

REVIEWED

By Britany Wylie at 1:48 pm, Oct 11, 2019



















10/8/2019

REVIEWED

By Sarah Pickle at 9:37 am, Oct 10, 2019

Worklist: 3741

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2019-1587	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1801	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1863	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1874	1	UCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1875	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1879	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1884	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1893	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1899	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1899	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1899	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1905	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1906	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1922	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1923	1	UCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2019-1935	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	



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

Extraction Date: 10/7/19

Analyst: Anne Nord

Plate lot#: 0543908

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 **Blank Urine lot:** 8919 **Column:** Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)

LCMS-QQQ ID: 69679

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. Urine hydrolysis pipette: 250 ul urine in blank well, add 40 ul BG Turbo, add 100 ul 500 mm sodium phosphate buffer mix for at least five minutes ambient temperature.
Pipette 250 µL blood (calibrated pipette) or 250 ul urine in wells of analytical (standards) plate. **Pipette ID: 1926134**
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes. *Shaker ID: 66759*
- 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 or urine+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 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. **Urine samples add 50 ul 1% HCl in MeOH** Place on SPE Dry and evaporate to dryness at approx. 35°C.
SPE Dry ID: 66819
- 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.
- 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? (If no is it described in comments?)
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: ~~Click here to enter text.~~

calibrator did not inject on the first injection due to wrong plate position. Calibrator was re-injected and evaluated.

~~A~~



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

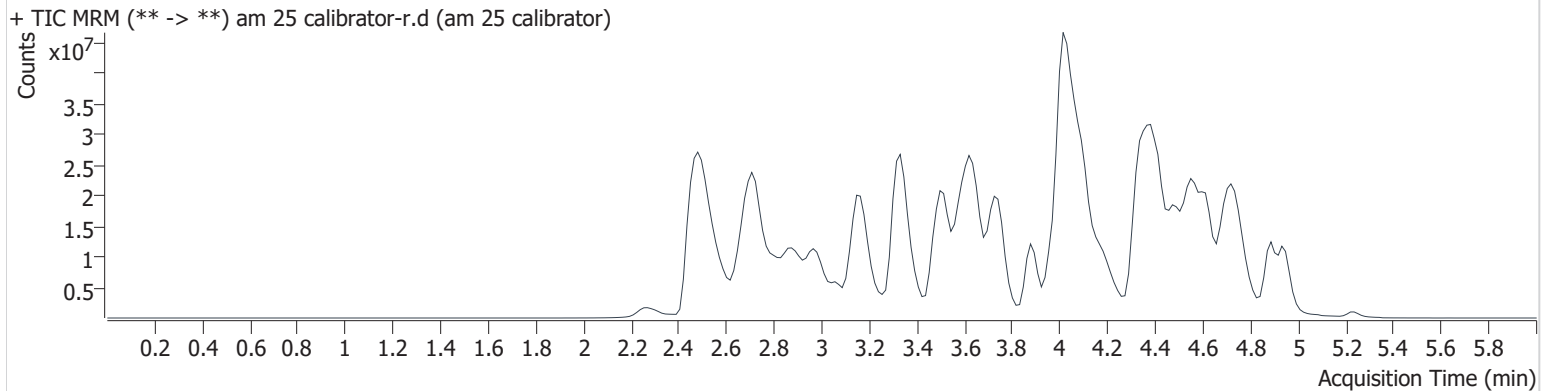
Concentration 100ng/ml hydrocodone, nortriptyline, sertraline, hydromorphone

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\mds.batch.bin
Calibration Last Update 10/8/2019 11:41:23 AM

Instrument	69679	Data File	am 25 calibrator-r.d
Type	Cal	Sample	am 25 calibrator
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-G12	Comment	
Injection Volume	2.5		
Acq. Date-Time	10/8/2019 8:45:55 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.100	102827	1177.3	709.5	2764170	10.000
7-aminoclonazepam	3.304	511851	235.0	350.0	2494996	10.000
7-aminoflunitrazepam	3.547	2300693	8452.3	551.4	12299629	10.000
Acetyl Fentanyl	4.337	695542	251.6	622.6	40371670	10.000
Acetyl Norfentanyl	2.685	416853	565.0	249.4	23677357	10.000
a-hydroxyalprazolam	4.322	112023	69.5	348.7	690883	10.000
alpha-hydroxymidazolam	4.428	1306087	381.6	1286.9	9086422	10.000
alpha-PVP	3.721	4925608	1261.7	1111.4	21904453	10.000
Alprazolam	4.432	1541385	260.3	774.2	4575362	10.000
Amitriptyline	4.714	2729128	355.3	208.3	12188665	10.000
Amphetamine	2.720	2872117	844.8	7153.0	7964566	10.000
Benzoylcegonine	3.089	1349923	1490.1	832.9	6337598	10.000
Buprenorphine	5.235	585617	4742.7	43032.9	2576724	10.000
Bupropion	4.041	1614666	509.2	779.7	11096242	10.000
Carbamazepine	4.027	3535320	∞	969.9	17680092	10.000
Carisoprodol	4.007	741889	2305.2	50.9	4801751	10.000
Chlordiazepoxide	4.572	409067	172.1	564.2	9199053	10.000
Chlorpheniramine	4.036	20523	80.6	∞	58143021	10.000
Citalopram	4.137	5110282	1609.5	2533.3	22716880	10.000
Clonazepam	4.277	398924	831.8	61239.1	627993	10.000
Cocaine	3.665	9046036	3990.8	1233.9	41742089	10.000
Codeine	3.042	756113	555.5	595.5	3379092	10.000
Cyclobenzaprine	4.576	6218720	629.3	235.7	23433396	10.000
Desipramine	4.484	7656770	570.2	705.3	37913704	10.000
Dextromethorphan	4.206	4452180	659.3	382.8	22241934	10.000
Dextrorphan	3.368	4274847	1530.3	867.6	22255192	10.000
Diazepam	4.697	882115	1231.6	1212.0	3952369	10.000
Dihydrocodeine	2.754	1949703	270.5	1130.8	9851413	10.000
Diphenhydramine	4.100	16928851	2094.5	1096.1	58143021	10.000
Doxepin	4.389	2864913	434.9	9.1	15652124	10.000
Doxylamine	3.609	18148242	27199.0	16218.3	58055831	10.000
EDDP	4.020	7037504	520.9	441.6	37926649	10.000
Estazolam	4.341	2388066	1533.8	983.8	6482769	10.000
Etizolam	4.458	206034	118968.3	397526.8	6482769	10.000



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Fentanyl	4.566	576415	86.8	913.6	28247854	10.000
Flunitrazepam	4.400	1200246	672.6	926.8	214856	10.000
Fluoxetine	4.339	5017951	3742.1	382.2	21449713	10.000
Flurazepam	4.564	5046635	6649.4	1041.9	214856	10.000
Hydrocodone	3.362	1394648	112.8	385.2	9471296	10.000
Hydromorphone	2.607	1930802	473.3	488.6	6079791	10.000
Imipramine	4.636	10636894	1192.2	2687.1	37032082	10.000
Ketamine	3.996	2495708	3483.1	64.4	18168663	10.000
Lamotrigine	3.429	474773	565.3	3266.9	17773833	10.000
Levamisole	3.204	5280257	450.7	262.6	41742089	10.000
Lorazepam	4.245	56329	267.9	∞	4575362	10.000
Maprotiline	4.498	676963	19.0	193.0	12188665	10.000
MDA	2.884	3687773	1295.7	497.3	17647857	10.000
MDEA	3.157	8136138	1676.9	774.1	36189986	10.000
MDMA	3.005	9009406	2815.1	1294.2	4954540	10.000
Meperidine	3.718	3848488	419.5	67074.3	17773833	10.000
Meprobamate	3.402	590439	1915.0	385.6	2549800	10.000
Methadone	4.415	11648221	1225.6	1044.9	43378890	10.000
Methamphetamine	2.841	24778927	651.4	852.3	11391503	10.000
Methocarbamol	3.307	213567	418.1	494.1	17773833	10.000
Methylphenidate	3.506	15187156	6433.0	4951.7	51547721	10.000
Metoprolol	3.320	841236	381.9	2184.5	17773833	10.000
Midazolam	4.629	964707	851.3	777.3	12207847	10.000
Mirtazapine	4.531	4004036	1308.2	1716.8	17773833	10.000
Mitragynine	4.579	835739	290.4	1171.1	15652124	10.000
Morphine	2.379	507421	84.5	471.4	470573	10.000
Norbuprenorphine	3.921	90121	69.4	285.1	457328	10.000
Nordiazepam	4.530	294403	65802.2	373.0	994748	10.000
Norfentanyl	3.186	8082021	1296.7	357.1	32487721	10.000
Norhydrocodone	2.863	108026	72.2	27.1	2736156	10.000
Normeperidine	3.537	3705635	1167.0	535.8	14128766	10.000
Noroxycodone	2.754	1785811	∞	115.3	5829628	10.000
Nortriptyline	4.515	3171906	718.7	357.9	7483149	10.000
O-desmethyl-tramadol	2.714	12878062	6052.2	627.9	50318306	10.000
Olanzapine	4.215	1725732	304.1	2275.2	111167	10.000
Oxazepam	4.327	171269	116.0	42.4	922983	10.000
Oxycodone	2.964	3731146	949.7	613.3	17394768	10.000
Oxymorphone	2.285	1880116	590.0	175.3	7189222	10.000
Paroxetine	4.521	544422	87.8	94.4	16017918	10.000
Phenazepam	4.473	532936	617.4	1414.3	2025936	10.000
Phencyclidine	3.903	6972974	1476.6	751.8	32604699	10.000
Phentermine	2.993	4550963	∞	29.1	14003235	10.000
Phenytoin	3.916	19094	27.2	153.5	111167	10.000
Promethazine	4.743	13953261	7774.8	336.8	53729774	10.000
Pseudoephedrine	2.490	60294532	9285.7	633.5	140593732	10.000
Quetiapine	4.718	6206895	3612.2	9656376. 6	8733679	10.000
Sertraline	4.770	3468534	319806.0	25526.4	16017918	10.000
Sufentanil	4.948	654878	839.2	953.8	32626245	10.000
Tapentadol	3.340	6094874	845.5	2252.0	29438992	10.000
Temazepam	4.495	1171505	225.4	64.5	5813123	10.000
Tramadol	3.336	10833292	106099.6	166.3	47834612	10.000
Trazodone	4.888	7244015	796.0	5708.2	28394033	10.000
Venlafaxine	3.761	11136250	11424.9	778.1	44256917	10.000
Zaleplon	4.156	1836460	2407.0	500.9	5606758	10.000
Zolpidem	4.371	12459377	2574.1	942.0	41481218	10.000
Zopiclone	4.395	382952	185082.5	212.5	1787244	10.000

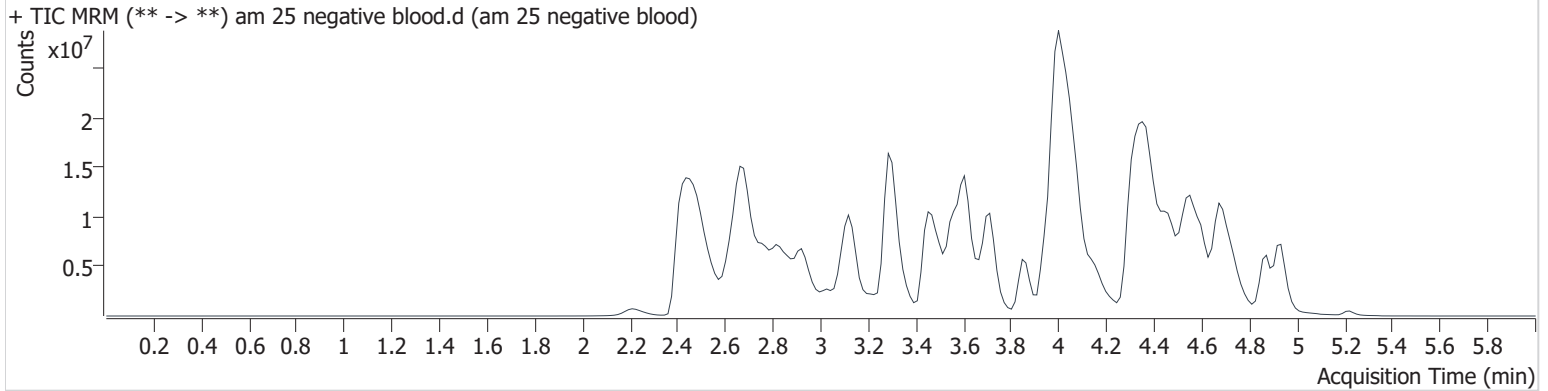


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\mds.batch.bin
Calibration Last Update 10/8/2019 11:41:23 AM

Instrument	69679	Data File	am 25 negative blood.d
Type	Sample	Sample	am 25 negative blood
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-F3	Comment	
Injection Volume	2.5		
Acq. Date-Time	10/7/2019 5:57:43 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.795	14145561	∞	∞	9056599	7.180 <10

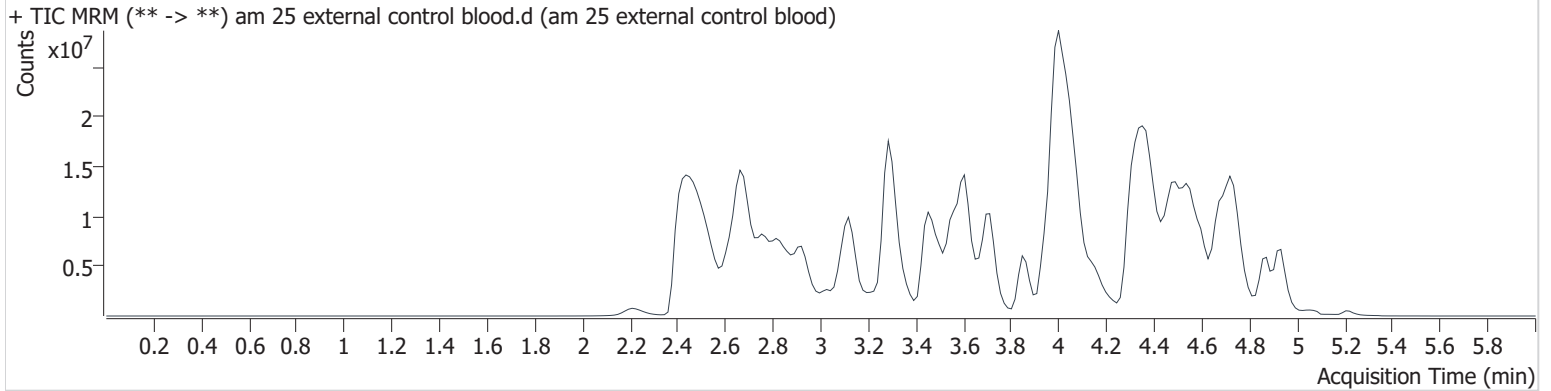


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\mds.batch.bin
Calibration Last Update 10/8/2019 11:41:23 AM

Instrument	69679	Data File	am 25 external control blood.d
Type	Sample	Sample	am 25 external control blood
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-G3	Comment	
Injection Volume	2.5		
Acq. Date-Time	10/7/2019 6:04:53 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Hydrocodone	3.271	8158139	1510.3	1478.6	6609516	83.824
Hydromorphone	2.531	8016470	1102.7	496.4	2931193	86.117
Methamphetamine	2.810	15171512	∞	909.7	13778758	5.062 <10
Nortriptyline	4.500	17276495	1890.2	1749.0	5096572	79.973
Sertraline	4.740	17388877	3153389.0	6328.4	9737992	82.464



Toxicology AM method 25 urine external control prep
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 30 ul working solution (52020) in 270 ul negative urine

ppd 10/7/19, exp 3/1/20 lot 10719 negative urine lot 8919 by AMN

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

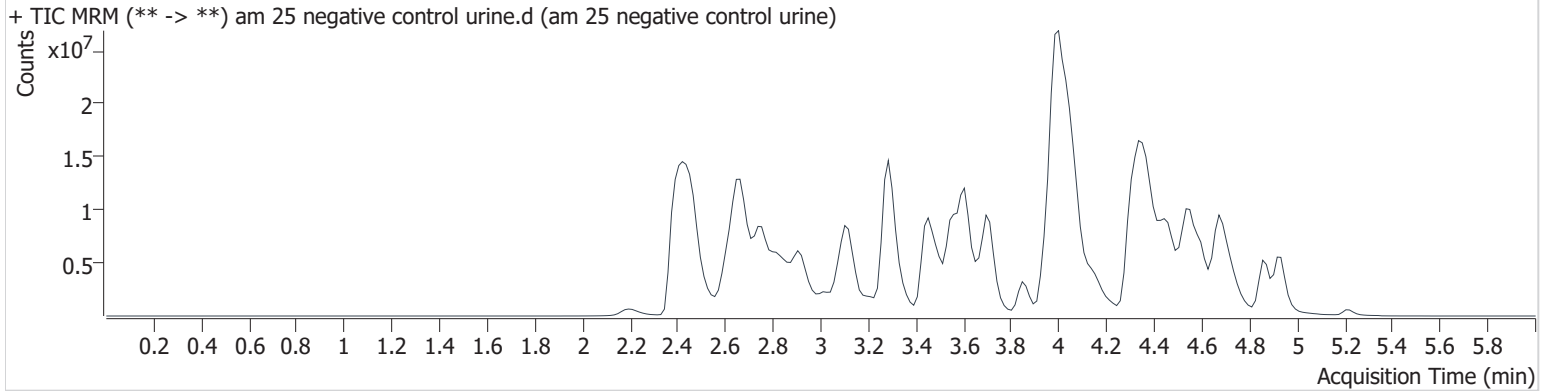


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\mds.batch.bin
Calibration Last Update 10/8/2019 11:41:23 AM

Instrument	69679	Data File	am 25 negative control urine.d
Type	Sample	Sample	am 25 negative control urine
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-D5	Comment	
Injection Volume	2.5		
Acq. Date-Time	10/7/2019 7:44:53 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.825	13111382	∞	∞	18878718	3.193 <10

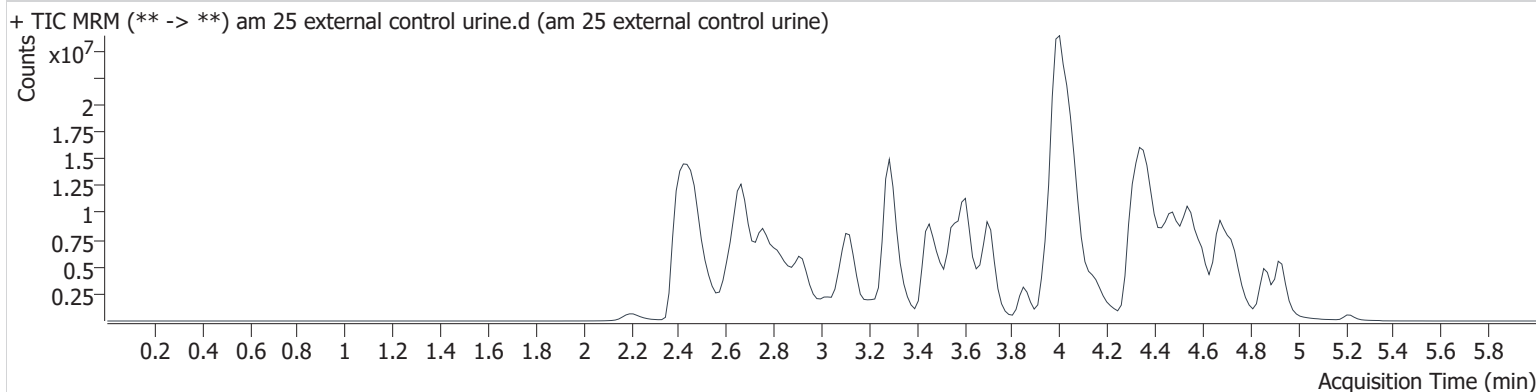


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\mds.batch.bin
Calibration Last Update 10/8/2019 11:41:23 AM

Instrument	69679	Data File	am 25 external control urine.d
Type	Sample	Sample	am 25 external control urine
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-E5	Comment	
Injection Volume	2.5		
Acq. Date-Time	10/7/2019 7:52:02 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Hydrocodone	3.271	5349688	1114.8	654.4	5617620	64.673
Hydromorphone	2.516	5696206	1727.6	874.2	2345101	76.485
Methamphetamine	2.795	15301235	∞	∞	17880340	3.934 <10
Nortriptyline	4.500	9642378	1036.6	1391.8	4722506	48.170
Sertraline	4.740	5854217	14069184.8	391.8	6022637	44.889



AM# 26: THC and Metabolites Screen in Blood by LC-MS/MS

Extraction Date: 10/7/19

Analyst: Anne Nord

Plate lot#: 190716

Plate Expiration: 01/16/2020

Mobile phase A: 10mM Ammonium Formate
0.1% Formic Acid in Water

Mobile phase B: 0.1% Formic acid in MeOH
MTBE Hexane

Blank Blood Lot: 445283-2 **Urine Blank:** 8919 **Column:** Phenomenex Phenyl Hexyl (4.6x50mm: 2.6 um)
LCMS-QQQ ID: 69679

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. Urine hydrolysis: add 1.5 ml urine to blank plate, add 250 ul 1N KOH mix and incubate at 40 degrees for 15 minutes.
Pipette 1000 µL blood (calibrated pipette) in wells of analytical (standards) plate. Pipette ID: K52558g
Pipette 1000 ul urine to analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes. Shaker ID: 66759
- 4. Pipette 500 µL 0.1% formic acid in blood wells 500 ul saturated phosphate buffer in urine wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 6. Transfer 800 µL of blood acid or urine acid 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 2.25 mL MTBE (add in 3 increments of 750 µL).
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 10-15 seconds. (12-15 PSI- Selector to the left).
- 12. Add 2.25 mL hexane (add in 3 increments of 750 µL).
- 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: 66819
- 16. Reconstitute in 100 µL 100% LCMS MeOH and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

- 1. Create batch and process data.
- 2. Calculated sample concentration of 3 ng/mL or greater for THC and THC-OH, a calculated sample concentration of 10 ng/mL or greater for Carboxy-THC.
- 3. Retention time within +/- 2% or +/-0.100 min whichever is greater of the average retention time of the calibrators.
- 4. Did all QCs pass for each analyte? Yes
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

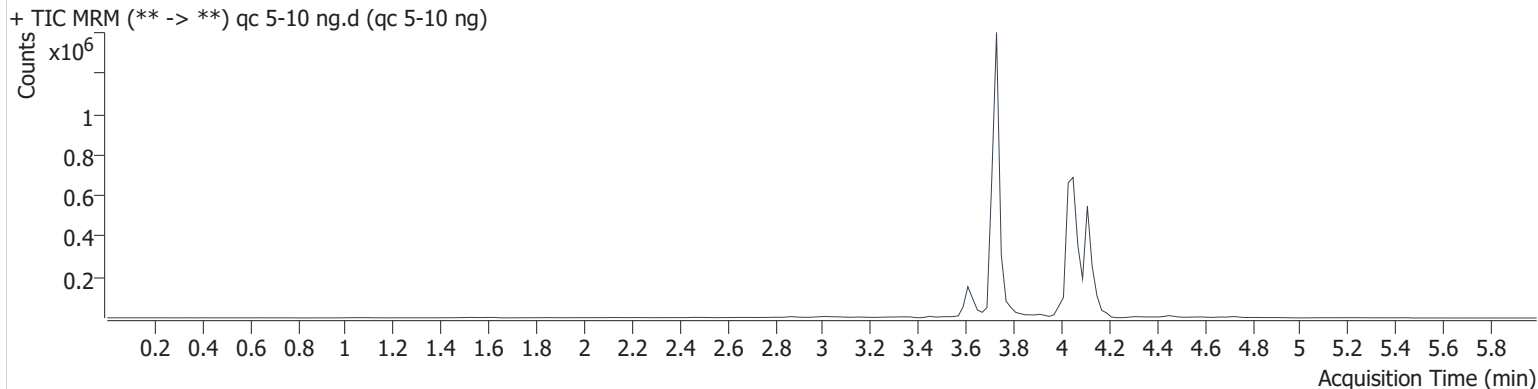
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	qc 5-10 ng.d
Type	QC	Sample	qc 5-10 ng
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-H1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 3:01:05 PM		

Sample Info.

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	60274	862225	4.326 ng/ml
THC-COOH	3.630	49659	342189	12.273 ng/ml
THC-OH	3.736	22230	2924694	4.654 ng/ml

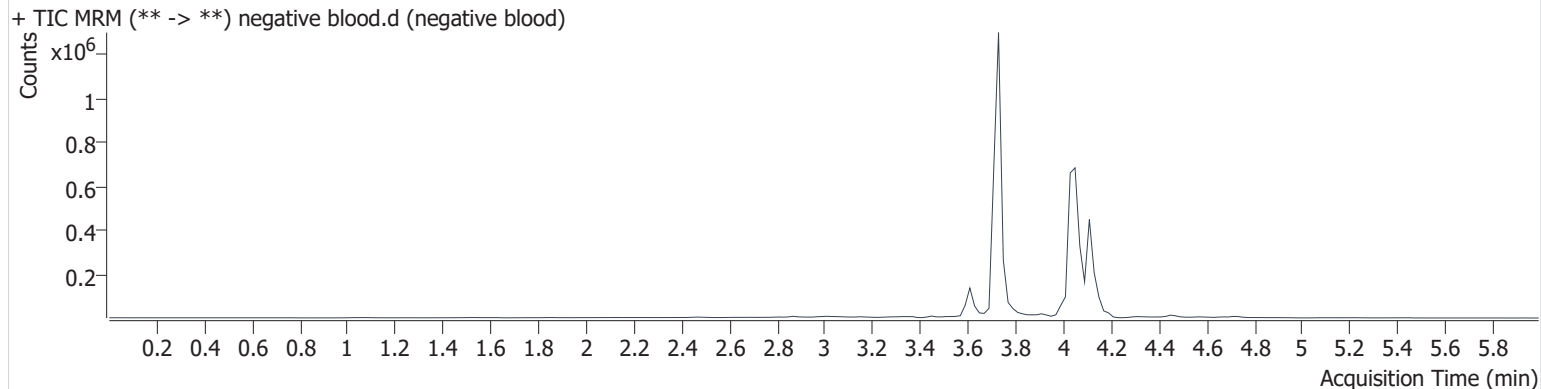


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	negative blood.d
Type	Sample	Sample	negative blood
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-A2	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 3:07:43 PM		
Sample Info.			

Sample Chromatogram

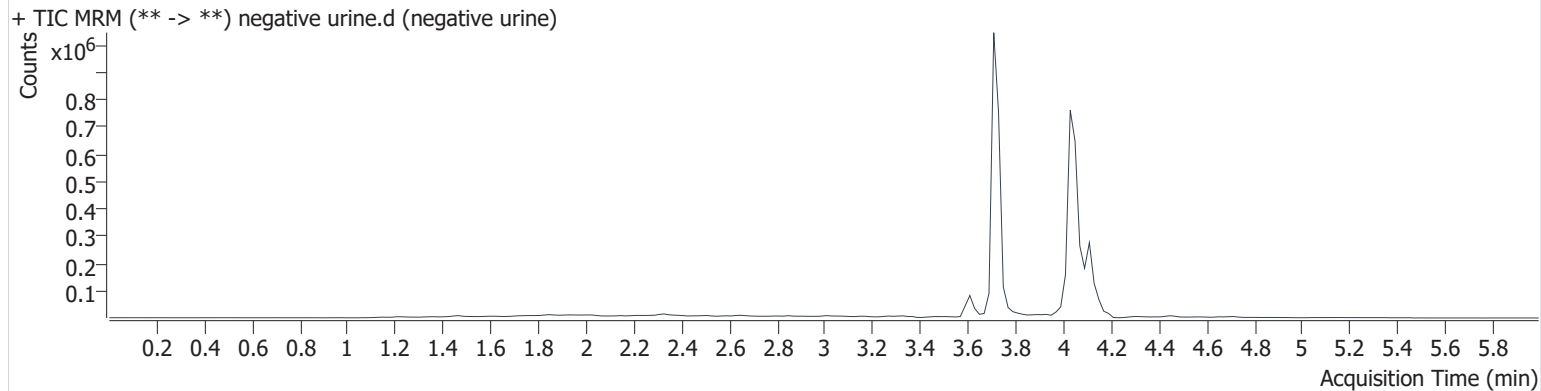


AM #26 Cannabinoids Screen Results

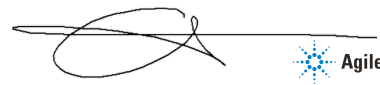
Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	negative urine.d
Type	Sample	Sample	negative urine
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-G3	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 4:40:09 PM		
Sample Info.			

Sample Chromatogram

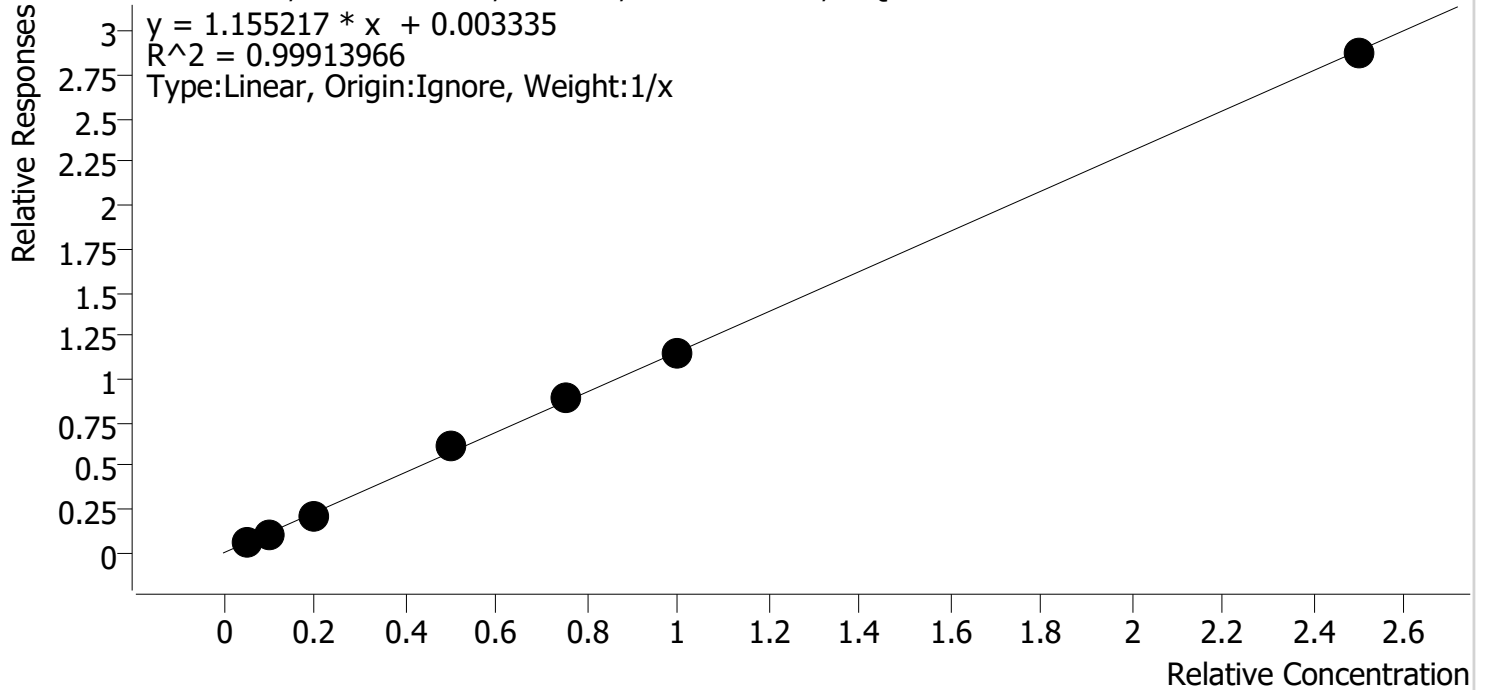


Compound Calibration Report



Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Last Cal. Update 10/8/2019 11:36 AM
Analyst Name ISP\datastor
Analyte THC-COOH **Internal Standard** THC-COOH-d9

THC-COOH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 0 QCs

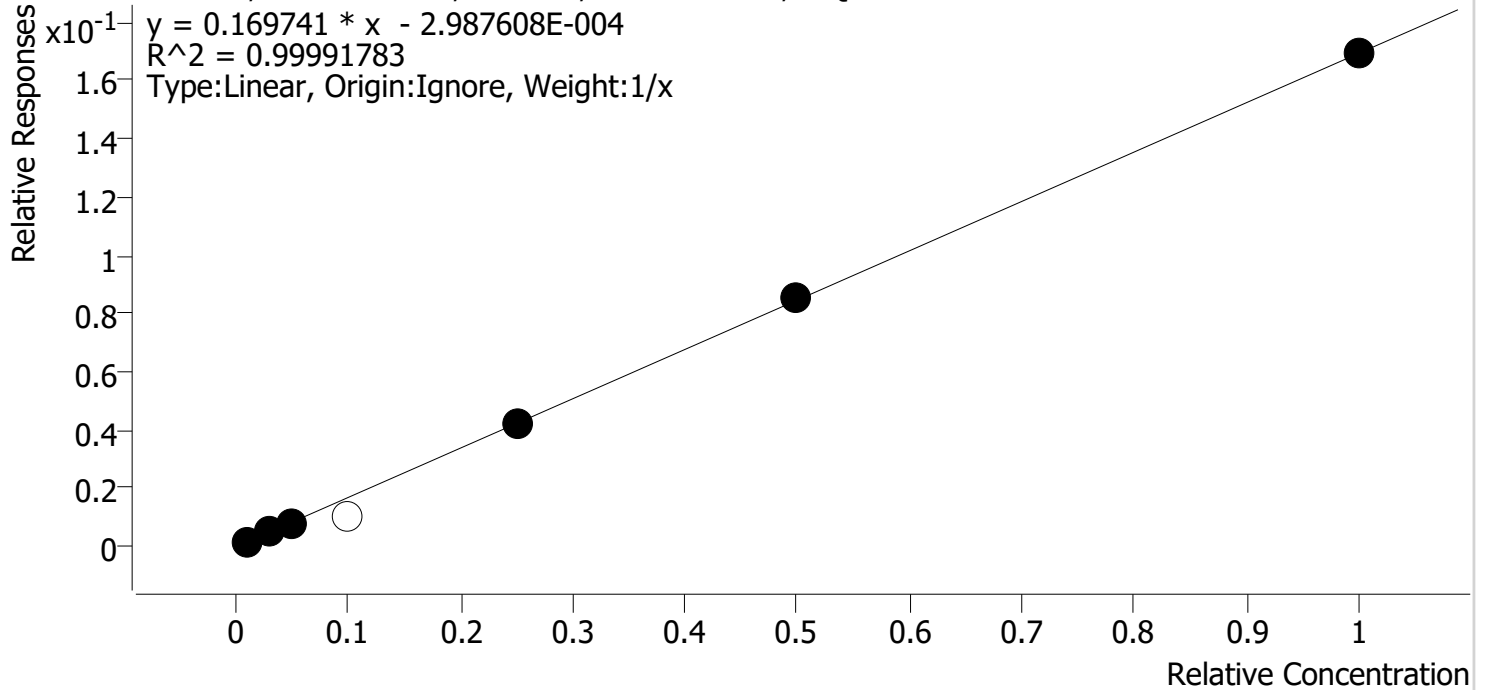


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	5.0	5.4	107.6
cal 2	2	✓	10.0	9.3	93.2
cal 3	3	✓	20.0	18.7	93.7
cal 4	4	✓	50.0	52.7	105.4
cal 5	5	✓	75.0	76.2	101.6
cal-6	6	✓	100.0	99.3	99.3
cal-7	7	✓	250.0	248.4	99.4

Compound Calibration Report

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Last Cal. Update 10/8/2019 11:36 AM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-d3

THC-OH - 7 Levels, 6 Levels Used, 7 Points, 6 Points Used, 0 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	1.0	1.0	104.1
cal 2	2	✓	3.0	2.9	96.5
cal 3	3	✓	5.0	5.0	99.7
cal 4	4	x	10.0	5.9	59.4
cal 5	5	✓	25.0	24.7	98.8
cal-6	6	✓	50.0	50.5	100.9
cal-7	7	✓	100.0	99.9	99.9

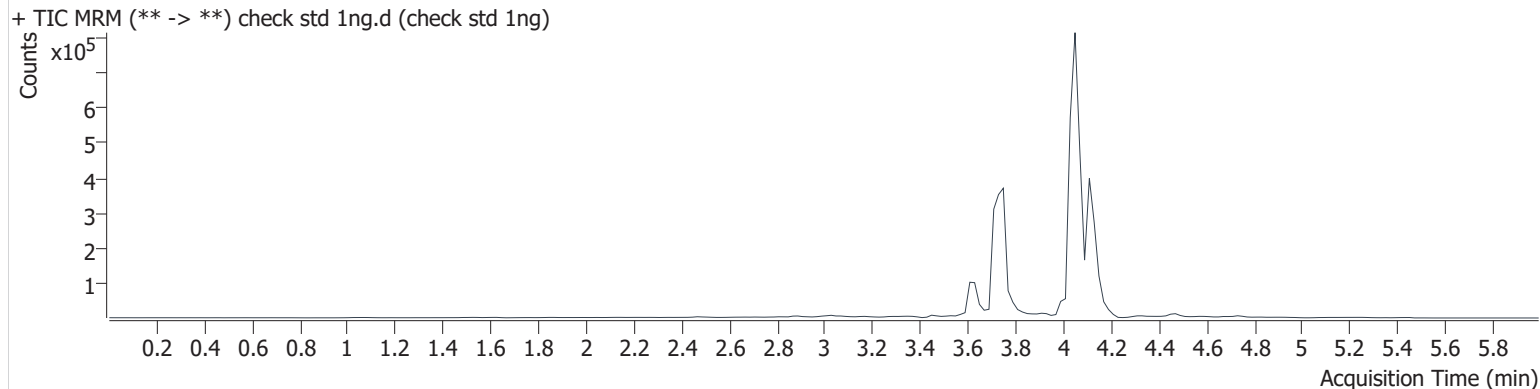
dropped calibrator 4 due primary peak cut off.

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	check std 1ng.d
Type	Cal	Sample	check std 1ng
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-G1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 2:08:21 PM		
Sample Info.			

Sample Chromatogram



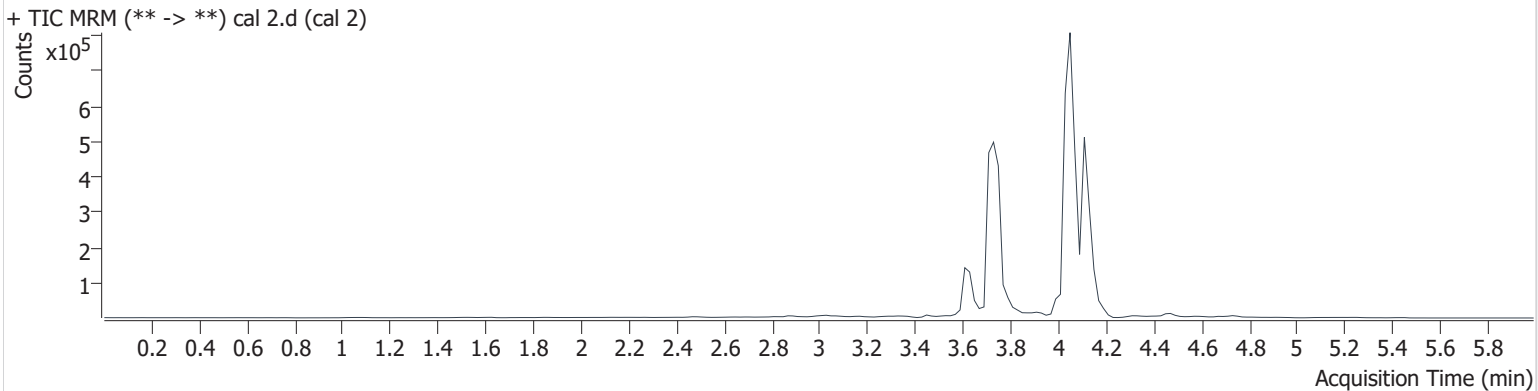
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	12396	735877	1.060 ng/ml Low
THC-COOH	3.630	19038	290829	5.378 ng/ml Low
THC-OH	3.756	2007	1366255	1.041 ng/ml Low

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	cal 2.d
Type	Cal	Sample	cal 2
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-F1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 2:14:59 PM		

Sample Chromatogram



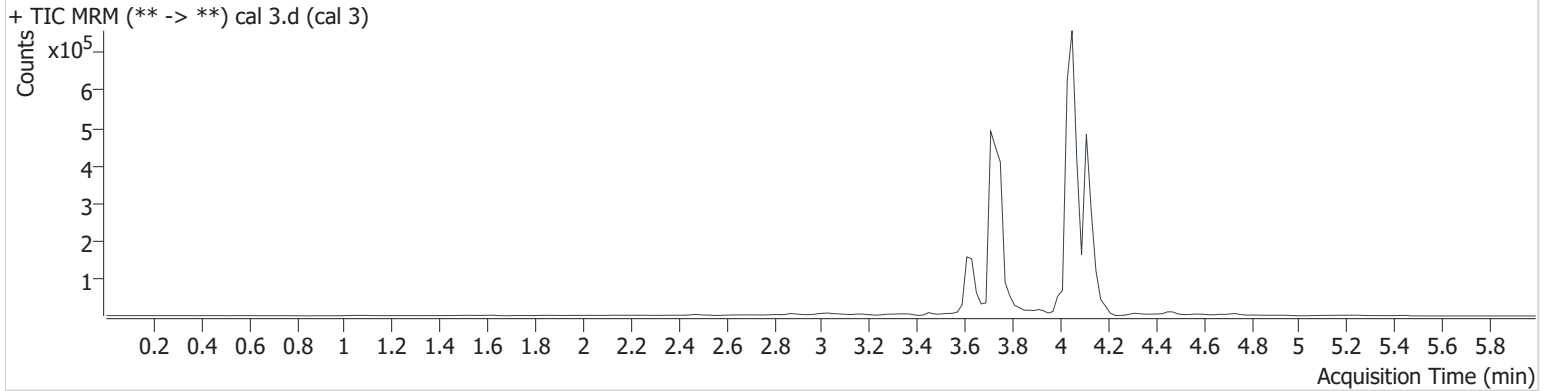
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	42538	903449	2.921 ng/ml Low
THC-COOH	3.630	38097	343372	9.316 ng/ml Low
THC-OH	3.716	8149	1765717	2.895 ng/ml Low

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	cal 3.d
Type	Cal	Sample	cal 3
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-E1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 2:21:36 PM		
Sample Info.			

Sample Chromatogram



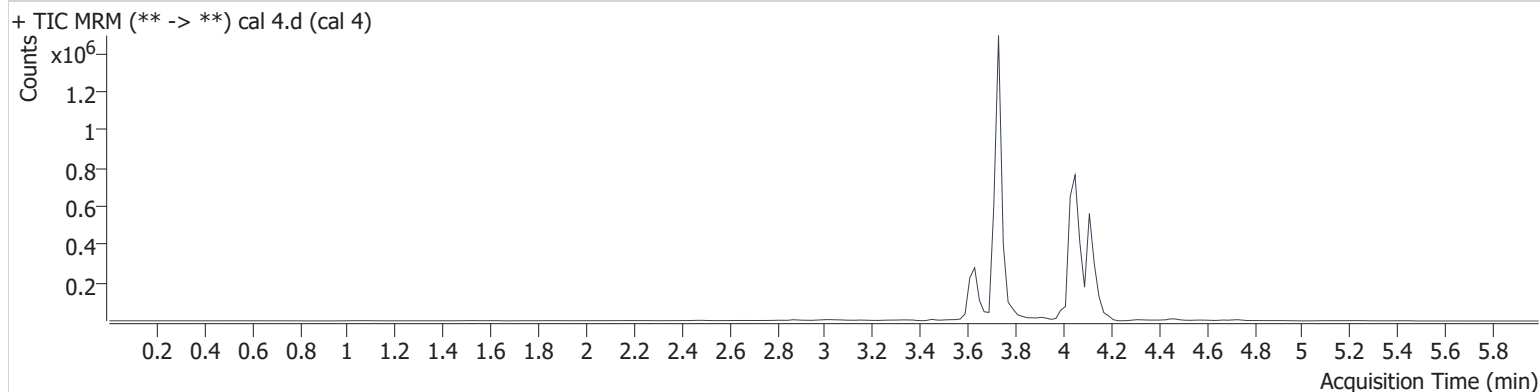
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	62523	803764	4.811 ng/ml
THC-COOH	3.630	73399	333978	18.736 ng/ml
THC-OH	3.716	13946	1708501	4.985 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	cal 4.d
Type	Cal	Sample	cal 4
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-D1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 2:28:11 PM		
Sample Info.			

Sample Chromatogram



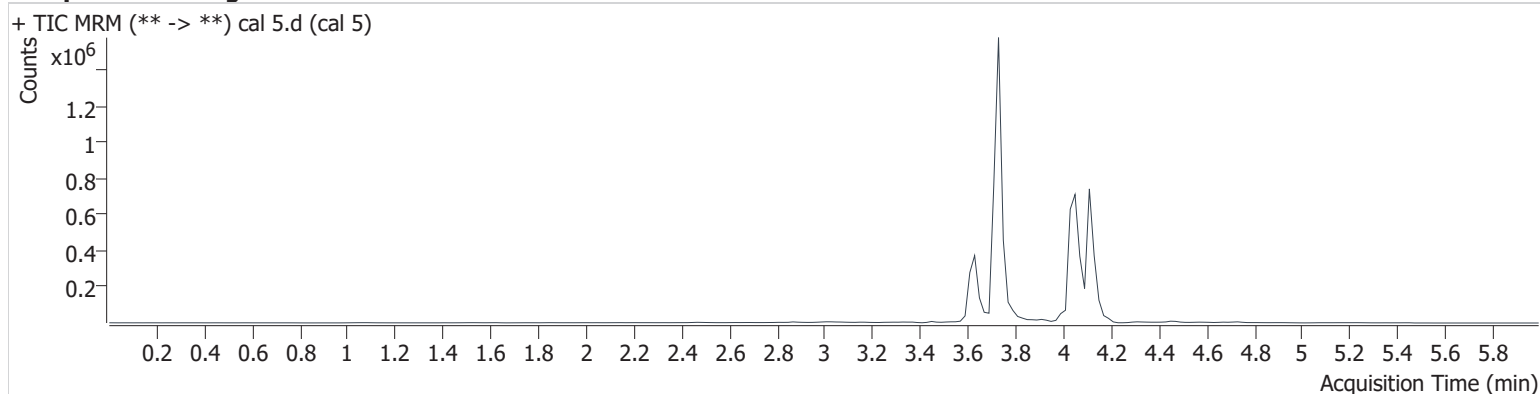
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	139157	841989	10.196 ng/ml
THC-COOH	3.630	200722	327969	52.690 ng/ml
THC-OH	3.716	28758	2938442	5.942 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	cal 5.d
Type	Cal	Sample	cal 5
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-C1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 2:34:47 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	366279	922973	24.451 ng/ml
THC-COOH	3.630	295323	334386	76.163 ng/ml
THC-OH	3.736	121427	2916278	24.706 ng/ml

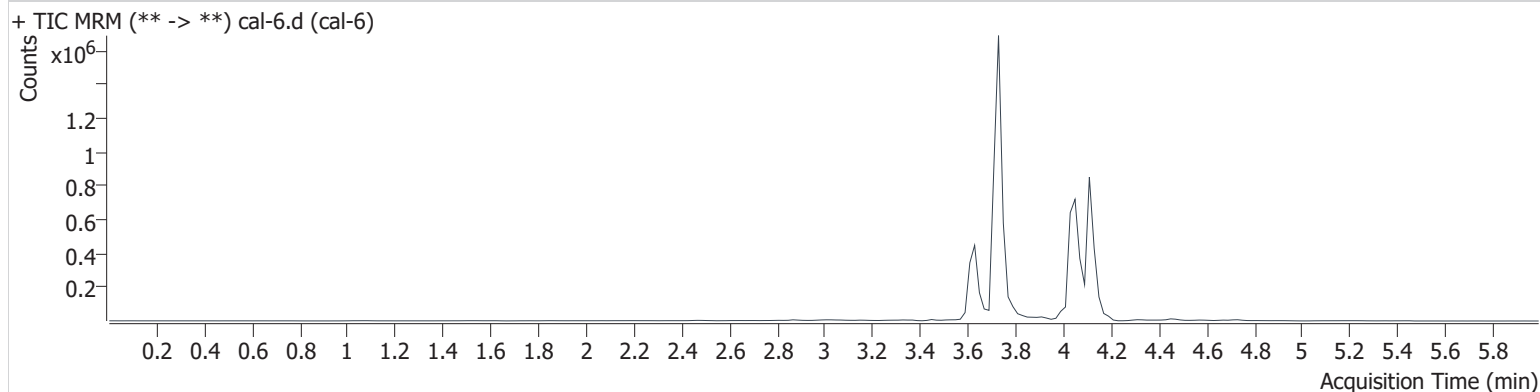


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	cal-6.d
Type	Cal	Sample	cal-6
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-B1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 2:41:23 PM		
Sample Info.			

Sample Chromatogram



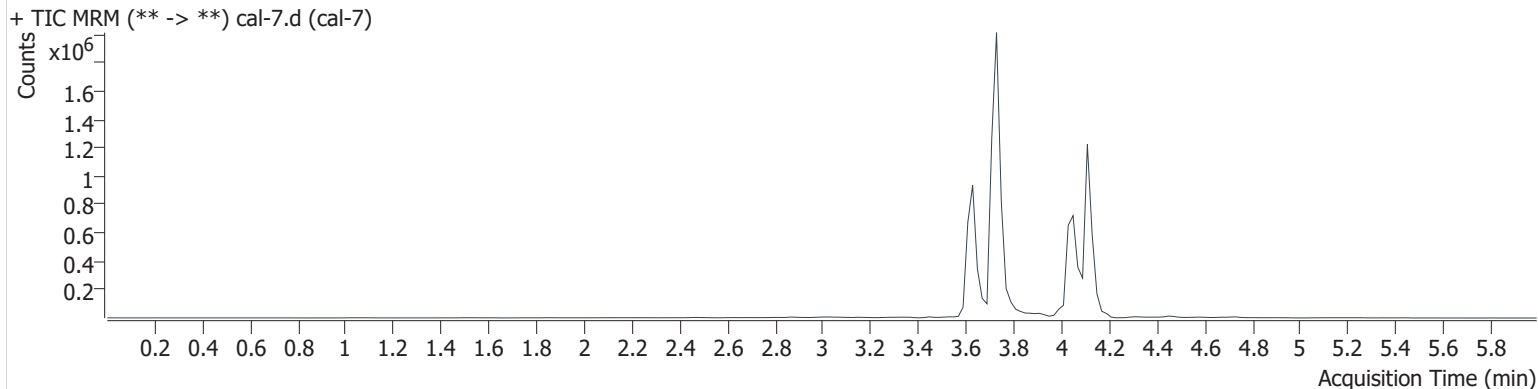
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	667499	820432	50.104 ng/ml
THC-COOH	3.630	385472	335004	99.316 ng/ml
THC-OH	3.736	236163	2766690	50.464 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\100719\QuantResults\cann screen.batch.bin
Calibration Last Update 10/8/2019 11:36:44 AM

Instrument	69679	Data File	cal-7.d
Type	Cal	Sample	cal-7
Acq. Method	am 26 cann screen.m	Operator	Anne Nord
Sample Position	P3-A1	Comment	
Injection Volume	5		
Acq. Date-Time	10/7/2019 2:47:59 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.120	1314601	805708	100.457 ng/ml
THC-COOH	3.630	910697	316993	248.403 ng/ml
THC-OH	3.736	458254	2706975	99.908 ng/ml



**Idaho State Police
Forensic Services
Toxicology Discipline**

Request for Departure from an Analytical Method

Date of Request
09/30/2019

Forensic Scientist
Celena Shrum

Analytical Method
Toxicology AM #25: Blood Multi-Drug Screen by LCMS-QQQ

Request

During the urine validation, an extra step for stabilizing compounds in urine during the drying process was added. When the method was revised to include the addition of urines to the scope, this step was inadvertently left out. I am requesting to perform this step for casework until the method is updated. The additional step is to add 50ul of 1% HCl in methanol to the wells in the collection plate that correspond to a urine sample. This deviation will be utilized by all analysts that perform this method from this date forth until the method can be revised to include this step.

In addition, for AM 28, it will be at the analysts' discretion to add the HCl to urine samples before drying down.

Discipline Leader Review

Departure approved
Comments: **Minor deviation from method.**

Departure Not Approved
Comments:



Date: 9/30/19
Rachel Cutler
Pocatello Laboratory Manager