























AM 7 central file available upon request.



Worklist: 3369

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
M2018-6230	1	149761	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1529	1	146927	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1530	1	146931	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-1579	1	147234	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-0890	1	145425	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1025	1	146918	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1054	1	147195	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1062	1	147316	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1097	1	147508	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1109	1	147834	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1176	1	148604	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1179	1	148618	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1180	1	148643	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1185	1	148660	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1187	1	148674	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1200	1	148854	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1206	1	148946	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1215	1	149061	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1216	1	149064	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1220	2	149073	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1264	3	149679	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1266	1	149755	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1268	1	149764	AM 25 Blood Multi-Drug Screen by LC-QQQ	

Worklist: 3369

<u>LAB CASE</u>	<u>ITEM</u>	<u>TASK ID</u>	<u>DESCRIPTION</u>
P2019-1269	1	149767	AM 25 Blood Multi-Drug Screen by LC-QQQ
P2019-1310	1	150149	AM 25 Blood Multi-Drug Screen by LC-QQQ



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

Extraction Date: 5/10/19
 Plate lot#: 0543908

Analyst: Sarah Pickle
 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
LCMS-QQQ ID: 069901

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

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.

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: #3**
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 6. Transfer **300 µL 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 **900 µL ethyl acetate.**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 12. Add **900 µL ethyl acetate.**
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 10-15 seconds. *(12-15 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 **100 µL 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 SP Worklist path: D:\MassHunter\Data\2019\AM 25\051019 AM 25 Urine Val HCL added
- 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 or greater or 2-5 for discretionary range.
- 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:



Idaho State Police Forensic Services

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

Methanol External Control Solution (Lot: 042719)

100 ul of 1mg/mL stock was added to 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	184782	
Morphine	Cerilliant	FE08141515	November 2020
Metoprolol	Cerilliant	FN06091510	July 2020
Flunitrazepam	Cerilliant	FE08051602	August 2021
Trazodone	Cerilliant	FN12151403	January 2020
Prepared:	04/27/19		
Prepared By:	Tamara Salazar		
Expires:	01/31/2020		

Blood External Control Solution (Lot: WS042719)

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		042719
Prepared:	04/27/19	
Prepared by:	Tamara Salazar	
Expires:	01/31/2020	

AM #25 Multi-Drug Screen Results



Batch results

D:\MassHunter\Data\2019\Urine Validations\051019 AM 25 Urine Val HCL added\QuantResults\MDS SP.batch.bin

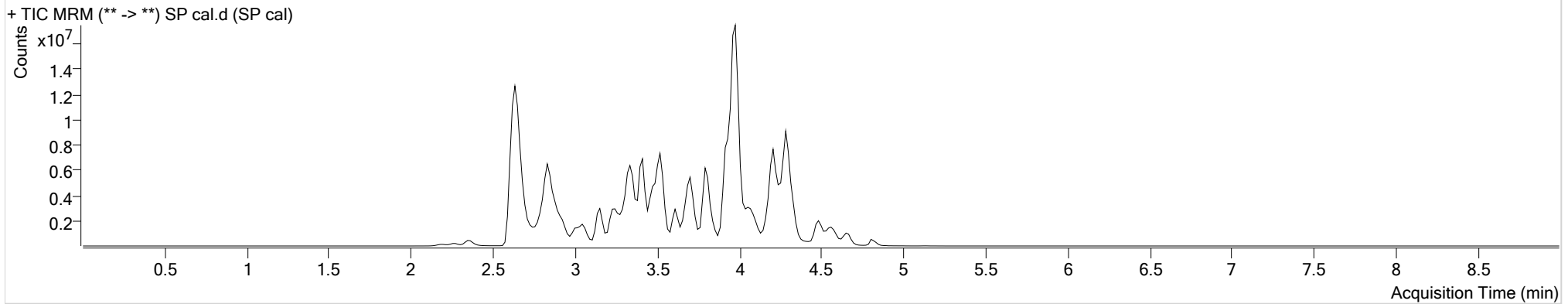
Calibration Last Update

5/14/2019 7:39:49 AM

Instrument Type FALCO-LCMS (Property ID 069901)
Acq. Method am 25 all.m
Sample Position P2-H7
Injection Volume 5
Acq. Date-Time 5/10/2019 6:48:16 PM
Sample Info.

Data File SP cal.d
Sample SP cal
Operator
Comment

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.799	9894	8838.84	15903.07	257462	10.0000
7-aminoclonazepam	3.551	90503	352.13	724.24	347270	10.0000
7-aminoflunitrazepam	3.751	299558	∞	821.35	1480549	10.0000
Acetyl Fentanyl	3.686	116378	∞	92090.67	6487715	10.0000
Acetyl Norfentanyl	2.824	60034	445.35	116.81	2753582	10.0000
a-hydroxyalprazolam	4.499	18756	84.13	91.60	107600	10.0000
alpha-hydroxymidazolam	4.544	176745	571.25	915.62	1353896	10.0000
alpha-PVP	3.421	1069656	8897.22	∞	4294005	10.0000
Alprazolam	4.594	297213	316.70	172.71	860251	10.0000
Amitriptyline	4.323	988783	∞	522.34	2038526	10.0000
Amphetamine	2.828	354451	∞	∞	1059886	10.0000
Benzoyllecgonine	3.352	156080	∞	∞	719560	10.0000
Buprenorphine	4.081	118366	∞	230.65	483007	10.0000
Bupropion	3.635	980473	15516.37	1167.46	3524259	10.0000
Carbamazepine	4.219	1140009	155.11	136.57	5752499	10.0000
Carisprodol	4.202	156652	309.42	142.65	753993	10.0000
Chlordiazepoxide	4.672	60657	∞	128.62	1636462	10.0000
Chlorpheniramine	3.844	9402	863.32	∞	14338843	10.0000

SP cal

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Citalopram	3.993	376265	1425.19	18273.31	1492891	10.0000
Clonazepam	4.439	34631	67.44	302.18	56659	10.0000
Cocaine	3.473	1463513	158453.78	82571.43	6724668	10.0000
Codeine	2.697	88528	5607.44	533.30	330176	10.0000
Cyclobenzaprine	4.261	873152	∞	∞	3068444	10.0000
Desipramine	4.293	919691	∞	∞	4935185	10.0000
Dextromethorphan	3.968	220957	1118.67	1275.53	1073906	10.0000
Dextrorphan	3.294	815734	17204.26	13049.63	4337405	10.0000
Diazepam	4.825	140872	960.97	7855.16	756827	10.0000
Dihydrocodeine	2.650	176185	∞	1681.91	869590	10.0000
Diphenhydramine	3.939	2524549	449.92	3149.07	14338843	10.0000
Doxepin	4.060	583182	∞	∞	3351206	10.0000
Doxylamine	3.537	2696155	2048767.05	16661.55	11333383	10.0000
EDDP	3.982	1433404	214.37	10816.83	7399988	10.0000
Estazolam	4.504	553809	∞	6965.06	1357565	10.0000
Etizolam	4.604	53466	65.66	10864.88	1357565	10.0000
Fentanyl	3.915	89465	128.85	3944.06	4262311	10.0000
Flunitrazepam	4.562	125305	222.34	81242.77	25568	10.0000
Fluoxetine	4.256	740186	∞	52357.98	3290081	10.0000
Flurazepam	4.021	693980	11753.12	10825.36	25568	10.0000
Hydrocodone	2.879	268290	∞	∞	1467444	10.0000
Hydromorphone	2.368	268932	∞	∞	979765	10.0000
Imipramine	4.290	1256718	61706.11	∞	4594127	10.0000
Ketamine	3.280	761240	1512.42	4249.88	3637387	10.0000
Lamotrigine	3.448	71976	∞	562.70	2963534	10.0000
Levamisole	2.840	792335	9673.02	12017.47	6724668	10.0000
Lorazepam	4.424	3690	∞	∞	56659	10.0000
Maprotiline	4.323	988783	∞	∞	2038526	10.0000
MDA	2.947	452273	∞	4666.36	1949904	10.0000
MDEA	3.160	1458579	∞	∞	5968324	10.0000
MDMA	3.008	1591693	∞	25772.95	954824	10.0000
Meperidine	3.494	661380	∞	2281.04	2963534	10.0000
Meprobamate	3.636	73626	7565.44	78.17	328486	10.0000
Methadone	4.287	1495239	30693.70	∞	7103542	10.0000
Methamphetamine	2.918	1118672	130.21	305.28	4349368	10.0000
Methocarbamol	3.556	54975	769.22	731.88	2963534	10.0000
Methylphenidate	3.420	2238009	∞	∞	10823647	10.0000
Metoprolol	3.354	186298	∞	241.84	2963534	10.0000
Midazolam	4.576	163860	4591.21	∞	1939774	10.0000
Mirtazapine	3.616	792207	∞	13842.89	2963534	10.0000
Mitragynine	4.035	107722	∞	167797.30	3351206	10.0000
Morphine	2.204	95575	3137.88	25.52	66026	10.0000
Norbuprenorphine	3.744	8365	∞	8488.10	38816	10.0000
Nordiazepam	4.692	50062	2657.29	190.00	148072	10.0000

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Norfentanyl	3.251	1118149	6194.41	782.17	4966716	10.0000
Norhydrocodone	2.865	11646	320.65	3.38 Low	309707	10.0000
Normeperidine	3.512	583482	284.62	9.33	1960342	10.0000
Noroxycodone	2.818	173806	60.86	17.01	605926	10.0000
Nortriptyline	4.340	541379	189677.65	∞	1440406	10.0000
O-desmethyl-tramadol	2.852	2009057	∞	∞	9922991	10.0000
Olanzapine	3.518	414855	2912.27	∞	19257	10.0000
Oxazepam	4.504	21087	∞	21.43	103935	10.0000
Oxycodone	2.830	436216	∞	143.60	1957027	10.0000
Oxymorphone	2.273	143827	∞	387.41	468881	10.0000
Paroxetine	4.268	70946	∞	64.53	2586138	10.0000
Phenazepam	4.634	51453	203.46	381.24	220867	10.0000
Phencyclidine	3.817	1311598	1747622.63	∞	5769715	10.0000
Phentermine	3.070	320388	∞	∞	3150853	10.0000
Phenytoin	4.125	5204	1172.73	17.73	19257	10.0000
Promethazine	4.213	2006833	∞	8161.86	8853077	10.0000
Pseudoephedrine	2.643	9419994	14826.12	17554.52	46153894	10.0000
Quetiapine	4.175	833517	63533.80	5088.17	1219323	10.0000
Sertraline	4.472	517886	2332.37	2380.88	2586138	10.0000
Sufentanil	4.174	61959	6603.65	1535.06	3122919	10.0000
Tapentadol	3.359	1290003	∞	∞	6156900	10.0000
Temazepam	4.656	155193	∞	∞	789584	10.0000
Tramadol	3.339	2129300	∞	∞	10561655	10.0000
Trazodone	4.098	1109139	∞	108017.73	4037334	10.0000
Venlafaxine	3.705	1880577	∞	∞	9014130	10.0000
Zaleplon	4.334	146918	4921.74	1949.12	433564	10.0000
Zolpidem	3.810	1655443	768079.56	∞	8139705	10.0000
Zopiclone	3.715	96682	9474.20	587.97	439425	10.0000

AM #25 Multi-Drug Screen Results

**Batch results**

D:\MassHunter\Data\2019\Urine Validations\051019 AM 25 Urine Val HCL added\QuantResults\MDS SP.batch.bin

Calibration Last Update

5/14/2019 7:39:49 AM

Instrument

FALCO-LCMS (Property ID 069901)

Type

Sample

Acq. Method

am 25 all.m

Sample Position

P2-F7

Injection Volume

5

Acq. Date-Time

5/10/2019 6:58:01 PM

Sample Info.**Data File**

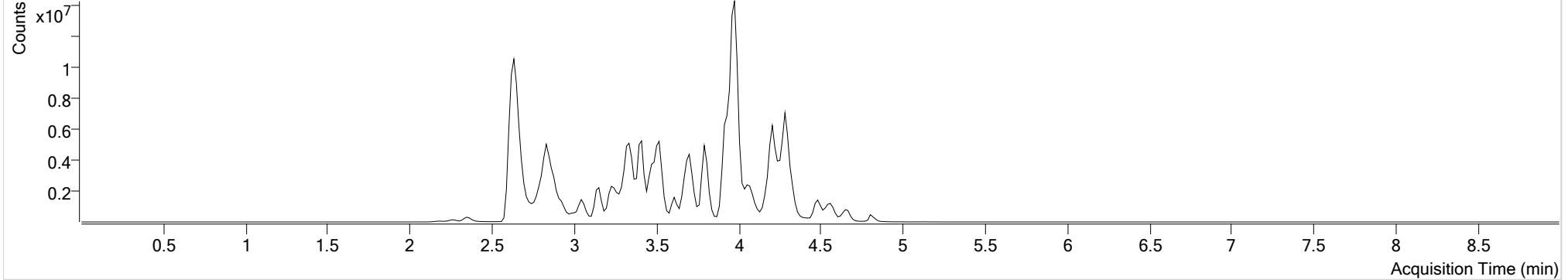
SP negative.d

Sample

SP negative

Operator**Comment****Sample Chromatogram**

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



AM #25 Multi-Drug Screen Results



Batch results

D:\MassHunter\Data\2019\Urine Validations\051019 AM 25 Urine Val HCL added\QuantResults\MDS SP.batch.bin

Calibration Last Update

5/14/2019 7:39:49 AM

Instrument

FALCO-LCMS (Property ID 069901)

Data File

SP ext ctrl.d

Type

Sample

Sample

SP ext ctrl

Acq. Method

am 25 all.m

Operator

Sample Position

P2-E7

Comment

Injection Volume

5

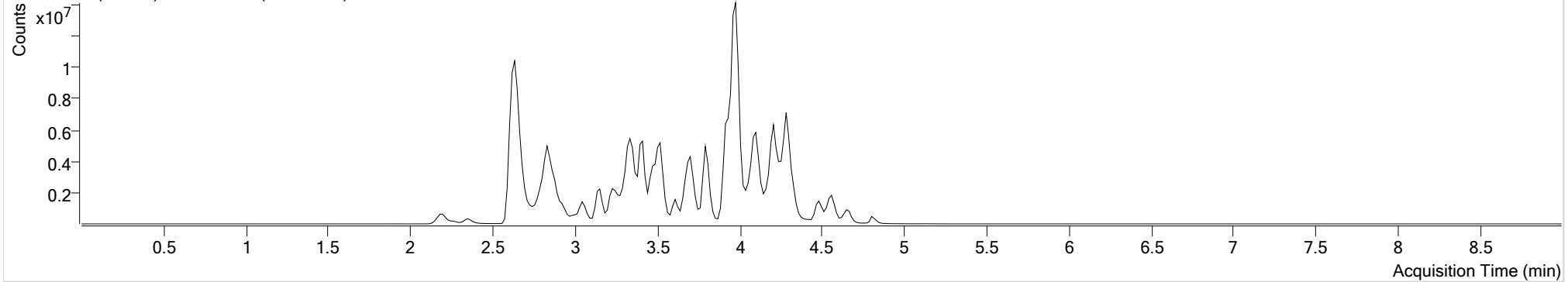
Acq. Date-Time

5/10/2019 7:07:32 PM

Sample Info.

Sample Chromatogram

+ TIC MRM (** -> **) SP ext ctrl.d (SP ext ctrl)



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Flunitrazepam	4.562	1171383	15789.39	25591.92	24016	99.5263
Metoprolol	3.354	1347570	8021.73	37643.50	3016547	71.0631
Morphine	2.204	783572	∞	16977.73	55906	96.8257
Trazodone	4.098	9301203	210707.05	∞	3481096	97.2595