C:\inetpub\wwwroot\ILIMS\reports\MSSQL\WORKLIST.RPT

WORKIISL: 3644			
LAB CASE	ITEM	TASK_ID	DESCRIPTION
P2019-2308	1	162121	AM 27 Blood THC Quant by LC-QQQ
P2019-2330	1	162122	AM 27 Blood THC Quant by LC-QQQ
P2019-2335	1	162123	AM 27 Blood THC Quant by LC-QQQ
P2019-2339	1	162124	AM 27 Blood THC Quant by LC-QQQ
P2019-2340	1	162125	AM 27 Blood THC Quant by LC-QQQ
P2019-2348	1	162126	AM 27 Blood THC Quant by LC-QQQ
P2019-2397	1	162127	AM 27 Blood THC Quant by LC-QQQ
P2019-2398	1	162128	AM 27 Blood THC Quant by LC-QQQ
P2019-2399	2	162129	AM 27 Blood THC Quant by LC-QQQ
P2019-2409	1	162130	AM 27 Blood THC Quant by LC-QQQ
P2019-2491	1	162131	AM 27 Blood THC Quant by LC-QQQ

Worklist: 3644

REVIEWED



TS

8/30/2019

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

Extraction Date: 09/03/19 Plate lot#: 0539904 Analyst: <u>Tamara Salazar</u> Plate Expiration: 09/10/19

Mobile phase A:0.1% Formic Acid in LCMS Water
LCMS MethanolMTBELCMS MethanolBlank Blood Lot:Hemostat 445283-2LCMS-QQQ ID:069901

Mobile phase B: 0.1% Formic acid in Acetonitrile Hexane Column: UCT Selectra DA 100 x 2.1mm 3um

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Pre-Analytic:

- \boxtimes 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.
- \boxtimes 3. Create worklist:

Analytic:

- ☑ 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette 1000μL blood/urine (calibrated pipette) Pipette ID: 3 in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- × 4. Pipette 500μL 0.1% formic acid in water in wells of analytical plate for blood samples.
- \boxtimes 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
- \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
- 2 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.

Worklist path: <u>D:\MassHunter\Data\2019\AM 27\090319 MDQ THCQ TS reinjects</u> Batch Name THCQ wklst 3644

- \boxtimes 2. Make any necessary integration changes, Curve weighting of Linear 1/x with r² 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. Case sample response for THC and OH-THC 3ng/mL (quantitative), Carboxy-THC: 10ng/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.
- \boxtimes 5. Did all QCs pass for each analyte? Y / N
- \boxtimes 6 Enter QCs into control charting.
- ☑ 7 Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: Curves limited: THC-COOH 5-100

			Acquisition Time (min)	
sults			4.2 4.4 Acqui	
t. Res	644.batch.bin		- 2 - 2 - 2	
Quan	esults\THCQ wklst 3	THC_Negative.d THC_Negative	3-33-33-33-	
AM #27 Cannabinoids Quant. Results	D:\MassHunter\Data\2019\AM 28\090319 MDQ THCQ TS reinjects\QuantResults\THCQ wklst 3644.batch.bin 9/9/2019 8:47:30 AM		2.4 2.6 2.8 -	
nider	090319 МDQ ТНСQ	Data File Sample Comment	- 2 - 2 - 2 - 2 - 2	
Canr	r\Data\2019\AM 28\ :30 AM	ε	-1.	
#27	D:\MassHunte 9/9/2019 8:47	Falco Sample AM 27 THC quant.m P3-H5 10 9/5/2019 5:14:42 PM	.d (THC_Negative)	
AM	ts Last Update	d ition Jume ime	- TIC MRM (** -> **) THC_Negative.d (THC_Negative.) - County 4 	
	Batch results Calibration Last Update	Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info. Sample Chromatogram	+ Hard States and Stat	

THC_Negative

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			Acquisition Time (min)
esulta			4 4.2 4.4 Final Conc. 4.6634 ng/ml 10.4622 ng/ml 5.0802 ng/ml
AM #27 Cannabinoids Quant. Results D:/MasHunter/Data/2019/AM 28/090319 MDQ THCQ TS reinjects/QuantResults/THCQ wklst 3644.batch.bin 0/2/019 8:47:30 AM	p.l.		3.4 3.6 3.8 ISTD Resp. 4845406 247867 816583
s Qua	THC_QC Control.d THC_QC Control		2.8 3 3.2 5/N 157.63 83.14
noids THCQ TS reinjects/Q	ji ji		2.2 2.4 2.6 2.4 2.6 2.1 2.6 2.1 2.6 2.9 2.0 2.9.2 2.9.2 2.9.2 2.9.0 1.0.1
#27 Cannabinoids Quant. R D:/MassHunter/Data/2019/AM 28/090319 MDQ THCQ TS reinjects/QuantResults/THCQ wklst 3644.batch.bin 09/2019 8:47:30 AM	Data File Sample Comment		- 1.8 229.38 8 8 8 8
T Cat SHunter/Data/2019/A	quant.m 59:31 PM	Control)	1.2 1.4 1.6 Resp. 180345 56138 74644
A # 2	Falc Sam AM 2 P3-A 10 9/5/	2C Control.d (THC_Q(0.6 0.8 1 3.300 1.438 1.438
A Batch results Calibration Last Undate	Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info. Sample Chromatogram	+ TIC MRM (** -> **) THC_QC Control.d (THC_QC Control) 00 4- 3- 2- 1-	Name ТНС-ОН ТНС-ОН ТНС-ОН

THC_QC Control

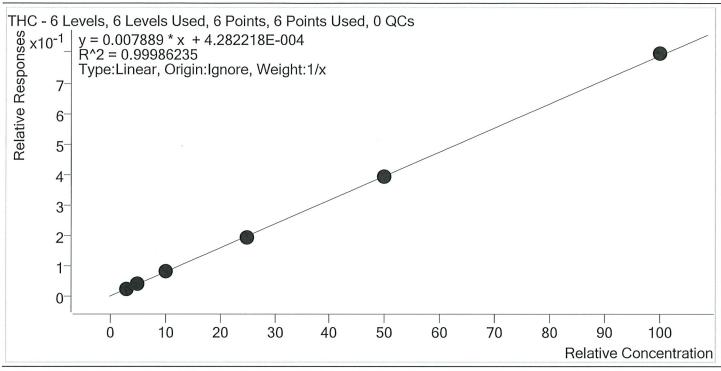
Page 1 of 1

Generated at 8:48 AM on 9/9/2019



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2019\AM 28\090319 MI 3644.batch.bin	DQ THCQ TS reinjects\Quan	tResults\THCQ wklst
Last Cal. Update	9/9/2019 8:47 AM		
Analyst Name	ISP\datastor		
Analyte	THC	Internal Standard	THC-D3

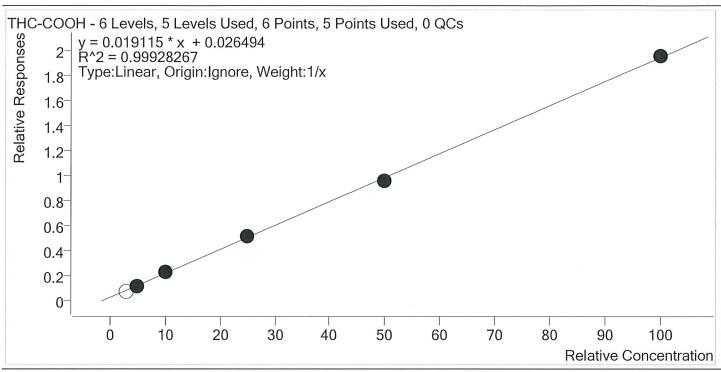


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
THC_Cal 1-3ng	1	√	3.0	3.1	102.5
THC_Cal 2- 5ng	2	√	5.0	4.9	98.7
THC_Cal 3 -10ng	3	1	10.0	10.0	100.3
THC_Cal 4-25ng	4	1	25.0	24.7	98.9
THC_Cal 5-50ng	5	1	50.0	49.4	98.8
THC_Cal 6-100ng	6	√	100.0	100.8	100.8



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2019\AM 28\090319 MDQ 3644.batch.bin	THCQ TS reinjects\Quant	tResults\THCQ wklst
Last Cal. Update	9/9/2019 8:47 AM		
Analyst Name	ISP\datastor		
Analyte	THC-COOH	Internal Standard	THC-COOH-D9

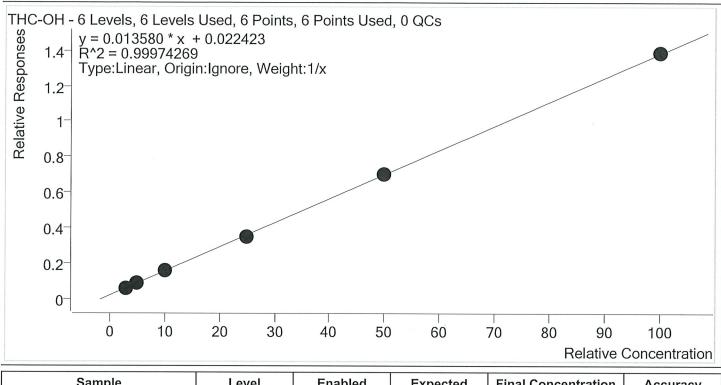


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
THC_Cal 1-3ng	1	×	3.0	2.6	87.7
THC_Cal 2- 5ng	2	1	5.0	4.7	94.5
THC_Cal 3 -10ng	3	1	10.0	10.6	106.2
THC_Cal 4-25ng	4	1	25.0	25.3	101.1
THC_Cal 5-50ng	5	1	50.0	48.8	97.6
THC_Cal 6-100ng	6	√	100.0	100.6	100.6



AM #27 Cannabinoids Quant. Calibration Curve Report

Batch results	D:\MassHunter\Data\2019\AM 28\090319 MDQ THCQ TS reinjects\Qua 3644.batch.bin	antResults\THCQ wklst
Last Cal. Update	9/9/2019 8:47 AM	
Analyst Name	ISP\datastor	
Analyte	THC-OH Internal Standard	THC-OH-D3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
THC_Cal 1-3ng	1	√	3.0	3.0	101.4
THC_Cal 2- 5ng	2	1	5.0	5.0	100.2
THC_Cal 3 -10ng	3	√	10.0	10.1	100.7
THC_Cal 4-25ng	4	1	25.0	24.1	96.5
THC_Cal 5-50ng	5	1	50.0	50.5	101.0
THC_Cal 6-100ng	6	✓	100.0	100.3	100.3

D:\MassHunter\Data\2019\AM 28\090319 MDQ THCQ TS reinjects\QuantResults\THCQ wklst 3644.batch.bin 9/9/2019 8:47:30 AM	Falco Ealo Eata File Data File THC_Cal 1-3ng.d Cal AM 27 THC quant.m AM 27 THC quant.m P3-G6 THC_Cal 1-3ng 9/5/2019 4:14:04 PM Comment 0	Cal 1-3ng)	Resp. S/N Ratio S/N ISTD Resp. Final Conc. 109415 ∞ 29.4 71.33 4430784 3.0758 ng/ml ∞ 47.9 164.64 252817 2.6315 ng/ml 54568 ∞ 10.5 ∞ 856432 3.0408 ng/ml
Batch results Calibration Last Update	InstrumentFalcoTypeCalAcq. MethodAM 27Sample PositionP3-G6Injection Volume10Acq. Date-Time9/5/20Sample Info.10	Sample Chromatogram + TIC MRM (** -> **) THC_Cal 1-3ng.d (THC_Cal 1-3ng) 6000 x105 	Name RT THC-COOH 3.285 THC-COOH 1.459 THC-OH 1.438

THC_Cal 1-3ng

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Instrument Type Acq. Method Sample Position Injection Volume Sample Info.Falco Cal AM 27 THC quant.m P3-F6 9/5/2019 4:21:38 PM 9/5/2019 4:21:28 PM 9/2019 4:21:28 PM 9/2019 4:238 PM 9/2019 4:21:28 PM 9/2019 4:238 PM 9/2019 4:21:28 PM 9/2019 4:21:28 PM 9/2019 4:21:28 PM 9/2019 4:21:28 PM 9/2019 1:438 PM 9/2019 1:438 PM 9/2019 PM 9/2019 PM 9/2019 PM 9/2019 PM 9/2019 PM 9/2019 PM 9/2019 PM 9/2019 PM 9/2019 PM 9/20		D:\/MassHunter\Data\2019\AM 28\090319 MDQ THCQ TS reinjects\QuantResults\THCQ wklst 3644.batch.bin 9/9/2019 8:47:30 AM	3644.batch.bin
RM (**-> **) THC_Cal 2- 5ng.d (THC_Cal 2- 5ng)	Data File Sample quant.m Comment 21:38 PM	THC_Cal 2- 5ng.d THC_Cal 2- 5ng	
RT 3.285 00H 1.459 1.438	14 1.6 1.8 2 2.2	2.4 2.6 2.8 3 3.2 3.4	3.6 3.8 4 4.2 4.4 4.6 4.8 5
	Resp. S/N 184443 2132.61 31236 ∞ 83035 150.29	Ratio S/N 29.2 391.60 53.2 240.45 10.5 230.25	ISTD Resp. Final Conc. 4687871 4.9328 ng/ml 267420 4.7246 ng/ml 918008 5.0095 ng/ml

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THC_Cal 2- 5ng

THC_Cal 3 -10ng

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B

ults		4.2	Acquisition Time (I Conc. n ng/ml ng/ml
AM #27 Cannabinoids Quant. Results D:/MassHunter/Data/2019/AM 28/090319 MDQ THCQ TS reinjects/QuantResults/THCQ wklst 3644.batch.bin pdate 9/9/2019 8:47:30 AM	THC_Cal 4-25ng.d THC_Cal 4-25ng	3.2 3.4 3.6 3.8 4 4	ISTD Resp. 4682489 24. 261139 25. 896201 24.
#27 Cannabinoids Quant. R D:\MassHunter\Data\2019\AM 28\090319 MDQ THCQ TS reinjects\QuantResults\THCQ wklst 3644.batch.bin 9/9/2019 8:47:30 AM		2:2	Ratio S/N 28.0 996.58 55.3 896.06 12.8 ∞
Cannabi	Data File Sample Comment	- ¹ - ¹ - ¹ - ¹ - ¹ - ¹	Resp. S/N 915401 ∞ 133098 ∞ 313806 ∞
AM #27 D:\MassHunte	Falco Cal AM 27 THC quant.m P3-D6 10 9/5/2019 4:36:48 PM togram	+ TIC MRM (** -> **) THC_Cal 4-25ng.d (THC_Cal 4-25ng) COUNT 105 5 3 3 1 0 0 0 0 0 0 0 0 0 0 0 0 0	RT 3.270 1.459 1.423
Batch results Calibration Last Update	Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info. Sample Chromatogram	+ TIC MRM + TIC MRM (** -> **) 	Name ТНС ТНС-СООН ТНС-ОН

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Instrument Falo Data Flie THC. Call 5-50ng d Sample THC. Call 5-50ng d M. 27 THC quartum Type Acr, Method All M. 27 THC quartum Data Flie THC. Call 5-50ng d M. 27 THC quartum THC. Call 5-50ng d M. 27 THC quartum Sample Minitian Discussion 0 Discussion 0 Discussion 0 Discussion 0 ThC. Call 5-50ng d M. 27 THC quartum Sample Minitian Discussion 0 Discussion 0 ThC. Call 5-50ng d M. 42 Discussion 0 Discussion 0 Sample Minitian Comment Comment Comment Comment Comment Sample Minitian Discussion 0 ThC. Call 5-50ng ThC. Call 5-50ng Minitian Minitian Manual Constraint Comment Comment Comment Comment Comment Minitian Minitian Manual Constraint Minitian Minitian Minitian Minitian Minitian Minitian Manual Minitian Minitian Minitian Minitian Minitian Minitian Minitian Minitian Minitian Minitian	Batch results Calibration Last Update	D:\MassHunter [\] 9/9/2019 8:47::	D:\MassHunter\Data\2019\AM 28\090319 MDQ THCQ TS reinjects\QuantResults\THCQ wklst 3644.batch.bin 9/9/2019 8:47:30 AM	090319 МDQ ТНСС	2 TS reinjects∖Quar	ntResults\THCQ wk	lst 3644.batch.bin		
$ \begin{array}{c} \mbox{RN} (" > ") THC_{Cal 5.50ng} d (THC_{Cal 5.50ng} d ($	Instrument Type Acq. Method Sample Position Injection Volume Acq. Date-Time Sample Info.	Falco Cal AM 27 THC quant.m P3-C6 10 9/5/2019 4:44:22 PI	_ 5	Data File Sample Comment		THC_Cal 5-50ng. THC_Cal 5-50ng	σ		
e Ratio S/N Ratio S/N ISTD Resp. Final Conc. 3.285 1977139 4189.20 27.5 2586.84 5065845 49.4159 ng/ml CON 1.474 2272680 ∞ 58.8 ∞ 284147 48.8169 ng/ml OH 1.438 699141 ∞ 13.0 264.66 987438 50.4876 ng/ml	Sample Chromatogram + TIC MRM (** -> **) THC_Cal COuntis 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	5-50ng.d (THC_Cal 5-50ng 0.6 0.8 1 1.2	-1.6		2°-	3-32-33-		- 4	- 4 - 4.8 - 5
	Name THC THC-COOH THC-OH THC-OH	RT 3.285 1.474 1.438	Resp. 1977139 272680 699141	5/N 4189.20 8	Ratio 27.5 58.8 13.0	S/N 2586.84 ∞ 264.66	ISTD Resp. 5065845 284147 987438	-	Acquisition Time (min)

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THC_Cal 5-50ng

Instrument Falco Type Cal Acq. Method AM 27 THC quant.m Sample Position P3-B6 Injection Volume 93-5/2019 4:51:57 PM Acq. Date-Time 9/5/2019 4:51:57 PM Sample Info. 9/5/2019 4:51:57 PM FIC Mathematogram 10 Act Date-Time 9/5/2019 4:51:57 PM	E Z	Data File Sample	Q TS reinjects\Qua	ntResults\THCQ wk	D:\MassHunter\Data\2019\AM 28\090319 MDQ THCQ TS reinjects\QuantResults\THCQ wklst 3644.batch.bin 9/9/2019 8:47:30 AM		
IC MRM (** -> **) THC_Cal 6-100ng.d (THC_Cal 6-10 x10 ⁵		Соммент		THC_Cal 6-100ng.d THC_Cal 6-100ng	ם ס		
- 1 2 3 4 2 4	(Buo						
0.2 0.4 0.6 0.8 1 1.2	1.4	1.8 2 2.2	2.4 2.6 2.8	3.2	3.4 3.6 3.8	4 4.2 4.4	4.6 4.8 5 Acquisition Time (min)
Name RT THC 3.285 THC-COOH 1.474 THC-OH 1.438	Resp. 3427144 433712 1067928	S/N 12704.41 323.95 1006.39	Ratio 27.9 59.8 13.3	S/N 5096.83 3299.46 3545.65	ISTD Resp. 4306176 222560 771658	Final Conc. 100.8242 ng/ml 100.5606 ng/ml 100.2604 ng/ml	

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THC_Cal 6-100ng