

REVIEWED

By Anne Nord at 10:02 am, Nov 10, 2020

11/4/2020




BW

Worklist: 4589

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
C2020-1973	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-1991	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-1999	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2043	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2054	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2074	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2092	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2110	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2111	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2113	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2114	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2120	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2020-2120	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2129	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2140	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2020-2149	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
C2020-2154	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
C2020-2192	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-3117	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-3146	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-3147	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

**Worklist: 4589**

*BW*

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
P2020-3147	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3197	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3211	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

BW

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

Extraction Date: 11/4/2020

Analyst: Britany Wylie

Plate lot#: 200511

Plate Expiration: 11/11/2020

**Mobile phase A:** 10mM Amm Form

**Mobile phase B:** 0.1% Formic Acid in MeOH

0.5M Ammonium Hydroxide

Ethyl Acetate

LC Methanol

**Blank Blood Lot:** 20G20792 **Blank Urine lot:** 10120 **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.
- 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 50ul 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 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

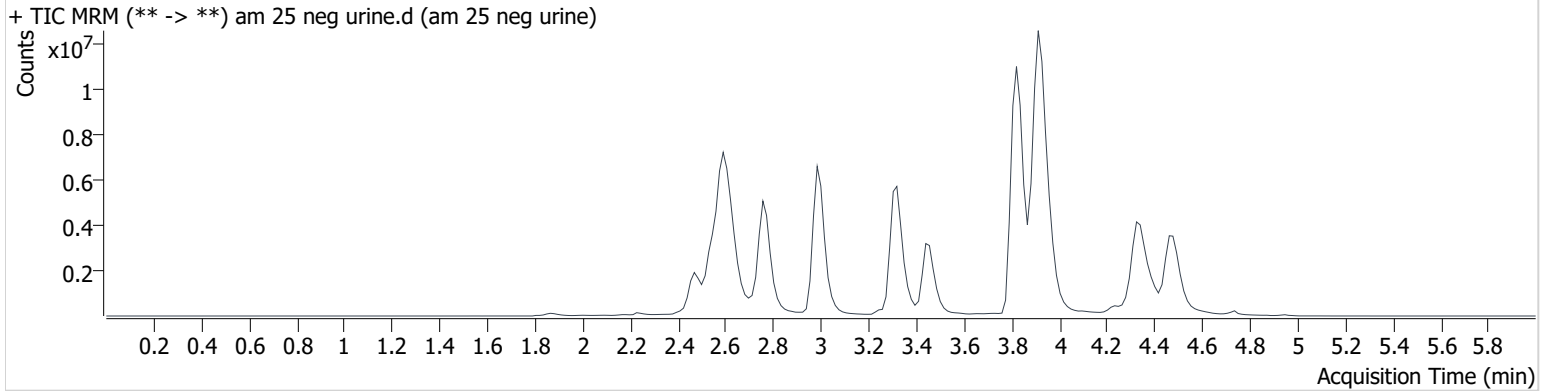
COMMENTS: *calibrator did not properly inject (poor internal standard response and missing compound responses), calibrator was reinjected and was evaluated.*

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\mds.batch.bin  
**Calibration Last Update** 11/10/2020 9:06:01 AM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 neg urine.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 neg urine
<b>Acq. Method</b>	mds 826.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P2-E1	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	11/4/2020 3:22:38 PM		

**Sample Chromatogram**



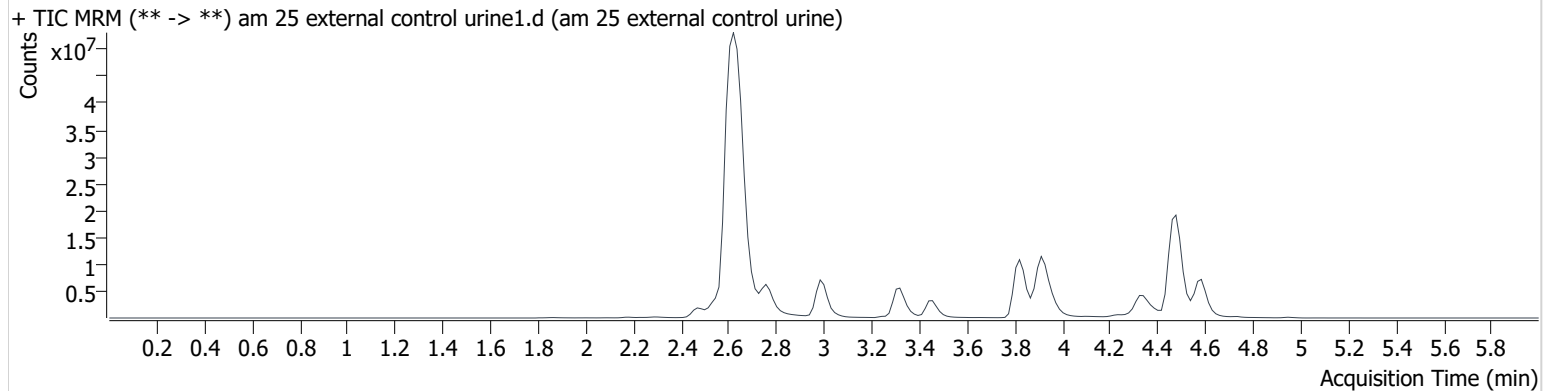
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Phentermine	2.784	261897	15.9	8.0	15894455	2.555 <5

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\mds.batch.bin  
**Calibration Last Update** 11/10/2020 9:06:01 AM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 external control urine1.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 external control urine
<b>Acq. Method</b>	mds 826.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P2-F1	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	11/4/2020 3:29:19 PM		

### Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.632	84843848	∞	76750.4	15653587	127.726
Midazolam	4.586	13276219	1166.4	1392.9	5053985	635.948
Temazepam	4.484	46834334	3871.8	832.6	5053985	513.376

Toxicology AM method 25/28 urine external control prep  
working solution 10000 ng/ml in meoh methamphetamine, temazepam, midazolam  
Stock solution 1mg/ml 50 ul each in 4850 ul MeOH (fisher 195629)

ppd 8/6/20: Exp: 4/1/2021 lot 4121                      by baw

Drug	lot	expiration
Methamphetamine	FE08101708	10/1/2022
midazolam	FE01221602	4/1/2021
temazepam	FE04261601	5/1/2021

**AM 25/28 control 500 ul working solution (4121) in 4500 ul negative urine (1000ng/mL Expected concentration)**

ppd 8/6/20, exp 4/1/2021 lot u4121                      negative urine 73020                      by AMN

**AM 25/28 Blood Control: 50ul working solution (4121) in 4950 ul neg blood (100ng/mL Expected concentration)**

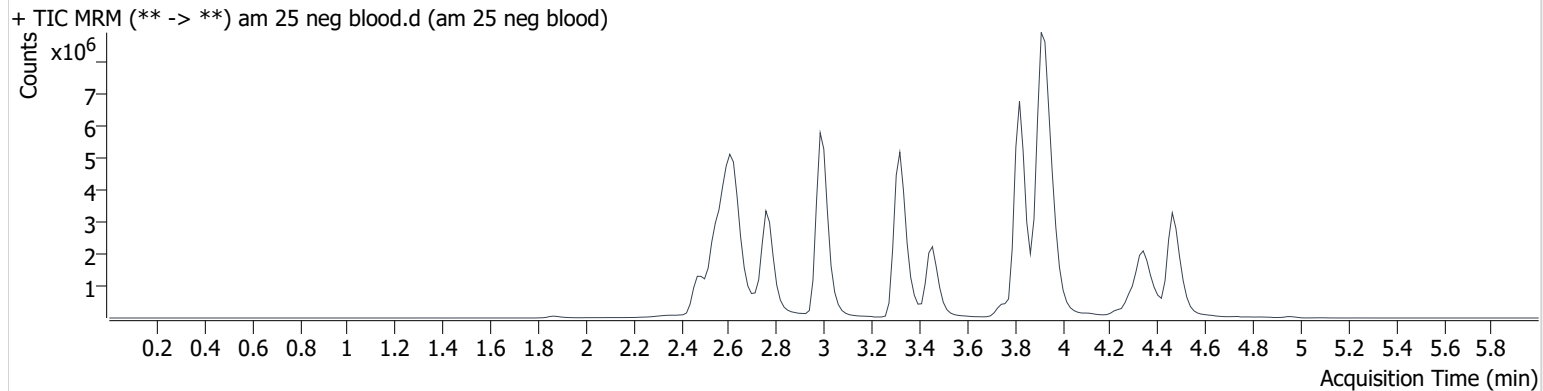
ppp 8/6/20, exp 4/1/21 lot b4121                      neg blood 20G20792                      by AMN

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\mds.batch.bin  
**Calibration Last Update** 11/10/2020 9:06:01 AM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 neg blood.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 neg blood
<b>Acq. Method</b>	mds 826.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P2-G3	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	11/4/2020 7:28:44 PM		

### Sample Chromatogram



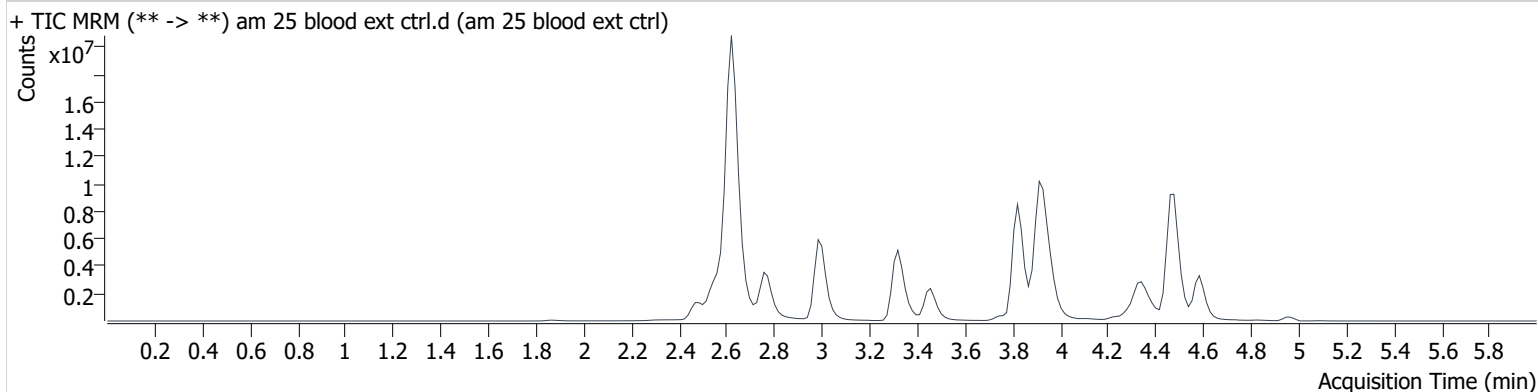
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.632	3358832	∞	∞	10785338	7.339 <10

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\mds.batch.bin  
**Calibration Last Update** 11/10/2020 9:06:01 AM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 blood ext ctrl.d
<b>Type</b>	Sample	<b>Sample</b>	am 25 blood ext ctrl
<b>Acq. Method</b>	mds 826.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P2-H3	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	11/4/2020 7:35:26 PM		

**Sample Chromatogram**



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	2.632	29094064	∞	4184.4	11430658	59.980
Midazolam	4.586	5199876	9594.6	7130.8	8006095	157.236
Temazepam	4.484	17118940	3161.7	274.7	8006095	118.457

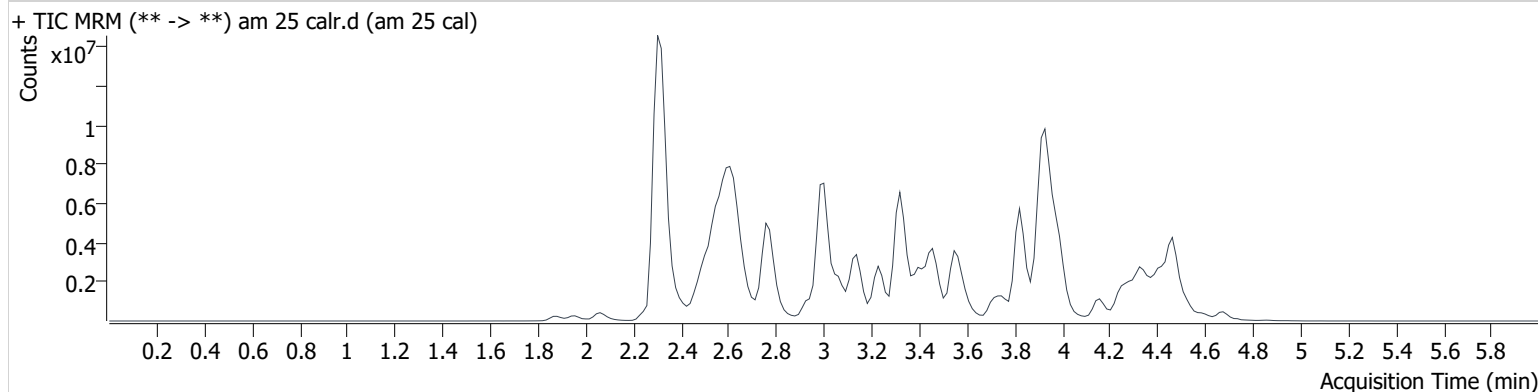


# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\mds.batch.bin  
**Calibration Last Update** 11/10/2020 9:06:01 AM

<b>Instrument</b>	69679	<b>Data File</b>	am 25 calr.d
<b>Type</b>	Cal	<b>Sample</b>	am 25 cal
<b>Acq. Method</b>	mds 826.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P2-A1	<b>Comment</b>	
<b>Injection Volume</b>	2.5		
<b>Acq. Date-Time</b>	11/4/2020 7:08:50 PM		

**Sample Chromatogram**



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.558	37118	12784.4	213.5	946445	10.000
7-aminoclonazepam	3.338	407499	466.2	254.2	1359196	10.000
7-aminoflunitrazepam	3.551	960088	167.4	217.5	1359196	10.000
Acetyl Fentanyl	3.654	64427	41.9	89.0	20425681	10.000
Acetyl Norfentanyl	2.536	196122	2031.9	205.3	20425681	10.000
a-hydroxyalprazolam	4.312	141839	73.7	30731.8	1359196	10.000
alpha-hydroxymidazolam	4.402	2757083	673.3	747.8	1359196	10.000
alpha-PHP	3.556	1443275	935.8	487.1	4447982	10.000
alpha-PVP	3.254	2370866	495.1	239.6	4447982	10.000
Alprazolam	4.437	1492930	1269.6	842.0	7789131	10.000
Amitriptyline	4.334	106248	41.0	53.2	526236	10.000
Amphetamine	2.512	2396374	489.9	394.8	4447982	10.000
Benzoyllecgonine	3.079	504480	2434.4	259.8	226472	10.000
Brompheniramine	3.870	16267	158.2	14.5	16000993	10.000
Buprenorphine	4.292	103892	162.7	7309.8	467547	10.000
Bupropion	3.480	2162850	3298.0	724.4	7535737	10.000
Carbamazepine	4.001	5976844	∞	2660.2	86551	10.000
Carisoprodol	3.983	766383	1181.2	231.9	4432999	10.000
Chlordiazepoxide	4.530	648738	242833.6	292.9	7789131	10.000
Chlorpheniramine	3.751	1453880	24347.1	∞	16000993	10.000
Citalopram	3.899	691755	179.8	135.0	16000993	10.000
Clomipramine	4.618	186633	263.3	140.8	526236	10.000
Clonazepam	4.237	428088	1032.8	690.4	7789131	10.000
Clonazolam	4.172	627548	512.9	24302.7	7789131	10.000
Cocaethylene	3.548	2723386	1948.7	834638.2	16147364	10.000
Cocaine	3.321	2849732	56134.7	746.0	16147364	10.000
Codeine	2.425	322012	326.6	417.2	4453966	10.000
Cyclobenzaprine	4.242	224599	164.4	25.4	526236	10.000
Desipramine	4.274	321783	915.2	390.7	526236	10.000
Dextromethorphan	3.921	348362	140.8	133.6	1758640	10.000
Dextrorphan	3.127	1634666	1399.9	645.1	1758640	10.000
Diazepam	4.684	754458	813.3	413.9	7789131	10.000
Dihydrocodeine	2.378	848946	1536.4	1172.9	4453966	10.000
Diphenhydramine	3.831	2162273	1089.0	398.4	16000993	10.000

# AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.026	180837	64.1	19.6	4907166	10.000
Doxylamine	3.400	5205432	∞	1220.4	1758640	10.000
EDDP	3.904	1532571	537.5	222.4	897879	10.000
Estazolam	4.332	2760209	590.7	1332.4	7789131	10.000
Etizolam	4.463	156700	60207.7	236459.4	7789131	10.000
Fentanyl	3.928	26328	30.9	29280.7	1466624	10.000
Flualprazolam	4.296	485298	1086.7	214.4	7789131	10.000
Flunitrazepam	4.374	1574357	856.7	271595.2	7789131	10.000
Fluoxetine	4.192	260190	122.8	27.8	431117	10.000
Flurazepam	3.988	842350	689049.6	1837.8	7789131	10.000
Hydrocodone	2.653	781524	449.8	582.7	4453966	10.000
Hydromorphone	2.066	867178	394.4	2269.8	197590	10.000
Imipramine	4.287	392272	462.2	196.6	526236	10.000
Ketamine	3.069	2227198	3469.1	177.0	6951568	10.000
Lamotrigine	3.295	127127	543.6	252.9	16000993	10.000
Levamisole	2.597	1555194	5650.4	405.6	16147364	10.000
Levetireacetam	2.251	511883	477.9	839.0	4432999	10.000
Lorazepam	4.221	132014	38.6	∞	7789131	10.000
Maprotiline	4.334	98142	20.4	36.5	526236	10.000
MDA	2.674	1387508	772.4	145.0	14987802	10.000
MDEA	2.948	2283513	32500.3	834.7	14987802	10.000
MDMA	2.765	2822725	1694.8	514.5	14987802	10.000
Meperidine	3.326	1093828	944.2	246.4	1758640	10.000
Meprobamate	3.362	194034	254.6	97.3	4432999	10.000
Methadone	4.253	1024104	1506.5	88.4	897879	10.000
Methamphetamine	2.632	6360127	919.0	129.1	14987802	10.000
Methocarbamol	3.266	116148	59.6	82.2	897879	10.000
Methylphenidate	3.237	4784628	2305.2	751.1	11481700	10.000
Metoprolol	3.157	466270	471.1	275.8	1758640	10.000
Midazolam	4.586	321742	350874.9	89937.7	7789131	10.000
Mirtazapine	3.599	860798	500.3	449.7	1758640	10.000
Mitragynine	4.063	37195	11412.0	443.0	1758640	10.000
Morphine	1.887	214950	∞	1251.6	197590	10.000
Norbuprenorphine	3.682	15866	∞	5245.3	467547	10.000
Nordiazepam	4.504	642682	2301.5	905.8	7789131	10.000
Norfentanyl	3.007	3658757	832.6	402.0	20425681	10.000
Norhydrocodone	2.609	35348	112.7	53.0	4453966	10.000
norketamine	3.070	359988	222.2	2639.7	16000993	10.000
Normeperidine	3.344	837745	550.0	198.0	16000993	10.000
Noroxycodone	2.560	539470	173.5	369.4	6951568	10.000
Nortriptyline	4.321	115632	29154.0	23.4	526236	10.000
O-desmethyl-tramadol	2.550	4983398	15330.8	256.1	16000993	10.000
Olanzapine	2.862	8039	∞	6.9	86551	10.000
Oxazepam	4.302	267305	180.0	33.4	1661656	10.000
Oxycodone	2.559	1567945	2179.5	1159.5	6951568	10.000
Oxymorphone	1.956	612681	626.4	∞	197590	10.000
Paroxetine	4.280	12446	203.3	43.2	431117	10.000
Phenazepam	4.448	785966	784.6	736575.8	7789131	10.000
Phencyclidine	3.724	1783181	740.7	508.6	1758640	10.000
Phentermine	2.799	740599	∞	19.4	11481700	10.000
Phenytoin	3.892	148536	136.2	129.9	86551	10.000
Promethazine	4.225	394417	647.6	73.2	16000993	10.000
Pseudoephedrine	2.312	47015455	5669.0	6079.2	14987802	10.000
Quetiapine	4.247	1411341	1112.1	558.7	26041628	10.000
Sertraline	4.498	93207	165.5	90.4	431117	10.000
Sufentanil	4.293	15134	14.6	20.6	20425681	10.000
Tapentadol	3.147	2862248	4496.8	5878.2	6951568	10.000
Temazepam	4.484	1405997	708.0	46.8	7789131	10.000
Tramadol	3.127	4877120	712.8	72.1	16000993	10.000
Trazodone	4.401	1006891	192.6	172290.8	4907166	10.000

# AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Venlafaxine	3.552	3524392	2149.4	694.6	431117	10.000
Zaleplon	4.148	1340172	626.0	931.5	26041628	10.000
Zolpidem	3.948	4939177	452.7	512.9	26041628	10.000
Zopiclone	3.759	402811	104.4	736.5	2042033	10.000

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

Extraction Date: 11/4/2020  
Plate lot#: 200723

Analyst: Britany Wylie  
Plate Expiration: 1-23-2021

**Mobile phase A:** 10mM Ammonium Formate  
0.1% Formic Acid in Water  
1N KOH Saturated Phosphate Buffer

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

**Blank Blood Lot:** 20G20792

**Urine Blank:** 10120

**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.
- 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

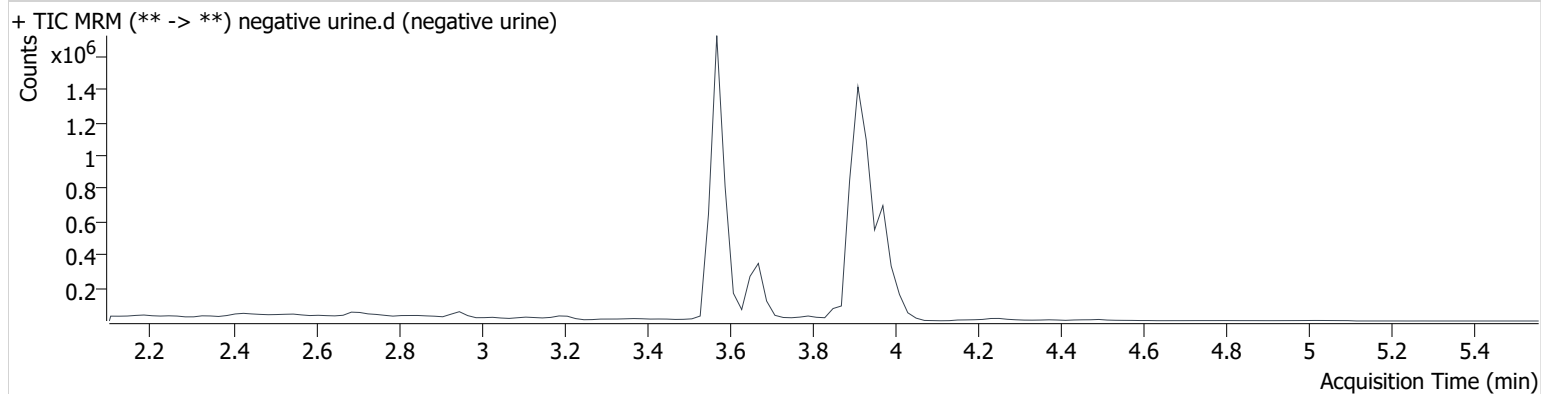
COMMENTS: *sample initially ran on LCQTOF, verification of results for the cannabinoids screen was done using the LCQQQ. 11/4/20 Samples were reconstituted and ran on am 26 and data was used and evaluated.*

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<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>	Britany Wylie
<b>Sample Position</b>	P3-A2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 10:02:10 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



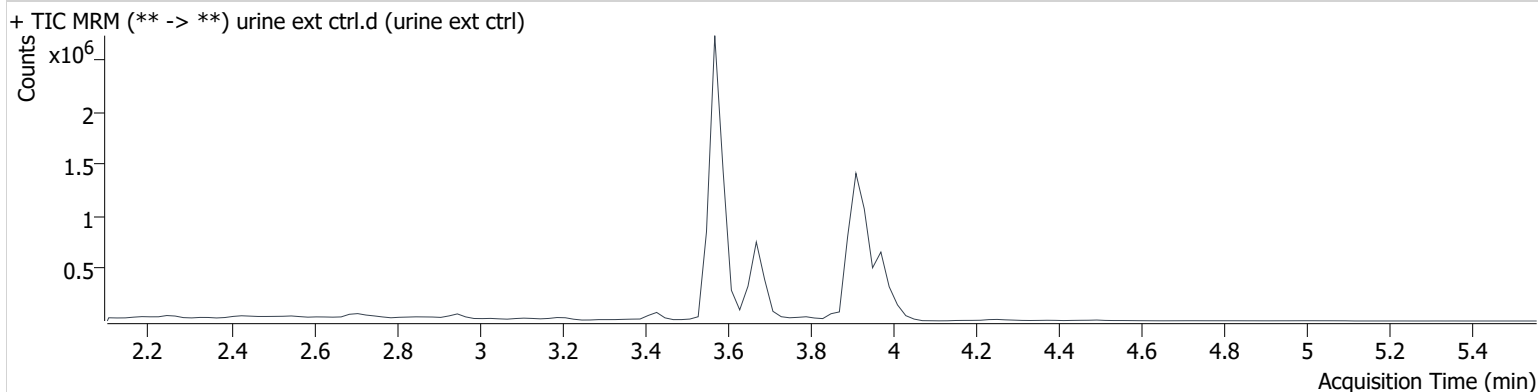
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<b>Instrument</b>	69679	<b>Data File</b>	urine ext ctrl.d
<b>Type</b>	Sample	<b>Sample</b>	urine ext ctrl
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P3-B2	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 10:08:46 PM		

**Sample Info.**

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	3.984	104654	906787	15.859 ng/ml
THC-COOH	3.672	402129	746198	37.634 ng/ml
THC-OH	3.578	317658	3880270	41.566 ng/ml

# Toxicology AM method 27/26 external prep information

BW

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 8/26/20 Exp: 7/1/21 lot 82620 by AMN

Drug	lot	expiration
C-THC	FE01061702	3/1/2022
THC-OH	FE07221601	7/1/2021
THC	FE01041701	3/1/2022

## AM 27/26 blood control 100 ul working solution lot ( ) in 9900 ul blood lot ( )

		Concentration 7.5 ng/ml THC, 15 ng/ml C-THC, THC-OH	
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## AM 27/26 urine control 400 ul working solution lot (82620) in 9600 ul urine

out of use

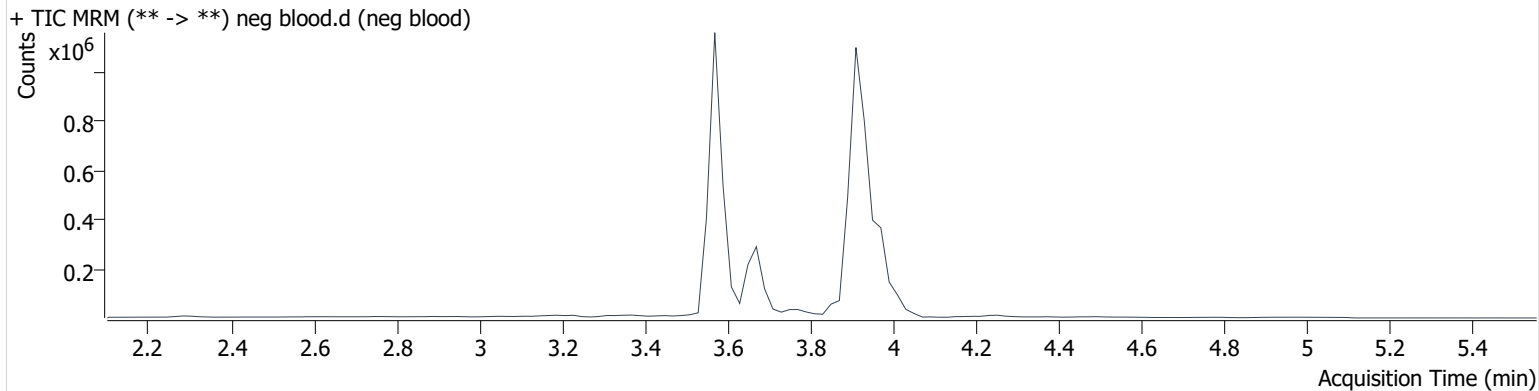
ppd 8/26/20 Exp 7/1/21 neg urine lot 73020	lot u82620	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by amn	10/4/2020
ppd 10/5/20 Exp 7/1/21 neg urine lot 10120	lot 10520	Concentration 30 ng/ml THC, and 60 ng/ml C-THC, THC-OH	by amn	

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<b>Instrument</b>	69679	<b>Data File</b>	neg blood.d
<b>Type</b>	Sample	<b>Sample</b>	neg blood
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P3-C4	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/5/2020 12:01:00 AM		
<b>Sample Info.</b>			

## Sample Chromatogram





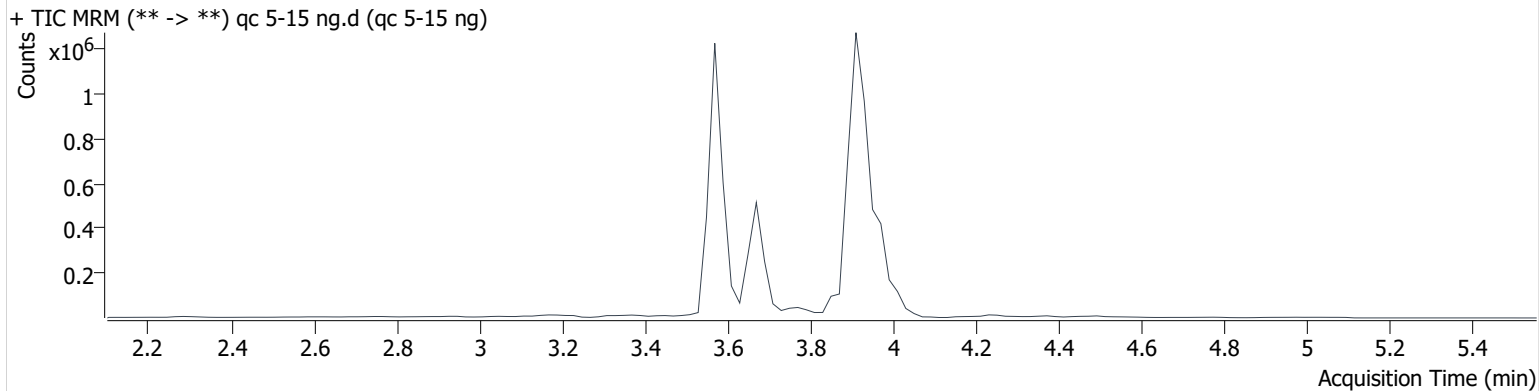
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<b>Instrument</b>	69679	<b>Data File</b>	qc 5-15 ng.d
<b>Type</b>	QC	<b>Sample</b>	qc 5-15 ng
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P3-H1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:55:32 PM		

**Sample Info.**

## Sample Chromatogram

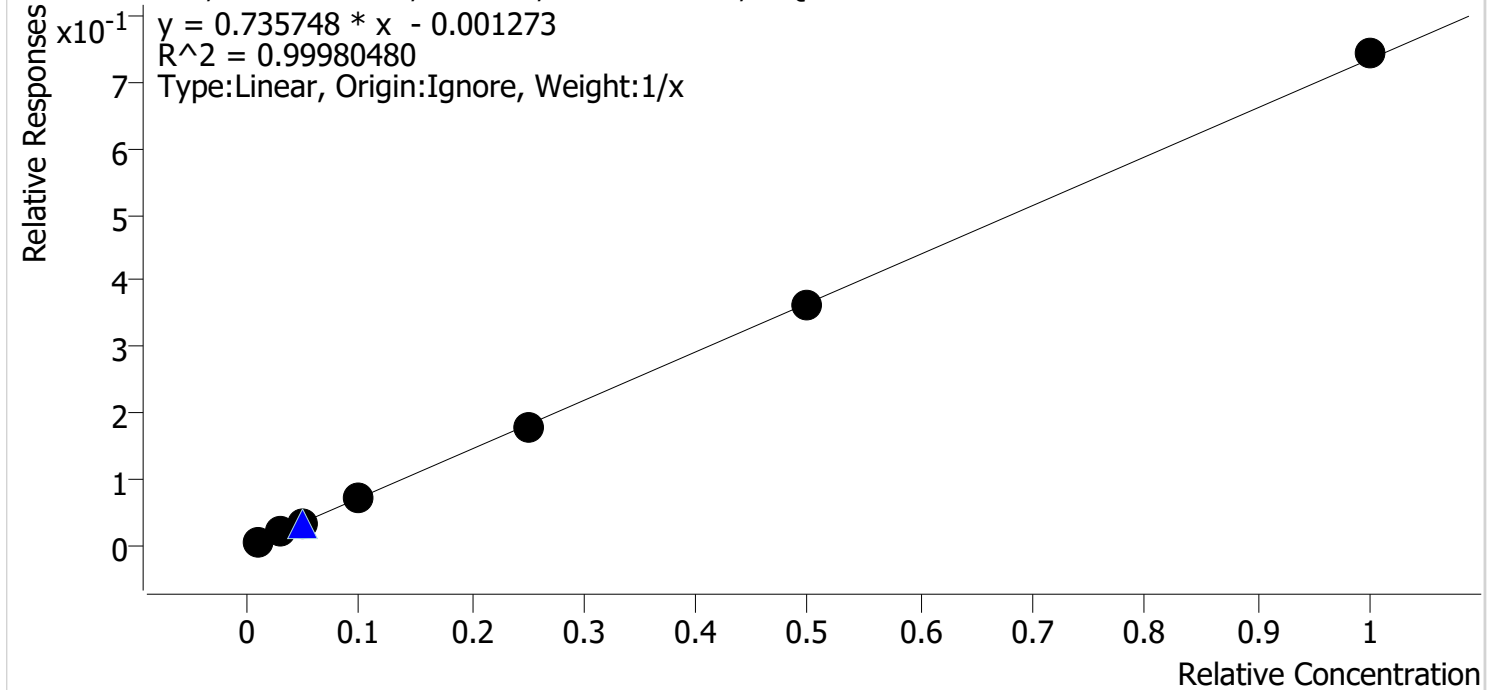


Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	3.984	18910	557425	4.784 ng/ml
THC-COOH	3.672	170447	763589	15.520 ng/ml
THC-OH	3.578	24653	2775852	4.443 ng/ml

# Compound Calibration Report

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Last Cal. Update** 11/5/2020 6:42 AM  
**Analyst Name** ISP\datastor  
**Analyte** THC **Internal Standard** THC-d3

THC - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 1 QCs

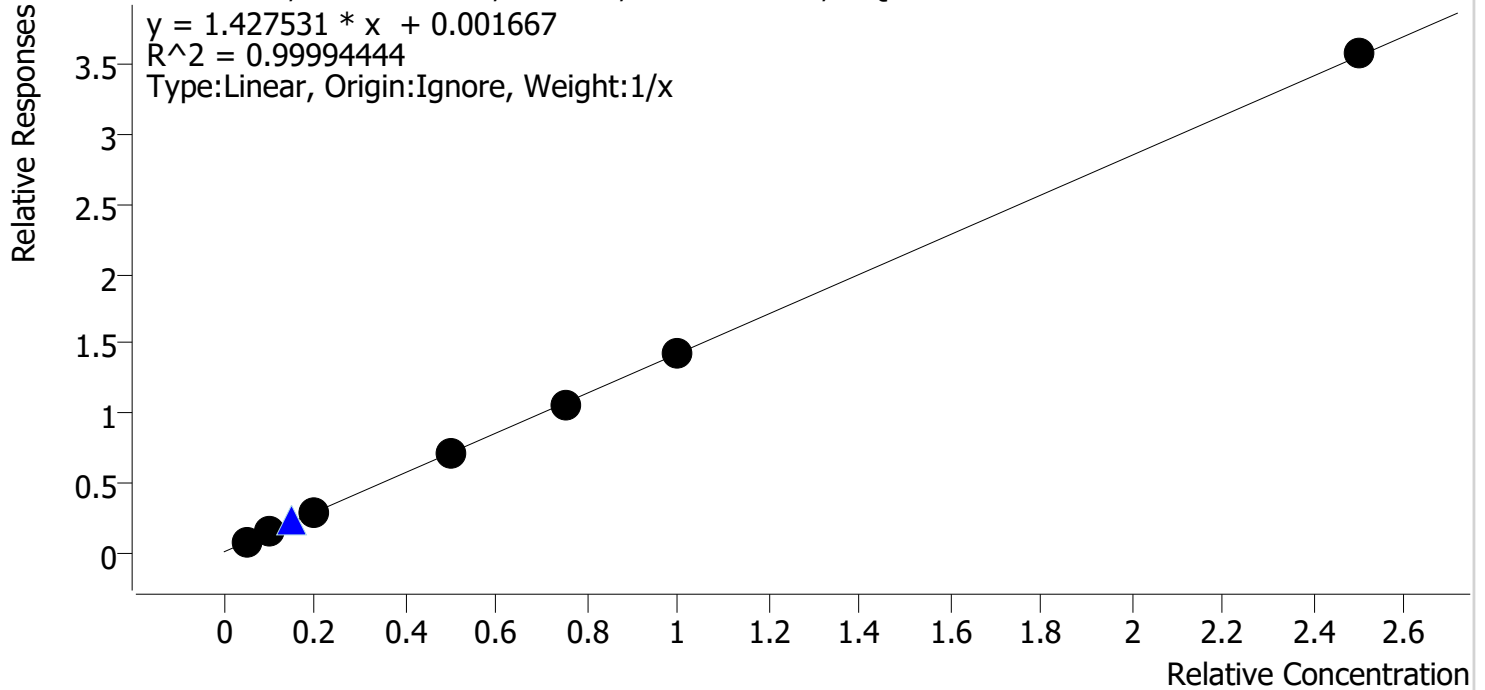


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	1.0	1.0	103.9
cal 2	2	✓	3.0	2.9	98.1
cal 3	3	✓	5.0	5.1	101.1
cal 4	4	✓	10.0	9.8	98.2
cal 5	5	✓	25.0	24.8	99.1
cal-6	6	✓	50.0	49.2	98.5
cal-7	7	✓	100.0	101.1	101.1

# Compound Calibration Report

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Last Cal. Update** 11/5/2020 6:42 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, 1 QCs

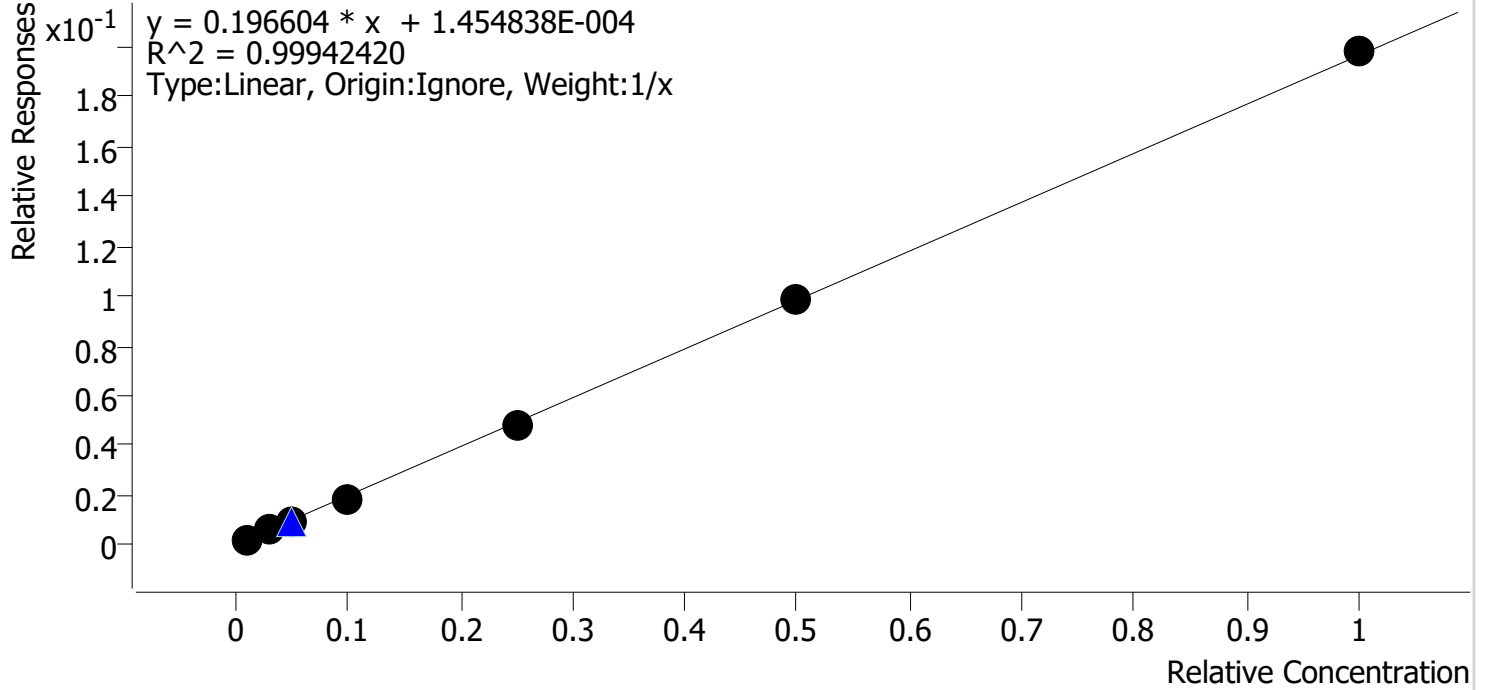


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	5.0	5.0	100.9
cal 2	2	✓	10.0	9.9	99.4
cal 3	3	✓	20.0	20.3	101.3
cal 4	4	✓	50.0	49.5	98.9
cal 5	5	✓	75.0	74.7	99.6
cal-6	6	✓	100.0	99.3	99.3
cal-7	7	✓	250.0	251.2	100.5

# Compound Calibration Report

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Last Cal. Update** 11/5/2020 6:42 AM  
**Analyst Name** ISP\datastor  
**Analyte** THC-OH **Internal Standard** THC-OH-d3

THC-OH - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 1 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
check std 1ng	1	✓	1.0	1.0	96.3
cal 2	2	✓	3.0	3.4	112.2
cal 3	3	✓	5.0	4.9	97.7
cal 4	4	✓	10.0	9.5	95.5
cal 5	5	✓	25.0	24.3	97.2
cal-6	6	✓	50.0	50.2	100.4
cal-7	7	✓	100.0	100.8	100.8

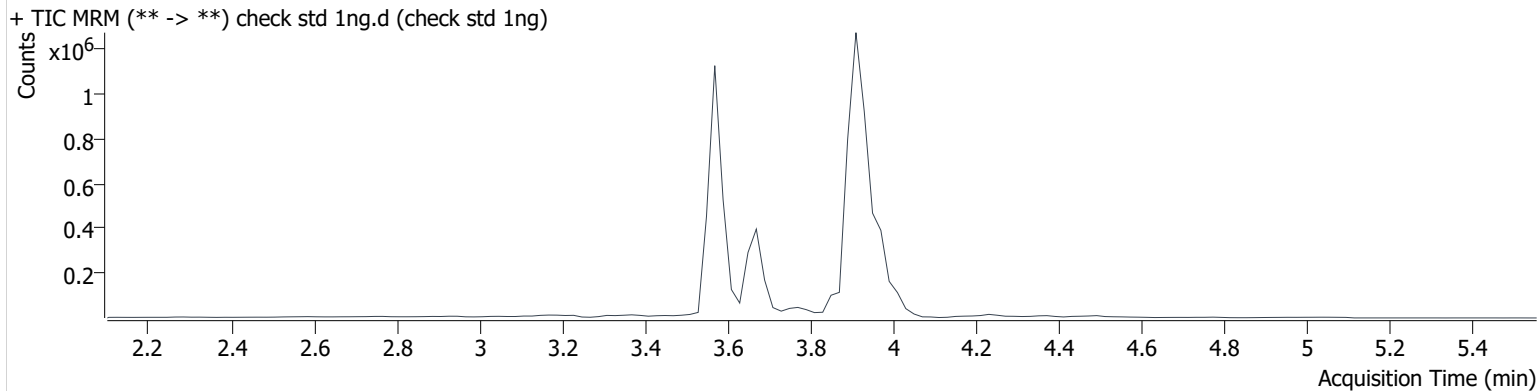
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<b>Instrument</b>	69679	<b>Data File</b>	check std 1ng.d
<b>Type</b>	Cal	<b>Sample</b>	check std 1ng
<b>Acq. Method</b>	am 26 cann scr 5-5-20.m	<b>Operator</b>	Britany Wylie
<b>Sample Position</b>	P3-A1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:02:48 PM		

**Sample Info.**

## Sample Chromatogram



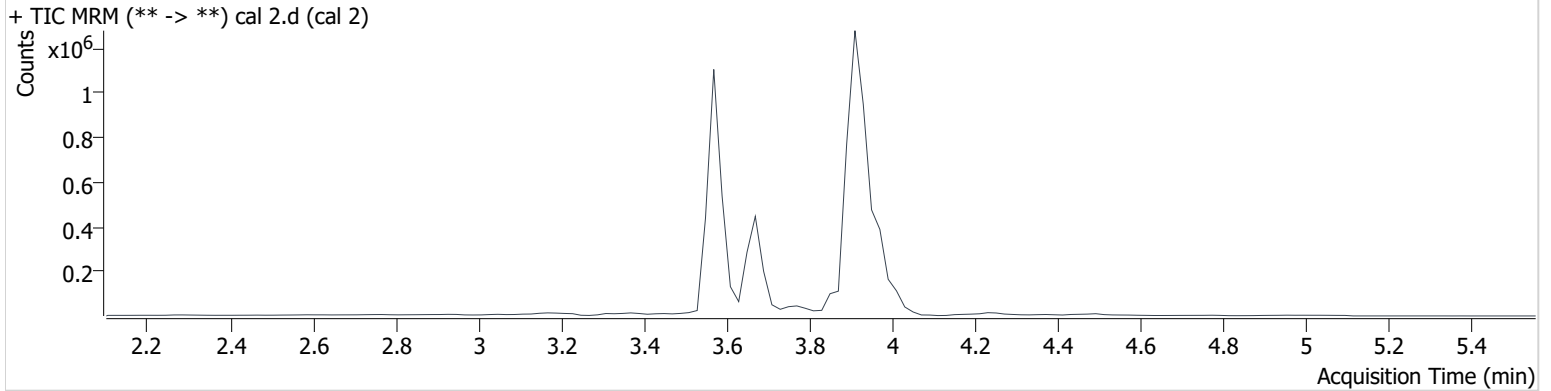
Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	3.984	3487	547444	1.039 ng/ml	Low
THC-COOH	3.672	57575	781184	5.046 ng/ml	
THC-OH	3.578	5533	2713064	0.963 ng/ml	Low

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<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>	Britany Wylie
<b>Sample Position</b>	P3-B1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:09:26 PM		

**Sample Chromatogram**



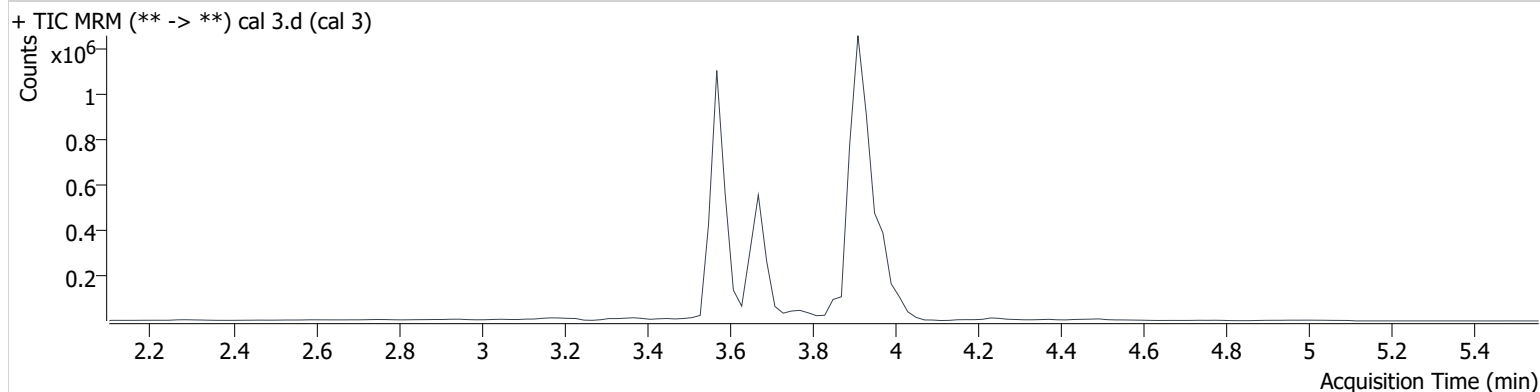
Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	3.984	10542	517220	2.943 ng/ml	<b>Low</b>
THC-COOH	3.672	109724	764093	9.943 ng/ml	
THC-OH	3.578	17588	2600297	3.366 ng/ml	

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<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>	Britany Wylie
<b>Sample Position</b>	P3-C1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:16:02 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	3.984	19347	538492	5.056 ng/ml
THC-COOH	3.672	217682	748490	20.256 ng/ml
THC-OH	3.578	24685	2532808	4.883 ng/ml

BW

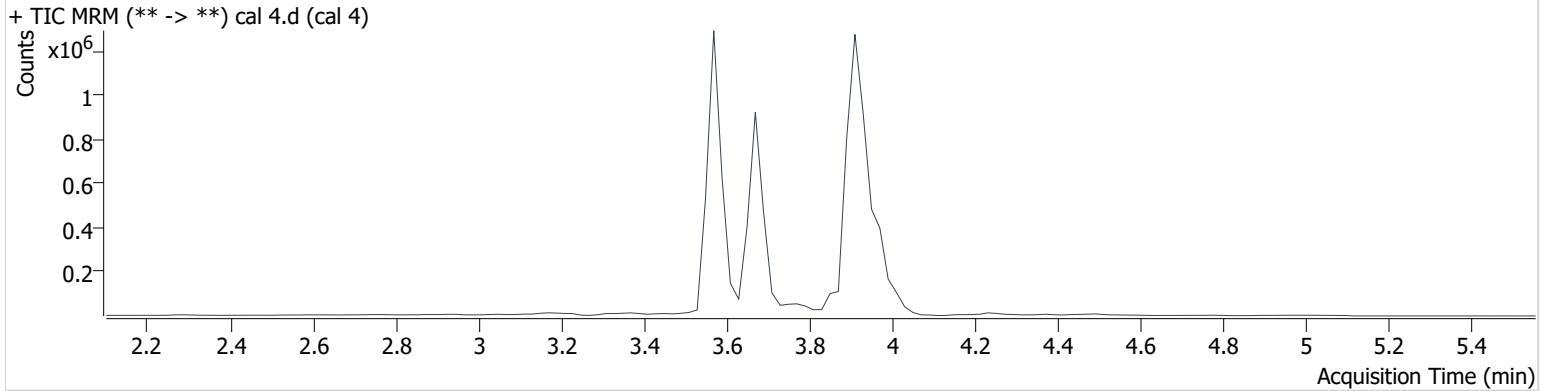
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<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>	Britany Wylie
<b>Sample Position</b>	P3-D1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:22:38 PM		

**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	3.984	38806	546902	9.817 ng/ml
THC-COOH	3.672	550348	777659	49.458 ng/ml
THC-OH	3.578	52055	2752591	9.545 ng/ml



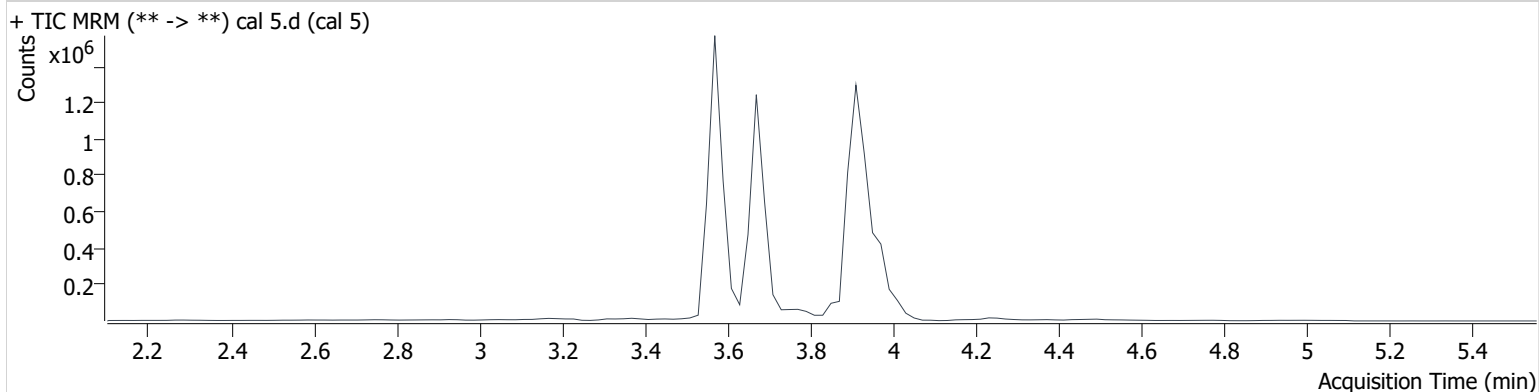
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<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>	Britany Wylie
<b>Sample Position</b>	P3-E1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:29:14 PM		

**Sample Info.**

## Sample Chromatogram



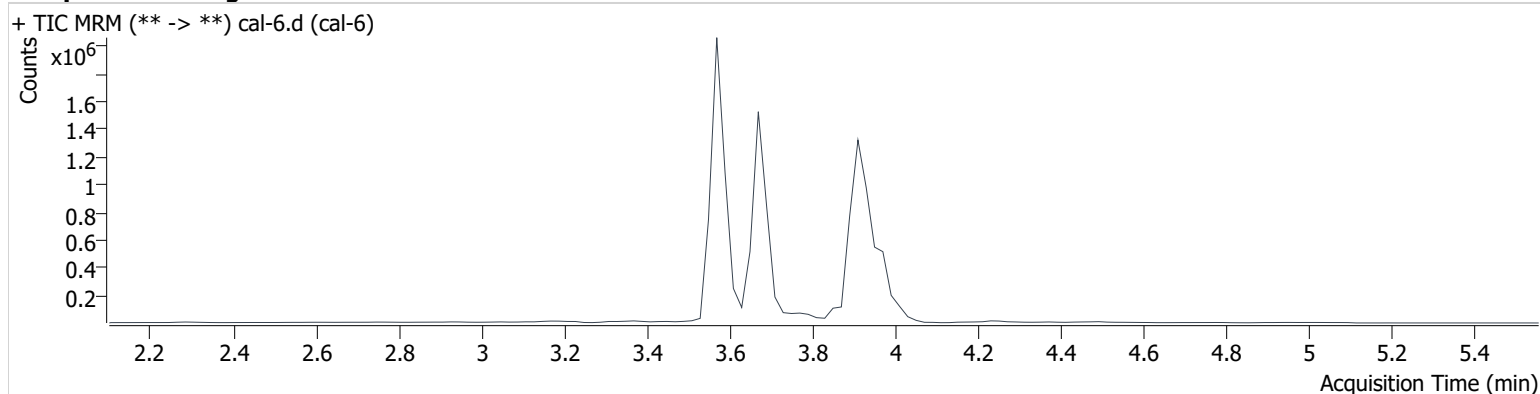
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	3.984	92391	510329	24.779 ng/ml
THC-COOH	3.672	842210	788424	74.713 ng/ml
THC-OH	3.578	131532	2744157	24.306 ng/ml

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<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>	Britany Wylie
<b>Sample Position</b>	P3-F1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:35:50 PM		

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	3.984	198151	548783	49.249 ng/ml
THC-COOH	3.672	1112703	783695	99.343 ng/ml
THC-OH	3.578	274681	2780331	50.177 ng/ml

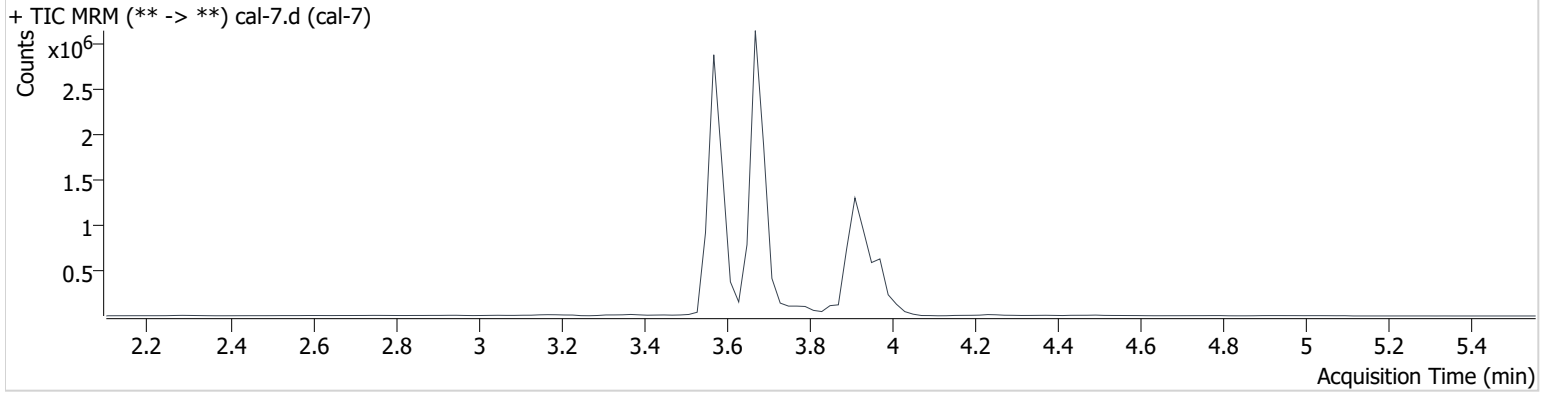
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2020 Data\am 25-26 11420\QuantResults\thcs.batch.bin  
**Calibration Last Update** 11/5/2020 6:42:37 AM

<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>	Britany Wylie
<b>Sample Position</b>	P3-G1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	11/4/2020 9:42:26 PM		

**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	3.984	392607	528626	101.117 ng/ml
THC-COOH	3.672	2644674	737045	251.241 ng/ml
THC-OH	3.578	524182	2644145	100.760 ng/ml