
























9/27/2022

REVIEWED






By Britany Wylie at 10:12 am, Oct 05, 2022

## Worklist: 6109

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2022-2007	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2013	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-2020	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2027	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2033	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2036	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2040	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2044	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2047	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2048	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2060	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2077	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-2080	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-2081	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-2087	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2089	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2105	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2111	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2113	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2022-2113	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2122	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

**Worklist: 6109**



<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2022-2135	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2136	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2153	1	BLOOD	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2154	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2022-2169	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: 09/27/22 Analyst: Anne Nord  
Plate lot#: 220315 Plate retest date: 09/15/22

**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:** 7722 **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: *Ran external control in blood and urine to re-test.*

**Idaho State Police  
Forensic Services**

**Request for Departure from an Analytical Method or Quality Standard**

---

Deviation Number (assigned by QM): TOX-22-01

Date of Request: **2/3/2022**

Requestor/Discipline: Celena Shrum/Toxicology

Analytical Method/Quality Standard, Revision #: AM #25, AM #28, AM #29, Revision 13

Temporary or Permanent Deviation: Permanent

---

**Scope of Deviation** (record specific information, e.g. affected programs, evidence types, expected end date; etc): Deviation will remain in place until the change is made in the next method revision.

**Deviation Request** (Describe detailed instructions of the changes being made; include reference to specific section number(s) in the method manual): 4.1.4 (Place plate on shaking incubator at approximately 900 rpm for approximately 15 minutes) of AM #25, AM # 28, and AM #29 is being removed. The removal of this step was tested in the validation “Addition of Compounds/Modifications for the MDS” (approved on 2/2/2022) and it was determined that that step is not necessary and can be removed.

**Technical Justification for Analytical Method Deviations:** Refer to validation “Addition of Compounds/Modifications for the MDS” (approved on 2/2/2022)

**Technical Review**

---

Departure approved  
Comments:

Departure Not Approved  
Comments:

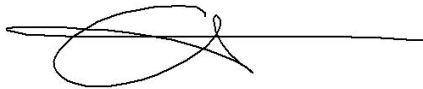
Approver: Rachel Cutler  
Title: Laboratory Manager

Date: 2/10/2022

**Quality Review**

---


Quality Approver: Jason Crowe  
Title: Quality Manager  
Date: 2/10/2022



	1	2	3	4	5	6	7	8	9	10	11	12
A	cal 1	2036-1	2105-1	2169-1								
B		2040-1	2111-3									2080-2
C	negative blood	2044-1	2113-2									2081-1
D	blood positive control	2047-1	2122-1									2077-1
E	2007-1	2048-1	2135-1									2013-2
F	2020-2	2060-1	2136-1								2113-1	
G	2027-1	2087-1	2153-1								urine positive	
H	2033-1	2089-1	2154-1								negative urine	

C2022-\_\_\_\_-\_\_

plate position 2



Toxicology AM method 25/28 urine external control prep

working solution 10000 ng/ml in meoh diphendyramine, 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
Diphendyramine	FN02212011	3/1/2025
Morphine	FE03232010	4/1/2025

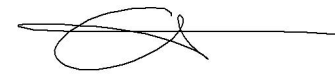
**AM 25/28 control 500 ul working solution (7722) in 4500 ul negative urine (1000ng/mL Expected concentration)**

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

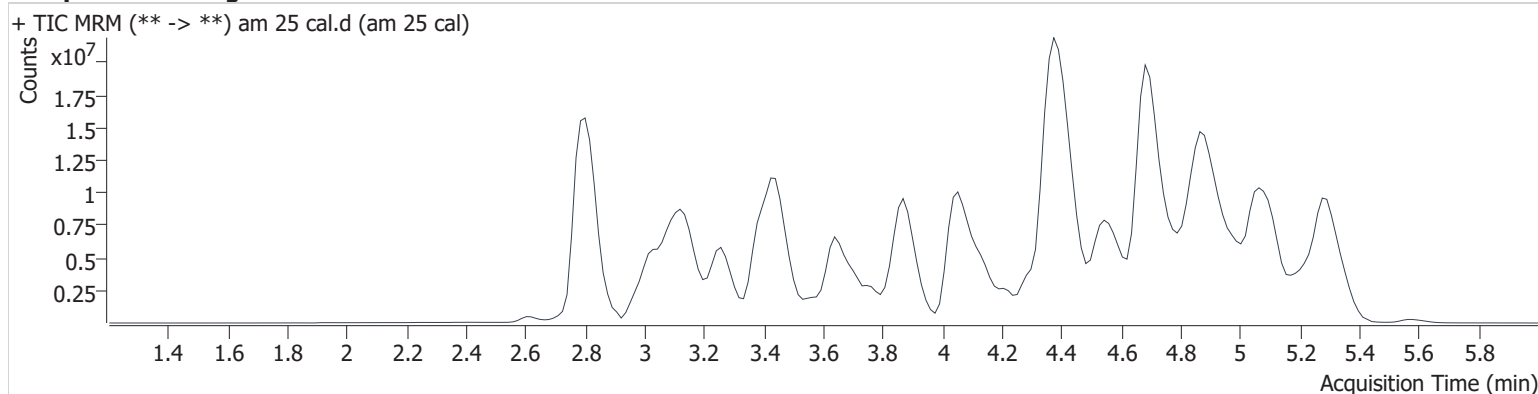
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\mds.batch.bin  
**Calibration Last Update** 9/27/2022 3:38:32 PM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 cal.d
<b>Type</b>	Cal	<b>Sample</b>	am 25 cal
<b>Acq. Method</b>	mds713.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-A1	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	9/27/2022 11:06:59 AM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
10-OH-Carbamazepine	3.878	1399555	3905.2	103.3	4667249	10.000
6-MAM	3.531	55701	67270.3	17966.4	1523474	10.000
7-aminoclonazepam	3.643	1030139	12518.8	271.2	3858123	10.000
7-aminoflunitrazepam	3.858	1509563	1627.8	1281.1	3858123	10.000
9-Hydroxyrisperidone	4.572	7821519	10348.8	232329.1	3858123	10.000
Acetyl Fentanyl	4.700	566636	610.6	72264.2	22576125	10.000
Acetyl Norfentanyl	2.976	353431	1932.1	208.6	22576125	10.000
a-hydroxyalprazolam	4.715	241214	9452.6	14855.5	3858123	10.000
alpha-hydroxymidazolam	4.775	3027092	1124.3	988.1	3858123	10.000
alpha-PHP	4.416	3453927	333.9	356.1	8127933	10.000
alpha-PVP	4.125	5451783	5532.1	998.0	8127933	10.000
Alprazolam	4.794	2175653	588.1	579.5	4667249	10.000
Amitriptyline	4.951	2117910	∞	509.2	9527674	10.000
Amphetamine	3.025	3164718	2710.0	1982.0	8127933	10.000
Benzoylcegonine	3.474	170595	829.6	32.1	288980	10.000
Brompheniramine	4.440	122610	13637.4	67.8	63252579	10.000
Buprenorphine	5.576	35863	15733.9	27516.8	1013176	10.000
Bupropion	4.463	4750019	6557.6	5697.5	16252605	10.000
Carbamazepine	4.371	6032258	1447.4	1751.6	48299	10.000
Carisoprodol	4.308	902530	355289.9	265.8	3277791	10.000
Chlordiazepoxide	4.980	777456	∞	∞	11380746	10.000
Chlorpheniramine	4.306	7591748	∞	7438.4	8320704	10.000
Chlorpromazine	5.297	2838445	357261.2	868.3	11863197	10.000
Citalopram	4.423	3409879	1588.0	244961.6	8320704	10.000
Clomipramine	5.236	3702584	6187.5	1180.0	8320704	10.000
Clonazepam	4.655	757592	1010.1	∞	11380746	10.000
Clonazolam	4.544	863623	127440.6	63228.5	11380746	10.000
clozapine	5.066	7756915	2384756.1	1596419.5	25015833	10.000
Cocaethylene	4.224	5512864	1896923.8	8057.9	32616821	10.000
Cocaine	4.072	6865295	24926.4	7519.6	32616821	10.000
Codeine	3.565	520243	217.8	999.1	5886075	10.000
Cyclobenzaprine	4.814	4745118	10915.7	260.1	9527674	10.000
Desipramine	4.692	7046946	1688270.9	3621.9	9527674	10.000

# AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Dextromethorphan	4.399	2659155	2694.3	354019.7	12938261	10.000
Dextrorphan	3.570	2846108	315.6	2613.9	12938261	10.000
Diazepam	5.072	1031340	602.7	2020.2	11380746	10.000
Dihydrocodeine	3.150	1326371	201.5	2247.6	63252579	10.000
Diphenhydramine	4.385	10898701	∞	330289.9	63252579	10.000
Doxepin	4.645	2674497	891.0	622.1	26626119	10.000
Doxylamine	3.890	12232359	∞	2851980.0	4148333	10.000
Duloxetine	4.628	93821	22095.2	1642.8	5901466	10.000
EDDP	4.290	440620	886.9	168069.6	932033	10.000
Estazolam	4.704	3470086	1730.1	5025.5	11380746	10.000
Etizolam	4.774	232282	75781.4	384616.5	11380746	10.000
Fentanyl	4.897	466555	166.5	65082.4	22576125	10.000
Flualprazolam	4.623	846539	416013.7	154434.6	11380746	10.000
Flunitrazepam	4.763	1709876	1471.0	1026.5	11380746	10.000
Fluoxetine	4.595	3669378	10484.5	467.8	5901466	10.000
Flurazepam	4.895	4523171	1999127.8	192920.3	11380746	10.000
Hydrocodone	3.765	1378208	543.2	342.5	5886075	10.000
Hydromorphone	3.062	1132870	2389.8	3485.4	5886075	10.000
hydroxyzine	5.201	6333258	2461.1	897703.3	12938261	10.000
Imipramine	4.859	7540244	1710178.0	∞	9527674	10.000
Ketamine	4.432	3633405	1841.6	150.3	12938261	10.000
Lamotrigine	3.754	287529	290490.9	40234.1	8320704	10.000
Levamisole	3.727	3291530	10188.7	2210.2	12938261	10.000
Levetiracetam	2.613	666722	545.8	524.0	8320704	10.000
Lorazepam	4.609	117005	21613.6	∞	11380746	10.000
Maprotiline	4.691	819954	214175.5	43.5	9527674	10.000
MDA	3.145	2537135	603.6	296.2	24180381	10.000
MDEA	3.404	4592305	213.3	2084.1	24180381	10.000
MDMA	3.236	5261470	12595.0	3921.6	24180381	10.000
Meperidine	4.062	2966901	2236.4	1665.5	12938261	10.000
Meprobamate	3.742	204846	2649.0	78.9	3277791	10.000
Methadone	4.672	8160686	880.2	878.1	932033	10.000
Methamphetamine	3.131	6334298	∞	∞	24180381	10.000
Methocarbamol	3.694	159453	450.9	617.4	63252579	10.000
Methylphenidate	3.849	11992265	43295.7	6903.1	12938261	10.000
Metoprolol	3.599	860524	484.5	2358.0	12938261	10.000
Midazolam	4.944	822720	1872.7	162053.3	11380746	10.000
Mirtazapine	4.846	3992234	2421.9	12394.6	12938261	10.000
Mitragynine	4.924	747597	59024.0	293343.8	12938261	10.000
Morphine	2.895	318616	8.5	522.1	258847	10.000
Norbuprenorphine	4.081	76625	17346.1	12896.3	1013176	10.000
Nordiazepam	4.921	890554	197565.0	386.9	11380746	10.000
Norfentanyl	3.464	5630704	505.1	1010.8	25955342	10.000
Norhydrocodone	3.077	132573	820.9	217.4	5886075	10.000
norketamine	4.325	603561	488.7	5156.2	12938261	10.000
Normeperidine	3.787	2821685	452.8	1065.2	8320704	10.000
Noroxycodone	3.014	1314003	34.5	214.5	10310892	10.000
Nortriptyline	4.739	2654617	1017615.8	525.7	9527674	10.000
O-desmethyl-tramadol	3.050	8520862	16019.7	286.0	8320704	10.000
o-Desmethylvenlafaxine	3.401	2196043	685.8	8.2	8320704	10.000
Olanzapine	4.502	2417998	1418742.4	206210.0	48299	10.000
Oxazepam	4.720	853998	∞	∞	4667249	10.000
Oxycodone	3.440	2536284	1085.4	278.3	10310892	10.000
Oxymorphone	2.741	1669038	530.9	3130.8	258847	10.000
Paroxetine	4.638	618719	217.3	42273.3	5901466	10.000
Phenazepam	4.835	1446411	523487.1	62762.6	11380746	10.000
Phencyclidine	4.155	5865328	207.0	347.3	12938261	10.000
Phentermine	3.284	1749018	∞	∞	16231368	10.000
Phenytol	4.262	85868	71.5	25.0	48299	10.000





# AM #25 Multi-Drug Screen Results

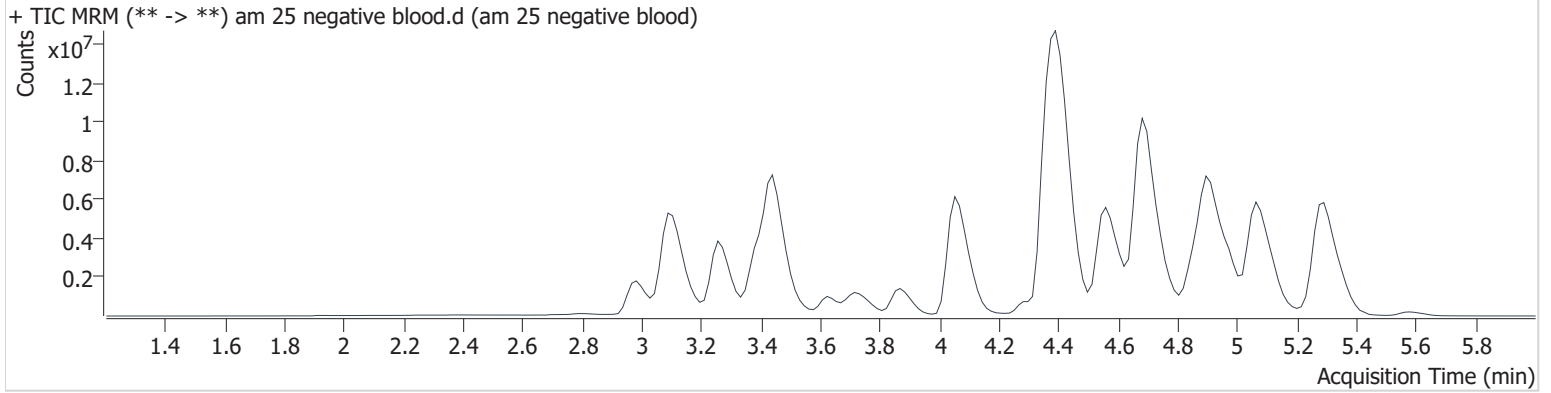
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
primidone	3.527	191701	16264.2	61.0	9527674	10.000
Promethazine	5.011	11270957	1243336.7	777.3	8320704	10.000
Pseudoephedrine	2.811	66215141	12331.6	11913.4	24180381	10.000
Quetiapine	5.109	8667403	633749.3	2226503.6	46824015	10.000
Risperidone	4.817	8673681	419.3	296.9	653803	10.000
Sertraline	4.994	1228293	∞	21181.3	5901466	10.000
Sufentanil	5.245	510620	116447.3	602.7	25955342	10.000
Tapentadol	3.634	5244829	4880.4	2340.1	5886075	10.000
Temazepam	4.872	2682198	601.6	158.5	11380746	10.000
Topiramate	3.944	20150	12724.1	4444.5	65687	10.000
Tramadol	3.662	8404489	7522.8	∞	8320704	10.000
Trazodone	5.308	5660653	1199776.6	5007.1	26626119	10.000
Venlafaxine	4.059	7681154	4366.7	178.8	5901466	10.000
Zaleplon	4.519	1146125	6128.8	899.3	46824015	10.000
Zolpidem	4.703	10836844	2660.6	2454.4	46824015	10.000
Zopiclone	4.787	865354	1187.8	223609.8	4148333	10.000

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\mds.batch.bin  
**Calibration Last Update** 9/27/2022 3:38:32 PM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 negative blood.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 negative blood
<b>Acq. Method</b>	mds713.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-C1	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	9/27/2022 11:13:53 AM		
<b>Sample Info.</b>			

## Sample Chromatogram

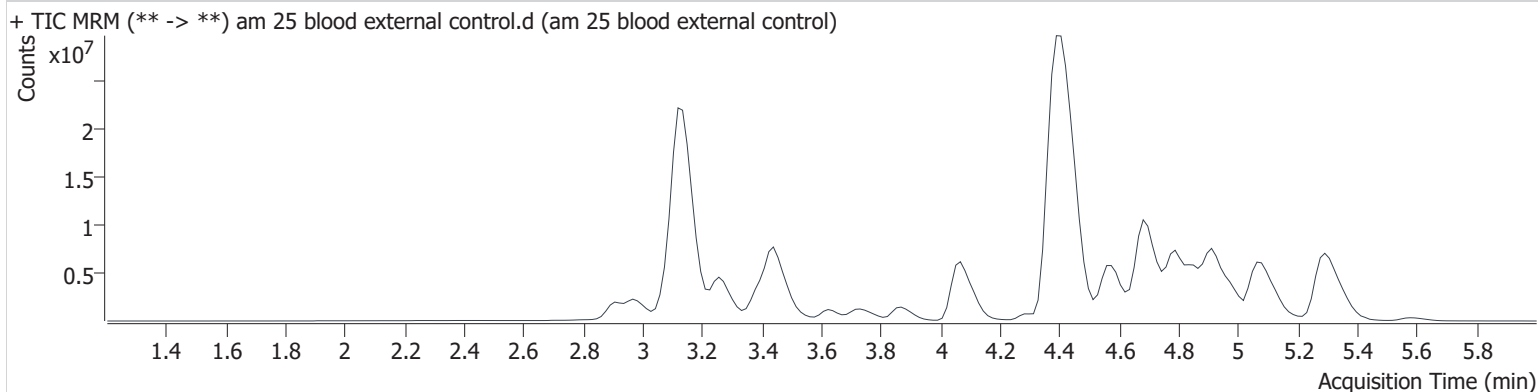


# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\mds.batch.bin  
**Calibration Last Update** 9/27/2022 3:38:32 PM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 blood external control.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 blood external control
<b>Acq. Method</b>	mds713.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-D1	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	9/27/2022 11:20:44 AM		
<b>Sample Info.</b>			

## Sample Chromatogram



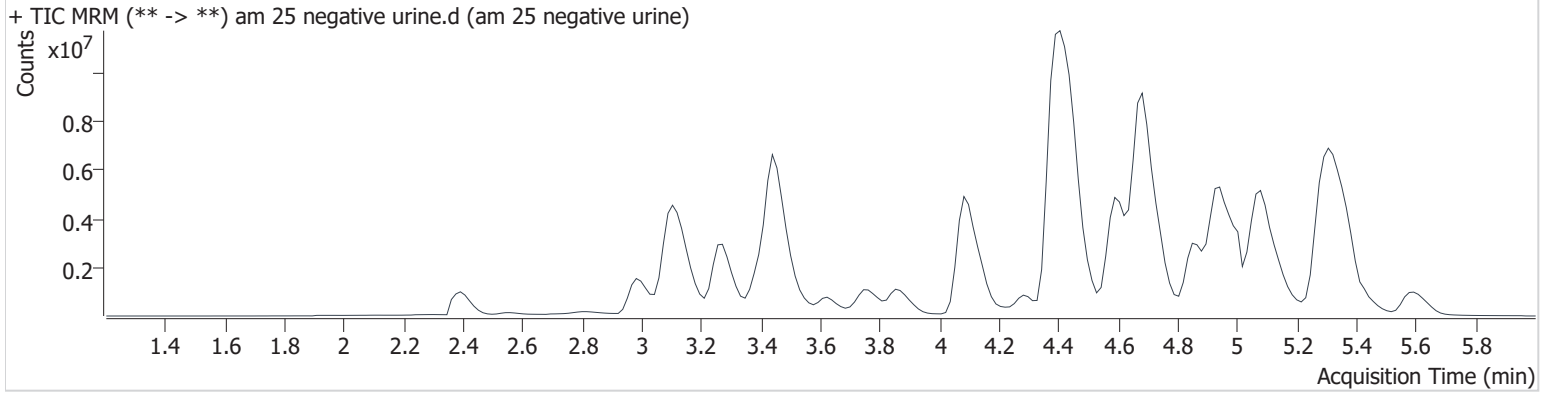
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.794	15681549	2097.5	1237.5	5480410	61.383
Diphenhydramine	4.416	71416164	∞	∞	59564248	69.585
Methamphetamine	3.146	43355102	∞	∞	22152343	74.711
Morphine	2.910	2699762	273434.9	6590.5	302409	72.528

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\mds.batch.bin  
**Calibration Last Update** 9/27/2022 3:38:32 PM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 negative urine.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 negative urine
<b>Acq. Method</b>	mds713.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-H11	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	9/27/2022 1:51:20 PM		
<b>Sample Info.</b>			

## Sample Chromatogram

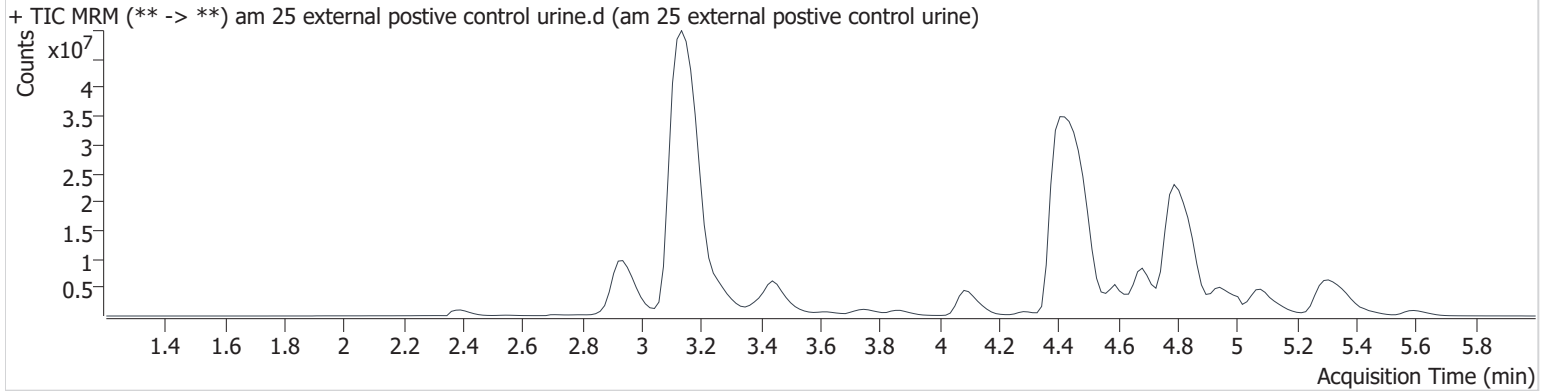


# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\mds.batch.bin  
**Calibration Last Update** 9/27/2022 3:38:32 PM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 external postive control urine.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 external postive control urine
<b>Acq. Method</b>	mds713.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P2-G11	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	9/27/2022 1:58:13 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.794	70281216	22628.4	11977.9	1624886	927.871
Diphenhydramine	4.431	111588832	∞	3145830.	35997246	179.910
Methamphetamine	3.146	109672222	∞	∞	12916425	324.130
Morphine	2.926	15670896	∞	19000.0	281306	452.575



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

Extraction Date: 9/27/22 Analyst: Anne Nord

Plate lot#: 220309 Plate retest date: 9/09/22

**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:** 7722 **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.

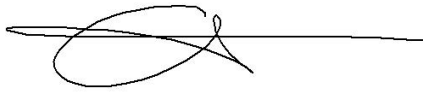
### Analytic:

- 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: *ran external control in blood and urine for re-test.*



	1	2	3	4	5	6
a	cal 1	Internal urine	2040-1	2113-2 mixing plate	2013-2	
b	cal 2	negative blood	2044-1	2122-1	2077-1	
c	cal 3	blood control external	2048-1	2135-1	2081-1	
d	cal 4	2007-1	2060-1	2136-1	2113-1	
e	Cal 5	2020-2	2087-1	2153-1	2080-2	
f	cal 6	2027-1	2089-1	2154-1	2047-1	
g	cal 7	2033-1	2105-1	negative urine	2169-1	
h	Internal control (blood)	2036-1	2111-3	external control urine	2113-2 sle and injection plate	

Plate position 3

c2022-\_\_\_\_-\_\_



# 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
---	------------	--	--------

## 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	

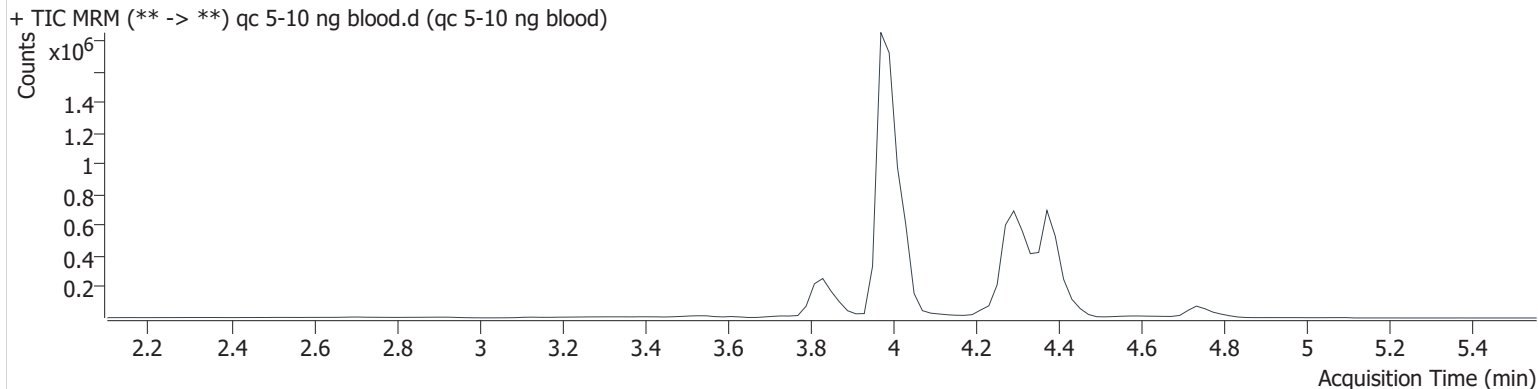


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	qc 5-10 ng blood.d
<b>Type</b>	QC	<b>Sample</b>	qc 5-10 ng blood
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-H1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 4:06:53 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



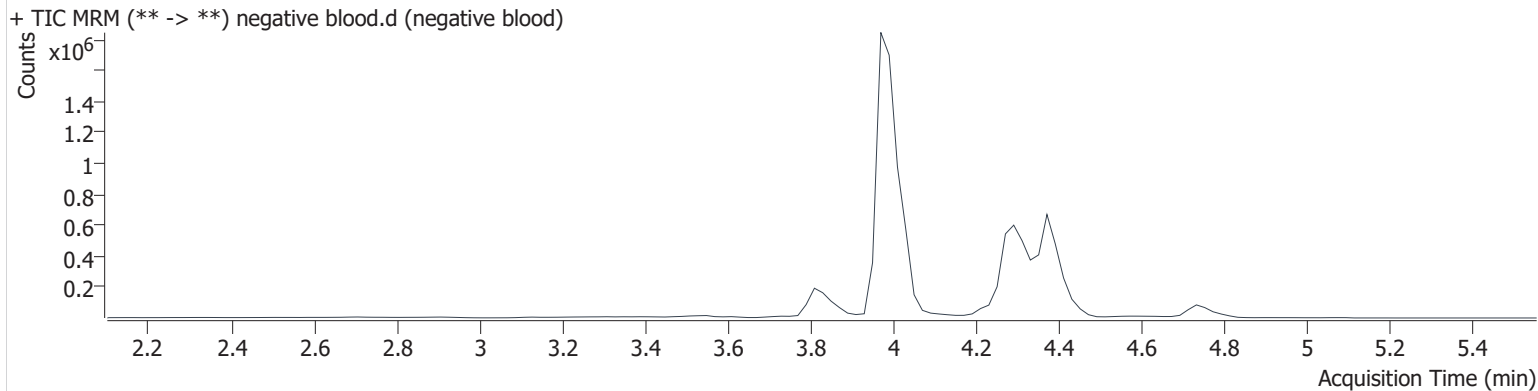
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	71391	1917286	4.869 ng/ml
THC-COOH	3.832	126182	680976	15.117 ng/ml
THC-OH	3.979	46531	6466745	4.761 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	negative blood.d
<b>Type</b>	Sample	<b>Sample</b>	negative blood
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-B2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 4:13:30 PM		
<b>Sample Info.</b>			

## Sample Chromatogram

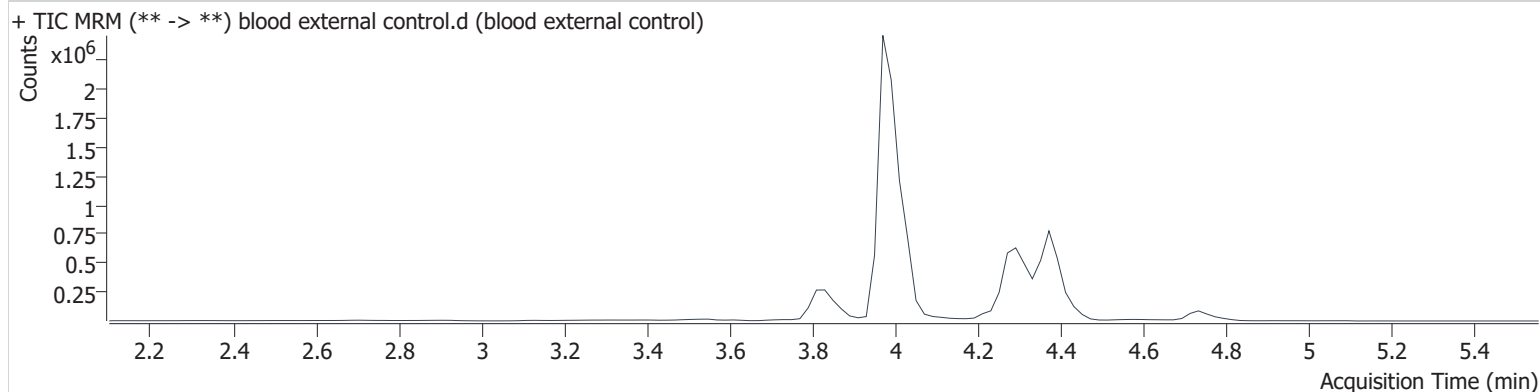


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	blood external control.d
<b>Type</b>	Sample	<b>Sample</b>	blood external control
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-C2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 4:20:09 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



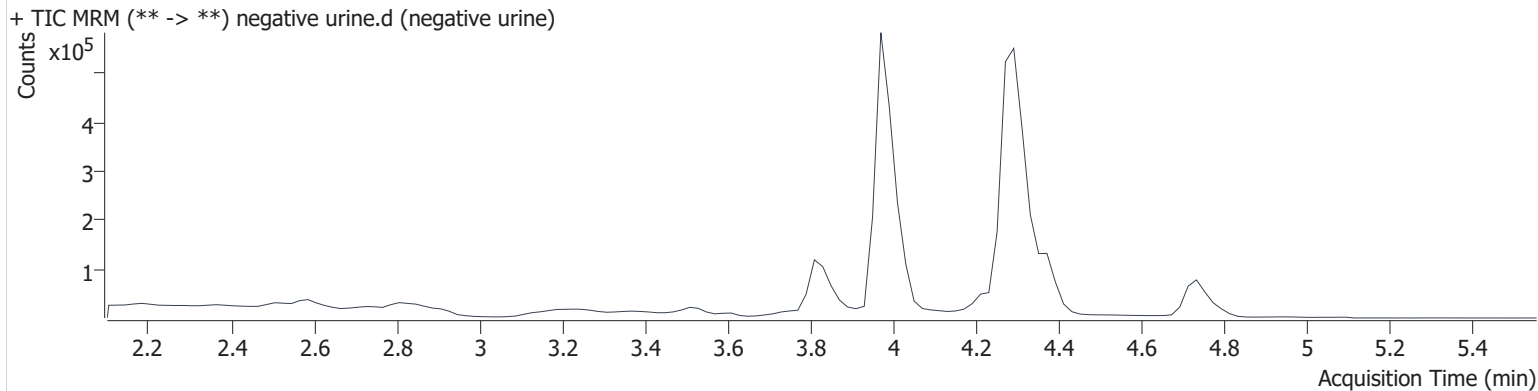
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	164898	2168897	9.746 ng/ml
THC-COOH	3.832	139176	769190	14.765 ng/ml
THC-OH	3.979	170089	7198593	15.190 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	negative urine.d
<b>Type</b>	Sample	<b>Sample</b>	negative urine
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-G4	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 6:26:15 PM		
<b>Sample Info.</b>			

## Sample Chromatogram

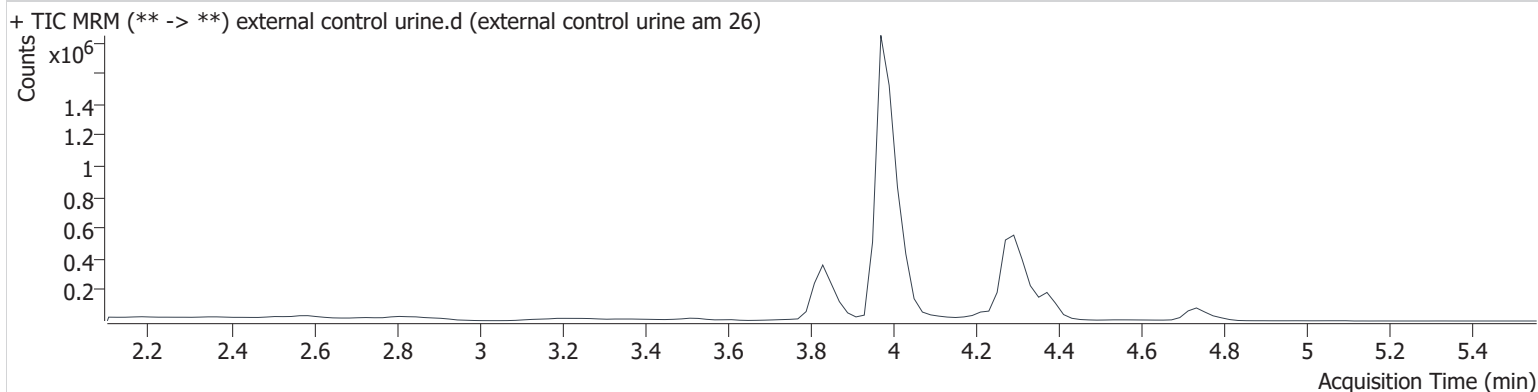


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	external control urine.d
<b>Type</b>	Sample	<b>Sample</b>	external control urine am 26
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-H4	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 6:32:54 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



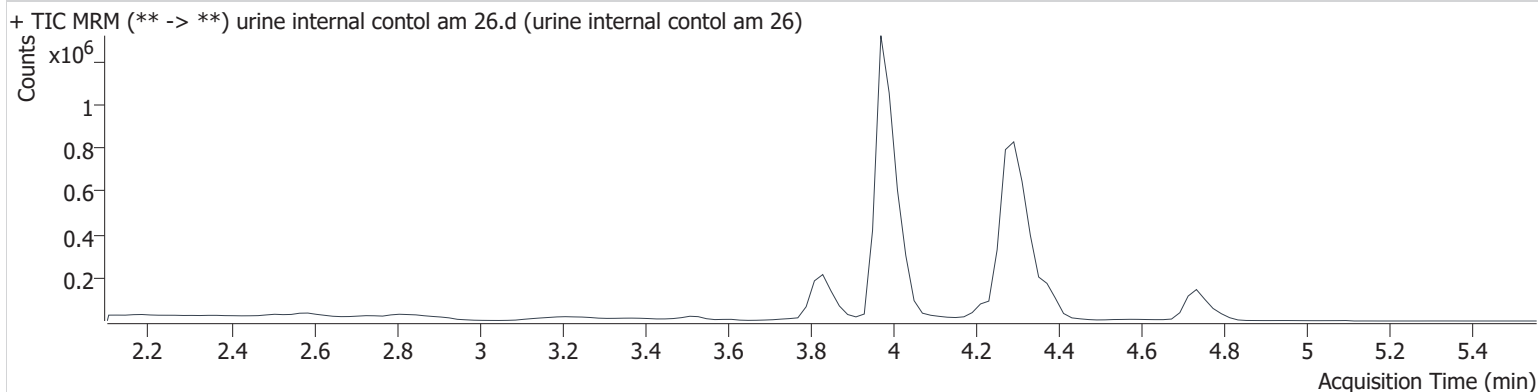
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	90293	363931	31.375 ng/ml
THC-COOH	3.832	307859	486336	51.290 ng/ml
THC-OH	3.979	302520	3733851	51.614 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

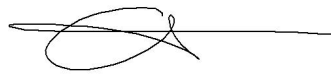
<b>Instrument</b>	69679	<b>Data File</b>	urine internal contol am 26.d
<b>Type</b>	Sample	<b>Sample</b>	urine internal contol am 26
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-A2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 7:58:54 PM		
<b>Sample Info.</b>			

## Sample Chromatogram

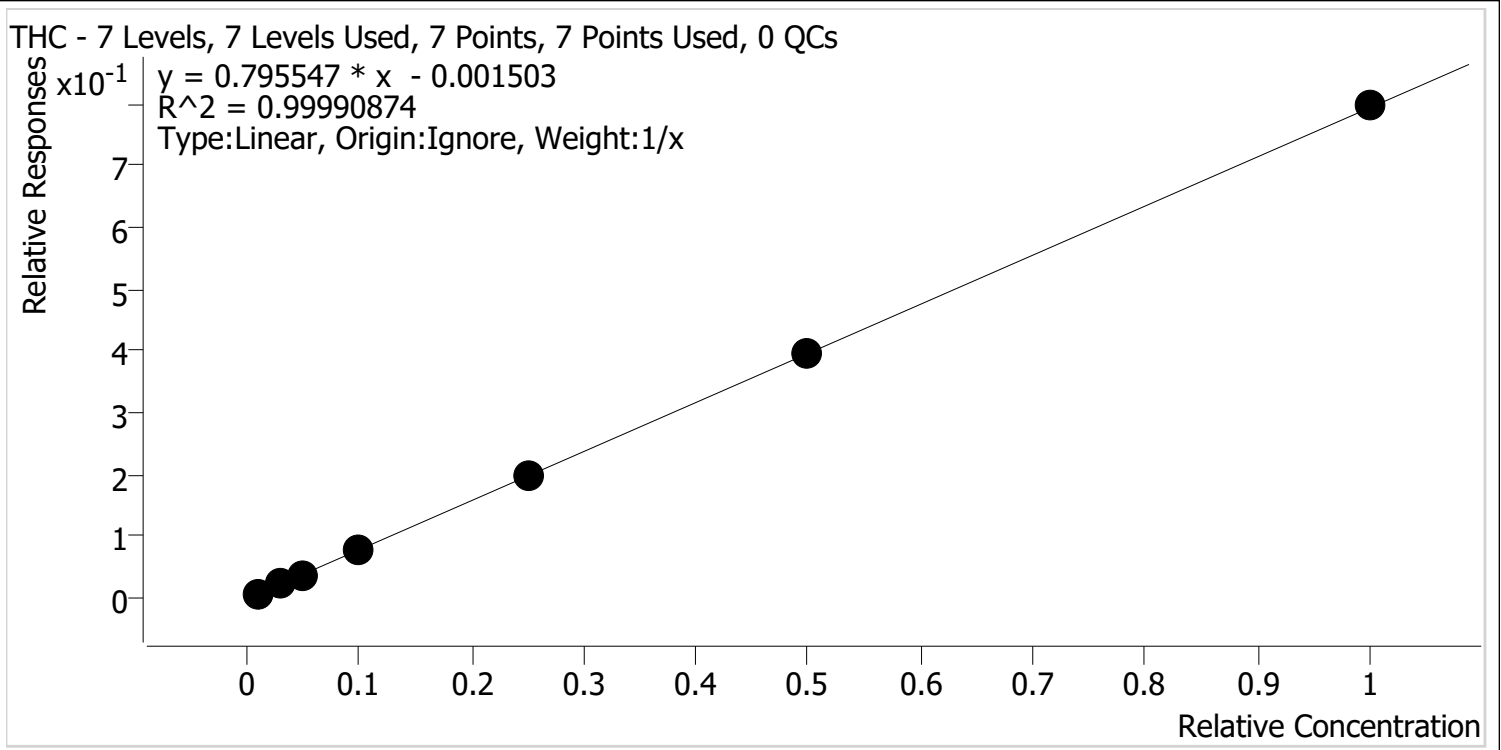


Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	11705	342134	4.489 ng/ml
THC-COOH	3.832	104812	559650	15.277 ng/ml
THC-OH	3.979	31559	4351258	4.798 ng/ml

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Last Cal. Update** 9/28/2022 12:39 PM  
**Analyst Name** ISP\datastor  
**Analyte** THC **Internal Standard** THC-d3



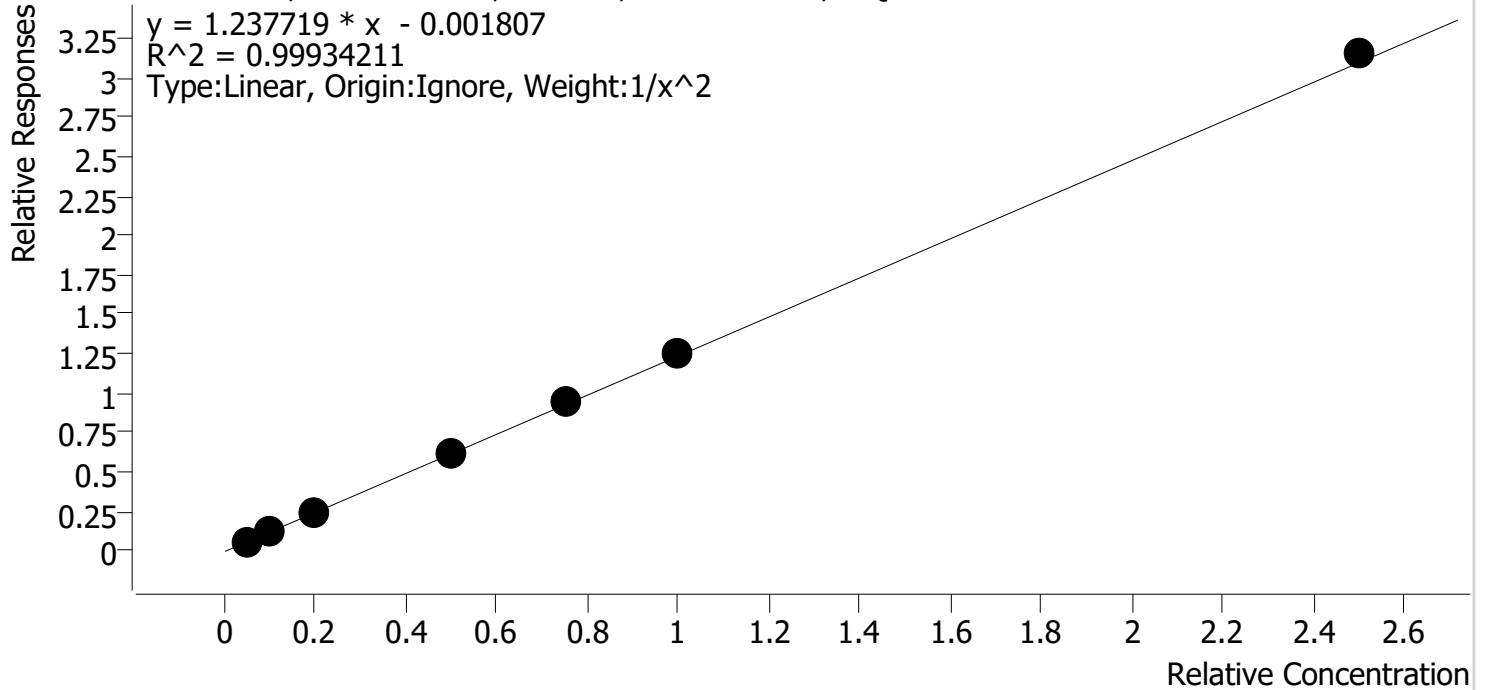
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	1.0	1.1	105.9
cal 2	2	✓	3.0	3.0	98.6
cal 3	3	✓	5.0	4.9	98.1
cal 4	4	✓	10.0	9.7	97.4
cal 5	5	✓	25.0	24.9	99.5
cal-6	6	✓	50.0	50.0	100.1
cal-7	7	✓	100.0	100.4	100.4

# Compound Calibration Report



**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Last Cal. Update** 9/28/2022 12:39 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	5.1	101.8
cal 2	2	✓	10.0	9.8	97.7
cal 3	3	✓	20.0	19.4	97.0
cal 4	4	✓	50.0	49.4	98.7
cal 5	5	✓	75.0	76.1	101.4
cal-6	6	✓	100.0	101.4	101.4
cal-7	7	✓	250.0	254.6	101.8

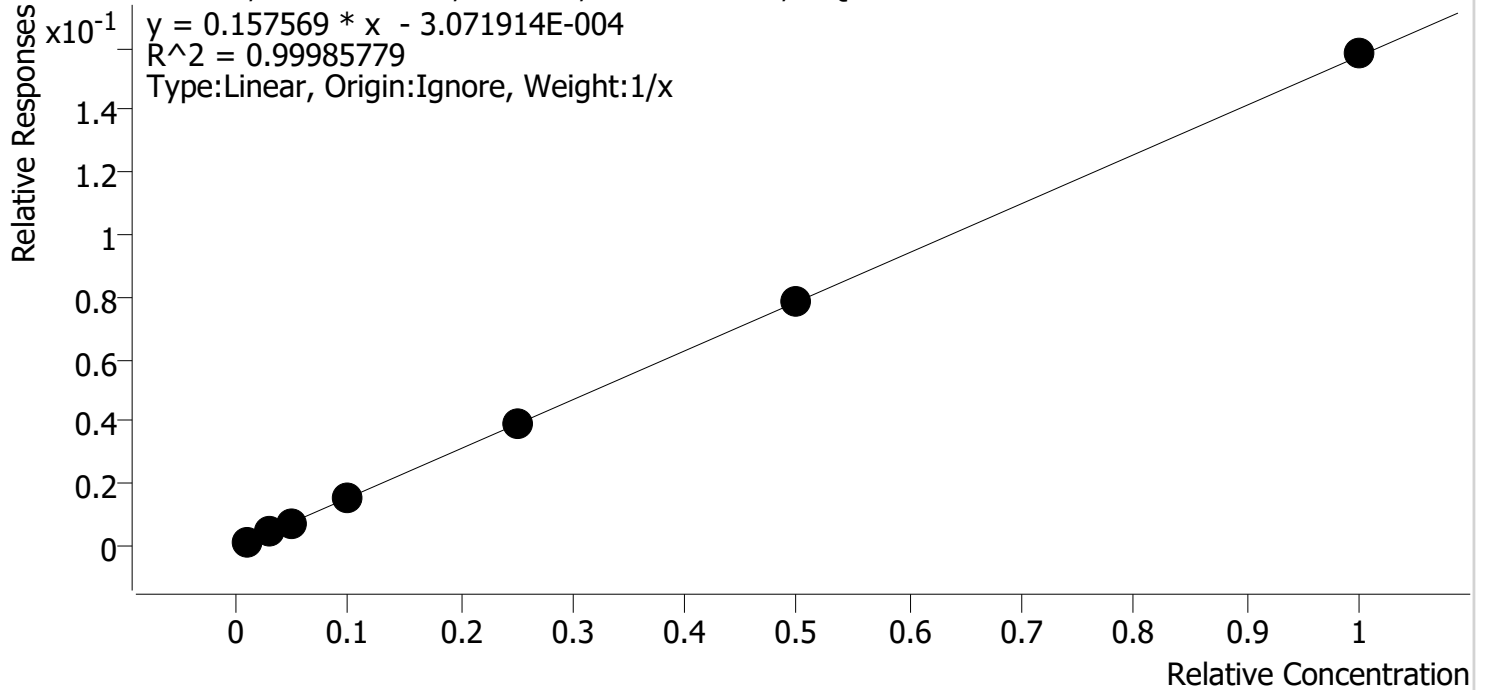


# Compound Calibration Report



**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Last Cal. Update** 9/28/2022 12:39 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



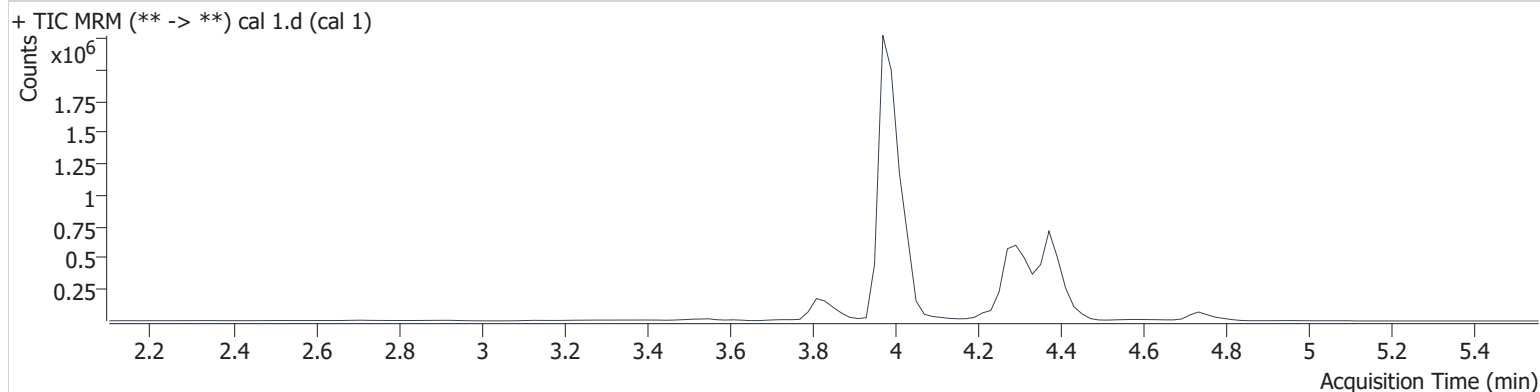
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 1	1	✓	1.0	1.1	107.3
cal 2	2	✓	3.0	2.8	94.9
cal 3	3	✓	5.0	5.0	100.5
cal 4	4	✓	10.0	9.8	97.6
cal 5	5	✓	25.0	24.8	99.2
cal-6	6	✓	50.0	50.0	99.9
cal-7	7	✓	100.0	100.5	100.5

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	cal 1.d
<b>Type</b>	Cal	<b>Sample</b>	cal 1
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-A1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 3:20:27 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



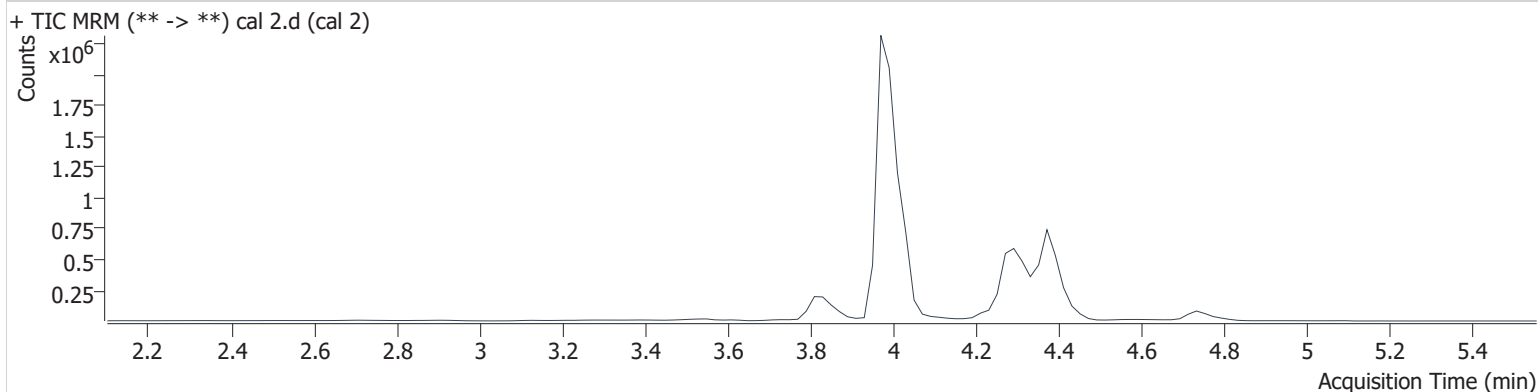
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	14702	2123466	1.059 ng/ml <b>Low</b>
THC-COOH	3.832	36551	597292	5.090 ng/ml <b>Low</b>
THC-OH	3.979	11210	8098709	1.073 ng/ml <b>Low</b>

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	cal 2.d
<b>Type</b>	Cal	<b>Sample</b>	cal 2
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-B1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 3:27:05 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



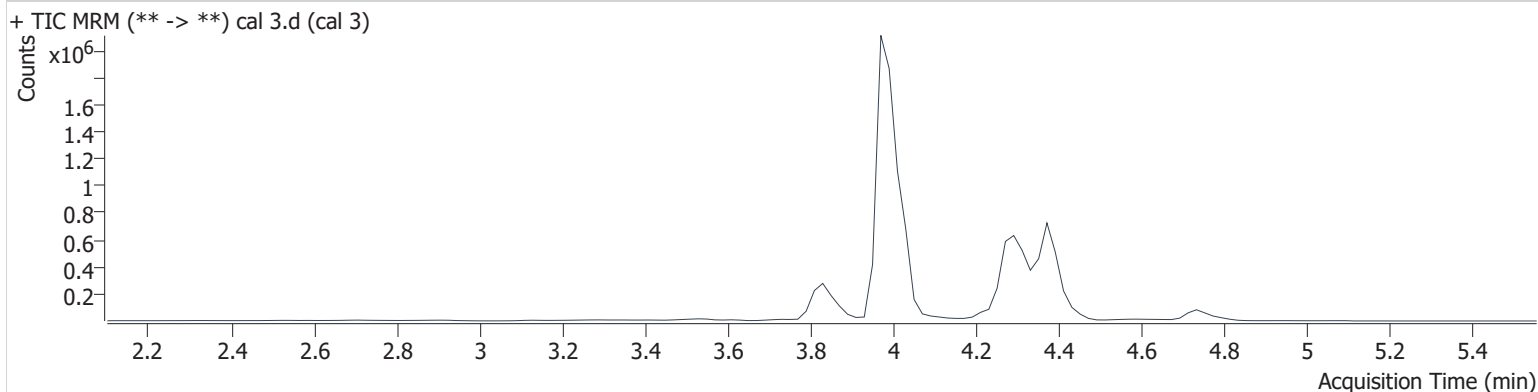
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	48660	2209270	2.958 ng/ml <b>Low</b>
THC-COOH	3.832	74161	622339	9.774 ng/ml <b>Low</b>
THC-OH	3.979	34031	8142869	2.847 ng/ml <b>Low</b>

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	cal 3.d
<b>Type</b>	Cal	<b>Sample</b>	cal 3
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-C1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 3:33:43 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



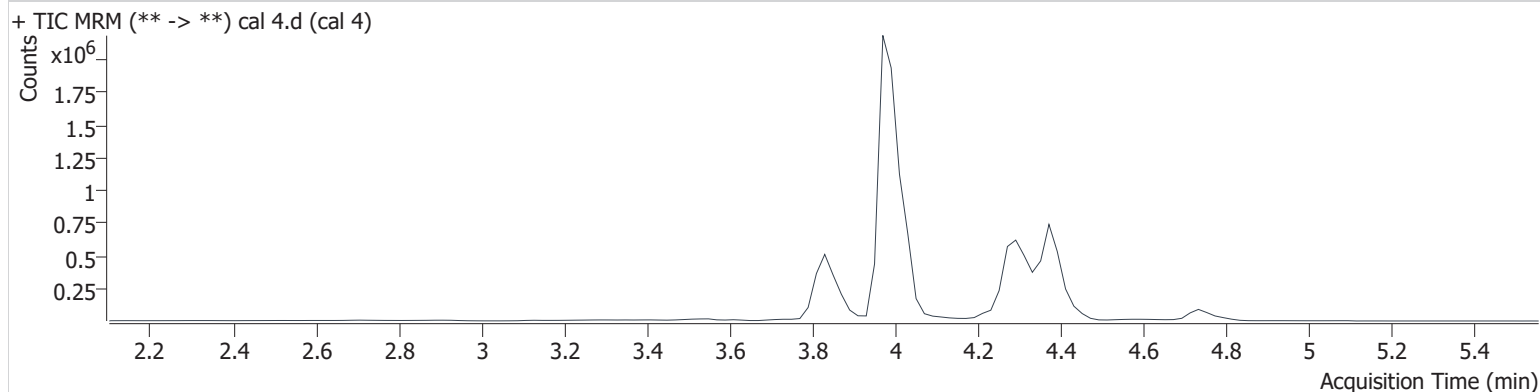
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	75260	2006423	4.904 ng/ml
THC-COOH	3.832	159075	667496	19.400 ng/ml
THC-OH	3.979	55057	7235036	5.024 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	cal 4.d
<b>Type</b>	Cal	<b>Sample</b>	cal 4
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-D1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 3:40:21 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



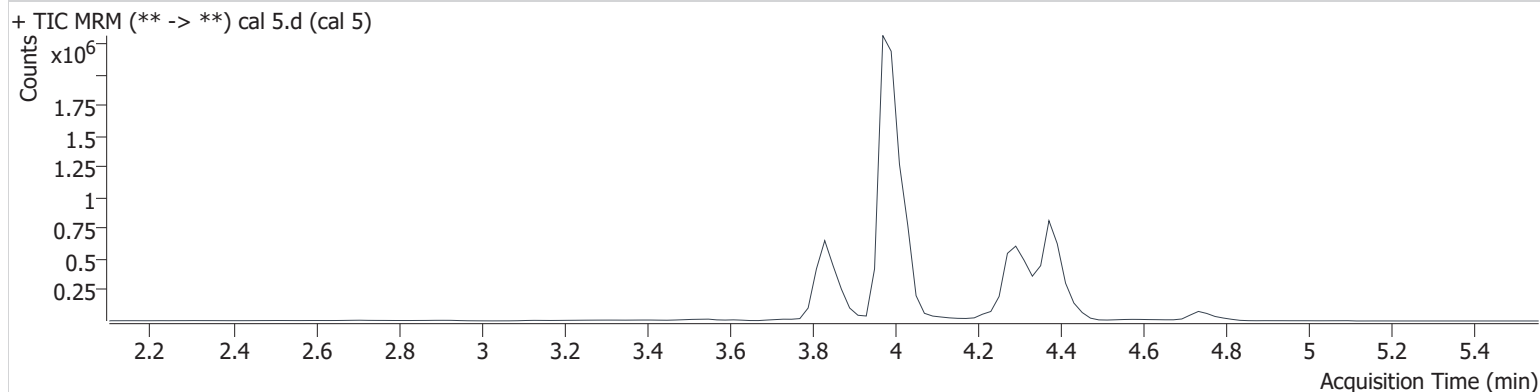
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	152348	2005104	9.740 ng/ml
THC-COOH	3.832	451010	740354	49.364 ng/ml
THC-OH	3.979	105020	6969801	9.758 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	cal 5.d
<b>Type</b>	Cal	<b>Sample</b>	cal 5
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-E1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 3:47:00 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



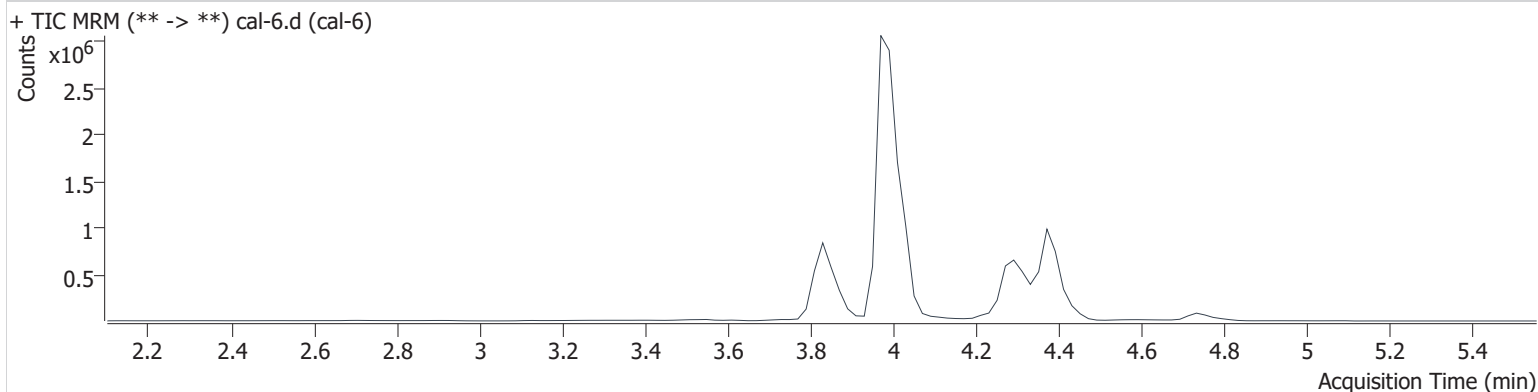
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	397681	2024609	24.879 ng/ml
THC-COOH	3.832	642913	684011	76.085 ng/ml
THC-OH	3.979	249423	6430911	24.810 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	cal-6.d
<b>Type</b>	Cal	<b>Sample</b>	cal-6
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-F1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 3:53:38 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



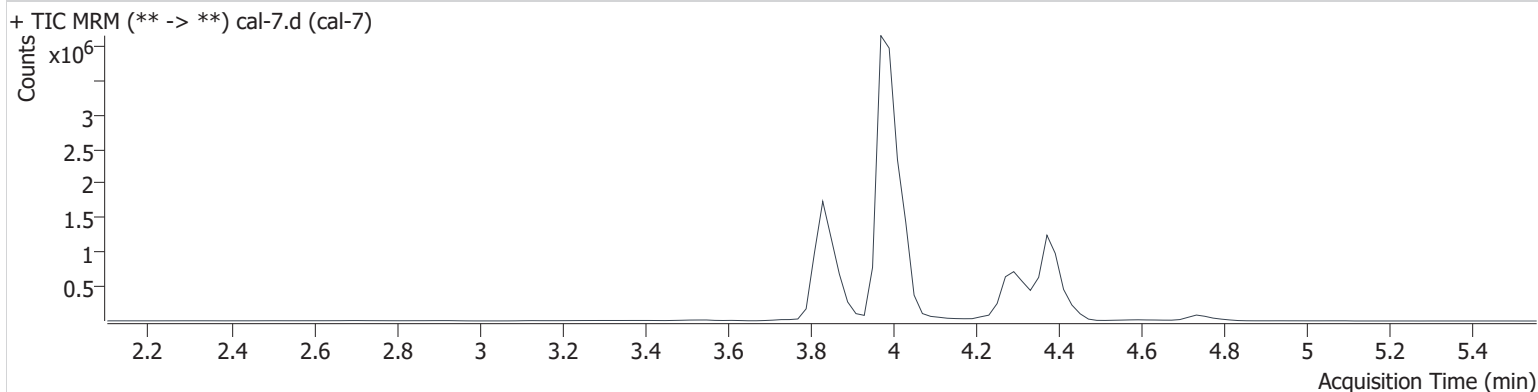
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	798637	2013517	50.046 ng/ml
THC-COOH	3.832	892213	711682	101.435 ng/ml
THC-OH	3.979	529604	6754810	49.953 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2022\am 25-26\092722\QuantResults\cann.batch.bin  
**Calibration Last Update** 9/28/2022 12:39:54 PM

<b>Instrument</b>	69679	<b>Data File</b>	cal-7.d
<b>Type</b>	Cal	<b>Sample</b>	cal-7
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Anne Nord
<b>Sample Position</b>	P3-G1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	9/27/2022 4:00:14 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.385	1554063	1949054	100.415 ng/ml
THC-COOH	3.832	2109643	669797	254.620 ng/ml
THC-OH	3.979	1019722	6449735	100.534 ng/ml