



















REVIEWED

By Sarah Collins at 11:03 am, Feb 15, 2023

2/13/2023

REVIEWED
By Brittany Wylie at 8:38 am, Feb 21, 2023

Worklist: 6247

<u>LAB_CASE</u>	<u>ITEM</u>	<u>ITEM_TYPE</u>	<u>DESCRIPTION</u>	
C2023-0060	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0084	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0128	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0168	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0186	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0202	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2023-0212	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0223	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0257	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0266	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2023-0268	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0269	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0293	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0317	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0319	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2023-0352	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: 2/13/23 Analyst: Anne Nord
Plate lot#: 220805 Plate retest date: 02/05/23

Mobile phase A: 10mM Ammonium Formate
0.5M Ammonium Hydroxide
Mobile phase B: 0.1% Formic Acid in MeOH
Ethyl Acetate LC 20% Methanol
Blank Blood Lot: 22B52016-1 **Blank Urine lot:** 12522 **Column:** Agilent Phenyl Hexyl (4.6x50mm, 2.7um)
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: 390993**
- 3. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
- 4. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 5. Transfer **300 µL of blood or urine+base** mixture to corresponding wells of SLE+ plate.
- 6. 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
- 7. Wait 5 minutes.
- 8. Add **900 µL ethyl acetate.**
- 9. Wait 5 minutes.
- 10. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 11. Add **900 µL ethyl acetate.**
- 12. Wait 5 minutes.
- 13. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 14. Remove plate containing eluate. add 50 ul 1% HCl in MeOH Place on SPE Dry and evaporate to dryness at approx. 35°C.
SPE Dry ID: 66819
- 15. Reconstitute in **100 µL 20% LC MeOH** in LC Water 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: *External controls run for plate re-test.*

C2023-0202-1 not evaluated for 6-mam due to low internal standard response.



Toxicology AM method 25/28 urine external control prep

working solution 10000 ng/ml in meoh diphendydramine, methamphetamine, alprazolam, , morphine
Stock solution 1mg/ml 50 ul each in 4800 ul MeOH (VWR 21050767)

ppd 7/7/22: Exp: 7/7/23 lot 7722 by AMN

Drug	lot	expiration
Methamphetamine	FE03132001	7/1/2025
alprazolam	FE06102008	6/1/2025
Diphendydramine	FN02212011	3/1/2025
Morphine	FE03232010	4/1/2025

AM 25/28 control 500 ul working solution (7722) in 4500 ul negative urine (1000ng/mL Expected concentration)

ppd 7/7/22, exp 7/7/23 lot u7722 negative urine 21522 by AMN

AM 25/28 Blood Control: 50ul working solution (7722) in 4950 ul neg blood (100ng/mL Expected concentration)

ppp 7/7/22, exp 7/7/23 lot b7722 neg blood 22B52016-3 by AMN

	1	2	3	4	5	6	7	8	9	10	11	12
A									0168-2	266-1		
B									0186-2	external control urine		
C									0223-3	negative urine		
D									0257-1	external control blood		0202-1
E									0212-2	negative blood		
F									0268-1	0319-1		
G									0060-1	0084-1		Cal 1
H									0128-1	0293-1		

plate position 2

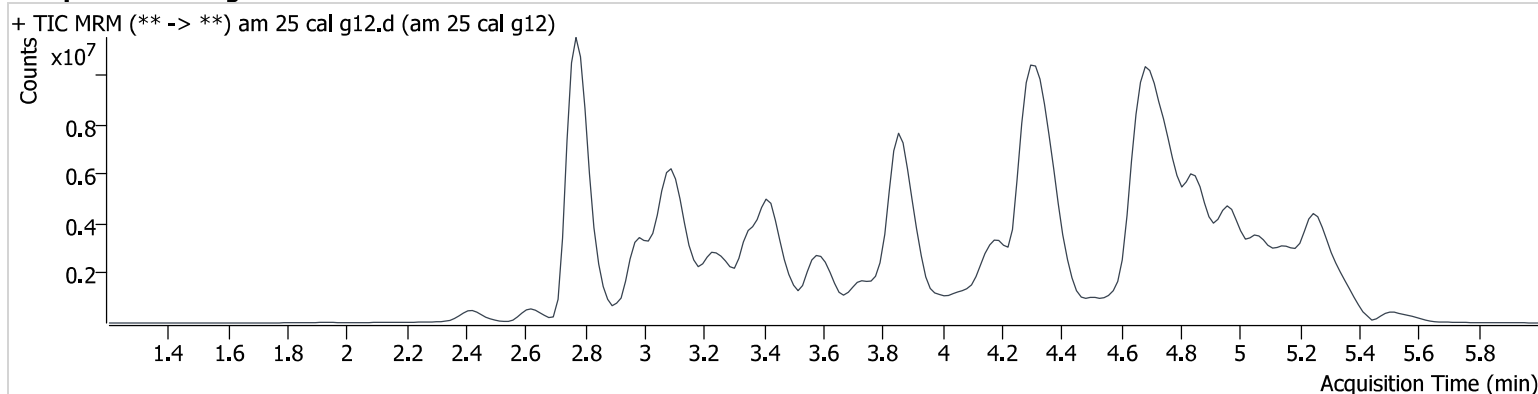
C2023-____-

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\mds.batch.bin
Calibration Last Update 2/14/2023 12:22:26 PM

Instrument	69679	Data File	am 25 cal g12.d
Type	Cal	Sample	am 25 cal g12
Acq. Method	mds713.m	Operator	Anne Nord
Sample Position	P2-G12	Comment	
Injection Volume	2.5		
Acq. Date-Time	2/13/2023 11:14:47 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
10-OH-Carbamazepine	3.877	1917662	5074.7	35.9	5898684	10.000
6-MAM	3.179	30974	61.3	7352.2	851266	10.000
7-aminoclonazepam	3.643	437732	232.2	648.5	2214615	10.000
7-aminoflunitrazepam	3.858	760862	186.9	166.6	2214615	10.000
9-Hydroxyrisperidone	4.372	3472957	267.9	24167.9	2214615	10.000
Acetyl Fentanyl	4.454	243156	38.4	359.2	10477905	10.000
Acetyl Norfentanyl	2.945	203094	712.1	224.9	10477905	10.000
a-hydroxyalprazolam	4.715	310251	∞	∞	2214615	10.000
alpha-hydroxymidazolam	4.775	928981	230.7	227.2	2214615	10.000
alpha-PHP	4.186	1867568	685.5	341.5	4866326	10.000
alpha-PVP	3.864	2434347	916.2	321.7	4866326	10.000
Alprazolam	4.794	1393893	1037.2	187.1	5898684	10.000
Amitriptyline	4.859	1301003	381.7	424.5	5296773	10.000
Amphetamine	2.995	2374792	2167.3	1557.7	4866326	10.000
Benzoylcegonine	3.474	96646	1278.2	77.4	146533	10.000
Brompheniramine	4.347	63226	7757.3	14.9	36266547	10.000
Buprenorphine	5.515	84973	21040.9	207.6	2117887	10.000
Bupropion	4.217	2223879	317.6	562.1	8608332	10.000
Carbamazepine	4.371	3395491	∞	367.3	70986	10.000
Carisoprodol	4.307	693154	113928.1	80.4	2511378	10.000
Chlordiazepoxide	4.980	499196	76.8	91.5	10386904	10.000
Chlorpheniramine	4.228	3411930	2213.1	∞	3868912	10.000
Chlorpromazine	5.205	2163577	328510.5	2245.0	8343669	10.000
Citalopram	4.376	1780796	79.7	424606.2	3868912	10.000
Clomipramine	5.160	2662997	1200.5	933.8	3868912	10.000
Clonazepam	4.655	653536	190.6	308.8	10386904	10.000
Clonazolam	4.528	689572	158667.8	51424.1	10386904	10.000
clozapine	4.990	3551731	781093.1	697543.5	11560371	10.000
Cocaehtylene	4.070	2271829	4284.1	5701.9	12888549	10.000
Cocaine	3.872	3125670	682842.0	176.9	12888549	10.000
Codeine	3.121	273127	35758.1	200.0	3904101	10.000
Cyclobenzaprine	4.737	2240173	4455.0	136.0	5296773	10.000
Desipramine	4.692	3549314	881867.5	1626.3	5296773	10.000
Dextromethorphan	4.352	1251673	194190.2	1845.4	5368459	10.000

AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Dextrorphan	3.524	1462797	5796.6	1486.6	5368459	10.000
Diazepam	5.057	798423	357.3	397.2	10386904	10.000
Dihydrocodeine	2.877	724850	1515.5	211.4	36266547	10.000
Dimethyltryptamine	3.099	1248679	441.2	2202.7	11878131	10.000
Diphenhydramine	4.308	5371289	9031.8	432.1	36266547	10.000
Doxepin	4.536	1238972	697.6	131.0	15738837	10.000
Doxylamine	3.829	5176645	411.6	2005.8	2235399	10.000
Duloxetine	4.612	54553	13895.2	1116.3	4556939	10.000
EDDP	4.305	633433	116.2	51.7	1008943	10.000
Estazolam	4.704	2418255	1027.7	828.5	10386904	10.000
Etizolam	4.774	119774	29996.6	107987.2	10386904	10.000
Fentanyl	4.698	215705	31.7	36.6	10477905	10.000
Flualprazolam	4.607	443334	69910.3	288.6	10386904	10.000
Flunitrazepam	4.763	1303858	371.7	322.8	10386904	10.000
Fluorofentanyl	4.743	203331	40741.9	158.0	10477905	10.000
Fluoxetine	4.594	2071629	231952.1	21613.3	4556939	10.000
Flurazepam	4.742	1958423	2754.9	58171.3	10386904	10.000
Hydrocodone	3.366	840875	313.2	59.5	3904101	10.000
Hydromorphone	2.637	666707	265.6	281.8	3904101	10.000
hydroxyzine	5.109	2834162	619.0	6425.2	5368459	10.000
Imipramine	4.798	4295079	1489.0	∞	5296773	10.000
Ketamine	4.202	1939370	1079.9	25.1	5368459	10.000
Lamotrigine	3.754	153157	87.2	4493.4	3868912	10.000
Levamisole	3.298	1354326	562.3	124.1	5368459	10.000
Levetiracetam	2.613	549199	438.8	799.3	3868912	10.000
Lorazepam	4.609	277645	∞	1927.8	10386904	10.000
Maprotiline	4.706	429673	395.9	38.2	5296773	10.000
MDA	3.130	1678306	858.0	89.9	11878131	10.000
MDEA	3.374	2759616	104.6	1638.1	11878131	10.000
MDMA	3.206	2871261	13428.6	242.1	11878131	10.000
Meperidine	3.878	1459610	143.0	105.0	5368459	10.000
Meprobamate	3.726	391061	1296.1	52.6	2511378	10.000
Methadone	4.656	3510881	432.1	400.3	1008943	10.000
Methamphetamine	3.101	5554190	∞	1763878 7487546 5.0	11878131	10.000
Methocarbamol	3.678	256078	80.1	414.6	36266547	10.000
Methylphenidate	3.725	4786356	3521.8	336.4	5368459	10.000
Metoprolol	3.569	505599	158.2	6800.5	5368459	10.000
Midazolam	4.944	412910	35050.1	41943.5	10386904	10.000
Mirtazapine	4.723	2088568	1069.8	729.1	5368459	10.000
Mitragynine	4.756	264153	43015.5	134627.9	5368459	10.000
Morphine	2.425	153477	901.4	876.7	116950	10.000
Norbuprenorphine	4.035	51296	13170.2	13022.8	2117887	10.000
Nordiazepam	4.921	680455	1443.6	9679.4	10386904	10.000
Norfentanyl	3.449	3665361	4024.3	163.5	13961979	10.000
Norhydrocodone	3.031	81494	108.6	36.2	3904101	10.000
norketamine	4.218	381297	55.6	158.7	5368459	10.000
Normeperidine	3.771	1596765	253.4	598.8	3868912	10.000
Noroxycodone	2.984	984468	∞	897.4	6127014	10.000
Nortriptyline	4.723	1524196	204151.0	291.9	5296773	10.000
O-desmethyl-tramadol	2.990	4447632	23748.2	281.0	3868912	10.000
O-Desmethylvenlafaxine	3.370	1166373	527.7	3730.2	3868912	10.000
Olanzapine	4.301	1046242	6281.7	46515.7	70986	10.000
Oxazepam	4.720	1379302	107.8	76.9	5898684	10.000
Oxycodone	3.134	1662543	272.9	738.2	6127014	10.000
Oxymorphone	2.406	833230	259.8	260.0	116950	10.000
Paroxetine	4.638	378500	66.8	21645.2	4556939	10.000
Phenazepam	4.835	1298136	274597.3	136490.6	10386904	10.000
Phencyclidine	4.124	2545696	191.2	648.2	5368459	10.000



AM #25 Multi-Drug Screen Results

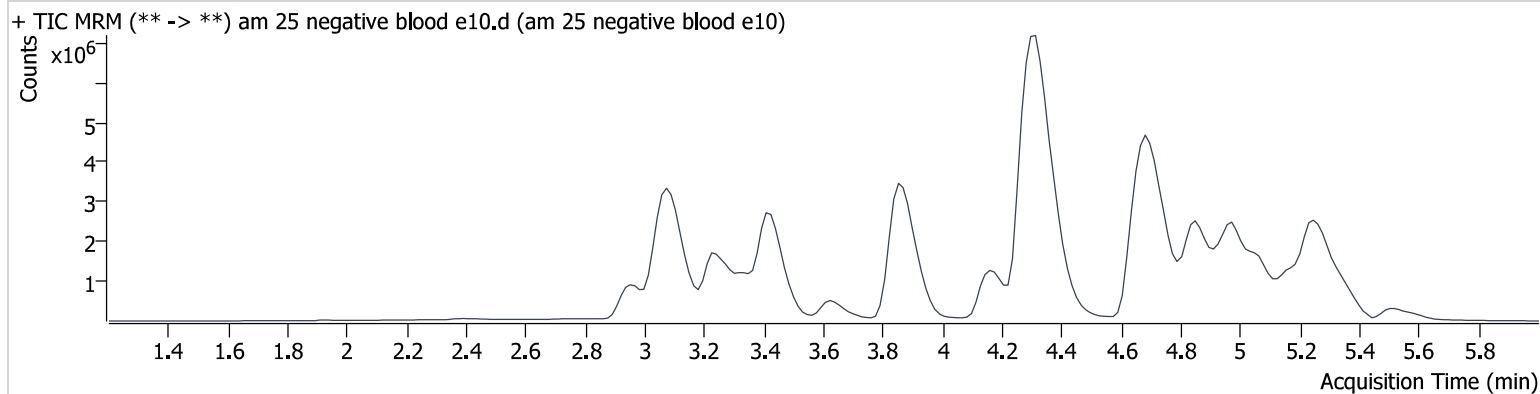
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Phentermine	3.269	942586	∞	∞	8870799	10.000
Phenytoin	4.262	147245	550.6	6.5	70986	10.000
primidone	3.557	243998	3157.3	122.1	5296773	10.000
Promethazine	4.874	4613501	471.9	970.4	3868912	10.000
Pseudoephedrine	2.780	51986339	16022.7	12257.9	11878131	10.000
Quetiapine	5.063	3590915	470004.2	725954.7	19487464	10.000
Risperidone	4.618	3020942	190.6	126.9	414761	10.000
Sertraline	4.979	1152072	∞	∞	4556939	10.000
Sufentanil	5.154	227205	34923.4	333.9	13961979	10.000
Tapentadol	3.587	2937879	1499.6	1534.2	3904101	10.000
Temazepam	4.872	2535973	493.5	93.5	10386904	10.000
Topiramate	3.959	29264	3513.4	3188.1	96888	10.000
Tramadol	3.584	4104175	4836.0	35.0	3868912	10.000
Trazodone	5.278	4499600	947381.4	6971.8	15738837	10.000
Venlafaxine	4.013	3843052	330.4	88.7	4556939	10.000
Zaleplon	4.503	1199667	193308.1	719.1	19487464	10.000
Zolpidem	4.672	4960978	404006.7	749.6	19487464	10.000
Zopiclone	4.742	535270	6603.0	336462.3	2235399	10.000

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\mds.batch.bin
Calibration Last Update 2/14/2023 12:22:26 PM

Instrument	69679	Data File	am 25 negative blood e10.d
Type	Sample	Sample	am 25 negative blood e10
Acq. Method	mds713.m	Operator	Anne Nord
Sample Position	P2-E10	Comment	
Injection Volume	2.5		
Acq. Date-Time	2/13/2023 11:21:39 AM		
Sample Info.			

Sample Chromatogram

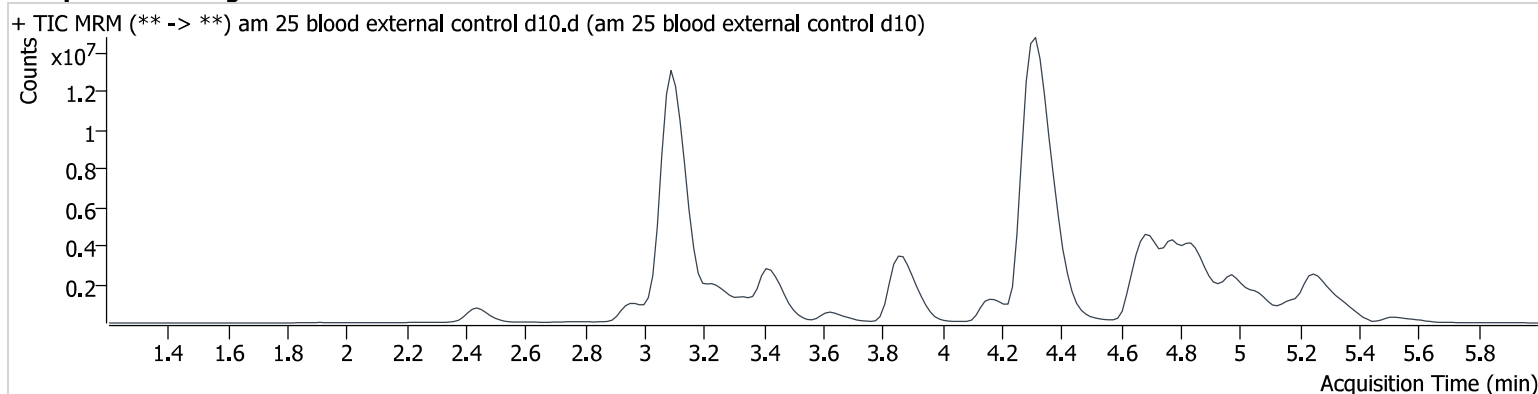


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\mds.batch.bin
Calibration Last Update 2/14/2023 12:22:26 PM

Instrument	69679	Data File	am 25 blood external control d10.d
Type	Sample	Sample	am 25 blood external control d10
Acq. Method	mds713.m	Operator	Anne Nord
Sample Position	P2-D10	Comment	
Injection Volume	2.5		
Acq. Date-Time	2/13/2023 11:28:22 AM		
Sample Info.			

Sample Chromatogram



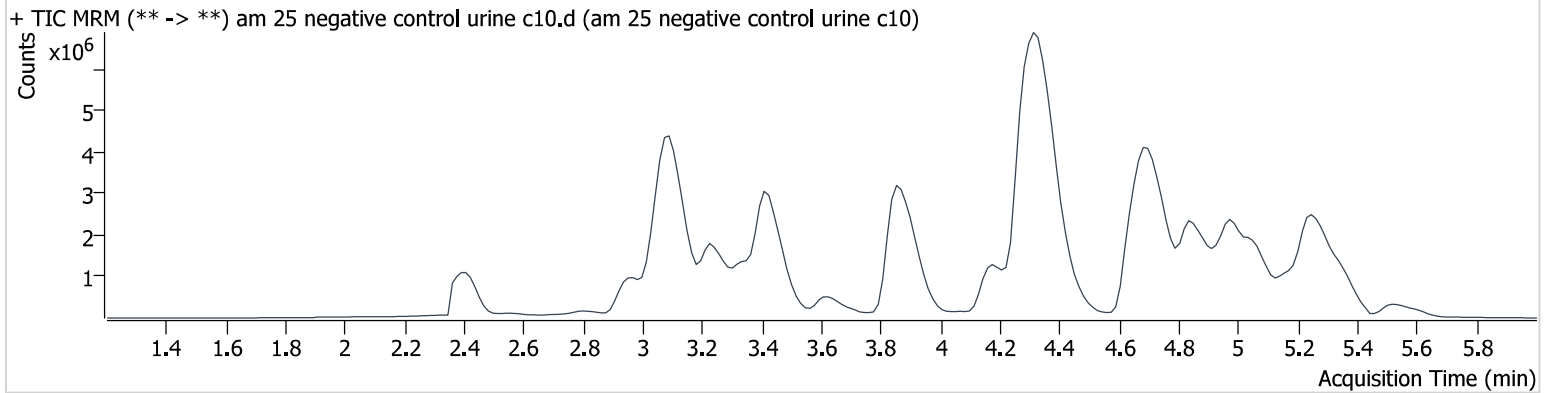
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.794	9292513	1225.3	4406.4	6360875	61.822
Diphenhydramine	4.323	40983314	12250.2	29196.9	32591679	84.904
Methamphetamine	3.101	28383078	∞	∞	11224918	54.076
Morphine	2.441	1157405	12987.3	841.1	103625	85.110

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\mds.batch.bin
Calibration Last Update 2/14/2023 12:22:26 PM

Instrument	69679	Data File	am 25 negative control urine c10.d
Type	Sample	Sample	am 25 negative control urine c10
Acq. Method	mds713.m	Operator	Anne Nord
Sample Position	P2-C10	Comment	
Injection Volume	2.5		
Acq. Date-Time	2/13/2023 1:15:39 PM		
Sample Info.			

Sample Chromatogram

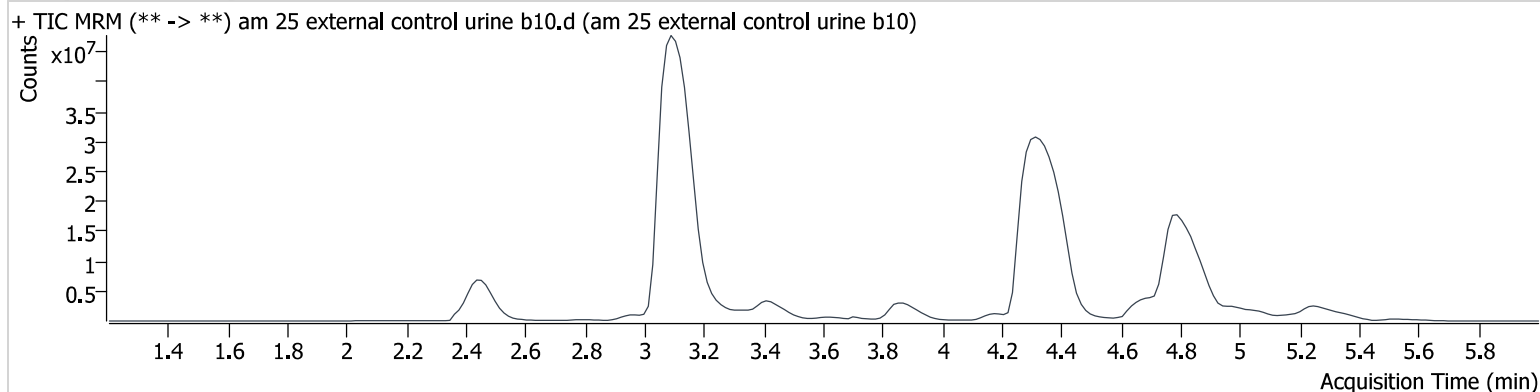


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\mds.batch.bin
Calibration Last Update 2/14/2023 12:22:26 PM

Instrument	69679	Data File	am 25 external control urine b10.d
Type	Sample	Sample	am 25 external control urine b10
Acq. Method	mds713.m	Operator	Anne Nord
Sample Position	P2-B10	Comment	
Injection Volume	2.5		
Acq. Date-Time	2/13/2023 1:08:57 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.794	65562824	3944.0	1222.8	2264687	1225.110
Diphenhydramine	4.323	154480856	25080.4	25312.7	25976194	401.538
Methamphetamine	3.101	121580122	∞	∞	9203482	282.513
Morphine	2.456	12330033	85203.7	5174.7	132911	706.900

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

Extraction Date: 2/13/23 Analyst: Anne Nord

Plate lot#: 220802 Plate retest date: 2/02/23

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: 22B52016-1 **Urine Blank:** 12522

Column: Agilent Phenyl Hexyl (4.6x50mm: 2.7 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: I41142J**
Pipette 1000 ul urine to analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 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: *external controls run for plate re-test.*

	1	2	3	4	5	6
a	cal 1	Internal control urine	0257-1	external control blood		
b	cal 2	negative blood	0212-2	negative control urine		
c	cal 3	0060-1 mixing plate	0268-1	external control urine		
d	cal 4	0084-1	0269-1	0202-1		
e	Cal 5	0128-1	0293-1	0266-1		
f	cal 6	0168-2	0319-1	0060-1 SLE and injection plate		
g	cal 7	0186-2	0317-3			
h	Internal control (blood)	0223-3	0352-1			

Plate position 3

c2023-_____



Toxicology AM method 27/26 external prep information

1.5 ★

3/28/23

.75 ★

3/28/23

working solution ~~15~~ ug/ml in meoh C-THC, THC-OH, ~~7.5~~ ug/ml THC

Stock solution 1mg/ml 7.5 ul each THC, 100 ug/ml 150 ul C-THC, 150 ul THC-OH in 9692.5 ul meOH
Ppd 9/27/22 Exp: 9/27/23 lot 92722 by AMN

Drug	lot	expiration
C-THC	FE04151901	6/1/2024
THC-OH	FE06152002	6/1/2025
THC	FE04222001	5/1/2025

AM 27/26 blood control 100 ul working solution in 9900 ul blood

ppd 9/27/22 exp 9/27/23 blood lot 22B52016-1	lot b92722	Concentration 7.5 ng/ml THC, 15 ng/ml C-THC, THC-OH	by amn
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AM 27/26 urine control 400 ul working solution in 9600 ul urine

out of use

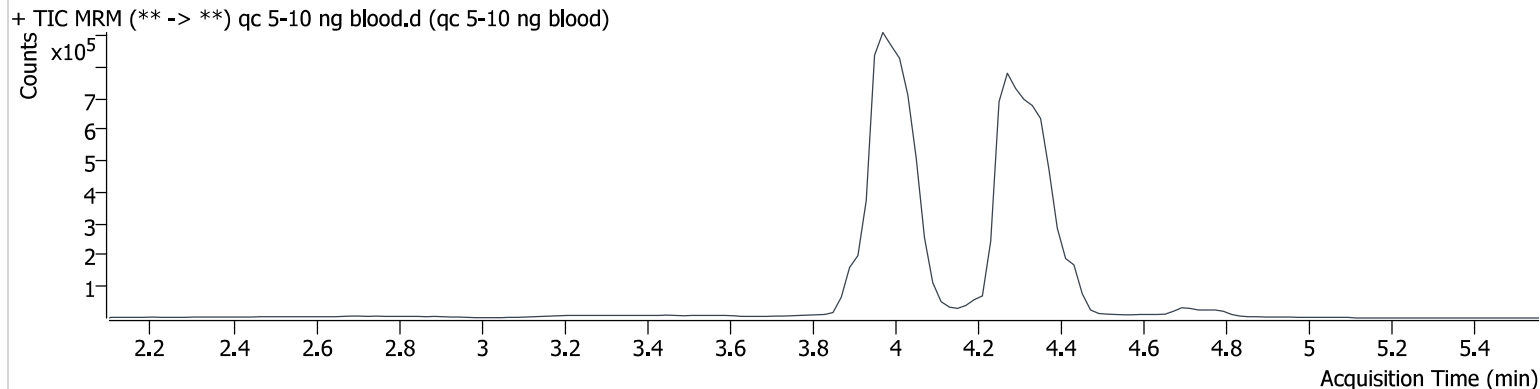
ppd 9/27/22 Exp 9/27/23 neg urine lot 7722	lot u92722	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by amn	

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	qc 5-10 ng blood.d
Type	QC	Sample	qc 5-10 ng blood
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-H1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:48:18 PM		
Sample Info.			

Sample Chromatogram



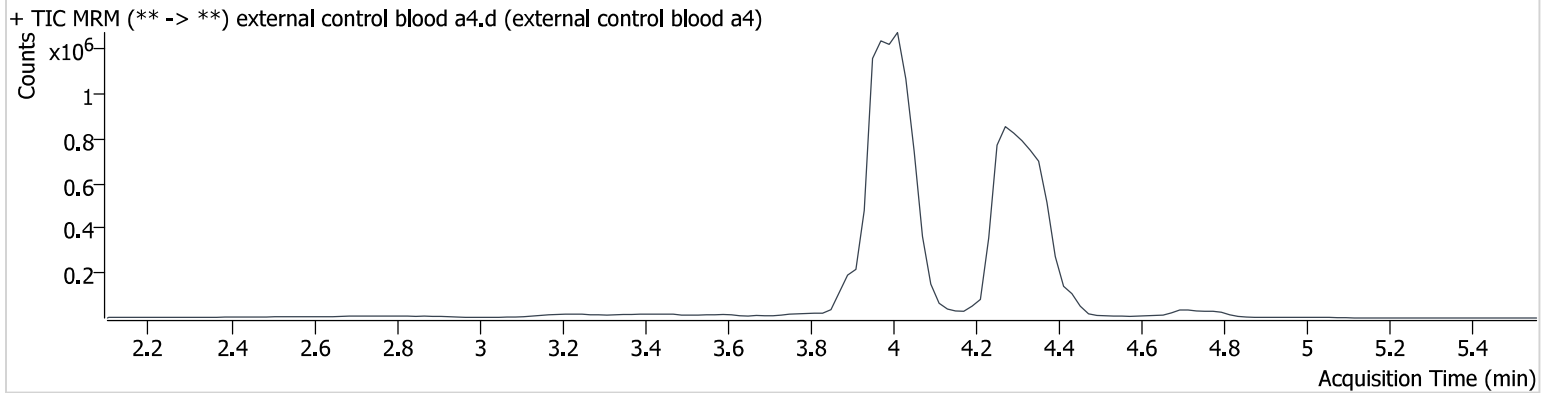
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.405	32683	766245	4.836 ng/ml
THC-COOH	3.912	156451	800164	14.483 ng/ml
THC-OH	3.999	44358	5351979	4.593 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	external control blood a4.d
Type	Sample	Sample	external control blood a4
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-A4	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 4:31:47 PM		
Sample Info.			

Sample Chromatogram



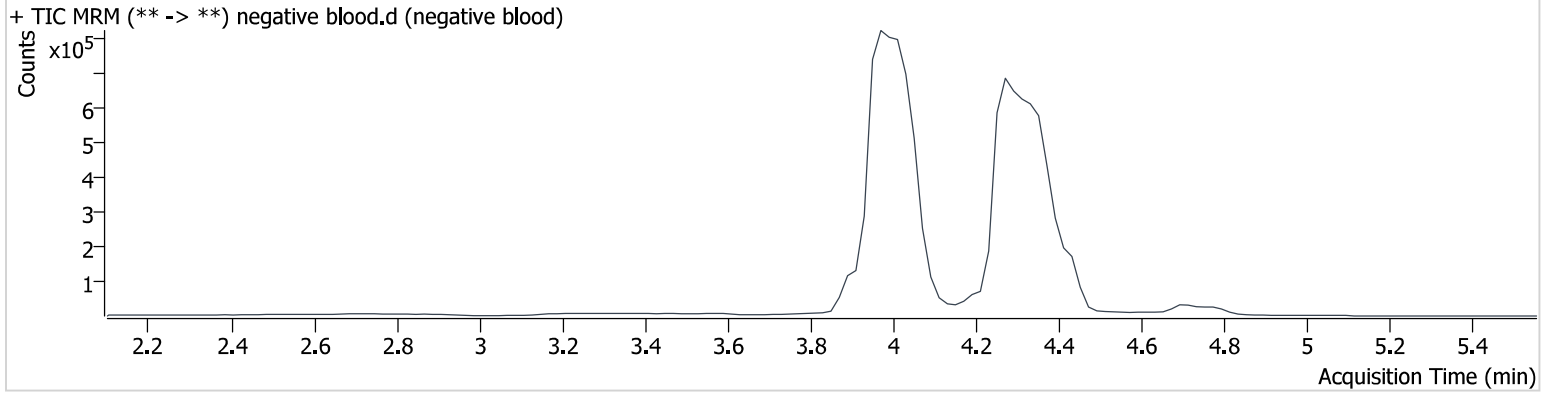
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.405	24365	319655	8.469 ng/ml
THC-COOH	3.912	152220	875311	12.914 ng/ml
THC-OH	4.019	169521	6855069	13.410 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	negative blood.d
Type	Sample	Sample	negative blood
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-B2	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 3:01:14 PM		
Sample Info.			

Sample Chromatogram

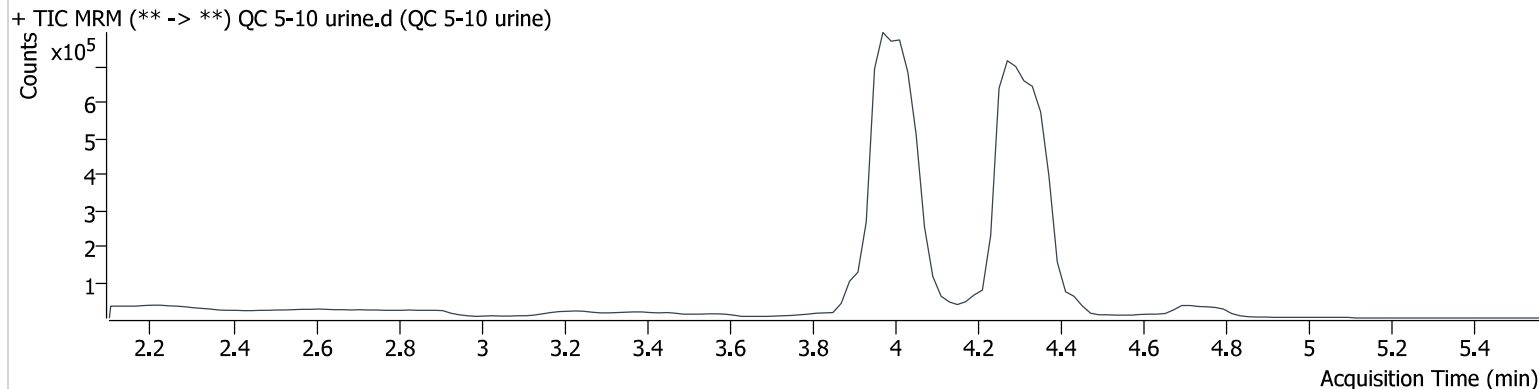


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	QC 5-10 urine.d
Type	Sample	Sample	QC 5-10 urine
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-A2	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:54:46 PM		
Sample Info.			

Sample Chromatogram



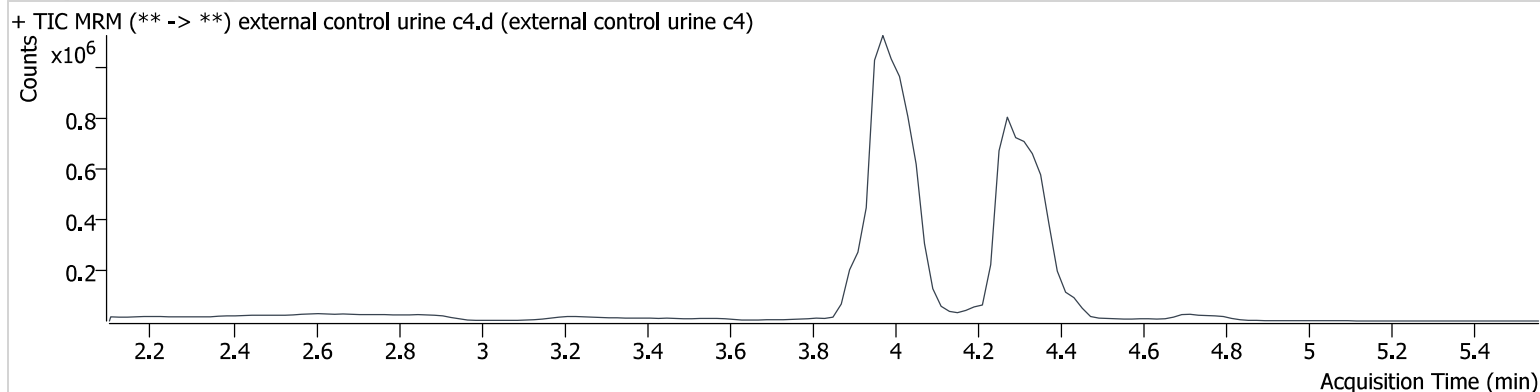
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	12672	295794	4.857 ng/ml
THC-COOH	3.912	110588	510105	16.026 ng/ml
THC-OH	4.019	40833	5022817	4.508 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	external control urine c4.d
Type	Sample	Sample	external control urine c4
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-C4	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 4:44:43 PM		
Sample Info.			

Sample Chromatogram



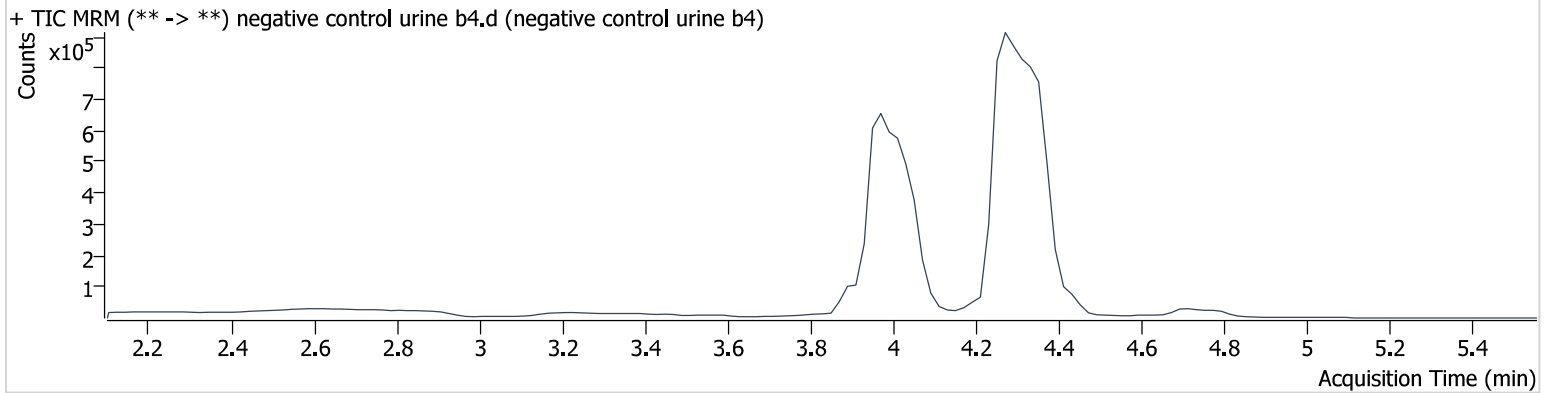
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.405	67555	311240	23.706 ng/ml
THC-COOH	3.912	402499	642593	45.738 ng/ml
THC-OH	3.979	285154	4029956	38.092 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	negative control urine b4.d
Type	Sample	Sample	negative control urine b4
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-B4	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 4:38:15 PM		
Sample Info.			

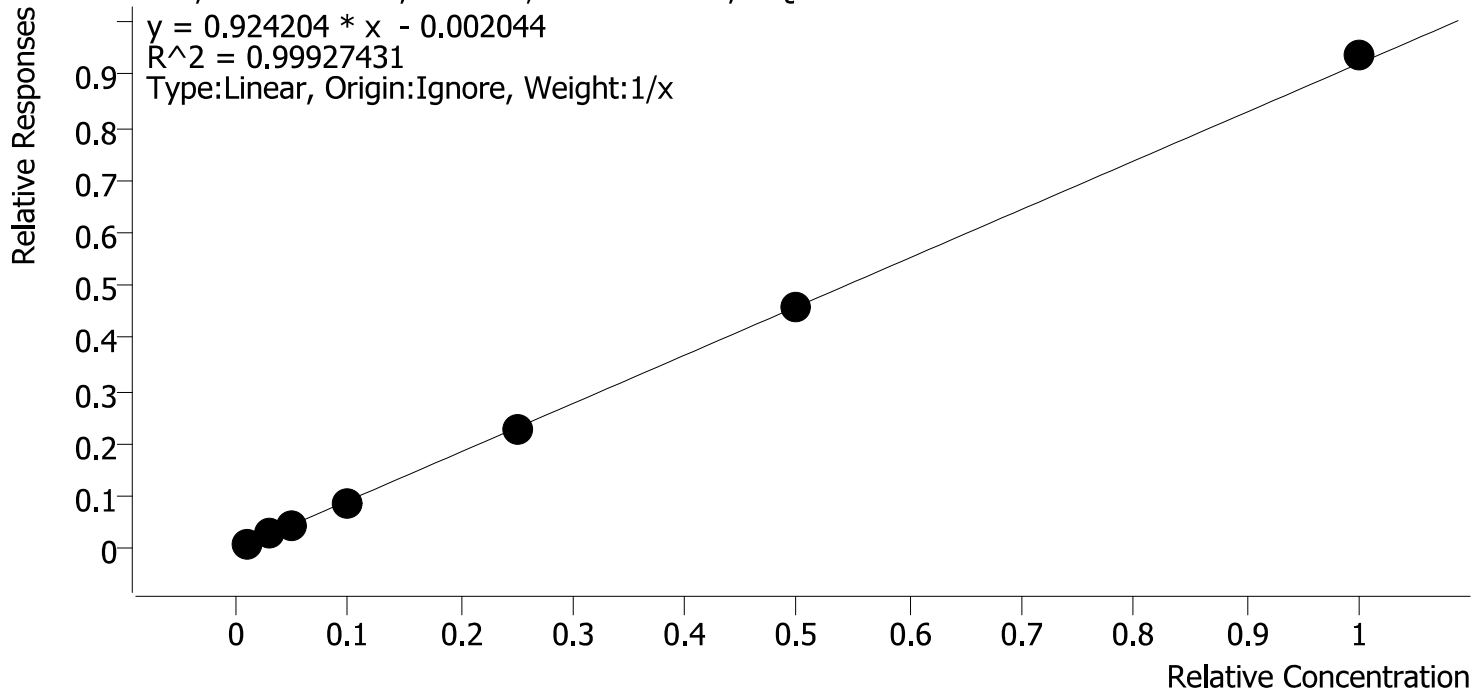
Sample Chromatogram



Compound Calibration Report

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Last Cal. Update 2/14/2023 12:23 PM
Analyst Name ISP\datastor
Analyte THC **Internal Standard** THC-d3

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

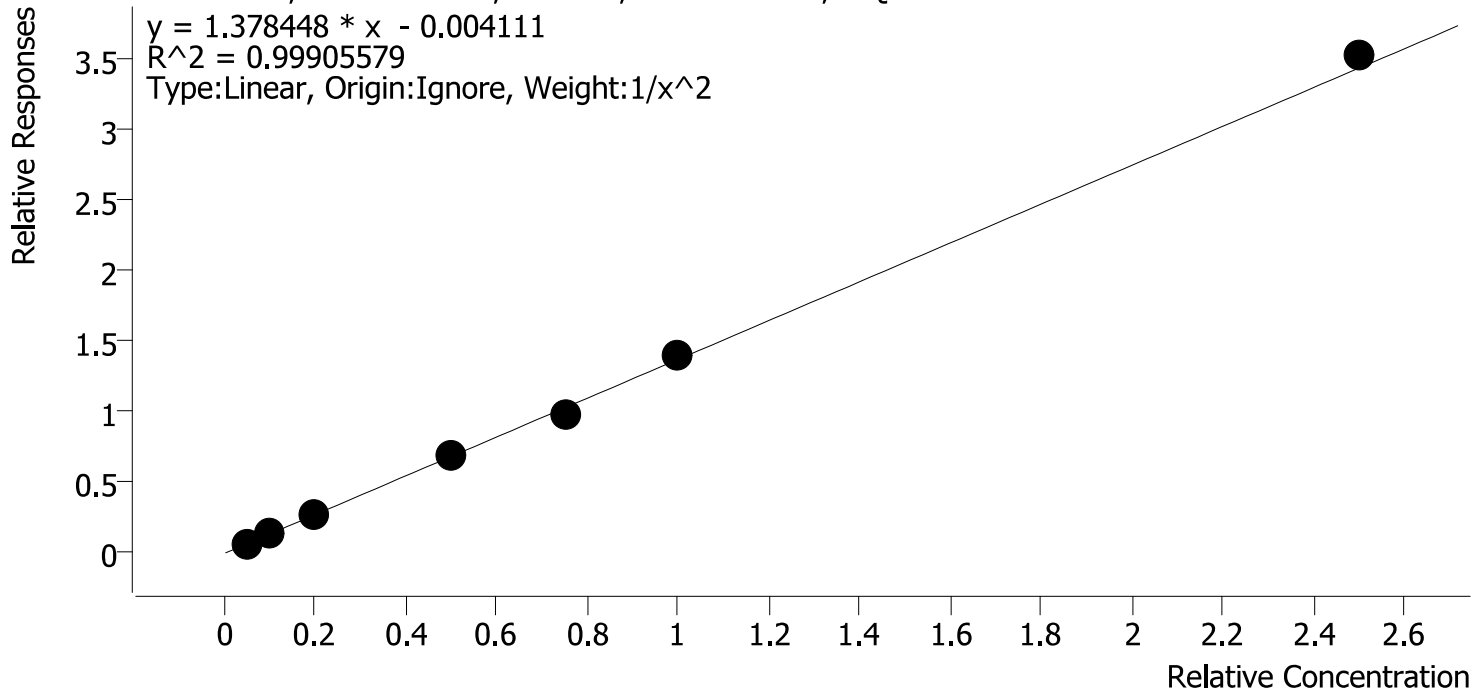


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	1.0	1.2	115.1
cal 2	2	✓	3.0	3.0	98.6
cal 3	3	✓	5.0	4.7	93.1
cal 4	4	✓	10.0	9.4	93.9
cal 5	5	✓	25.0	24.6	98.4
cal-6	6	✓	50.0	49.6	99.2
cal-7	7	✓	100.0	101.6	101.6

Compound Calibration Report

Batch results	D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin		
Last Cal. Update	2/14/2023 12:23 PM		
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

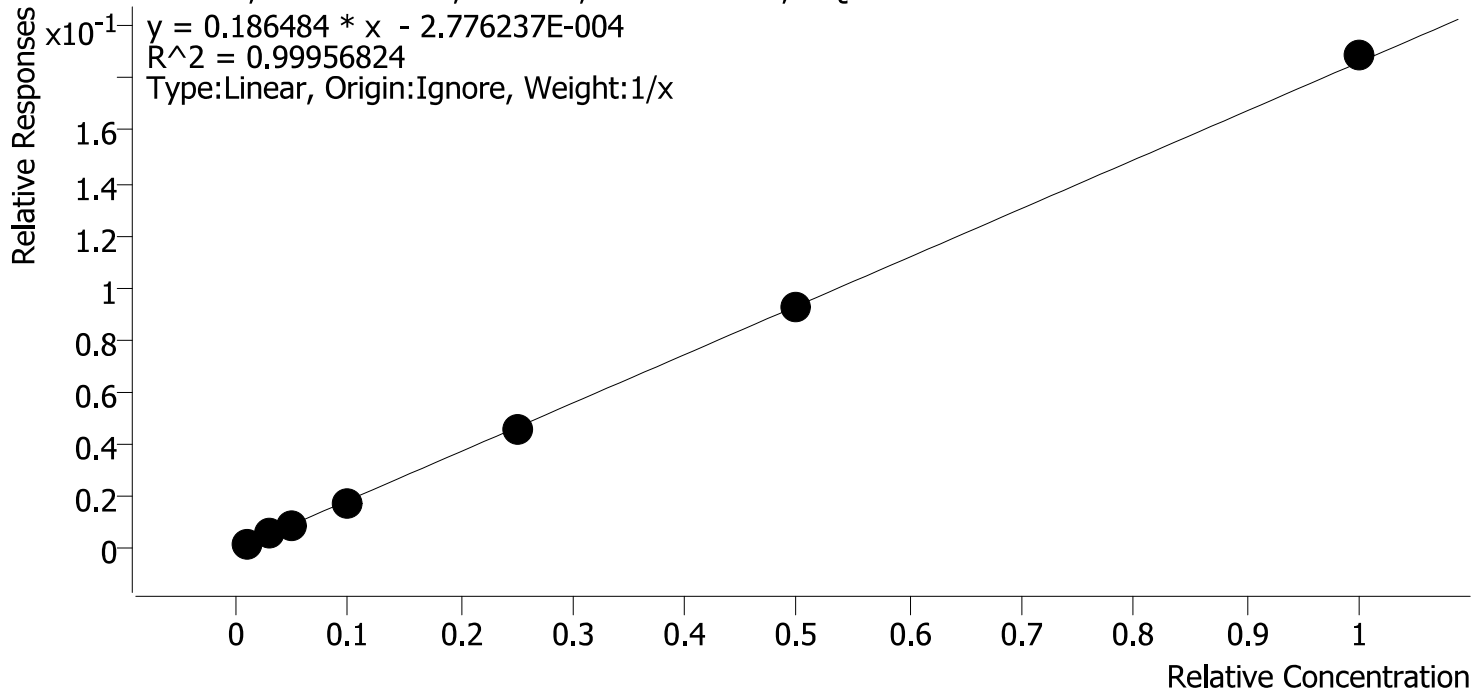


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	5.0	5.0	101.0
cal 2	2	✓	10.0	9.8	97.9
cal 3	3	✓	20.0	20.1	100.7
cal 4	4	✓	50.0	50.5	101.0
cal 5	5	✓	75.0	71.5	95.3
cal-6	6	✓	100.0	101.6	101.6
cal-7	7	✓	250.0	256.4	102.6

Compound Calibration Report

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Last Cal. Update 2/14/2023 12:23 PM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-d3

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



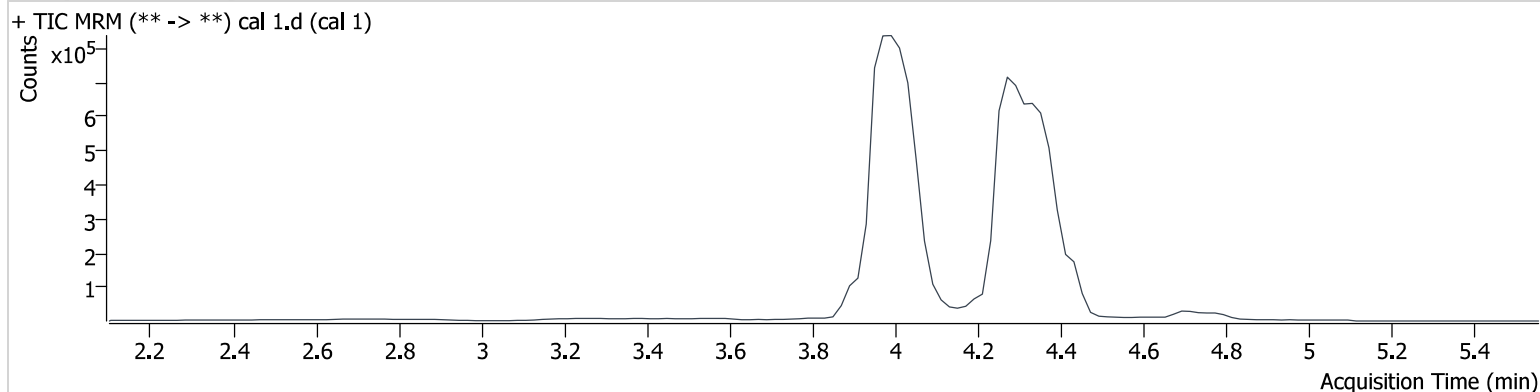
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	1.0	1.1	111.5
cal 2	2	✓	3.0	2.9	96.9
cal 3	3	✓	5.0	4.9	97.1
cal 4	4	✓	10.0	9.6	96.1
cal 5	5	✓	25.0	24.4	97.5
cal-6	6	✓	50.0	49.8	99.6
cal-7	7	✓	100.0	101.4	101.4

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	cal 1.d
Type	Cal	Sample	cal 1
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-A1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:02:51 PM		
Sample Info.			

Sample Chromatogram



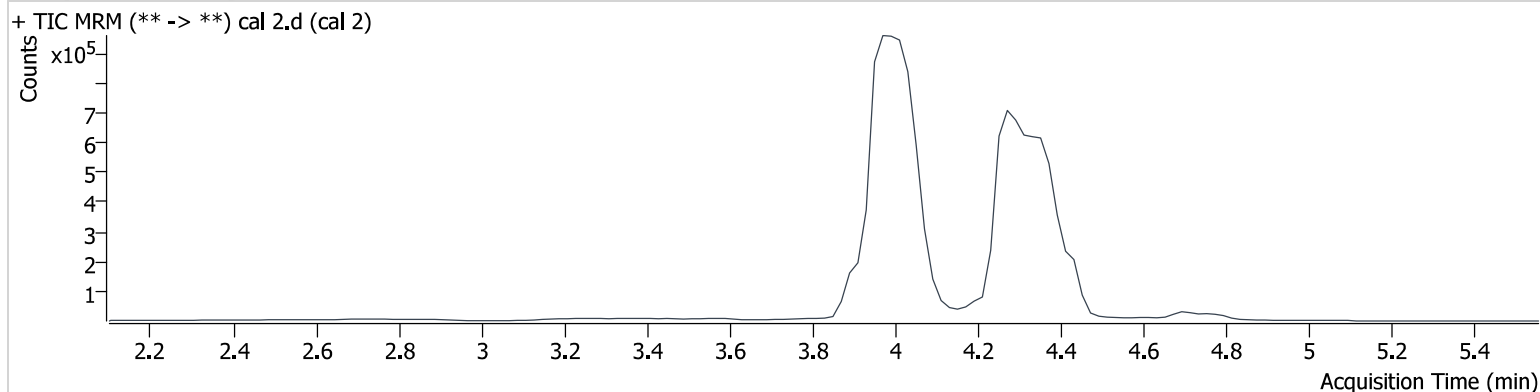
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	9140	1063270	1.151 ng/ml Low
THC-COOH	3.912	43873	669935	5.049 ng/ml Low
THC-OH	4.019	9984	5540599	1.115 ng/ml Low

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	cal 2.d
Type	Cal	Sample	cal 2
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-B1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:09:29 PM		
Sample Info.			

Sample Chromatogram



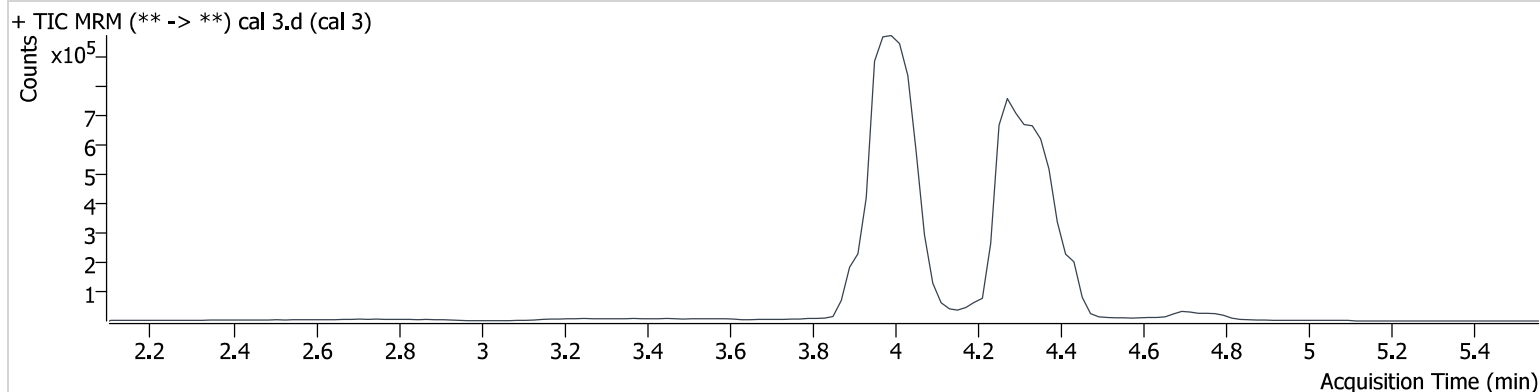
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	31442	1243387	2.957 ng/ml Low
THC-COOH	3.912	112542	860601	9.785 ng/ml Low
THC-OH	4.019	32331	6285926	2.907 ng/ml Low

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	cal 3.d
Type	Cal	Sample	cal 3
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-C1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:15:58 PM		
Sample Info.			

Sample Chromatogram



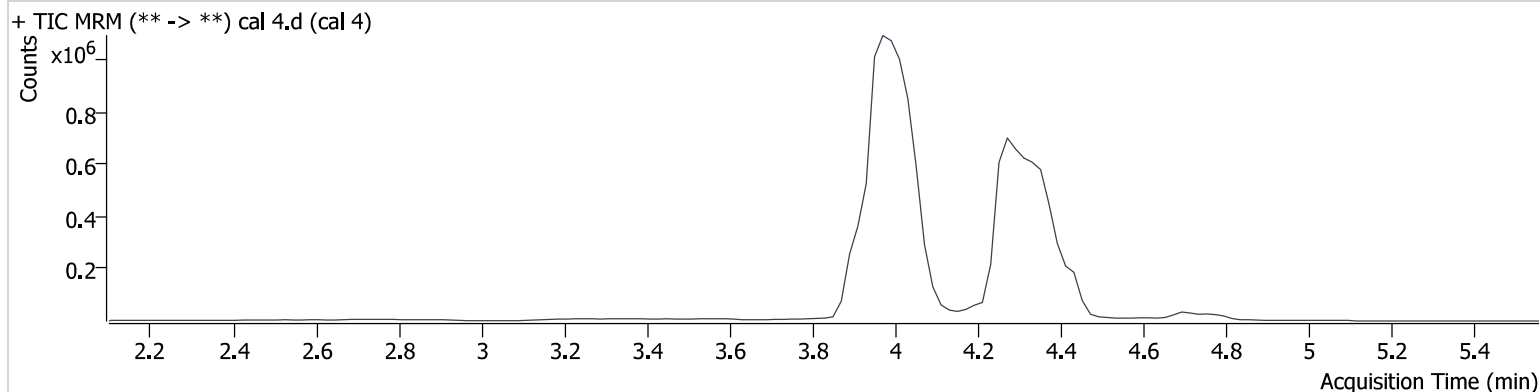
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	43421	1059027	4.657 ng/ml
THC-COOH	3.912	226821	829388	20.138 ng/ml
THC-OH	4.019	52381	5969526	4.854 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	cal 4.d
Type	Cal	Sample	cal 4
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-D1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:22:26 PM		
Sample Info.			

Sample Chromatogram



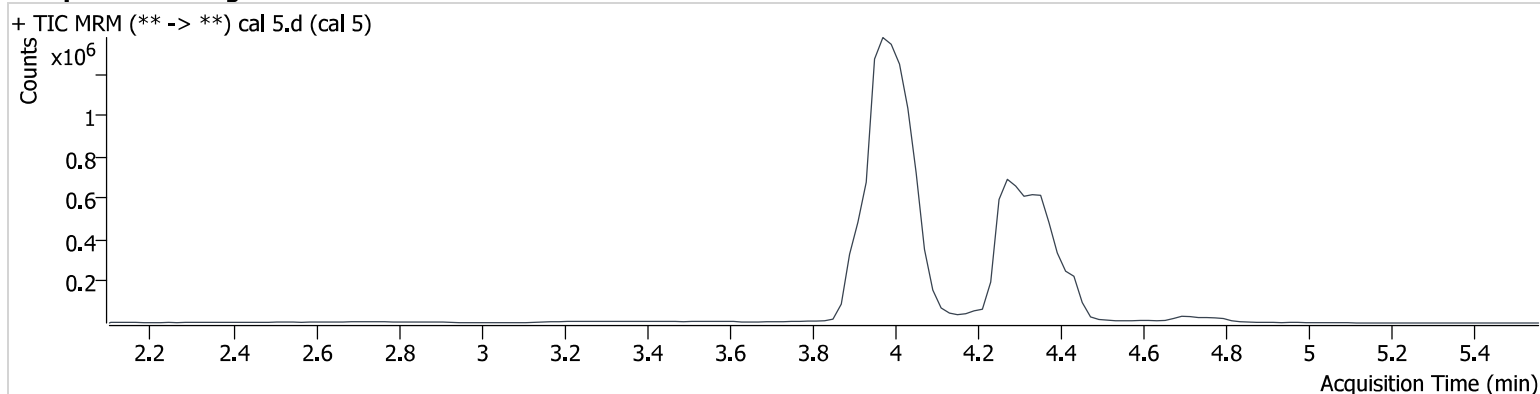
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	84884	1001626	9.391 ng/ml
THC-COOH	3.912	555346	802323	50.512 ng/ml
THC-OH	3.999	97752	5539131	9.612 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	cal 5.d
Type	Cal	Sample	cal 5
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-E1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:28:54 PM		
Sample Info.			

Sample Chromatogram



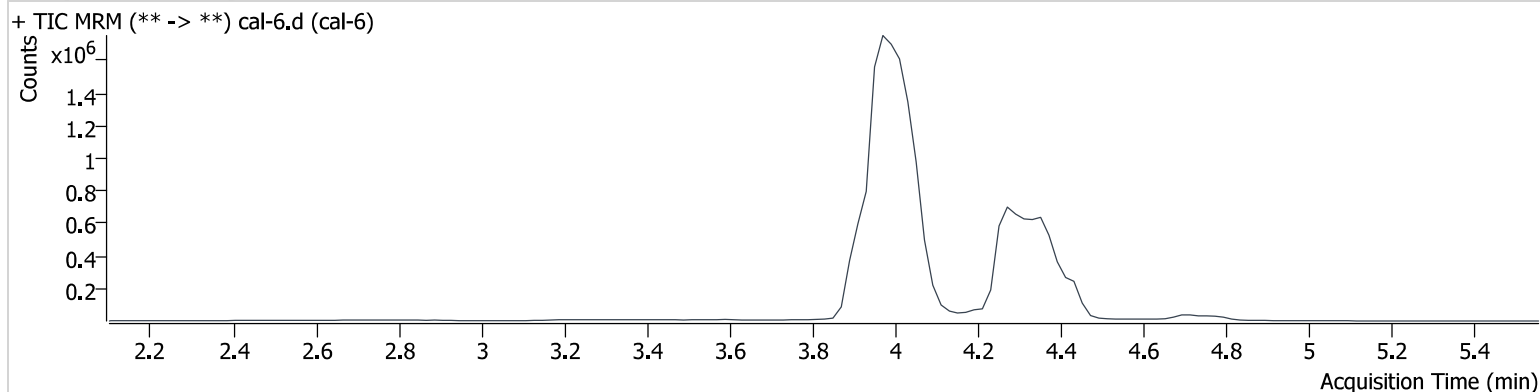
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	233617	1037130	24.594 ng/ml
THC-COOH	3.912	840374	856397	71.486 ng/ml
THC-OH	3.999	252366	5588774	24.363 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	cal-6.d
Type	Cal	Sample	cal-6
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-F1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:35:22 PM		
Sample Info.			

Sample Chromatogram



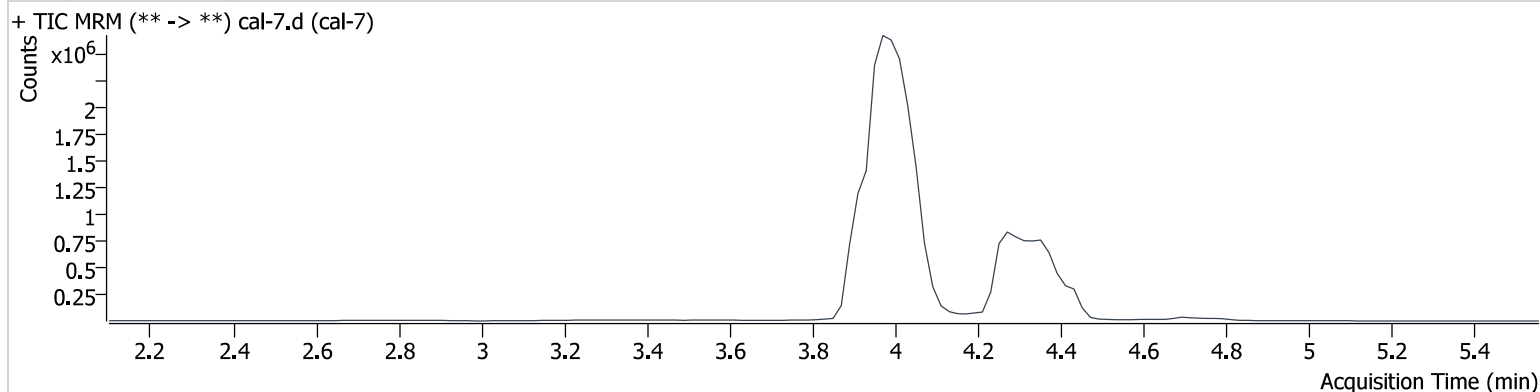
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	442614	969435	49.622 ng/ml
THC-COOH	3.912	1101521	789031	101.575 ng/ml
THC-OH	3.979	512171	5533820	49.779 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2023\am 25-26\021323\QuantResults\cann.batch.bin
Calibration Last Update 2/14/2023 12:23:47 PM

Instrument	69679	Data File	cal-7.d
Type	Cal	Sample	cal-7
Acq. Method	am 26 cann scr 5-5-20.m	Operator	Anne Nord
Sample Position	P3-G1	Comment	
Injection Volume	5		
Acq. Date-Time	2/13/2023 2:41:50 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.405	676905	722264	101.627 ng/ml
THC-COOH	3.912	2616980	741282	256.408 ng/ml
THC-OH	4.019	993463	5263113	101.369 ng/ml