<u>ل</u> 12/18/2024

#### Worklist: 6999

LAB CASE	ITEM	ITEM TYPE	DESCRIPTION
M2024-4766	1	BCK	AM 27 Blood THC Quant by LC-QQQ
M2024-5098	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
P2024-3571	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3635	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
P2024-3653	1	ВСК	AM 27 Blood THC Quant by LC-QQQ
P2024-3654	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3719	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3721	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3722	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3723	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3728	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3729	1	BCK	AM 27 Blood THC Quant by LC-QQQ
P2024-3730	1	BCK	AM 27 Blood THC Quant by LC-QQQ



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

Extraction Date: 12/17/2024 Plate lot#: 240919 Mobile phase A: 0.1% Formic Acid in LCMS Water Blank Blood Lot: Lampire 24C52817 LCMS-QQQ ID: 069901 Analyst: Celena Shrum Plate Retest Date: 03/19/2025 **Mobile phase B:** 0.1% Formic acid in Acetonitrile **Column**: UCT Selectra DA 100 x 2.1mm 3um **Blank Urine Lot:** Blood Only Run

### **Pre-Analytic:**

- ☑ 1. Check levels of mobile phases and needle wash refill as needed. Ensure waste is not full.
- $\boxtimes$  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 (if applicable): 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 or 1000µl hydrolyzed urine into the appropriate wells of the analytical (standards) plate. Pipette ID: #42
- ☑ 4. Add 500µL of 0.1% formic acid in water to blood samples or 500µl of saturated phosphate buffer to urine samples to the appropriate wells of the analytical plate.
- ☑ 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- ⊠ 6. Transfer **800µL of blood+acid mixture or urine+acid** 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
- $\boxtimes$  8. Wait 5 minutes.
- 9. Add 2.25mL MTBE. (Add in 3 increments of 750uL)
- $\boxtimes$  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)
- $\boxtimes$  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**

- $\boxtimes$  1. Create batch and process data.
- $\boxtimes$  2. Make any necessary integration changes, Curve weighting of Linear 1/x with r<sup>2</sup> values  $\ge 0.98$  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. Case sample response for THC lng/mL and OH-THC 3ng/mL (quantitative), Carboxy-THC: 5ng/mL (qualitative only) will be reported. Samples with a THC or OH-THC response over 50 ng/mL will be reported out as greater than 50 ng/mL. THC concentrations of 1-3ng/mL will be reported qualitatively.
- ⊠ 5. Did all QCs pass for each analyte? (if not, describe in comments section)
- $\boxtimes$  6. Enter QCs into control charting.
- ☑ 7. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: M2024-5098-1 and QC 2 failed to inject properly and were reinjected on 12/18/24. THC-OH Calibrator 1 dropped due to qualifier peak shape. THC-OH curve range: 3-100

	1	2	3	4	5	6
А	IS + Cal. 1	QC1	P2024-3654-1			
В	IS + Cal. 2	QC2	P2024-3719-1			
С	IS + Cal. 3	NEG Control	P2024-3721-1			
D	IS + Cal. 4	M2024-4766-1	P2024-3722-1			
E	IS + Cal. 5	M2024-5098-1	P2024-3723-1			
F	IS + Cal. 6	P2024-3571-1	P2024-3728-1			
G	IS + Cal. 7	P2024-3635-1	P2024-3729-1			
н	QC1	P2024-3653-1	P2024-3730-1			

G



Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
<b>Injection Volume</b>
Acq. Date-Time
Sample Info.

Falco (069901) Sample AM 27 Agilent Method.m P1-C2 10 12/17/2024 4:28:17 PM Data File Sample Operator Comment MJ Negative Blood.d MJ Negative Blood Celena Shrum 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.





Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info. Falco (069901) QC AM 27 Agilent Method.m P1-H1 10 12/17/2024 4:02:07 PM Data File Sample Operator Comment MJ QC Control Blood\_1.d MJ QC Control Blood\_1 Celena Shrum 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.





Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info. Falco (069901) QC AM 27 Agilent Method.m P1-B2 10 12/17/2024 10:35:01 PM Data File Sample Operator Comment MJ QC Control Blood\_2.d MJ QC Control Blood\_2 Celena Shrum 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.

### Sample Chromatogram



Sample failed to inject properly and was reinjected. Refer to reinject data.



Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
Injection Volume
Acq. Date-Time
Sample Info.

Falco (069901) QC AM 27 Agilent Method.m P1-B2 10 12/18/2024 9:21:51 AM Data File Sample Operator Comment MJ QC Control Blood\_2\_r.d MJ QC Control Blood\_2\_r Celena Shrum 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.

### Reinject sample







### AM #27 Cannabinoids Quant. Calibration Curve Report

Batch result Last Cal. Up Analyst Nar	ts odate ne	D:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.bin 12/19/2024 6:27 AM ISP\datastor								
Analyte		THC					Interna	al Standard	THC-D	3
THC - 7 Le 1- 0.9- 0.8- 0.7- 0.7- 0.6- 0.5- 0.4- 0.3- 0.2- 0.1- 0-	vels, 7 Lev y = 0.009 R^2 = 0.9 Type:Line	rels Usec 743 * x 9999577 ar, Origin 10	l, 7 Points - 7.84561 1 n:Ignore, 20	, 7 Poi .8E-00 Weigh	ints Used, 4 t:1/x 40	2 QCs	60	70	80 90 Relative	100 Concentration
	Samnlo			ı [	Enable	d	Expected	Final Co	oncentration	Accuracy

Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	~	1.0	1.0	102.9
Cal 2 MJ	2	~	3.0	3.0	100.3
Cal 3 MJ	3	~	5.0	4.9	98.4
Cal 4 MJ	4	~	10.0	9.9	98.7
Cal 5 MJ	5	~	25.0	24.8	99.1
Cal 6 MJ	6	~	50.0	50.1	100.3
Cal 7 MJ	7	~	100.0	100.3	100.3





### AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.bin						
Last Cal. Update	12/19/2024 6:27 AM						
Analyst Name	ISP\datastor						
Analyte	ТНС-СООН	Internal Standard	THC-COOH-D9				
	vola 7 Lovala Lload 7 Dointa 7 Doi	nta Usad 2 0Ca					



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	V	5.0	5.0	99.1
Cal 2 MJ	2	V	10.0	9.7	96.7
Cal 3 MJ	3	v	20.0	20.7	103.3
Cal 4 MJ	4	~	50.0	49.7	99.5
Cal 5 MJ	5	V	75.0	75.9	101.2
Cal 6 MJ	6	V	100.0	101.0	101.0
Cal 7 MJ	7	v	250.0	248.1	99.2





### AM #27 Cannabinoids Quant. Calibration Curve Report

AM	#Z/Ca	man	10103	<u>Quai</u>	<u>π. Ca</u>	innat			VEDOL	<u> </u>	105165
Batch results Last Cal. Update Analyst Name	D:\MassH 12/19/20 ISP\data	Hunter\Da 24 6:27 A stor	ta\2024\A M	AM 27 28\ <sup>.</sup>	121724 A	M 27 28 C	S∖QuantRe	sults\A	M 27.batc	h.bin	
Analyte	THC-OH					Intern	al Standar	d	THC-OH	-D3	
THC-OH - 7 Level $33 \times 10^{-1}$ y = 0.1 R^2 = 0 2.2 Type:L $32 \times 1.8^{-1}$ $1.8^{-1}$ $1.6^{-1}$ $1.4^{-1}$ $1.2^{-1}$ $1.4^{-1}$ $0.8^{-1}$ $0.8^{-1}$ $0.4^{-1}$ $0.2^{-1}$ $0^{-1}$ $-0.2^{-1}$	ls, 6 Levels L 002315 * x = 0.99972461 _inear, Origin	Jsed, 7 P + 7.3180 h:Ignore, 20	oints, 6 083E-00 Weight	Points U 4 :1/x 40	sed, 2 Q	Cs 60	70	80 R	90 Selative C		ation

Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1 MJ	1	×	1.0	0.7	73.2
Cal 2 MJ	2	~	3.0	2.9	98.0
Cal 3 MJ	3	~	5.0	5.2	103.6
Cal 4 MJ	4	5	10.0	9.9	98.8
Cal 5 MJ	5	~	25.0	25.2	100.8
Cal 6 MJ	6	~	50.0	49.0	97.9
Cal 7 MJ	7	~	100.0	100.8	100.8



Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
<b>Injection Volume</b>
Acq. Date-Time
Sample Info.

Falco (069901) Cal AM 27 Agilent Method.m P1-A1 10 12/17/2024 2:17:12 PM Data File Sample Operator Comment Cal 1 MJ.d Cal 1 MJ Celena Shrum 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.





Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
Injection Volume
Acq. Date-Time
Sample Info.

Falco (069901) Cal AM 27 Agilent Method.m P1-B1 10 12/17/2024 2:30:26 PM Data File Sample Operator Comment Cal 2 MJ.d Cal 2 MJ Celena Shrum 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.





Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
Injection Volume
Acq. Date-Time
Sample Info.

Falco (069901) Cal AM 27 Agilent Method.m P1-C1 10 12/17/2024 2:43:32 PM Data File Sample Operator Comment Cal 3 MJ.d Cal 3 MJ Celena Shrum 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.





 Batch results
 D:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.bin

 Calibration Last Update
 12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
<b>Injection Volume</b>
Acq. Date-Time
Sample Info.

Falco (069901) Cal AM 27 Agilent Method.m P1-D1 10 12/17/2024 2:56:38 PM Data File Sample Operator Comment Cal 4 MJ.d Cal 4 MJ Celena Shrum 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.





Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
Injection Volume
Acq. Date-Time
Sample Info.

Falco (069901) Cal AM 27 Agilent Method.m P1-E1 10 12/17/2024 3:09:45 PM Data File Sample Operator Comment Cal 5 MJ.d Cal 5 MJ Celena Shrum 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.





Batch resultsD:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.binCalibration Last Update12/19/2024 6:27:15 AM

Instrument
Туре
Acq. Method
Sample Position
<b>Injection Volume</b>
Acq. Date-Time
Sample Info.

Falco (069901) Cal AM 27 Agilent Method.m P1-F1 10 12/17/2024 3:22:51 PM Data File Sample Operator Comment Cal 6 MJ.d Cal 6 MJ Celena Shrum 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.





 Batch results
 D:\MassHunter\Data\2024\AM 27 28\121724 AM 27 28 CS\QuantResults\AM 27.batch.bin

 Calibration Last Update
 12/19/2024 6:27:15 AM

Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info. Falco (069901) Cal AM 27 Agilent Method.m P1-G1 10 12/17/2024 3:35:56 PM Data File Sample Operator Comment Cal 7 MJ.d Cal 7 MJ Celena Shrum 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.

