













Worklist: 3625

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
C2019-1297	1	161365	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1384	1	161366	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1390	1	161367	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1431	1	161368	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1438	1	161369	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1439	1	161370	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1440	1	161371	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1474	1	161372	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1486	1	161373	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1512	1	161374	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1518	1	161375	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1530	1	161376	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1541	1	161377	AM 25 Blood Multi-Drug Screen by LC-QQQ	
C2019-1552	1	161378	AM 25 Blood Multi-Drug Screen by LC-QQQ	
M2019-2776	1	161379	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-1926	1	161380	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2036	1	161381	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2079	1	161382	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2105	2	161383	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2145	1	161384	AM 25 Blood Multi-Drug Screen by LC-QQQ	
P2019-2208	1	161385	AM 25 Blood Multi-Drug Screen by LC-QQQ	



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

Extraction Date: 8/22/19
Plate lot#: 0543908

Analyst: Anne Nord
Plate Expiration: November 28 2019

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: 445283-2 Hemostat
LCMS-QQQ ID: 69679

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.
- 3. Create worklist

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250µL blood (calibrated pipette) Pipette ID: 1926134** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **250µL 00.5M 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.
- 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. Calc conc 5 or greater, 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:

pseudoephedrine/ephedrine not evaluated



8-26/19



Toxicology AM method 25 external prep information

working solution 10000 ng/ml in meoh Hydromorphone, Hydrocodone, Nortriptyline, Sertraline

Stock solution 1mg/ml 100 ul each in 9600ul meOH

ppd 5/20/19: Exp: 5/20/20 lot 52020

by baw

Drug	lot	expiration
Hydromorphone	FE04101502	6/1/2020
Hydrocodone	FE09091505	9/1/2020
nortriptyline	FN06191503	8/1/2020
sertraline	FN01081501	3/1/2020

AM 25 control 100 ul working solution (52020) in 9900 ul neg blood

ppd 5/20/19, exp 3/1/20 lot 52019

neg blood lot 19A207P3

by BAW

Concentration 100ng/ml hydrocodone, nortriptyline, sertraline, hydromorphone

AM #25 Multi-Drug Screen Results

Batch results

D:\MassHunter\Data\2019\am 25-26\082219\QuantResults\mds.batch.bin

Calibration Last Update

8/23/2019 8:58:55 AM

Instrument

69679

Type

Cal

Acq. Method

am 25 short.m

Sample Position

P2-B1

Injection Volume

5

Acq. Date-Time

8/22/2019 3:08:59 PM

Sample Info.

Data File

am 25 calibrator.d

Sample

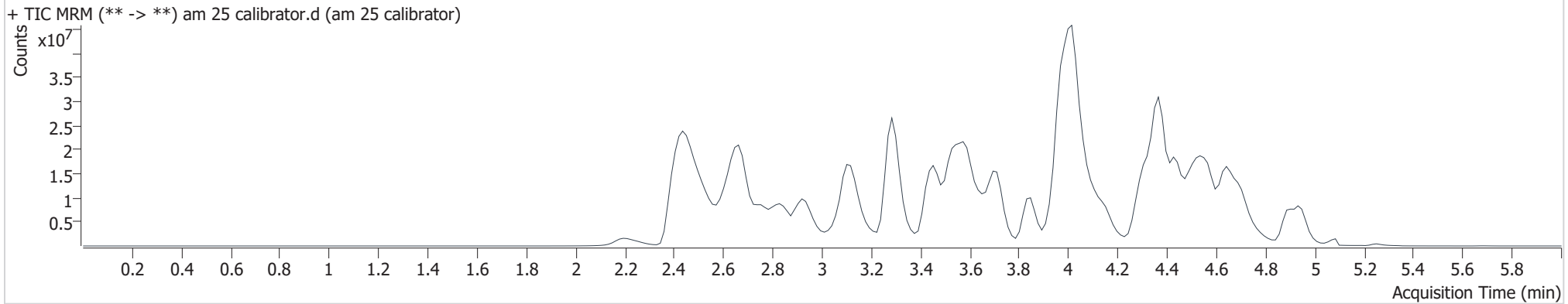
am 25 calibrator

Operator

Anne Nord

Comment

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.009	82744	324.6	8557.3	1958605	10.0000
7-aminoclonazepam	3.319	215550	66.5	134.8	851654	10.0000
7-aminoflunitrazepam	3.547	749731	425.6	131.4	4226953	10.0000
Acetyl Fentanyl	4.307	519873	216.9	78284.6	32928339	10.0000
Acetyl Norfentanyl	2.640	355779	1030.8	231.8	17844499	10.0000
a-hydroxyalprazolam	4.337	66364	986.9	15942.9	328324	10.0000
alpha-hydroxymidazolam	4.427	1095720	291.0	301213.9	8375787	10.0000
alpha-PVP	3.674	5176942	992.0	693.7	21441828	10.0000
Alprazolam	4.447	1274759	853.1	311.4	4193404	10.0000
Amitriptyline	4.652	2166788	2082.5	326.3	9896180	10.0000
Amphetamine	2.689	2734601	480.3	635.2	6249130	10.0000
Benzoylcegonine	3.059	1083378	1879.4	681.8	5321394	10.0000
Buprenorphine	5.266	210709	252.7	17132.6	1126597	10.0000
Bupropion	4.011	2207650	531.6	1482.5	11371279	10.0000
Carbamazepine	4.027	4349546	∞	∞	22218209	10.0000
Carisoprodol	4.022	659096	438.4	60.6	3311440	10.0000
Chlordiazepoxide	4.587	364871	56.8	733.6	8953201	10.0000
Chlorpheniramine	4.021	4152	∞	∞	50084665	10.0000

am 25 calibrator



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Citalopram	4.105	3710356	920.0	522672.3	16452648	10.0000
Clonazepam	4.276	228689	476.4	443.9	382053	10.0000
Cocaine	3.604	7319424	3195.7	1248.9	33891534	10.0000
Codeine	2.951	547111	1129.6	701.5	2864884	10.0000
Cyclobenzaprine	4.529	4491612	2626047.9	259.8	16892667	10.0000
Desipramine	4.453	5979235	1357.3	1103.6	31977274	10.0000
Dextromethorphan	4.145	3248249	929.8	357.3	15831804	10.0000
Dextrorphan	3.305	3228765	661.6	561.2	17622795	10.0000
Diazepam	4.712	568464	1432.9	1804.5	2726734	10.0000
Dihydrocodeine	2.663	1565294	249.0	202.5	8673823	10.0000
Diphenhydramine	4.054	10665377	940.2	1506.0	50084665	10.0000
Doxepin	4.343	2537355	138.0	∞	15272588	10.0000
Doxylamine	3.548	14254274	1843.8	26971.9	51396940	10.0000
EDDP	3.989	6754480	959.1	8013.6	37908198	10.0000
Estazolam	4.357	1852693	594.3	1651.7	5105159	10.0000
Etizolam	4.458	157550	259358.8	565436.5	5105159	10.0000
Fentanyl	4.535	432587	191.8	429.4	21017675	10.0000
Flunitrazepam	4.400	1016738	466.2	295.8	191781	10.0000
Fluoxetine	4.324	4193525	696.8	247.8	18309914	10.0000
Flurazepam	4.534	3795667	1453.8	3895086.6	191781	10.0000
Hydrocodone	3.225	1524000	350.5	299.9	8556244	10.0000
Hydromorphone	2.486	1141370	502.0	668.1	3666752	10.0000
Imipramine	4.574	7853469	2195.0	2785.8	27939475	10.0000
Ketamine	3.965	1756825	1047.7	126.4	12877987	10.0000
Lamotrigine	3.413	303373	300.8	2367.9	16836656	10.0000
Levamisole	3.111	2992004	44.7	20.0	33891534	10.0000
Lorazepam	4.260	23553	68.5	29.2	4193404	10.0000
Maprotiline	4.467	576053	30.4	166.6	9896180	10.0000
MDA	2.838	2515822	437.4	1434.8	11876452	10.0000
MDEA	3.111	6530984	2530.9	1432.0	29543642	10.0000
MDMA	2.944	7092109	11381.0	588.7	4159416	10.0000
Meperidine	3.656	3589459	579.0	527.8	16836656	10.0000
Meprobamate	3.401	361411	250.0	105.5	1648601	10.0000
Methadone	4.385	8850857	2402.5	542.3	36684169	10.0000
Methamphetamine	2.794	4772711	∞	476.0	19029715	10.0000
Methocarbamol	3.307	213868	1217.3	289.0	16836656	10.0000
Methylphenidate	3.460	12815547	16488.5	20004.4	48666418	10.0000
Metoprolol	3.289	775732	1096.2	391279.3	16836656	10.0000
Midazolam	4.644	674725	1607.7	13937.1	9251436	10.0000
Mirtazapine	4.515	3204309	1647.8	4192.4	16836656	10.0000
Mitragynine	4.563	625060	314786.2	458015.7	15272588	10.0000
Morphine	2.261	506016	2051.4	334.8	373713	10.0000
Norbuprenorphine	3.906	40375	33.8	74032.4	243143	10.0000
Nordiazepam	4.545	158677	33638.3	505.4	545638	10.0000

am 25 calibrator



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Norfentanyl	3.139	5774938	424.8	320.0	25280867	10.0000
Norhydrocodone	2.803	36285	20.3	17.4	895429	10.0000
Normeperidine	3.491	3205951	1127.8	1088.6	11838526	10.0000
Noroxycodone	2.709	1660783	∞	120.9	5636517	10.0000
Nortriptyline	4.500	2168731	992.9	∞	5642132	10.0000
O-desmethyl-tramadol	2.684	10641093	2400.8	714.4	47736039	10.0000
Olanzapine	4.169	2061324	417.0	433.6	83548	10.0000
Oxazepam	4.342	70315	75.9	18.0	363160	10.0000
Oxycodone	2.888	3064799	784.3	918.8	14382976	10.0000
Oxymorphone	2.208	1833679	492.0	191.4	6287301	10.0000
Paroxetine	4.505	373386	184.6	118.2	6907062	10.0000
Phenazepam	4.488	258480	726.5	1491.3	1058163	10.0000
Phencyclidine	3.856	5905569	807.1	628.7	28805477	10.0000
Phentermine	2.962	1529622	314.0	24.9	14470500	10.0000
Phenytoin	3.916	9343	68.1	12.2	83548	10.0000
Promethazine	4.697	9571311	5143.2	435.3	43346756	10.0000
Pseudoephedrine	2.445	52557357	20903.1	3348.4	174843678	10.0000
Quetiapine	4.718	4489983	5982286.3	1439.3	6471809	10.0000
Sertraline	4.755	1462803	113234.4	299.5	6907062	10.0000
Sufentanil	4.948	418231	160183.4	207.1	22252402	10.0000
Tapentadol	3.293	5431173	1324.1	∞	26498686	10.0000
Temazepam	4.510	591382	535.9	58.9	2852653	10.0000
Tramadol	3.305	10069442	2882.5	172.3	44911150	10.0000
Trazodone	4.903	4286764	962.2	888.3	19256013	10.0000
Venlafaxine	3.713	9170607	805.1	608.9	41061715	10.0000
Zaleplon	4.156	1408211	51423.0	374080.4	4018627	10.0000
Zolpidem	4.386	9386770	1842.7	1699.4	39062748	10.0000
Zopiclone	4.380	216851	204.1	97.8	1022674	10.0000

8-26-19

AM #25 Multi-Drug Screen Results



Batch results

D:\MassHunter\Data\2019\am 25-26\082219\QuantResults\mds.batch.bin

Calibration Last Update

8/23/2019 8:58:55 AM

Instrument

69679

Type

Sample

Acq. Method

am 25 short.m

Sample Position

P2-D5

Injection Volume

5

Acq. Date-Time

8/22/2019 3:16:09 PM

Sample Info.

Data File

am 25 negative control.d

Sample

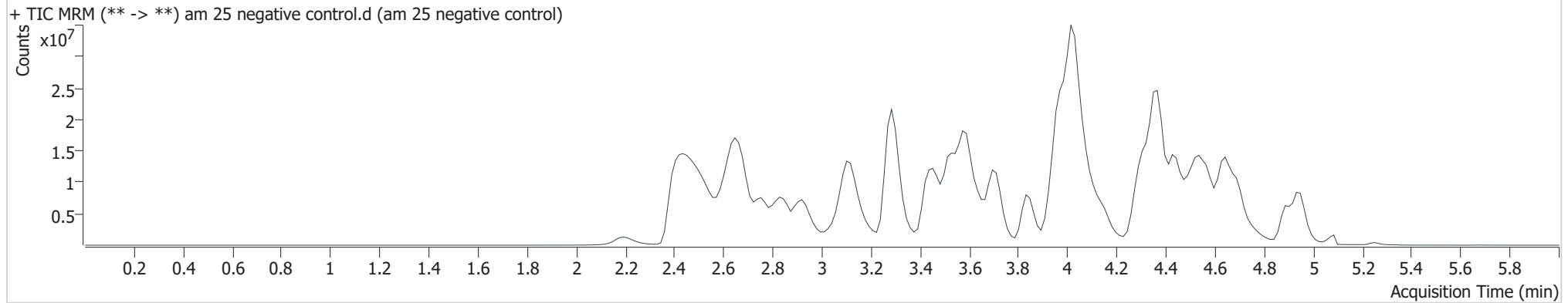
am 25 negative control

Operator

Anne Nord

Comment

Sample Chromatogram



AM #25 Multi-Drug Screen Results

Batch results

D:\MassHunter\Data\2019\am 25-26\082219\QuantResults\mds.batch.bin

Calibration Last Update

8/23/2019 8:58:55 AM

Instrument

69679

Type

Sample

Acq. Method

am 25 short.m

Sample Position

P2-E5

Injection Volume

5

Acq. Date-Time

8/22/2019 3:23:19 PM

Sample Info.**Data File**

am 25 external control1.d

Sample

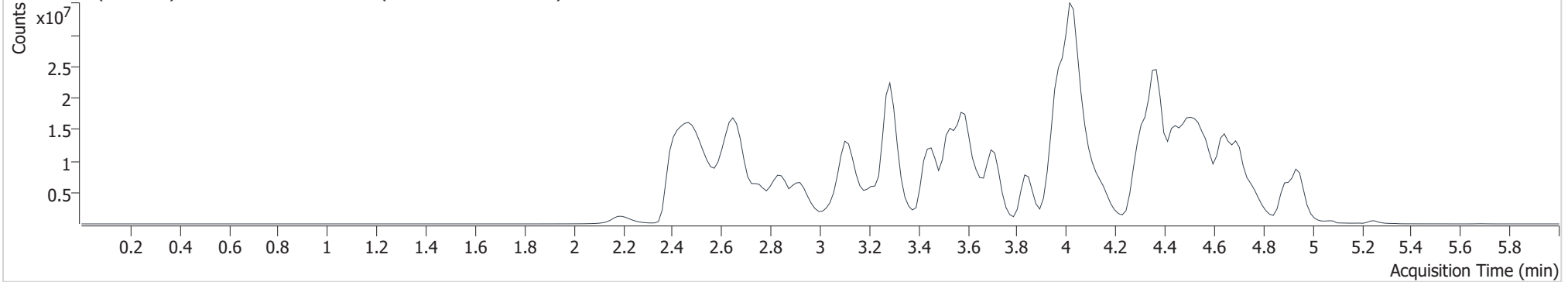
am 25 external control

Operator

Anne Nord

Comment**Sample Chromatogram**

+ TIC MRM (** -> **) am 25 external control1.d (am 25 external control)



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Hydrocodone	3.225	14144313	1488.5	2411.8	9414039	84.3537
Hydromorphone	2.486	9849260	565.0	373.1	3044369	103.9349
Nortriptyline	4.500	19271098	5074.8	7966.2	5920216	84.6850
Sertraline	4.725	13006689	383.8	995.7	8022228	76.5560