









REVIEWED
By Tamara Salazar at 11:45 am, Mar 16, 2022

Worklist: 5674

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2022-0729	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0731	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0746	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0792	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0825	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0851	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0875	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0889	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0904	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0960	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0962	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2022-0976	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0567	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0568	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0596	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0615	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0616	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0617	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0618	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0619	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0620	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

Worklist: 5674

2

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
P2022-0624	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0627	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0654	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0655	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0656	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0665	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0666	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2022-0667	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

**Idaho State Police
Forensic Services**

Request for Departure from an Analytical Method or Quality Standard

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

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

Requestor/Discipline: Celena Shrum/Toxicology

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

Temporary or Permanent Deviation: Permanent

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

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

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

Technical Review

Departure approved
Comments:

Departure Not Approved
Comments:

Approver: Rachel Cutler
Title: Laboratory Manager



Date: 2/10/2022

Quality Review

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



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

Extraction Date: 03/10/2022

Plate lot#: 211015

Mobile phase A: 10mM Amm Form

Instant Buffer I

Blank Blood Lot: Lampire 20L20725

LCMS-QQQ ID: 069901

Analyst: Celena Shrum

Plate Retest Date: 04/15/2022

Mobile phase B: 0.1% Formic Acid in MeOH

Ethyl Acetate LC Methanol

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

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, pipette **250µL blood** into wells of analytical (standards) plate. **Pipette ID: 42**
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. (SKIPPED PER DEVIATION)
- 4. Pipette **250µL 0.5 M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **200-450µL of blood+base and** mixture to corresponding wells of SLE+ plate.
Amount transferred: 300µl
- 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 **900uL ethyl acetate**.
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 15 seconds. *(10-15 PSI- Selector to the left).*
- 12. Add **900uL ethyl acetate**.
- 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 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:

	1	2	3	4	5	6	7	8	9	10	11	12
A						Blood NEG	M2022-0889-2	P2022-0615-1	P2022-0654-1			
B						M2022-0729-1	M2022-0904-2	P2022-0616-1	P2022-0655-1			
C						M2022-0731-1	M2022-0960-3	P2022-0617-1	P2022-0656-1			
D						M2022-0746-1	M2022-0962-2	P2022-0618-1	P2022-0665-1			
E						M2022-0792-2	M2022-0976-2	P2022-0619-1	P2022-0666-1			
F						M2022-0825-1	P2022-0567-1	P2022-0620-1	P2022-0667-1			
G						M2022-0851-1	P2022-0568-1	P2022-0624-1				
H						M2022-0875-2	P2022-0596-1	P2022-0627-1	CAL			CAL*

*CAL moved during SLE portion of the extraction.

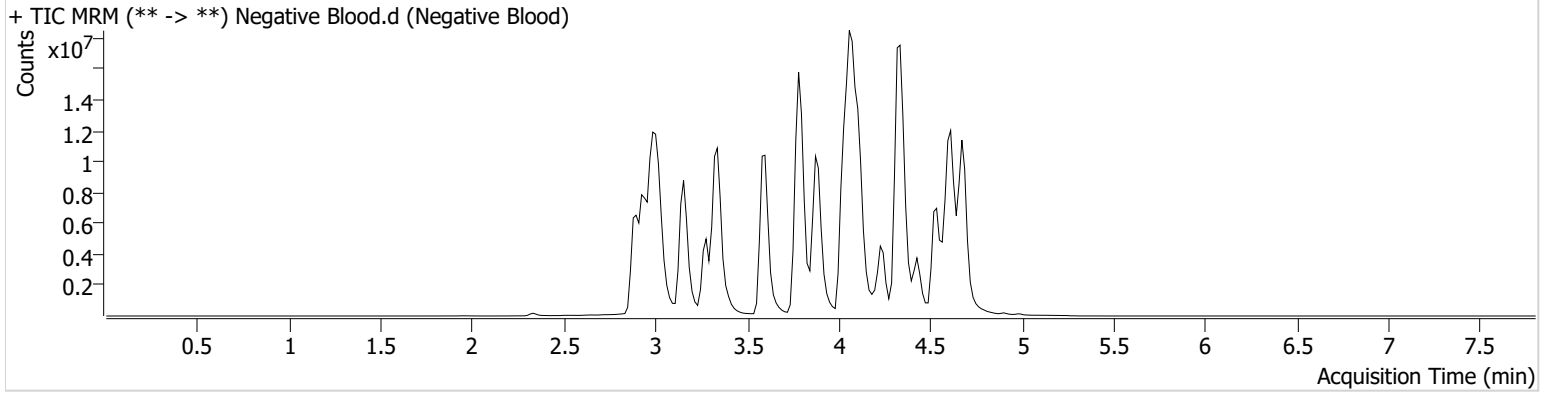
AM #25 Multi-Drug Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 25 MDS.batch.bin
Calibration Last Update 3/16/2022 9:16:50 AM

Instrument	Falco (069901)	Data File	Negative Blood.d
Type	Sample	Sample	Negative Blood
Acq. Method	AM 25 MDS.m	Operator	Celena Shrum
Sample Position	P2-A6	Comment	
Injection Volume	5		
Acq. Date-Time	3/10/2022 8:28:35 PM		
Sample Info.			

Sample Chromatogram



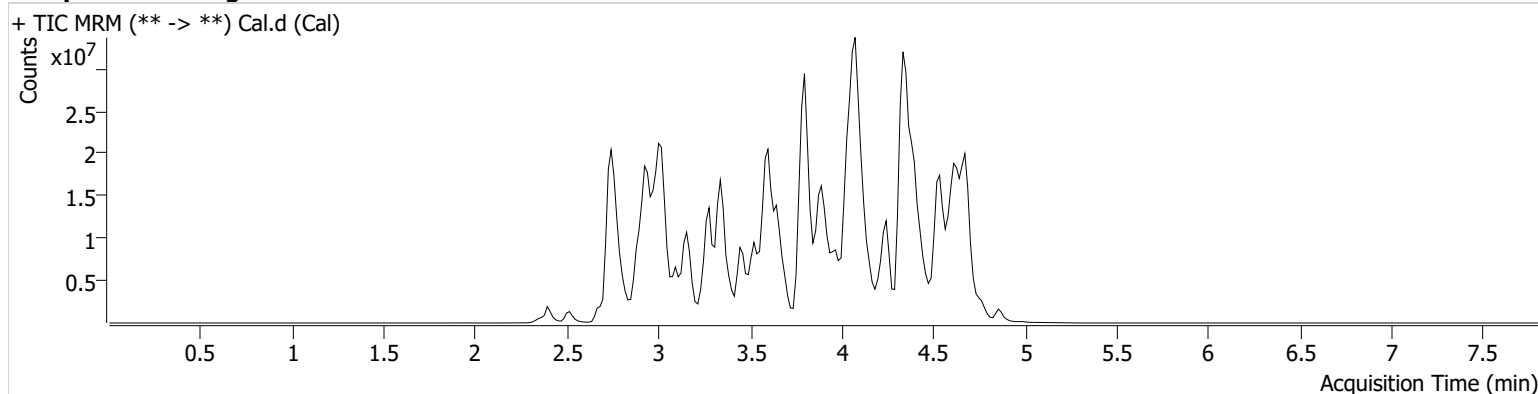
AM #25 Multi-Drug Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 25 MDS.batch.bin
Calibration Last Update 3/16/2022 9:16:50 AM

Instrument	Falco (069901)	Data File	Cal.d
Type	Cal	Sample	Cal
Acq. Method	AM 25 MDS.m	Operator	Celena Shrum
Sample Position	P2-H9	Comment	
Injection Volume	5		
Acq. Date-Time	3/10/2022 8:20:01 PM		

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.938	79817	555.84	329.61	2327648	10.0000
7-aminoclonazepam	3.602	636367	200.77	125.69	2659492	10.0000
7-aminoflunitrazepam	3.801	1142112	270.78	98.37	2659492	10.0000
Acetyl Fentanyl	3.890	561837	228.92	208927.49	38782495	10.0000
Acetyl Norfentanyl	2.917	568061	538.45	685.21	38782495	10.0000
a-hydroxyalprazolam	4.536	443454	124.01	280.15	2659492	10.0000
alpha-hydroxymidazolam	4.611	3019109	389.20	673.15	2659492	10.0000
Alpha-PHP	3.836	4890941	41429.07	22854.21	38782495	10.0000
alpha-PVP	3.577	7160366	981.65	1210.91	21996935	10.0000
Alprazolam	4.631	3233873	206.99	714.13	30360346	10.0000
Amitriptyline	4.435	2528788	421.30	444.14	9759923	10.0000
Amphetamine	2.936	5971545	3200.05	432.64	21996935	10.0000
Benzoylcegonine	3.402	330281	1184.19	58.97	615672	10.0000
Brompheniramine	4.044	181896	7298.47	571.09	52515278	10.0000
Buprenorphine	4.654	1132277	1208.36	6289.14	4405182	10.0000
Bupropion	3.806	7395937	828.54	1316.40	27972813	10.0000
Carbamazepine	4.253	15110296	∞	1547.86	1478299	10.0000
Carisoprodol	4.252	2134768	407271.22	245.59	12097964	10.0000
Chlordiazepoxide	4.755	1233084	642.77	1102.36	30360346	10.0000
Chlorpheniramine	3.957	11830766	662.67	28.87	52515278	10.0000
Citalopram	4.074	4317743	571.52	565857.77	52515278	10.0000
Clomipramine	4.630	3024099	14387.51	9386.05	52515278	10.0000
Clonazepam	4.476	2408358	477.03	537.33	30360346	10.0000
Clonazolam	4.395	2225733	11028.94	886.13	30360346	10.0000
Cocaehtylene	3.798	7370989	62690.13	9411.07	35203049	10.0000
Cocaine	3.600	7499843	2079.49	311.30	35203049	10.0000
Codeine	2.866	671272	5304.98	2541.49	14980368	10.0000
Cyclobenzaprine	4.359	4111968	815.48	220.68	9759923	10.0000
Desipramine	4.390	7214720	1358.61	745.81	9759923	10.0000
Dextromethorphan	4.081	3114823	2851.64	1247.43	18182521	10.0000
Dextrorphan	3.389	4113550	2297.86	949.10	18182521	10.0000
Diazepam	4.864	1927631	2110.49	5001.57	30360346	10.0000
Dihydrocodeine	2.774	1744577	3715.37	516.30	14980368	10.0000
Diphenhydramine	4.035	16200069	24693703.94	1327.32	52515278	10.0000

Cal

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.157	3633446	328.22	222.38	34314095	10.0000
Doxylamine	3.649	15640147	20808.71	20281.37	18182521	10.0000
EDDP	4.080	1601592	557.82	159.11	3807713	10.0000
Estazolam	4.556	7768097	1803.42	447006.45	30360346	10.0000
Etizolam	4.641	310470	126183.28	463355.28	30360346	10.0000
Fentanyl	4.120	467828	477.95	701.89	28824632	10.0000
Flualprazolam	4.504	1361244	869051.44	5670.37	30360346	10.0000
Flunitrazepam	4.584	3351519	623.51	681371.84	30360346	10.0000
Fluoxetine	4.339	2598967	2266420.29	169641.86	5052665	10.0000
Flurazepam	4.210	4943908	79774.39	442.80	30360346	10.0000
Hydrocodone	3.049	2624289	1307.37	927.71	14980368	10.0000
Hydromorphone	2.519	2196356	5365.49	698.91	507778	10.0000
Imipramine	4.403	9040025	3896.58	47.64	9759923	10.0000
Ketamine	3.576	4935834	902.01	197.76	20129017	10.0000
Lamotrigine	3.635	435954	6555.37	640.82	52515278	10.0000
Levamisole	3.009	4380350	4265.20	555.19	35203049	10.0000
Levetiracetam	2.690	2199725	552.53	868.53	52515278	10.0000
Lorazepam	4.460	733453	446.04	∞	30360346	10.0000
Maprotiline	4.435	1897800	139.03	422.76	9759923	10.0000
MDA	3.026	4985822	1006.63	153.63	39584163	10.0000
MDEA	3.255	7644356	4132.07	294.06	39584163	10.0000
MDMA	3.102	9854811	3394.03	295.26	39584163	10.0000
Meperidine	3.621	3745673	536.89	354.29	18182521	10.0000
Meprobamate	3.700	1647630	301.59	195.11	12097964	10.0000
Methadone	4.400	10454572	848.29	447.15	3807713	10.0000
Methamphetamine	3.027	10579090	383.28	1759.54	39584163	10.0000
Methocarbamol	3.606	776438	1189.38	387.12	3807713	10.0000
Methylphenidate	3.530	16980664	513.23	1092.51	30040972	10.0000
Metoprolol	3.450	1069528	281.95	1225.58	18182521	10.0000
Midazolam	4.766	1180355	96947.92	1075.17	30360346	10.0000
Mirtazapine	3.988	5051642	1620.45	3558.73	18182521	10.0000
Mitragynine	4.209	754687	469359.53	1357017.94	18182521	10.0000
Morphine	2.367	431485	1012.43	119.38	507778	10.0000
Norbuprenorphine	3.840	131228	634.77	543.45	4405182	10.0000
Nordiazepam	4.727	2521605	150110.35	1068.78	30360346	10.0000
Norfentanyl	3.345	10811252	198888.63	1319.79	38782495	10.0000
Norhydrocodone	2.944	199214	58.09	57.12	507778	10.0000
Norketamine	3.700	1348680	341.76	6114.84	20129017	10.0000
Normeperidine	3.622	4270803	942.33	610.59	52515278	10.0000
Noroxycodone	2.896	2160024	1655.46	138.06	20129017	10.0000
Nortriptyline	4.421	2264922	454.23	393.41	9759923	10.0000
O-desmethyl-tramadol	2.946	11718145	1893.88	452.83	52515278	10.0000
Olanzapine	3.830	2109340	1692381.64	570.81	1478299	10.0000
Oxazepam	4.541	4031385	921.20	363.86	17478463	10.0000
Oxycodone	2.955	4358662	5592.68	1268.83	20129017	10.0000
Oxymorphone	2.393	2272912	539.73	119.28	507778	10.0000
Paroxetine	4.351	342894	114.56	571.61	5052665	10.0000
Phenazepam	4.672	3562878	1197.91	927.24	30360346	10.0000
Phencyclidine	3.929	8967649	50821.31	638.68	18182521	10.0000
Phentermine	3.180	2438061	832.69	59.00	30040972	10.0000
Phenytoin	4.160	2372580	5680.16	686.59	1478299	10.0000
Promethazine	4.341	8462255	723.84	150.53	52515278	10.0000
Pseudoephedrine	2.751	65338966	11805.36	2186.50	39584163	10.0000
Quetiapine	4.517	6631733	98207.92	719537.66	43788667	10.0000
Sertraline	4.570	954117	12586.45	784.10	5052665	10.0000
Sufentanil	4.471	383178	727.69	989.65	38782495	10.0000
Tapentadol	3.470	7955712	1597.11	380.32	20129017	10.0000
Temazepam	4.694	7119361	2671.09	252.64	30360346	10.0000
Tramadol	3.450	13976880	16891.96	131.62	52515278	10.0000
Trazodone	4.656	9311036	4244.97	3546625.81	34314095	10.0000

Cal

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Venlafaxine	3.817	9664575	2230.53	207.75	5052665	10.0000
Zaleplon	4.355	3169316	1045.64	839.37	43788667	10.0000
Zolpidem	4.355	13409538	1901.86	14514.92	43788667	10.0000
Zopiclone	4.210	587699	119069.11	81508.70	2859285	10.0000

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

Extraction Date: 03/10/2022

Analyst: Celena Shrum

Plate lot#: 211018

Plate Retest Date: 04/18/2022

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

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 (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** 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, 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 calibrator 2 removed due to accuracy. P2022-0667 was inadvertently left off of the sequence and was injected on 3/15/2022. The well position specified for M2022-0904-2 was incorrect and the correct sample was injected on 3/15/2022.

	1	2	3	4	5	6
a	cal 1ng	QC 2	M2022-0875-2	P2022-0596-1	P2022-0627-1	
b	cal 3 ng	Blood NEG	M2022-0889-2	P2022-0615-1	P2022-0654-1	
c	cal 5 ng	M2022-0729-1	M2022-0904-2	P2022-0616-1	P2022-0655-1	
d	cal 10ng	M2022-0731-1	M2022-0960-3	P2022-0617-1	P2022-0656-1	
e	cal 25 ng	M2022-0746-1	M2022-0962-2	P2022-0618-1	P2022-0665-1	
f	cal 50 ng	M2022-0792-2*	M2022-0976-2	P2022-0619-1	P2022-0666-1	
g	cal 100 ng	M2022-0825-1	P2022-0567-1	P2022-0620-1	P2022-0667-1	
h	QC 1	M2022-0851-1	P2022-0568-1	P2022-0624-1	M2022-0792-2	

*M2022-0792-2 moved during SLE portion of extraction due to blood clot

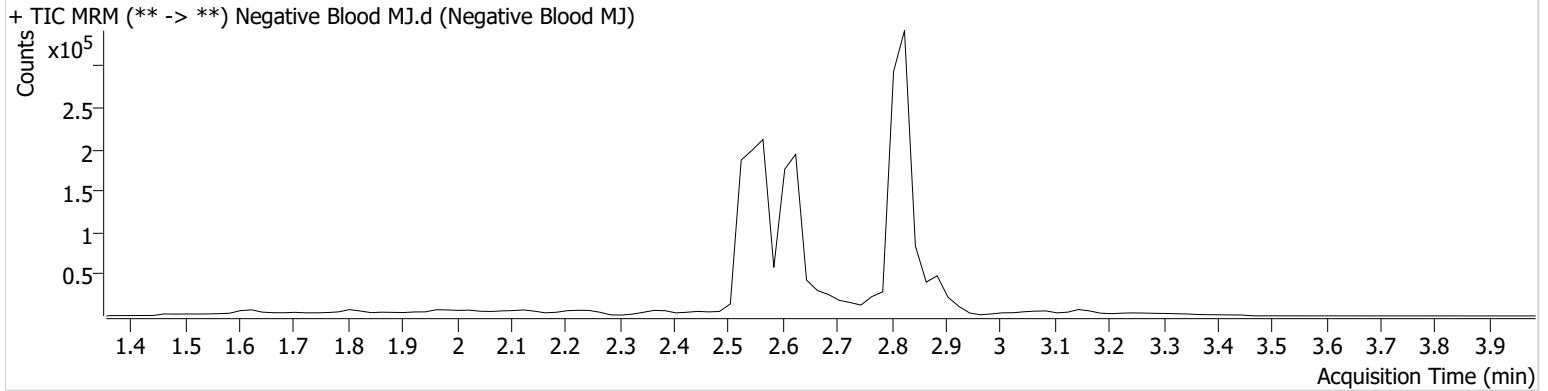
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Negative Blood MJ.d
Type	Sample	Sample	Negative Blood MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-B2	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 4:19:22 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC-COOH	2.627	1855	413030	1.2693 ng/ml Low <10

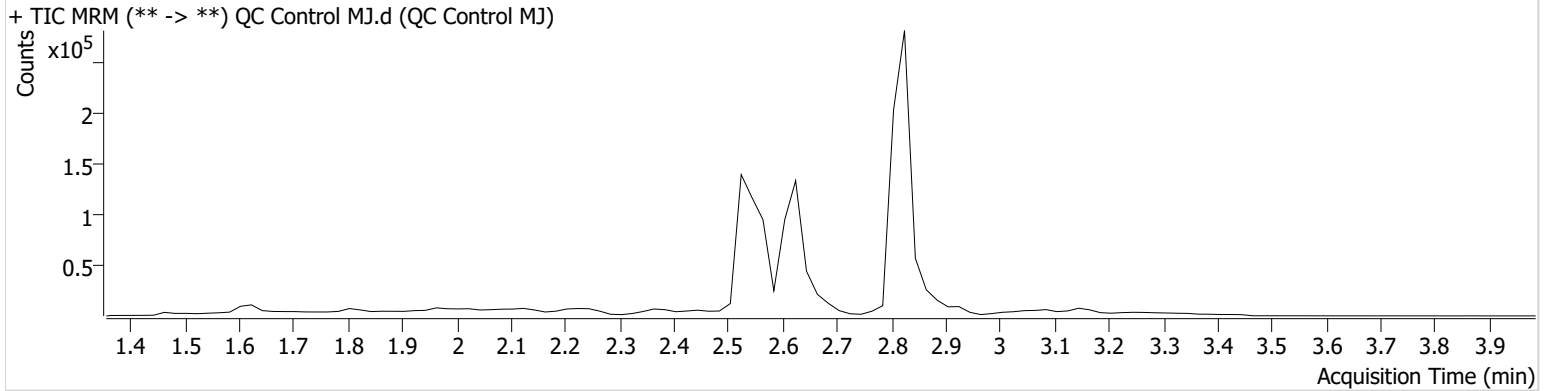
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	QC Control MJ.d
Type	Sample	Sample	QC Control MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-H1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 4:06:13 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.899	1048	22057	5.5405 ng/ml
THC-COOH	2.647	27224	197222	18.3625 ng/ml
THC-OH	2.534	3744	402363	5.2978 ng/ml

CS

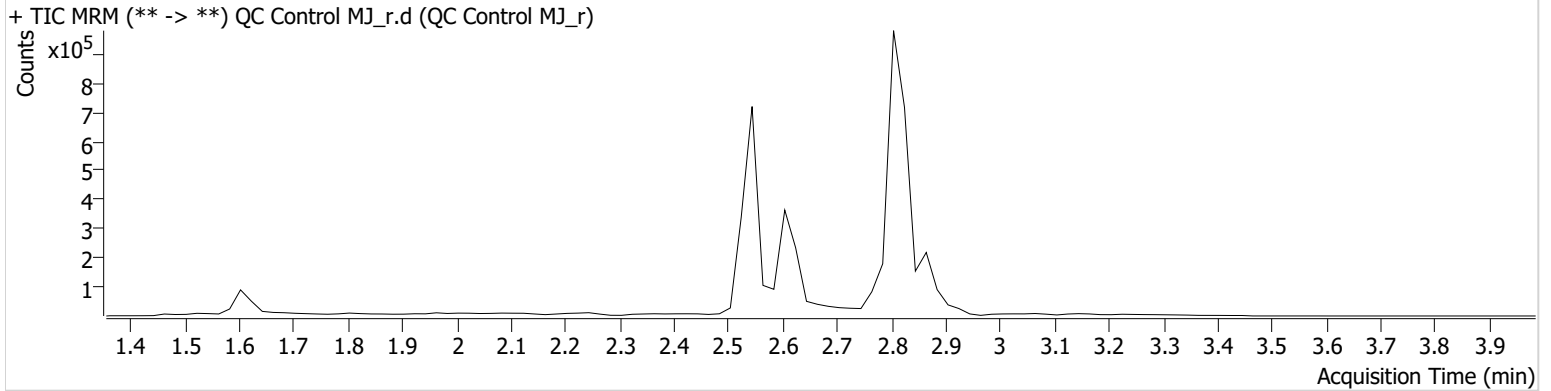


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	QC Control MJ_r.d
Type	Sample	Sample	QC Control MJ_r
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-H1	Comment	Used for bracketing reinjection samples.
Injection Volume	10		
Acq. Date-Time	3/15/2022 12:49:33 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	7968	225639	3.9703 ng/ml
THC-COOH	2.627	94716	488152	25.5295 ng/ml
THC-OH	2.554	12139	1378795	5.0192 ng/ml

CS

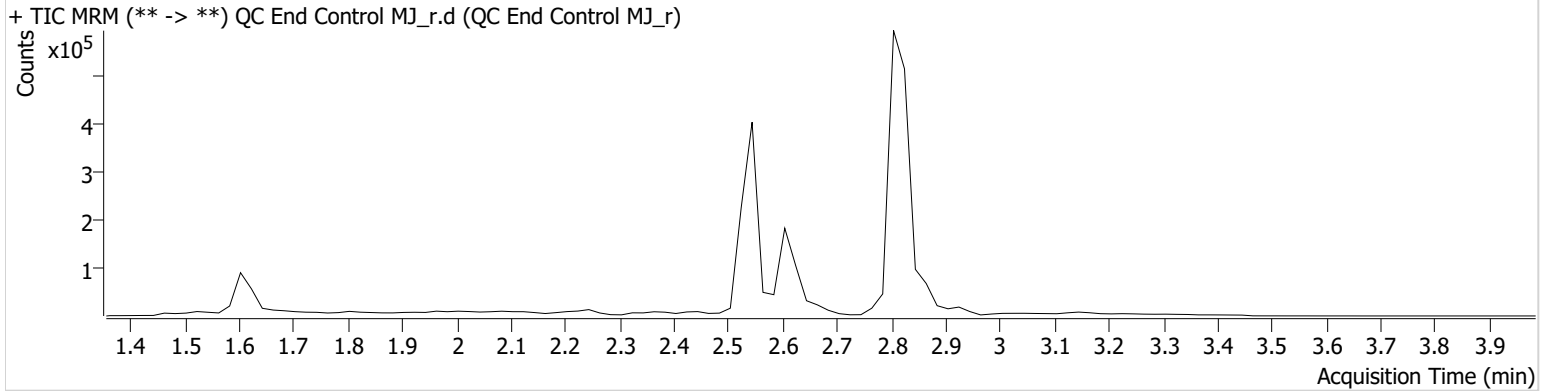


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	QC End Control MJ_r.d
Type	Sample	Sample	QC End Control MJ_r
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-H1	Comment	Used for bracketing reinjection samples.
Injection Volume	10		
Acq. Date-Time	3/15/2022 1:09:24 PM		
Sample Info.			

Sample Chromatogram

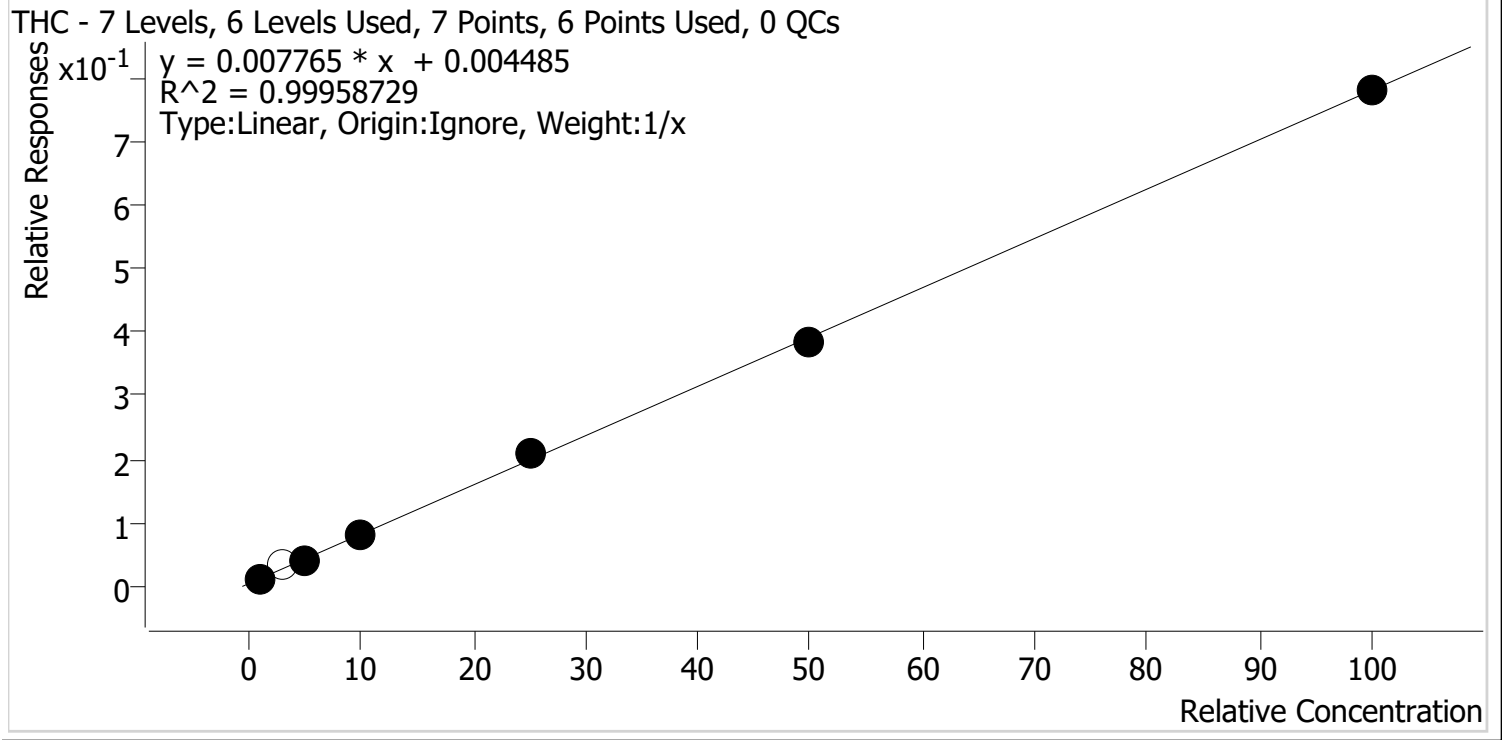


Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	2210	67353	3.6488 ng/ml
THC-COOH	2.607	48608	241978	26.4059 ng/ml
THC-OH	2.554	7028	782778	5.1165 ng/ml



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Last Cal. Update 3/15/2022 1:18 PM
Analyst Name ISP\Datastor
Analyte THC **Internal Standard** THC-D3



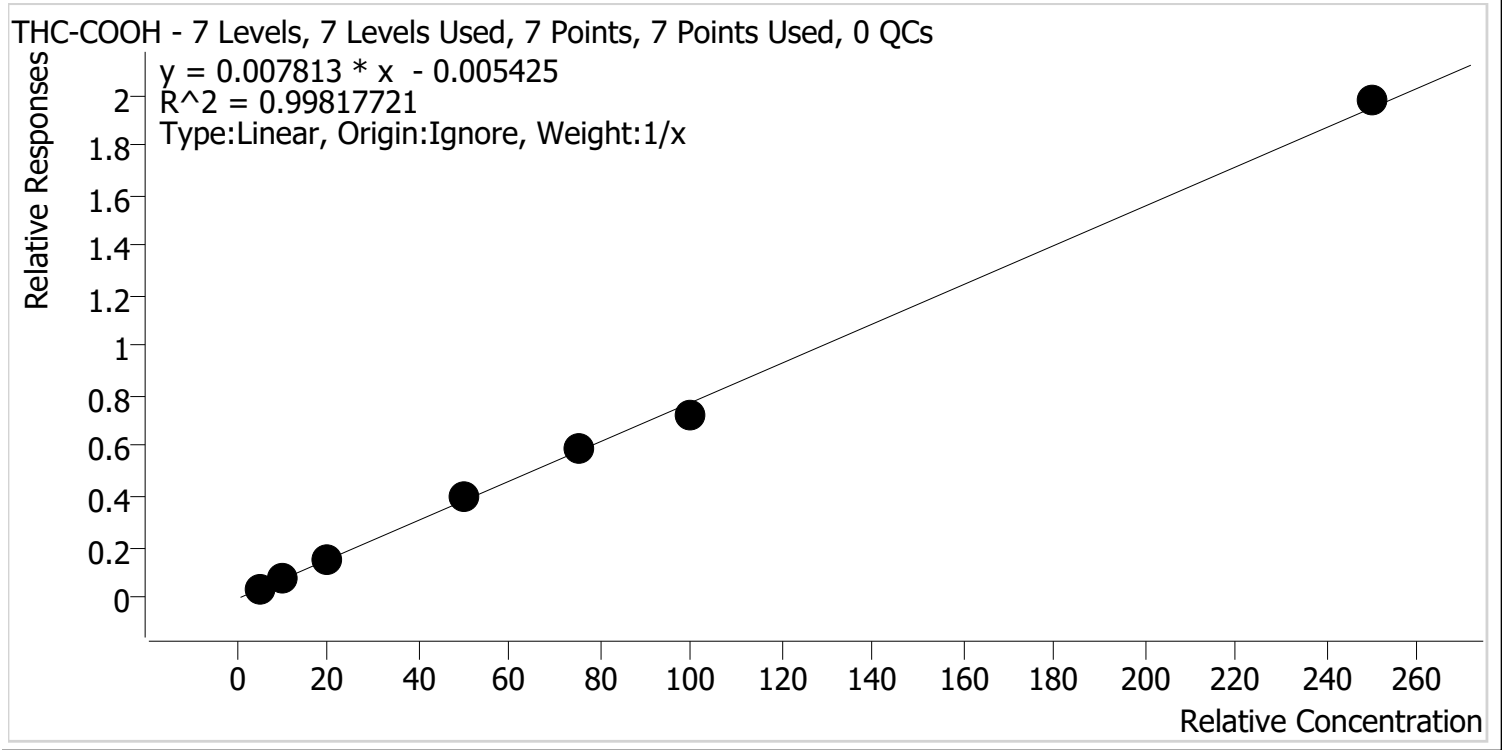
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	1.0	1.0	98.9
Cal 2 MJ	2	✗	3.0	4.2	138.7
Cal 3 MJ	3	✓	5.0	4.9	98.0
Cal 4 MJ	4	✓	10.0	10.1	100.8
Cal 5 MJ	5	✓	25.0	26.1	104.3
Cal 6 MJ	6	✓	50.0	49.0	98.1
Cal 7 MJ	7	✓	100.0	99.9	99.9

Cal 2 dropped due to accuracy.



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Last Cal. Update 3/15/2022 1:18 PM
Analyst Name ISP\Datastor
Analyte THC-COOH **Internal Standard** THC-COOH-D9

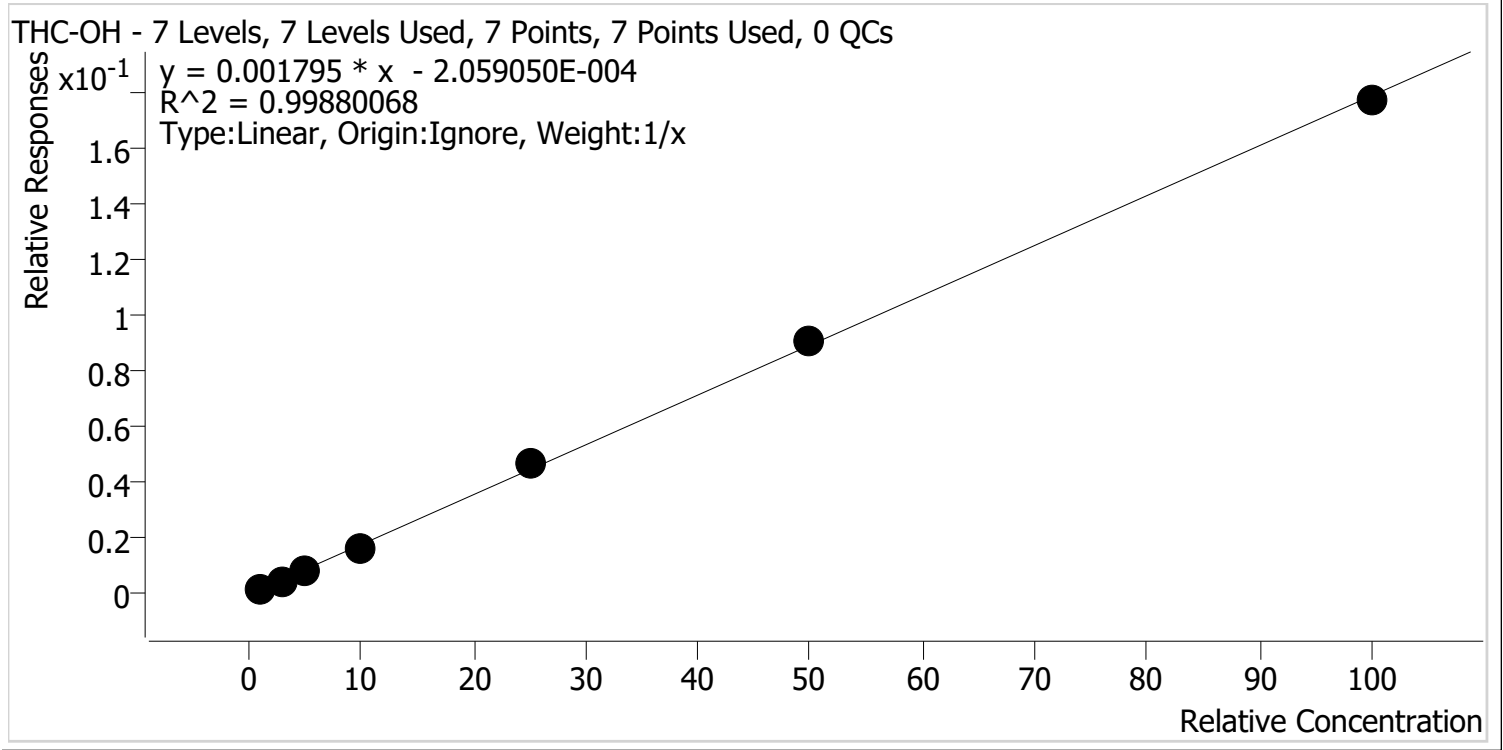


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	5.0	5.1	102.4
Cal 2 MJ	2	✓	10.0	9.5	95.4
Cal 3 MJ	3	✓	20.0	20.5	102.3
Cal 4 MJ	4	✓	50.0	51.8	103.6
Cal 5 MJ	5	✓	75.0	76.6	102.1
Cal 6 MJ	6	✓	100.0	92.8	92.8
Cal 7 MJ	7	✓	250.0	253.7	101.5



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Last Cal. Update 3/15/2022 1:18 PM
Analyst Name ISP\Datastor
Analyte THC-OH **Internal Standard** THC-OH-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✓	1.0	1.2	115.6
Cal 2 MJ	2	✓	3.0	2.7	90.8
Cal 3 MJ	3	✓	5.0	4.8	96.4
Cal 4 MJ	4	✓	10.0	9.2	91.8
Cal 5 MJ	5	✓	25.0	26.0	104.1
Cal 6 MJ	6	✓	50.0	51.1	102.2
Cal 7 MJ	7	✓	100.0	99.0	99.0

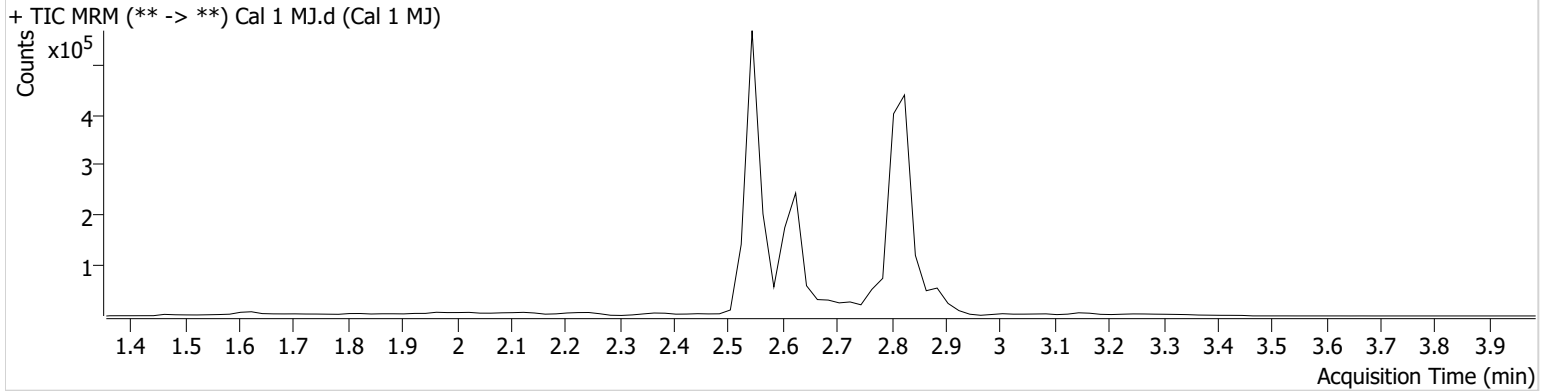


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Cal 1 MJ.d
Type	Cal	Sample	Cal 1 MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-A1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 3:20:06 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.859	609	50041	0.9887 ng/ml	Low
THC-COOH	2.647	15281	442118	5.1183 ng/ml	
THC-OH	2.554	2225	1190375	1.1562 ng/ml	Low

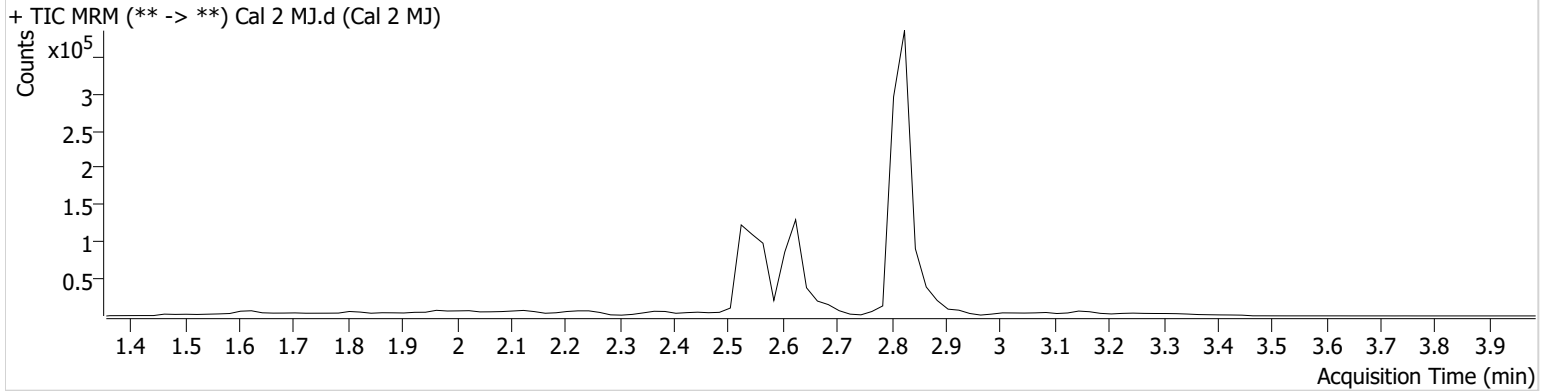
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Cal 2 MJ.d
Type	Cal	Sample	Cal 2 MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-B1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 3:26:49 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.899	939	25536	4.1599 ng/ml
THC-COOH	2.647	15321	221811	9.5355 ng/ml
THC-OH	2.534	1964	419207	2.7253 ng/ml Low

CS

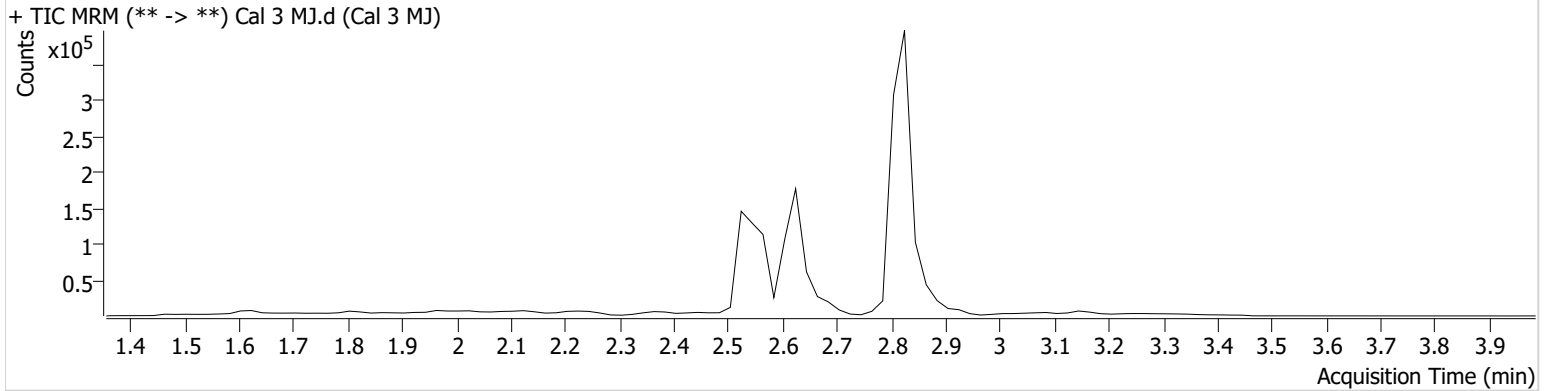


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Cal 3 MJ.d
Type	Cal	Sample	Cal 3 MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-C1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 3:33:25 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	1415	33262	4.9000 ng/ml
THC-COOH	2.647	39007	252654	20.4556 ng/ml
THC-OH	2.534	3803	450178	4.8214 ng/ml

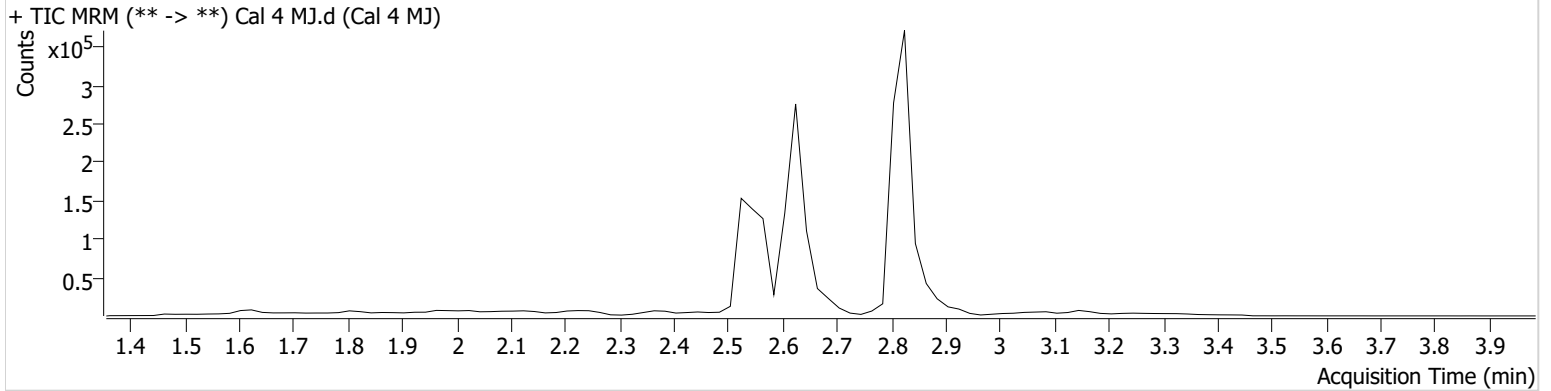
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Cal 4 MJ.d
Type	Cal	Sample	Cal 4 MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-D1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 3:39:59 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	2572	31071	10.0844 ng/ml
THC-COOH	2.647	98975	247868	51.8041 ng/ml
THC-OH	2.534	7443	457232	9.1833 ng/ml

CS

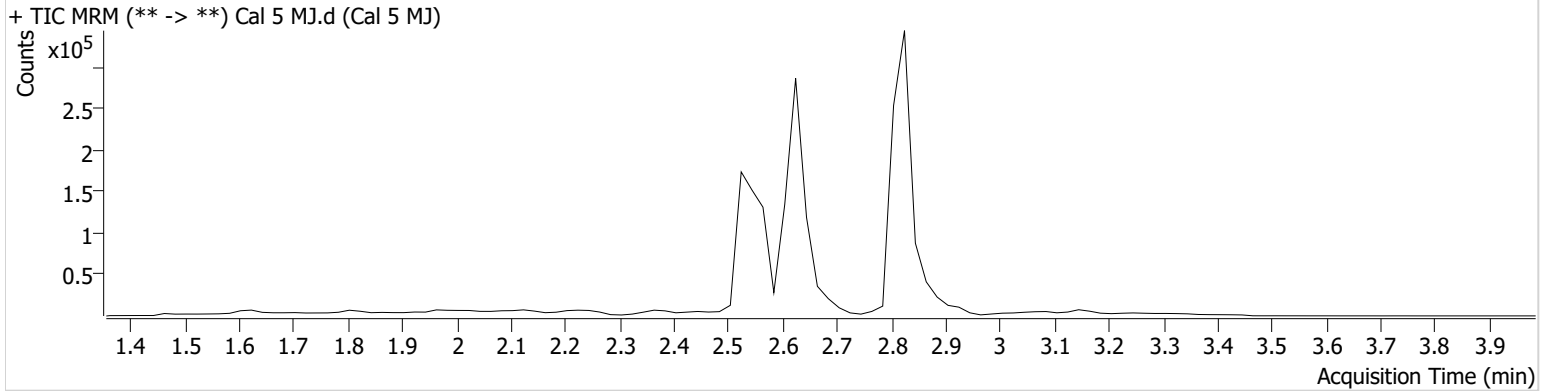


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Cal 5 MJ.d
Type	Cal	Sample	Cal 5 MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-E1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 3:46:32 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	5910	28552	26.0770 ng/ml
THC-COOH	2.647	116841	197069	76.5828 ng/ml
THC-OH	2.534	19319	415405	26.0224 ng/ml

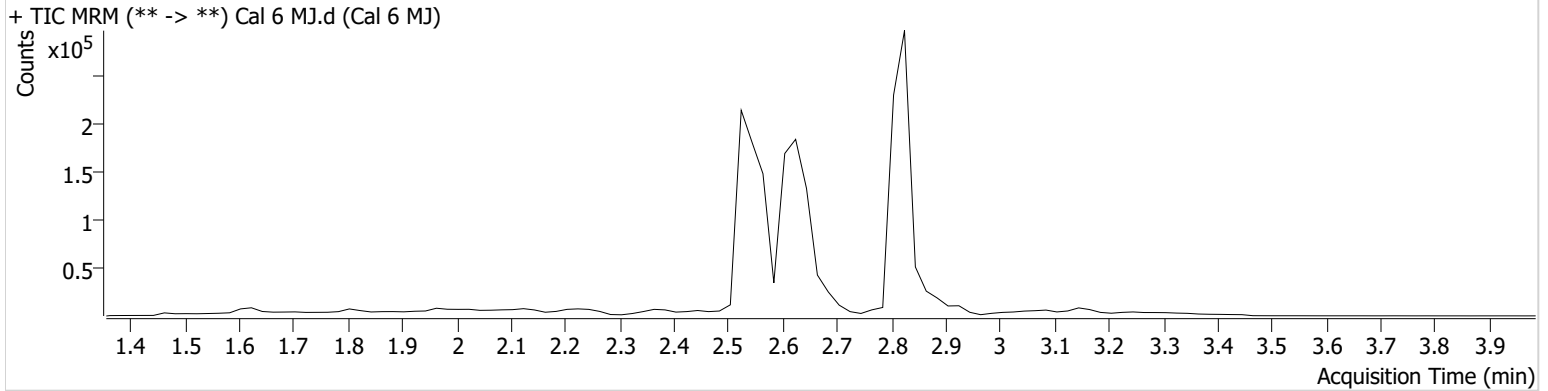
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Cal 6 MJ.d
Type	Cal	Sample	Cal 6 MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-F1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 3:53:06 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.899	6739	17493	49.0329 ng/ml
THC-COOH	2.647	146565	203672	92.8023 ng/ml
THC-OH	2.534	38169	417100	51.0937 ng/ml

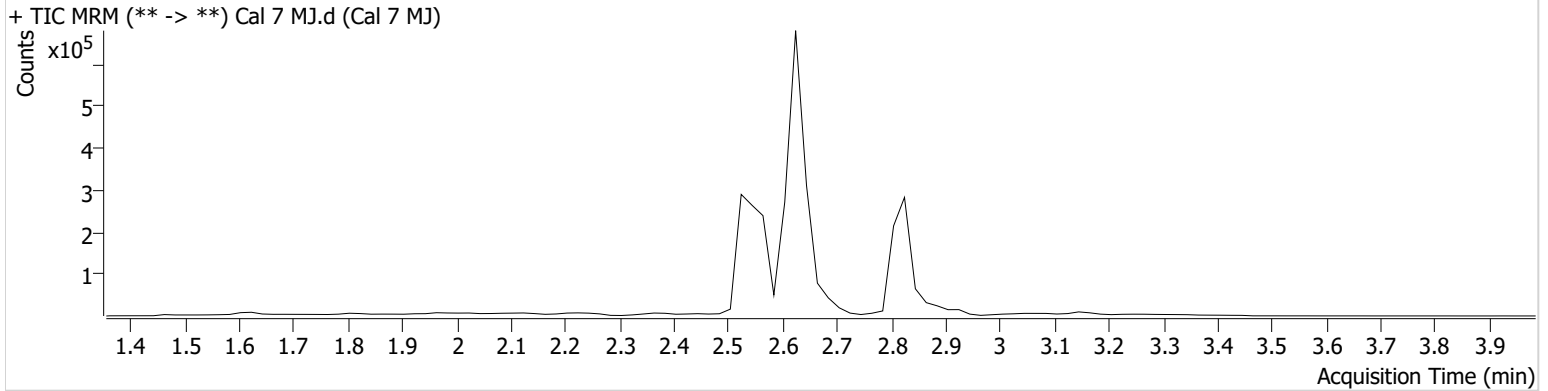
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2022\AM 25-26\031022 AM 25 26 CS\QuantResults\AM 26 THC.batch.bin
Calibration Last Update 3/15/2022 1:18:44 PM

Instrument	Falco (069901)	Data File	Cal 7 MJ.d
Type	Cal	Sample	Cal 7 MJ
Acq. Method	AM 26 THCS.m	Operator	Celena Shrum
Sample Position	P1-G1	Comment	
Injection Volume	10		
Acq. Date-Time	3/10/2022 3:59:40 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	16723	21430	99.9172 ng/ml
THC-COOH	2.647	363209	183747	253.7014 ng/ml
THC-OH	2.534	75521	425472	98.9976 ng/ml