REVIEWED
By Tamara Salazar at 10:39 am, May 29, 2020

5/21/2020

Worklist: 4248

LAB_CASE	ITEM	ITEM_TYPE	DESCRIPTION
C2020-0784	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
C2020-0789	2	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1585	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1679	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1735	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1738	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1739	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1772	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1777	3	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
M2020-1781	5	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
P2020-1177	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
P2020-1186	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
P2020-1222	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
P2020-1253	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
P2020-1354	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
P2020-1368	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ
P2020-1471	1	UCK	AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ

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

Extraction Date: 05/21/2020
Plate lot#: 190725

Analyst: Celena Shrum
Plate Expiration: 1/25/2020- Deviation in place

Mobile phase A: 10mM Amm Form
0.5M Ammonium Hydroxide
Blank Blood Lot: 445283-4
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. Urine Hydrolysis: In blank well, add 250µL urine, 40µL BG Turbo, and 100µL 500mM sodium phosphate buffer. Place on plate shaker for 5 minutes.
☒ 3. Using a calibrated pipette, pipette **250µL blood and urine** (if applicable) into wells of analytical (standards) plate. **Pipette ID: #42**
☒ 4. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
☒ 5. Pipette **250µL 0.5M ammonium hydroxide** in wells of analytical plate.
☒ 6. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
☒ 7. Transfer **300µL of blood+base** mixture to corresponding wells of SLE+ plate.
☒ 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).*** *Manifold ID: 067104*
☒ 9. Wait 5 minutes.
☒ 10. Add **900uL ethyl acetate.**
☒ 11. Wait 5 minutes.
☒ 12. Apply positive pressure for approx. 15 seconds. ***(10-15 PSI- Selector to the left).***
☒ 13. Add **900uL ethyl acetate.**
☒ 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. If run contains urine, add 50µL 1% HCl in MeOH to wells and place plate cover on plate before drying. *SPE Dry ID: 067103*
☒ 17. 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.
☒ 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: The extraction was done on 05/21/20 but there was drift/contamination seen in the urine negative control and urine external control. The extraction was redone on 05/22/20 with no issues. P2020-1253 was not evaluated for MDA due to poor ISTD response.

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

Rachel Cutler
Lab Manager 5/22/20

CL had approved of this deviation verbally but Celena signed it instead of me by mistake. Was noticed during audit.

Idaho State Police Forensic Services

AM #25 Blood and Urine Multi-Drug Screen by LCMS-QQQ And AM #28 Urine Multi-Drug Confirmatory Analysis by LCMS-QQQ—Panel 1

Methanol External Control Solution (Lot: 031820)

100 ul of 1mg/mL stock was added to each drug to 9700 ul of LC MeOH.

Component	*Source*	*Source Lot Number*	*Expiration Date*
Methanol (LCMS)	Fisher	193068	
O-desmethyl Tramadol	Cerilliant	FN01241702	04/30/2022
Amphetamine	Cerilliant	FE04061701	06/30/2022
Alprazolam	Cerilliant	FE07061604	07/31/2021
Prepared: 03/18/20			
Prepared By: Sarah Pickle			
Expires: 03/18/21			

Urine External Control Solution (Lot: WS052220)

200 ul of methanol external control solution was added to 9800 ul of urine.
Approximately 100ng/mL of each compound.

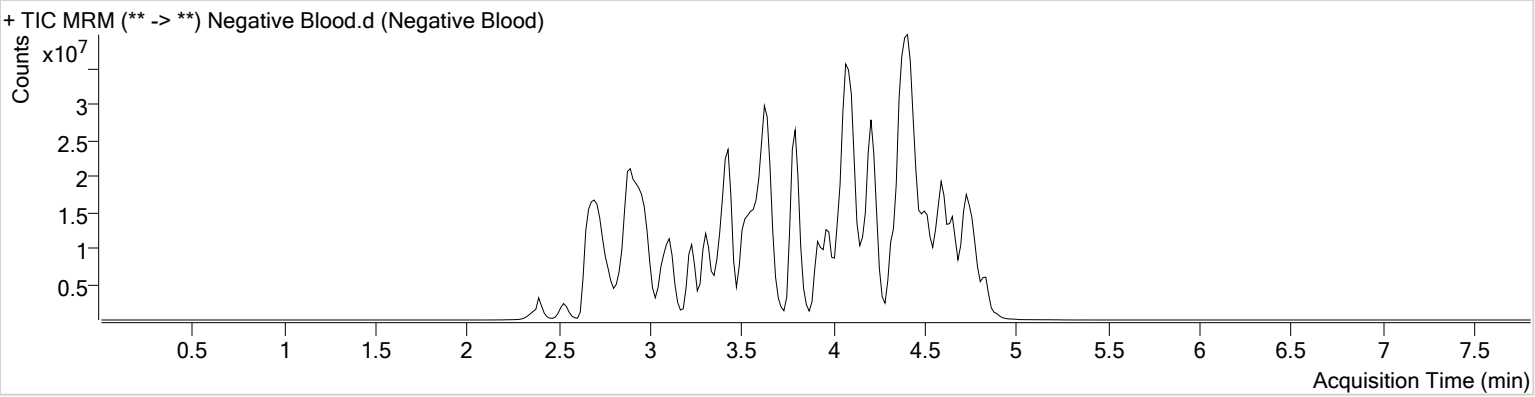
Component	*Source*	*Source Lot Number*
Negative Urine	Pocatello Lab	POC031319
Methanol External Control Solution		031820
Prepared:	05/22/20	
Prepared by:	Celena Shrum	
Expires:	03/18/21	

AM #25 Multi-Drug Screen Results

Batch results	D:\MassHunter\Data\2020\AM 25-26\AM 25 052220 CS\QuantResults\AM 25.batch.bin
Calibration Last Update	5/27/2020 1:36:27 PM

Instrument	Falco	**Data File**	Negative Blood.d
Type	Sample	**Sample**	Negative Blood
Acq. Method	am 25 all.m	**Operator**	Celena Shrum
Sample Position	P5-A4	**Comment**	
Injection Volume	5		
Acq. Date-Time	5/22/2020 1:07:45 PM		
Sample Info.			

Sample Chromatogram

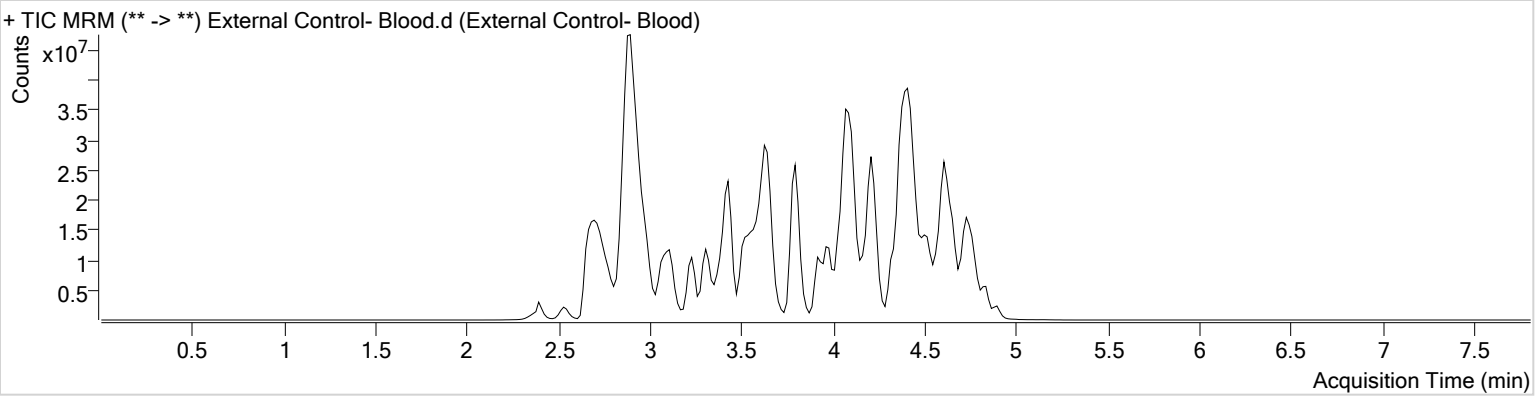


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 052220 CS\QuantResults\AM 25.batch.bin
Calibration Last Update 5/27/2020 1:36:27 PM

Instrument	Falco	**Data File**	External Control- Blood.d
Type	Sample	**Sample**	External Control- Blood
Acq. Method	am 25 all.m	**Operator**	Celena Shrum
Sample Position	P5-B4	**Comment**	
Injection Volume	5		
Acq. Date-Time	5/22/2020 1:16:05 PM		
Sample Info.			

Sample Chromatogram



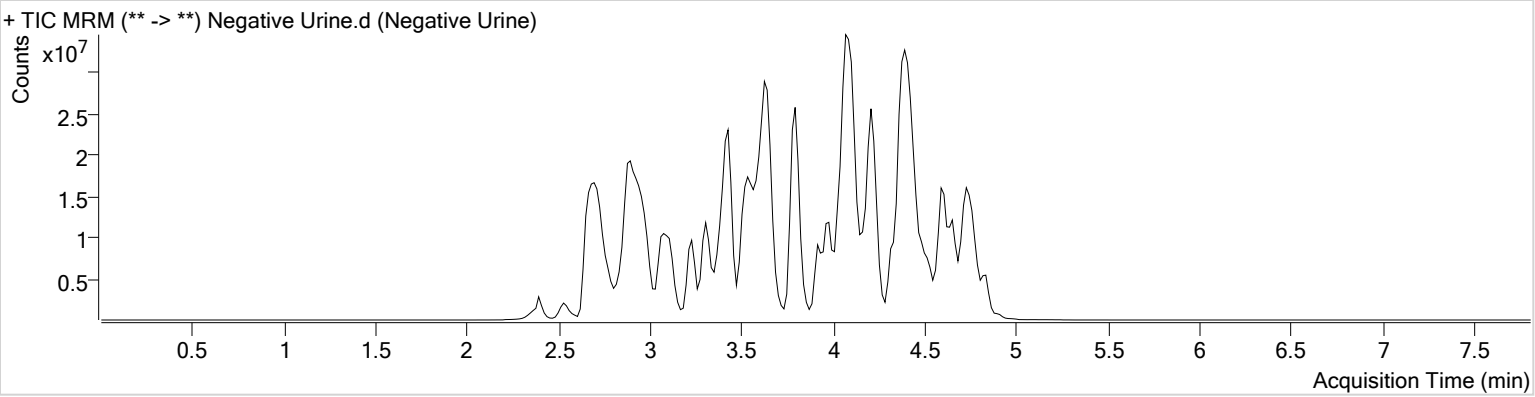
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.625	19804662	∞	∞	5391800	104.1346
Amphetamine	2.873	36870522	∞	∞	11280377	99.2999
O-desmethyl-tramadol	2.913	57210456	∞	∞	42734440	50.7074

AM #25 Multi-Drug Screen Results

Batch results	D:\MassHunter\Data\2020\AM 25-26\AM 25 052220 CS\QuantResults\AM 25.batch.bin
Calibration Last Update	5/27/2020 1:36:27 PM

Instrument	Falco	**Data File**	Negative Urine.d
Type	Sample	**Sample**	Negative Urine
Acq. Method	am 25 all.m	**Operator**	Celena Shrum
Sample Position	P5-C4	**Comment**	
Injection Volume	5		
Acq. Date-Time	5/22/2020 1:24:25 PM		
Sample Info.			

Sample Chromatogram

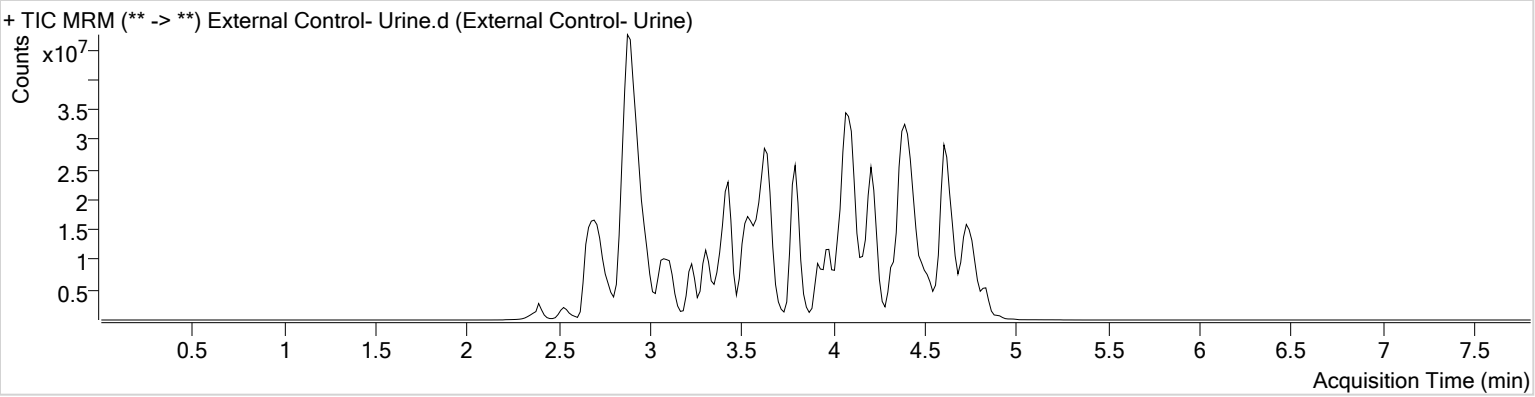


AM #25 Multi-Drug Screen Results

Batch results	D:\MassHunter\Data\2020\AM 25-26\AM 25 052220 CS\QuantResults\AM 25.batch.bin
Calibration Last Update	5/27/2020 1:36:27 PM

Instrument	Falco	**Data File**	External Control- Urine.d
Type	Sample	**Sample**	External Control- Urine
Acq. Method	am 25 all.m	**Operator**	Celena Shrum
Sample Position	P5-D4	**Comment**	
Injection Volume	5		
Acq. Date-Time	5/22/2020 1:32:43 PM		
Sample Info.			

Sample Chromatogram



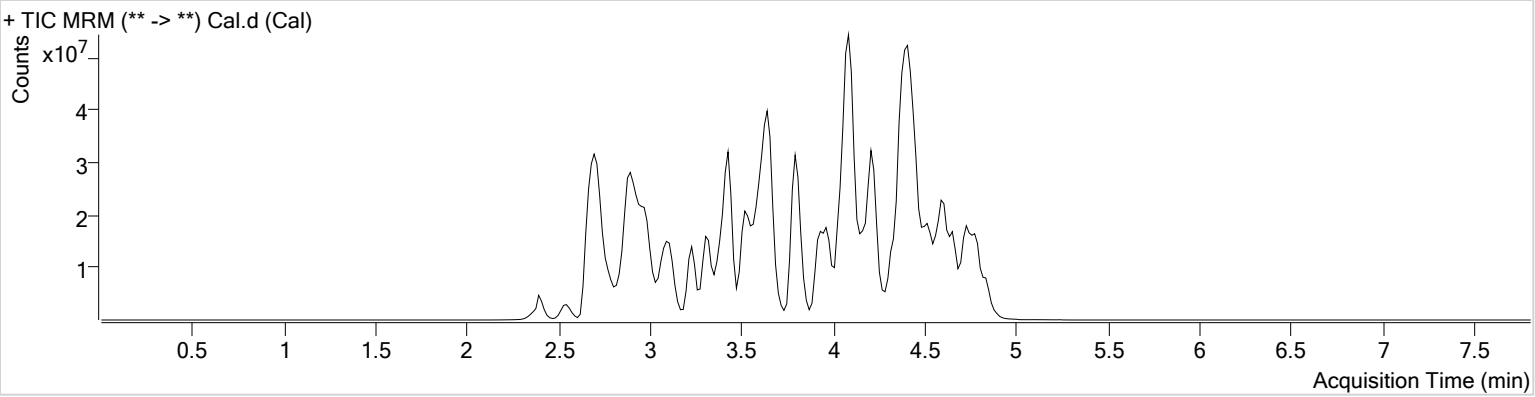
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Alprazolam	4.625	26380182	∞	∞	5159272	144.9608
Amphetamine	2.873	40248366	11021.71	16859.91	9393563	130.1700
O-desmethyl-tramadol	2.913	63454558	∞	693.59	40423172	59.4575

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\AM 25 052220 CS\QuantResults\AM 25.batch.bin
Calibration Last Update 5/27/2020 1:36:27 PM

Instrument	Falco	**Data File**	Cal.d
Type	Cal	**Sample**	Cal
Acq. Method	am 25 all.m	**Operator**	Celena Shrum
Sample Position	P5-B1	**Comment**	
Injection Volume	5		
Acq. Date-Time	5/22/2020 12:59:16 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.982	75722	57.83	276.02	1996549	10.0000
7-aminoclonazepam	3.582	1074040	∞	232.70	4857479	10.0000
7-aminoflunitrazepam	3.797	2327031	∞	∞	17086503	10.0000
Acetyl Fentanyl	3.978	690511	140.53	2364.20	36145880	10.0000
Acetyl Norfentanyl	2.900	493893	∞	∞	24854789	10.0000
a-hydroxyalprazolam	4.515	291920	∞	∞	1753006	10.0000
alpha-hydroxymidazolam	4.606	1550925	1114.61	1001.87	10389665	10.0000
alpha-PVP	3.589	6141830	567.47	554.50	28615419	10.0000
Alprazolam	4.625	2317812	318.58	∞	6571119	10.0000
Amitriptyline	4.476	6095747	22.59	909.96	14216406	10.0000
Amphetamine	2.888	4712665	676.58	413.08	14317246	10.0000
Benzoylecgonine	3.367	1706030	459.22	21037.34	8235041	10.0000
Buprenorphine	4.862	1670782	∞	725.82	6428793	10.0000
Bupropion	3.833	8120212	3342.63	443.51	22476635	10.0000
Carbamazepine	4.234	11653594	566.00	849.31	41913868	10.0000
Carisoprodol	4.217	1735003	13123.57	302.26	8733639	10.0000
Chlordiazepoxide	4.734	1132838	∞	174.48	24681640	10.0000
Chlorpheniramine	3.968	38164	3181.47	23612.52	47906464	10.0000
Citalopram	4.070	2950565	∞	4115.46	15677383	10.0000
Clonazepam	4.440	1142301	167.51	192.87	1870750	10.0000
Cocaine	3.611	7665287	112288.83	256.45	33258475	10.0000
Codeine	2.910	526968	∞	1301.69	2526599	10.0000
Cyclobenzaprine	4.385	4108797	483066.81	124.49	15431820	10.0000
Desipramine	4.386	5928865	2992.05	270.04	30356496	10.0000
Dextromethorphan	4.108	2448186	2011.63	∞	10985860	10.0000
Dextrorphan	3.386	4028147	577.44	489.49	24667637	10.0000
Diazepam	4.843	2680027	533.45	∞	12625483	10.0000
Dihydrocodeine	2.787	1572996	1123.23	∞	8795719	10.0000
Diphenhydramine	4.047	14071525	∞	∞	47906464	10.0000
Doxepin	4.183	3688040	∞	∞	22415853	10.0000
Doxylamine	3.660	16398490	13142.39	36920.70	48869240	10.0000
EDDP	4.091	6395924	874.49	7552.27	37905292	10.0000
Estazolam	4.535	7484815	938.75	482.97	21868926	10.0000
Etizolam	4.651	422242	20711.43	841366.23	21868926	10.0000

AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Fentanyl	4.207	538628	189.74	78013.14	29334598	10.0000
Flunitrazepam	4.563	2031555	∞	449.32	508218	10.0000
Fluoxetine	4.334	6028364	∞	88.81	24438163	10.0000
Flurazepam	4.282	4981672	5183669.32	643936.96	508218	10.0000
Hydrocodone	3.107	2050366	∞	∞	14537253	10.0000
Hydromorphone	2.563	1856454	∞	∞	7183981	10.0000
Imipramine	4.414	7473958	518212.29	∞	26088808	10.0000
Ketamine	3.665	5871228	284.35	154.76	24280077	10.0000
Lamotrigine	3.617	342228	276.84	24659.65	16869197	10.0000
Levamisole	3.038	5490941	148.80	1580.32	33258475	10.0000
Lorazepam	4.439	447516	434.66	71.71	1870750	10.0000
Maprotiline	4.399	1034852	∞	∞	14216406	10.0000
MDA	3.008	3894543	∞	54.21	17264809	10.0000
MDEA	3.237	7576244	1572.01	4907.92	32472321	10.0000
MDMA	3.084	8380391	4982.20	211.01	5465931	10.0000
Meperidine	3.633	3595261	284.20	667.17	16869197	10.0000
Meprobamate	3.652	741223	10112.02	183.62	3110375	10.0000
Methadone	4.410	9679929	839.42	484.80	33465935	10.0000
Methamphetamine	2.994	7410461	784.97	∞	34260492	10.0000
Methocarbamol	3.556	720517	271.61	64.29	16869197	10.0000
Methylphenidate	3.527	15447882	7435.61	965.14	45487296	10.0000
Metoprolol	3.446	915989	591.56	1276.52	16869197	10.0000
Midazolam	4.775	1048155	∞	783.47	12801466	10.0000
Mirtazapine	4.155	5211550	∞	3275.88	16869197	10.0000
Mitragynine	4.296	668153	185881.94	438675.45	22415853	10.0000
Morphine	2.397	319910	3656.16	772.90	214006	10.0000
Norbuprenorphine	3.852	131572	1357.97	56710.59	706856	10.0000
Nordiazepam	4.693	2103871	∞	∞	7065844	10.0000
Norfentanyl	3.327	10345987	1210.10	1236.46	37278247	10.0000
Norhydrocodone	2.942	45165	∞	21.96	1676470	10.0000
Normeperidine	3.604	2304565	502.62	731.55	8578845	10.0000
Noroxycodone	2.894	1769829	∞	84.52	5702642	10.0000
Nortriptyline	4.432	2529668	12062.62	171.23	6116186	10.0000
O-desmethyl-tramadol	2.913	12507380	1723.74	562.28	47374054	10.0000
Olanzapine	3.902	1249334	710.52	130.81	441431	10.0000
Oxazepam	4.505	3376066	647.91	224.45	21090715	10.0000
Oxycodone	2.952	3858164	∞	∞	17409503	10.0000
Oxymorphone	2.409	2979295	1097.51	∞	9958833	10.0000
Paroxetine	4.361	705234	319.38	682.72	15185291	10.0000
Phenazepam	4.651	1656794	1756.22	312.23	7656491	10.0000
Phencyclidine	3.940	8525261	5650.44	254.48	33307798	10.0000
Phentermine	3.132	2308759	69.96	27.35	27255810	10.0000
Phenytoin	4.125	123268	60.91	67.58	441431	10.0000
Promethazine	4.398	11991401	∞	918.58	39461768	10.0000
Pseudoephedrine	2.704	57974327	∞	11217.40	122216740	10.0000
Quetiapine	4.604	4472253	657.02	410123.27	7727320	10.0000
Sertraline	4.580	2894735	∞	324.68	15185291	10.0000
Sufentanil	4.604	498364	775.81	83.15	29565619	10.0000
Tapentadol	3.436	6130220	2431.03	1004.32	28926392	10.0000
Temazepam	4.673	4666676	∞	∞	21794981	10.0000
Tramadol	3.432	14946637	1582.82	95.08	46335247	10.0000
Trazodone	4.788	11173981	5537.69	5406.28	38500677	10.0000
Venlafaxine	3.797	10625507	28294.84	∞	43069377	10.0000
Zaleplon	4.350	2715318	394.70	573.49	7035464	10.0000
Zolpidem	4.441	14196235	398.29	2269.89	42903297	10.0000
Zopiclone	4.343	306533	107498.59	113.45	1824070	10.0000

CS

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

Extraction Date: 05/21/2020
Plate lot#: IDP-108-2-200303

Analyst: Celena Shrum
Plate Expiration: 09/30/2020

Mobile phase A: 0.1% Formic Acid in LCMS Water
Blank Blood Lot: 445283-4
LCMS-QQQ ID: 069901

Mobile phase B: 0.1% Formic acid in Acetonitrile
Column: Phenomenex Phenyl Hexyl (4.6x50mm, 2.6um)
Blank Urine Lot: POC031319

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.
Using a calibrated pipette, add **1000µl blood and urine (if applicable) (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, 500 µL saturated phosphate buffer in urine** in wells of analytical plate.
☒ 5. Place on shaking incubator at ambient temp., 900rpm for 15 minutes.
☒ 6. Transfer **800µL of blood+acid or urine+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, 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).
☒ 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.
☒ 5. Did all QCs pass for each analyte? (if not, describe in comments section)
☒ 6 Enter QCs into control charting.
☒ 7 Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: THC-OH curve range limited to 3-100.

Idaho State Police
Forensic Services

AM #26 Screening of THC and Metabolites
and
AM #27 Confirmation of THC and Metabolites Urine
External Control Prep Sheet

Methanol External Control Solution (Lot: WS011620)

10 µL of 1mg/mL THC, 100 µL of 100 µg/mL THC-OH, C-THC in 9790 µL MeOH

Approximate concentration 1ug/mL.

Component	*Source*	*Source Lot Number*	*Expiration Date*
Methanol (LCMS)	Fisher	193941	
THC	Cerilliant	FE09101501	11/30/2020
C-THC	Cerilliant	FE07171501	09/30/2020
THC-OH	Cerilliant	FE07221601	07/31/2021
Prepared:	01/16/2020		
Prepared By:	Tamara Salazar		
Expires:	09/30/2020		

Urine External Control Solution (Lot: 042220)

200 ul of methanol external control solution was added to 9800 ul of urine.

Approximately 20ng/mL each

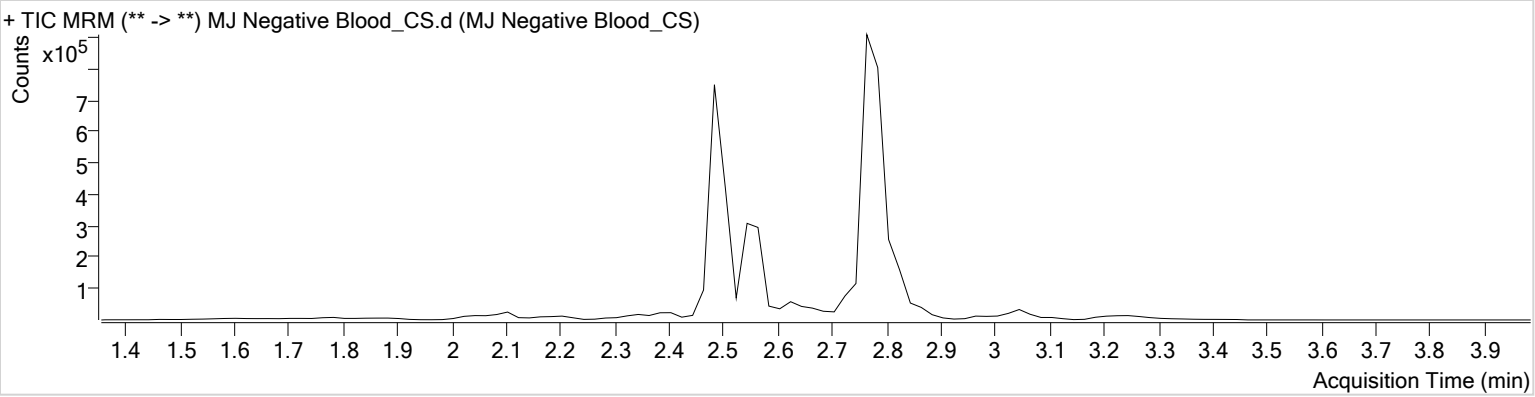
Component	*Source*	*Source Lot Number*
Negative Urine	Pocatello Lab	POC031319
Methanol External Control Solution	-	WS011620
Prepared:	04/22/2020	
Prepared by:	Celena Shrum	
Expires:	09/30/2020	

AM #26 Cannabinoids Screen Results

Batch results	D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update	5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Negative Blood_CS.d
Type	Sample	**Sample**	MJ Negative Blood_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-A2	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 11:04:30 PM		
Sample Info.			

Sample Chromatogram

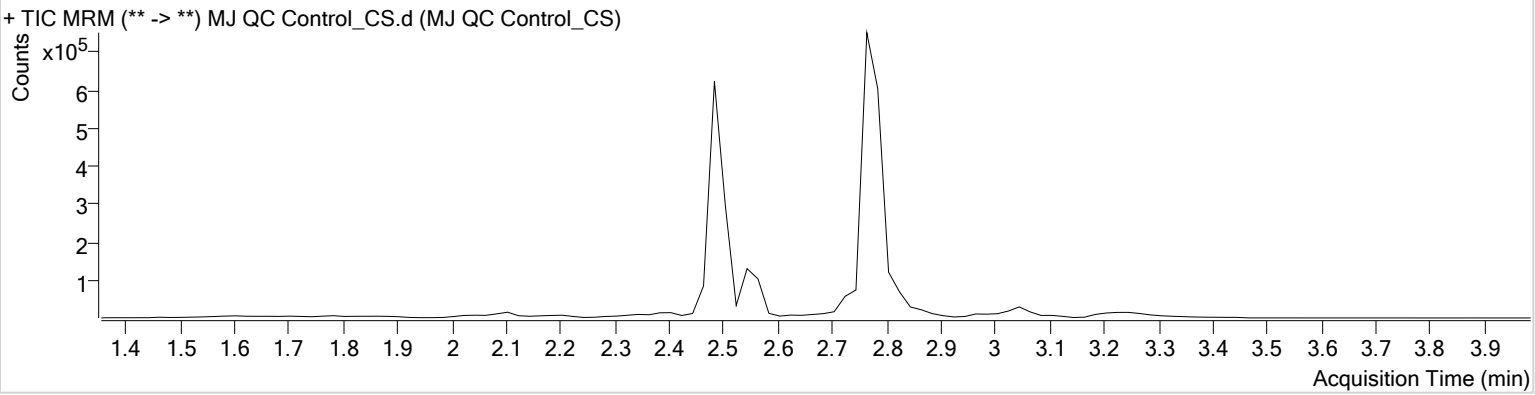


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ QC Control_CS.d
Type	Sample	**Sample**	MJ QC Control_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-H1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:51:28 PM		
Sample Info.			

Sample Chromatogram



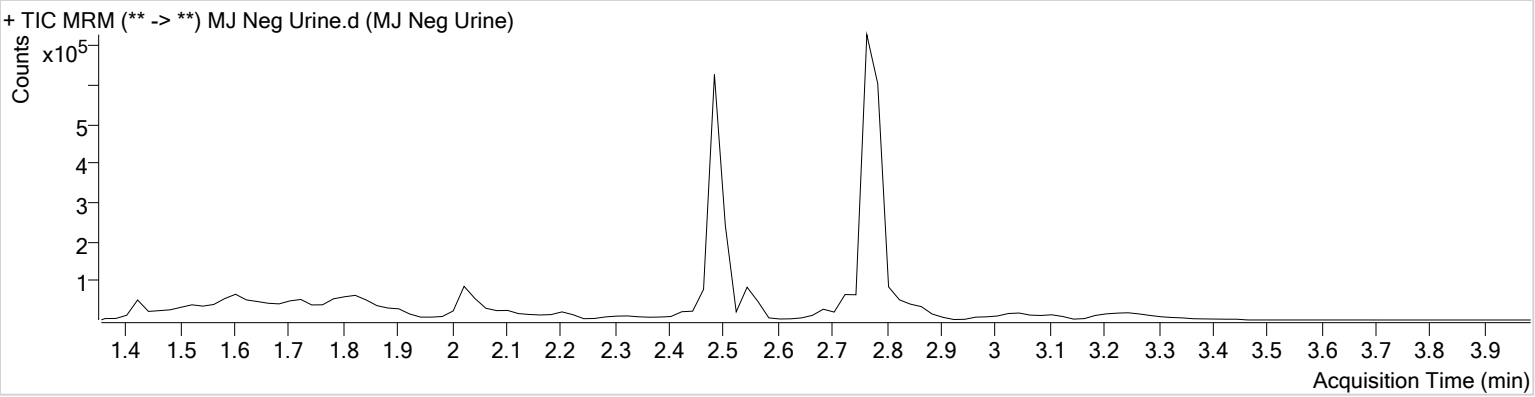
Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.839	2044	77970	3.9475	ng/ml
THC-COOH	2.565	27121	192281	15.5569	ng/ml
THC-OH	2.491	96804	1087024	4.4031	ng/ml

AM #26 Cannabinoids Screen Results

Batch results	D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update	5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Neg Urine.d
Type	Sample	**Sample**	MJ Neg Urine
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-C2	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 11:11:02 PM		
Sample Info.			

Sample Chromatogram

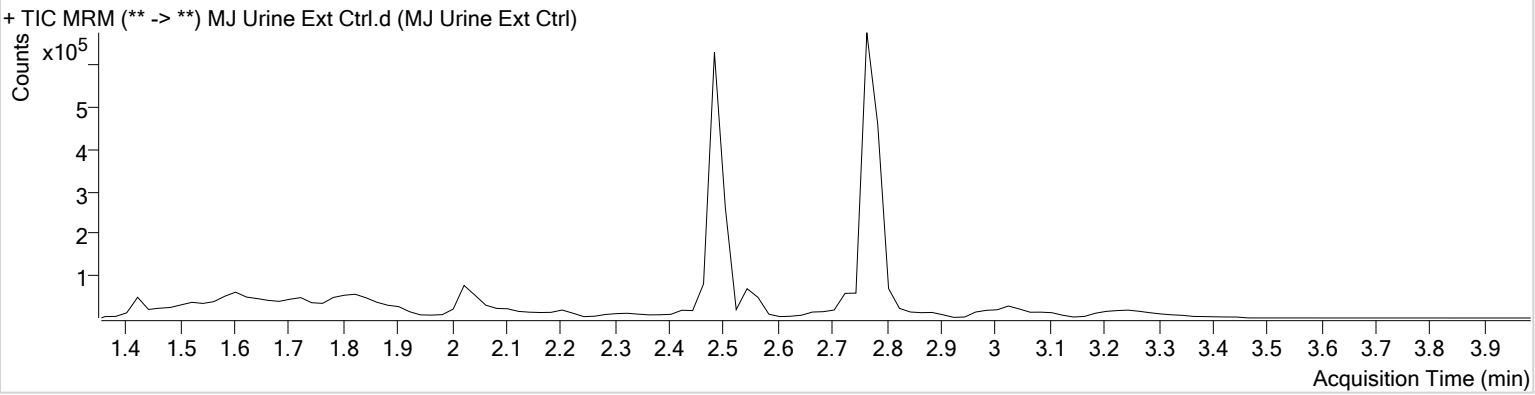


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Urine Ext Ctrl.d
Type	Sample	**Sample**	MJ Urine Ext Ctrl
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-D2	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 11:24:04 PM		
Sample Info.			

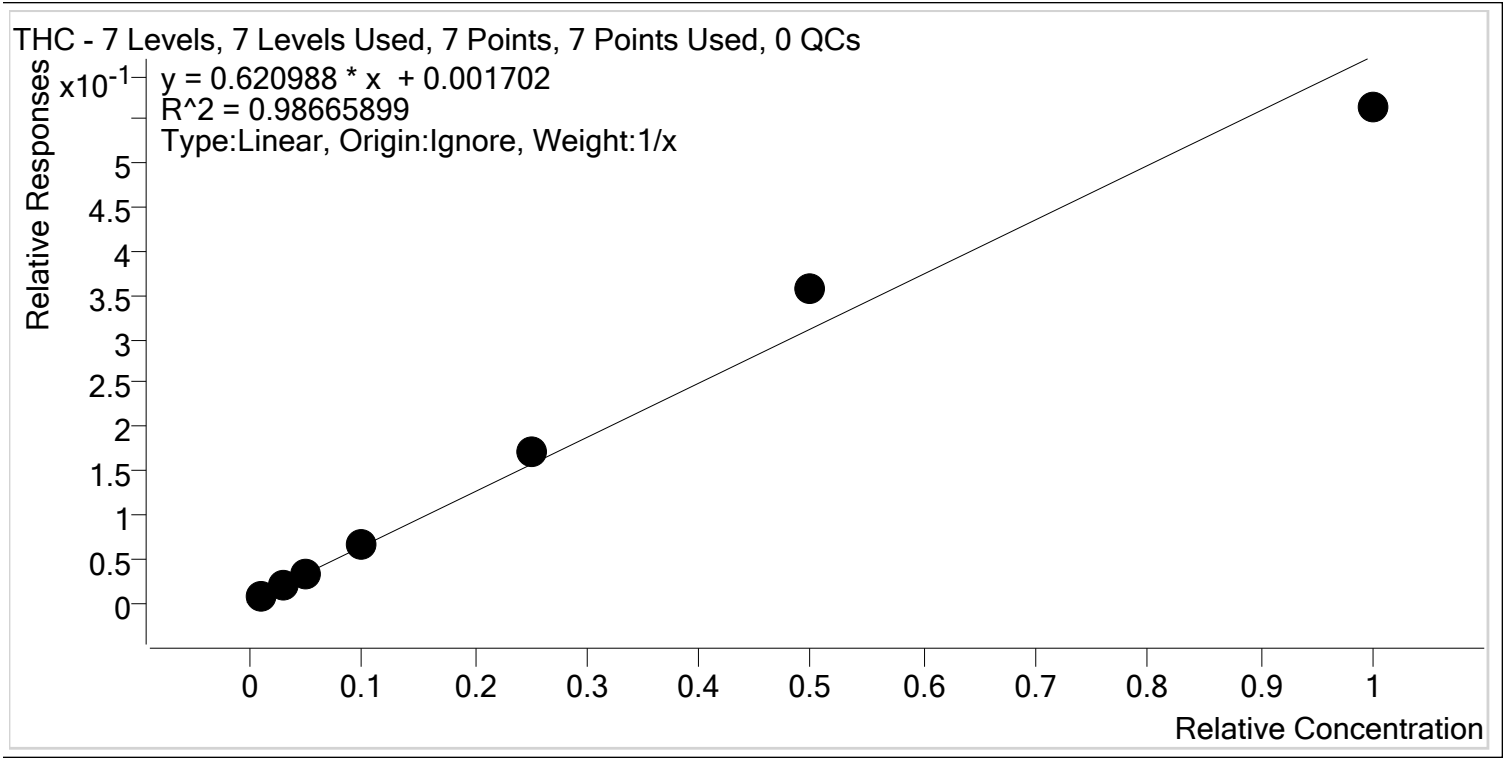
Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.839	611	6557	14.7419 ng/ml
THC-COOH	2.565	16920	104386	17.6213 ng/ml
THC-OH	2.491	195841	918902	11.7374 ng/ml

AM #26 Cannabinoids Screen Calibration Curve Report

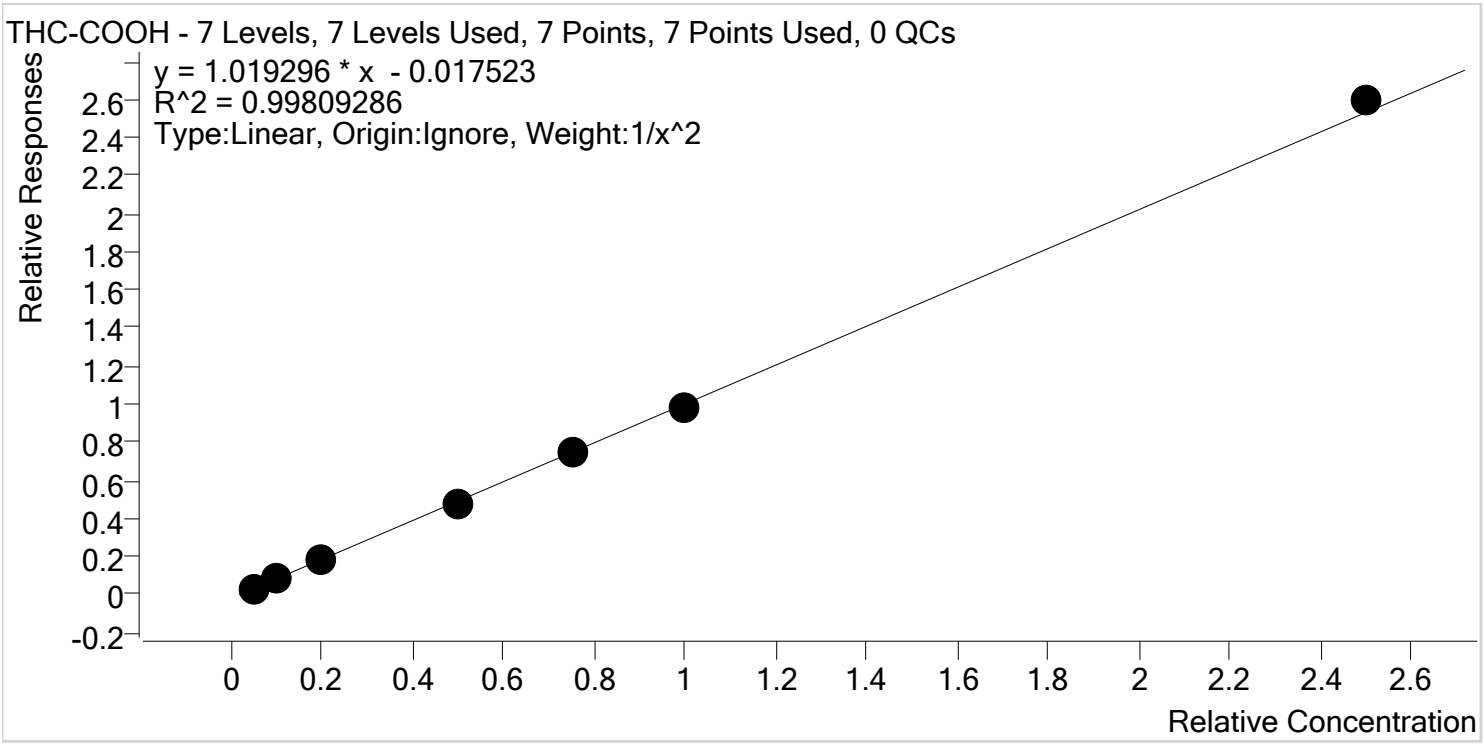
Batch results	D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Last Cal. Update	5/28/2020 10:04 AM
Analyst Name	ISP\Datastor
Analyte	THC
Internal Standard	THC-d3



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1_CS	1	✔	1.0	1.0	95.3
MJ Cal 2_CS	2	✔	3.0	2.7	89.5
MJ Cal 3_CS	3	✔	5.0	4.9	98.2
MJ Cal 4_CS	4	✔	10.0	10.3	102.9
MJ Cal 5_CS	5	✔	25.0	27.2	108.6
MJ Cal 6_CS	6	✔	50.0	57.5	114.9
MJ Cal 7_CS	7	✔	100.0	90.6	90.6

AM #26 Cannabinoids Screen Calibration Curve Report

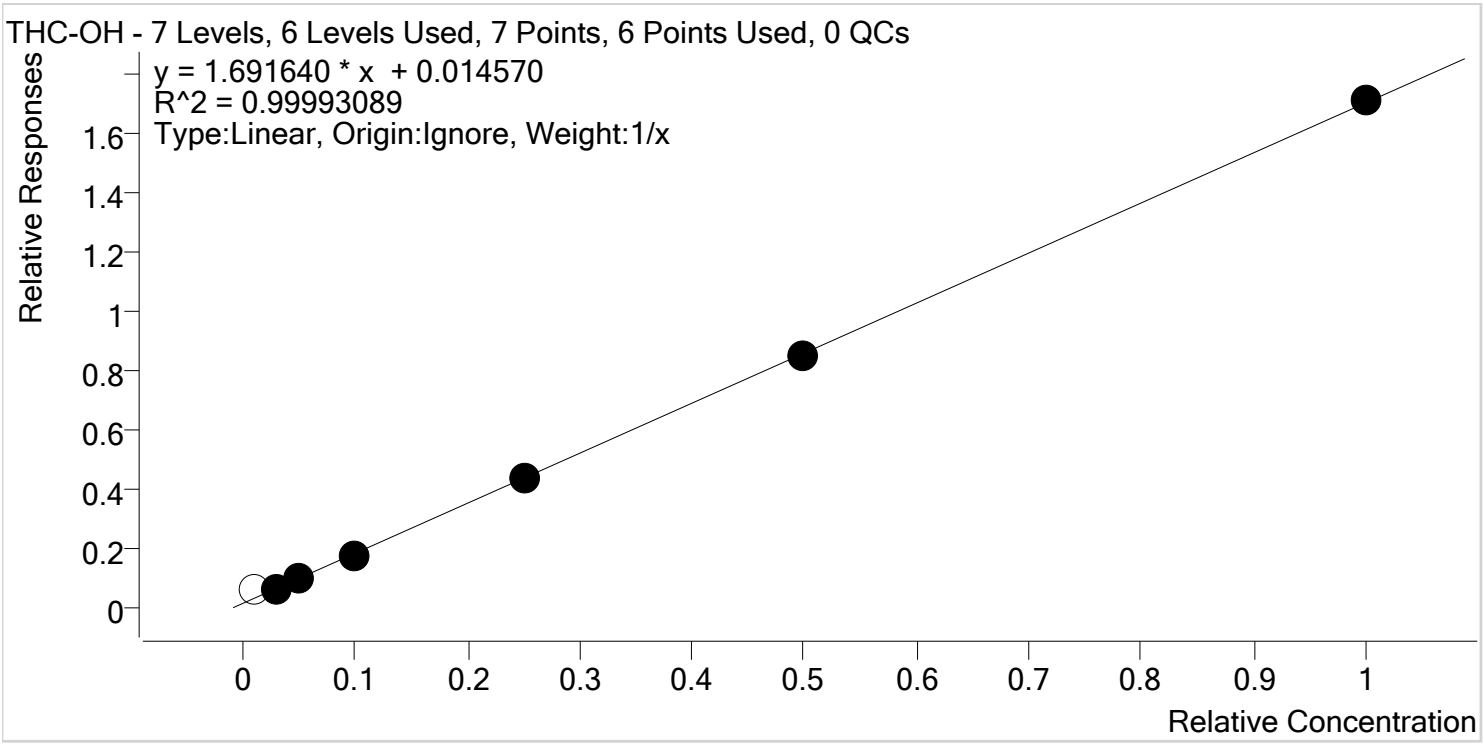
Batch results	D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Last Cal. Update	5/28/2020 10:04 AM
Analyst Name	ISP\Datastor
Analyte	THC-COOH
Internal Standard	THC-COOH-d9



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1_CS	1	✔	5.0	4.8	97.0
MJ Cal 2_CS	2	✔	10.0	10.7	106.6
MJ Cal 3_CS	3	✔	20.0	20.2	100.8
MJ Cal 4_CS	4	✔	50.0	48.5	97.0
MJ Cal 5_CS	5	✔	75.0	74.3	99.0
MJ Cal 6_CS	6	✔	100.0	97.2	97.2
MJ Cal 7_CS	7	✔	250.0	256.1	102.4

AM #26 Cannabinoids Screen Calibration Curve Report

Batch results	D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Last Cal. Update	5/28/2020 10:04 AM
Analyst Name	ISP\Datastor
Analyte	THC-OH
Internal Standard	THC-OH-d3



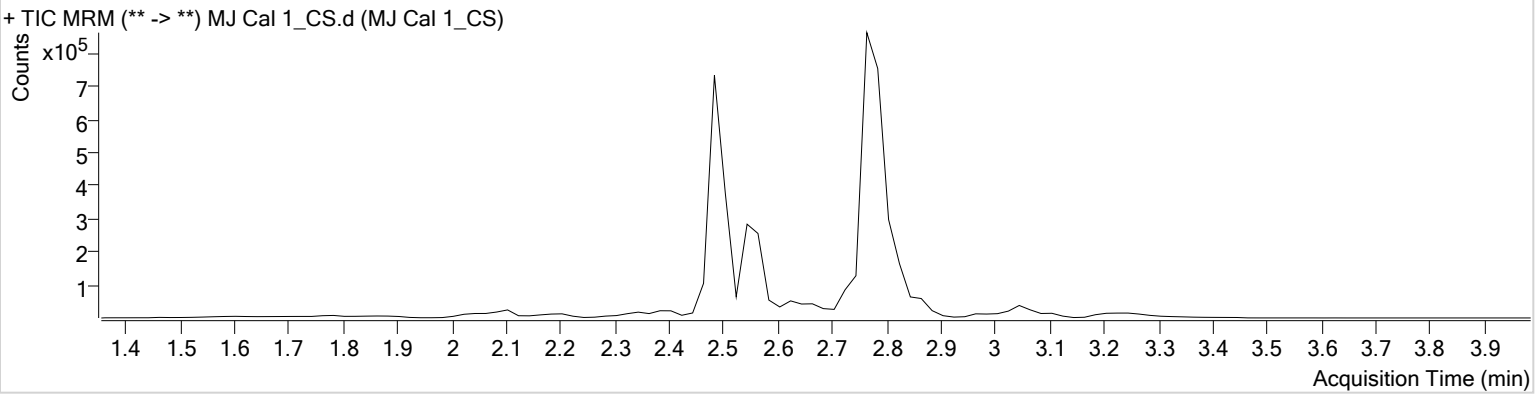
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1_CS	1	✗	1.0	2.9	293.3
MJ Cal 2_CS	2	✔	3.0	3.0	100.5
MJ Cal 3_CS	3	✔	5.0	5.1	101.6
MJ Cal 4_CS	4	✔	10.0	9.8	98.0
MJ Cal 5_CS	5	✔	25.0	25.1	100.2
MJ Cal 6_CS	6	✔	50.0	49.6	99.3
MJ Cal 7_CS	7	✔	100.0	100.4	100.4

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Cal 1_CS.d
Type	Cal	**Sample**	MJ Cal 1_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-A1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:05:40 PM		
Sample Info.			

Sample Chromatogram



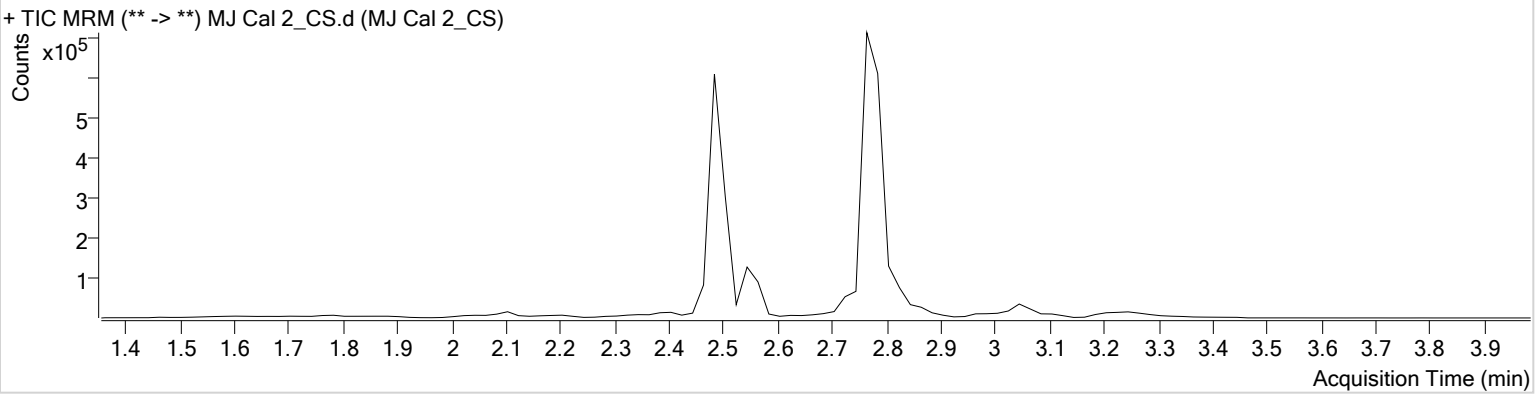
Name	RT	Resp.	ISTD Resp.	Final Conc.		
THC	2.819	2183	286422	0.9531	ng/ml	**Low**
THC-COOH	2.545	17132	537142	4.8482	ng/ml	**Low**
THC-OH	2.552	91648	1427687	2.9334	ng/ml	**Low**

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Cal 2_CS.d
Type	Cal	**Sample**	MJ Cal 2_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-B1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:12:20 PM		
Sample Info.			

Sample Chromatogram



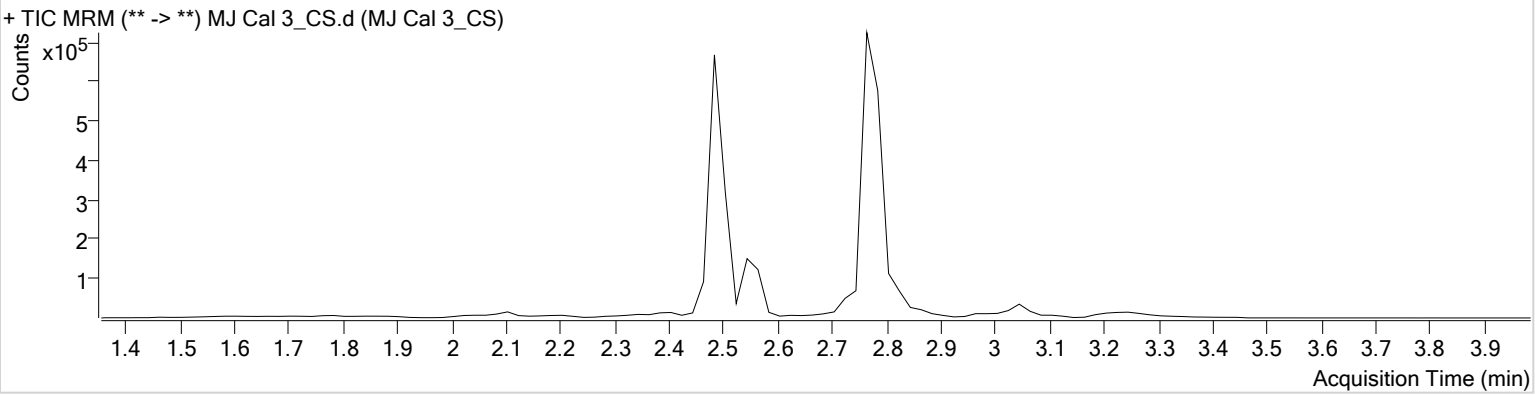
Name	RT	Resp.	ISTD Resp.	Final Conc.		
THC	2.839	1585	86212	2.6861	ng/ml	**Low**
THC-COOH	2.565	18033	197871	10.6601	ng/ml	
THC-OH	2.491	72251	1101969	3.0146	ng/ml	

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Cal 3_CS.d
Type	Cal	**Sample**	MJ Cal 3_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-C1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:18:50 PM		
Sample Info.			

Sample Chromatogram



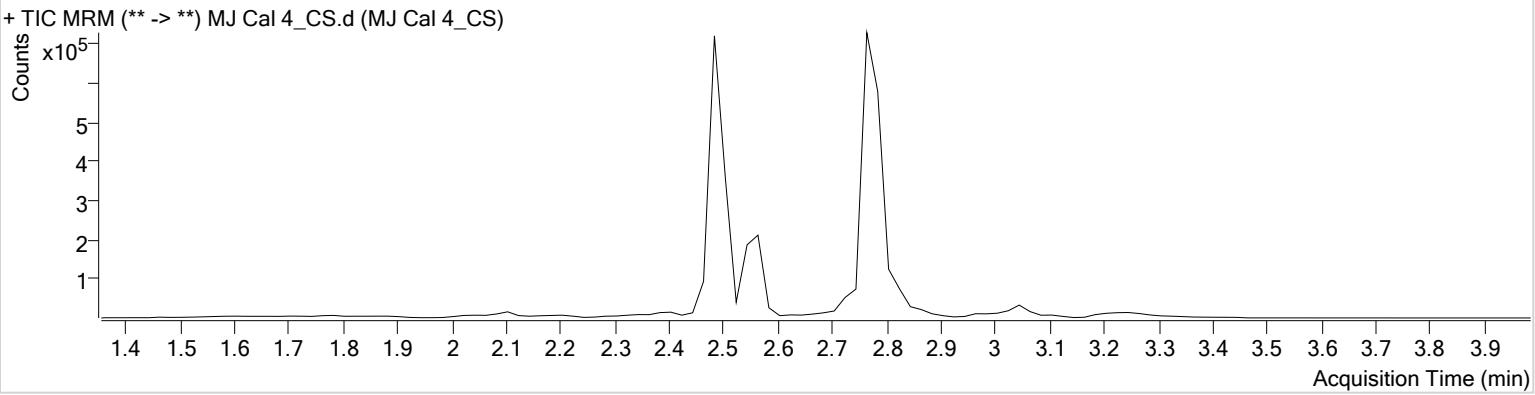
Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.839	3206	99584	4.9106	ng/ml
THC-COOH	2.565	39899	212338	20.1536	ng/ml
THC-OH	2.491	116229	1156245	5.0810	ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Cal 4_CS.d
Type	Cal	**Sample**	MJ Cal 4_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-D1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:25:20 PM		
Sample Info.			

Sample Chromatogram



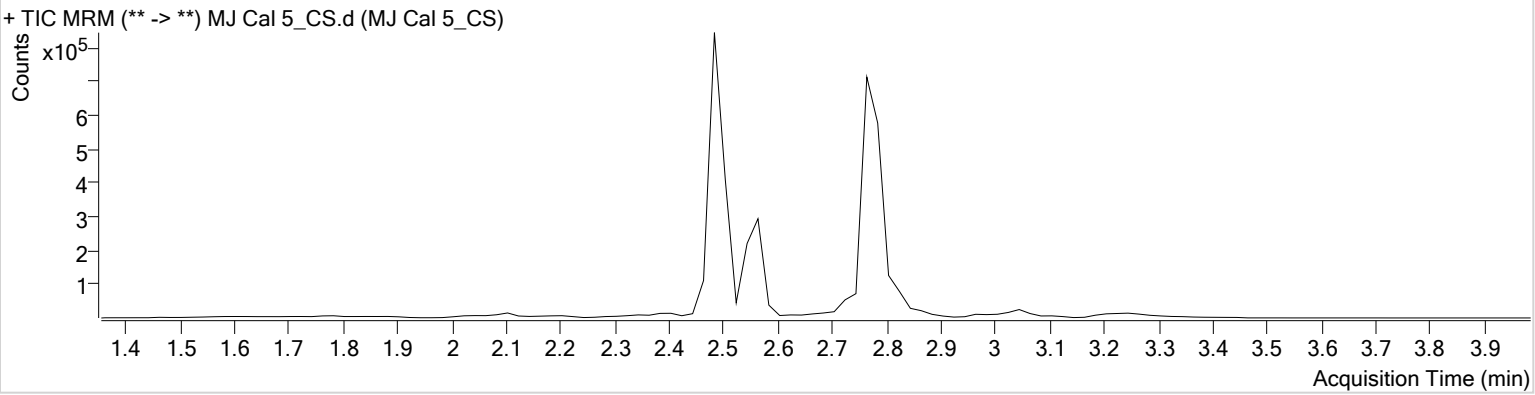
Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.839	7387	112637	10.2864	ng/ml
THC-COOH	2.565	102297	214578	48.4903	ng/ml
THC-OH	2.491	210634	1167984	9.7993	ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Cal 5_CS.d
Type	Cal	**Sample**	MJ Cal 5_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-E1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:31:53 PM		
Sample Info.			

Sample Chromatogram



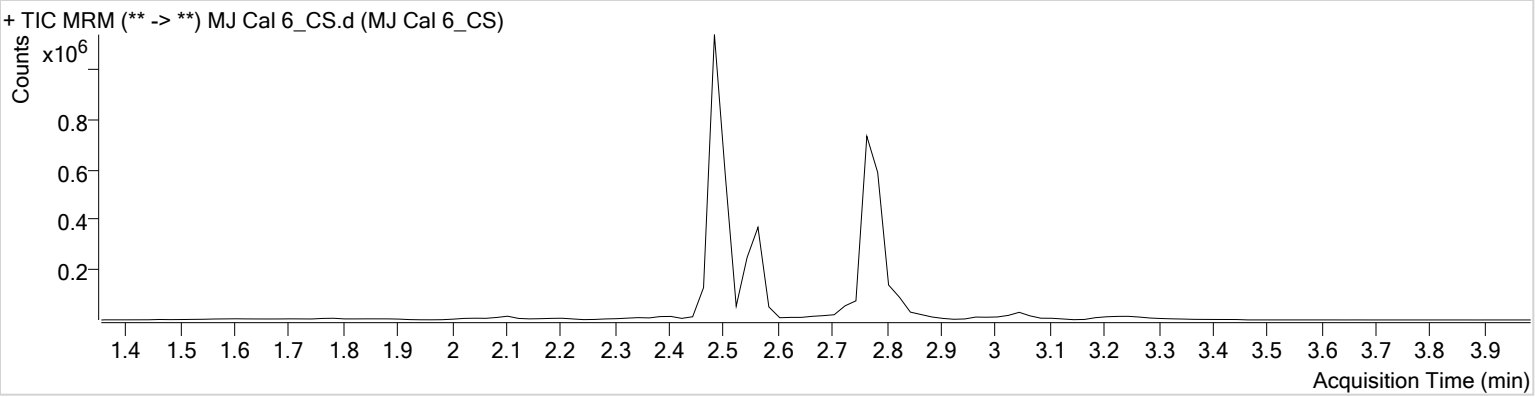
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.839	18355	107762	27.1549 ng/ml
THC-COOH	2.565	158469	214298	74.2672 ng/ml
THC-OH	2.491	481711	1098912	25.0516 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Cal 6_CS.d
Type	Cal	**Sample**	MJ Cal 6_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-F1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:38:25 PM		
Sample Info.			

Sample Chromatogram



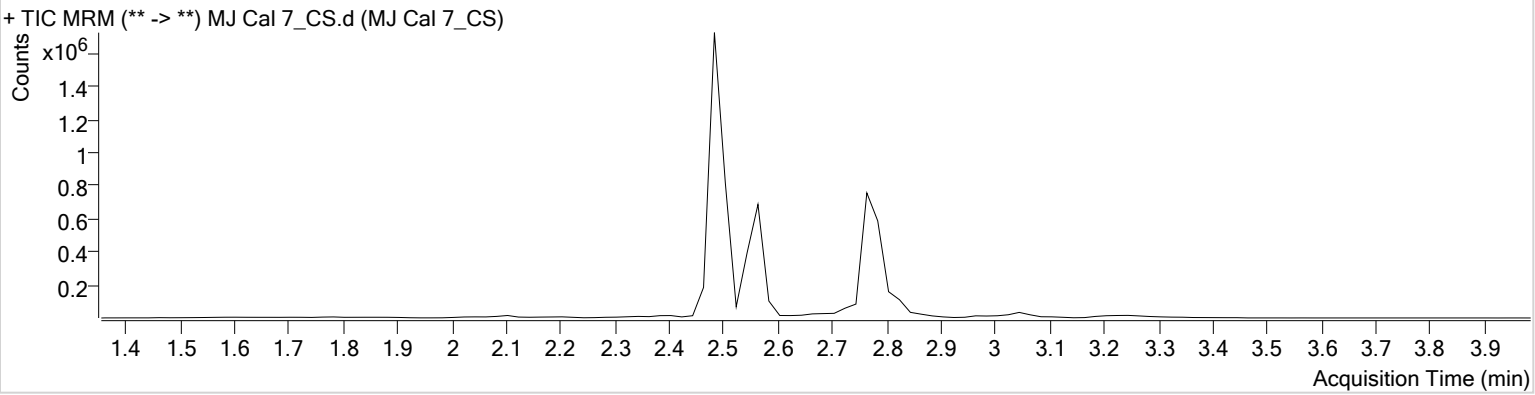
Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.839	30144	84085	57.4545 ng/ml
THC-COOH	2.565	211835	217594	97.2294 ng/ml
THC-OH	2.491	972762	1138648	49.6408 ng/ml

AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2020\AM 25-26\052120 AM 25 26 SP CS\QuantResults\AM 26 CS.batch.bin
Calibration Last Update 5/28/2020 10:04:20 AM

Instrument	Falco	**Data File**	MJ Cal 7_CS.d
Type	Cal	**Sample**	MJ Cal 7_CS
Acq. Method	am 26 test.m	**Operator**	Celena Shrum
Sample Position	P4-G1	**Comment**	
Injection Volume	10		
Acq. Date-Time	5/21/2020 10:44:57 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.839	60621	107478	90.5545	ng/ml
THC-COOH	2.565	474842	183143	256.0842	ng/ml
THC-OH	2.491	1927001	1124802	100.4127	ng/ml