

B

Worklist: 3959

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2019-5672	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2019-5689	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2019-5707	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2019-5719	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2019-5758	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2019-5775	3	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0111	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0212	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0264	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-0290	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0104	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0105	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0159	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0161	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0171	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0172	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0173	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0174	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0191	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0195	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0228	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

Worklist: 3959

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<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
P2020-0248	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0249	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-0250	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

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**Idaho State Police
Forensic Services
Toxicology Discipline**

Request for Departure from an Analytical Method

Date of Request

01/13/2020

Forensic Scientist

Celena Shrum

Analytical Methods

Toxicology AM #25, Toxicology AM #26/27, and AM #28

Deviation

The expiration dates listed for the current batch of PinPoint ToxBox extraction plates are as follows:

- *MDS (batch IDP-107-190725)- Expiration is 1/25/2020
- *THC (batch IDP-108-190716)- Expiration is 1/16/2020
- *MDQ P1 (batch IDP-111-190729)- Expiration is 1/29/2020
- *MDQ P2 (batch IDP-112-190730)- Expiration is 1/30/2020

I am issuing a deviation to allow for the use of the remaining plates of these batches. The controls will be used to evaluate if the plate is working as intended. In addition, at least one external control must be included for each run.

Celena Shrum

Date: 01/13/2020

Celena Shrum

Toxicology Discipline Lead

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

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Extraction Date: 01/28/2020
Plate Item #: IDP-107 Plate Lot#: 190725

Analyst: Tamara Salazar
Plate Expiration: 01/25/2020

Mobile phase A: 10mM Amm Form
0.5M Ammonium Hydroxide
Blank Blood Lot: Hemostat 445283-3
LCMS-QQQ ID: 069901

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. Pipette **250µL blood (calibrated pipette) Pipette ID: 42** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **250µL 0.5M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **300µL of blood+base** 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 **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.
SPE Dry ID: 067103
- 16. Reconstitute in **100µL 100% 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.
Batch Name: MDS TS
Worklist path: *D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wklst 3959*
- 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 5 or greater, or 2-5 for discretionary range.
- 4. Did all QCs pass for each analyte? Y / N _____
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: *Hydromorphone will not be evaluated for P2020-0171-1 and P2020-0173-1 as the internal standard peak shifted outside the acceptable range.*



Idaho State Police Forensic Services

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**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: 031319)
100 ul of 1mg/mL stock was added to each drug to 9700 ul of LC MeOH.
**Made for the AM 28 urine validation*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	184782	
O-desmethyl Tramadol	Cerilliant	FN01241702	04/30/2022
Amphetamine	Cerilliant	FE04061701	06/30/2022
Alprazolam	Cerilliant	FE07061604	07/31/2021
Prepared:	03/13/19		
Prepared By:	Tamara Salazar		
Expires:	03/13/2020		

Blood External Control Solution (Lot: WS010820)
100 ul of methanol external control solution was added to 9900 ul of blood.
Approximately 50ng/mL of each compound.

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Hemostat	445283-3
Methanol External Control Solution		031319
Prepared:	01/08/2020	
Prepared by:	Tamara Salazar	
Expires:	03/13/2020	

AM #25 Multi-Drug Screen Results

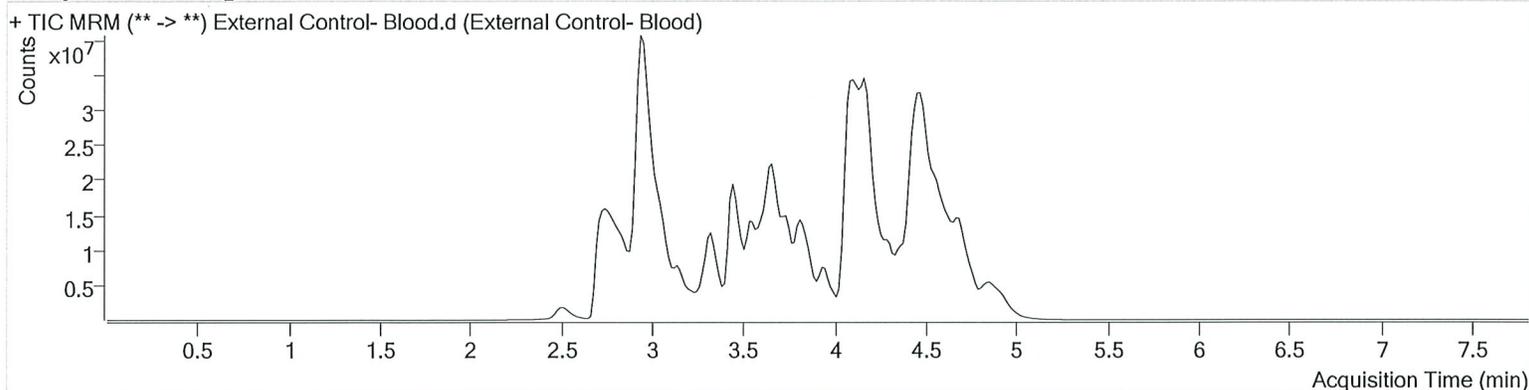
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Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wklst 3959\QuantResults\MDS TS.batch.bin
Calibration Last Update 1/29/2020 8:02:16 AM

Instrument	Falco	Data File	External Control- Blood.d
Type	Sample	Sample	External Control- Blood
Acq. Method	am 25 all.m	Operator	Tamara Salazar
Sample Position	P1-E5	Comment	
Injection Volume	5		
Acq. Date-Time	1/28/2020 5:37:39 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.579	19217706	∞	3365.67	4957656	99.3995
Amphetamine	2.949	26337362	143487.89	9171.49	7009959	87.8724
O-desmethyl-tramadol	2.959	70496873	485169.16	∞	49556193	73.7678

AM #25 Multi-Drug Screen Results

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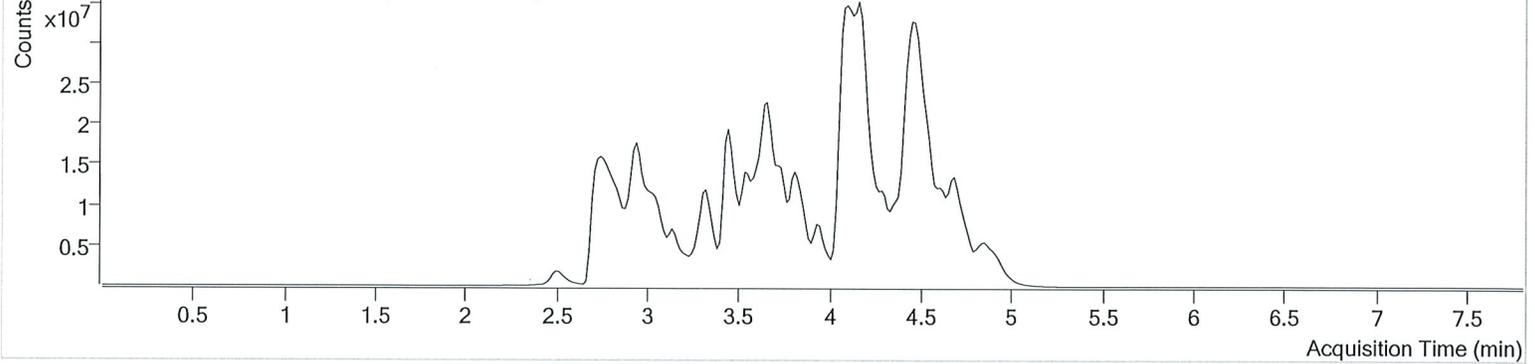


Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\MDS TS.batch.bin
Calibration Last Update 1/29/2020 8:02:16 AM

Instrument	Falco	Data File	Negative Blood.d
Type	Sample	Sample	Negative Blood
Acq. Method	am 25 all.m	Operator	Tamara Salazar
Sample Position	P1-D5	Comment	
Injection Volume	5		
Acq. Date-Time	1/28/2020 5:29:20 PM		
Sample Info.			

Sample Chromatogram

+ TIC MRM (** -> **) Negative Blood.d (Negative Blood)



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Cocaine	3.641	2308439	1308.24	74.03	34581130	3.2755

15 TS

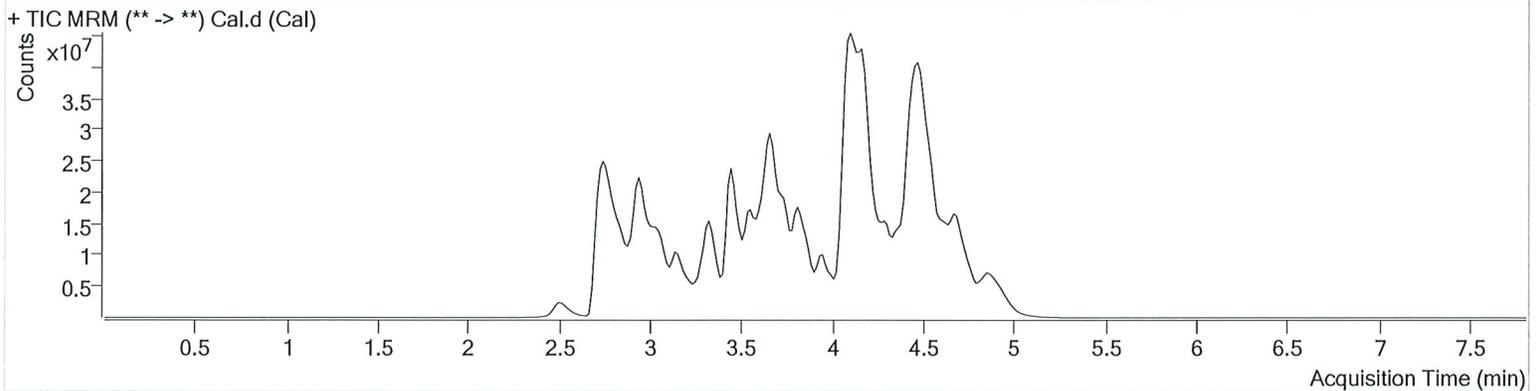
AM #25 Multi-Drug Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\MDS TS.batch.bin
Calibration Last Update 1/30/2020 10:47:55 AM

Instrument	Falco	Data File	Cal.d
Type	Cal	Sample	Cal
Acq. Method	am 25 all.m	Operator	Tamara Salazar
Sample Position	P1-B1	Comment	
Injection Volume	5		
Acq. Date-Time	1/28/2020 5:20:51 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.119	61922	113.32	14848.67	1648344	10.0000
7-aminoclonazepam	3.551	1388543	1409.34	963.47	5666835	10.0000
7-aminoflunitrazepam	3.750	2680995	∞	293.40	19254867	10.0000
Acetyl Fentanyl	4.070	394370	∞	24024.65	32382908	10.0000
Acetyl Norfentanyl	2.930	381610	441.55	266.36	17246016	10.0000
a-hydroxyalprazolam	4.468	158186	32.31	33.15	921933	10.0000
alpha-hydroxymidazolam	4.559	1459280	416.84	820.44	7077681	10.0000
alpha-PVP	3.635	5356939	2486.31	∞	24639147	10.0000
Alprazolam	4.579	2005873	∞	∞	5143542	10.0000
Amitriptyline	4.537	5043901	∞	∞	12150387	10.0000
Amphetamine	2.949	2883875	841.04	281.31	6744849	10.0000
Benzoylcegonine	3.336	1363749	5242.89	27.48	6079839	10.0000
Buprenorphine	4.967	1075544	371.21	8863.80	4307425	10.0000
Bupropion	3.879	5704713	1246.12	∞	17987353	10.0000
Carbamazepine	4.187	8610995	2478.19	40300.11	53863221	10.0000
Carisoprodol	4.170	1234384	2904.58	∞	6039193	10.0000
Chlordiazepoxide	4.687	593444	∞	∞	15740396	10.0000
Chlorpheniramine	4.013	28661	35.05	12900.37	64856993	10.0000
Citalopram	4.130	3716476	2559.27	8276.44	16828818	10.0000
Clonazepam	4.408	938822	392.85	223587.02	1857455	10.0000
Cocaine	3.641	6764234	∞	457.55	33190342	10.0000
Codeine	3.076	484587	17.15	1212.68	2464053	10.0000
Cyclobenzaprine	4.446	3658293	92601.06	109.76	12698020	10.0000
Desipramine	4.447	5530262	∞	∞	32265484	10.0000
Dextromethorphan	4.169	2738270	741.98	∞	12657104	10.0000
Dextrorphan	3.447	2867504	∞	9561.98	19092753	10.0000
Diazepam	4.810	1004701	224.62	322.63	5011800	10.0000
Dihydrocodeine	2.939	1251834	470.00	178.10	6917754	10.0000
Diphenhydramine	4.078	8598026	11739.45	1027.57	64856993	10.0000
Doxepin	4.275	2864601	581.31	8.95	19186731	10.0000
Doxylamine	3.675	12787207	∞	92092.92	55391504	10.0000
EDDP	4.106	6023642	2037.42	∞	41977171	10.0000
Estazolam	4.488	3582258	491.89	67.05	11036208	10.0000
Etizolam	4.604	310428	111642.29	194400.76	11036208	10.0000

Cal

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Fentanyl	4.298	396329	207.70	∞	26221154	10.0000
Flunitrazepam	4.531	1185974	∞	417.14	274262	10.0000
Fluoxetine	4.364	4560678	∞	77.74	20483462	10.0000
Flurazepam	4.343	3506997	1418072.33	346645.49	274262	10.0000
Hydrocodone	3.244	1593115	∞	∞	10453740	10.0000
Hydromorphone	2.790	829172	∞	59.99	3106280	10.0000
Imipramine	4.490	7048681	727.64	∞	26315749	10.0000
Ketamine	3.772	4816863	2783.04	100.55	22315017	10.0000
Lamotrigine	3.617	369935	202.28	184.59	16719820	10.0000
Levamisole	3.160	4697006	16161.48	∞	33190342	10.0000
Lorazepam	4.392	491244	2023.08	208.50	1857455	10.0000
Maprotiline	4.537	4730663	∞	∞	12150387	10.0000
MDA	3.084	2335453	421.43	∞	10734631	10.0000
MDEA	3.298	5600613	2038.31	1200.02	25935715	10.0000
MDMA	3.161	6120392	13107.74	∞	4275062	10.0000
Meperidine	3.678	3518517	886.61	238.50	16719820	10.0000
Meprobamate	3.605	518074	∞	53.63	2350694	10.0000
Methadone	4.425	7642343	3523.47	707.43	34237817	10.0000
Methamphetamine	3.055	2996391	254.56	∞	18339573	10.0000
Methocarbamol	3.525	762782	866.10	∞	16719820	10.0000
Methylphenidate	3.557	10736849	∞	∞	52948419	10.0000
Metoprolol	3.461	771797	579.49	1952.25	16719820	10.0000
Midazolam	4.743	658179	448.55	337.60	8972111	10.0000
Mirtazapine	4.293	4414656	∞	1416.06	16719820	10.0000
Mitragynine	4.372	415626	13328.66	∞	19186731	10.0000
Morphine	2.578	223807	∞	25.85	152833	10.0000
Norbuprenorphine	3.943	87949	252.50	45249.76	484434	10.0000
Nordiazepam	4.646	1219591	1015.45	9.58	4176275	10.0000
Norfentanyl	3.342	7679352	14811.00	∞	33965598	10.0000
Norhydrocodone	3.063	33345	99.97	35.28	1412593	10.0000
Normeperidine	3.635	2708512	∞	517.56	9482778	10.0000
Noroxycodone	2.985	1540047	∞	445.16	4835950	10.0000
Nortriptyline	4.493	2288965	∞	449.85	5472134	10.0000
O-desmethyl-tramadol	2.959	10128068	823376.36	360.26	52519649	10.0000
Olanzapine	4.178	981513	∞	46.49	445602	10.0000
Oxazepam	4.458	1681039	446.79	126.71	11400677	10.0000
Oxycodone	3.059	3148222	∞	∞	14210517	10.0000
Oxymorphone	2.514	2637761	∞	327.54	9712046	10.0000
Paroxetine	4.467	344720	81.00	19889.63	12194063	10.0000
Phenazepam	4.604	1526127	2247486.05	∞	7506899	10.0000
Phencyclidine	3.954	6311851	2652.53	478.82	28981829	10.0000
Phentermine	3.162	934036	∞	4.44 Low	17301041	10.0000
Phenytoin	4.078	65190	∞	∞	445602	10.0000
Promethazine	4.489	11178139	4493.43	850.83	42943500	10.0000
Pseudoephedrine	2.749	51025240	∞	122577.82	166945545	10.0000
Quetiapine	4.664	4634589	∞	∞	6528428	10.0000
Sertraline	4.655	2491956	4073.40	644.11	12194063	10.0000
Sufentanil	4.694	388382	31596.66	94.16	27201424	10.0000
Tapentadol	3.451	4981683	∞	∞	26526692	10.0000
Temazepam	4.626	3139461	∞	∞	17048006	10.0000
Tramadol	3.447	11558882	2886842.15	32.87	54711366	10.0000
Trazodone	4.878	7439293	∞	5409.27	34569772	10.0000
Venlafaxine	3.811	8966520	4175.23	∞	50287170	10.0000
Zaleplon	4.319	2984459	∞	655.21	6391989	10.0000
Zolpidem	4.441	10602469	2831.16	∞	54060279	10.0000
Zopiclone	4.404	379716	984405.41	∞	2189704	10.0000

AM# 26: THC and Metabolites Screen in Blood by LC-MS/MS

Extraction Date: 01/28/2020

Analyst: Tamara Salazar

Plate lot# IDP-108, 190716

Plate Expiration: 01/16/20

Mobile phase A: 10mM Ammonium Formate
0.1% Formic Acid in Water

MTBE

Mobile phase B: 0.1% Formic acid in MeOH
Hexane

Blank Blood Lot: 445283-3

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

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.
- 3. Create worklist:

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **1000 µL blood (calibrated pipette) Pipette ID: 42** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **500 µL 0.1% formic acid** for blood in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
- 6. Transfer **800 µL of blood+base** mixture to corresponding wells of SLE+ plate.
- 7. Apply positive pressure for approx. 4 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 **2.25 mL 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 **2.25 mL 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.
Worklist path: *D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wklst 3959*
Batch Name: *THCS TS*
- 2. Calculated sample concentration of 3 ng/mL or greater for THC and THC-OH, a calculated sample concentration of 10 ng/mL or greater for Carboxy-THC.
- 3. Retention time within +/- 2% or +/- .100 min whichever is greater of the average retention time of the calibrators.
- 4. Did all QCs pass for each analyte? Y / N
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: *Curves limited: THC-OH 3-100*

MTBE Lot used with this extraction: Arcos Organic A0408013

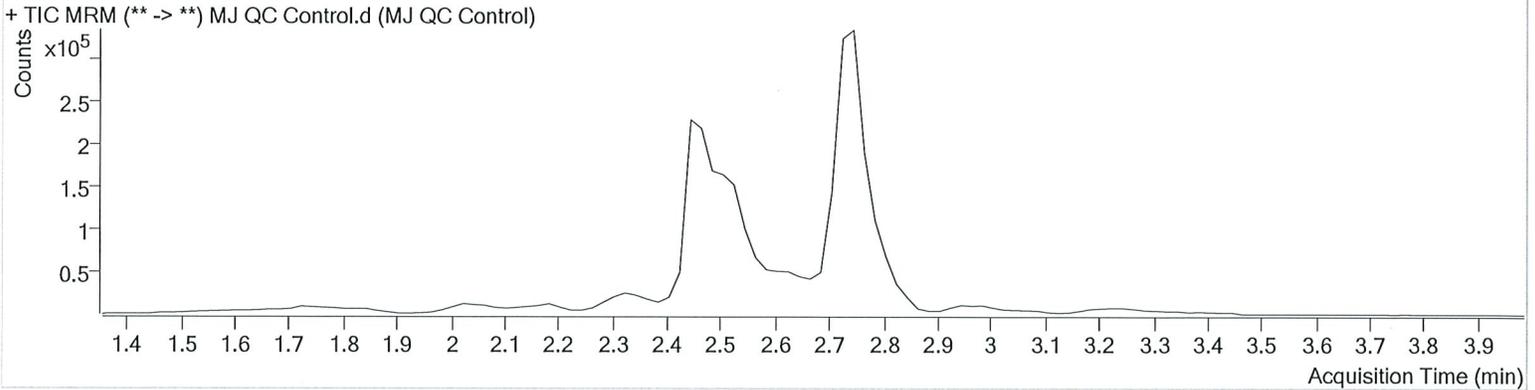
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ QC Control.d
Type	Sample	Sample	MJ QC Control
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-H1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:46:29 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	1119	36292	3.6401 ng/ml
THC-COOH	2.525	51701	206108	16.9343 ng/ml
THC-OH	2.471	64278	837378	4.4249 ng/ml

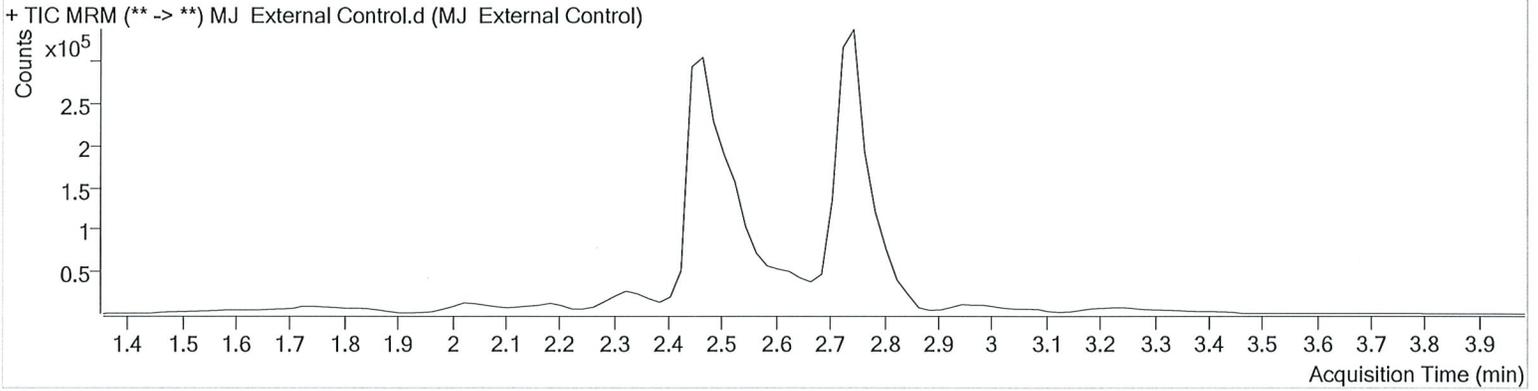
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wkst 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ External Control.d
Type	Sample	Sample	MJ External Control
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-C5	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 2:06:07 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	3269	43757	9.4020 ng/ml
THC-COOH	2.525	44931	248840	12.7657 ng/ml
THC-OH	2.471	143501	1049721	9.8489 ng/ml

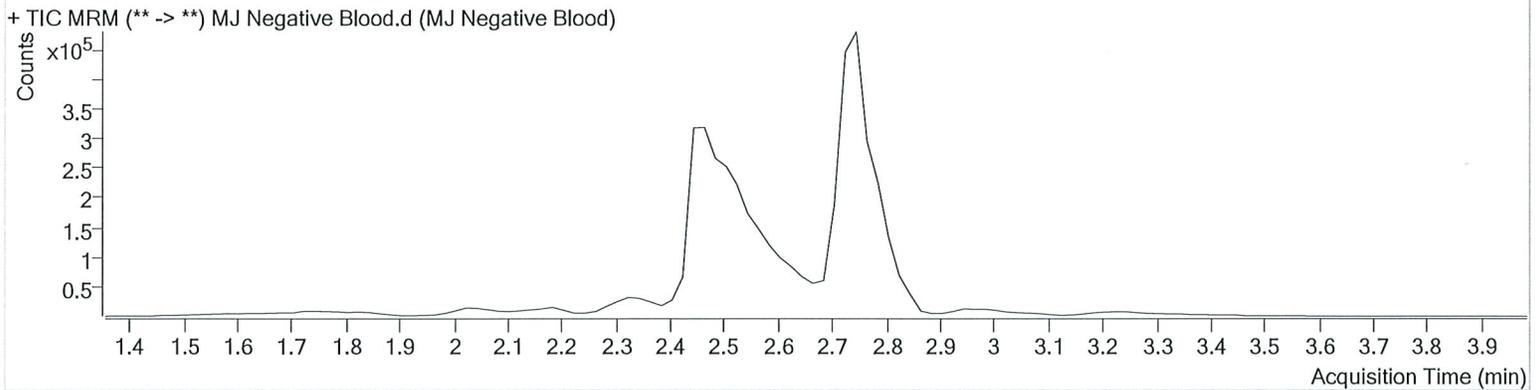
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wkst 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Negative Blood.d
Type	Sample	Sample	MJ Negative Blood
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-A2	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:59:34 PM		
Sample Info.			

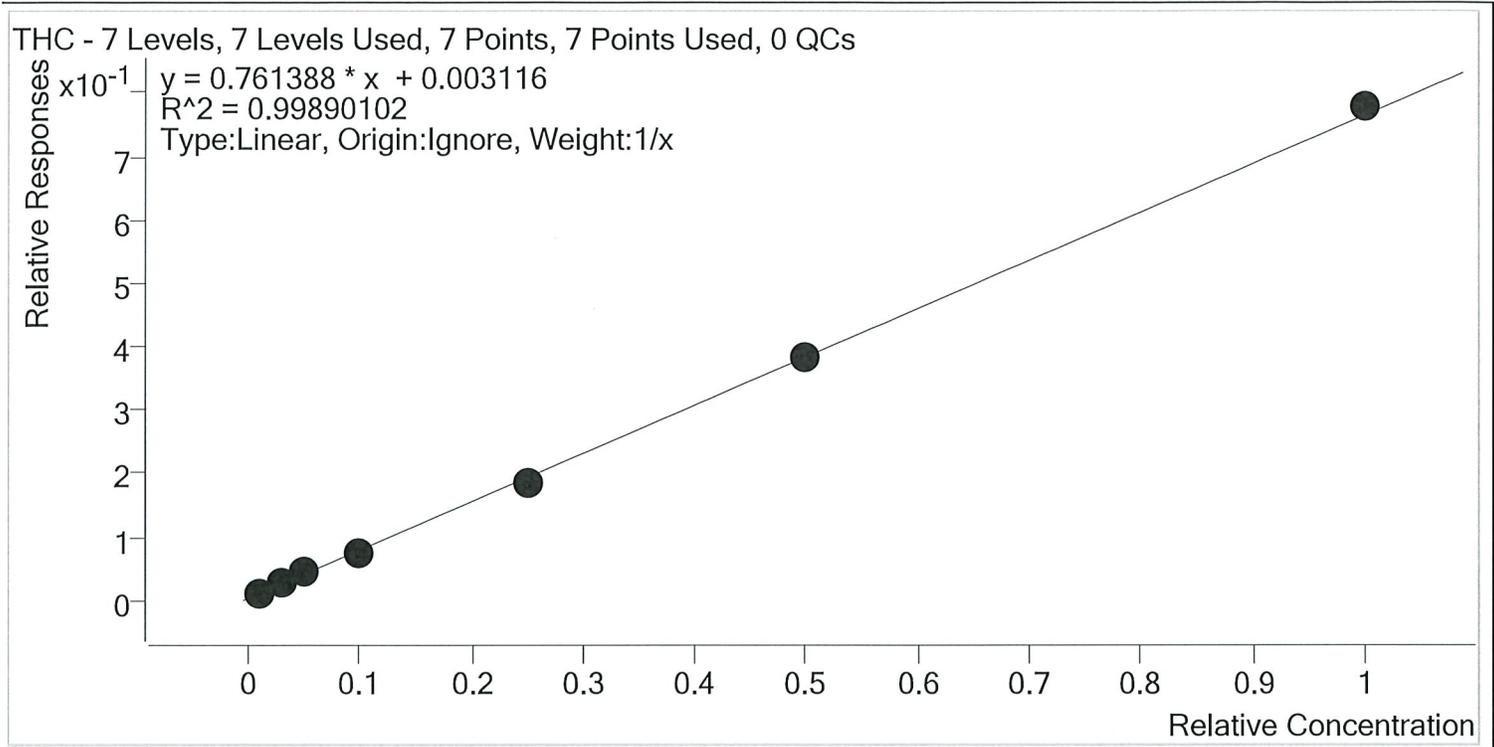
Sample Chromatogram





AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wklst 3959\QuantResults\THCS
 TS.batch.bin
Last Cal. Update 1/29/2020 7:24 AM
Analyst Name ISP\Datastor
Analyte THC **Internal Standard** THC-d3

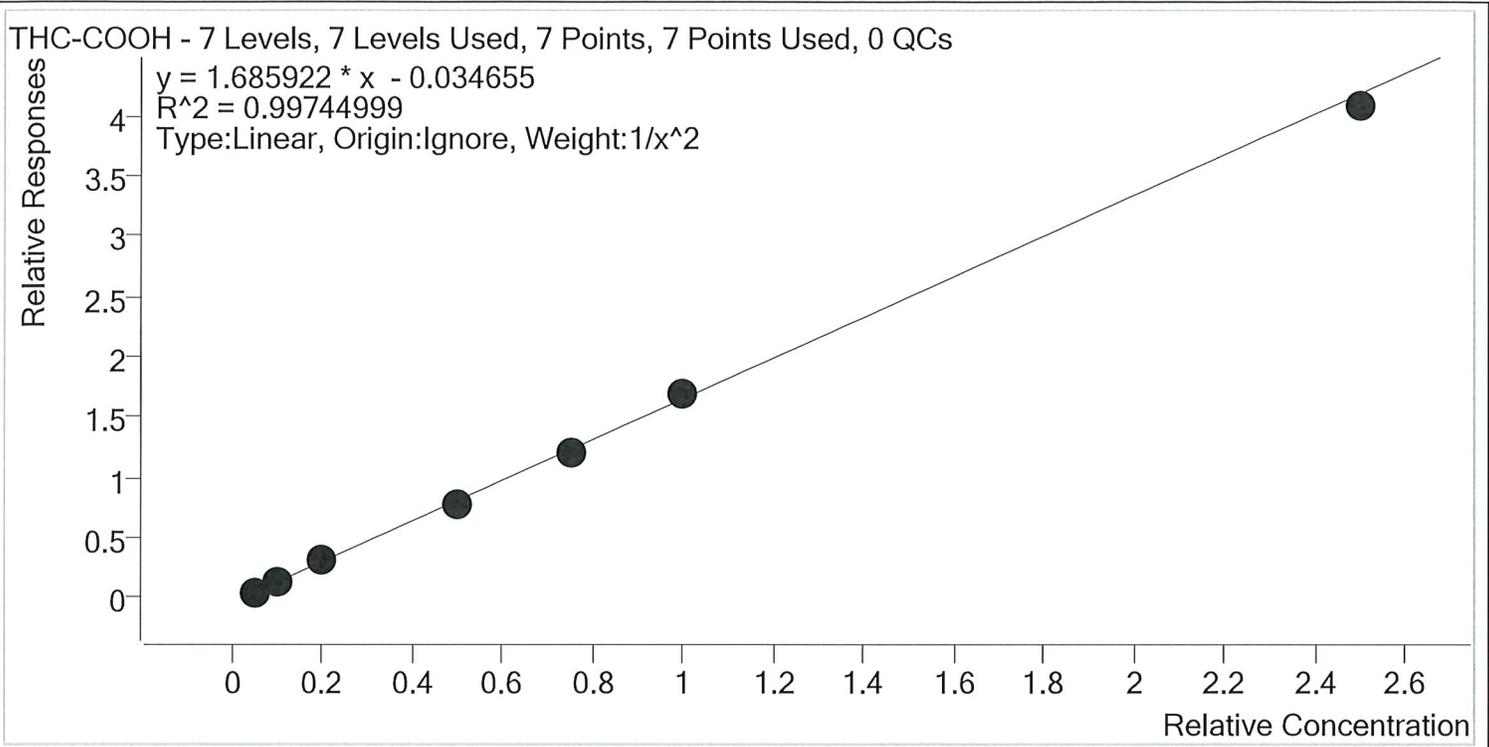


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	1.0	1.1	109.1
MJ Cal 2	2	✓	3.0	3.0	98.5
MJ Cal 3	3	✓	5.0	5.2	103.8
MJ Cal 4	4	✓	10.0	9.2	91.7
MJ Cal 5	5	✓	25.0	23.7	94.9
MJ Cal 6	6	✓	50.0	50.1	100.2
MJ Cal 7	7	✓	100.0	101.8	101.8



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wklst 3959\QuantResults\THCS
 TS.batch.bin
Last Cal. Update 1/29/2020 7:24 AM
Analyst Name ISP\Datastor
Analyte THC-COOH **Internal Standard** THC-COOH-d9

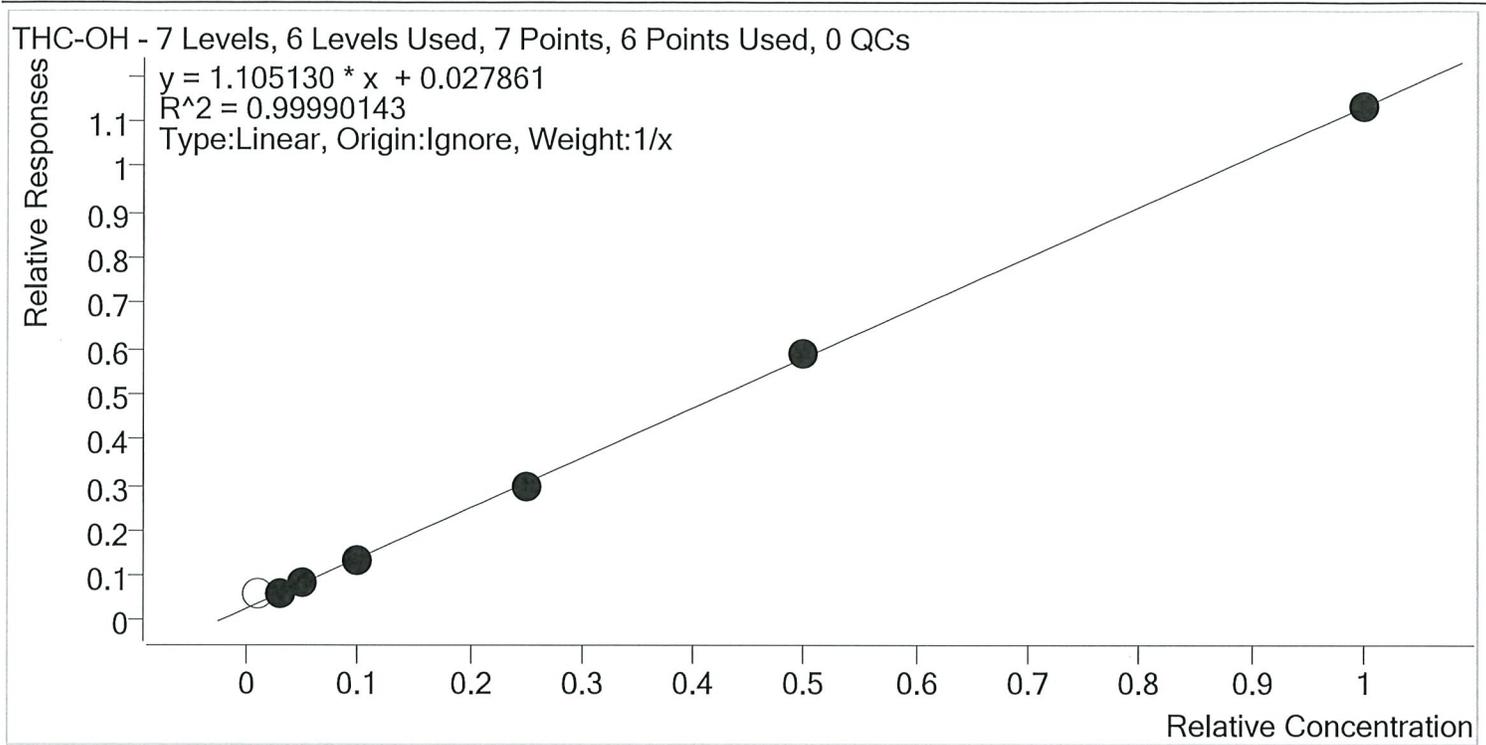


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	5.0	4.8	96.2
MJ Cal 2	2	✓	10.0	10.8	108.2
MJ Cal 3	3	✓	20.0	20.0	100.1
MJ Cal 4	4	✓	50.0	48.5	97.0
MJ Cal 5	5	✓	75.0	74.2	98.9
MJ Cal 6	6	✓	100.0	102.0	102.0
MJ Cal 7	7	✓	250.0	243.7	97.5



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wklst 3959\QuantResults\THCS
 TS.batch.bin
Last Cal. Update 1/29/2020 7:24 AM
Analyst Name ISP\Datator
Analyte THC-OH **Internal Standard** THC-OH-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	×	1.0	3.2	319.2
MJ Cal 2	2	✓	3.0	3.1	103.0
MJ Cal 3	3	✓	5.0	4.9	98.4
MJ Cal 4	4	✓	10.0	9.9	99.0
MJ Cal 5	5	✓	25.0	24.7	98.7
MJ Cal 6	6	✓	50.0	50.5	100.9
MJ Cal 7	7	✓	100.0	100.0	100.0

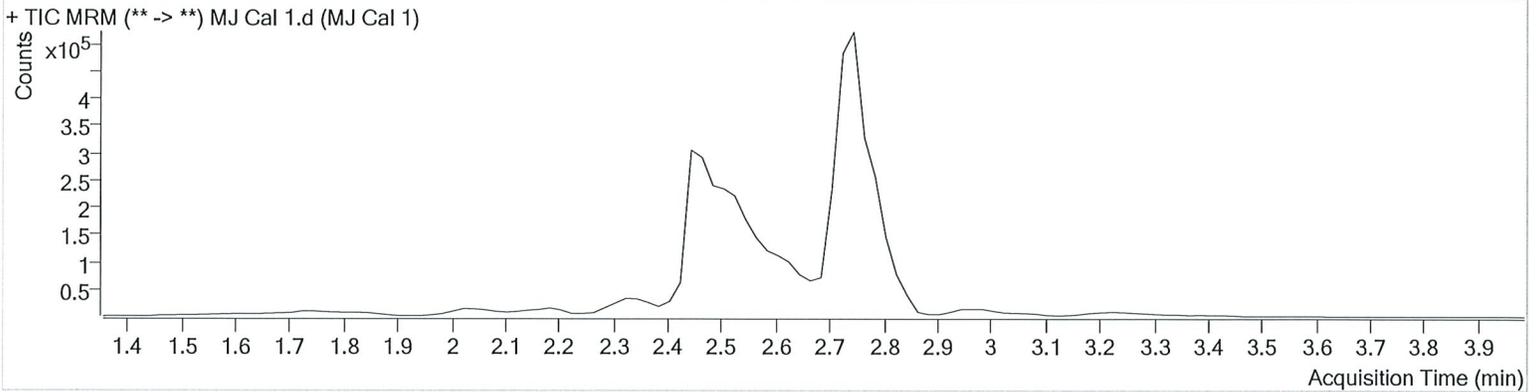
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk\st 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Cal 1.d
Type	Cal	Sample	MJ Cal 1
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-A1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:00:34 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.799	870	76172	1.0908 ng/ml	Low
THC-COOH	2.525	21593	465218	4.8086 ng/ml	Low
THC-OH	2.491	84023	1330852	3.1918 ng/ml	

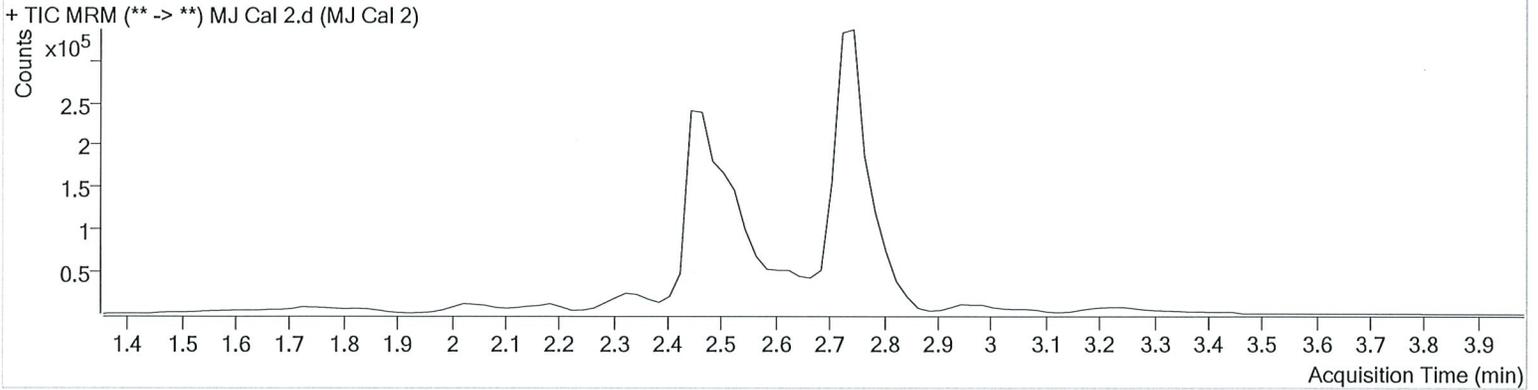
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\THCS TS.batch.bin
 Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Cal 2.d
Type	Cal	Sample	MJ Cal 2
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-B1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:07:14 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.819	997	38903	2.9552 ng/ml	Low
THC-COOH	2.525	32525	220023	10.8238 ng/ml	
THC-OH	2.491	57377	925144	3.0909 ng/ml	

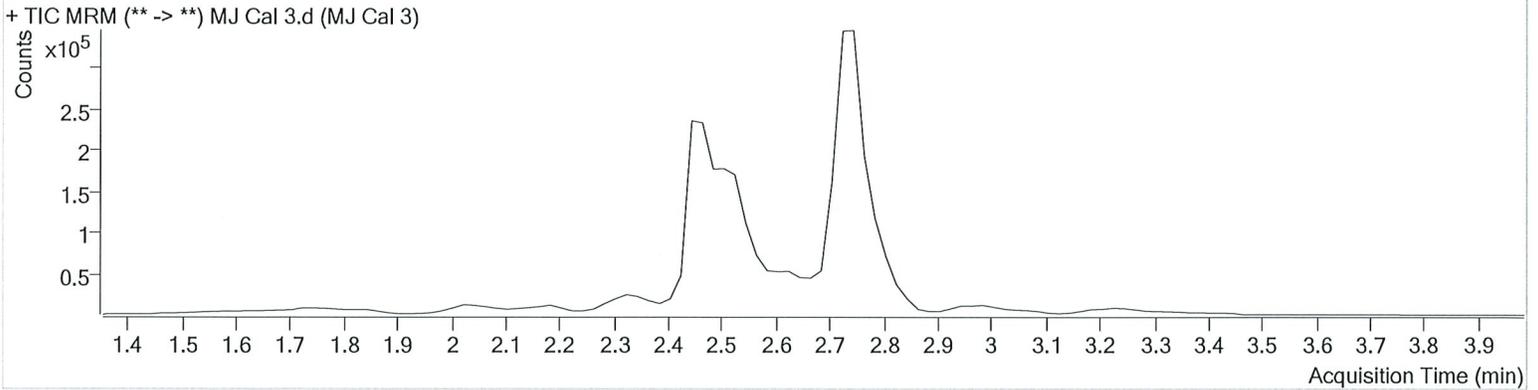
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Cal 3.d
Type	Cal	Sample	MJ Cal 3
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-C1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:13:47 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	1544	36207	5.1921 ng/ml
THC-COOH	2.525	65962	217775	20.0213 ng/ml
THC-OH	2.471	72249	878543	4.9204 ng/ml

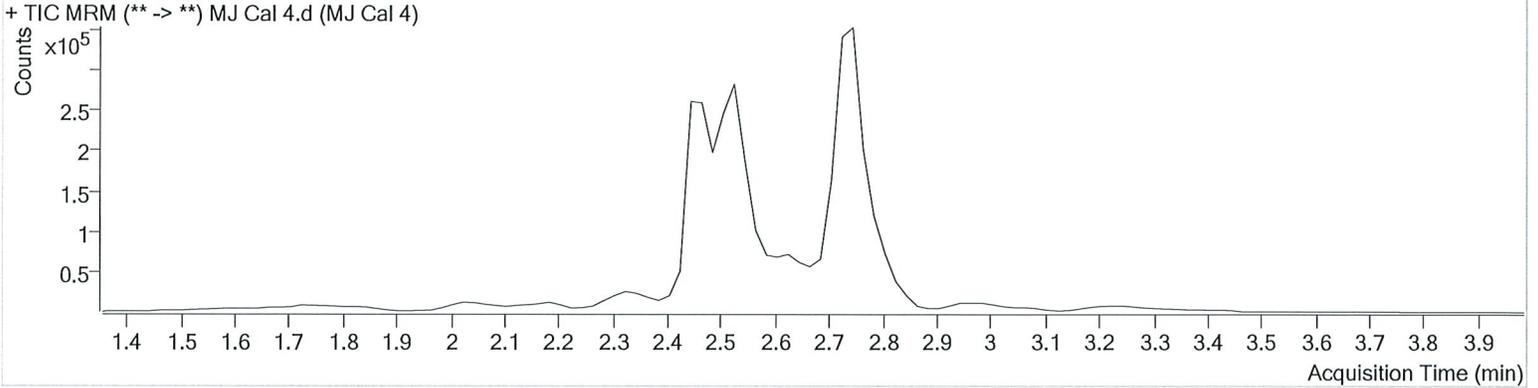
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wklst 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Cal 4.d
Type	Cal	Sample	MJ Cal 4
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-D1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:20:19 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	3032	41564	9.1711 ng/ml
THC-COOH	2.525	177949	227227	48.5069 ng/ml
THC-OH	2.471	126812	923758	9.9009 ng/ml

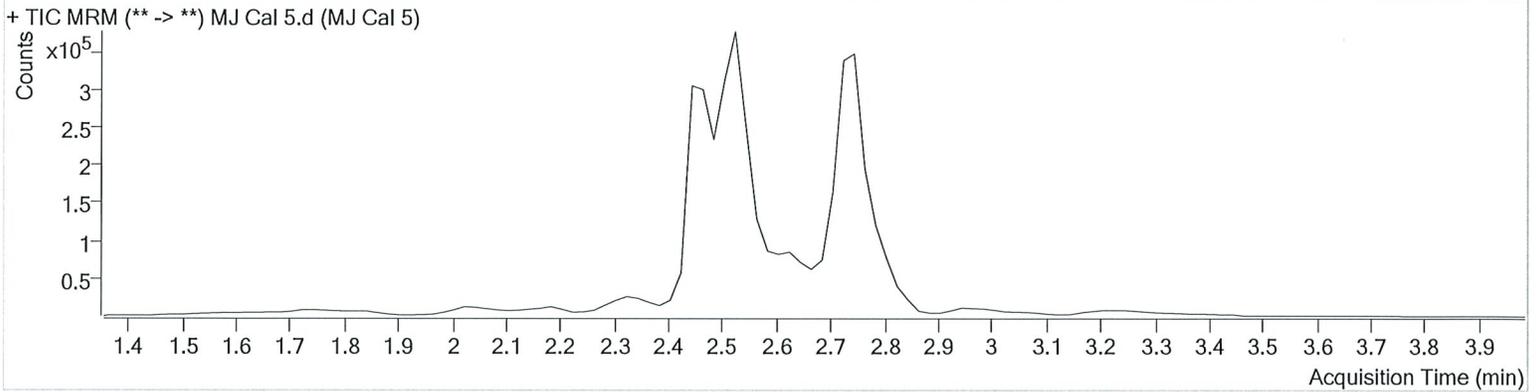
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Cal 5.d
Type	Cal	Sample	MJ Cal 5
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-E1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:26:51 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	6909	37611	23.7172 ng/ml
THC-COOH	2.525	273424	224808	74.1972 ng/ml
THC-OH	2.471	275859	918200	24.6644 ng/ml

AM #26 Cannabinoids Screen Results

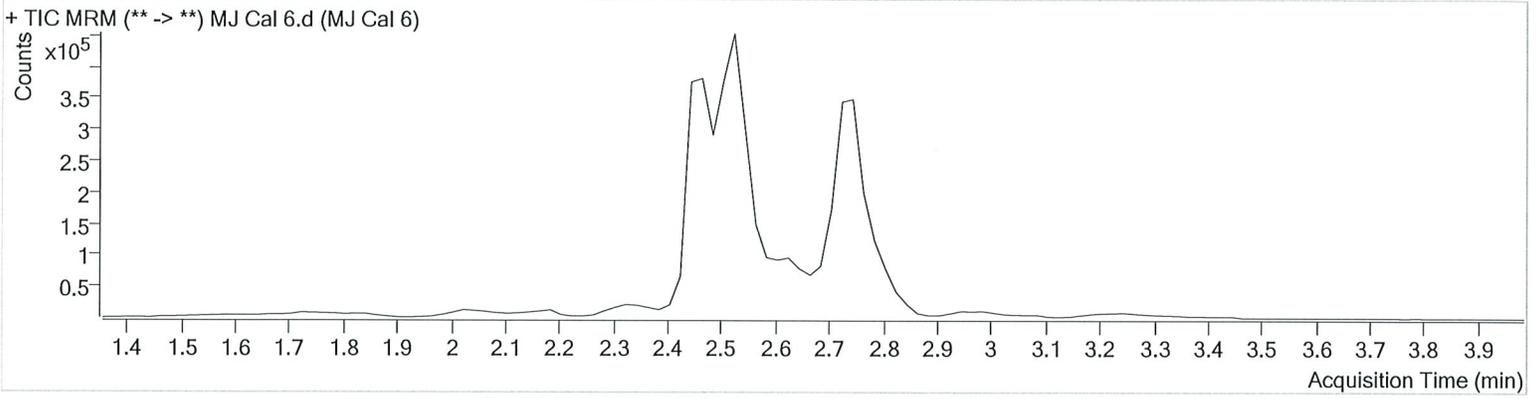
15



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Cal 6.d
Type	Cal	Sample	MJ Cal 6
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-F1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:33:24 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	14121	36702	50.1229 ng/ml
THC-COOH	2.525	355356	210796	102.0474 ng/ml
THC-OH	2.471	531424	907429	50.4716 ng/ml

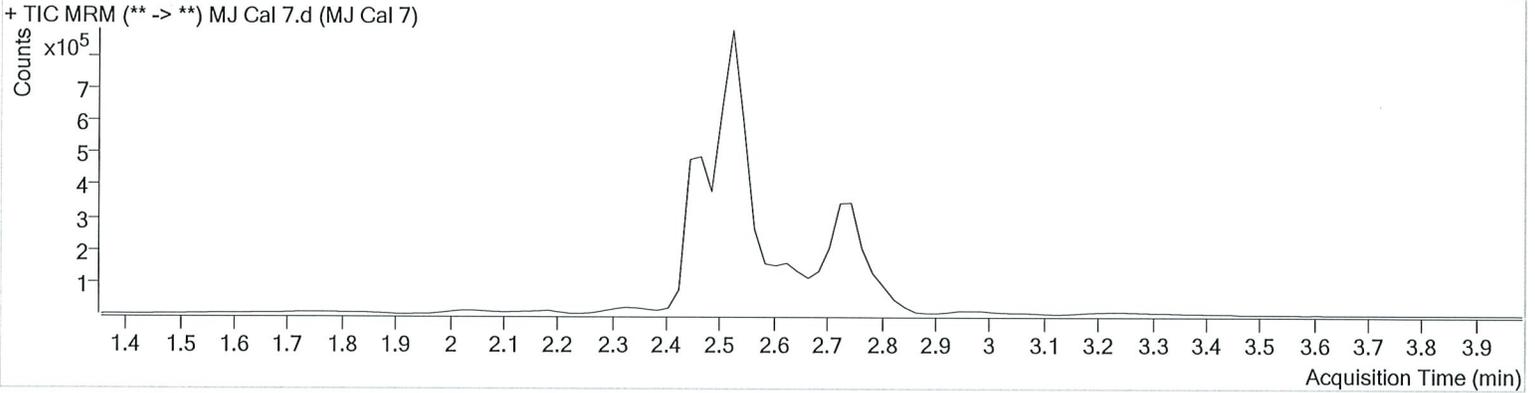
AM #26 Cannabinoids Screen Results



Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 26 012820 TS wk1st 3959\QuantResults\THCS TS.batch.bin
Calibration Last Update 1/29/2020 7:24:13 AM

Instrument	Falco	Data File	MJ Cal 7.d
Type	Cal	Sample	MJ Cal 7
Acq. Method	am 26 test.m	Operator	Tamara Salazar
Sample Position	P3-G1	Comment	
Injection Volume	10		
Acq. Date-Time	1/28/2020 1:39:57 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.819	29079	37385	101.7508 ng/ml
THC-COOH	2.525	771391	189324	243.7303 ng/ml
THC-OH	2.471	942515	832274	99.9518 ng/ml