

Worklist: 3150

<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>	
M2019-0962	1	142595	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1031	1	143038	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1042	1	143074	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1043	1	143080	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1064	1	143155	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1144	2	144603	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1173	1	143909	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1254	4	144610	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0806	1	144597	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0807	1	144600	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0808	1	144607	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0809	1	144614	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0810	1	144617	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0811	1	144620	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0831	1	144694	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0832	1	144697	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0868	1	145032	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0870	1	145036	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0874	1	145300	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0904	1	145487	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0905	1	145490	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0920	1	145584	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0923	1	145615	AM 25 Blood Multi-Drug Screen by LC-QQQ	

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<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>
P2019-0948	1	145948	AM 25 Blood Multi-Drug Screen by LC-QQQ
P2019-0949	1	145951	AM 25 Blood Multi-Drug Screen by LC-QQQ



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

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Extraction Date: 3/27/19

Analyst: Sarah Pickle

Plate lot#: 0543908

Plate Expiration: 11/28/19

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: 445283-1

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

LCMS-QQQ ID: 069910

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: Data Path Name: _____

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250µL blood (calibrated pipette) Pipette ID: #16** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 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: 067104
- 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: 067103
- 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: MDS
Worklist path: 032719 MDS SP
- 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. Calculated concentration >5, discretionary range 2-5.
- 4. Did all QCs pass for each analyte? Y / N Yes
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:



Idaho State Police Forensic Services

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AM #25 Blood Multi-Drug Screen by LCMS-QQQ

Methanol External Control Solution (Lot: 042618)

100 ul of 1mg/mL stock was added of each drug to 9600 ul of LC MeOH.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	177145	
Oxycodone	Cerilliant	FE01181701	March 2022
Diazepam	Cerilliant	FE05201602	June 2021
Metoprolol	Cerilliant	FN06091510	July 2020
Meperidine	Cerilliant	FE01271602	June 2021
Prepared:	04/26/18		
Prepared By:	Tamara Salazar		
Expires:	04/26/19		

Blood External Control Solution (Lot: WS122618)

100 ul of methanol external control solution was added to 9900 ul of blood.

Approximately 50ng/mL of each compound.

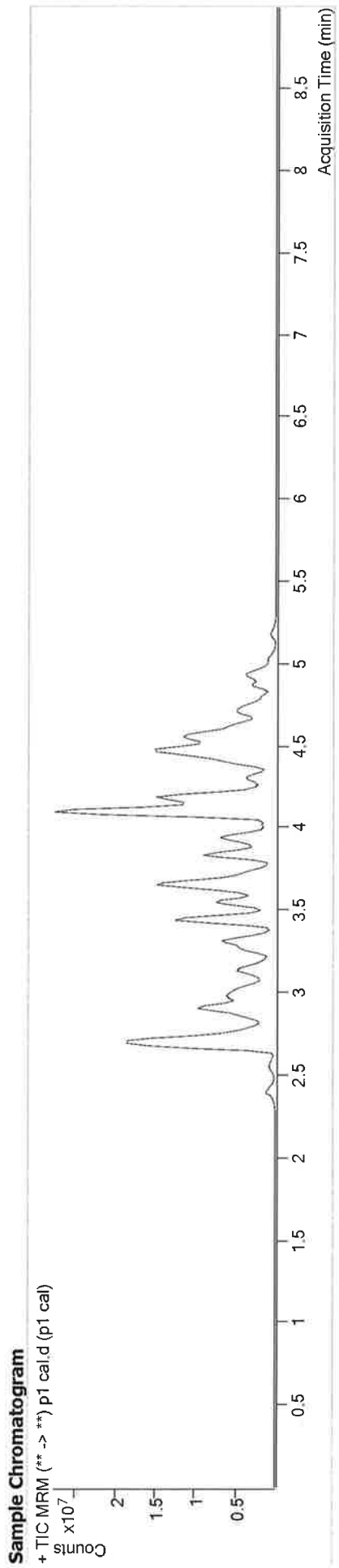
<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Hemostat	445283-1
Methanol External Control Solution		042618
Prepared:	12/26/18	
Prepared by:	Tamara Salazar	
Expires:	04/26/19	

AM #25 Multi-Drug Screen Results



Batch results
 Calibration Last Update D:\MassHunter\Data\2019\AM 25\032719 MDS SP\QuantResults\MDS.batch.bin
 3/29/2019 12:52:06 PM

Instrument FALCO-LCMS (Property ID 069901)
Type Cal
Acq. Method am 25 all.m
Sample Position P1-H12
Injection Volume 5
Acq. Date-Time 3/27/2019 1:11:38 PM
Sample Info. p1 cal.d
 p1 cal
 Sarah Pickle



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.057	24264	66.24	15.93	689943	10.0000
7-aminoclonazepam	3.535	507048	49874.30	3039.89	2337002	10.0000
7-aminoflunitrazepam	3.750	1085369	11570.59	1079.03	5141656	10.0000
Acetyl Fentanyl	4.192	220316	385.49	84.68	12047639	10.0000
Acetyl Norfentanyl	2.884	136277	1671.66	184.50	6470843	10.0000
a-hydroxylprazolam	4.483	36743	84.79	42.32	223385	10.0000
alpha-hydroxymidazolam	4.574	366164	984.76	∞	2783563	10.0000
alpha-PVP	3.681	1945239	8309.84	∞	7859549	10.0000
Alprazolam	4.578	500746	3879.22	∞	1585841	10.0000
Amitriptyline	4.614	1520492	∞	31.54	4024847	10.0000
Amphetamine	2.919	1354720	∞	661.02	3158218	10.0000
Benzoylcegonine	3.336	430220	1786.16	258.68	1884979	10.0000
Buprenorphine	5.223	427773	1138.11	2485.02	2072087	10.0000
Bupropion	3.971	2088705	138.85	211.17	8387240	10.0000
Carbamazepine	4.202	3203422	∞	∞	16647398	10.0000
Carisoprodol	4.200	523378	∞	137.91	2812908	10.0000
Chlordiazepoxide	4.717	166232	423.25	69.72	4574031	10.0000
Chlorpheniramine	4.028	16687	111.11	820.20	14294712	10.0000

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Citalopram	4.160	1427306	2355.32	38174.09	6889353	10.0000
Clonazepam	4.439	107563	116.67	104.69	156102	10.0000
Cocaine	3.671	2442989	14297.21	831.32	11681743	10.0000
Codeine	2.970	184303	868.01	677.96	812536	10.0000
Cyclobenzaprine	4.506	1609056	2821.77	∞	5989267	10.0000
Desipramine	4.507	2204110	∞	1229.98	12038775	10.0000
Dextromethorphan	4.183	1155587	3443.99	10642.92	5556354	10.0000
Dextroproprian	3.431	1212122	2006.47	∞	6926459	10.0000
Diazepam	4.826	415858	335.89	∞	2256180	10.0000
Dihydrocodeine	2.802	391900	∞	∞	2388627	10.0000
Diphenhydramine	4.124	2823150	∞	5029.29	14294712	10.0000
Doxepin	4.337	1250161	1402.80	11.42	7045274	10.0000
Doxylamine	3.675	4834176	∞	∞	20808710	10.0000
EDDP	4.105	2541646	7462.08	5125.44	14277579	10.0000
Estazolam	4.503	706999	1786.85	∞	1824150	10.0000
Etizolam	4.589	84648	6522.34	103601.34	1824150	10.0000
Fentanyl	4.436	136664	247.80	∞	6698338	10.0000
Flunitrazepam	4.546	308296	1018.49	703.08	66418	10.0000
Fluoxetine	4.409	1454709	∞	341.94	6787750	10.0000
Flurazepam	4.464	1119147	∞	132665.90	66418	10.0000
Hydrocodone	3.197	649219	719.03	192.86	3152358	10.0000
Hydromorphone	2.578	600280	19.11	11.83	2282811	10.0000
Imipramine	4.551	3107892	15914.17	1514.93	10889872	10.0000
Ketamine	3.879	1749766	∞	220.09	7713690	10.0000
Lamotrigine	3.631	125616	200.77	1132.87	5787537	10.0000
Levamisole	3.114	1420493	8270.49	∞	11681743	10.0000
Lorazepam	4.407	24877	20.37	19.07	726464	10.0000
Maprotiline	4.506	334049	11.63	1430.61	4024847	10.0000
MDA	3.054	1097469	2143.73	1254.05	5146307	10.0000
MDMA	3.282	2441113	9814.02	∞	10992033	10.0000
Meperidine	3.130	2665754	∞	3784.08	1622276	10.0000
Meprobamate	3.708	1246677	3501.09	∞	5787537	10.0000
Methadone	3.620	205881	78.49	135.19	1060868	10.0000
Methamphetamine	4.454	2941720	∞	∞	13131177	10.0000
Methocarbamol	3.024	2536801	451.28	820.15	8832932	10.0000
Methylphenidate	3.540	129323	241.60	325.26	5787537	10.0000
Metoprolol	3.573	3754445	∞	∞	17024830	10.0000
Midazolam	3.461	298680	426.52	131695.61	5787537	10.0000
Mirtazapine	4.743	347521	453.86	5396.55	4097411	10.0000
Mitragynine	4.400	1258844	1946.75	∞	5787537	10.0000
Morphine	4.479	210042	796.57	4178.17	7045274	10.0000
Norbuprenorphine	2.397	161786	∞	∞	114985	10.0000
Nordiazepam	3.958	40852	240.66	10571.09	216687	10.0000
p1 cal	4.675	439021	573.32	∞	1344461	10.0000



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Norfentanyl	3.342	2865876	18631.63	1037.87	12324243	10.0000
Norhydrocodone	2.987	23602	25.39	28.72	586557	10.0000
Normeperidine	3.635	1045986	4073.50	477.35	3987779	10.0000
Noroxycodone	2.939	420148	∞	∞	1464850	10.0000
Nortriptyline	4.539	937067	4200.60	1533.82	2507388	10.0000
O-desmethyl-tramadol	2.928	3608340	∞	1379.84	17741910	10.0000
Olanzapine	4.147	761352	∞	11336.71	39099	10.0000
Oxazepam	4.504	175535	255.62	45.73	963055	10.0000
Oxycodone	3.012	1050083	2735.00	1008.54	4518769	10.0000
Oxymorphone	2.408	871844	337.38	∞	2628569	10.0000
Paroxetine	4.513	176382	∞	511.26	4637470	10.0000
Phenazepam	4.619	265179	2319.23	507.92	1075910	10.0000
Phencyclidine	3.970	2444874	3001.96	598.52	11621545	10.0000
Phentermine	3.177	672759	58.56	∞	6699490	10.0000
Phenytol	4.124	6286	11.56	9.64	39099	10.0000
Promethazine	4.597	4159044	19050.50	909.02	18116199	10.0000
Pseudoephedrine	2.719	20370605	43121.70	12831.28	80970107	10.0000
Quetiapine	4.756	2189382	94282.38	∞	2722039	10.0000
Sertraline	4.716	946400	49661.83	987.60	4637470	10.0000
Sufentanil	4.877	179443	109608.98	∞	9279960	10.0000
Tapentadol	3.466	2075331	∞	∞	9917361	10.0000
Temazepam	4.641	924026	208.41	120.95	4074510	10.0000
Tramadol	3.461	3726571	2845.19	57.94	18655045	10.0000
Trazodone	4.956	2721931	5397.63	3703.85	11018415	10.0000
Venlafaxine	3.842	3211769	21388.21	1293.29	16259914	10.0000
Zaleplon	4.318	527251	5414.58	1192.79	1585206	10.0000
Zolpidem	4.486	3651879	26033.38	∞	17613703	10.0000
Zopiclone	4.449	123438	1313.14	194.49	561526	10.0000

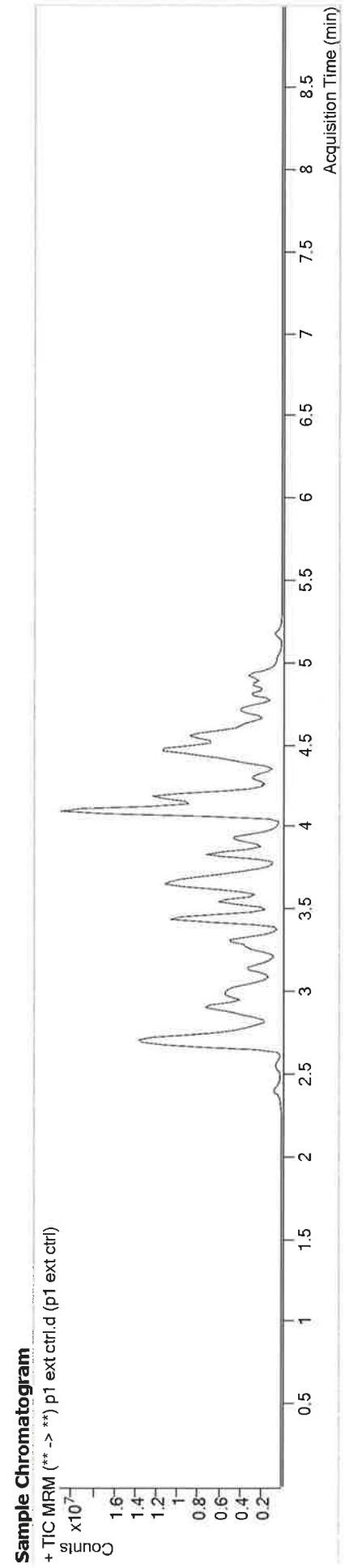
AM #25 Multi-Drug Screen Results



Batch results D:\MassHunter\Data\2019\AM 25\032719 MDS SP\QuantResults\MDS.batch.bin
Calibration Last Update 3/29/2019 12:52:06 PM

Instrument Type FALCO-LCMS (Property ID 069901)
Acq. Method Sample
Sample Position am 25 all.m
Injection Volume P1-E12
Acq. Date-Time 5
Sample Info. 3/27/2019 1:31:55 PM

Data File p1 ext ctrl.d
Sample p1 ext ctrl
Operator Sarah Pickle
Comment



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Diazepam	4.826	3233921	5585.95	∞	2082306	84.2586
Mependine	3.708	8630620	19103.56	∞	5135041	78.0258
Metoprolol	3.461	2180922	29359.39	154451.34	5135041	82.2970
Oxycodone	3.012	6561124	338.27	1701.05	4423945	63.8212

AM #25 Multi-Drug Screen Results



Batch results
Calibration Last Update D:\MassHunter\Data\2019\AM 25\032719 MDS SP\QuantResults\MDS.batch.bin
3/29/2019 12:52:06 PM

Instrument Type	FALCO-LCMS (Property ID 069901)	Data File	p1 negative.d
Acq. Method	Sample	Sample	p1 negative
Sample Position	am 25 all.m	Operator	Sarah Pickle
Injection Volume	P1-F12	Comment	
Acq. Date-Time	5		
Sample Info.	3/27/2019 1:21:51 PM		

Sample Chromatogram

+ TIC MRM (** -> **) p1 negative.d (p1 negative)

