










Worklist: 4828

REVIEWED
By Brittany Wylie at 12:01 pm, Mar 12, 2021

<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
M2020-4929	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2020-5027	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2021-0484	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2021-0533	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2021-0583	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2021-0666	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
M2021-0671	2	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2020-2903	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0050	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0220	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0324	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0390	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0437	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0438	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0440	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0455	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0458	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0459	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0471	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0472	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0481	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

Worklist: 4828

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<u>LAB CASE</u>	<u>ITEM</u>	<u>ITEM TYPE</u>	<u>DESCRIPTION</u>	
P2021-0482	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0513	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0514	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0524	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0525	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0527	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0528	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0535	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	
P2021-0564	1	BCK	AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ	

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

Extraction Date: 03/08/21
 Plate lot#: IDP-120-201206

Analyst: Sarah Collins
 Plate Expiration: 6/6/2021

Mobile phase A: 10mM Amm Form
 0.5M Ammonium Hydroxide
Blank Blood Lot: Lampire 20L20724
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 **250 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: #16**
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 4. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 6. Transfer **300 µL 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)
- 8. Wait 5 minutes.
- 9. Add **900 µL ethyl acetate.**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 12. Add **900 µL ethyl acetate.**
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.
- 16. Reconstitute in **100 µL 20% 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 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:

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	1	2	3	4	5	6	7	8	9	10	11	12
A	IS + Cal. 1								p2021-0535-1	p2021-0481-1	p2021-0437-1	m2021-0583-1
B	IS + Cal. 1								p2021-0528-1	p2021-0472-1	p2021-0390-1	m2021-0533-1
C									p2021-0527-1	p2021-0471-1	p2021-0324-1	m2021-0484-2
D									p2021-0525-1	p2021-0459-1	p2021-0220-1	m2020-5027-1
E									p2021-0524-1	p2021-0458-1	p2021-0050-1	m2020-4929-1
F									p2021-0514-1	p2021-0455-1	p2020-2903-1	negative
G									p2021-0513-1	p2021-0440-1	m2021-0671-2	IS + Cal. 1
H								p2021-0564-1	p2021-0482-1	p2021-0438-1	m2021-0666-1	IS + Cal. 1

AM #25 Multi-Drug Screen Results

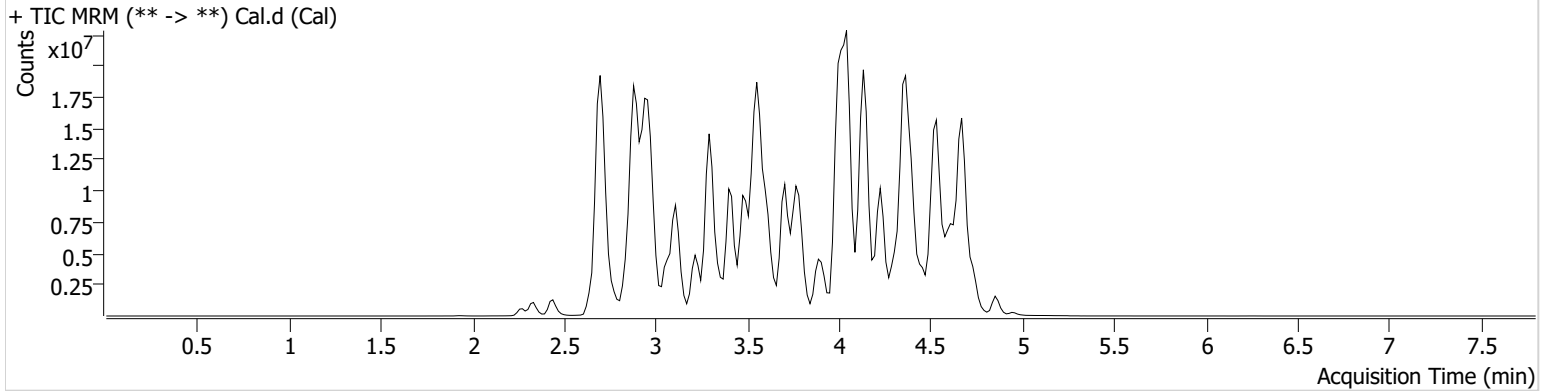
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Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 25.batch.bin
Calibration Last Update 3/12/2021 8:26:14 AM

Instrument	Instrument 1	Data File	Cal.d
Type	Cal	Sample	Cal
Acq. Method	AM 25 MDS.m	Operator	Sarah Collins
Sample Position	P2-H12	Comment	
Injection Volume	5		
Acq. Date-Time	3/9/2021 9:43:08 AM		

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.877	80111	330.49	68547.62	2365017	10.0000
7-aminoclonazepam	3.569	2795973	9500.18	1596368.93	11210390	10.0000
7-aminoflunitrazepam	3.783	3620914	7480.49	1950.86	11210390	10.0000
Acetyl Fentanyl	3.795	318183	590.40	76330.45	34298987	10.0000
Acetyl Norfentanyl	2.886	505863	9538.72	964.78	34298987	10.0000
a-hydroxyalprazolam	4.531	651647	342.85	222357.40	11210390	10.0000
alpha-hydroxymidazolam	4.591	3601892	487.85	582563.33	11210390	10.0000
Alpha-PHP	3.773	3790111	8269.38	1492.71	34298987	10.0000
alpha-PVP	3.498	6456114	849.45	483.14	10548767	10.0000
Alprazolam	4.626	5168249	1161.64	655.93	31576132	10.0000
Amitriptyline	4.400	1579127	137.61	132.83	6320541	10.0000
Amphetamine	2.890	4851488	711.39	2447.58	10548767	10.0000
Benzoylcegonine	3.385	443312	234963.55	129320.92	804173	10.0000
Brompheniramine	4.010	95001	399.39	2282.05	39036819	10.0000
Buprenorphine	4.374	755815	2947.74	17815.30	3046476	10.0000
Bupropion	3.712	5893393	1119.89	704.90	21203993	10.0000
Carbamazepine	4.250	15319500	4673.59	1669.41	1122817	10.0000
Carisoprodol	4.233	2092422	926.58	80.27	12633676	10.0000
Chlordiazepoxide	4.735	2704225	674.53	545.49	31576132	10.0000
Chlorpheniramine	3.923	6725655	1804.00	16.90	39036819	10.0000
Citalopram	4.040	2834769	587.22	915.43	39036819	10.0000
Clomipramine	4.594	3224741	13848.11	5882.63	39036819	10.0000
Clonazepam	4.455	2959471	1052.90	760.79	31576132	10.0000
Clonazolam	4.375	2959563	1506807.69	841525.54	31576132	10.0000
Cocaehtylene	3.750	6198524	4048876.97	2226.09	33476018	10.0000
Cocaine	3.536	7399246	3050539.58	1706.29	33476018	10.0000
Codeine	2.775	621734	2820.30	274.22	14861585	10.0000
Cyclobenzaprine	4.324	2277175	500.59	237.17	6320541	10.0000
Desipramine	4.355	3669766	875.57	1055.87	6320541	10.0000
Dextromethorphan	4.046	1792206	452.65	131165.70	9570630	10.0000
Dextrorphan	3.356	3300799	1625.74	519.95	9570630	10.0000
Diazepam	4.858	2005828	983.52	2188.52	31576132	10.0000
Dihydrocodeine	2.728	1464379	1165.60	922.11	14861585	10.0000
Diphenhydramine	4.002	8287882	1419.21	640.86	39036819	10.0000

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AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.122	1416716	618.54	600.96	20406334	10.0000
Doxylamine	3.616	11379812	386.79	421.86	9570630	10.0000
EDDP	4.045	1443970	313.47	1672695.73	3368637	10.0000
Estazolam	4.535	10231269	2167.78	1845.08	31576132	10.0000
Etizolam	4.636	616395	458847.13	8377.97	31576132	10.0000
Fentanyl	4.024	222399	78.65	1001.00	15066475	10.0000
Flualprazolam	4.484	1863289	1019345.99	1547040.95	31576132	10.0000
Flunitrazepam	4.579	4974335	1001.47	3035.22	31576132	10.0000
Fluoxetine	4.319	2200284	982.76	268.28	7293771	10.0000
Flurazepam	4.114	3674861	3942.29	306471.97	31576132	10.0000
Hydrocodone	2.973	2245865	1911.98	1071.11	14861585	10.0000
Hydromorphone	2.442	2160933	21004.84	2247.42	331737	10.0000
Imipramine	4.368	4598863	683.32	858.35	6320541	10.0000
Ketamine	3.421	5339240	2081.63	631.27	21862208	10.0000
Lamotrigine	3.541	473626	155.01	193.62	39036819	10.0000
Levamisole	2.917	4442880	23125.26	578.38	33476018	10.0000
Levetiracetam	2.659	2036408	924.63	787.11	39036819	10.0000
Lorazepam	4.439	1122254	356.91	∞	31576132	10.0000
Maprotiline	4.400	1175132	99.59	467.85	6320541	10.0000
MDA	2.994	3960115	1408.79	993.39	28295742	10.0000
MDEA	3.207	5755689	671.28	3472.46	28295742	10.0000
MDMA	3.070	7627541	954.85	1076.88	28295742	10.0000
Meperidine	3.572	3021198	3042.35	314.41	9570630	10.0000
Meprobamate	3.668	1302267	392.88	940.80	12633676	10.0000
Methadone	4.365	5755903	813.29	827.37	3368637	10.0000
Methamphetamine	2.981	7721034	610.96	675.63	28295742	10.0000
Methocarbamol	3.573	904882	838.85	627303.96	3368637	10.0000
Methylphenidate	3.482	12944734	7194.66	502.45	22950302	10.0000
Metoprolol	3.418	892821	826138.68	233.46	9570630	10.0000
Midazolam	4.730	879570	1129.96	152406.90	31576132	10.0000
Mirtazapine	3.801	2633671	1073.07	3168.01	9570630	10.0000
Mitragynine	4.144	377082	157866.46	766038.04	9570630	10.0000
Morphine	2.276	422161	∞	1169.32	331737	10.0000
Norbuprenorphine	3.807	70162	45091.24	45120.62	3046476	10.0000
Nordiazepam	4.707	2547335	1292.86	945.87	31576132	10.0000
Norfentanyl	3.313	9632187	885.77	573.09	34298987	10.0000
Norhydrocodone	2.913	56922	120.08	15129.33	331737	10.0000
Norketamine	3.468	1187083	319.14	8613.56	21862208	10.0000
Normeperidine	3.574	2586117	3356.77	174.14	39036819	10.0000
Noroxycodone	2.865	1541753	146.40	249.75	21862208	10.0000
Nortriptyline	4.402	1388594	1768730.67	221.97	6320541	10.0000
O-desmethyl-tramadol	2.899	10522946	103630.35	324.18	39036819	10.0000
Olanzapine	3.720	1582723	856264.25	515.57	1122817	10.0000
Oxazepam	4.521	4796110	675.95	291.67	20277605	10.0000
Oxycodone	2.894	5016325	1753.91	631.11	21862208	10.0000
Oxymorphone	2.332	2221254	872.93	6106.13	331737	10.0000
Paroxetine	4.316	375732	134.47	435833.96	7293771	10.0000
Phenazepam	4.651	4214085	3166.72	3708.71	31576132	10.0000
Phencyclidine	3.895	5959253	1602.71	226.63	9570630	10.0000
Phentermine	3.133	1950649	237.21	25.49	22950302	10.0000
Phenytoin	4.141	1968728	1429.35	57991.90	1122817	10.0000
Promethazine	4.290	5669362	1074.22	529.11	39036819	10.0000
Pseudoephedrine	2.705	50834729	797.30	3229.38	28295742	10.0000
Quetiapine	4.359	3515719	2901.03	1383168.89	38359394	10.0000
Sertraline	4.534	1370770	1765694.39	1168.54	7293771	10.0000
Sufentanil	4.329	214277	8385.64	233.51	34298987	10.0000
Tapentadol	3.422	7044618	6141.05	2285.11	21862208	10.0000
Temazepam	4.673	7831821	814.32	156.24	31576132	10.0000
Tramadol	3.402	12020033	1623.03	225.65	39036819	10.0000
Trazodone	4.390	4529654	746.21	949.18	20406334	10.0000

Cal

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AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Venlafaxine	3.769	7335770	458.49	614.46	7293771	10.0000
Zaleplon	4.351	4351162	1390.78	959.09	38359394	10.0000
Zolpidem	4.150	12712194	2813.33	867.35	38359394	10.0000
Zopiclone	3.976	1042059	349051.91	225454.95	6029319	10.0000

8C

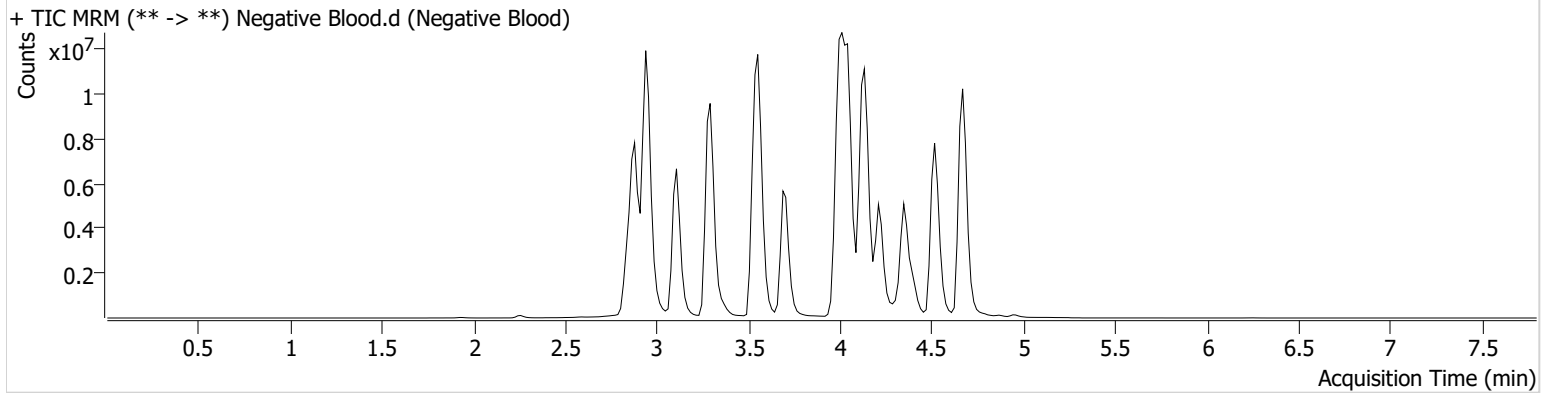


AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 25.batch.bin
Calibration Last Update 3/12/2021 8:26:14 AM

Instrument Type	Instrument 1 Sample	Data File	Negative Blood.d
Acq. Method	AM 25 MDS.m	Sample	Negative Blood
Sample Position	P2-F12	Operator	Sarah Collins
Injection Volume	5	Comment	
Acq. Date-Time	3/9/2021 9:51:44 AM		
Sample Info.			

Sample Chromatogram



8C

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

Extraction Date: 03/10/21
 Plate lot#: IDP-120-201206

Analyst: Sarah Collins
 Plate Expiration: 6/6/2021

Mobile phase A: 10mM Amm Form
 0.5M Ammonium Hydroxide
Blank Blood Lot: Lampire 20L20724
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 **250 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: #16**
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 4. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 6. Transfer **300 µL 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)
- 8. Wait 5 minutes.
- 9. Add **900 µL ethyl acetate.**
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 12. Add **900 µL ethyl acetate.**
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 10-15 seconds. *(12-15 PSI- Selector to the left).*
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.
- 16. Reconstitute in **100 µL 20% 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 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: *Due to potential contamination in initial run, case samples M2020-5027-1, P2021-0050-1, and P2021-0220-1 were re-extracted and ran. Re-extract data used.*

Did not evaluate fentanyl in this run.

AM #25 Multi-Drug Screen Results

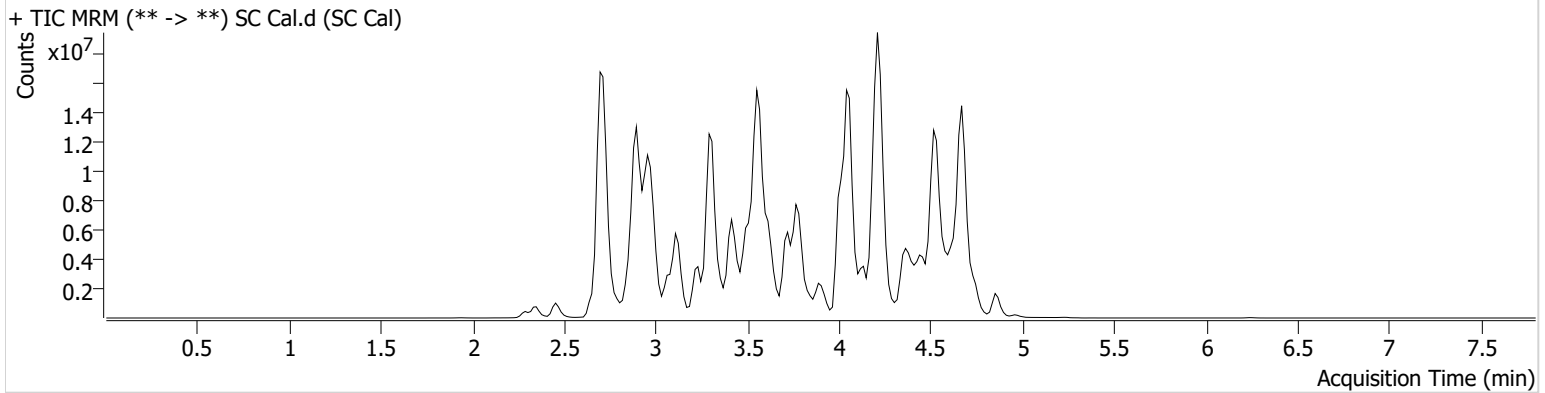
8C



Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031021 AM 25 26 CS\QuantResults\AM 25 SAEC.batch.bin
Calibration Last Update 3/11/2021 8:26:39 AM

Instrument	Instrument 1	Data File	SC Cal.d
Type	Cal	Sample	SC Cal
Acq. Method	AM 25 MDS.m	Operator	Sarah Collins
Sample Position	P3-A1	Comment	
Injection Volume	5		
Acq. Date-Time	3/11/2021 2:26:37 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	2.892	66927	91024.06	33930.72	2242848	10.0000
7-aminoclonazepam	3.569	1737417	284.63	412.76	6966054	10.0000
7-aminoflunitrazepam	3.783	2555501	596.04	1993.07	6966054	10.0000
Acetyl Fentanyl	3.810	67698	24.01	62877.11	31892475	10.0000
Acetyl Norfentanyl	2.886	452888	5711.30	627.13	31892475	10.0000
a-hydroxyalprazolam	4.531	661544	989.15	2261.17	6966054	10.0000
alpha-hydroxymidazolam	4.606	2723595	324.13	478241.19	6966054	10.0000
Alpha-PHP	3.788	2895715	2068.15	4406.29	31892475	10.0000
alpha-PVP	3.513	4562413	955.27	400.45	6754281	10.0000
Alprazolam	4.626	4032648	692.15	629.29	29748901	10.0000
Amitriptyline	4.415	136977	21.61	40.74	610624	10.0000
Amphetamine	2.890	2319321	1003.00	1149.14	6754281	10.0000
Benzoylcegonine	3.385	294512	81.07	58.47	498836	10.0000
Brompheniramine	4.010	24667	119.30	128.93	22340101	10.0000
Buprenorphine	4.450	232671	14941.82	26367.35	1104929	10.0000
Bupropion	3.727	3290285	1347.93	508.31	12933152	10.0000
Carbamazepine	4.234	12813443	∞	2657.63	1930534	10.0000
Carisoprodol	4.233	1875524	478.70	587.14	11819757	10.0000
Chlordiazepoxide	4.750	1440612	109.22	2295.01	29748901	10.0000
Chlorpheniramine	3.923	2144801	30723.07	23.91	22340101	10.0000
Citalopram	4.055	1150041	464.66	230.25	22340101	10.0000
Clomipramine	4.609	239905	3471.93	93.47	22340101	10.0000
Clonazepam	4.455	2916151	526.37	578864.76	29748901	10.0000
Clonazolam	4.375	2625702	3710427.52	689351.41	29748901	10.0000
Cocaethylene	3.765	4895969	2949578.41	1730.46	28959333	10.0000
Cocaine	3.552	5522906	2674403.13	1047.02	28959333	10.0000
Codeine	2.790	461206	4693.81	1141.26	11642394	10.0000
Cyclobenzaprine	4.339	213245	135469.26	12.06	610624	10.0000
Desipramine	4.370	392614	123.10	60.73	610624	10.0000
Dextromethorphan	4.063	499206	29948.64	78811.04	2422883	10.0000
Dextrorphan	3.356	2217774	908.20	1013.69	2422883	10.0000
Diazepam	4.858	2233719	797.94	1995889.27	29748901	10.0000
Dihydrocodeine	2.728	1088678	615.74	363.53	11642394	10.0000
Diphenhydramine	4.017	3139037	280603.84	294.21	22340101	10.0000

SC Cal

8C

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Doxepin	4.138	232869	68.55	20.28	5182932	10.0000
Doxylamine	3.616	8317368	360.80	391.78	2422883	10.0000
EDDP	4.061	1164498	306.02	679.47	2792541	10.0000
Estazolam	4.535	9865799	747.62	4379.43	29748901	10.0000
Etizolam	4.636	589128	266693.31	1382001.77	29748901	10.0000
Fentanyl	4.039	35029	2.51	6907.32	2284027	10.0000
Flualprazolam	4.484	1542082	777880.40	875311.56	29748901	10.0000
Flunitrazepam	4.579	4826446	1823.74	1024.46	29748901	10.0000
Fluoxetine	4.319	190153	168.20	45.60	464956	10.0000
Flurazepam	4.145	1391304	2152.65	118.30	29748901	10.0000
Hydrocodone	2.988	1639015	323.74	412.04	11642394	10.0000
Hydromorphone	2.457	1675912	1019.08	16003.75	169591	10.0000
Imipramine	4.383	558072	387.58	189.79	610624	10.0000
Ketamine	3.451	3899586	583.03	204.48	16925999	10.0000
Lamotrigine	3.556	376952	380.10	1047.85	22340101	10.0000
Levamisole	2.947	3067285	7421.97	183.25	28959333	10.0000
Levetiracetam	2.659	1497046	567.46	934.48	22340101	10.0000
Lorazepam	4.439	1087667	13260.38	∞	29748901	10.0000
Maprotiline	4.415	107226	14.55	6986.35	610624	10.0000
MDA	2.994	2399490	710.43	790.34	14982698	10.0000
MDEA	3.223	3601092	1644.99	513.69	14982698	10.0000
MDMA	3.070	5024920	233263.73	3401.29	14982698	10.0000
Meperidine	3.572	1654006	478.44	322.65	2422883	10.0000
Meprobamate	3.668	1283706	335.38	164.96	11819757	10.0000
Methadone	4.380	1426029	304.06	4056.10	2792541	10.0000
Methamphetamine	2.981	3138407	918.07	207.25	14982698	10.0000
Methocarbamol	3.589	962677	1921.68	717.01	2792541	10.0000
Methylphenidate	3.497	9161969	2303.95	1021.23	14355798	10.0000
Metoprolol	3.418	685845	1106.25	10685.06	2422883	10.0000
Midazolam	4.745	464054	662124.42	788899.13	29748901	10.0000
Mirtazapine	3.847	1170619	188173.47	2893.77	2422883	10.0000
Mitragynine	4.159	62295	46728.03	179.74	2422883	10.0000
Morphine	2.292	309305	646.31	1308.42	169591	10.0000
Norbuprenorphine	3.807	27729	19397.89	34655.65	1104929	10.0000
Nordiazepam	4.707	2306494	2116.08	6651.73	29748901	10.0000
Norfentanyl	3.313	7936369	712.47	711.46	31892475	10.0000
Norhydrocodone	2.913	47254	37.57	83.10	169591	10.0000
Norketamine	3.529	660843	200.31	3521.35	16925999	10.0000
Normeperidine	3.574	1506418	583.05	429.78	22340101	10.0000
Noroxycodone	2.881	1350548	146.69	149.80	16925999	10.0000
Nortriptyline	4.402	80275	98.34	17.22	610624	10.0000
O-desmethyl-tramadol	2.899	8719685	8855.45	194.62	22340101	10.0000
Olanzapine	3.750	262366	163562.12	1255.67	1930534	10.0000
Oxazepam	4.521	4426368	315.63	273.42	20057288	10.0000
Oxycodone	2.909	3445058	1168.93	830.86	16925999	10.0000
Oxymorphone	2.347	1603297	2240.58	336.97	169591	10.0000
Paroxetine	4.331	38288	30.75	121.66	464956	10.0000
Phenazepam	4.651	3802850	1105.07	1296.65	29748901	10.0000
Phencyclidine	3.895	3247102	1026.01	341.71	2422883	10.0000
Phentermine	3.133	1137965	93.02	38.53	14355798	10.0000
Phenytoin	4.141	3182726	2358212.05	742.94	1930534	10.0000
Promethazine	4.306	699728	44668.23	68.02	22340101	10.0000
Pseudoephedrine	2.720	46913157	42977.65	4183.44	14982698	10.0000
Quetiapine	4.390	1398090	221270.01	157362.47	35346811	10.0000
Sertraline	4.550	76810	66.54	51.77	464956	10.0000
Sufentanil	4.359	18106	29978.68	19.48	31892475	10.0000
Tapentadol	3.422	5475484	936.21	711.80	16925999	10.0000
Temazepam	4.673	6809926	1732.37	157.23	29748901	10.0000
Tramadol	3.402	9841172	4611.39	141.14	22340101	10.0000
Trazodone	4.482	1112570	242.71	175.79	5182932	10.0000

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AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Venlafaxine	3.784	6472475	55028.46	1017.55	464956	10.0000
Zaleplon	4.351	4880734	1416.72	2142.61	35346811	10.0000
Zolpidem	4.212	9354307	1555.52	2337.46	35346811	10.0000
Zopiclone	4.052	1417287	1158024.39	616486.85	7557355	10.0000

8C

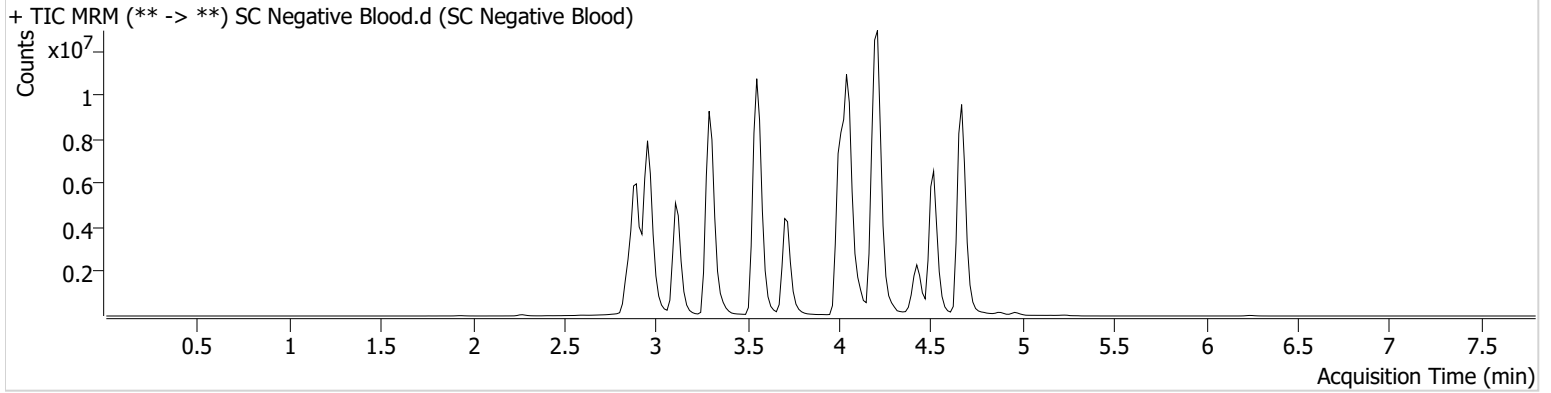


AM #25 Multi-Drug Screen Results

Batch results G:\TOX\Pocatello\Falco\2021\AM 25-26\031021 AM 25 26 CS\QuantResults\AM 25 SAEC.batch.bin
Calibration Last Update 3/11/2021 8:26:39 AM

Instrument	Instrument 1	Data File	SC Negative Blood.d
Type	Sample	Sample	SC Negative Blood
Acq. Method	AM 25 MDS.m	Operator	Sarah Collins
Sample Position	P3-C1	Comment	
Injection Volume	5		
Acq. Date-Time	3/11/2021 2:35:19 AM		
Sample Info.			

Sample Chromatogram



8C

AM# 26: THC and Metabolites Screen in Blood by LC-MS/MSExtraction Date: 03/08/21Analyst: Sarah Collins

Plate lot#: IDP-108-2-201206

Plate Expiration: 06/06/21

Mobile phase A: 10mM Ammonium Formate
0.1% Formic Acid in Water**Mobile phase B:** 0.1% Formic acid in MeOH
MTBE Hexane**Blank Blood Lot:** Lampire 20L20724**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.

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **1000 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: #3382167**
- 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 4. Pipette **500 µL 0.1% formic acid** in wells of analytical plate.
- 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
- 6. Transfer **800 µL 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)
- 8. Wait 5 minutes.
- 9. Add **2.25 mL MTBE** (add in 3 increments of 750 µL).
- 10. Wait 5 minutes.
- 11. Apply positive pressure for approx. 10-15 seconds. **(12-15 PSI- Selector to the left).**
- 12. Add **2.25 mL hexane** (add in 3 increments of 750 µL).
- 13. Wait 5 minutes.
- 14. Apply positive pressure for approx. 10-15 seconds. **(12-15 PSI- Selector to the left).**
- 15. Remove plate containing eluate. Place on SPE Dry and evaporate to dryness at approx. 35°C.
- 16. Reconstitute in **100 µL 100% LCMS MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

- 1. Create batch and process data.
- 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 (analyst discretion between 5-10 ng/mL).
- 3. Retention time within +/- 2% or +/-0.100 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: Case sample P2021-0455-1 was reinjected due to low internal standard response. Reinject data used. The run stopped on case sample P2021-0514-1 due to a clog in the needle seat. The needle seat was replaced and the case sample was reconstituted and reinjected. Reinject data used.

Calibrator 4 in THC-OH dropped due to peak cut off and low accuracy.

8C

	1	2	3	4	5	6
A	IS + Cal. 1	negative	p2020-2903-1	p2021-0455-1	p2021-0514-1	p2021-0437-1
B	IS + Cal. 2	m2020-4929-1	p2021-0050-1	p2021-0458-1	case sample was not moved 03/17/21 8C p2021-0524-1*	p2021-0438-1
C	IS + Cal. 3	m2020-5027-1	p2021-0220-1	p2021-0459-1	p2021-0525-1*	well not used
D	IS + Cal. 4	m2021-0484-2	p2021-0324-1	p2021-0471-1	p2021-0527-1*	p2021-0481-1
E	IS + Cal. 5	m2021-0533-1	p2021-0390-1*	p2021-0472-1	p2021-0528-1	p2021-0513-1
F	IS + Cal. 6	m2021-0583-1	p2021-0437-1*	p2021-0481-1*	p2021-0535-1	p2021-0525-1
G	IS + Cal. 7	m2021-0666-1	p2021-0438-1*	p2021-0482-1	p2021-0564-1	p2021-0527-1
H	IS + QC_1	m2021-0671-2	p2021-0440-1	p2021-0513-1*	p2021-0390-1	

All wells to contain 100 µl of residual DMSO

*Samples moved during analytical step 6 due to blood clot

AM #26 Cannabinoids Screen Results

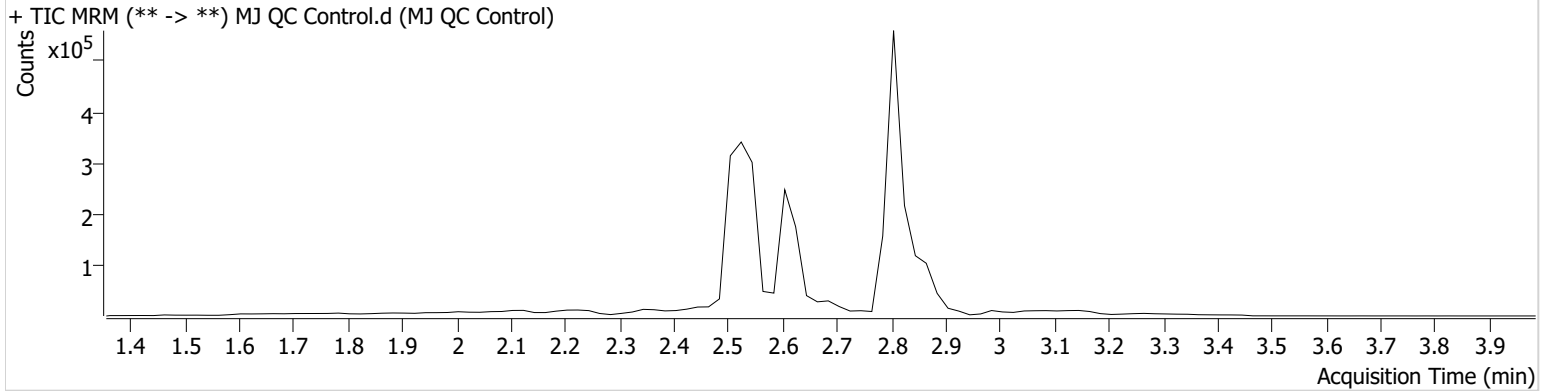
8C



Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ QC Control.d
Type	Sample	Sample	MJ QC Control
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-H1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 5:39:39 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	5499	151200	4.5270 ng/ml
THC-COOH	2.625	100765	367254	14.4006 ng/ml
THC-OH	2.554	6580	1088425	4.1886 ng/ml

8C

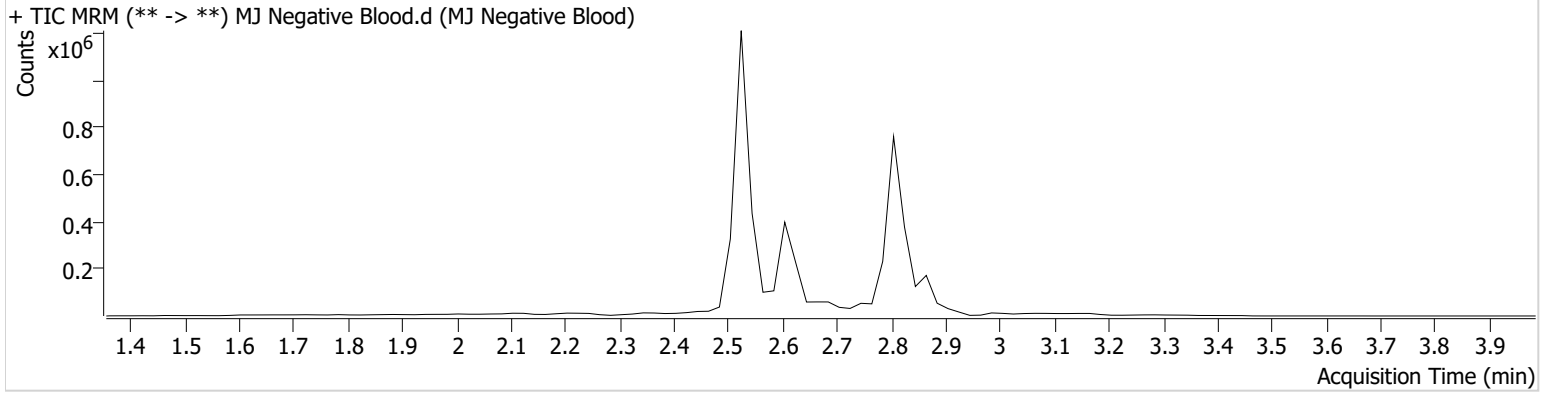


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument Type	Instrument 1 Sample	Data File	MJ Negative Blood.d
Acq. Method	AM 26 THCS.m	Sample	MJ Negative Blood
Sample Position	P1-A2	Operator	Sarah Collins
Injection Volume	10	Comment	
Acq. Date-Time	3/8/2021 5:52:44 PM		
Sample Info.			

Sample Chromatogram

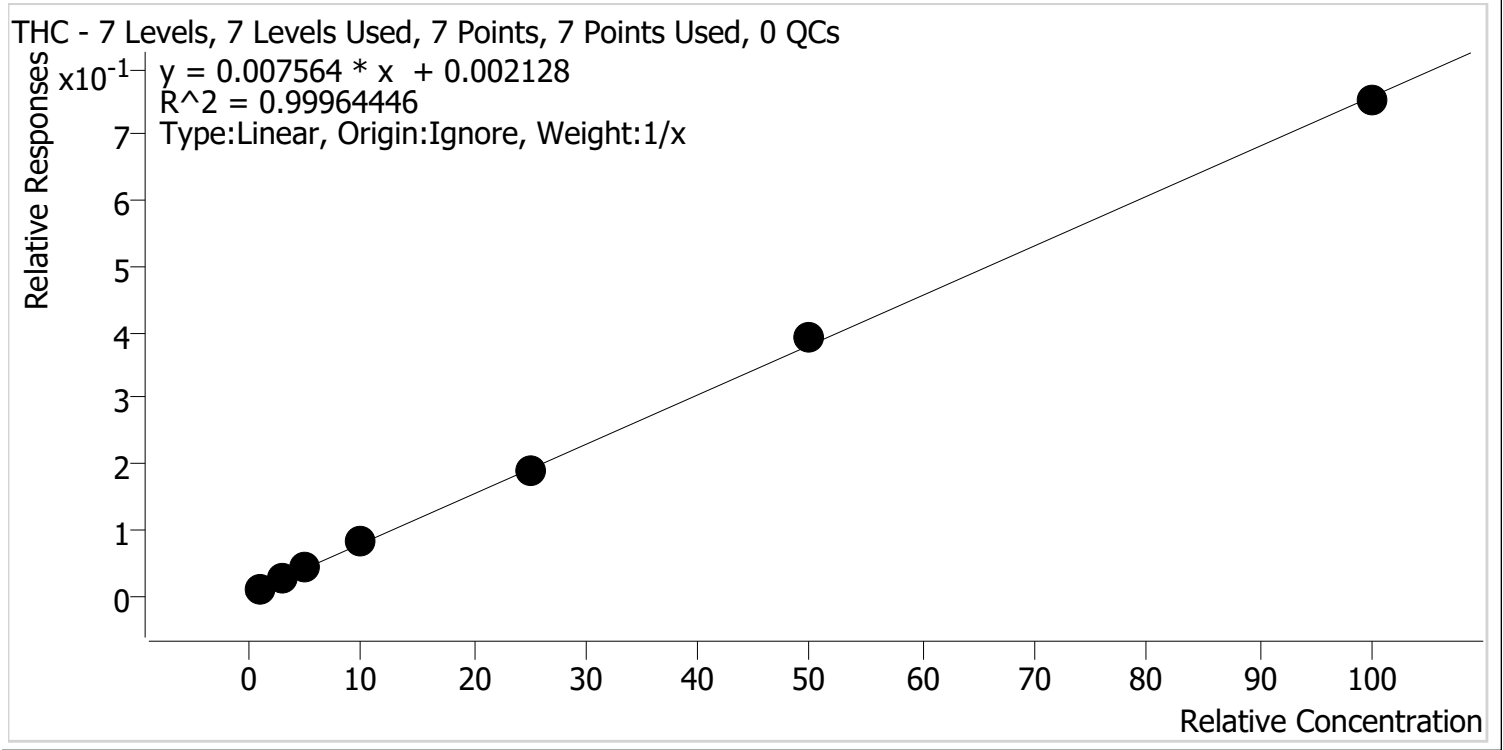


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AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Last Cal. Update 3/9/2021 9:16 AM
Analyst Name ISP\Datastor
Analyte THC **Internal Standard** THC-D3



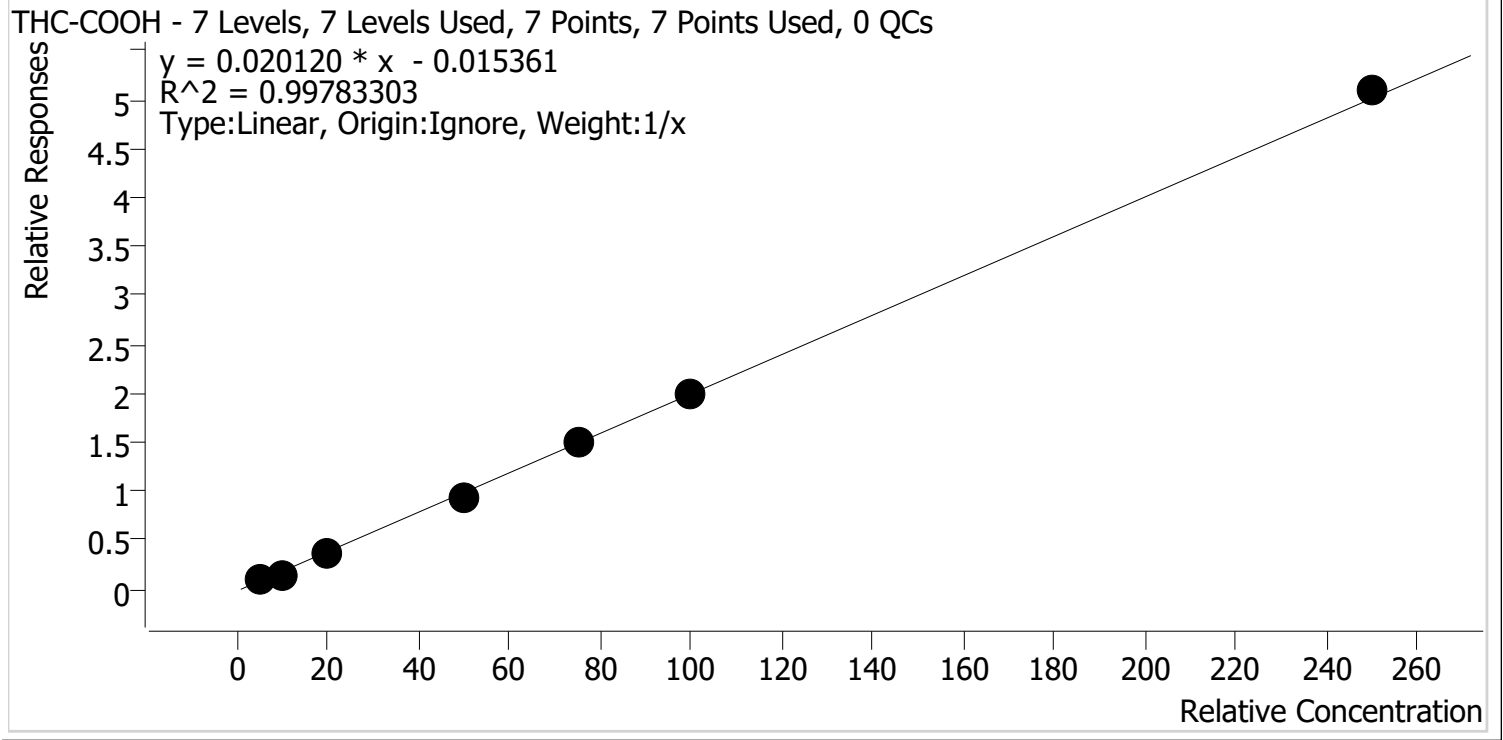
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	1.0	1.0	96.6
MJ Cal 2	2	✓	3.0	3.0	100.8
MJ Cal 3	3	✓	5.0	5.1	101.5
MJ Cal 4	4	✓	10.0	10.2	102.1
MJ Cal 5	5	✓	25.0	24.4	97.4
MJ Cal 6	6	✓	50.0	51.2	102.4
MJ Cal 7	7	✓	100.0	99.2	99.2

8C



AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Last Cal. Update 3/9/2021 9:16 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	6.2	123.2
MJ Cal 2	2	✓	10.0	8.3	83.2
MJ Cal 3	3	✓	20.0	19.7	98.5
MJ Cal 4	4	✓	50.0	46.7	93.3
MJ Cal 5	5	✓	75.0	75.0	100.0
MJ Cal 6	6	✓	100.0	100.2	100.2
MJ Cal 7	7	✓	250.0	254.0	101.6

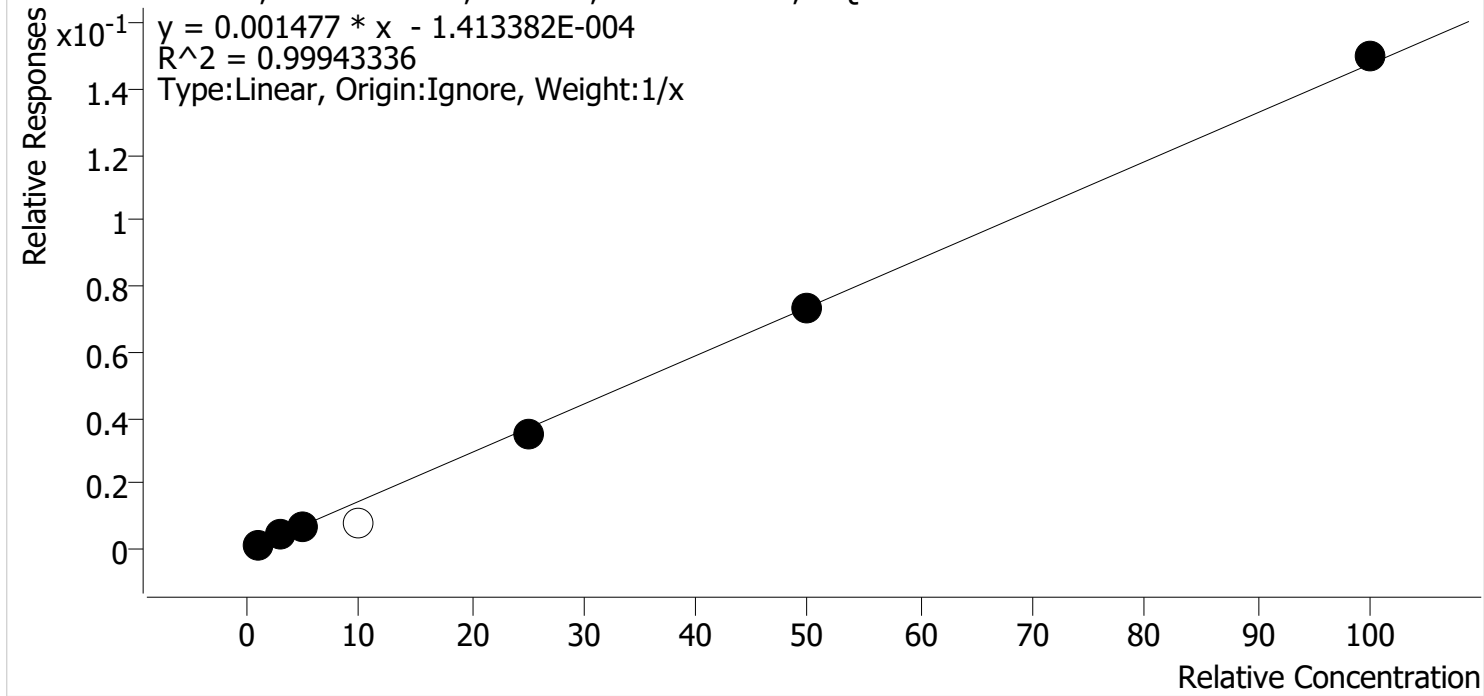
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AM #26 Cannabinoids Screen Calibration Curve Report

Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Last Cal. Update 3/9/2021 9:16 AM
Analyst Name ISP\Datastor
Analyte THC-OH **Internal Standard** THC-OH-D3

THC-OH - 7 Levels, 6 Levels Used, 7 Points, 6 Points Used, 0 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
MJ Cal 1	1	✓	1.0	1.0	104.7
MJ Cal 2	2	✓	3.0	3.0	101.0
MJ Cal 3	3	✓	5.0	4.9	98.3
MJ Cal 4	4	x	10.0	5.5	55.1
MJ Cal 5	5	✓	25.0	23.8	95.0
MJ Cal 6	6	✓	50.0	49.7	99.4
MJ Cal 7	7	✓	100.0	101.6	101.6

AM #26 Cannabinoids Screen Results

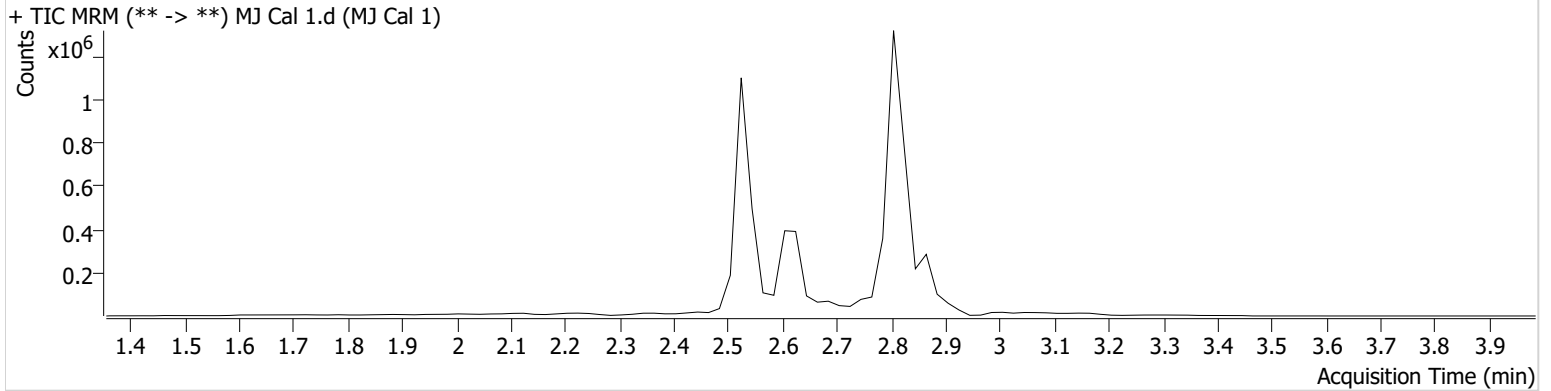
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Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ Cal 1.d
Type	Cal	Sample	MJ Cal 1
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-A1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 4:53:43 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.	
THC	2.879	3004	318371	0.9661 ng/ml	Low
THC-COOH	2.625	89073	820546	6.1589 ng/ml	
THC-OH	2.534	3173	2257960	1.0471 ng/ml	Low

8C

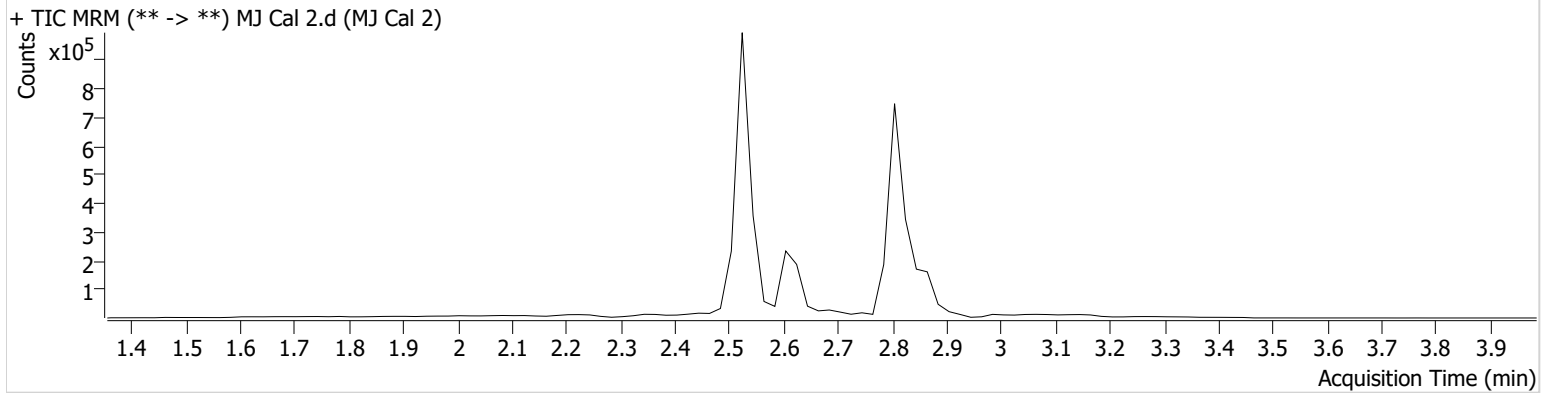


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ Cal 2.d
Type	Cal	Sample	MJ Cal 2
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-B1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 5:00:24 PM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	5290	211541	3.0250 ng/ml
THC-COOH	2.625	62747	412712	8.3201 ng/ml
THC-OH	2.534	8136	1876781	3.0305 ng/ml

AM #26 Cannabinoids Screen Results

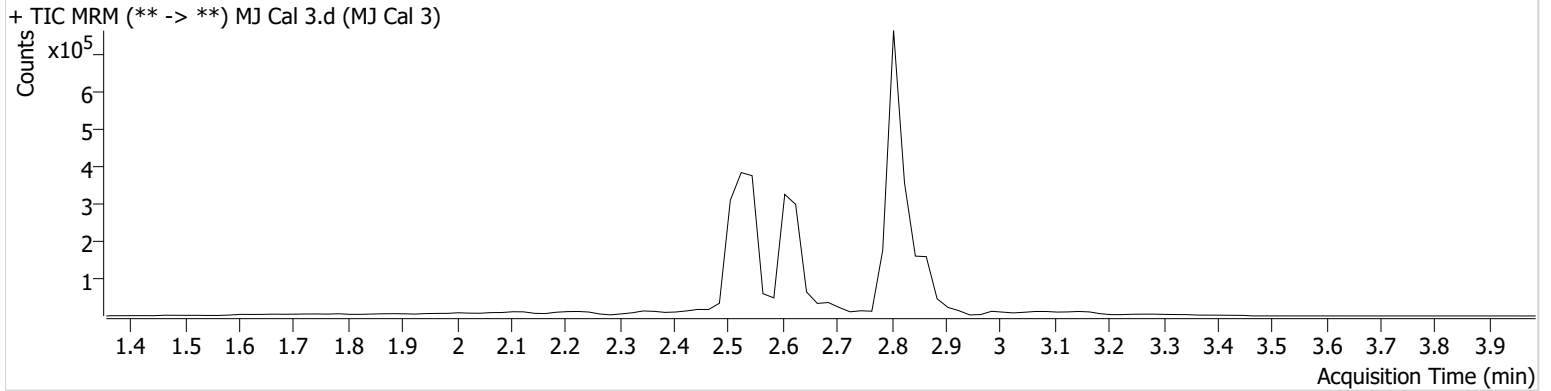
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Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ Cal 3.d
Type	Cal	Sample	MJ Cal 3
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-C1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 5:06:58 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	8285	204451	5.0762 ng/ml
THC-COOH	2.625	189147	496428	19.7011 ng/ml
THC-OH	2.554	8593	1207154	4.9146 ng/ml

AM #26 Cannabinoids Screen Results

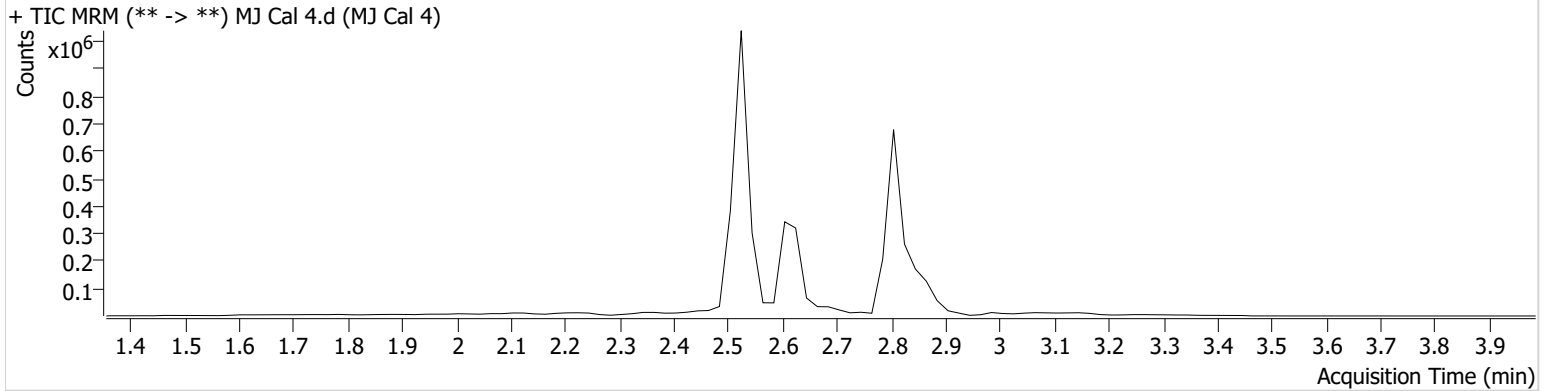
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Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ Cal 4.d
Type	Cal	Sample	MJ Cal 4
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-D1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 5:13:31 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	15694	197861	10.2056 ng/ml
THC-COOH	2.625	316647	342798	46.6748 ng/ml
THC-OH	2.514	15642	1957121	5.5064 ng/ml

AM #26 Cannabinoids Screen Results

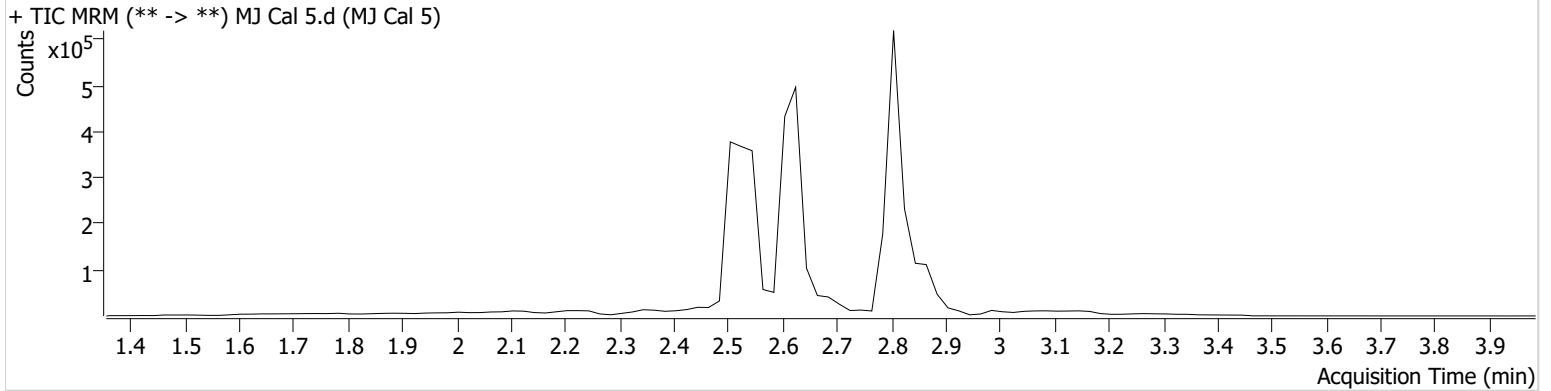
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Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ Cal 5.d
Type	Cal	Sample	MJ Cal 5
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-E1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 5:20:05 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.859	25436	136521	24.3520 ng/ml
THC-COOH	2.625	549792	368062	75.0073 ng/ml
THC-OH	2.514	36983	1058119	23.7578 ng/ml

8C

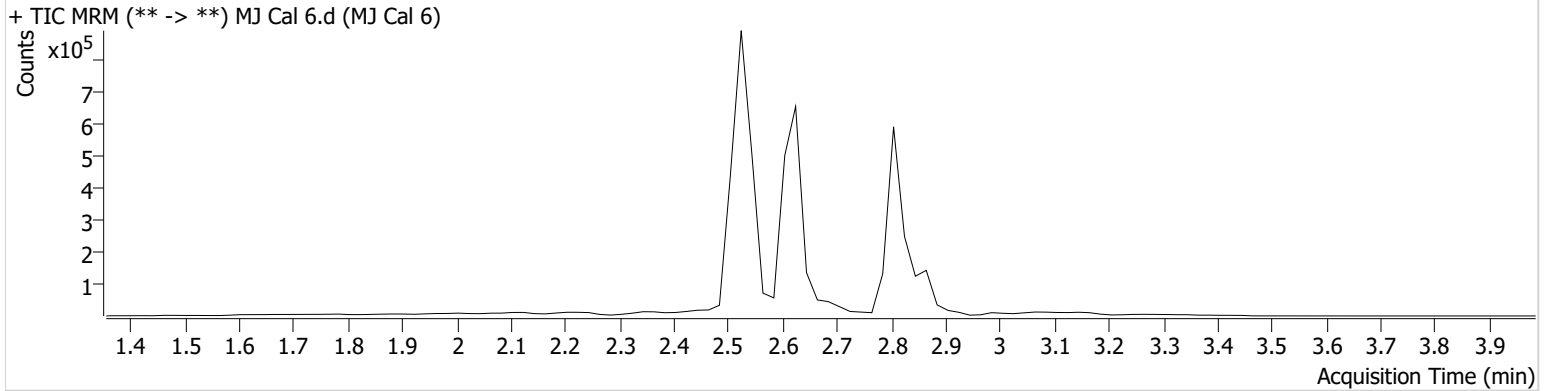


AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ Cal 6.d
Type	Cal	Sample	MJ Cal 6
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-F1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 5:26:36 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	56090	144066	51.1942 ng/ml
THC-COOH	2.625	739582	369798	100.1677 ng/ml
THC-OH	2.514	78796	1075429	49.6987 ng/ml

AM #26 Cannabinoids Screen Results

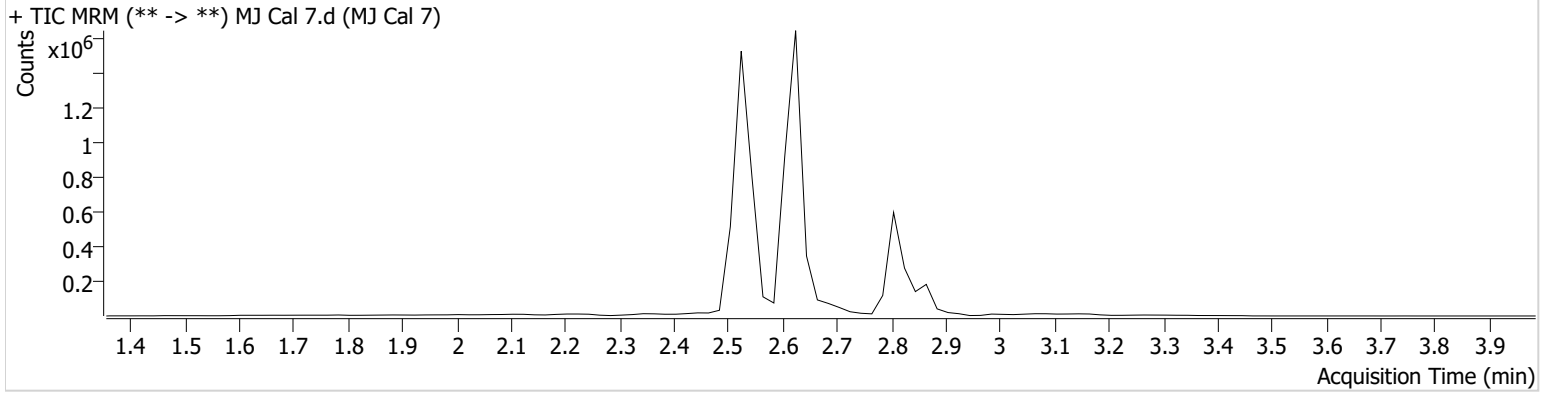
8C



Batch results D:\MassHunter\Data\2021\AM 25-26\030821 AM 25 26 SAEC\QuantResults\AM 26.batch.bin
Calibration Last Update 3/9/2021 9:16:57 AM

Instrument	Instrument 1	Data File	MJ Cal 7.d
Type	Cal	Sample	MJ Cal 7
Acq. Method	AM 26 THCS.m	Operator	Sarah Collins
Sample Position	P1-G1	Comment	
Injection Volume	10		
Acq. Date-Time	3/8/2021 5:33:08 PM		

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	2.879	108523	144258	99.1810 ng/ml
THC-COOH	2.625	1972942	387277	253.9700 ng/ml
THC-OH	2.554	162438	1083921	101.5513 ng/ml