
















Worklist: 4833

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2020-5295	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2021-0319	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2021-0371	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2021-0395	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2021-0464	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
M2021-0532	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0129	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0217	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0218	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0236	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0285	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0312	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0380	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0395	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0445	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0448	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0542	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0577	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	
P2021-0579	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ	

TS

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

Extraction Date: 3/10/2021

Analyst: Tamara Salazar - HOA Amber Gerheart

Plate lot#: 190725

Plate Expiration: 1/25/2020 – ok with external controls

Mobile phase A: 10mM Amm Form

Mobile phase B: 0.1% Formic Acid in MeOH

Instant Buffer I

Ethyl Acetate

LC Methanol

Blank Blood Lot: Lampire 20L20724

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

LCMS-QQ 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. 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).
- 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.
- 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: ~~P2021-0380-1 and P2021-0395-1 not evaluated for Zolpidone~~ 03/24/2021 TS

BZE and EDDP cut off concentration 100ng/mL for this plate lot

Plate lot used did not include the following compounds: alpha-PHP, brompheniramine, clonazepam, clomipramine, cocaethylene, flualprazolam, levetiracetam, norketmine

 Case samples P2021-0380 and P2020-0395 were not transferred to the analytical plate during step 3. These samples will be screened and evaluated with Worklist 4856.

03/24/2021 TS

	1	2	3	4	5	6	7	8	9	10	11	12
A	IS + Cal. 1	M2021-0371-2	P2021-0285-1	P2021-0579-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
B	IS + Cal. 1	M2021-0395-2	P2021-0312-1	Negative Blood	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
C	IS + Cal. 1	M2021-0464-1	P2021-0380-1	Blood External	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
D	IS + Cal. 1	M2021-0532-2	P2021-0395-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
E	Negative Urine	P2021-0129-1	P2021-0445-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
F	Urine External Control	P2021-0217-1	P2021-0448-3	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample
G	M2020-5295-2	P2021-0218-1	P2021-0542-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Cal. 1
H	M2021-0319-2	P2021-0236-1	P2021-0577-1	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Sample	IS + Cal. 1

All wells to contain 60 µl of residual DMSO



Idaho State Police Forensic Services

TS

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

Methanol External Control Solution (Lot: 121020)

100 μ L of 1mg/mL stock was added to each drug to 9600 μ 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 μ L of methanol external control solution was added to 9900 μ 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

TS

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

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	

TS



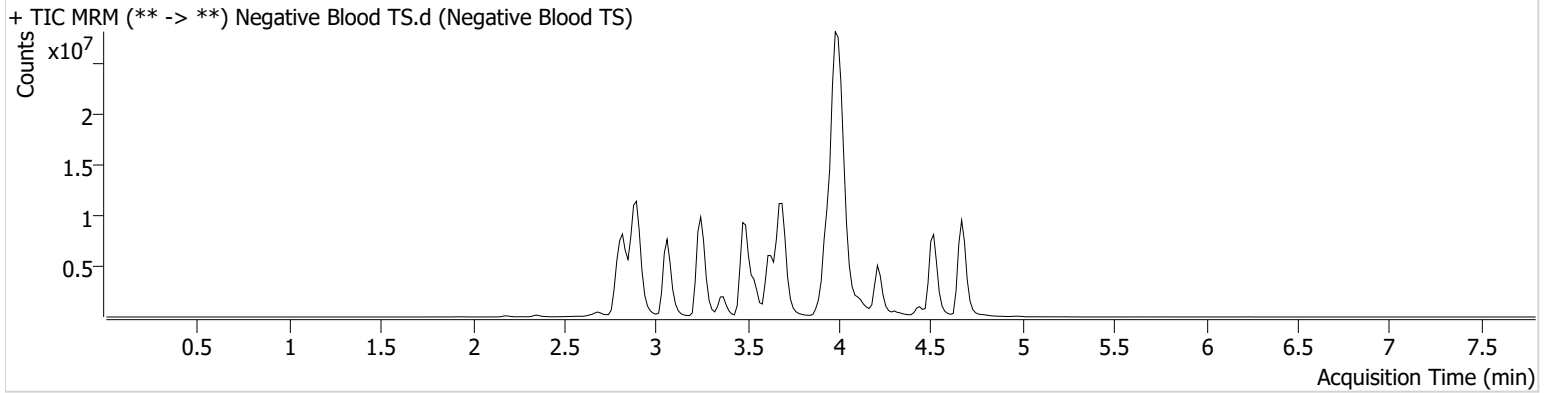
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\031121 AM 25 26 AG TS\031121 AM 25 26 AG TS\QuantResults\AM 25 AG TS.batch.bin

Calibration Last Update 3/19/2021 11:40:49 AM

Instrument Type	Instrument 1 Sample	Data File	Negative Blood TS.d
Acq. Method	AM 25 MDS.m	Sample Operator	Negative Blood TS Tamara Salazar
Sample Position	P6-B4	Comment	
Injection Volume	5		
Acq. Date-Time	3/12/2021 12:34:57 AM		
Sample Info.			

Sample Chromatogram



TS



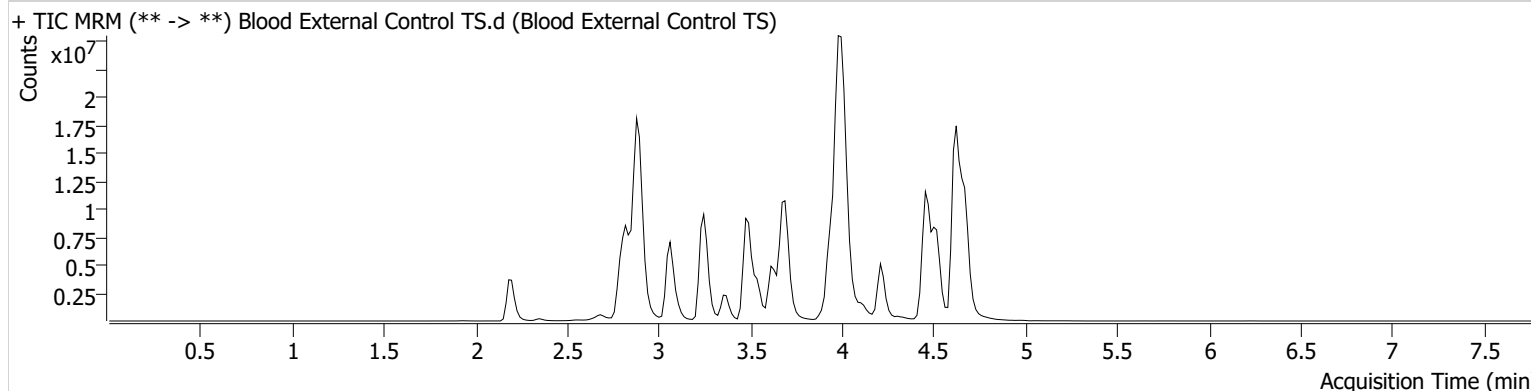
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\031121 AM 25 26 AG TS\031121 AM 25 26 AG TS\QuantResults\AM 25 AG TS.batch.bin

Calibration Last Update 3/19/2021 11:40:49 AM

Instrument	Instrument 1	Data File	Blood External Control TS.d
Type	Sample	Sample	Blood External Control TS
Acq. Method	AM 25 MDS.m	Operator	Tamara Salazar
Sample Position	P6-C4	Comment	
Injection Volume	5		
Acq. Date-Time	3/12/2021 12:51:47 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.626	29827475	1468.48	505.06	29516995	71.5933
Clonazepam	4.455	25117985	16599.74	7778136.87	29516995	72.9718
Hydrocodone	2.882	16393752	1734.35	3295.79	11378199	81.7911
Morphine	2.186	3467965	∞	4153.46	274415	93.3320

TS



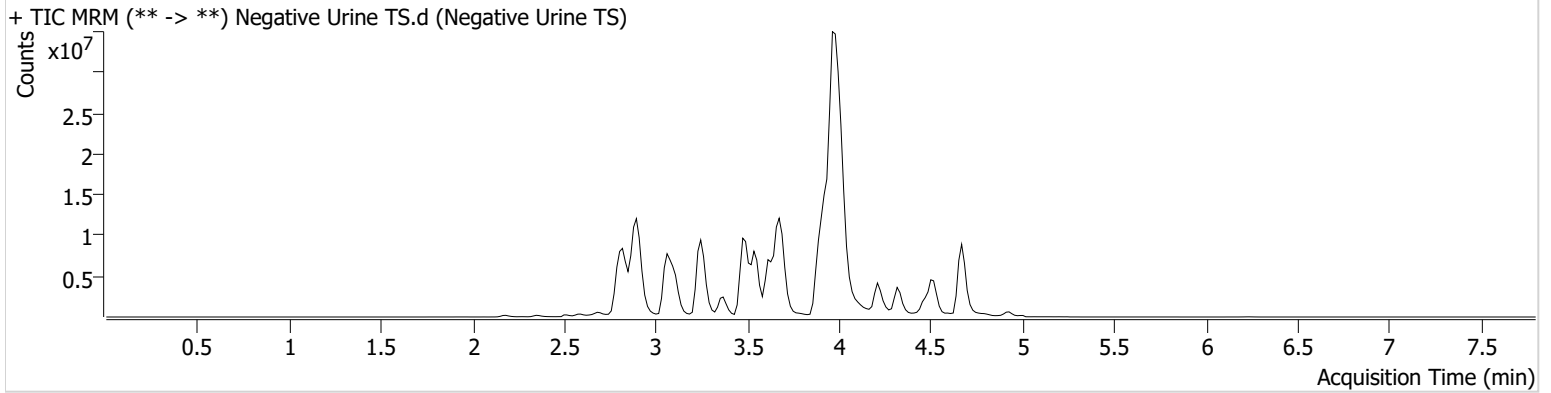
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\031121 AM 25 26 AG TS\031121 AM 25 26 AG TS\QuantResults\AM 25 AG TS.batch.bin

Calibration Last Update 3/19/2021 11:40:49 AM

Instrument Type	Instrument 1 Sample	Data File	Negative Urine TS.d
Acq. Method	AM 25 MDS.m	Sample Operator	Negative Urine TS Tamara Salazar
Sample Position	P6-E1	Comment	
Injection Volume	5		
Acq. Date-Time	3/11/2021 9:21:36 PM		
Sample Info.			

Sample Chromatogram



TS



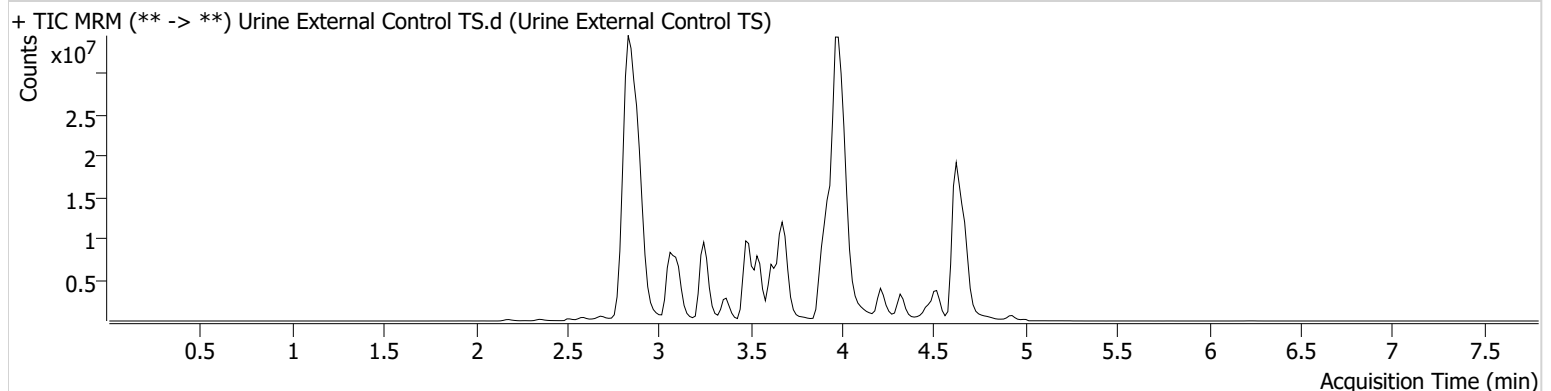
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\031121 AM 25 26 AG TS\031121 AM 25 26 AG TS\QuantResults\AM 25 AG TS.batch.bin

Calibration Last Update 3/19/2021 11:40:49 AM

Instrument	Instrument 1	Data File	Urine External Control TS.d
Type	Sample	Sample	Urine External Control TS
Acq. Method	AM 25 MDS.m	Operator	Tamara Salazar
Sample Position	P6-F1	Comment	
Injection Volume	5		
Acq. Date-Time	3/11/2021 9:38:26 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.626	33105892	357.78	8515.39	27576016	85.0553
Amphetamine	2.844	32979661	1026.25	1261.43	12420292	91.8523
O-desmethyl-tramadol	2.869	51137371	65655.21	642.00	43433908	28.3277

TS



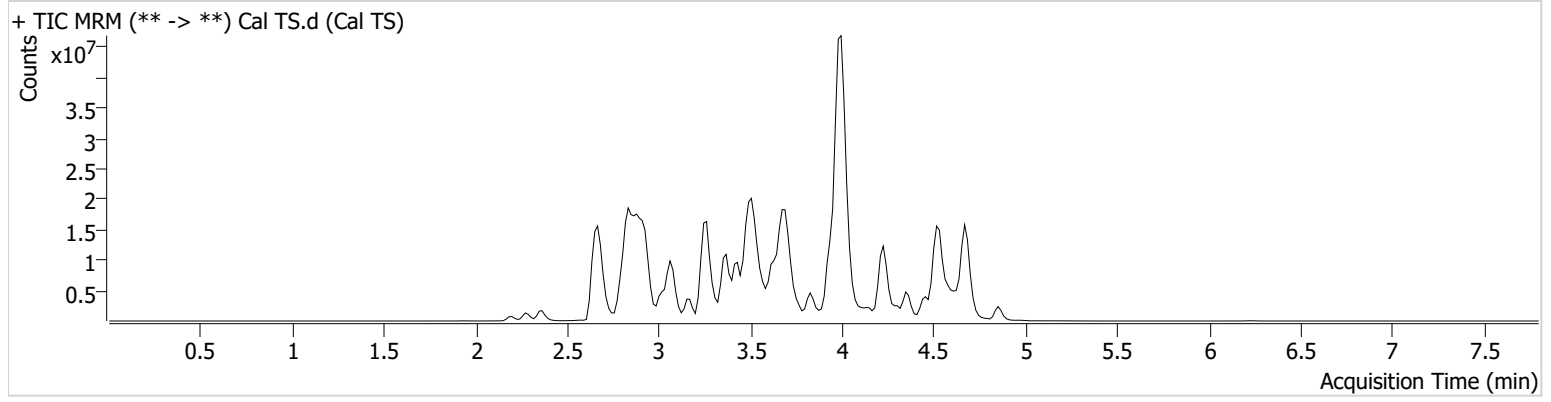
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\031121 AM 25 26 AG TS\031121 AM 25 26 AG TS\QuantResults\AM 25 AG TS.batch.bin
Calibration Last Update 3/19/2021 11:40:49 AM

Instrument Instrument 1
Type Cal
Acq. Method AM 25 MDS.m
Sample Position P6-A1
Injection Volume 5
Acq. Date-Time 3/11/2021 9:04:35 PM
Sample Info.

Data File Cal TS.d
Sample Cal TS
Operator Tamara Salazar
Comment

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.801	87500	170.47	39621.19	3015938	10.0000
7-aminoclonazepam	3.554	2243234	402.24	796.68	9682838	10.0000
7-aminoflunitrazepam	3.768	3529615	1930.04	625.01	9682838	10.0000
Acetyl Fentanyl	3.672	134054	71.95	55906.68	34420661	10.0000
Acetyl Norfentanyl	2.840	550065	5688.92	309.76	34420661	10.0000
a-hydroxyalprazolam	4.531	545881	172.00	157.57	9682838	10.0000
alpha-hydroxymidazolam	4.499	2526879	480.66	1111.86	9682838	10.0000
alpha-PVP	3.437	7369010	1177.66	744.52	13642599	10.0000
Alprazolam	4.626	4581595	339.37	481.21	32459694	10.0000
Amitriptyline	4.324	79069	8.72	13.02	364714	10.0000
Amphetamine	2.844	3943859	1703.90	393.48	13642599	10.0000
Benzoylcegonine	3.385	1737237	1007.48	1174.13	7290153	10.0000
Buprenorphine	3.975	206629	175614.63	25651.35	1064862	10.0000
Bupropion	3.635	5297125	3403.30	1032.06	16981548	10.0000
Carbamazepine	4.250	18853057	720.74	1598.28	1726731	10.0000
Carisoprodol	4.233	3189920	1005896.48	118.19	16666300	10.0000
Chlordiazepoxide	4.597	2466741	567.84	1034.13	32459694	10.0000
Chlorpheniramine	3.846	3739231	176.60	6.09	29264713	10.0000
Citalopram	3.979	1048375	253.50	83.34	29264713	10.0000
Clonazepam	4.455	3785312	486.93	318.23	32459694	10.0000
Cocaine	3.475	9458257	1963.40	1853.09	35638918	10.0000
Codeine	2.699	581077	24563.48	2747.76	14996563	10.0000
Cyclobenzaprine	4.246	188861	381.54	7.08	364714	10.0000
Desipramine	4.294	225586	176.81	90.45	364714	10.0000
Dextromethorphan	3.969	461488	113.57	964.59	2480298	10.0000
Dextrorphan	3.311	3983674	5533.93	10005.11	2480298	10.0000
Diazepam	4.858	3441262	1057.24	1516.99	32459694	10.0000
Dihydrocodeine	2.667	903879	590.33	478.97	14996563	10.0000
Diphenhydramine	3.940	5398253	824.75	1138.12	29264713	10.0000
Doxepin	4.044	288328	52.54	12.43	5900768	10.0000
Doxylamine	3.509	14264715	463.51	505.73	2480298	10.0000
EDDP	3.999	7876395	679.96	487.28	37578468	10.0000
Estazolam	4.535	11652920	3778.90	1033.89	32459694	10.0000

Cal TS

TS



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Etizolam	4.636	655813	661831.09	2860.96	32459694	10.0000
Fentanyl	3.901	50439	13.35	3059.31	3592090	10.0000
Flunitrazepam	4.579	5666497	879.90	876.69	32459694	10.0000
Fluoxetine	4.257	87553	73.45	4.39 Low	114171	10.0000
Flurazepam	4.022	2040447	1476.97	400.33	32459694	10.0000
Hydrocodone	2.882	2641742	1516.41	946.08	14996563	10.0000
Hydromorphone	2.367	2517566	4120.54	2106.70	404208	10.0000
Imipramine	4.291	529039	970.56	34.16	364714	10.0000
Ketamine	3.266	6440751	6080.44	174.48	21961354	10.0000
Lamotrigine	3.419	474596	1149.01	853.64	29264713	10.0000
Levamisole	2.841	3723076	1845.11	205.14	35638918	10.0000
Lorazepam	4.439	1184709	637.07	710.46	32459694	10.0000
Maprotiline	4.324	89102	8.56	44.37	364714	10.0000
MDA	2.948	4223928	312.06	580.79	33135514	10.0000
MDEA	3.177	6998310	1333.96	1335.30	33135514	10.0000
MDMA	3.024	8389363	1874.61	905.38	33135514	10.0000
Meperidine	3.496	3231969	310.34	2047.77	2480298	10.0000
Meprobamate	3.668	1642830	717.26	224.51	16666300	10.0000
Methadone	4.303	2386636	4866.04	189.80	37578468	10.0000
Methamphetamine	2.935	11258610	1527.72	1821.33	33135514	10.0000
Methocarbamol	3.589	1469128	552.45	273.50	37578468	10.0000
Methylphenidate	3.436	12730896	4467.09	1094.72	26455547	10.0000
Metoprolol	3.371	978291	∞	589550.83	2480298	10.0000
Midazolam	4.347	512188	773.89	294643.17	32459694	10.0000
Mirtazapine	3.586	1649906	2816.68	1731.64	2480298	10.0000
Mitragynine	4.037	84278	49809.78	114468.36	2480298	10.0000
Morphine	2.201	547319	∞	1194.60	404208	10.0000
Norbuprenorphine	3.746	36700	7616.77	6678.88	1064862	10.0000
Nordiazepam	4.707	2830014	∞	333.57	32459694	10.0000
Norfentanyl	3.267	10048146	13874.95	320.78	34420661	10.0000
Norhydrocodone	2.868	45676	17.66	514.49	404208	10.0000
Normeperidine	3.528	2468536	637.04	585.88	29264713	10.0000
Noroxycodone	2.835	1434338	90.70	298.82	21961354	10.0000
Nortriptyline	4.325	51473	16042.98	∞	364714	10.0000
O-desmethyl-tramadol	2.869	12163040	1807.28	499.64	29264713	10.0000
Olanzapine	3.153	56155	49.61	5.94	1726731	10.0000
Oxazepam	4.521	5067358	435.21	271.53	27138226	10.0000
Oxycodone	2.833	4749168	1564.67	1966.34	21961354	10.0000
Oxymorphone	2.271	2699431	658.98	498.74	404208	10.0000
Paroxetine	4.254	11586	8.29	5.64	114171	10.0000
Phenazepam	4.651	2548795	198227.14	1364517.54	32459694	10.0000
Phencyclidine	3.834	5703074	725.61	3862.16	2480298	10.0000
Phentermine	3.087	2607017	735.66	19.68	26455547	10.0000
Phenytoin	4.141	282085	1808.74	162.55	1726731	10.0000
Promethazine	4.214	502713	172.80	81.73	29264713	10.0000
Pseudoephedrine	2.675	46743774	11227.96	12505.92	33135514	10.0000
Quetiapine	4.145	1842388	2208.89	1806.86	41645844	10.0000
Sertraline	4.473	19339	16163.74	10.65	114171	10.0000
Sufentanil	4.145	21490	18072.53	7.16	34420661	10.0000
Tapentadol	3.375	7556918	1596.28	55201.37	21961354	10.0000
Temazepam	4.673	8943969	5602.12	486.48	32459694	10.0000
Tramadol	3.356	14240707	4820.36	251.67	29264713	10.0000
Trazodone	3.961	977824	511.55	204.27	5900768	10.0000
Venlafaxine	3.722	10329475	2417.22	557.07	114171	10.0000
Zaleplon	4.351	6361617	389.59	683.10	41645844	10.0000
Zolpidem	3.689	13258526	3650.56	1396.37	41645844	10.0000
Zopiclone	3.640	908428	648977.12	639815.75	4800179	10.0000

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

TS

Extraction Date: 3/10/2021

Analyst: Tamara Salazar - HOA Amber Gerheart

Plate lot#: 200723

Plate Expiration: 1/23/2021 – ok with external controls

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

Blank Blood Lot: Lampire 20L20724

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. Urine hydrolysis: add 1.5mL urine to blank plate, add 250µl 1N KOH. Shake and incubate at 40 degrees for 15 minutes.
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, 500 µL saturated phosphate buffer in urine** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **700-800µL of blood+acid or urine+acid** mixture to corresponding wells of SLE+ plate.
Amount transferred: 800µL
- 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)
- 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.
- 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, R² 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: THC not evaluated

TS

	1	2	3	4	5	6
A	IS + Cal. 1	Negative Urine	P2021-0129-1	P2021-0445-1	IS + Sample	IS + QC_1
B	IS + Cal. 2	Urine External Control	P2021-0217-1	P2021-0448-3	IS + Sample	IS + Cal. 7
C	IS + Cal. 3	M2020-5295-2	P2021-0218-1	P2021-0542-1	IS + Sample	IS + Cal. 6
D	IS + Cal. 4	M2021-0319-2	P2021-0236-1	P2021-0577-1	IS + Sample	IS + Cal. 5
E	IS + Cal. 5	M2021-0371-2	P2021-0285-1	P2021-0579-1	IS + Sample	IS + Cal. 4
F	IS + Cal. 6	M2021-0395-2	P2021-0312-1	Negative Blood	IS + Sample	IS + Cal. 3
G	IS + Cal. 7	M2021-0464-1	P2021-0380-1	Blood External Control	IS + Sample	IS + Cal. 2
H	IS + QC_1	M2021-0532-2	P2021-0395-1	IS + Sample	IS + Sample	IS + Cal. 1

All wells to contain 100 µl of residual DMSO



Idaho State Police
Forensic Services

TS

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

Methanol External Control Solution (Lot: WS03052021)

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	200921	
THC	Cerilliant	FE01041701	03/31/2022
C-THC	Cerilliant	FE08011801	08/31/2023
THC-OH	Cerilliant	FE07221601	07/31/2021
Prepared:	03/05/2021		
Prepared By:	Tamara Salazar/Amber Gerheart		

Blood External Control Solution (Lot: 03052021)

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

Approximately 20ng/mL each

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Lampire	20L20724
Methanol External Control Solution	-	WS03052021
Prepared:	03/10/2021	
Prepared by:	Tamara Salazar	



Idaho State Police
Forensic Services

TS

**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: WS03052021)

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	200921	
THC	Cerilliant	FE01041701	03/31/2022
C-THC	Cerilliant	FE08011801	08/31/2023
THC-OH	Cerilliant	FE07221601	07/31/2021
Prepared:	03/05/2021		
Prepared By:	Tamara Salazar/Amber Gerheart		

Urine External Control Solution (Lot: 03052021)

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	-	WS03052021
Prepared:	03/05/2021	
Prepared by:	Tamara Salazar/Amber Gerheart	

TS

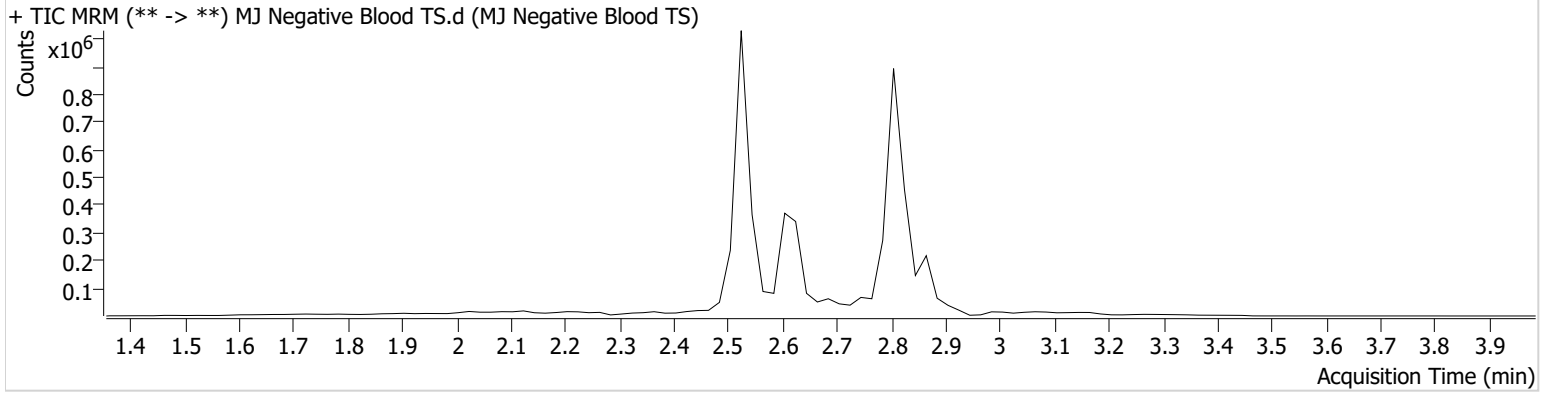


AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Type	Instrument 1 Sample	Data File	MJ Negative Blood TS.d
Acq. Method	AM 26 THCS.m	Sample	MJ Negative Blood TS
Sample Position	P5-F4	Operator	Tamara Salazar
Injection Volume	10	Comment	
Acq. Date-Time	3/12/2021 5:03:11 AM		
Sample Info.			

Sample Chromatogram



TS

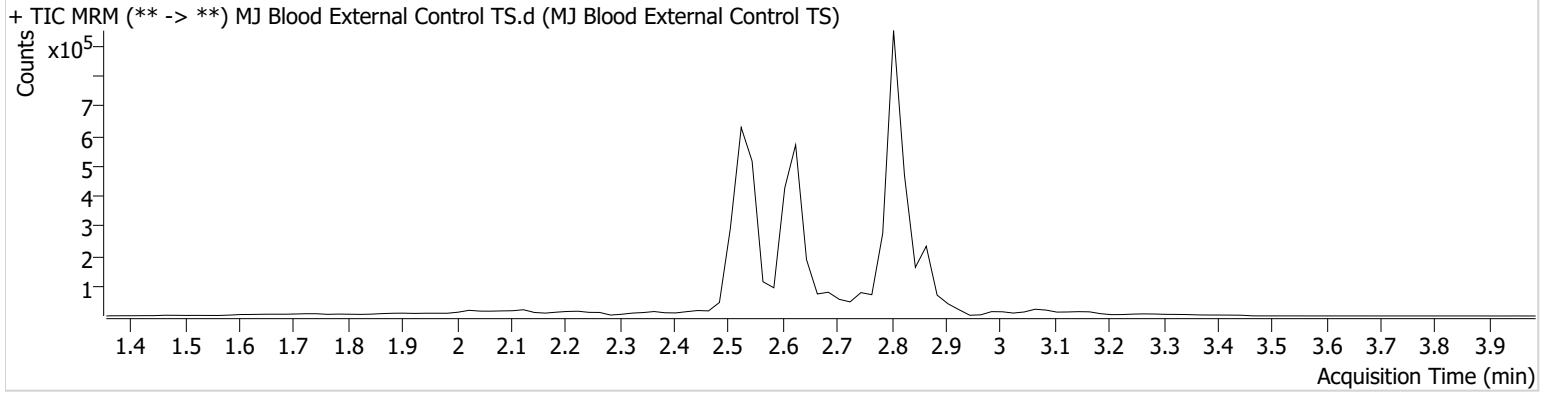


AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument	Instrument 1	Data File	MJ Blood External Control TS.d
Type	Sample	Sample	MJ Blood External Control TS
Acq. Method	AM 26 THCS.m	Operator	Tamara Salazar
Sample Position	P5-G4	Comment	
Injection Volume	10		
Acq. Date-Time	3/12/2021 5:16:19 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	34552	259690	16.1068 ng/ml
THC-COOH	2.625	353666	863626	22.1242 ng/ml
THC-OH	2.554	44230	1205867	19.1726 ng/ml

TS

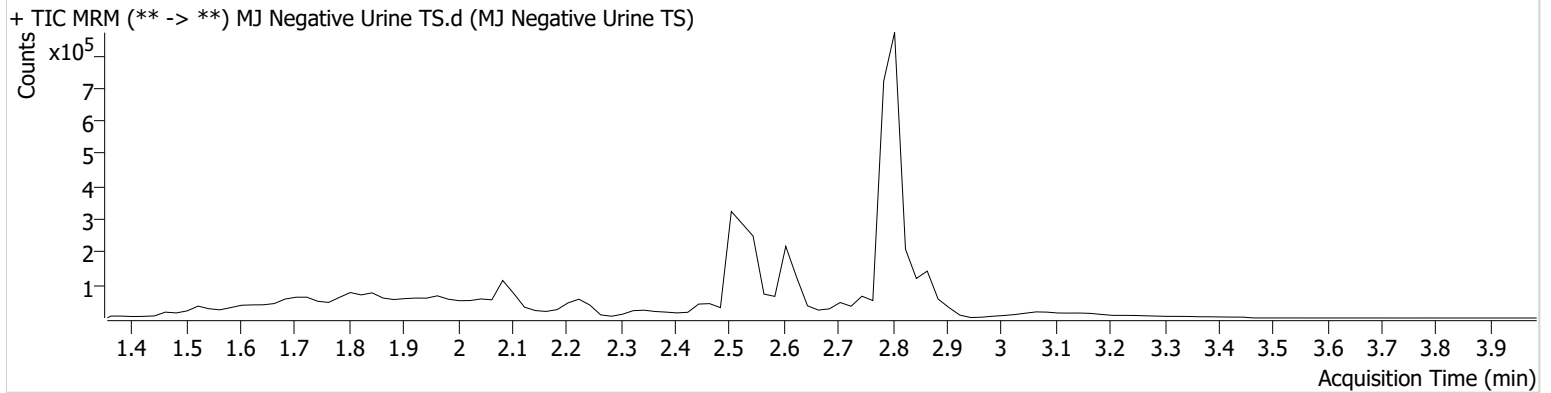


AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument	Instrument 1	Data File	MJ Negative Urine TS.d
Type	Sample	Sample	MJ Negative Urine TS
Acq. Method	AM 26 THCS.m	Operator	Tamara Salazar
Sample Position	P5-A2	Comment	
Injection Volume	10		
Acq. Date-Time	3/12/2021 2:32:37 AM		
Sample Info.			

Sample Chromatogram



TS



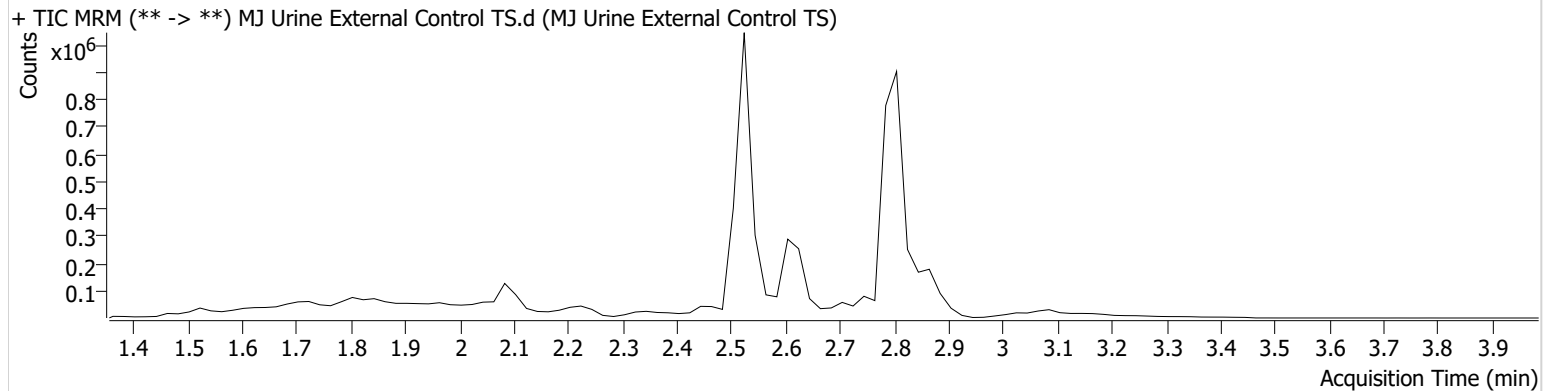
AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Instrument 1
Type Sample
Acq. Method AM 26 THCS.m
Sample Position P5-B2
Injection Volume 10
Acq. Date-Time 3/12/2021 2:45:44 AM
Sample Info.

Data File MJ Urine External Control TS.d
Sample MJ Urine External Control TS
Operator Tamara Salazar
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	28807	248093	13.9768 ng/ml
THC-COOH	2.625	148527	452502	17.7105 ng/ml
THC-OH	2.534	52833	1872755	14.7656 ng/ml

TS



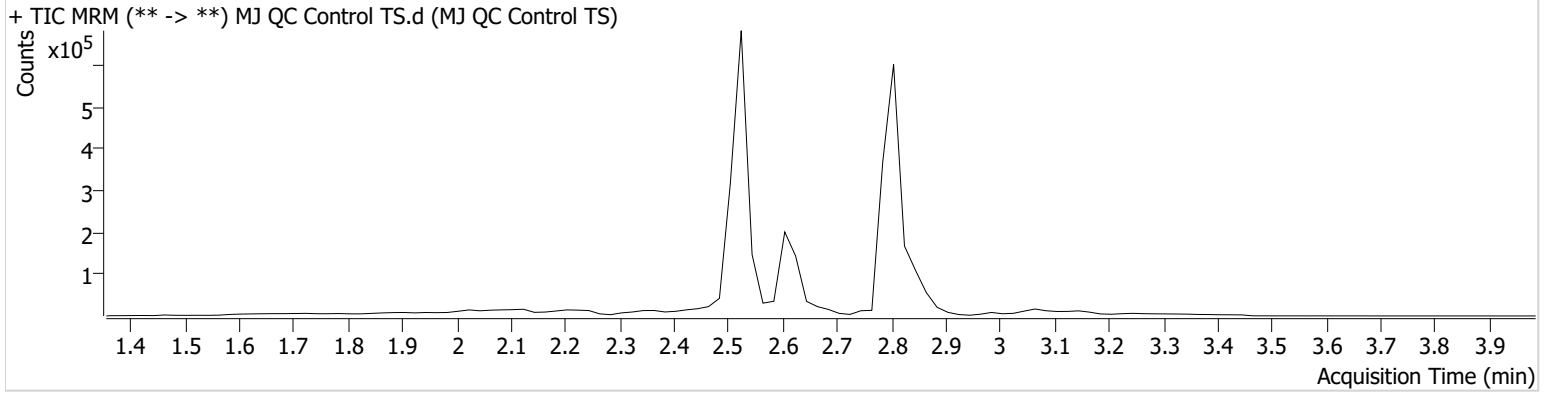
AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Instrument 1
Type Sample
Acq. Method AM 26 THCS.m
Sample Position P5-H1
Injection Volume 10
Acq. Date-Time 3/12/2021 2:19:28 AM
Sample Info.

Data File MJ QC Control TS.d
Sample MJ QC Control TS
Operator Tamara Salazar
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.879	2122	116874	1.6553 ng/ml	Low
THC-COOH	2.625	82807	299010	14.9248 ng/ml	
THC-OH	2.534	11060	1271099	4.6106 ng/ml	

TS



AM #26 Cannabinoids Screen Results

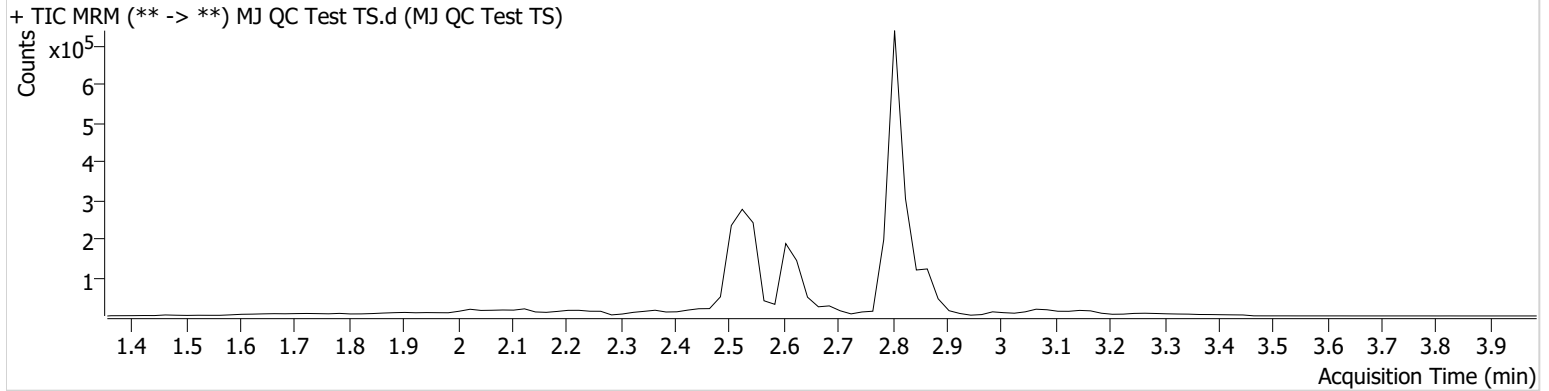
Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Instrument 1
Type Sample
Acq. Method AM 26 THCS.m
Sample Position P5-H1
Injection Volume 10
Acq. Date-Time 3/12/2021 5:22:53 AM
Sample Info.

Data File MJ QC Test TS.d
Sample MJ QC Test TS
Operator Tamara Salazar
Comment

Second QC for bracketing

Sample Chromatogram



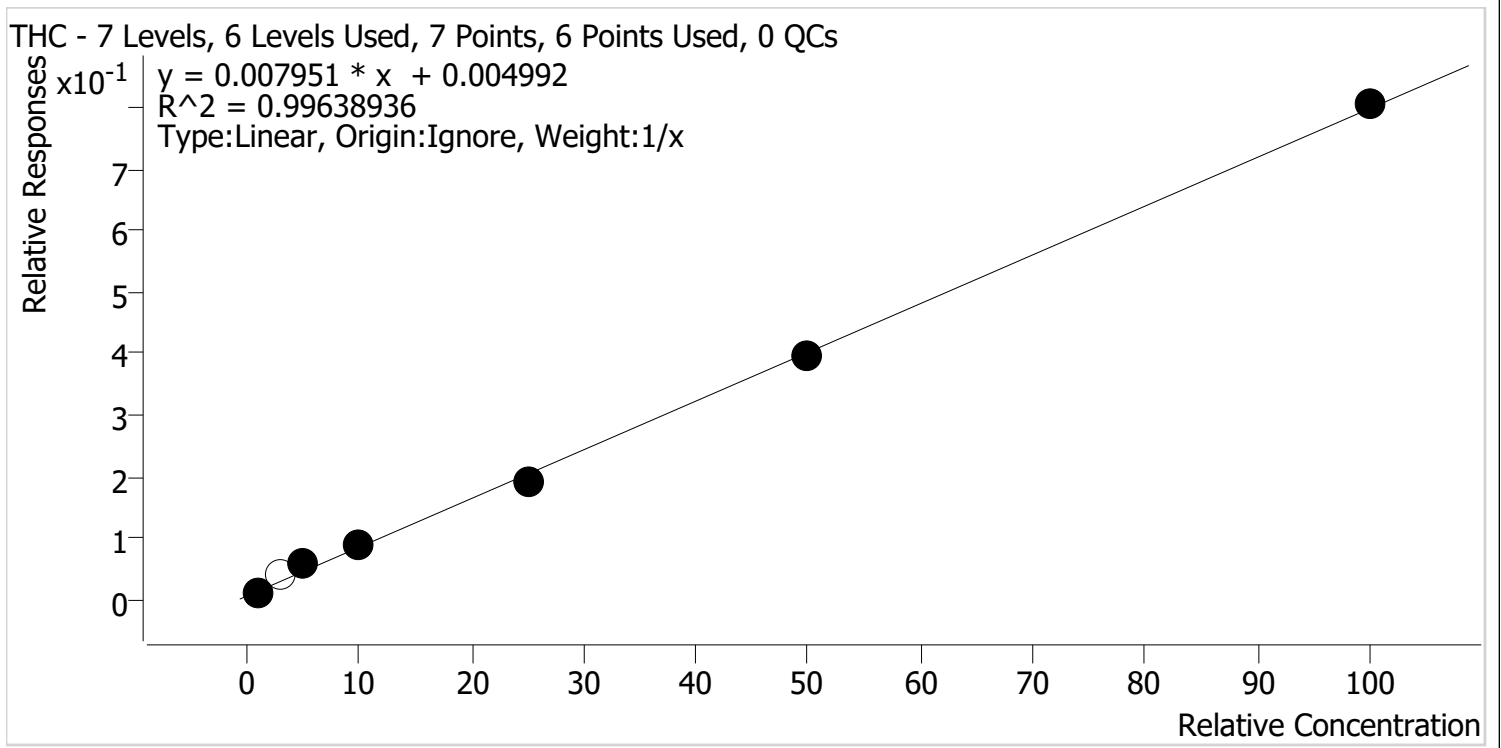
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	6199	154369	4.4233 ng/ml
THC-COOH	2.645	46050	342448	7.1885 ng/ml
THC-OH	2.514	7245	805801	4.7616 ng/ml



TS

AM #26 Cannabinoids Screen Calibration Curve Report

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Last Cal. Update 3/12/2021 11:03 AM
Analyst Name ISP\agerheart
Analyte THC **Internal Standard** THC-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1 TS	1	✓	1.0	0.8	75.3
MJ Cal 2 TS	2	x	3.0	4.3	144.2
MJ Cal 3 TS	3	✓	5.0	6.5	129.5
MJ Cal 4 TS	4	✓	10.0	10.2	101.6
MJ Cal 5 TS	5	✓	25.0	23.6	94.4
MJ Cal 6 TS	6	✓	50.0	49.2	98.3
MJ Cal 7 TS	7	✓	100.0	100.8	100.8

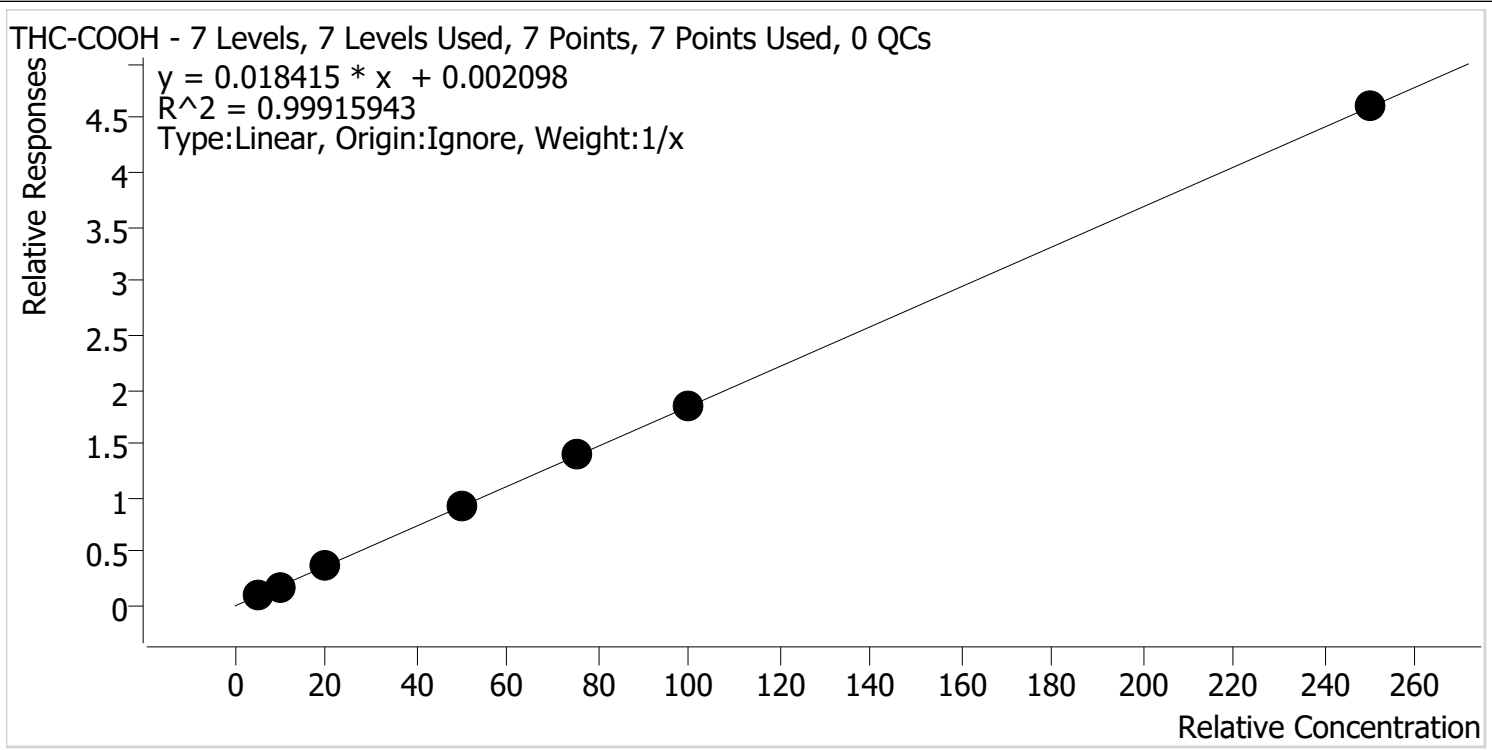
Compound not evaluated--first internal control injection under 3g/mL.

TS



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Last Cal. Update 3/12/2021 11:03 AM
Analyst Name ISP\agerheart
Analyte THC-COOH **Internal Standard** THC-COOH-D9



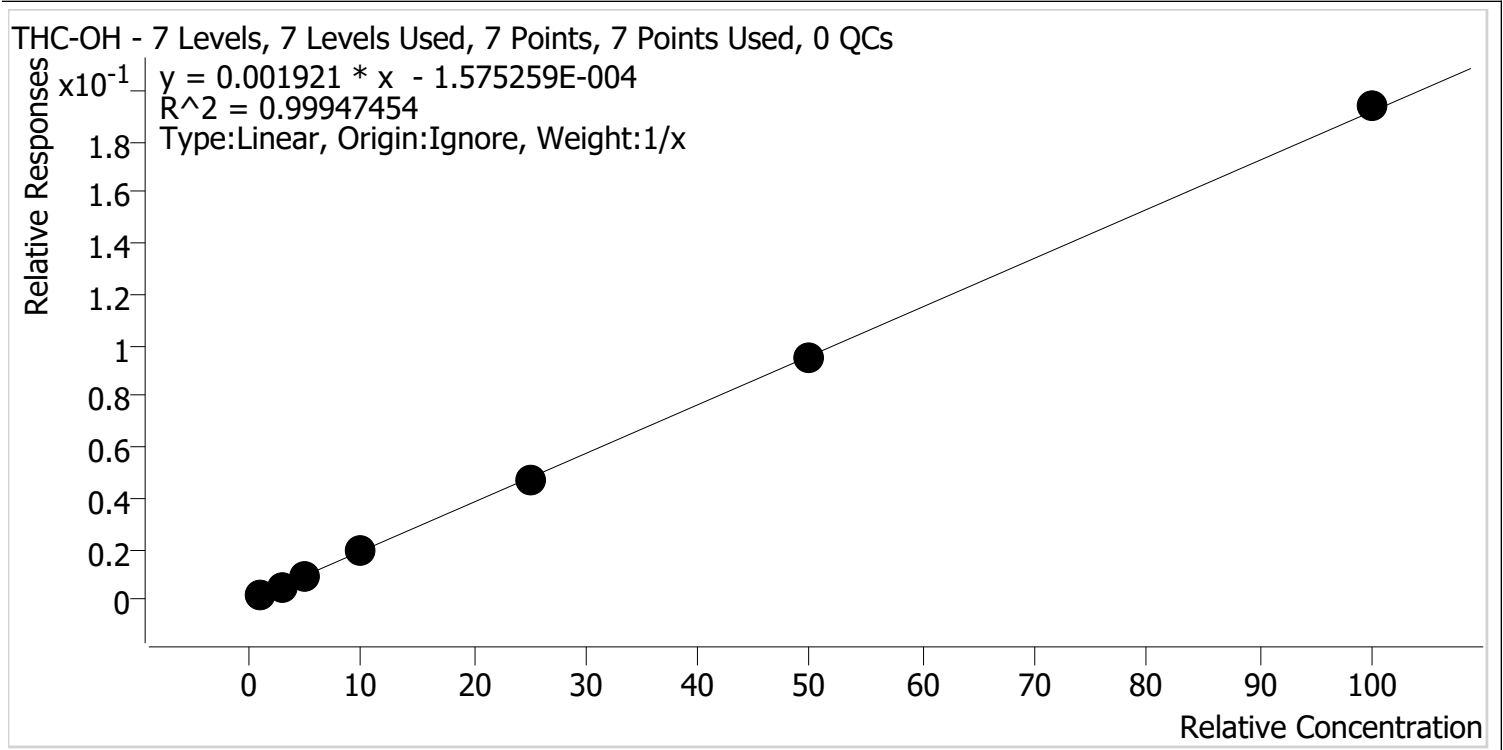
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1 TS	1	✓	5.0	5.7	114.6
MJ Cal 2 TS	2	✓	10.0	8.5	85.5
MJ Cal 3 TS	3	✓	20.0	19.8	98.8
MJ Cal 4 TS	4	✓	50.0	50.4	100.8
MJ Cal 5 TS	5	✓	75.0	75.2	100.2
MJ Cal 6 TS	6	✓	100.0	100.0	100.0
MJ Cal 7 TS	7	✓	250.0	250.4	100.2

TS



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Last Cal. Update 3/12/2021 11:03 AM
Analyst Name ISP\agerheart
Analyte THC-OH **Internal Standard** THC-OH-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1 TS	1	✓	1.0	1.2	116.0
MJ Cal 2 TS	2	✓	3.0	2.8	93.1
MJ Cal 3 TS	3	✓	5.0	4.6	92.7
MJ Cal 4 TS	4	✓	10.0	9.9	99.2
MJ Cal 5 TS	5	✓	25.0	24.5	98.2
MJ Cal 6 TS	6	✓	50.0	49.9	99.8
MJ Cal 7 TS	7	✓	100.0	101.0	101.0

TS



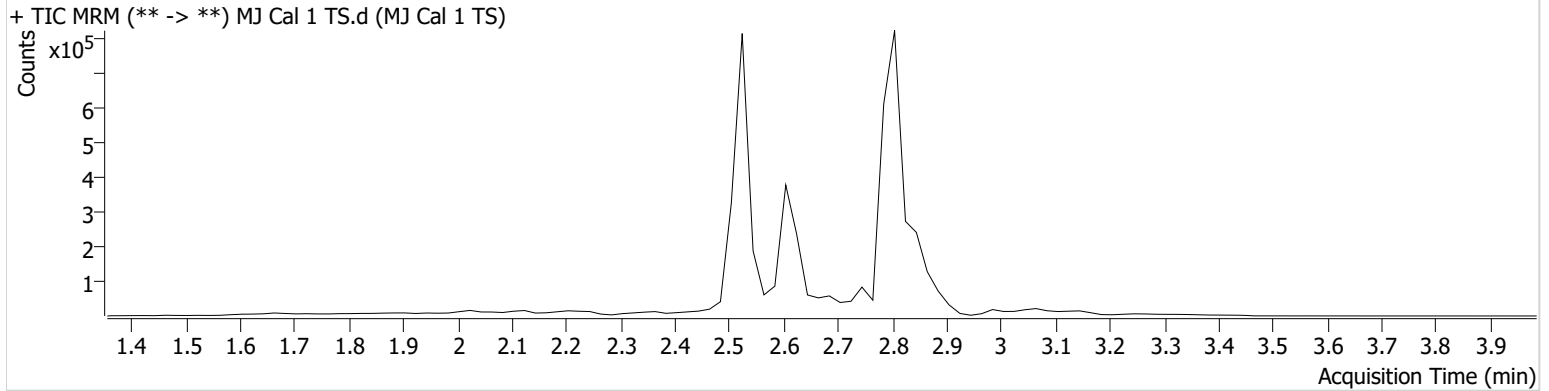
AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Instrument 1
Type Cal
Acq. Method AM 26 THCS.m
Sample Position P5-A1
Injection Volume 10
Acq. Date-Time 3/12/2021 1:33:35 AM
Sample Info.

Data File MJ Cal 1 TS.d
Sample MJ Cal 1 TS
Operator Tamara Salazar
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.859	3090	281380	0.7534 ng/ml	Low
THC-COOH	2.625	70178	652282	5.7285 ng/ml	
THC-OH	2.534	3356	1620163	1.1600 ng/ml	Low

TS

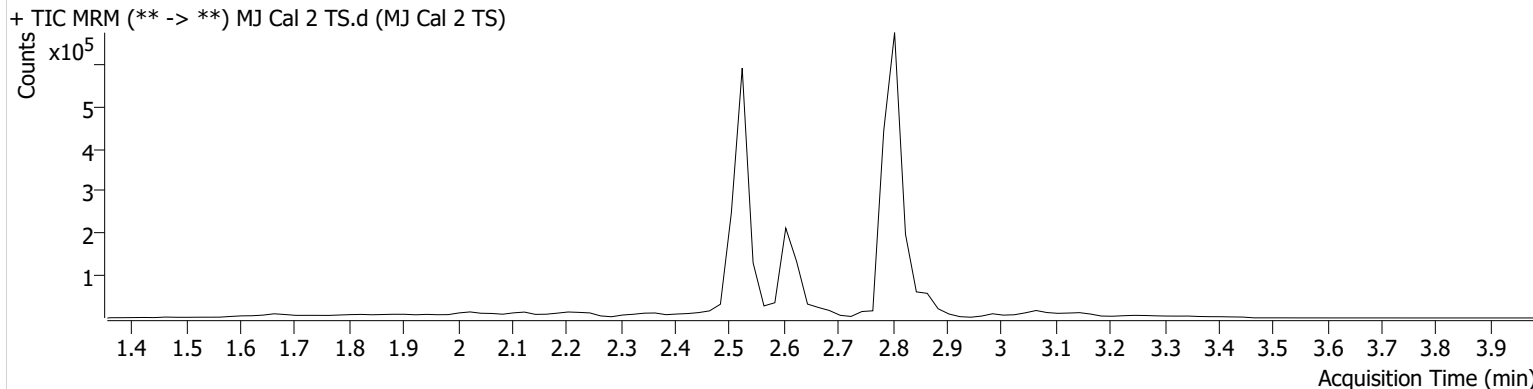


AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument	Instrument 1	Data File	MJ Cal 2 TS.d
Type	Cal	Sample	MJ Cal 2 TS
Acq. Method	AM 26 THCS.m	Operator	Tamara Salazar
Sample Position	P5-B1	Comment	
Injection Volume	10		
Acq. Date-Time	3/12/2021 1:40:18 AM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	1802	45747	4.3262 ng/ml
THC-COOH	2.625	53384	334759	8.5459 ng/ml
THC-OH	2.534	5852	1123672	2.7928 ng/ml Low

TS

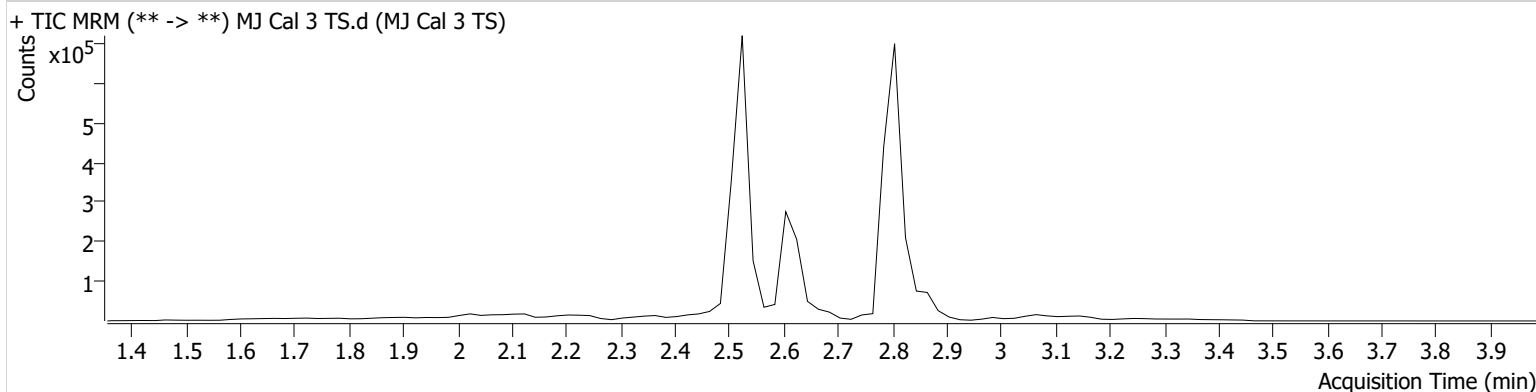


AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument	Instrument 1	Data File	MJ Cal 3 TS.d
Type	Cal	Sample	MJ Cal 3 TS
Acq. Method	AM 26 THCS.m	Operator	Tamara Salazar
Sample Position	P5-C1	Comment	
Injection Volume	10		
Acq. Date-Time	3/12/2021 1:46:50 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	3037	53800	6.4725 ng/ml
THC-COOH	2.625	140232	383321	19.7523 ng/ml
THC-OH	2.534	12003	1372550	4.6338 ng/ml

TS



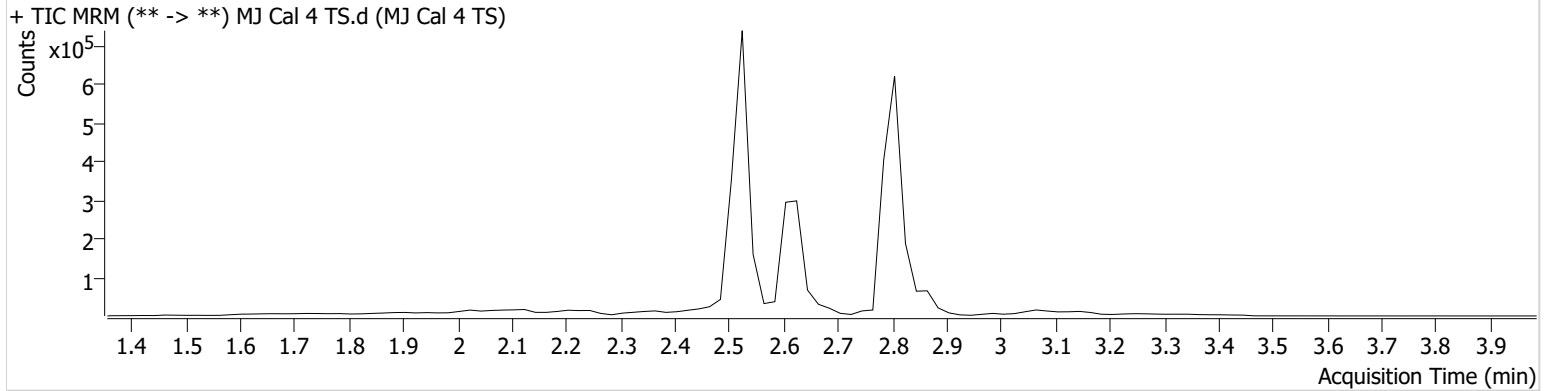
AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Instrument 1
Type Cal
Acq. Method AM 26 THCS.m
Sample Position P5-D1
Injection Volume 10
Acq. Date-Time 3/12/2021 1:53:21 AM
Sample Info.

Data File MJ Cal 4 TS.d
Sample MJ Cal 4 TS
Operator Tamara Salazar
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	4366	50886	10.1641 ng/ml
THC-COOH	2.625	290663	312324	50.4238 ng/ml
THC-OH	2.534	24615	1302297	9.9196 ng/ml

TS

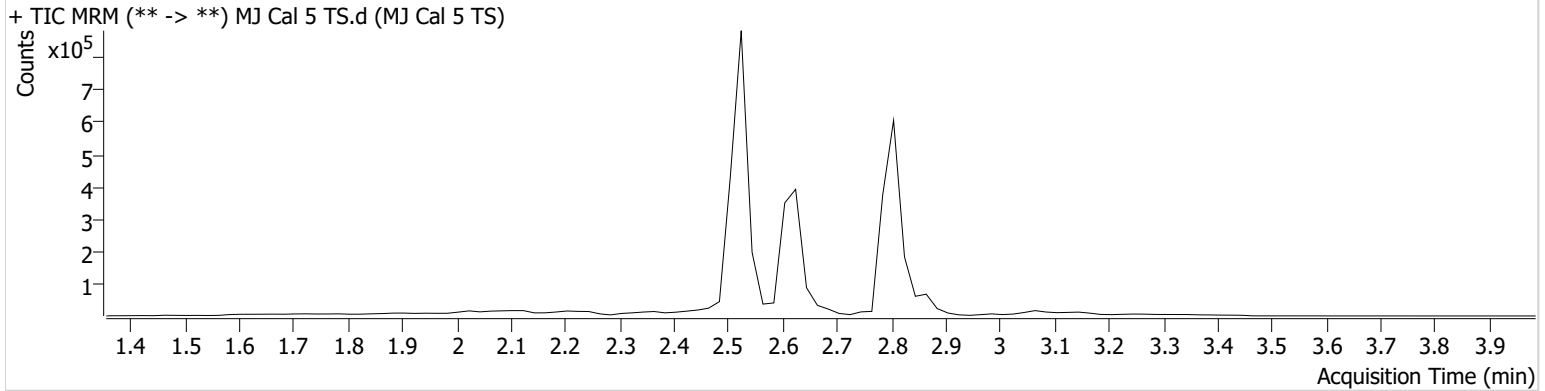


AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument	Instrument 1	Data File	MJ Cal 5 TS.d
Type	Cal	Sample	MJ Cal 5 TS
Acq. Method	AM 26 THCS.m	Operator	Tamara Salazar
Sample Position	P5-E1	Comment	
Injection Volume	10		
Acq. Date-Time	3/12/2021 1:59:53 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	9914	51472	23.5981 ng/ml
THC-COOH	2.625	420036	302973	75.1722 ng/ml
THC-OH	2.534	60866	1294950	24.5459 ng/ml

TS



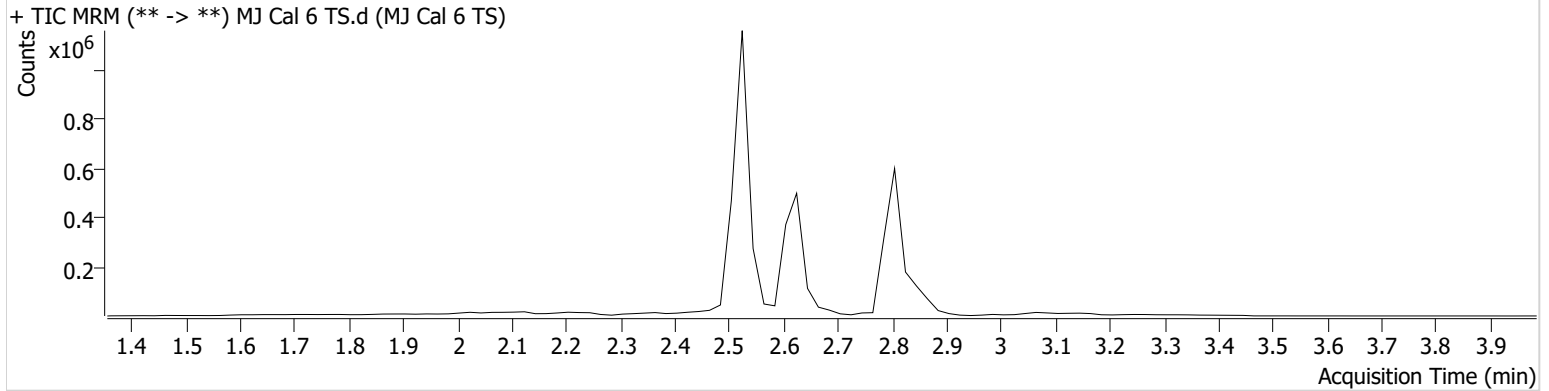
AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Instrument 1
Type Cal
Acq. Method AM 26 THCS.m
Sample Position P5-F1
Injection Volume 10
Acq. Date-Time 3/12/2021 2:06:24 AM
Sample Info.

Data File MJ Cal 6 TS.d
Sample MJ Cal 6 TS
Operator Tamara Salazar
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	42293	106834	49.1645 ng/ml
THC-COOH	2.625	537907	291865	99.9683 ng/ml
THC-OH	2.534	120573	1259768	49.8979 ng/ml

TS



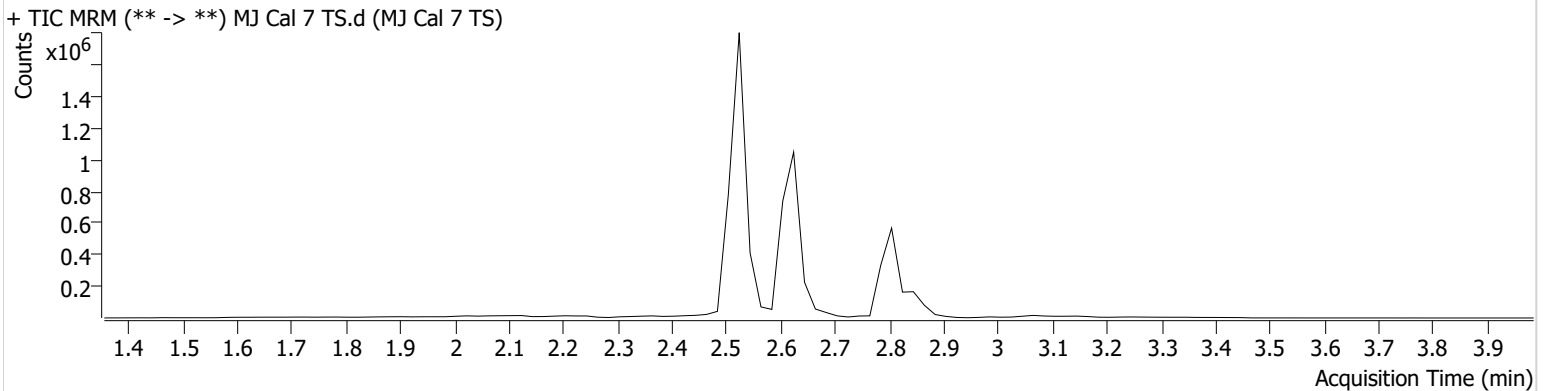
AM #26 Cannabinoids Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031121 AM 25 26 AG TS\QuantResults\AM 26 AG TS.batch.bin
Calibration Last Update 3/12/2021 11:03:30 AM

Instrument Instrument 1
Type Cal
Acq. Method AM 26 THCS.m
Sample Position P5-G1
Injection Volume 10
Acq. Date-Time 3/12/2021 2:12:55 AM
Sample Info.

Data File MJ Cal 7 TS.d
Sample MJ Cal 7 TS
Operator Tamara Salazar
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	96037	119036	100.8474 ng/ml
THC-COOH	2.625	1318366	285772	250.4090 ng/ml
THC-OH	2.534	263753	1359628	101.0500 ng/ml