

















**Worklist: 4746**

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2020-4902	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2020-5042	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2020-5111	4	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2020-5215	6	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3607	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3638	1	CBUK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3725	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3789	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3790	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2020-3792	3	CBUK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0003	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0004	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0005	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0006	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0102	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0103	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	

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

Extraction Date: 01/13/2021

Plate lot#: 200511

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

Instant Buffer I

**Blank Blood Lot:** Lampire 20L20725

**LCMS-QQQ ID:** 069901

Analyst: Celena Shrum

Plate Expiration: 11/11/2020

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

Ethyl Acetate LC Methanol

**Column:** Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)

**Blank Urine Lot:** POC031319

### 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: In blank well, add 250µL urine, 40µL BG Turbo, and 100µL Instant Buffer I. Place on plate shaker for 5 minutes.
- 3. Using a calibrated pipette, pipette **250µL blood and urine** (if applicable) into wells of analytical (standards) plate.  
**Pipette ID: 42**
- 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 5. Pipette **250µL 0.5 M ammonium hydroxide** in wells of analytical plate.
- 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 7. Transfer **200-450µL of blood+base and urine+base (if applicable)** mixture to corresponding wells of SLE+ plate.  
Amount transferred: 300µl
- 8. 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: 067104*
- 9. Wait 5 minutes.
- 10. Add **900uL ethyl acetate.**
- 11. Wait 5 minutes.
- 12. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 13. Add **900uL ethyl acetate.**
- 14. Wait 5 minutes.
- 15. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 16. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C. If run contains urine, add 50µL 1% HCl in MeOH to wells and place plate cover on plate before drying. *SPE Dry ID: 067103*
- 17. Reconstitute in **100µL 20% LC MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

### Post-Analytic

- 1. Open quantitation software and create a new quantitation batch.
- 2. Make necessary changes to integration limits
- 3. Evaluate samples, S/N of primary transition >5 and S/N of secondary transition >3 or evaluation of peak symmetry and resolution. Within +/- 2% or 0.1 min RT of administrative control. Calculated concentration of 5 or greater or 2-5 for discretionary range.
- 4. Did all QCs pass for each analyte? If no, describe issue in comments (below).
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: Methamphetamine not evaluated. Samples that screen for amphetamine can be pursued for methamphetamine per AM 20.

For P2020-3607-1, Methorphan, Dextrorphan, Doxylamine, Meperidine, Metoprolol, Mirtazapine, Mitragynine, and Phencyclidine were not evaluated due to low ISTD responses.

Methamphetamine was not evaluated due to a peak/response in the blood external control.



# Idaho State Police Forensic Services

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**AM #25 Blood Multi-Drug Screen by LCMS-QQQ  
And  
AM #28 Blood Multi-Drug Confirmatory Analysis by  
LCMS-QQQ---Panel 1**

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**Methanol External Control Solution (Lot: 121020)**

*100  $\mu$ L of 1mg/mL stock was added to each drug to 9600  $\mu$ L of LC MeOH.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	197468	
Alprazolam	Cerilliant	FE07061604	07/31/2021
Clonazepam	Cerilliant	FE07131603	10/31/2021
Hydrocodone	Cerilliant	FE04241902	09/30/2024
Morphine	Cerilliant	FE06231704	07/31/2022
Prepared:	12/10/2020		
Prepared By:	Tamara Salazar		
Expires:	07/31/2021		

**Blood External Control Solution (Lot: WS121020)**

*100  $\mu$ L of methanol external control solution was added to 9900  $\mu$ L of blood.  
Approximately 100 ng/mL of each compound.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Lampire	20L20725
Methanol External Control Solution		121020
Prepared:	12/10/2020	
Prepared by:	Tamara Salazar	
Expires:	07/31/2021	



# Idaho State Police Forensic Services

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## AM #25 Blood and Urine Multi-Drug Screen by LCMS-QQQ And AM #28 Urine Multi-Drug Confirmatory Analysis by LCMS-QQQ—Panel 1

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### Methanol External Control Solution (Lot: 031820)

*100 ul of 1mg/mL stock was added to each drug to 9700 ul of LC MeOH.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	193068	
O-desmethyl Tramadol	Cerilliant	FN01241702	04/30/2022
Amphetamine	Cerilliant	FE04061701	06/30/2022
Alprazolam	Cerilliant	FE07061604	07/31/2021
Prepared: 03/18/20			
Prepared By: Sarah Pickle			
Expires: 03/18/21			

### Urine External Control Solution (Lot: WS052220)

*200 ul of methanol external control solution was added to 9800 ul of urine.*

*Approximately 100ng/mL of each compound.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Urine	Pocatello Lab	POC031319
Methanol External Control Solution		031820
Prepared:	05/22/20	
Prepared by:	Celena Shrum	
Expires:	03/18/21	

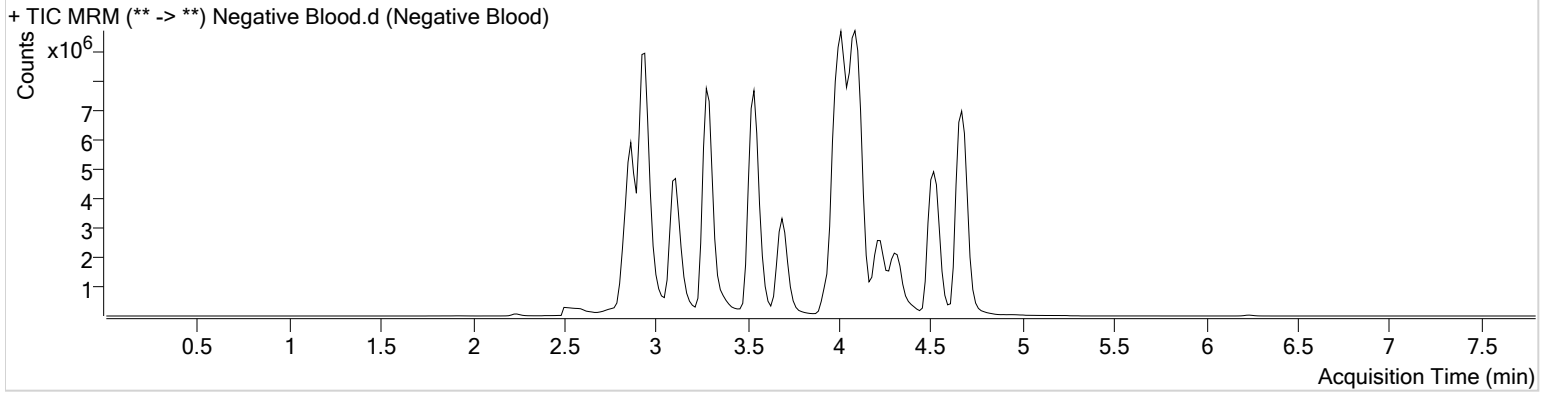
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 1/22/2021 12:14:40 PM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	Negative Blood.d
<b>Type</b>	Sample	<b>Sample</b>	Negative Blood
<b>Acq. Method</b>	AM 25 MDS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P6-E1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	1/13/2021 6:57:52 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



Type text here

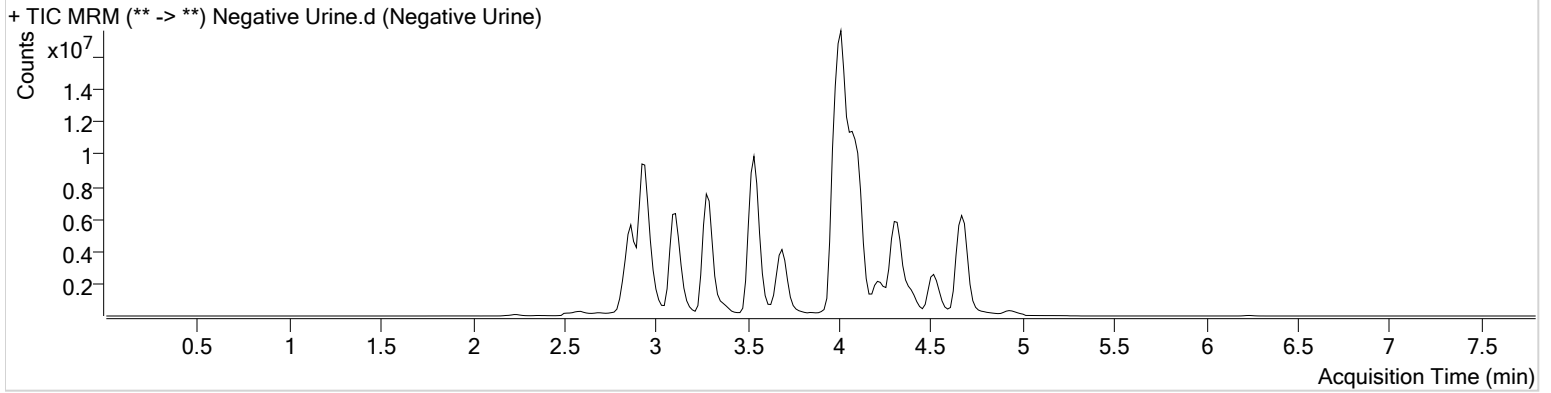
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 1/22/2021 12:14:40 PM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	Negative Urine.d
<b>Type</b>	Sample	<b>Sample</b>	Negative Urine
<b>Acq. Method</b>	AM 25 MDS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P6-F1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	1/13/2021 7:06:20 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



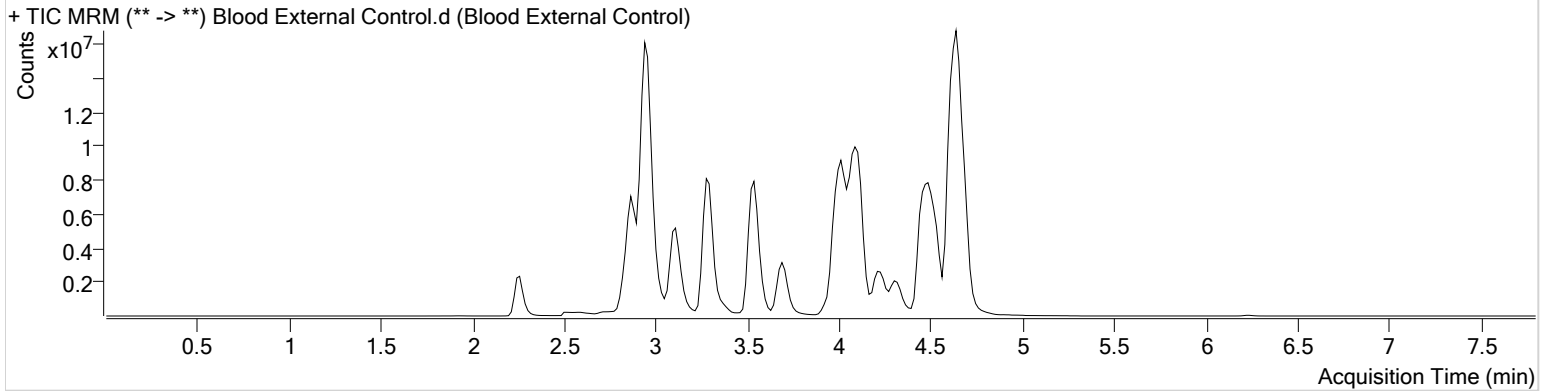
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 1/22/2021 12:14:40 PM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	Blood External Control.d
<b>Type</b>	Sample	<b>Sample</b>	Blood External Control
<b>Acq. Method</b>	AM 25 MDS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P6-G1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	1/13/2021 7:14:43 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.626	34332962	∞	∞	31403234	93.4099
Clonazepam	4.455	22234167	∞	285090.39	31403234	84.7784
Hydrocodone	2.957	13125542	266.20	243.37	9413233	85.7012
Morphine	2.260	2544272	∞	∞	199559	102.0472

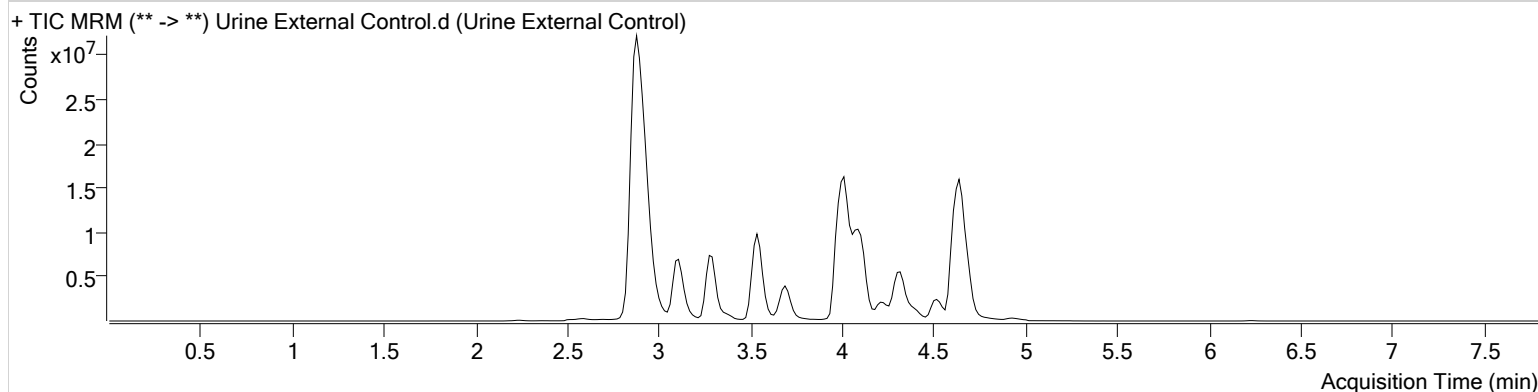
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 1/22/2021 12:14:40 PM

<b>Instrument Type</b>	Instrument 1 Sample	<b>Data File</b>	Urine External Control.d
<b>Acq. Method</b>	AM 25 MDS.m	<b>Sample</b>	Urine External Control
<b>Sample Position</b>	P6-H1	<b>Operator</b>	Celena Shrum
<b>Injection Volume</b>	5	<b>Comment</b>	
<b>Acq. Date-Time</b>	1/13/2021 7:23:08 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.626	31887811	6655.15	9360.61	25565547	106.5677
Amphetamine	2.875	31709927	407.99	6886.70	6475025	115.9255
O-desmethyl-tramadol	2.899	49925004	359983.81	∞	46126589	45.5098



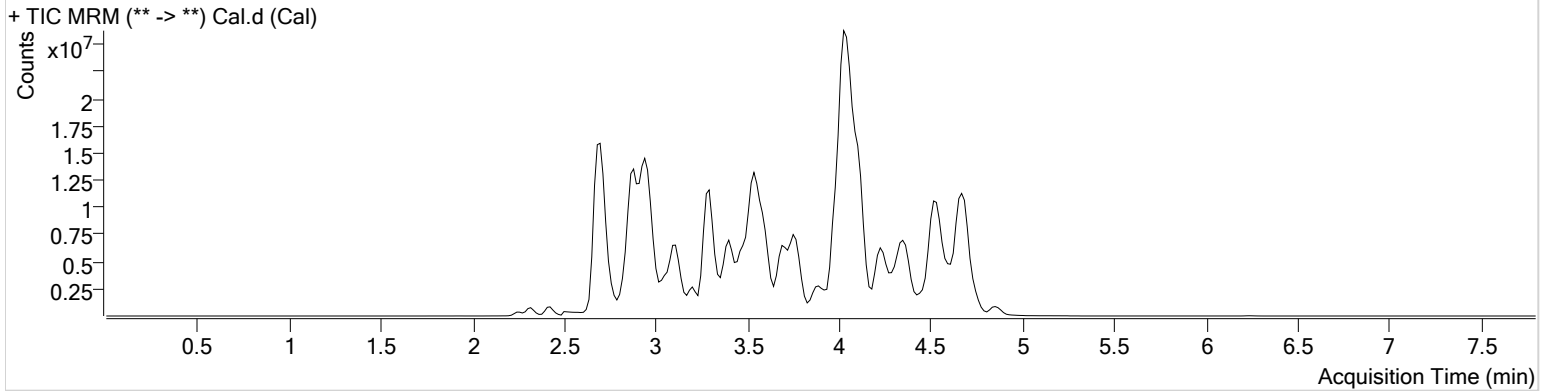
# AM #25 Multi-Drug Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 25.batch.bin  
**Calibration Last Update** 1/22/2021 12:14:40 PM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	Cal.d
<b>Type</b>	Cal	<b>Sample</b>	Cal
<b>Acq. Method</b>	AM 25 MDS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P6-B1	<b>Comment</b>	
<b>Injection Volume</b>	5		
<b>Acq. Date-Time</b>	1/13/2021 6:49:19 PM		

## Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.861	57900	68.28	∞	1684901	10.0000
7-aminoclonazepam	3.569	1119817	1734.93	∞	4548748	10.0000
7-aminoflunitrazepam	3.783	1654305	1401.54	118.89	4548748	10.0000
Acetyl Fentanyl	3.764	177149	139.01	88.96	34069890	10.0000
Acetyl Norfentanyl	2.870	364390	1765.81	204.74	34069890	10.0000
a-hydroxyalprazolam	4.515	486841	147.08	94001.26	4548748	10.0000
alpha-hydroxymidazolam	4.591	3146614	∞	858045.62	4548748	10.0000
Alpha-PHP	3.757	2993070	∞	602.28	34069890	10.0000
alpha-PVP	3.498	4581029	∞	1378.45	10203393	10.0000
Alprazolam	4.626	3681744	574.24	1238.41	31456455	10.0000
Amitriptyline	4.384	454612	∞	∞	1190414	10.0000
Amphetamine	2.875	4310417	429.87	929.18	10203393	10.0000
Benzoylcegonine	3.385	950933	857.29	4571.48	474162	10.0000
Brompheniramine	3.995	43352	20.12	685.17	33257408	10.0000
Buprenorphine	4.328	439520	286.40	65.45	1657793	10.0000
Bupropion	3.712	4520030	314.81	273.67	16424725	10.0000
Carbamazepine	4.250	12152835	∞	∞	812352	10.0000
Carisoprodol	4.233	1968858	74703.96	348.78	11136500	10.0000
Chlordiazepoxide	4.735	2352419	∞	526.28	31456455	10.0000
Chlorpheniramine	3.908	4117009	∞	9.08	33257408	10.0000
Citalopram	4.040	1800370	514.26	315924.76	33257408	10.0000
Clomipramine	4.594	422041	593.77	20.78	33257408	10.0000
Clonazepam	4.455	2627065	3160.45	75546.52	31456455	10.0000
Clonazolam	4.375	2205579	9591.23	182.96	31456455	10.0000
Cocaethylene	3.750	4681140	∞	38552.92	31681060	10.0000
Cocaine	3.536	5971689	277539.35	299.41	31681060	10.0000
Codeine	2.760	423071	144.86	692.33	10422144	10.0000
Cyclobenzaprine	4.324	530307	310.65	24.76	1190414	10.0000
Desipramine	4.355	685185	240.55	23.82	1190414	10.0000
Dextromethorphan	4.031	901400	385.50	550.16	4934002	10.0000
Dextrorphan	3.341	2949084	3567.43	379.70	4934002	10.0000
Diazepam	4.859	1618569	∞	∞	31456455	10.0000
Dihydrocodeine	2.713	977492	∞	∞	10422144	10.0000
Diphenhydramine	4.002	5049675	7061.66	331.33	33257408	10.0000

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# AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.122	527289	∞	75.95	9342035	10.0000
Doxylamine	3.601	10018634	∞	757264.45	4934002	10.0000
EDDP	4.045	6323096	∞	2906.22	3439836	10.0000
Estazolam	4.535	8460536	11971.80	∞	31456455	10.0000
Etizolam	4.636	449001	116861.91	489391.88	31456455	10.0000
Fentanyl	4.008	71142	55.43	1564.47	4288468	10.0000
Flualprazolam	4.484	1568124	∞	37.41	31456455	10.0000
Flunitrazepam	4.579	4068785	∞	302077.74	31456455	10.0000
Fluoxetine	4.303	328257	∞	15.05	820684	10.0000
Flurazepam	4.114	2286052	195897.18	16741.58	31456455	10.0000
Hydrocodone	2.957	1695698	69.33	265.90	10422144	10.0000
Hydromorphone	2.427	1335774	∞	∞	234344	10.0000
Imipramine	4.353	1141249	7072.92	5325.92	1190414	10.0000
Ketamine	3.389	3911624	∞	201.06	15901710	10.0000
Lamotrigine	3.541	344484	738.36	321.70	33257408	10.0000
Levamisole	2.902	2697574	∞	159.26	31681060	10.0000
Levetiracetam	2.659	1085757	522.86	1559.95	33257408	10.0000
Lorazepam	4.454	832829	205.33	550.36	31456455	10.0000
Maprotiline	4.384	454612	∞	∞	1190414	10.0000
MDA	2.979	3188904	1575.05	∞	27760040	10.0000
MDEA	3.207	5028776	∞	∞	27760040	10.0000
MDMA	3.055	6303599	28510.73	950.16	27760040	10.0000
Meperidine	3.557	2554091	∞	∞	4934002	10.0000
Meprobamate	3.668	1169650	207.58	131.68	11136500	10.0000
Methadone	4.365	3003969	1736.19	241.41	3439836	10.0000
<del>Methamphetamine</del>	<del>2.980</del>	<del>8342496</del>	<del>4928.33</del>	<del>443.56</del>	<del>27760040</del>	<del>10.0000*</del>
Methocarbamol	3.588	997863	694.55	∞	3439836	10.0000
Methylphenidate	3.482	10193755	∞	∞	20959758	10.0000
Metoprolol	3.402	677338	985.39	393432.89	4934002	10.0000
Midazolam	4.730	609246	∞	24.37	31456455	10.0000
Mirtazapine	3.770	1942960	∞	30926.77	4934002	10.0000
Mitragynine	4.129	146981	35122.83	1108.83	4934002	10.0000
Morphine	2.260	292781	∞	∞	234344	10.0000
Norbuprenorphine	3.792	49057	2808.55	30996.46	1657793	10.0000
Nordiazepam	4.707	2048412	∞	343.99	31456455	10.0000
Norfentanyl	3.298	7758702	121253.06	452.16	34069890	10.0000
Norhydrocodone	2.898	38557	∞	∞	234344	10.0000
Norketamine	3.453	962298	1451.55	∞	15901710	10.0000
Normeperidine	3.574	2634617	3302.70	∞	33257408	10.0000
Noroxycodone	2.865	1831865	∞	∞	15901710	10.0000
Nortriptyline	4.386	230847	296.11	140.58	1190414	10.0000
O-desmethyl-tramadol	2.899	7909516	15496.41	379.48	33257408	10.0000
Olanzapine	3.689	432818	4463.40	258.65	812352	10.0000
Oxazepam	4.536	3969940	793.36	381.98	24304162	10.0000
Oxycodone	2.879	3646184	479.61	∞	15901710	10.0000
Oxymorphone	2.317	1613717	354.50	∞	234344	10.0000
Paroxetine	4.316	56154	77.47	94.14	820684	10.0000
Phenazepam	4.651	3599954	129782.49	5943.30	31456455	10.0000
Phencyclidine	3.880	4243902	10428.62	∞	4934002	10.0000
Phentermine	3.133	1752887	∞	∞	20959758	10.0000
Phenytoin	4.141	1522032	29511.21	∞	812352	10.0000
Promethazine	4.291	1226126	206.38	78.40	33257408	10.0000
Pseudoephedrine	2.705	54700708	∞	47300.25	27760040	10.0000
Quetiapine	4.329	1914108	1535.21	130223.20	42049733	10.0000
Sertraline	4.534	153652	95.94	123.20	820684	10.0000
Sufentanil	4.313	43298	∞	∞	34069890	10.0000
Tapentadol	3.422	5109610	∞	1942.01	15901710	10.0000
Temazepam	4.689	6052066	∞	201.33	31456455	10.0000
Tramadol	3.402	8887337	∞	∞	33257408	10.0000
Trazodone	4.360	1905321	431.02	1548.48	9342035	10.0000

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\*Not evaluated.

# AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Venlafaxine	3.769	6417962	1123.85	481.21	820684	10.0000
Zaleplon	4.351	4056913	∞	5024.43	42049733	10.0000
Zolpidem	4.104	9517059	1761.83	687.35	42049733	10.0000
Zopiclone	3.945	673974	376.85	125.70	3430552	10.0000

## AM# 26: Screening of THC and Metabolites in Blood and Urine by LC-MS/MS

Extraction Date: 01/13/2021

Analyst: Celena Shrum

Plate lot#: IDP-108-2-200723

Plate Expiration: 01/23/2021

**Mobile phase A:** 0.1% Formic Acid in LCMS Water

**Mobile phase B:** 0.1% Formic acid in Acetonitrile

**Blank Blood Lot:** Lampire 20L20725

**Column:** Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)

**LCMS-QQQ ID:** 069901

**Blank Urine Lot:** POC031319

### 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. Using a calibrated pipette, add **1000µl blood and urine (if applicable) (calibrated pipette)** into the appropriate wells of analytical (standards) plate. **Pipette ID: #42**
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 4. Pipette **500µL 0.1% formic acid in water blood sample** of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **800µL 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: 067104
- 8. Wait 5 minutes.
- 9. Add **2.25mL MTBE. (Add in 3 increments of 750uL)**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 12. Add **2.25mL Hexane. (Add in 3 increments of 750uL)**
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 15 seconds. **(10-15 PSI- Selector to the left).**
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C. **SPE Dry ID: 067103**
- 16. Reconstitute in **100µL 100% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

### Post-Analytic

- 1. Create batch and process data.
- 2. Make any necessary integration changes, R<sup>2</sup> values ≥0.98 for each analyte
- 3. RT +/- 2% or 0.100 min, whichever is greater
- 4. Confirmation testing on case samples with a response for THC and OH-THC of 3ng/mL or greater and/or Carboxy-THC at 10ng/mL or greater (analyst discretion between 5-10ng/mL) may be pursued.
- 5. Did all QCs pass for each analyte? (if not, describe in comments section)
- 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: Only carboxy-THC evaluated.



# Idaho State Police Forensic Services

## AM #26 Screening of THC and Metabolites and AM #27 Confirmation of THC and Metabolites Urine External Control Prep Sheet

### Methanol External Control Solution (Lot: WS011620)

10 µL of 1mg/mL THC, 100 µL of 100 µg/mL THC-OH, C-THC in 9790 µL MeOH

*Approximate concentration 1ug/mL.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	193941	
THC	Cerilliant	FE09101501	11/30/2020
C-THC	Cerilliant	FE07171501	09/30/2020
THC-OH	Cerilliant	FE07221601	07/31/2021
Prepared:	01/16/2020		
Prepared By:	Tamara Salazar		

### Urine External Control Solution (Lot: 110220)

200 ul of methanol external control solution was added to 9800 ul of urine.

*Approximately 20ng/mL each*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Urine	Pocatello Lab	POC031319
Methanol External Control Solution	-	WS011620
Prepared:	11/02/2020	
Prepared by:	Celena Shrum	

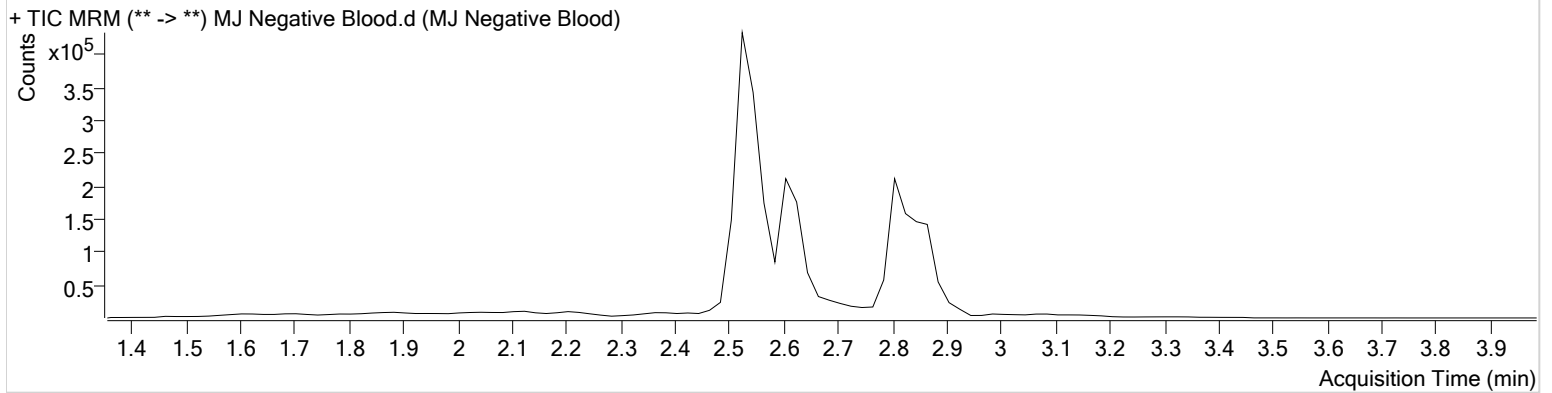
# AM #26 Cannabinoids Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument Type</b>	Instrument 1 Sample	<b>Data File</b>	MJ Negative Blood.d
<b>Acq. Method</b>	AM 26 THCS.m	<b>Sample</b>	MJ Negative Blood
<b>Sample Position</b>	P5-A2	<b>Operator</b>	Celena Shrum
<b>Injection Volume</b>	10	<b>Comment</b>	
<b>Acq. Date-Time</b>	1/13/2021 4:05:08 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



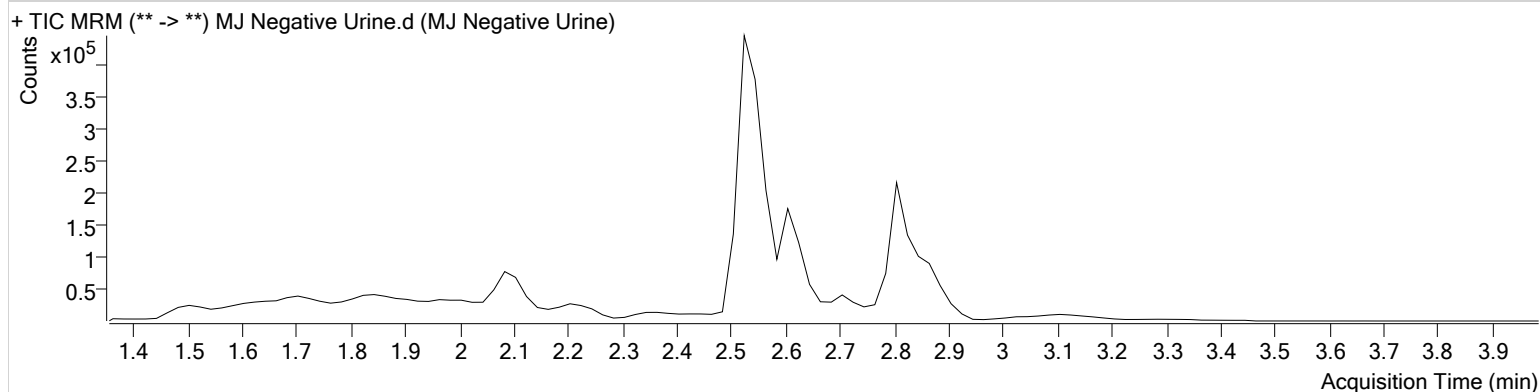
# AM #26 Cannabinoids Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ Negative Urine.d
<b>Type</b>	Sample	<b>Sample</b>	MJ Negative Urine
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-B2	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 4:18:13 PM		
<b>Sample Info.</b>			

## Sample Chromatogram



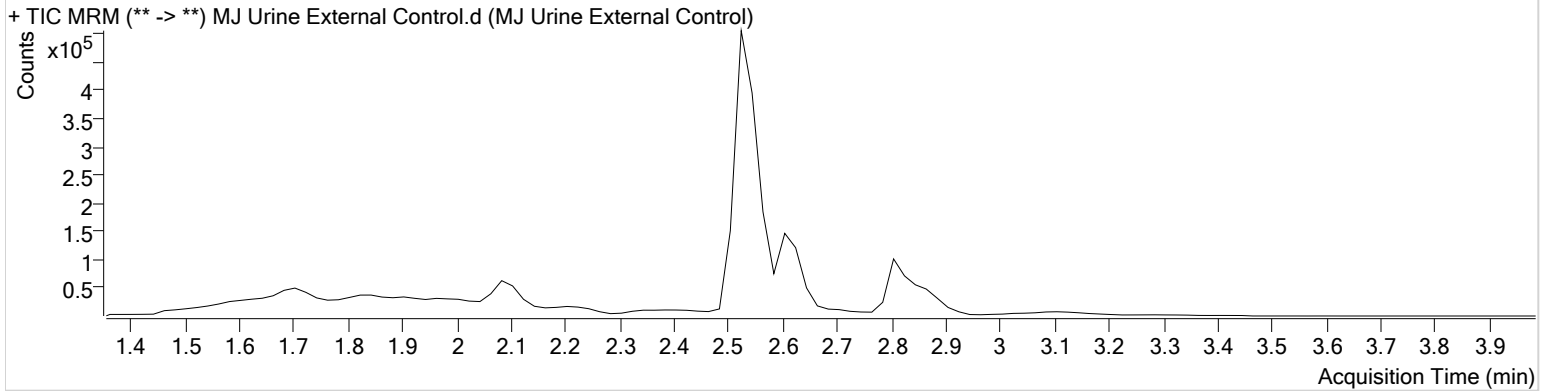
# AM #26 Cannabinoids Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ Urine External Control.d
<b>Type</b>	Sample	<b>Sample</b>	MJ Urine External Control
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-C2	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 4:24:46 PM		

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC-COOH	2.625	56841	258681	10.7540 ng/ml	
THC-OH	2.532	77484	1468669	1.8190 ng/ml	<b>Low</b> -not evaluated



CS

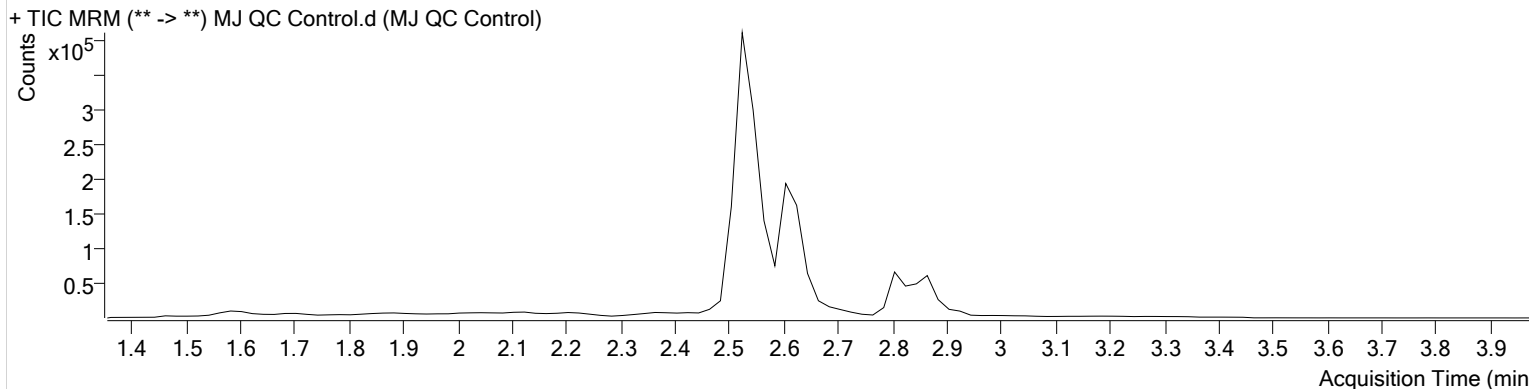


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ QC Control.d
<b>Type</b>	Sample	<b>Sample</b>	MJ QC Control
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-H1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 3:52:02 PM		

## Sample Chromatogram



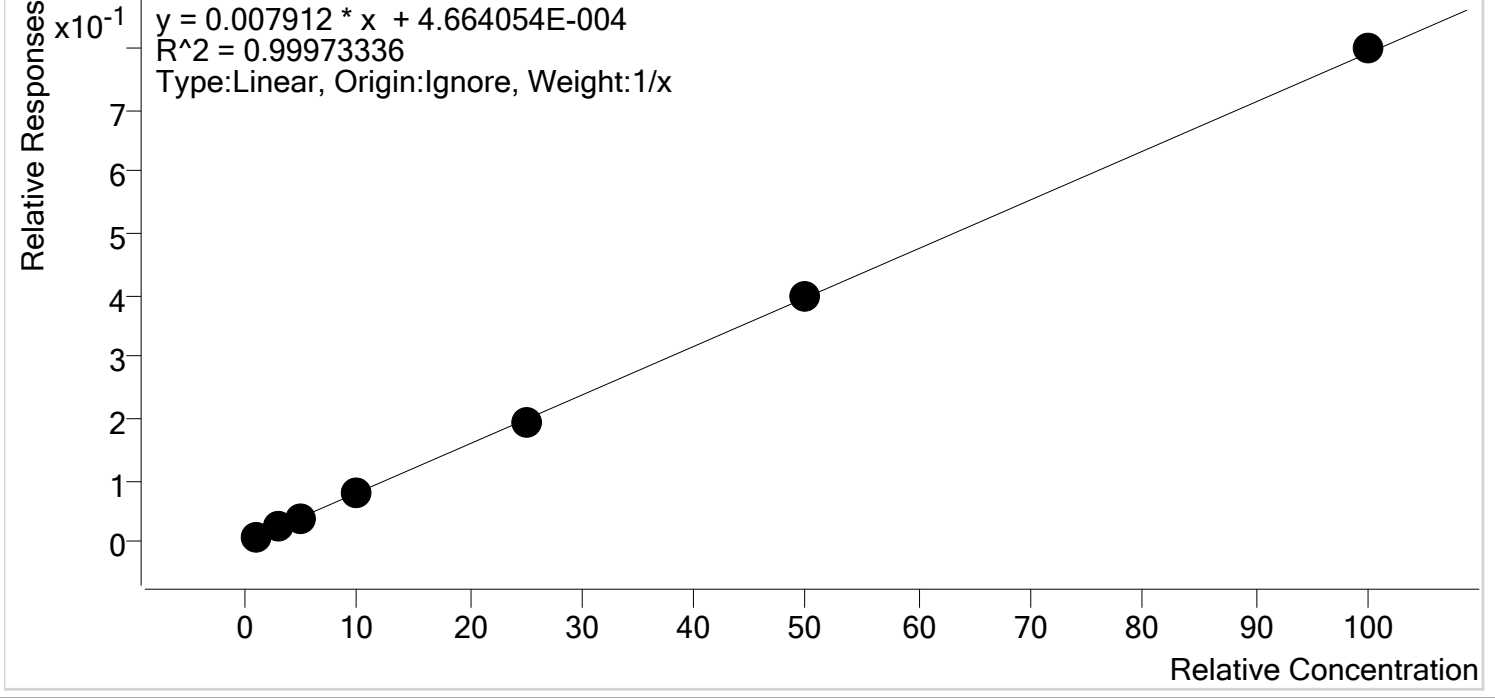
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	2635	72699	4.5214 ng/ml
THC-COOH	2.625	100924	321801	15.8866 ng/ml
THC-OH	2.532	124199	1147571	5.0972 ng/ml



# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Last Cal. Update** 1/22/2021 11:32 AM  
**Analyst Name** ISP\Datastor  
**Analyte** THC **Internal Standard** THC-D3

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

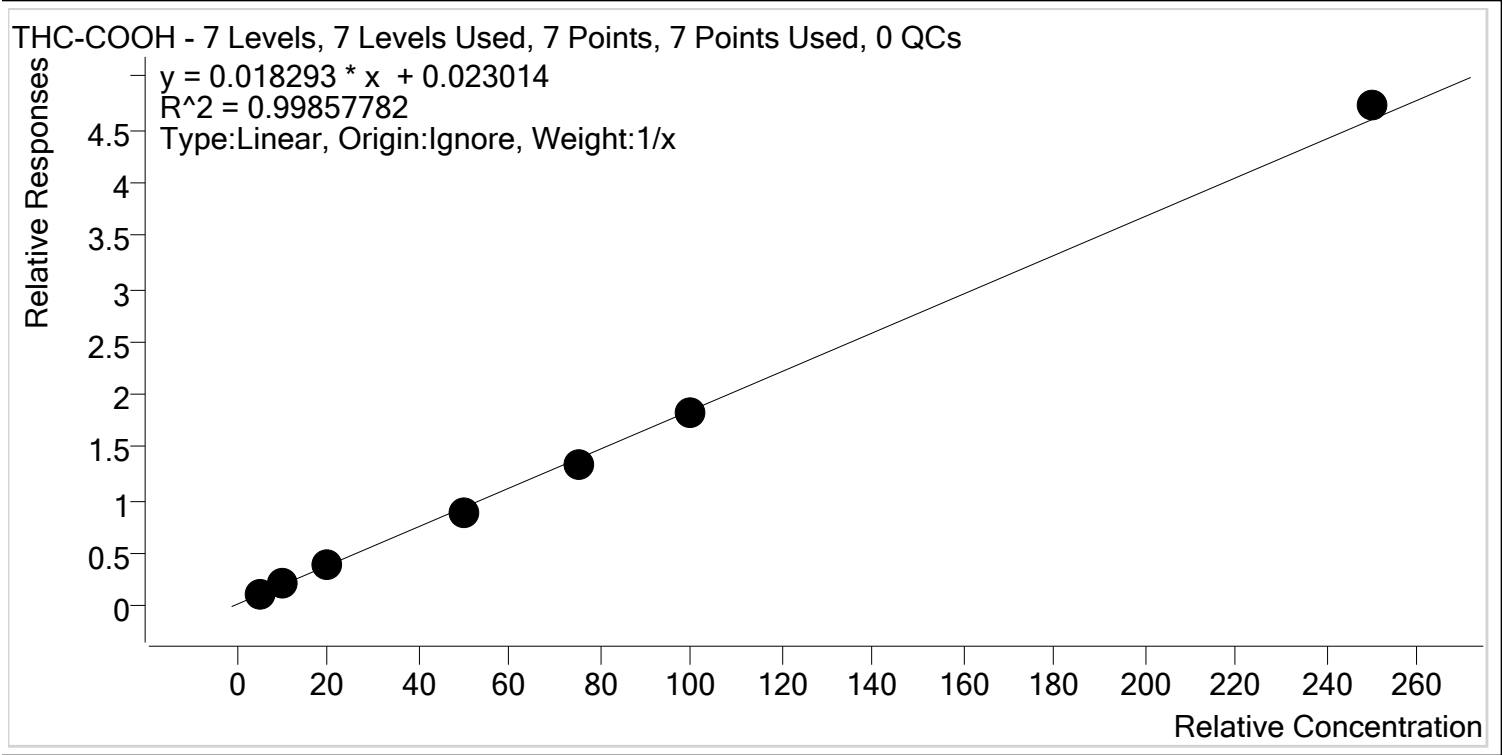


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	1.0	1.0	101.7
MJ Cal 2	2	✓	3.0	3.1	103.5
MJ Cal 3	3	✓	5.0	5.0	99.6
MJ Cal 4	4	✓	10.0	9.7	97.4
MJ Cal 5	5	✓	25.0	24.2	96.8
MJ Cal 6	6	✓	50.0	50.0	100.1
MJ Cal 7	7	✓	100.0	100.9	100.9



# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Last Cal. Update** 1/22/2021 11:32 AM  
**Analyst Name** ISP\Datastor  
**Analyte** THC-COOH **Internal Standard** THC-COOH-D9

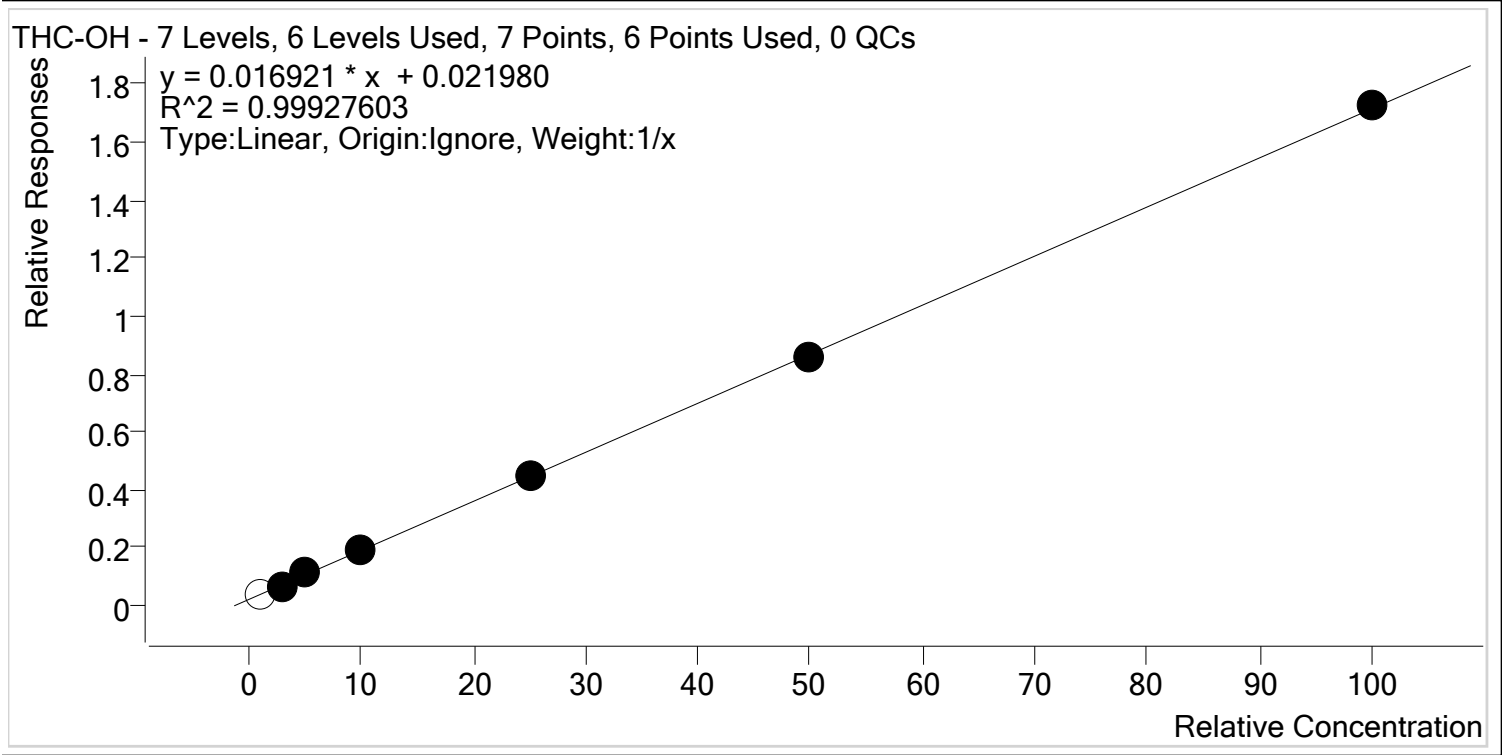


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	5.0	5.4	107.8
MJ Cal 2	2	✓	10.0	10.2	101.7
MJ Cal 3	3	✓	20.0	19.8	99.1
MJ Cal 4	4	✓	50.0	46.9	93.8
MJ Cal 5	5	✓	75.0	72.7	96.9
MJ Cal 6	6	✓	100.0	97.9	97.9
MJ Cal 7	7	✓	250.0	257.2	102.9



# AM #26 Cannabinoids Screen Calibration Curve Report

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Last Cal. Update** 1/22/2021 11:32 AM  
**Analyst Name** ISP\Datastor  
**Analyte** THC-OH **Internal Standard** THC-OH-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	x	1.0	1.2	117.4
MJ Cal 2	2	✓	3.0	2.7	90.8
MJ Cal 3	3	✓	5.0	5.6	111.2
MJ Cal 4	4	✓	10.0	9.9	99.4
MJ Cal 5	5	✓	25.0	24.8	99.4
MJ Cal 6	6	✓	50.0	49.3	98.6
MJ Cal 7	7	✓	100.0	100.6	100.6

CS

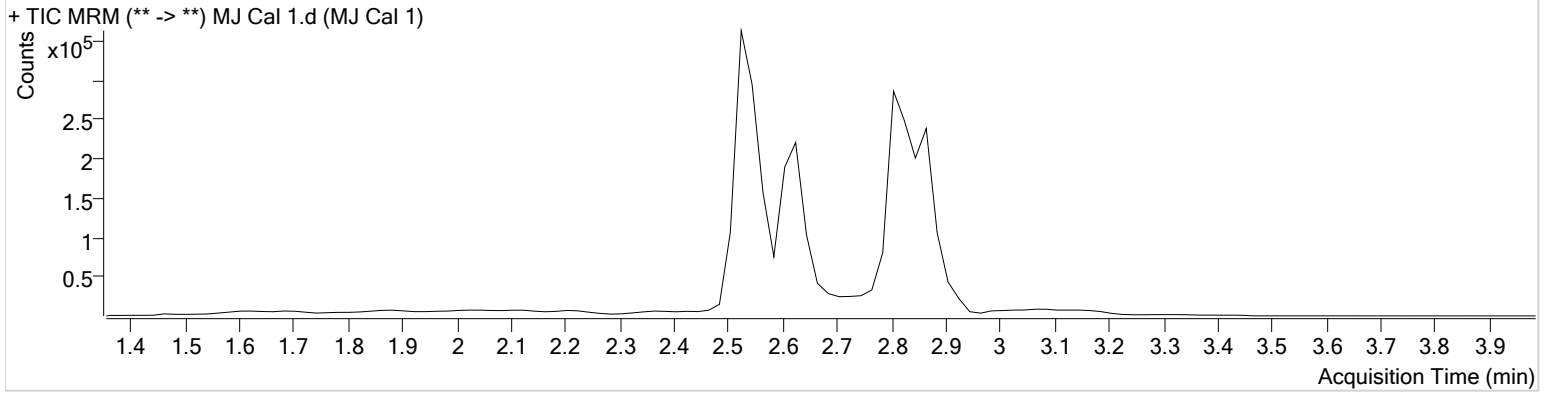


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ Cal 1.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 1
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-A1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 3:06:13 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.879	2099	246491	1.0173 ng/ml	<b>Low</b>
THC-COOH	2.625	58227	478903	5.3885 ng/ml	
THC-OH	2.532	48857	1167357	1.1745 ng/ml	<b>Low</b>

CS

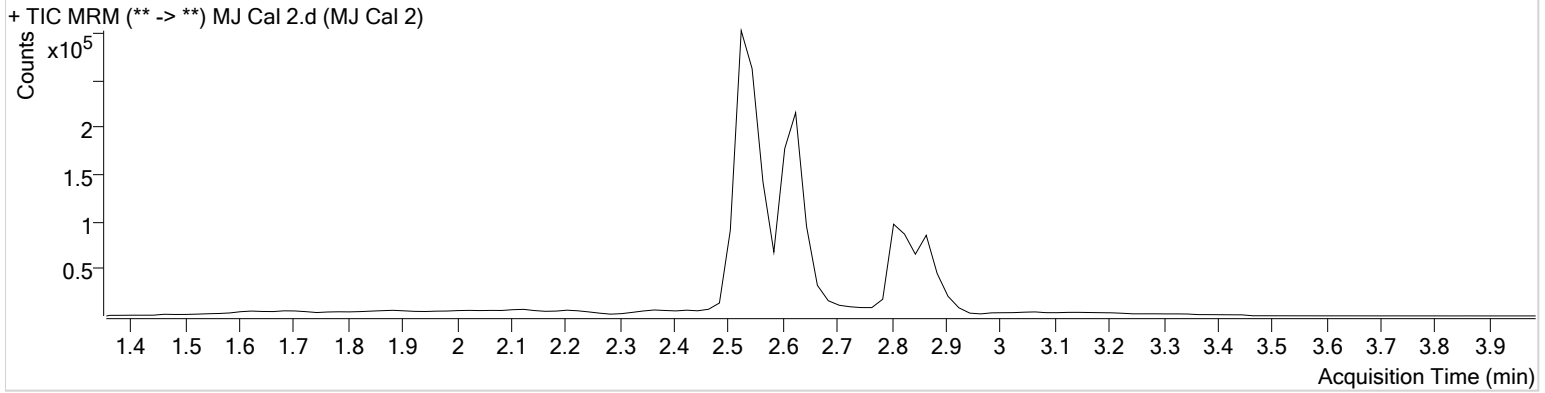


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ Cal 2.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 2
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-B1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 3:12:54 PM		

**Sample Chromatogram**



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	2284	91259	3.1042 ng/ml
THC-COOH	2.625	88648	423942	10.1729 ng/ml
THC-OH	2.532	65934	968527	2.7243 ng/ml <b>Low</b>

CS



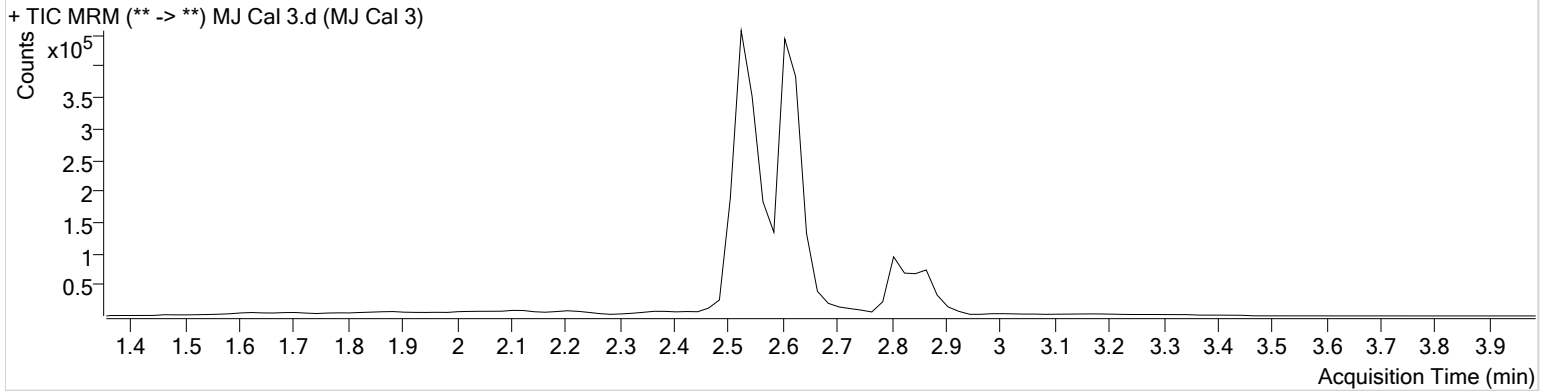
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

**Instrument** Instrument 1  
**Type** Cal  
**Acq. Method** AM 26 THCS.m  
**Sample Position** P5-C1  
**Injection Volume** 10  
**Acq. Date-Time** 1/13/2021 3:19:25 PM  
**Sample Info.**

**Data File** MJ Cal 3.d  
**Sample** MJ Cal 3  
**Operator** Celena Shrum  
**Comment**

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	3467	87014	4.9777 ng/ml
THC-COOH	2.625	278896	723588	19.8123 ng/ml
THC-OH	2.532	160243	1381089	5.5581 ng/ml

# AM #26 Cannabinoids Screen Results

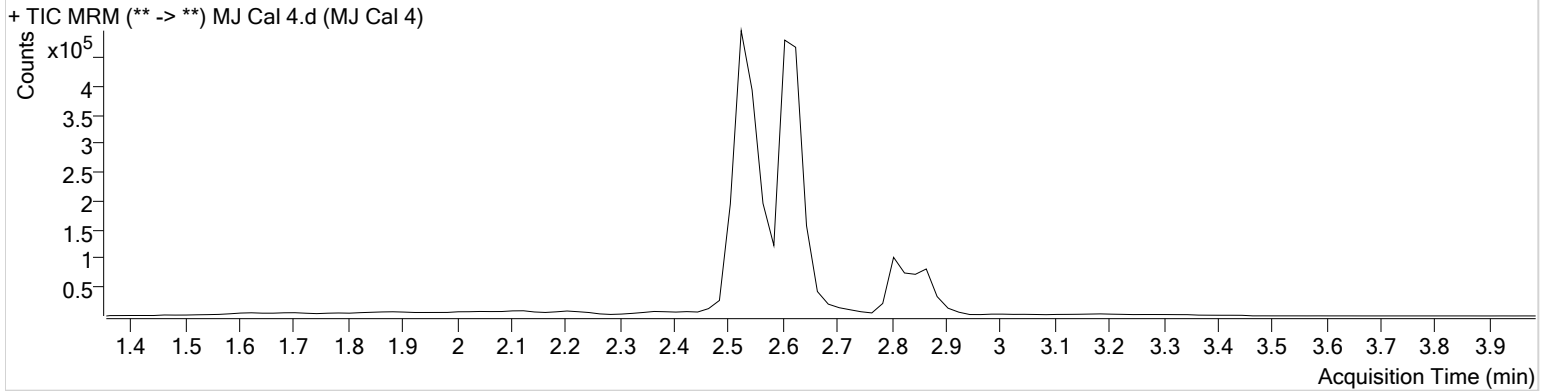


**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ Cal 4.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 4
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-D1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 3:25:56 PM		

**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	6718	86636	9.7426 ng/ml
THC-COOH	2.625	490562	556956	46.8918 ng/ml
THC-OH	2.532	258847	1360924	9.9416 ng/ml



CS



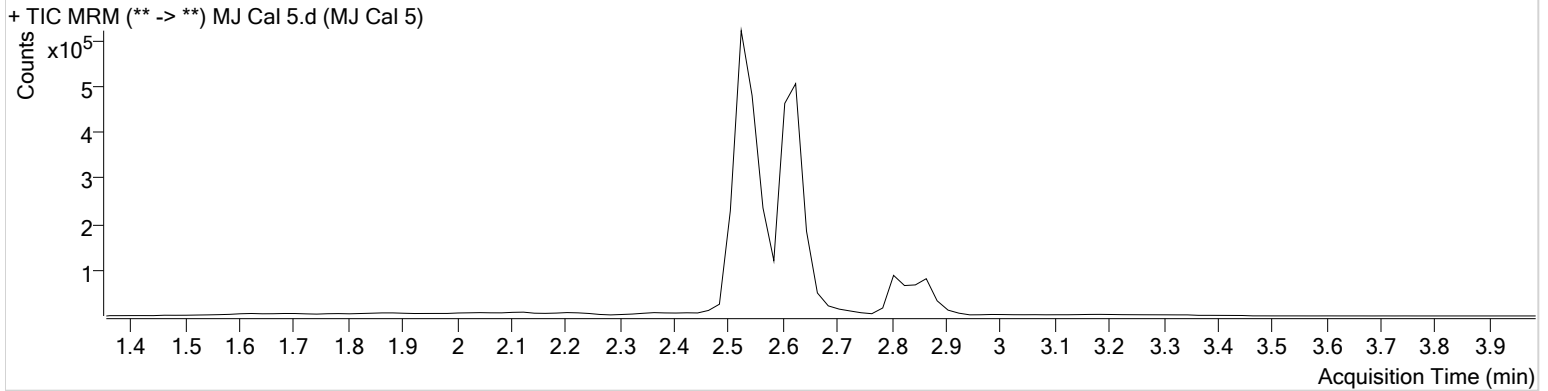
# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

**Instrument** Instrument 1  
**Type** Cal  
**Acq. Method** AM 26 THCS.m  
**Sample Position** P5-E1  
**Injection Volume** 10  
**Acq. Date-Time** 1/13/2021 3:32:28 PM  
**Sample Info.**

**Data File** MJ Cal 5.d  
**Sample** MJ Cal 5  
**Operator** Celena Shrum  
**Comment**

### Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	16558	86233	24.2104 ng/ml
THC-COOH	2.625	596751	441232	72.6766 ng/ml
THC-OH	2.532	594152	1343055	24.8458 ng/ml

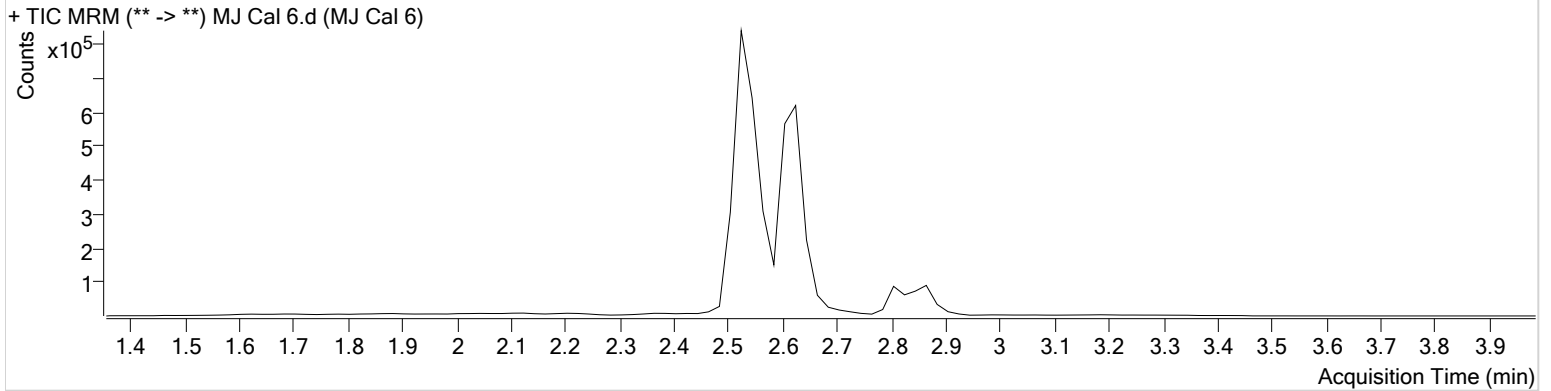
# AM #26 Cannabinoids Screen Results



**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ Cal 6.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 6
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-F1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 3:38:59 PM		

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	34130	86127	50.0275 ng/ml
THC-COOH	2.625	792410	436929	97.8846 ng/ml
THC-OH	2.532	1168632	1364983	49.2988 ng/ml

# AM #26 Cannabinoids Screen Results

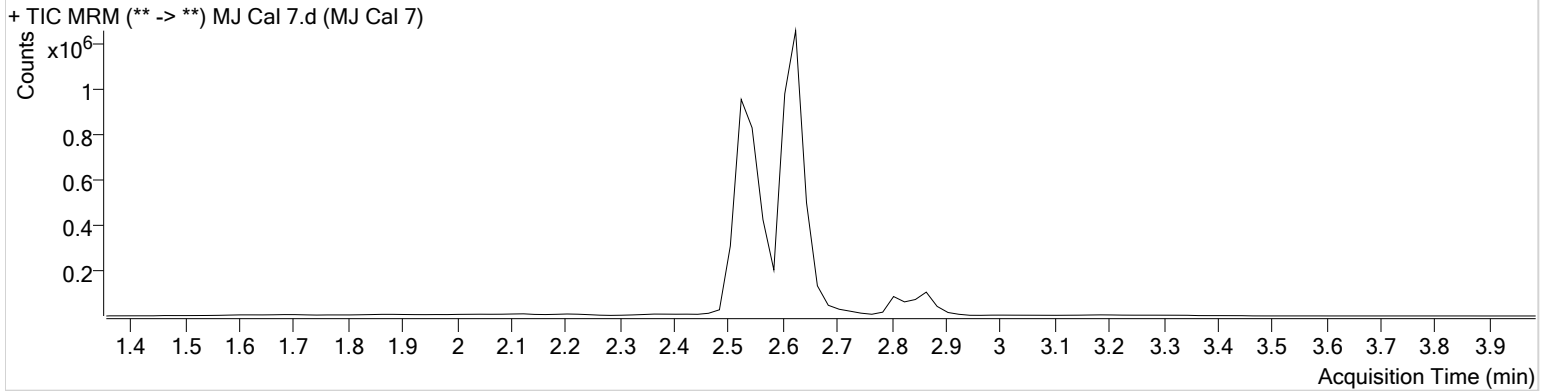


**Batch results** D:\MassHunter\Data\2021\AM 25-26\011321 AM 25 26 CS\QuantResults\AM 26.batch.bin  
**Calibration Last Update** 1/22/2021 11:32:45 AM

<b>Instrument</b>	Instrument 1	<b>Data File</b>	MJ Cal 7.d
<b>Type</b>	Cal	<b>Sample</b>	MJ Cal 7
<b>Acq. Method</b>	AM 26 THCS.m	<b>Operator</b>	Celena Shrum
<b>Sample Position</b>	P5-G1	<b>Comment</b>	
<b>Injection Volume</b>	10		
<b>Acq. Date-Time</b>	1/13/2021 3:45:30 PM		

**Sample Info.**

## Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	62672	78445	100.9203 ng/ml
THC-COOH	2.625	1864286	394357	257.1733 ng/ml
THC-OH	2.532	1915710	1110726	100.6314 ng/ml