TS 3/21/2024

Worklist: 6733

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
M2024-0020	2	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
M2024-0433	3	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
M2024-0742	1	BCK	AM 27 Blood THC Quant by LC-QQQ
M2024-0931	2	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-0113	2	UCK	AM 27 Urine Cannabinoids Confirmation by LC-QQQ
P2024-0637	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-0680	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-0699	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-0755	2	BCK	AM 27 Blood THC Quant by LC-QQQ

TS

AM# 27: Quantitation of THC and Metabolites in Blood and Urine by LC-MS/MS

Extraction Date: 03/25/2024
Plate lot#: 231212
Mobile phase A: 0.1% Formic Acid in LCMS Water
Blank Blood Lot: Lampire 23A52595
Column: UCT Selectra DA 100 x 2.1mm 3um

Analyst: Tamara Salazar
Plate Retest Date: 06/12/2024
Mobile phase B: 0.1% Formic acid in Acetonitrile
Blank Urine Lot: POC021022
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. Urine hydrolysis: add 1.5mL urine to blank plate, add 250µl 1N KOH. Shake and incubate at 40 degrees for 15 minutes.
☒ 3. Using a calibrated pipette, add **1000µl blood and urine (if applicable) (calibrated pipette)** into the appropriate wells of analytical (standards) plate. **Pipette ID:** *42*
☒ 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
☒ 5. Add **500µL of 0.1% formic acid in water to blood samples, and 500µL of saturated phosphate buffer to urine samples** in the wells of the analytical plate.
☒ 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
☒ 7. Transfer **700-800µL of blood+acid or urine+acid** mixture to corresponding wells of SLE+ plate. Amount transferred: *750µL*
☒ 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 **2.25mL MTBE. (*Add in 3 increments of 750uL)***
☒ 11. Wait 5 minutes.
☒ 12. Apply positive pressure for approx. 15 seconds. ***(10-15 PSI- Selector to the left).***
☒ 13. Add **2.25mL Hexane. (*Add in 3 increments of 750uL)***
☒ 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.
☒ 17. 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, Curve weighting of Linear 1/x with r^2 values ≥0.98 for each analyte
☒ 3. RT +/- 3% or 0.100 min, whichever is greater, +/- 20% Accuracy for greater than (+/- 30% for 10ng/ml or less). Ion ratios must be within +/- 20% of the averaged calibrators
☒ 4. Did all QCs pass for each analyte? (if not, describe in comments section)
☒ 5. Enter QCs into control charting.
☒ 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: THC-OH 3-100 -- calibrator 1 dropped due to poor chromatography

TS

	1	2	3	4	5	6
A	IS + Cal. 1	IS + QC_1	Neg Urine			IS + QC_1
B	IS + Cal. 2	Neg Blood	M2024-0020-2			IS + Cal. 7
C	IS + Cal. 3	M2024-0742-1	P2024-0113-2			IS + Cal. 6
D	IS + Cal. 4	M2024-0931-2	M2024-0433-3			IS + Cal. 5
E	IS + Cal. 5	P2024-0637-1				IS + Cal. 4
F	IS + Cal. 6	P2024-0680-1				IS + Cal. 3
G	IS + Cal. 7	P2024-0699-1				IS + Cal. 2
H	IS + QC_1	P2024-0755-2			IS + QC_1	IS + Cal. 1

All wells to contain 100 µl of residual DMSO

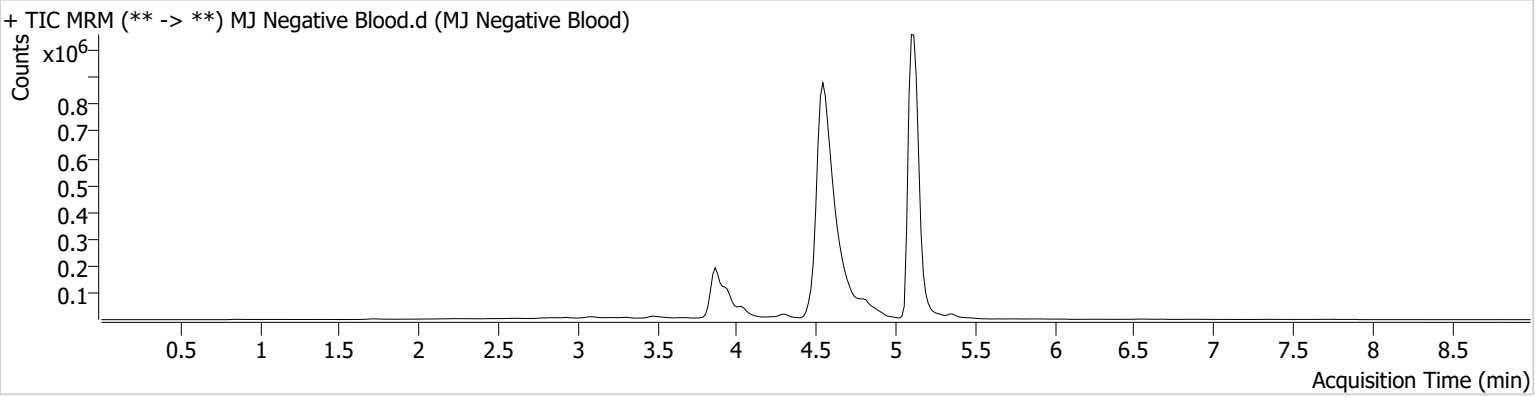
TS

AM #27 Cannabinoids Quant. Results

Batch results	D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update	3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	MJ Negative Blood.d
Type	Sample	**Sample**	MJ Negative Blood
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-B2	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 2:05:17 PM		
Sample Info.			

Sample Chromatogram



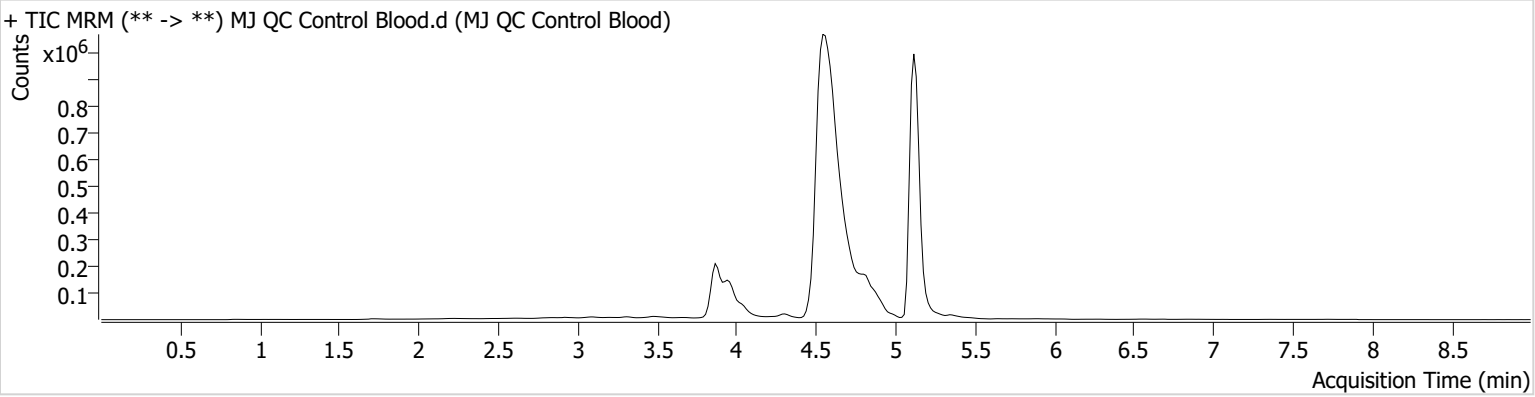
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	MJ QC Control Blood.d
Type	QC	**Sample**	MJ QC Control Blood
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-H1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 1:39:05 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.120	176452	2871.09	24.9	∞	3938527	5.0656 ng/ml
THC-COOH	3.969	27681	335.13	244.5	∞	323067	13.4138 ng/ml
THC-OH	3.881	67533	∞	14.3	∞	918879	4.9580 ng/ml

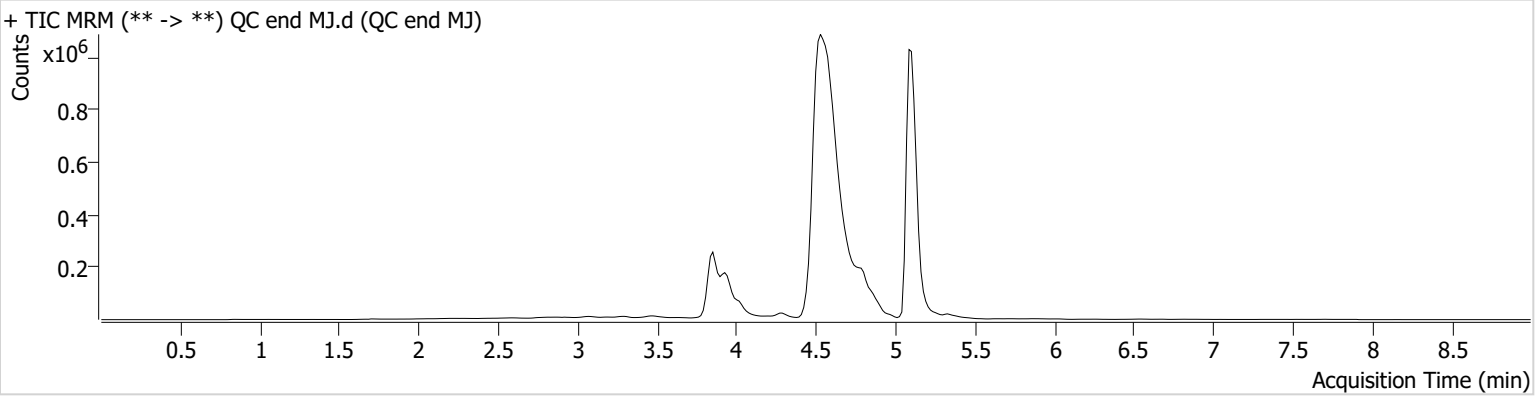
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	QC end MJ.d
Type	QC	**Sample**	QC end MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-H1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 7:19:26 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.105	190983	∞	24.6	∞	4216990	5.1171 ng/ml
THC-COOH	3.939	33926	∞	227.8	∞	392952	13.5137 ng/ml
THC-OH	3.850	77186	∞	14.9	∞	1152602	4.5709 ng/ml

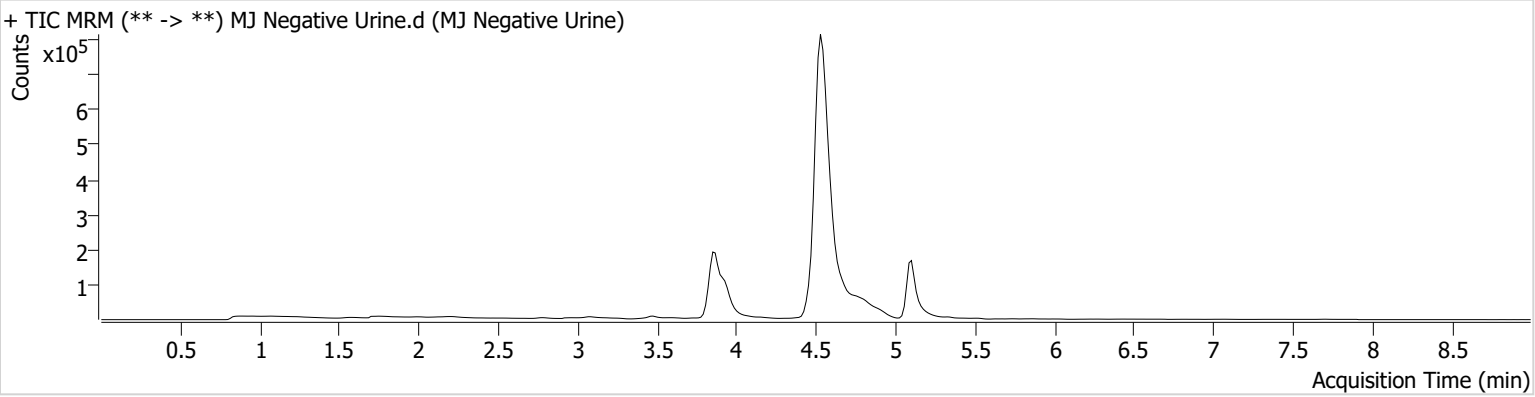
TS

AM #27 Cannabinoids Quant. Results

Batch results	D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update	3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	MJ Negative Urine.d
Type	Sample	**Sample**	MJ Negative Urine
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-A3	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 5:08:32 PM		
Sample Info.			

Sample Chromatogram



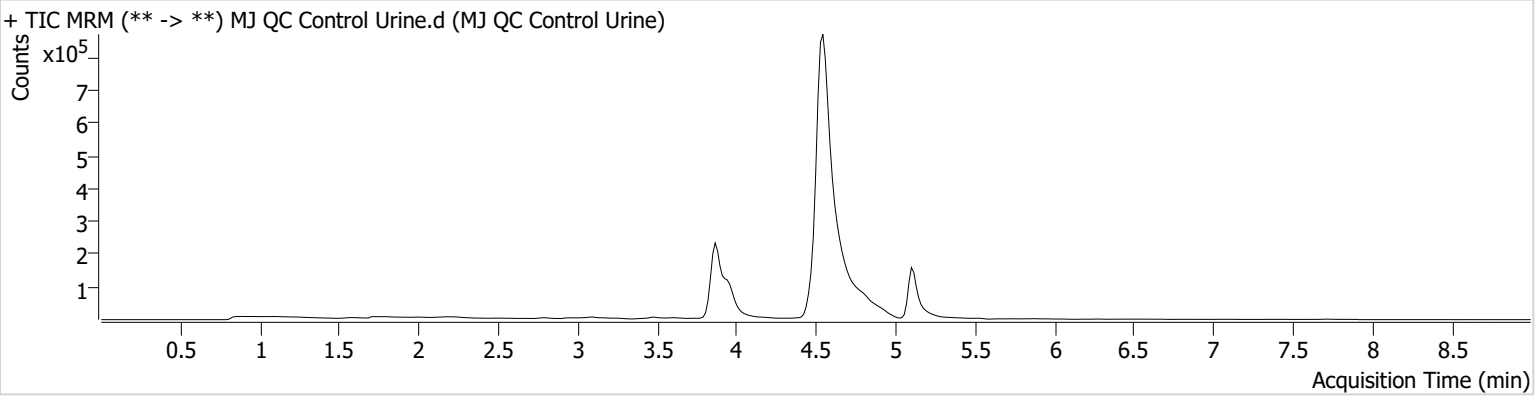
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	MJ QC Control Urine.d
Type	QC	**Sample**	MJ QC Control Urine
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-A2	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 5:34:44 PM		
Sample Info.			

Sample Chromatogram

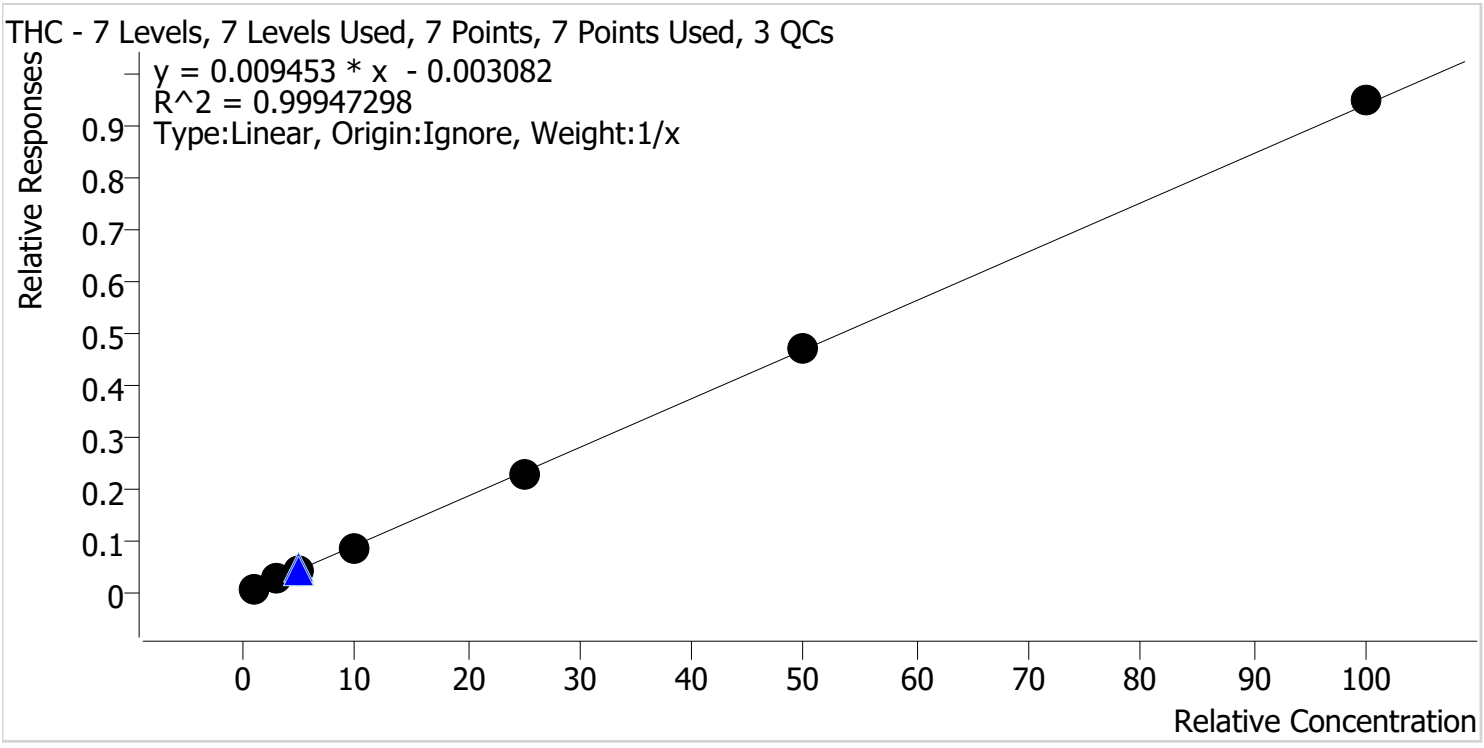


Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.105	28793	∞	26.7	∞	584933	5.5334 ng/ml
THC-COOH	3.969	21472	834.53	208.4	34.85	248434	13.5278 ng/ml
THC-OH	3.881	82617	∞	12.6	∞	990435	5.5462 ng/ml

TS

AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update	3/27/2024 10:04 AM
Analyst Name	ISP\datastor
Analyte	THC
Internal Standard	THC-D3

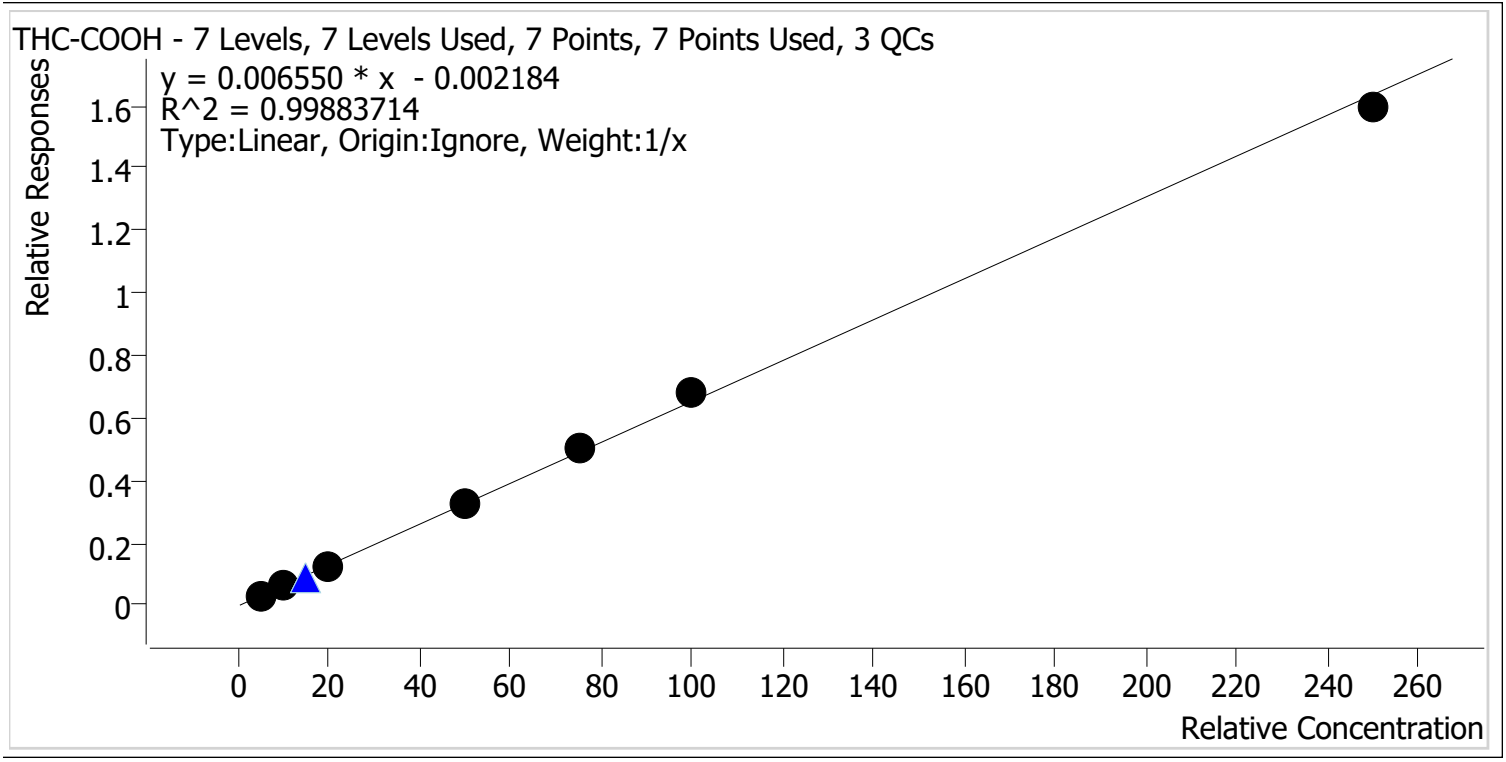


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✔	1.0	1.1	114.8
Cal 2 MJ	2	✔	3.0	2.9	97.2
Cal 3 MJ	3	✔	5.0	4.6	92.4
Cal 4 MJ	4	✔	10.0	9.6	95.8
Cal 5 MJ	5	✔	25.0	24.6	98.3
Cal 6 MJ	6	✔	50.0	50.3	100.7
Cal 7 MJ	7	✔	100.0	100.8	100.8

TS

AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update	3/27/2024 10:04 AM
Analyst Name	ISP\datastor
Analyte	THC-COOH
Internal Standard	THC-COOH-D9

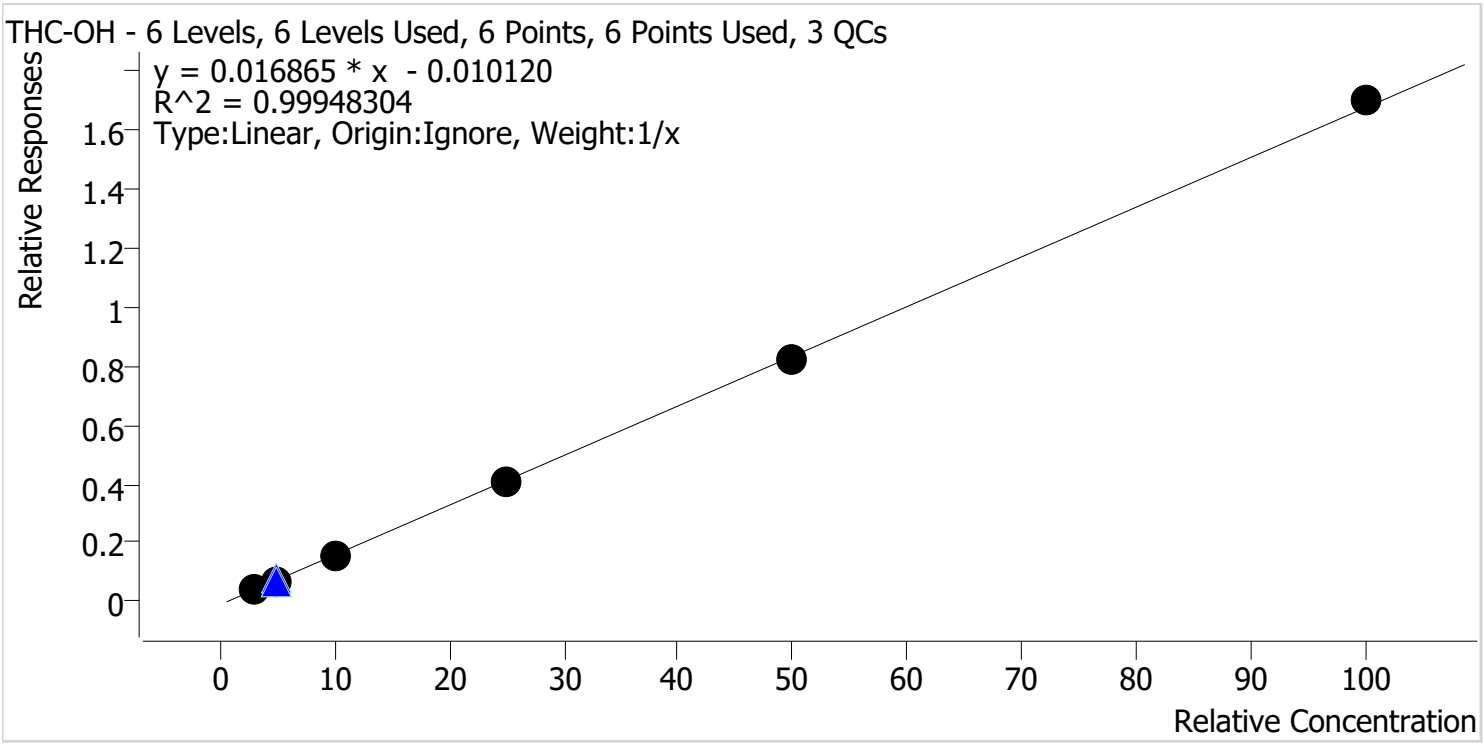


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	✔	5.0	5.0	99.4
Cal 2 MJ	2	✔	10.0	9.8	97.6
Cal 3 MJ	3	✔	20.0	19.4	96.8
Cal 4 MJ	4	✔	50.0	50.8	101.5
Cal 5 MJ	5	✔	75.0	77.2	102.9
Cal 6 MJ	6	✔	100.0	104.3	104.3
Cal 7 MJ	7	✔	250.0	243.6	97.5

TS

AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Last Cal. Update	3/27/2024 10:04 AM
Analyst Name	ISP\datastor
Analyte	THC-OH
Internal Standard	THC-OH-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 2 MJ	2	✔	3.0	3.3	108.3
Cal 3 MJ	3	✔	5.0	4.8	96.9
Cal 4 MJ	4	✔	10.0	9.7	96.7
Cal 5 MJ	5	✔	25.0	24.5	98.0
Cal 6 MJ	6	✔	50.0	49.4	98.8
Cal 7 MJ	7	✔	100.0	101.4	101.4

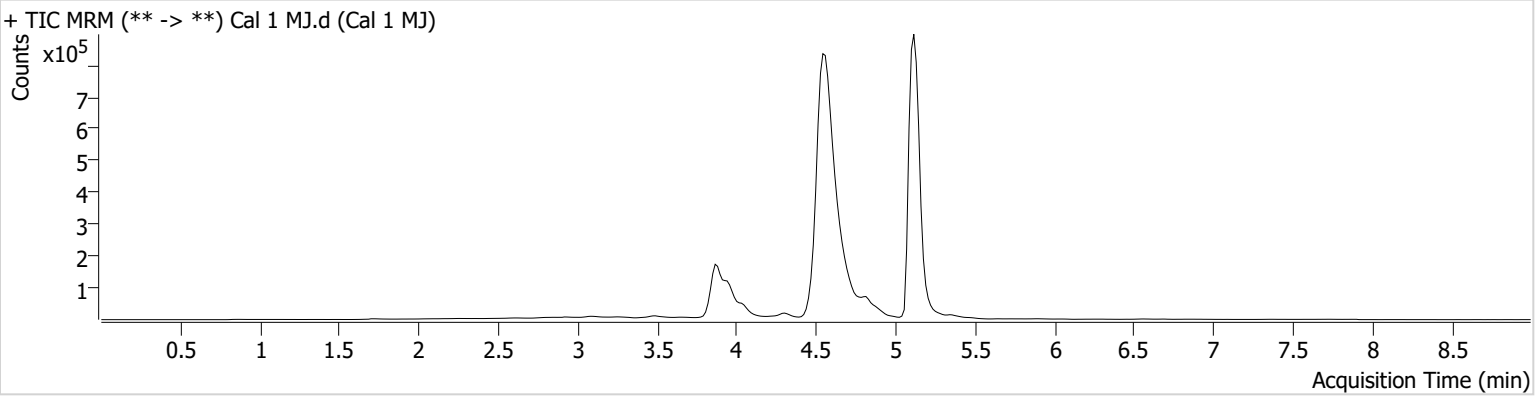
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	Cal 1 MJ.d
Type	Cal	**Sample**	Cal 1 MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-A1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 11:54:04 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	33063	145.74	28.2	∞	4256457	1.1478 ng/ml
THC-COOH	3.969	9680	∞	239.6	∞	318586	4.9720 ng/ml

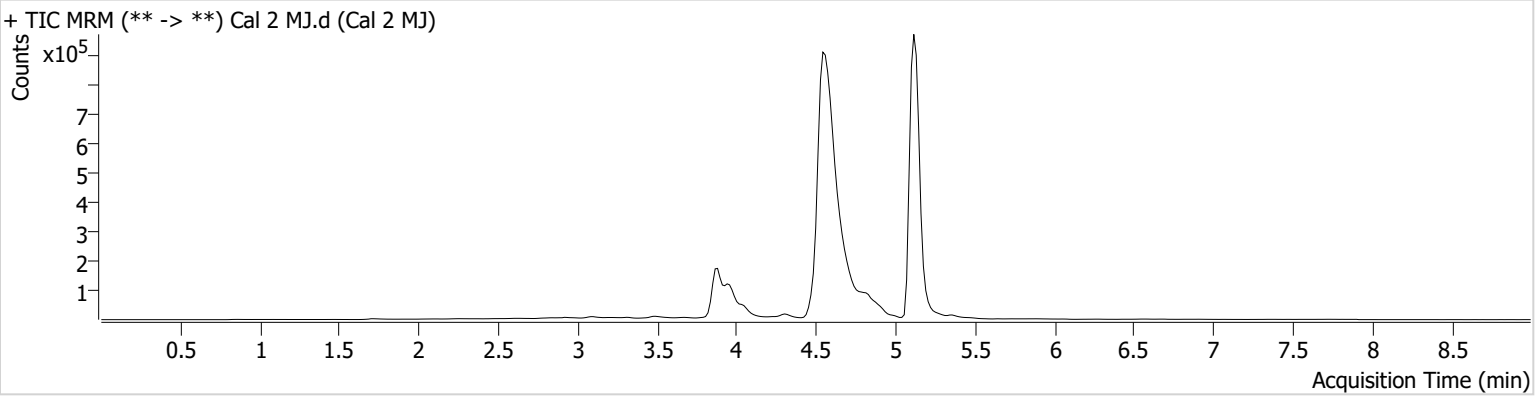
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	Cal 2 MJ.d
Type	Cal	**Sample**	Cal 2 MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-B1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 12:07:21 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	97485	∞	24.9	∞	3980004	2.9172 ng/ml
THC-COOH	3.969	17424	∞	236.8	480.35	282312	9.7555 ng/ml
THC-OH	3.881	34270	∞	12.9	∞	766781	3.2502 ng/ml

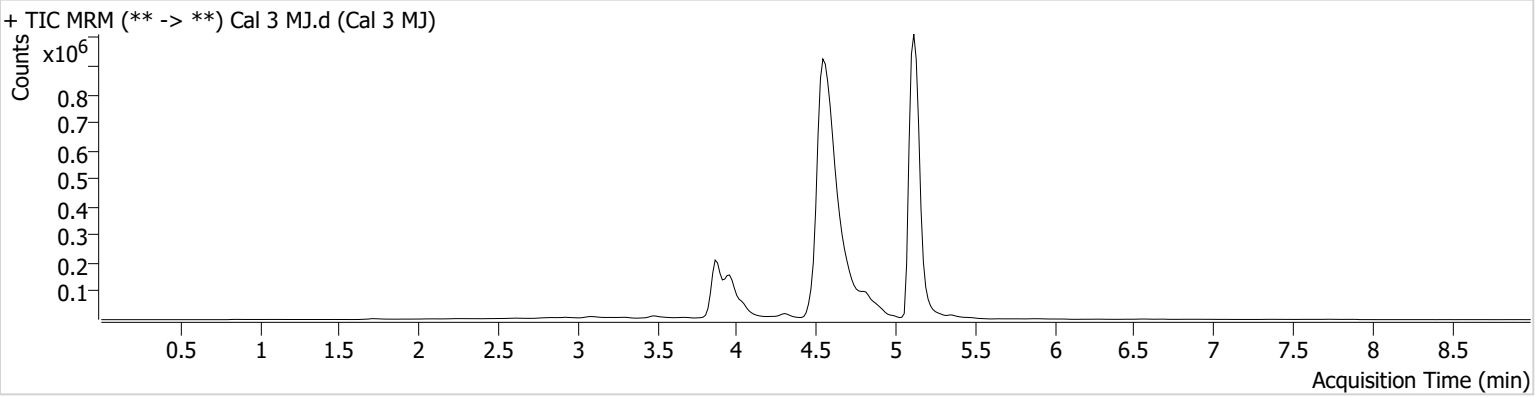
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	Cal 3 MJ.d
Type	Cal	**Sample**	Cal 3 MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-C1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 12:20:27 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.120	181809	∞	25.3	∞	4480379	4.6189 ng/ml
THC-COOH	3.969	40434	790.46	228.4	∞	324518	19.3546 ng/ml
THC-OH	3.881	65940	∞	13.8	∞	921277	4.8442 ng/ml

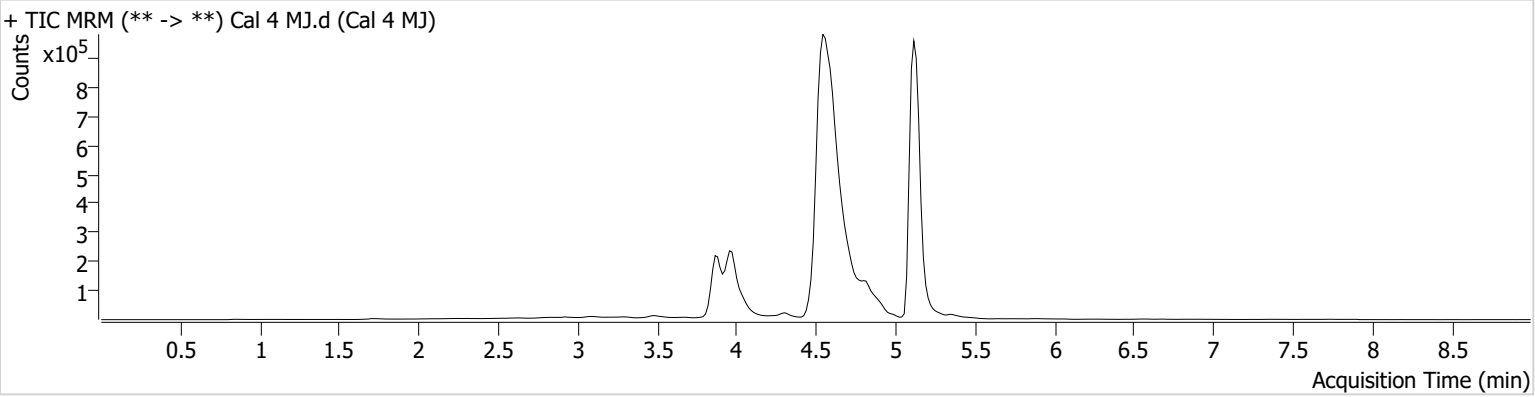
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	Cal 4 MJ.d
Type	Cal	**Sample**	Cal 4 MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-D1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 12:33:35 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	336062	∞	25.3	∞	3842032	9.5794 ng/ml
THC-COOH	3.969	103704	3464.51	201.7	8461.70	313872	50.7727 ng/ml
THC-OH	3.881	140471	∞	13.8	∞	918453	9.6689 ng/ml

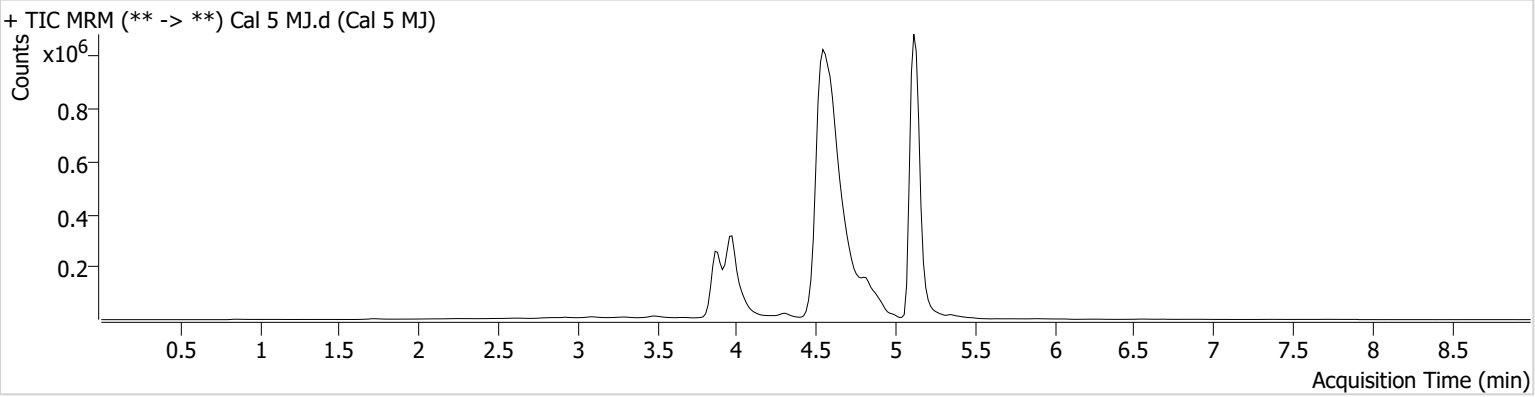
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	Cal 5 MJ.d
Type	Cal	**Sample**	Cal 5 MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-E1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 12:46:41 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.135	829366	∞	24.7	369.10	3618098	24.5756 ng/ml
THC-COOH	3.969	155713	1977.77	221.2	∞	309296	77.1896 ng/ml
THC-OH	3.881	359972	∞	13.4	∞	893505	24.4890 ng/ml

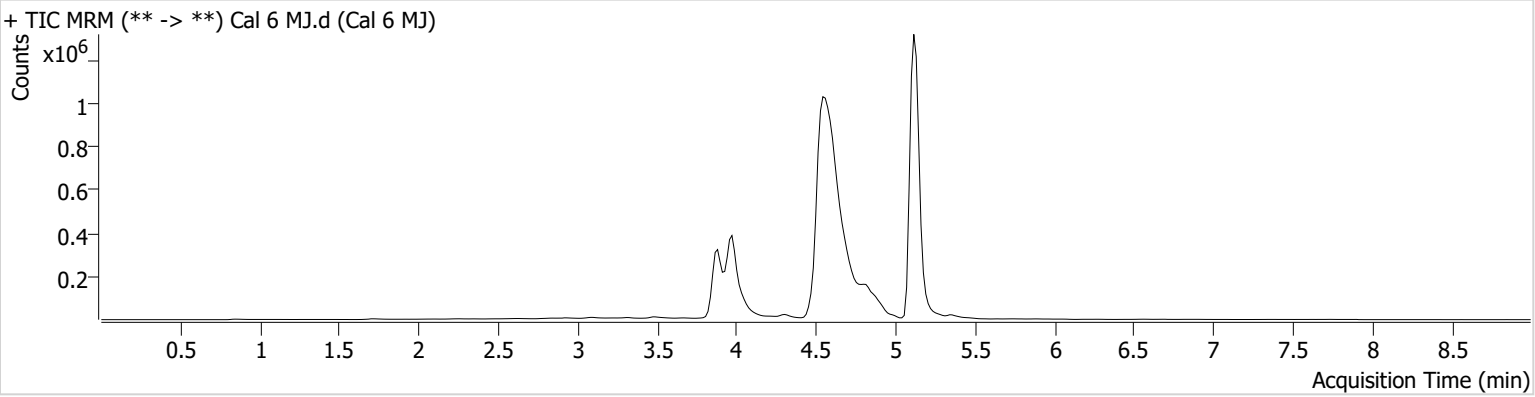
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	Cal 6 MJ.d
Type	Cal	**Sample**	Cal 6 MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-F1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 12:59:47 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.120	1600980	∞	25.2	∞	3386138	50.3432 ng/ml
THC-COOH	3.969	190673	2370.96	202.0	2133.26	279949	104.3106 ng/ml
THC-OH	3.881	654201	∞	13.8	∞	795181	49.3834 ng/ml

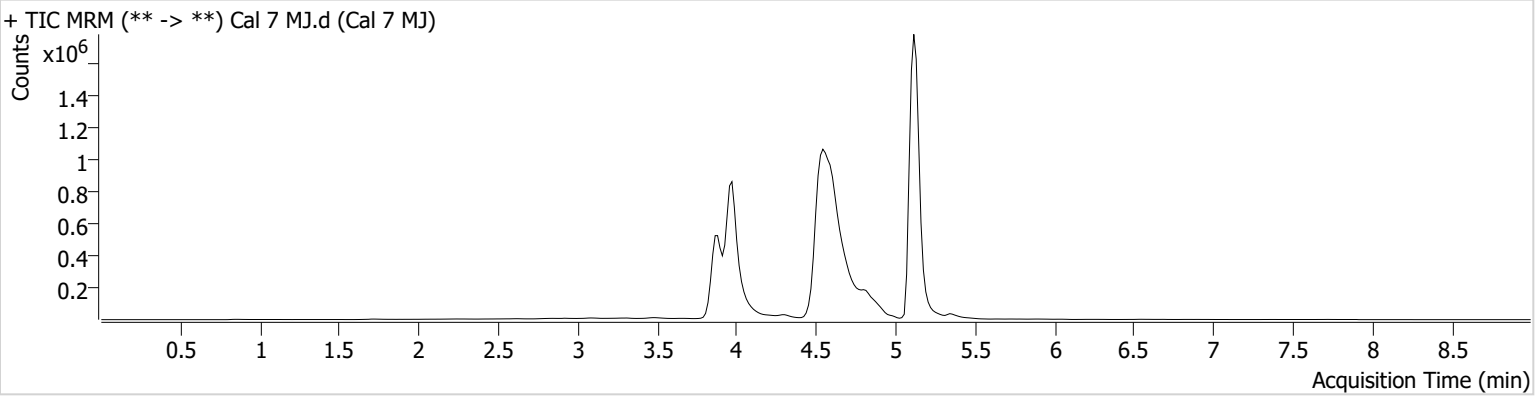
TS

AM #27 Cannabinoids Quant. Results

Batch results D:\MassHunter\Data\2024\AM 27 28\032524 AM 27 28 TS\QuantResults\AM 27.batch.bin
Calibration Last Update 3/27/2024 10:04:08 AM

Instrument	Falco (069901)	**Data File**	Cal 7 MJ.d
Type	Cal	**Sample**	Cal 7 MJ
Acq. Method	AM 27 Agilent Method.m	**Operator**	Tamara Salazar
Sample Position	P1-G1	**Comment**	Only drugs and concentrations listed on the laboratory report itself are appropriate to be used for interpretation purposes. Any drugs or values included in the notes but not included on the report are used by laboratory personnel to make determinations/reach conclusions within the confines of the methods.
Injection Volume	10		
Acq. Date-Time	3/25/2024 1:12:52 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
THC	5.120	3319960	∞	25.3	∞	3494940	100.8179 ng/ml
THC-COOH	3.969	483507	4141.53	216.5	6055.91	303367	243.6452 ng/ml
THC-OH	3.881	1601558	∞	13.7	∞	942457	101.3643 ng/ml