> 188...			328.2 -> 105...	Acetyl Fentanyl-D5		6.093	11931...		
Acetyl Norfentanyl	219.1 -> 84.2	9/12/2017 6:01 PM	5.071	16		1.78	219.1 -> 56.3			224.2 -> 84.2	Acetyl Norfentanyl-D5		4.989	366676		
a-hydroxyalprazolam	325.1 -> 297...	9/12/2017 6:01 PM	6.643	127		0.51	325.1 -> 215...			330.1 -> 302...	a-hydroxyalprazolam-D5		6.378	37717		
alpha-PVP	232.2 -> 91.0	9/12/2017 6:01 PM	5.804	372		1.41	232.2 -> 77.1			240.2 -> 91.1	alpha-PVP-d8		5.721	436449		
Alprazolam	309.1 -> 281...	9/12/2017 6:01 PM	6.322	2734		9.07	309.1 -> 205...			314.1 -> 286...	Alprazolam-D5		6.484	204311		
Amphetamine	136.1 -> 91.1	9/12/2017 6:01 PM	4.972	27698		10.01	136.1 -> 119...			147.2 -> 130...	Amphetamine-D11		4.911	106257		
Bupropion	240.1 -> 184...	9/12/2017 6:01 PM	5.966	262		1.07	240.1 -> 131...			249.2 -> 185...	Bupropion-D9		5.945	428826		
Carisoprodol	261.2 -> 176...	9/12/2017 6:01 PM	6.229	19		0.25	261.2 -> 55.3			268.2 -> 183...	Carisoprodol-D7		6.126	360432		
Citalopram	325.2 -> 109...	9/12/2017 6:01 PM	6.155	469		0.35	325.2 -> 262...			331.2 -> 109...	Citalopram-D6		6.175	790114		
Clonazepam	316.1 -> 269...	9/12/2017 6:01 PM	6.503	365		1.83	316.1 -> 213...			320.1 -> 217...	Clonazepam-D4		6.340	27794		
Codeine	300.2 -> 215...	9/12/2017 6:01 PM					300.2 -> 165...			306.2 -> 218...	Codeine-D6		5.161	30291		
Cyclobenzaprine	276.2 -> 214...	9/12/2017 6:01 PM	6.552	38		0.53	276.2 -> 231...			279.2 -> 215...	Cyclobenzaprine-D3		6.490	440344		
Dextromethorphan	272.2 -> 171...	9/12/2017 6:01 PM	6.187	36		0.38	272.2 -> 147...			275.2 -> 171...	Dextromethorphan-D3		6.248	223105		
Dextropropriphan	258.2 -> 157...	9/12/2017 6:01 PM	5.494	146		1.61	258.2 -> 133...			261.2 -> 157...	Dextropropriphan-D3		5.555	182059		
Diazepam	285.1 -> 193...	9/12/2017 6:01 PM	6.590	1264		0.93	285.1 -> 153...			290.1 -> 198...	Diazepam-D5		6.690	155445		
Dihydrocodeine	302.2 -> 198...	9/12/2017 6:01 PM					302.2 -> 128...			308.2 -> 202...	Dihydrocodeine-D6		4.998	110098		
Diphenhydramine	256.2 -> 167...	9/12/2017 6:01 PM	6.148	195		0.96	256.2 -> 152...			259.2 -> 167...	Diphenhydramine-D3		6.148	12525...		
Doxylamine	271.2 -> 182...	9/12/2017 6:01 PM	5.840	744		0.90	271.2 -> 167...			276.2 -> 187...	Doxylamine-D5		5.798	10535...		
EDDP	279.2 -> 235...	9/12/2017 6:01 PM	6.287	28		0.23	279.2 -> 250...			282.2 -> 235...	EDDP-D3		6.184	37518		
Fentanyl	337.2 -> 105...	9/12/2017 6:01 PM	6.438	370		3.57	337.2 -> 188...			342.3 -> 105...	Fentanyl-D5		6.296	11103...		
Fluoxetine	310.1 -> 44.3	9/12/2017 6:01 PM	6.363	403		2.18	310.1 -> 148...			322.2 -> 304...	Oxycodone-D6		5.159	230989		
Hydrocodone	300.2 -> 198...	9/12/2017 6:01 PM					300.2 -> 128...			306.2 -> 202...	Hydrocodone-D6		5.344	174551		
Hydromorphone	286.2 -> 184...	9/12/2017 6:01 PM	4.920	212		0.92	286.2 -> 157...			292.2 -> 185...	Hydromorphone-D6		4.738	55917		
Ketamine	238.1 -> 125...	9/12/2017 6:01 PM	5.905	152		0.62	238.1 -> 220...			242.1 -> 129...	Ketamine-D4		5.863	279655		
Meprobamate	219.1 -> 158...	9/12/2017 6:01 PM	5.661	234		0.71	219.1 -> 97.1			226.2 -> 165...	Meprobamate-D7		5.641	81852		
Methadone	310.2 -> 265...	9/12/2017 6:01 PM	6.179	227		0.90	310.2 -> 105...			319.3 -> 268...	Methadone-D9		6.483	10186...		
Methamphetamine	150.1 -> 91.1	9/12/2017 6:01 PM	5.174	41329		3.02	150.1 -> 119...			161.2 -> 97.1	Methamphetamine-D11		5.092	263171		
Morphine	286.2 -> 201...	9/12/2017 6:01 PM	4.538	42		0.51	286.2 -> 165...			292.2 -> 152...	Morphine-D6		4.437	3403		
Naloxone	328.2 -> 309...	9/12/2017 6:01 PM					328.2 -> 211...			333.2 -> 315...	Naloxone-D5		5.422	179751		
Naltrexol	344.2 -> 326...	9/12/2017 6:01 PM	5.238	4919		6.71	344.2 -> 308...			347.2 -> 329...	Naltrexol-D3		5.095	293942		
Naltrexone	342.2 -> 324...	9/12/2017 6:01 PM	5.238	163		0.93	342.2 -> 55.3			345.2 -> 327...	Naltrexone-D3		5.217	193985		
Norbuprenorphine	414.3 -> 101...	9/12/2017 6:01 PM					414.3 -> 57.3			417.3 -> 101...	Norbuprenorphine-D3		5.968	26783		
Nordiazepam	271.1 -> 140...	9/12/2017 6:01 PM	6.513	44		0.48	271.1 -> 208...			276.1 -> 140...	Nordiazepam-D5		6.552	76374		
Norfentanyl	233.2 -> 84.2	9/12/2017 6:01 PM	5.436	124		1.50	233.2 -> 55.3			288.2 -> 84.2	Norfentanyl-D5		5.456	519636		
Norhydrocodone	286.2 -> 199...	9/12/2017 6:01 PM	5.104	211		2.85	286.2 -> 171...			289.2 -> 202...	Norhydrocodone-D3		5.103	54954		
Noroxycodone	302.1 -> 284...	9/12/2017 6:01 PM	5.020	696		0.71	302.1 -> 186...			305.2 -> 287...	Noroxycodone-D3		5.019	113810		
O-desmethyl-tramadol	250.2 -> 58.3	9/12/2017 6:01 PM	5.088	847		4.28	250.2 -> 42.3			256.2 -> 64.3	O-desmethyl-tramadol...		5.026	683952		
Oxazepam	287.1 -> 240...	9/12/2017 6:01 PM	6.141	526		1.06	287.1 -> 268...			292.1 -> 246...	Oxazepam-D5		6.386	113723		
Oxycodone	316.2 -> 298...	9/12/2017 6:01 PM	5.200	170		0.87	316.2 -> 241...			322.2 -> 304...	Oxycodone-D6		5.159	230989		
Oxymorphone	302.1 -> 284...	9/12/2017 6:01 PM	4.776	52		1.78	302.1 -> 227...			305.2 -> 287...	Oxymorphone-D3		4.453	166647		
Phentermine	150.1 -> 65.2	9/12/2017 6:01 PM	5.174	7638		1.00	150.1 -> 133...			155.2 -> 96.2	Phentermine-D5		5.255	313047		
Promethazine	285.1 -> 86.2	9/12/2017 6:01 PM	6.529	375		1.17	285.1 -> 71.3			288.2 -> 89.2	Promethazine-D3		6.528	15953...		
Quetiapine	384.2 -> 253...	9/12/2017 6:01 PM	6.639	607		2.36	384.2 -> 221...			392.2 -> 226...	Quetiapine-D8		6.598	329306		

8

Compound Method		p1 negative			p1 negative Results			Qualifier 1 M...		Qualifier 1 ...			ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.				
Sertraline	306.1 -> 158...	9/12/2017 6:01 PM	6.749	163		0.43	306.1 -> 275...			Sertraline-D3	309.1 -> 275...	6.687	244692				
Sufentanil	387.2 -> 238...	9/12/2017 6:01 PM	6.719	999		3.04	387.2 -> 111...		3.68	Sufentanil-D5	392.2 -> 238...	6.679	737057				
Temazepam	301.1 -> 255...	9/12/2017 6:01 PM	6.568	323		0.52	301.1 -> 283...			Temazepam-D5	306.1 -> 260...	6.527	377759				
Tramadol	264.2 -> 58.3	9/12/2017 6:01 PM	5.575	6209		9.36	264.2 -> 43.3			Tramadol-13C-D3	268.2 -> 58.3	5.575	918660				
Trazodone	372.2 -> 176...	9/12/2017 6:01 PM	6.802	1574		2.04	372.2 -> 148...		1.38	Trazodone-D6	378.2 -> 182...	6.761	10198...				
Venlafaxine	278.2 -> 58.3	9/12/2017 6:01 PM	5.940	142		0.44	278.2 -> 260...			Venlafaxine-D6	284.2 -> 64.3	5.919	907992				
Zolpidem	308.2 -> 235...	9/12/2017 6:01 PM	6.607	1468		1.60	308.2 -> 263...		1.66	Zolpidem-D6	314.2 -> 235...	6.362	10551...				

Compound Method			p2 cal 1-2b			p2 cal 1-2b Results			Qualifier 1 M...			Qualifier 1 R...			ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.			
7-aminoflunitrazepam	284.1 -> 135...	9/12/2017 5:51 PM	5.763	30406		248.21	284.1 -> 93.2		29.22	284.1 -> 138...		29.22	7-aminoflunitrazepam-D7	291.2 -> 138...	5.740	161813			
alpha-hydroxymidazolam	342.1 -> 324...	9/12/2017 5:51 PM	6.468	79460		54.44	342.1 -> 203...		9591.86	346.1 -> 328...		9591.86	alpha-hydroxymidazolam...	346.1 -> 328...	6.468	401858			
Amitriptyline	278.2 -> 91.2	9/12/2017 5:51 PM	6.600	205182		Infinity	278.2 -> 105...		Infinity	281.2 -> 91.2		Infinity	Amitriptyline-D3	281.2 -> 91.2	6.598	562099			
Amoxapine	314.1 -> 271...	9/12/2017 5:51 PM	6.573	70545		20269...	314.1 -> 193...		13.94	281.2 -> 91.2		13.94	Amitriptyline-D3	281.2 -> 91.2	6.598	562099			
Benzoylcocaine	290.1 -> 168...	9/12/2017 5:51 PM	5.373	13100		77.22	290.1 -> 105...		5034.33	298.2 -> 171...		5034.33	Benzoylcocaine-D8	298.2 -> 171...	5.350	4561			
Carbamazepine	237.1 -> 193...	9/12/2017 5:51 PM	6.157	27914		6560.28	237.1 -> 194...		156.76	243.1 -> 200...		156.76	Carbamazepine-13C6	243.1 -> 200...	6.157	12442...			
Chlordiazepoxide	300.1 -> 227...	9/12/2017 5:51 PM	6.596	43601		Infinity	300.1 -> 282...		Infinity	305.1 -> 286...		Infinity	Chlordiazepoxide-D5	305.1 -> 286...	6.595	308910			
Clomipramine	315.2 -> 86.2	9/12/2017 5:51 PM	6.836	435370		102.81	315.2 -> 58.3		47.21	318.2 -> 89.2		47.21	Clomipramine-D3	318.2 -> 89.2	6.836	21588...			
Cocaine	304.2 -> 182...	9/12/2017 5:51 PM	5.759	177486		1475.23	304.2 -> 105...		340.50	307.2 -> 185...		340.50	Cocaine-D3	307.2 -> 185...	5.758	750826			
Desipramine	267.2 -> 72.3	9/12/2017 5:51 PM	6.479	297003		Infinity	267.2 -> 44.3		Infinity	270.2 -> 75.3		Infinity	Desipramine-D3	270.2 -> 75.3	6.479	14276...			
Doxepin	280.2 -> 107...	9/12/2017 5:51 PM	6.315	142129		78.09	280.2 -> 77.2		57870....	283.2 -> 107...		57870....	Doxepin-D3	283.2 -> 107...	6.294	696170			
Estazolam	295.1 -> 267...	9/12/2017 5:51 PM	6.414	67648		327.57	295.1 -> 205...		135.52	300.1 -> 272...		135.52	Estazolam-D5	300.1 -> 272...	6.412	302653			
Flunitrazepam	314.1 -> 268...	9/12/2017 5:51 PM	6.451	58862		128.19	314.1 -> 239...		3943.39	321.1 -> 245...		3943.39	Flunitrazepam-D7	321.1 -> 245...	6.430	9929			
Flurazepam	388.2 -> 315...	9/12/2017 5:51 PM	6.385	199679		33872....	388.2 -> 317...		5830.34	393.1 -> 244...		5830.34	Zopiclone-D4	393.1 -> 244...	6.343	222652			
Imipramine	281.2 -> 86.2	9/12/2017 5:51 PM	6.558	453184		Infinity	281.2 -> 58.3		Infinity	284.2 -> 61.3		Infinity	Imipramine-D3	284.2 -> 61.3	6.537	11974...			
Levamisole	205.1 -> 91.2	9/12/2017 5:51 PM	5.324	47721		Infinity	205.1 -> 178...		31.39	307.2 -> 185...		31.39	Cocaine-D3	307.2 -> 185...	5.758	750826			
Maprotiline	278.2 -> 91.2	9/12/2017 5:51 PM	6.192	104614		Infinity	278.2 -> 117...		Infinity	252.2 -> 224...		Infinity	Meperidine-D4	252.2 -> 224...	5.789	317288			
MDA	180.1 -> 163...	9/12/2017 5:51 PM	5.124	48261		Infinity	180.1 -> 105...		44695....	185.1 -> 168...		44695....	MDA-D5	185.1 -> 168...	5.104	241997			
MDEA	208.1 -> 163...	9/12/2017 5:51 PM	5.386	104824		33430....	208.1 -> 105...		Infinity	214.2 -> 166...		Infinity	MDEA-D6	214.2 -> 166...	5.385	507616			
MDMA	194.1 -> 163...	9/12/2017 5:51 PM	5.244	86204		2991.33	194.1 -> 105...		500.59	200.2 -> 166...		500.59	MDMA-D6	200.2 -> 166...	5.244	42440			
Meperidine	248.2 -> 220...	9/12/2017 5:51 PM	5.809	66808		120.85	248.2 -> 174...		13090....	252.2 -> 224...		13090....	Meperidine-D4	252.2 -> 224...	5.789	317288			
Methyphenidate	234.2 -> 84.2	9/12/2017 5:51 PM	5.688	312157		73.99	234.2 -> 56.3		Infinity	252.2 -> 224...		Infinity	Meperidine-D4	252.2 -> 224...	5.789	317288			
Metoprolol	268.2 -> 116...	9/12/2017 5:51 PM	5.560	29418		335.75	268.2 -> 56.3		169.55	252.2 -> 224...		169.55	Meperidine-D4	252.2 -> 224...	5.789	317288			
Midazolam	326.1 -> 223...	9/12/2017 5:51 PM	6.632	29445		85.67	326.1 -> 249...		8955.70	330.1 -> 295...		8955.70	Midazolam-D4	330.1 -> 295...	6.631	468184			
Mirtazapine	266.2 -> 195...	9/12/2017 5:51 PM	6.317	225922		622.94	266.2 -> 72.3		546.78	330.1 -> 295...		546.78	Midazolam-D4	330.1 -> 295...	6.631	468184			
Mirtagynine	399.2 -> 174...	9/12/2017 5:51 PM	6.384	79293		227.66	399.2 -> 238...		65.32	243.1 -> 200...		65.32	Carbamazepine-13C6	243.1 -> 200...	6.157	12442...			
Normeperidine	234.1 -> 42.3	9/12/2017 5:51 PM	5.730	76487		Infinity	234.1 -> 160...		352.50	238.2 -> 164...		352.50	Normeperidine-D4	238.2 -> 164...	5.729	271731			
Norpropoxyphene	326.2 -> 44.3	9/12/2017 5:51 PM	6.347	51373		1819.66	326.2 -> 252...		48.49	331.2 -> 44.3		48.49	Norpropoxyphene-D5	331.2 -> 44.3	6.326	197927			
Nortriptyline	264.2 -> 91.2	9/12/2017 5:51 PM	6.420	445422		1681.80	264.2 -> 233...		7100.42	267.2 -> 233...		7100.42	Nortriptyline-D3	267.2 -> 233...	6.520	471323			
Ondansetron	294.2 -> 184...	9/12/2017 5:51 PM	6.047	101117		16963....	294.2 -> 212...		219.48	289.2 -> 72.3		219.48	Pentazocine-13C3	289.2 -> 72.3	5.802	502516			
Pentazocine	286.2 -> 218...	9/12/2017 5:51 PM	5.803	130302		416.77	286.2 -> 41.3		538.97	289.2 -> 72.3		538.97	Pentazocine-13C3	289.2 -> 72.3	5.802	502516			
Phenazepam	349.0 -> 206...	9/12/2017 5:51 PM	6.508	62251		126.07	349.0 -> 183...		183.85	353.0 -> 183...		183.85	Phenazepam-D4	353.0 -> 183...	6.507	21024			
Phencyclidine	244.2 -> 86.2	9/12/2017 5:51 PM	6.055	201632		Infinity	244.2 -> 91.1		53.79	249.2 -> 86.2		53.79	Phencyclidine-D5	249.2 -> 86.2	6.034	986814			
Phenytolol	253.1 -> 104...	9/12/2017 5:51 PM	6.053	4238		17.03	253.1 -> 182...		13.68	263.2 -> 192...		13.68	Phenytolol-D10	263.2 -> 192...	6.053	19537			
Prazepam	325.1 -> 271...	9/12/2017 5:51 PM	6.956	263751		693.95	325.1 -> 140...		249.61	330.1 -> 276...		249.61	Prazepam-D5	330.1 -> 276...	6.935	11400...			
Primidone	219.1 -> 91.2	9/12/2017 5:51 PM	5.446	7731		5.49	219.1 -> 162...		18.18	330.1 -> 276...		18.18	Prazepam-D5	330.1 -> 276...	6.935	11400...			
Propoxyphene	340.2 -> 58.3	9/12/2017 5:51 PM	6.407	290967		122.77	340.2 -> 266...		163.89	351.3 -> 277...		163.89	Propoxyphene-D11	351.3 -> 277...	6.385	343089			
Proprityline	264.2 -> 155...	9/12/2017 5:51 PM	6.420	711912		Infinity	264.2 -> 161...		Infinity	267.2 -> 233...		Infinity	Nortriptyline-D3	267.2 -> 233...	6.520	471323			
Pseudoephedrine	166.1 -> 148...	9/12/2017 5:51 PM	4.742	780849		787.48	166.1 -> 133...		Infinity	169.1 -> 151...		Infinity	Pseudoephedrine-D3	169.1 -> 151...	4.742	352682			
Tapentadol	222.2 -> 107...	9/12/2017 5:51 PM	5.588	157815		135.09	222.2 -> 121...		Infinity	225.2 -> 107...		Infinity	Tapentadol-D3	225.2 -> 107...	5.567	795612			
Trimipramine	295.2 -> 100...	9/12/2017 5:51 PM	6.658	509584		775.13	295.2 -> 58.3		Infinity	298.2 -> 103...		Infinity	Trimipramine-D3	298.2 -> 103...	6.637	24320...			
Verapamil	455.3 -> 165...	9/12/2017 5:51 PM	6.383	220996		628.09	455.3 -> 150...		13928....	298.2 -> 103...		13928....	Trimipramine-D3	298.2 -> 103...	6.637	24320...			
Zaleplon	306.1 -> 236...	9/12/2017 5:51 PM	6.248	69133		369.18	306.1 -> 264...		908.67	310.2 -> 240...		908.67	Zaleplon-D4	310.2 -> 240...	6.247	273419			
Zopiclone	389.1 -> 244...	9/12/2017 5:51 PM	6.364	54682		189.69	389.1 -> 216...		119.95	393.1 -> 244...		119.95	Zopiclone-D4	393.1 -> 244...	6.343	222652			

Compound Method			p2 negative			p2 negative Results			Qualifier 1 M...			Qualife...			ISTD Method			ISTD Results	
Name	Transition	Acq. Date-Time	RT	Resp.	MI	S/N	Transition	MI	S/N	Transition	MI	S/N	Name	Transition	RT	Resp.			
7-aminoflunitrazepam	284.1 -> 135...	9/12/2017 6:10 PM					284.1 -> 93.2			284.1 -> 93.2			7-aminoflunitrazepam-D7	291.2 -> 138...	5.740	167187			
alpha-hydroxymidazolam	342.1 -> 324...	9/12/2017 6:10 PM					342.1 -> 203...			342.1 -> 203...			alpha-hydroxymidazolam...	346.1 -> 328...	6.447	346180			
Amiripryline	278.2 -> 91.2	9/12/2017 6:10 PM					278.2 -> 105...			278.2 -> 105...			Amiripryline-D3	281.2 -> 91.2	6.578	401343			
Amoxapine	314.1 -> 271...	9/12/2017 6:10 PM					314.1 -> 193...			314.1 -> 193...			Amiripryline-D3	281.2 -> 91.2	6.578	401343			
Benzoyllecgonine	290.1 -> 168...	9/12/2017 6:10 PM					290.1 -> 105...			290.1 -> 105...			Benzoyllecgonine-D8	298.2 -> 171...	5.350	5596			
Carbamazepine	237.1 -> 193...	9/12/2017 6:10 PM					237.1 -> 194...			237.1 -> 194...			Carbamazepine-13C6	243.1 -> 200...	6.136	963499			
Chlordiazepoxide	300.1 -> 227...	9/12/2017 6:10 PM					300.1 -> 282...			300.1 -> 282...			Chlordiazepoxide-D5	305.1 -> 286...	6.575	230872			
Clomipramine	315.2 -> 86.2	9/12/2017 6:10 PM					315.2 -> 58.3			315.2 -> 58.3			Clomipramine-D3	318.2 -> 89.2	6.836	13428...			
Cocaine	304.2 -> 182...	9/12/2017 6:10 PM					304.2 -> 105...			304.2 -> 105...			Cocaine-D3	307.2 -> 185...	5.738	588764			
Desipramine	267.2 -> 72.3	9/12/2017 6:10 PM	6.500	2849		10.82	267.2 -> 44.3			267.2 -> 44.3		7.40	Desipramine-D3	270.2 -> 75.3	6.479	10258...			
Doxepin	280.2 -> 107...	9/12/2017 6:10 PM					280.2 -> 77.2			280.2 -> 77.2			Doxepin-D3	283.2 -> 107...	6.294	486639			
Estazolam	295.1 -> 267...	9/12/2017 6:10 PM					295.1 -> 205...			295.1 -> 205...			Estazolam-D5	300.1 -> 272...	6.392	252150			
Flunitrazepam	314.1 -> 268...	9/12/2017 6:10 PM					314.1 -> 239...			314.1 -> 239...			Flunitrazepam-D7	321.1 -> 245...	6.430	8482			
Flurazepam	388.2 -> 315...	9/12/2017 6:10 PM					388.2 -> 317...			388.2 -> 317...			Zopiclone-D4	393.1 -> 244...	6.343	156067			
Imipramine	281.2 -> 86.2	9/12/2017 6:10 PM	6.558	2702		22.05	281.2 -> 58.3			281.2 -> 58.3			Imipramine-D3	284.2 -> 61.3	6.537	874800			
Levamisole	205.1 -> 91.2	9/12/2017 6:10 PM					205.1 -> 178...			205.1 -> 178...			Cocaine-D3	307.2 -> 185...	5.738	588764			
Maprotiline	278.2 -> 91.2	9/12/2017 6:10 PM					278.2 -> 117...			278.2 -> 117...			Meperidine-D4	252.2 -> 224...	5.789	245514			
MDA	180.1 -> 163...	9/12/2017 6:10 PM					180.1 -> 105...			180.1 -> 105...			MDA-D5	185.1 -> 168...	5.104	190953			
MDEA	208.1 -> 163...	9/12/2017 6:10 PM					208.1 -> 105...			208.1 -> 105...			MDEA-D6	214.2 -> 166...	5.364	379955			
MDMA	194.1 -> 163...	9/12/2017 6:10 PM					194.1 -> 105...			194.1 -> 105...			MDMA-D6	200.2 -> 166...	5.224	32096			
Meperidine	248.2 -> 220...	9/12/2017 6:10 PM					248.2 -> 174...			248.2 -> 174...			Meperidine-D4	252.2 -> 224...	5.789	245514			
Methylphenidate	234.2 -> 84.2	9/12/2017 6:10 PM					234.2 -> 56.3			234.2 -> 56.3			Meperidine-D4	252.2 -> 224...	5.789	245514			
Metoprolol	268.2 -> 116...	9/12/2017 6:10 PM					268.2 -> 56.3			268.2 -> 56.3			Meperidine-D4	252.2 -> 224...	5.789	245514			
Midazolam	326.1 -> 223...	9/12/2017 6:10 PM					326.1 -> 249...			326.1 -> 249...			Midazolam-D4	330.1 -> 295...	6.611	366196			
Mirtazapine	266.2 -> 195...	9/12/2017 6:10 PM					266.2 -> 72.3			266.2 -> 72.3			Midazolam-D4	330.1 -> 295...	6.611	366196			
Mitragynine	399.2 -> 174...	9/12/2017 6:10 PM					399.2 -> 238...			399.2 -> 238...			Carbamazepine-13C6	243.1 -> 200...	6.136	963499			
Normeperidine	234.1 -> 42.3	9/12/2017 6:10 PM					234.1 -> 160...			234.1 -> 160...			Normeperidine-D4	238.2 -> 164...	5.729	192291			
Norpropoxyphene	326.2 -> 44.3	9/12/2017 6:10 PM					326.2 -> 252...			326.2 -> 252...			Norpropoxyphene-D5	331.2 -> 44.3	6.326	142827			
Nortriptyline	264.2 -> 91.2	9/12/2017 6:10 PM	6.542	3519		21.62	264.2 -> 233...			264.2 -> 233...			Nortriptyline-D3	267.2 -> 233...	6.520	353877			
Ondansetron	294.2 -> 184...	9/12/2017 6:10 PM					294.2 -> 212...			294.2 -> 212...			Pentazocine-13C3	289.2 -> 72.3	5.802	392150			
Pentazocine	286.2 -> 218...	9/12/2017 6:10 PM					286.2 -> 41.3			286.2 -> 41.3			Pentazocine-13C3	289.2 -> 72.3	5.802	392150			
Phenazepam	349.0 -> 206...	9/12/2017 6:10 PM					349.0 -> 183...			349.0 -> 183...			Phenazepam-D4	353.0 -> 183...	6.507	18462			
Phencyclidine	244.2 -> 86.2	9/12/2017 6:10 PM					244.2 -> 91.1			244.2 -> 91.1			Phencyclidine-D5	249.2 -> 86.2	6.034	765784			
Phenylethylamine	253.1 -> 104...	9/12/2017 6:10 PM					253.1 -> 182...			253.1 -> 182...			Phenylethylamine-D5	263.2 -> 192...	6.053	12481			
Prazepam	325.1 -> 271...	9/12/2017 6:10 PM					325.1 -> 140...			325.1 -> 140...			Prazepam-D5	330.1 -> 276...	6.935	796001			
Primidone	219.1 -> 91.2	9/12/2017 6:10 PM					219.1 -> 162...			219.1 -> 162...			Prazepam-D5	330.1 -> 276...	6.935	796001			
Propoxyphene	340.2 -> 58.3	9/12/2017 6:10 PM					340.2 -> 266...			340.2 -> 266...			Propoxyphene-D11	351.3 -> 277...	6.365	241307			
Proprietyline	264.2 -> 155...	9/12/2017 6:10 PM					264.2 -> 161...			264.2 -> 161...			Nortriptyline-D3	267.2 -> 233...	6.520	353877			
Pseudoephedrine	166.1 -> 148...	9/12/2017 6:10 PM					166.1 -> 133...			166.1 -> 133...			Pseudoephedrine-D3	169.1 -> 151...	4.722	273262			
Tapentadol	222.2 -> 107...	9/12/2017 6:10 PM					222.2 -> 121...			222.2 -> 121...			Tapentadol-D3	225.2 -> 107...	5.567	578121			
Trimipramine	295.2 -> 100...	9/12/2017 6:10 PM					295.2 -> 58.3			295.2 -> 58.3			Trimipramine-D3	298.2 -> 103...	6.637	16802...			
Verapamil	455.3 -> 165...	9/12/2017 6:10 PM					455.3 -> 150...			455.3 -> 150...			Trimipramine-D3	298.2 -> 103...	6.637	16802...			
Zaleplon	306.1 -> 236...	9/12/2017 6:10 PM					306.1 -> 264...			306.1 -> 264...			Zaleplon-D4	310.2 -> 240...	6.247	208787			
Zopiclone	389.1 -> 244...	9/12/2017 6:10 PM					389.1 -> 216...			389.1 -> 216...			Zopiclone-D4	393.1 -> 244...	6.343	156067			

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

Extraction Date: 9-12-17 Analyst: Anne Ward

PRE-ANALYTIC

Plate Lot# _____ Custom THC plate: 0499102 Plate Exp: 1/29/2018

- 1. Ensure all solutions are within expiration date.
 - Mobile Phase A: **10mM Amm Formate** • **0.1% Formic Acid in water**
 - Mobile Phase B: **0.1% FA in MeOH** • **MTBE**
 - Blank/Negative Blood: **Lot 321632-1** • **Hexane**
 - *Column: Phenomenex Phenyl Hexyl (4.6 x 50mm; 2.6um)*
- 2. Check levels of mobile phases and needle wash and refill as necessary. Ensure waste is not full.
- 3. Begin mobile phase flow and allow system to equilibrate for approx. 30 min.
- 4. Create worklist. Data path name: 91217 blood screen Am 25-26

ANALYTIC

- 1. Remove standards plate, blood, and samples from cold storage. Allow to reach room temperature.
- 2. Add **1000 µL blood (calibrated pipette)** to 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 **500µL 0.1% formic acid** to all wells of standards plate.
- 5. Place on shaking incubator at ambient temp., **900rpm for 15 minutes.**
- 6. Transfer **800µL of blood+acid** 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**) Pressure Manifold ID 66729
 Wait 5 min.
- 8. Add **2.25mL MTBE** and allow to flow under gravity for 5 minutes. (**add in 3 increments of 750uL**)
- 9. Apply positive pressure for approx. 15 seconds. (**10-15 PSI- Selector to the left**)
- 10. Add **2.25mL Hexane** and allow to flow under gravity for 5 minutes. (**add in 3 increments of 750uL**)
- 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 ID 66819*
- 13. Reconstitute in **100 µL 100% 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: 91217 cann screen
- 2. Make any necessary integration changes.
- 3. 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?
- 4. Did QCs pass for each analyte? Y / N *N
- 5. Central File Packet to include: LIMS Worklist: Method Checklist
 Calibration and Control Reports

Comments:



ISP FORENSICS - Cd'A

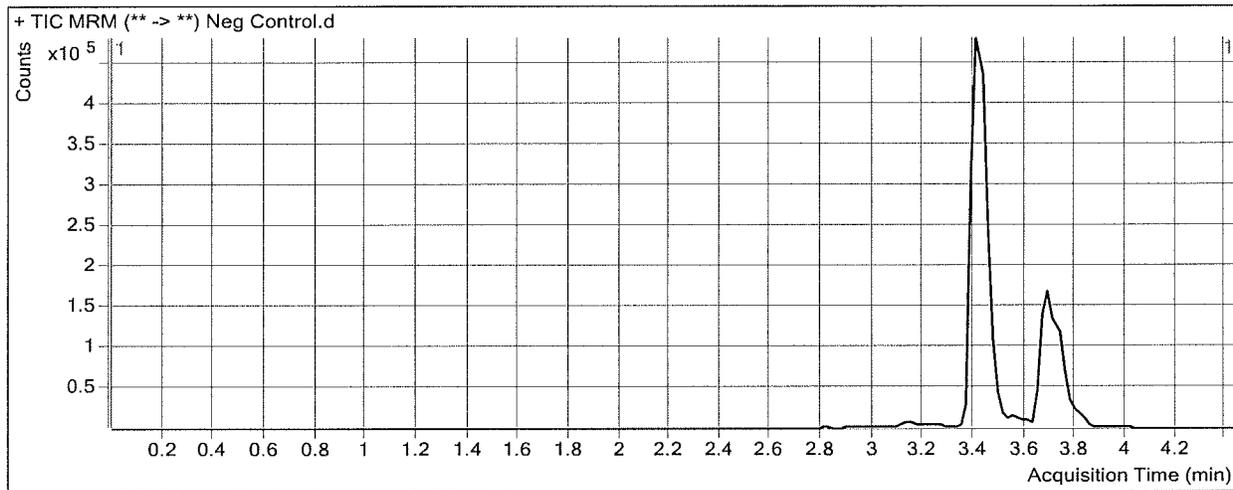
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 13:11 **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 32632-1

Sample Chromatogram



Results

Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
THC-OH	3.473	18267	1594202	0.0115	0.2782
THC-COOH	3.386	19387	345339	0.0561	2.0590

ISP FORENSICS - Cd'A

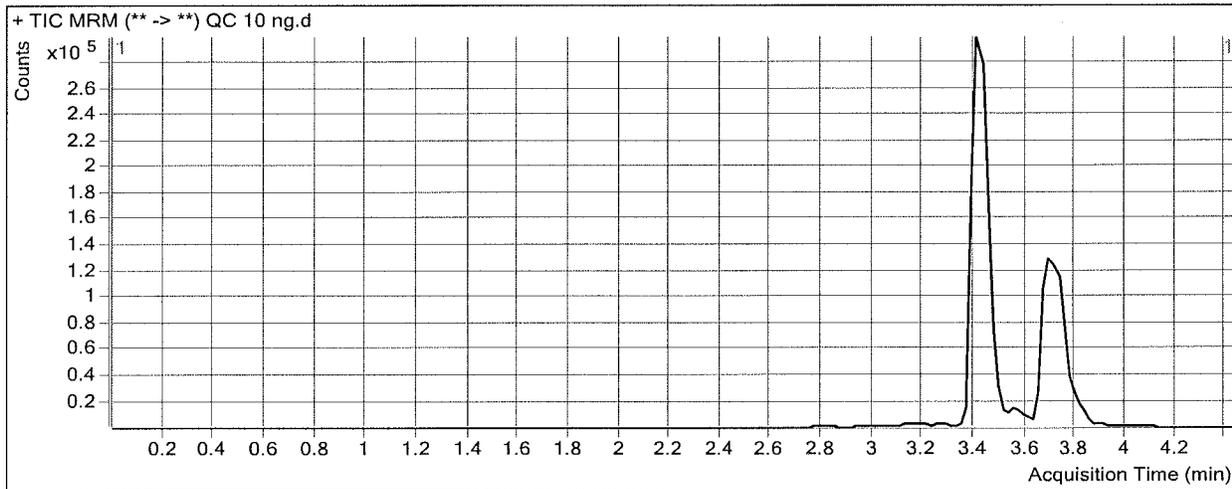
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 13:31 **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	3.412	90401	909208	0.0994	9.8008
THC-COOH	3.446	31894	176730	0.1805	7.6514
THC	3.760	4374	45138	0.0969	9.8705

ISP Forensics Calibration Curve Report

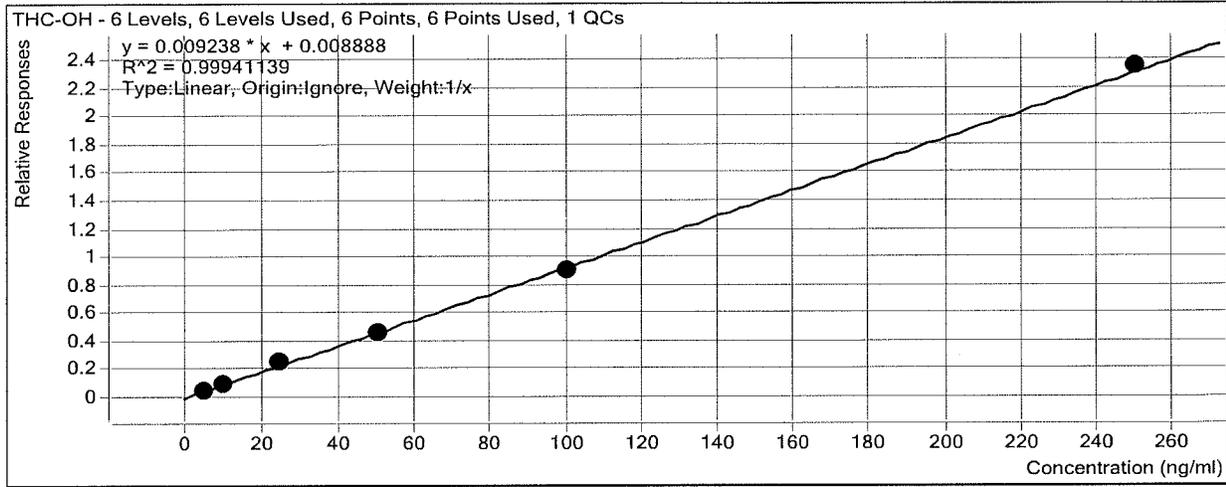
Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin

Last Calib Update 9/13/2017 7:56 AM

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	4.9	98.9
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	10.1	101.3
QC 10 ng	3	<input checked="" type="checkbox"/>	10	9.8	98.0
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	25.8	103.0
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	49.5	99.1
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	96.4	96.4
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	253.2	101.3

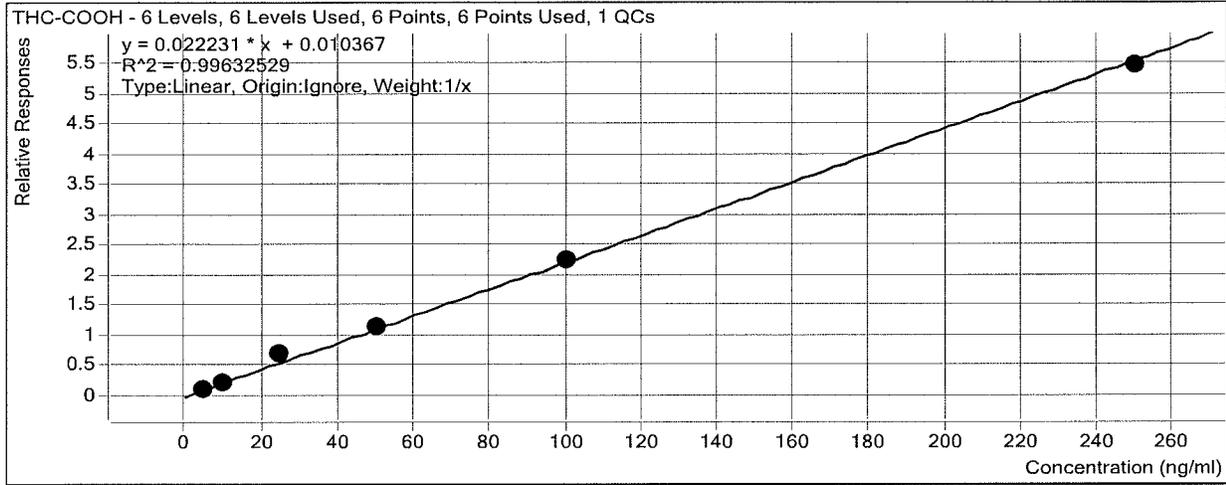
ISP Forensics Calibration Curve Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin

Last Calib Update 9/13/2017 7:56 AM

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	4.6	91.8
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	8.8	88.0
QC 10 ng	3	<input checked="" type="checkbox"/>	10	7.7	76.5
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	29.9	119.6
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	50.7	101.5
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	101.1	101.1
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	244.9	97.9

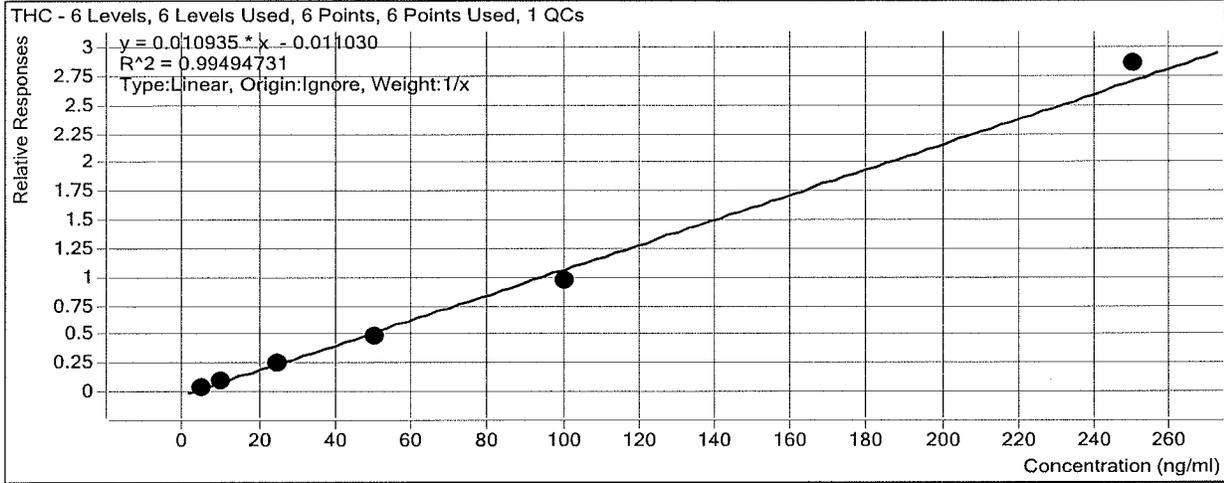
ISP Forensics Calibration Curve Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin

Last Calib Update 9/13/2017 7:56 AM

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	5.5	109.8
cal 3 - 10ng	3	<input checked="" type="checkbox"/>	10	10.4	104.2
QC 10 ng	3	<input checked="" type="checkbox"/>	10	9.9	98.7
cal 4 - 25ng	4	<input checked="" type="checkbox"/>	25	24.3	97.2
cal 5 - 50ng	5	<input checked="" type="checkbox"/>	50	46.4	92.7
cal 6 - 100ng	6	<input checked="" type="checkbox"/>	100	91.1	91.1
cal 7 - 250ng	7	<input checked="" type="checkbox"/>	250	262.3	104.9

ISP FORENSICS - Cd'A

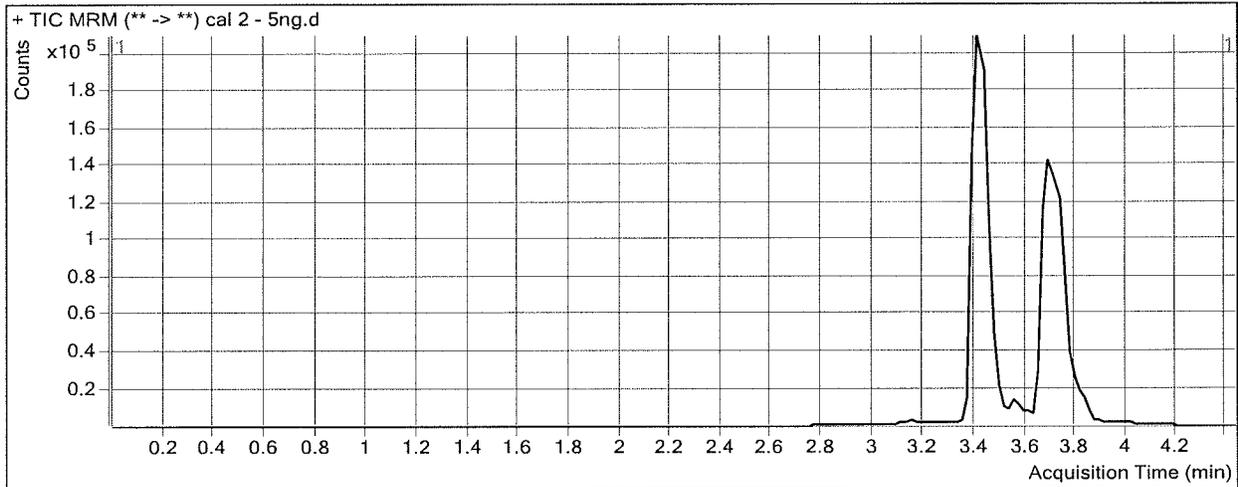
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 12:38 **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	3.412	36381	666755	0.0546	4.9444
THC-COOH	3.446	16376	145636	0.1124	4.5917
THC	3.760	2329	47516	0.0490	5.4917

ISP FORENSICS - Cd'A

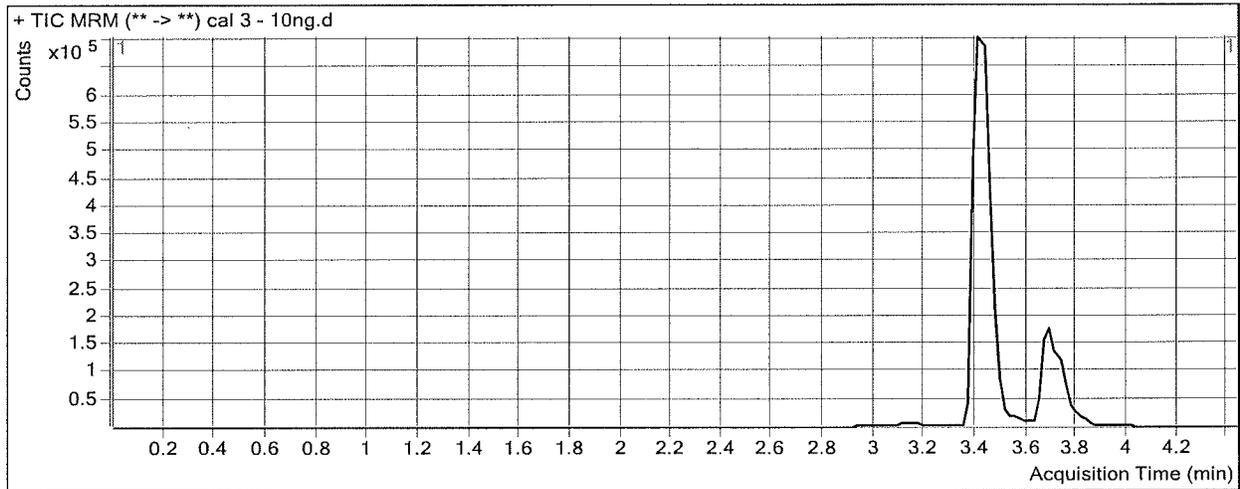
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 12:45 **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	3.412	214459	2092540	0.1025	10.1320
THC-COOH	3.446	133484	647818	0.2061	8.8024
THC	3.760	4776	46404	0.1029	10.4217

ISP FORENSICS - Cd'A

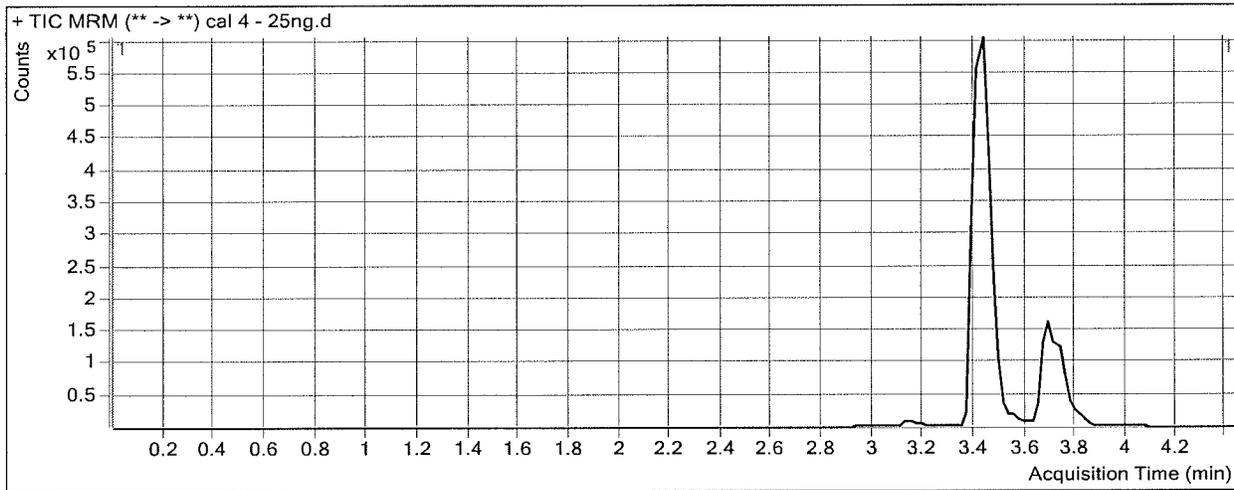
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 12:52 **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	3.412	375198	1519819	0.2469	25.7612
THC-COOH	3.446	297030	439900	0.6752	29.9066
THC	3.760	10307	40473	0.2547	24.2973

ISP FORENSICS - Cd'A

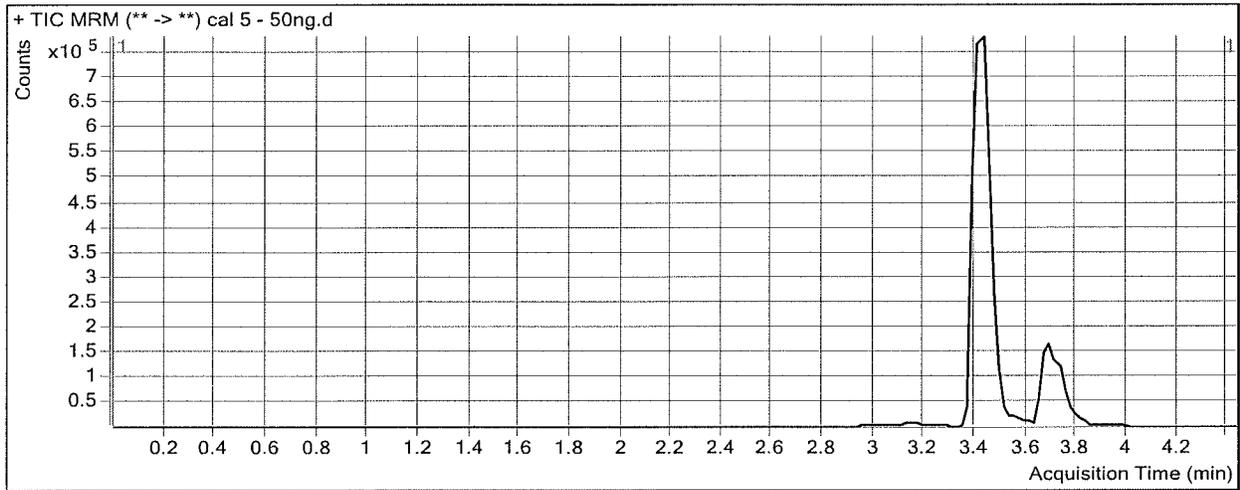
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 12:58 **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	3.412	793707	1701593	0.4664	49.5304
THC-COOH	3.446	461120	405086	1.1383	50.7381
THC	3.760	21011	42371	0.4959	46.3566

ISP FORENSICS - Cd'A

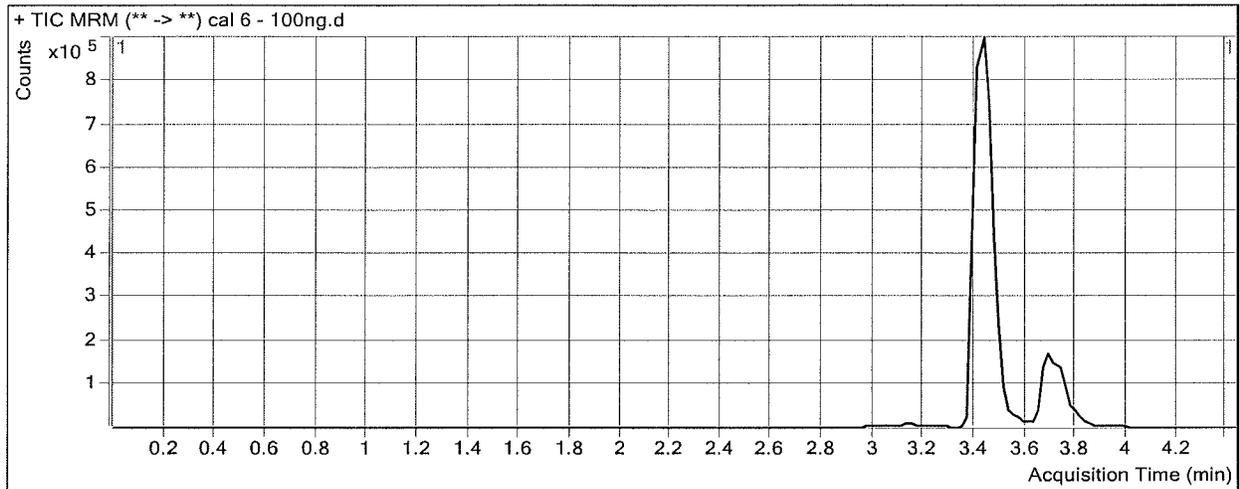
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 13:05 **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	3.412	1329815	1478682	0.8993	96.3886
THC-COOH	3.446	814358	360699	2.2577	101.0909
THC	3.760	45717	46395	0.9854	91.1224

ISP FORENSICS - Cd'A

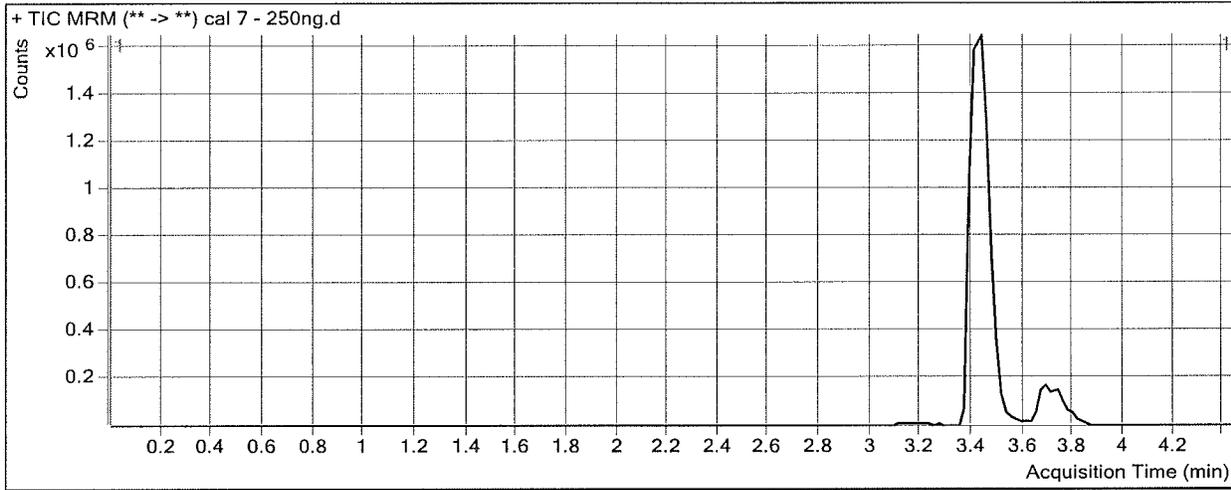
Cannabinoid Screen Report

Batch Data Path D:\2017 Data\91217 blood screen AM 25-26\QuantResults\91217 cann screen.batch.bin
Analysis Time 9/13/2017 7:56 AM **Analyst Name** ISP Tox
Report Time 9/13/2017 8:00 AM **Reporter Name** ISP Tox
Last Calib Update 9/13/2017 7:56 AM **Batch State** Processed

Analysis Info

Acq Time 2017-09-12 13:18 **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	3.412	3550877	1512075	2.3483	253.2434
THC-COOH	3.446	1635673	299899	5.4541	244.8703
THC	3.760	126042	44112	2.8573	262.3102