











REVIEWED

By Celena Shrum at 9:21 am, Jun 13, 2019



6/12/2019

Worklist: 3459

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
C2019-0933	1	152038	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-0955	1	152356	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-0985	1	152601	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-1003	2	152740	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-1055	1	153367	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-1057	1	153429	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-1071	1	153482	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-1074	2	153574	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-1079	1	153572	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	
C2019-1084	1	153605	AM 25/AM 26 Blood MultiDrug/THC Screen by Li	



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

Extraction Date: 6/10/19

Analyst: Anne Nord

Plate lot#: 0543908

Plate Expiration: November 28 2019

Mobile phase A: 10mM Amm Form
0.5M Ammonium Hydroxide

Mobile phase B: 0.1% Formic Acid in MeOH
Ethyl Acetate LC Methanol

Blank Blood Lot: 19A207P3

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

LCMS-QQQ ID: 69679

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: Data Path Name: D:\masshunter\Data\2019\am 25-26\061019

Analytic:

- 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
- 2. Pipette **250µL blood (calibrated pipette) Pipette ID: 1926134** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **250µL 00.5M 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: 66792
- 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: 66819
- 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
- 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. Calc conc 5 or greater, discretionary range 2-5
- 4. Did all QCs pass for each analyte? Y / N yes
- 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS: zolpiclone not evaluated.

Acquisition Method Report



Acquisition Method Info

Method Name am 25 short.m
Method Path D:\MassHunter\methods\am 25 short.m
Method Description Panel 1 Screen uses Phenomenex Column (PN 00B-4495-E0 2.6 um Phenyl Hexyl 100 LC Column 50 x 4.6mm)
Device List
 Binary Pump

Name: Binary Pump

Module: G7120A

Flow 0.500 mL/min
Use Solvent Types Yes
Stroke Mode Synchronized
Low Pressure Limit 0.00 bar
High Pressure Limit 800.00 bar
Max. Flow Ramp Up 100.000 mL/min²
Max. Flow Ramp Down 100.000 mL/min²
Expected Mixer No check
Stroke A
Automatic Stroke Calculation A Yes
Stop Time
Stoptime Mode Time set
Stoptime 6.00 min
Post Time
Posttime Mode Off

Solvent Composition

	Channel	Ch. 1 Solv.	Name 1	Ch2 Solv.	Name 2	Selected	Used	Percent
1	A	100.0 % Water V.03	10 mM ammonium formate	100.0 % Water V.03		Ch. 1	Yes	95.00 %
2	B	100.0 % Methanol V.03	.1% formic acid	100.0 % Acetonitrile V.03		Ch. 1	Yes	5.00 %

Timetable

	Time	A	B	Flow
1	4.00 min	0.00 %	100.00 %	0.500 mL/min
2	5.00 min	0.00 %	100.00 %	0.500 mL/min
3	5.10 min	95.00 %	5.00 %	0.500 mL/min
4	6.00 min	95.00 %	5.00 %	0.500 mL/min



Toxicology AM method 28 panel 1 external prep information

working solution 10000 ng/ml in meoh amphetamine, dextromethorphan, methamphetamine, morphine, paroxetine, amitriptyline meperidine, doxepine^{6/13/19}, mirtazapine, 1000 ng/ml buprenorphine

Stock solution 1mg/ml (.1mg/ml buprenorphine) 100 ul each in 9000 ul meOH

Ppd 3/14/19 Exp: 3/14/20 lot 31420 by AMN

Drug	lot	expiration
amphetamine	FE06011503	6/1/2020
dextromethorphan	FN07231501	7/1/2020
methamphetamine	FE08101708	10/1/2022
morphine	FE08141515	11/1/2020
buprenorphine	FE09211501	9/1/2020
paroxetine	FN05111505	6/1/2020
mirtazapine	FN04201503	4/1/2020
meperidine	FE01191502	2/1/2020 (this compound will not be evaluated in this control after 2/1/2020)
doxepine ^{6/13/19} *	FN01281502	2/1/2020 (this compound will not be evaluated in this control after 2/1/2020)
amitriptyline	FN07081401	9/1/2019 (this compound will not be evaluated in this control after 9/1/2019)

AM 28 control 50 ul working solution lot (31420) in 9950 ul blood lot (19A207P3)

ppd 3/14/19 Exp 3/14/2020 by AMN Concentration 50 ng/ml each (5 ng/ml buprenorphine)

used for AM 25 control 6/10/19

AM #25 Multi-Drug Screen Results



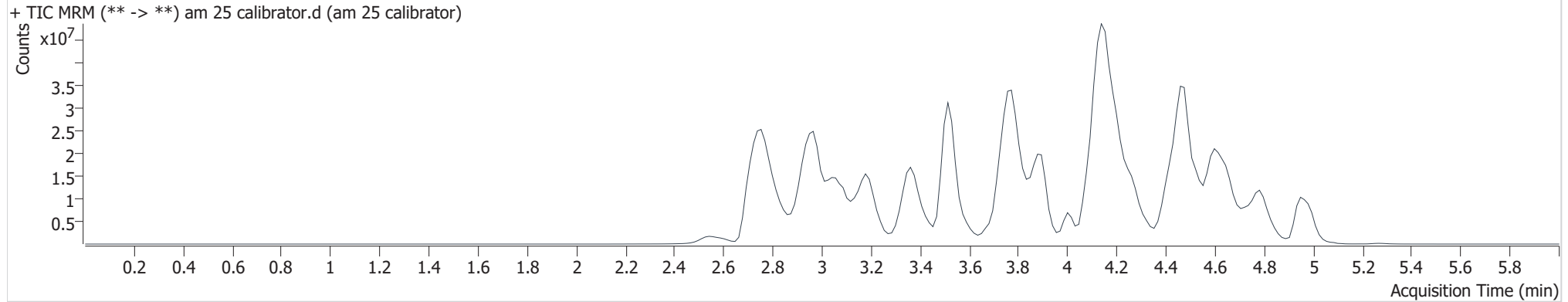
Batch results
Calibration Last Update

D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\mds.batch.bin
6/11/2019 4:16:02 PM

Instrument 69679
Type Cal
Acq. Method am 25 short.m
Sample Position P2-B1
Injection Volume 5
Acq. Date-Time 6/10/2019 10:45:04 AM
Sample Info.

Data File am 25 calibrator.d
Sample am 25 calibrator
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
6-MAM	3.268	43282	226.61	54.57	1511296	10.0000
7-aminoclonazepam	3.531	293352	98.56	134.32	1382106	10.0000
7-aminoflunitrazepam	3.729	1159433	1586.44	513.76	6834527	10.0000
Acetyl Fentanyl	4.416	358629	301.04	586.85	24056712	10.0000
Acetyl Norfentanyl	2.943	198018	43892.18	42.62	11389906	10.0000
a-hydroxyalprazolam	4.432	148594	70.30	40444.04	846400	10.0000
alpha-hydroxymidazolam	4.523	573646	163.27	1171.48	4191982	10.0000
alpha-PVP	3.860	7623190	28315.17	2599.69	31400391	10.0000
Alprazolam	4.542	2093067	550.63	1268.93	7220833	10.0000
Amitriptyline	4.747	1038040	57.98	∞	4507332	10.0000
Amphetamine	2.963	4317246	1674.23	2773.49	12176307	10.0000
Benzoylcegonine	3.317	708283	1228.49	167.68	1553690	10.0000
Buprenorphine	5.283	75392	1571.64	1049.64	574220	10.0000
Bupropion	4.151	3186259	160.52	430.76	17489206	10.0000
Carbamazepine	4.167	3343038	∞	2223.65	17313956	10.0000
Carisoprodol	4.149	1319160	778.40	264.95	6195222	10.0000
Chlordiazepoxide	4.667	242916	35.66	400.58	5852855	10.0000
Chlorpheniramine	4.117	12463	32.55	6840.32	60366165	10.0000

am 25 calibrator

AM #25 Multi-Drug Screen Results



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Citalopram	4.231	5665369	3152.36	300.57	25853278	10.0000
Clonazepam	4.386	352559	644.55	108735.07	583250	10.0000
Cocaine	3.803	8042571	35097.18	10072.59	37824939	10.0000
Codeine	3.225	776708	2065.22	2076.01	3776908	10.0000
Cyclobenzaprine	4.625	6198943	3496.20	234.00	23936288	10.0000
Desipramine	4.548	3220712	2789.79	258.14	16211637	10.0000
Dextromethorphan	4.270	5146638	4755.36	212.57	27242798	10.0000
Dextrorphan	3.534	4711999	6037.67	878.34	27334115	10.0000
Diazepam	4.791	680776	547.02	2409.89	2678305	10.0000
Dihydrocodeine	2.967	1997351	15443.33	8016.80	11801986	10.0000
Diphenhydramine	4.195	20399657	1865.62	967.61	60366165	10.0000
Doxepin	4.438	1444677	441.69	145.63	8862865	10.0000
Doxylamine	3.746	23499966	36698.57	1566.34	62704181	10.0000
EDDP	4.130	5006118	971.04	∞	29314645	10.0000
Estazolam	4.451	1191153	438.12	807.31	3596201	10.0000
Etizolam	4.538	102817	54689.60	7938.90	3596201	10.0000
Fentanyl	4.631	679176	132.89	1748.56	34197864	10.0000
Flunitrazepam	4.511	114001	121.78	129.93	18962	10.0000
Fluoxetine	4.434	4520048	3216.36	7976.61	19745052	10.0000
Flurazepam	4.629	2454836	1074440.70	322986.56	18962	10.0000
Hydrocodone	3.469	2533623	531.99	1135.70	15885549	10.0000
Hydromorphone	2.819	2010552	2461.91	122.52	5489891	10.0000
Imipramine	4.670	4283656	6264.12	70.09	17141721	10.0000
Ketamine	4.121	3832287	385.53	560.01	24742417	10.0000
Lamotrigine	3.626	363728	596.20	2219.76	11313189	10.0000
Levamisole	3.372	2971296	127528.56	1810.83	37824939	10.0000
Lorazepam	4.371	193635	16.01	15.79	7220833	10.0000
Maprotiline	4.562	273410	16.47	347.41	4507332	10.0000
MDA	3.113	1701283	605.85	183.77	8327312	10.0000
MDEA	3.356	4276614	288.60	166.59	20538694	10.0000
MDMA	3.204	4488536	50998.84	1506.66	2579055	10.0000
Meperidine	3.842	2291658	2272.87	1459.08	11313189	10.0000
Meprobamate	3.601	661200	561.18	201.65	3045943	10.0000
Methadone	4.496	14495281	1103.71	∞	46561048	10.0000
Methamphetamine	3.084	13802007	416.02	393.16	39410680	10.0000
Methocarbamol	3.521	101940	86.76	192.08	11313189	10.0000
Methylphenidate	3.385	472862	59.80	71.22	938736	10.0000
Metoprolol	3.503	1280348	246.56	1557.75	11313189	10.0000
Midazolam	4.693	369695	853.97	3131.63	5622856	10.0000
Mirtazapine	4.579	4040120	2123.81	674.70	11313189	10.0000
Mitragynine	4.643	386287	88765.59	3349.45	8862865	10.0000
Morphine	2.609	698277	2250.06	6240.22	555117	10.0000
Norbuprenorphine	4.045	34287	123.94	30037.20	285800	10.0000
Nordiazepam	4.625	281782	434.43	491.66	877674	10.0000

am 25 calibrator



AM #25 Multi-Drug Screen Results

Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Norfentanyl	3.385	4145339	2028.43	795.13	36540339	10.0000
Norhydrocodone	3.090	92777	42.71	50.24	2506267	10.0000
Normeperidine	3.691	1841520	12122.96	392.31	7317421	10.0000
Noroxycodone	2.997	1786291	∞	73.09	6191279	10.0000
Nortriptyline	4.595	1087112	∞	408.72	2986853	10.0000
O-desmethyl-tramadol	2.972	16875835	8569.20	561.85	56964136	10.0000
Olanzapine	4.295	958714	1019.98	97.80	48170	10.0000
Oxazepam	4.452	165505	124.51	11.50	733170	10.0000
Oxycodone	3.192	5303482	507.30	539.63	24645439	10.0000
Oxymorphone	2.558	1740675	2015.05	8619.53	6592233	10.0000
Paroxetine	4.600	184343	58.77	50.01	8070821	10.0000
Phenazepam	4.568	207492	245.50	88484.97	946979	10.0000
Phencyclidine	4.026	2936547	6047.20	332.37	15607211	10.0000
Phentermine	3.221	3230953	610.74	39.05	27426805	10.0000
Phenytoin	4.073	3526	1167.96	9.45	48170	10.0000
Promethazine	4.792	6162747	2267.35	952.29	26636606	10.0000
Pseudoephedrine	2.764	47863320	8330.76	47519.82	134083218	10.0000
Quetiapine	4.797	5541517	2491.49	58038.60	6077405	10.0000
Sertraline	4.819	1776742	294.64	302.73	8070821	10.0000
Sufentanil	4.995	292391	23282.31	233.60	16743863	10.0000
Tapentadol	3.525	3274472	11299.74	218.68	16787814	10.0000
Temazepam	4.590	1298459	558.07	78.45	6795145	10.0000
Tramadol	3.533	16590674	8326.42	212.43	53867848	10.0000
Trazodone	4.966	5391461	982.12	673.34	24719878	10.0000
Venlafaxine	3.899	14710561	8902.50	313.26	50127626	10.0000
Zaleplon	4.281	793141	974.77	301.38	2372678	10.0000
Zolpidem	4.481	12134704	2417.19	917.42	42575117	10.0000

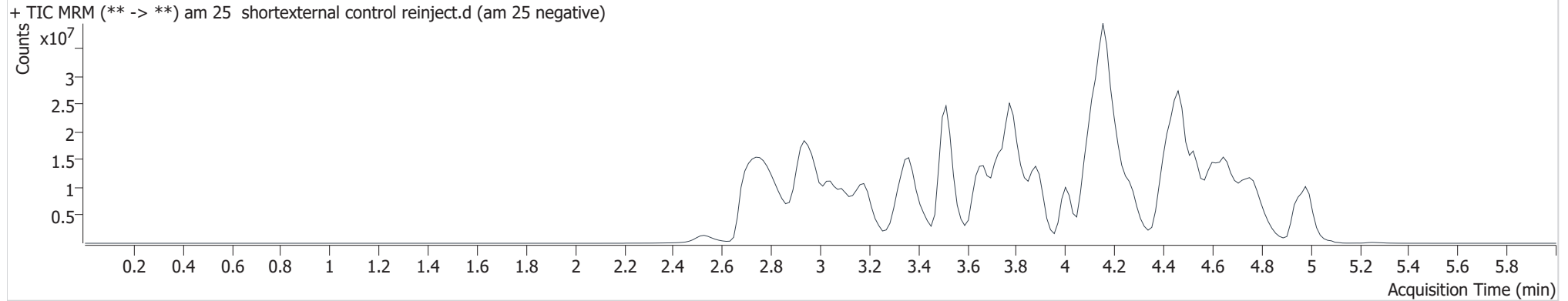
AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\mds.batch.bin
Calibration Last Update 6/11/2019 4:16:02 PM

Instrument 69679
Type Sample
Acq. Method am 25 short.m
Sample Position P2-A6
Injection Volume 5
Acq. Date-Time 6/10/2019 10:52:15 AM
Sample Info.

Data File am 25 shortexternal control reinject.d
Sample am 25 negative
Operator Anne Nord
Comment ~~blood external control~~ Blood negative control

Sample Chromatogram



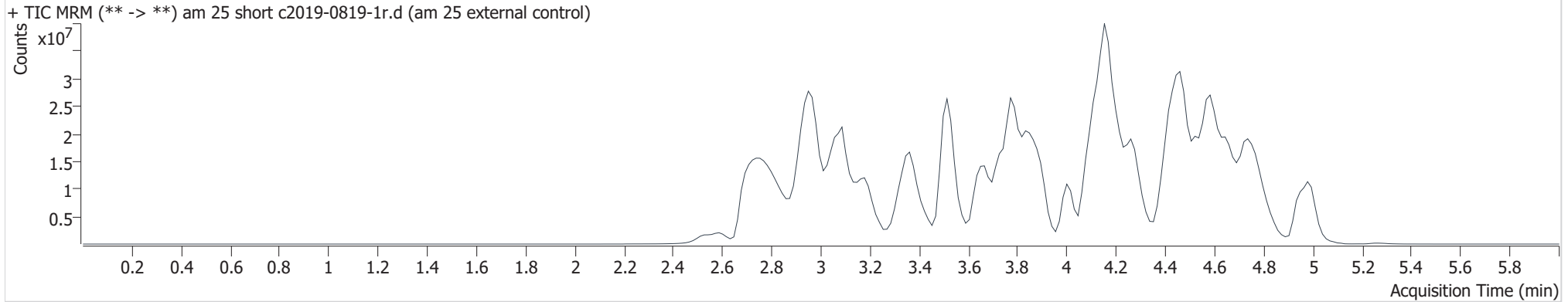
Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Methamphetamine	3.084	3127574	186.19	339.82	32351816	2.7605 < 10

AM #25 Multi-Drug Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\mds.batch.bin
Calibration Last Update 6/11/2019 4:16:02 PM

Instrument	69679	Data File	am 25 short c2019-0819-1r.d
Type	Sample	Sample	am 25 external control
Acq. Method	am 25 short.m	Operator	Anne Nord
Sample Position	P2-B6	Comment	
Injection Volume	5		
Acq. Date-Time	6/10/2019 10:59:27 AM		
Sample Info.			

Sample Chromatogram



Name	RT	Resp.	S/N	S/N	ISTD Resp.	Calc. Conc.
Amitriptyline	4.747	10311562	1618.08	982.06	11217541	39.9146
Amphetamine	2.978	14697081	3263.40	700.00	9686208	42.7943
Buprenorphine	5.283	67365	137.30	6901.94	710485	7.2216
Desipramine	4.579	1304314	277.16		37147953	1.7673 <5
Dextromethorphan	4.286	20459344	321577.14	16268.50	22835875	47.4244
Doxepin	4.453	13184964	7028.33	4305.12	18627048	43.4248
Meperidine	3.857	20471827	27350.43	32119.49	23025310	43.8921
Methamphetamine	3.084	34342371	6291.51	16670.22	31373344	31.2566
Mirtazapine	4.579	16508952	2547.05	4638.21	23025310	20.0773
Morphine	2.594	2267461	42870.68	14089.16	511648	35.2311
Paroxetine	4.600	2348669	442.58	66779.30	12375482	83.0905



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

Extraction Date: 6/10/19

Analyst: Anne Nord

Plate lot#: 0539904

Plate Expiration: 09/10/2019

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: 19A207P3

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

LCMS-QQQ ID: 69679

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: k52558g** in wells of analytical (standards) plate.
 - Blank blood for locations containing standards/QCs and internal standards
 - Sample blood for locations containing only internal standards
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 66759*
- 4. Pipette **500 µL 0.1% formic acid** 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: 66792
- 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: 66819
- 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.
Data path: D:\2019 data\am 25-26\061019 Batch Name: cann screen
- 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: *THC-COOH curve 5-100*

The primary peak was cut off for the THC cal2 it was re-run and the re-injected sample was used for data analysis.

Acquisition Method Report



Acquisition Method Info

Method Name am 26 cann screen.m
Method Path D:\MassHunter\methods\am 26 cann screen.m
Method Description Screen uses Phenomenex Column (PN 00B-4495-E0 2.6 um Phenyl Hexyl 100 LC Column 50 x 4.6mm)
Device List
 Binary Pump

Name: Binary Pump

Module: G7120A

Flow 0.600 mL/min
Use Solvent Types Yes
Stroke Mode Synchronized
Low Pressure Limit 0.00 bar
High Pressure Limit 600.00 bar
Max. Flow Ramp Up 100.000 mL/min²
Max. Flow Ramp Down 100.000 mL/min²
Expected Mixer No check
Stroke A
Automatic Stroke Calculation A Yes
Stop Time
Stoptime Mode Time set
Stoptime 6.00 min
Post Time
Posttime Mode Off

Solvent Composition

	Channel	Ch. 1 Solv.	Name 1	Ch2 Solv.	Name 2	Selected	Used	Percent
1	A	100.0 % Water V.03	10mM ammonium formate	100.0 % Water V.03		Ch. 1	Yes	50.00 %
2	B	100.0 % Methanol V.03	.1% formic	100.0 % Acetonitrile V.03		Ch. 1	Yes	50.00 %

Timetable

	Time	A	B	Flow
1	3.00 min	5.00 %	95.00 %	0.600 mL/min
2	4.50 min	5.00 %	95.00 %	0.600 mL/min
3	4.51 min	50.00 %	50.00 %	0.600 mL/min
4	6.00 min	50.00 %	50.00 %	0.600 mL/min

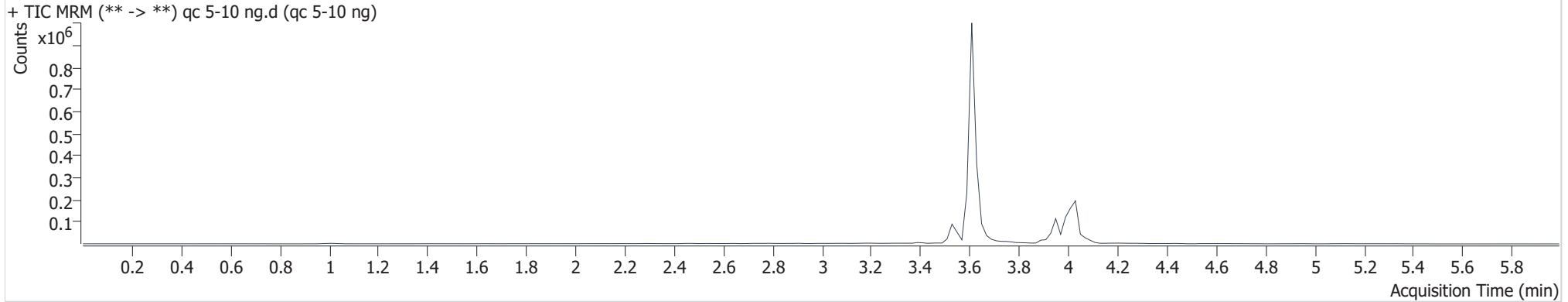
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type QC
Acq. Method am 26 cann screen.m
Sample Position P3-H1
Injection Volume 5
Acq. Date-Time 6/10/2019 2:17:25 PM
Sample Info.

Data File qc 5-10 ng.d
Sample qc 5-10 ng
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.040	40302	557422	3.1940 ng/ml
THC-COOH	3.548	38523	177844	11.3694 ng/ml
THC-OH	3.615	16365	1923965	5.1071 ng/ml

AM #26 Cannabinoids Screen Results

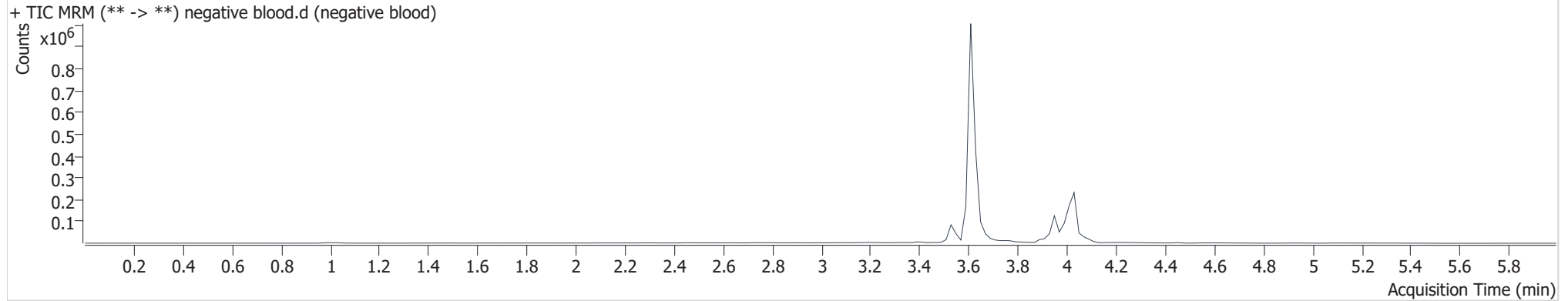


Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type Sample
Acq. Method am 26 cann screen.m
Sample Position P3-A2
Injection Volume 5
Acq. Date-Time 6/10/2019 2:24:03 PM
Sample Info.

Data File negative blood.d
Sample negative blood
Operator Anne Nord
Comment

Sample Chromatogram



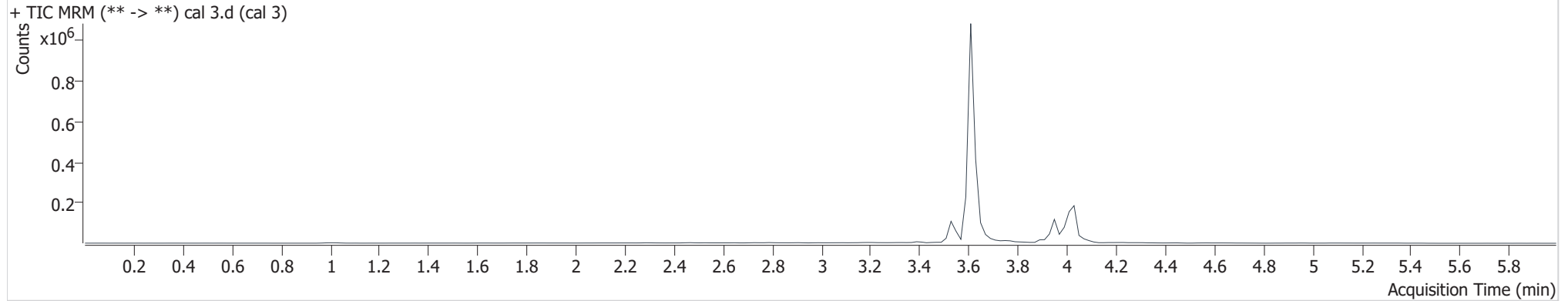
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type Cal
Acq. Method am 26 cann screen.m
Sample Position P3-C1
Injection Volume 5
Acq. Date-Time 6/10/2019 1:21:35 PM
Sample Info.

Data File cal 3.d
Sample cal 3
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.020	51869	452583	5.4477 ng/ml
THC-COOH	3.548	21491	226892	4.5974 ng/ml Low
THC-OH	3.615	17257	2087891	4.9620 ng/ml

AM #26 Cannabinoids Screen Results

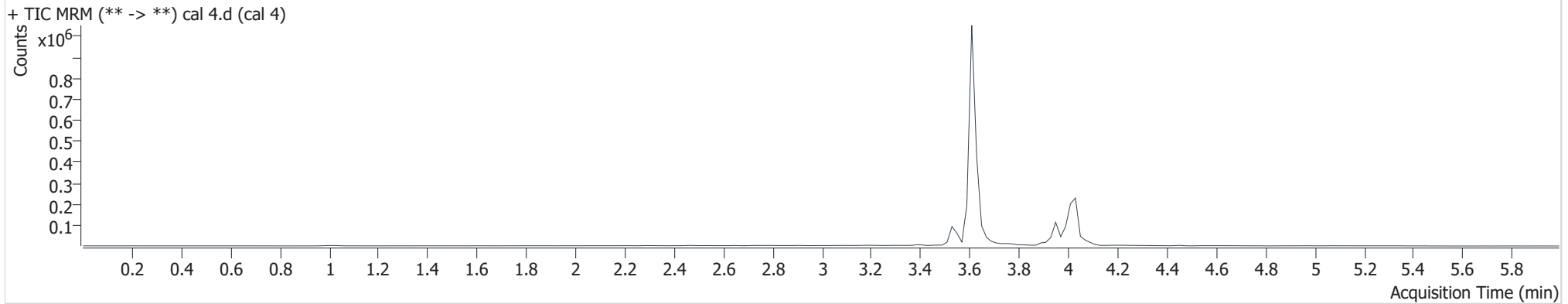


Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type Cal
Acq. Method am 26 cann screen.m
Sample Position P3-D1
Injection Volume 5
Acq. Date-Time 6/10/2019 1:28:12 PM
Sample Info.

Data File cal 4.d
Sample cal 4
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.020	120828	524605	12.2336 ng/ml
THC-COOH	3.548	39054	184110	11.1203 ng/ml
THC-OH	3.615	30725	1889783	9.7876 ng/ml

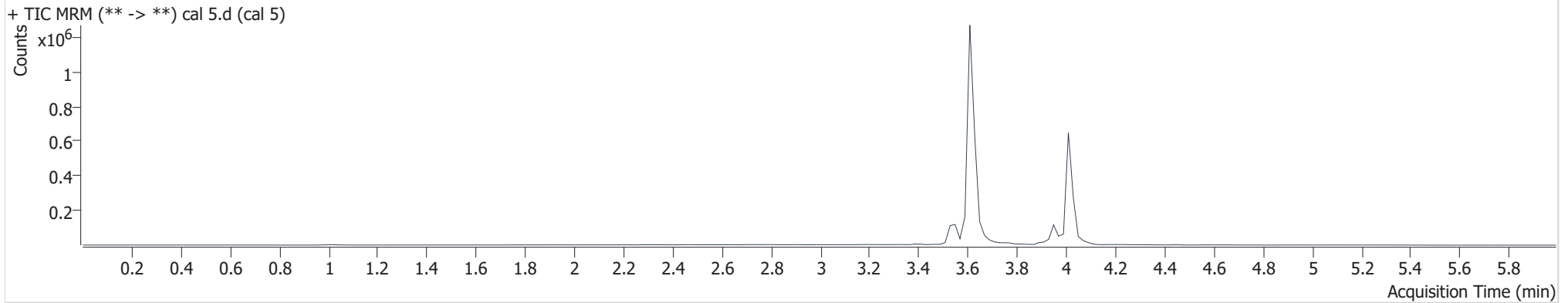
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type Cal
Acq. Method am 26 cann screen.m
Sample Position P3-E1
Injection Volume 5
Acq. Date-Time 6/10/2019 1:34:48 PM
Sample Info.

Data File cal 5.d
Sample cal 5
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.020	309509	870929	20.2239 ng/ml
THC-COOH	3.548	100596	217303	25.0542 ng/ml
THC-OH	3.615	80191	1959952	24.6731 ng/ml

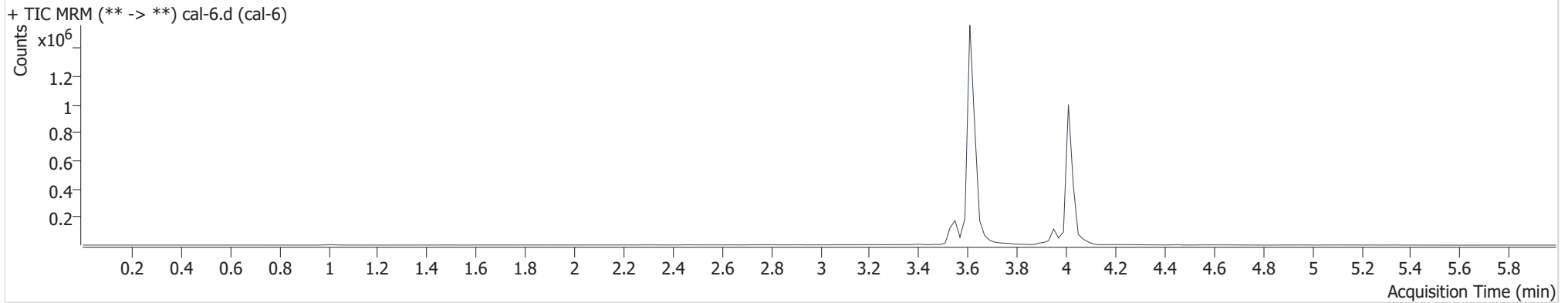
AM #26 Cannabinoids Screen Results

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type Cal
Acq. Method am 26 cann screen.m
Sample Position P3-F1
Injection Volume 5
Acq. Date-Time 6/10/2019 1:41:24 PM
Sample Info.

Data File cal-6.d
Sample cal-6
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.020	761287	1064716	45.4757 ng/ml
THC-COOH	3.548	175554	202904	47.4037 ng/ml
THC-OH	3.615	159810	1931100	49.9334 ng/ml

AM #26 Cannabinoids Screen Results

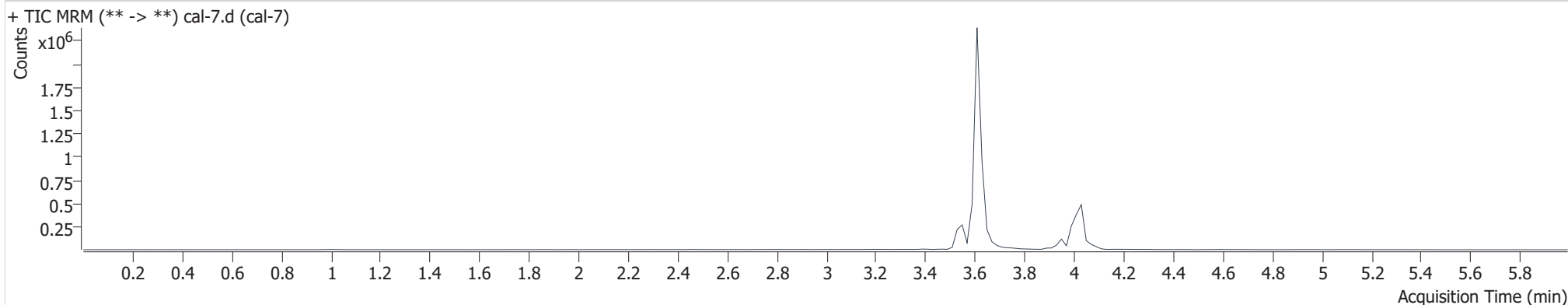


Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type Cal
Acq. Method am 26 cann screen.m
Sample Position P3-G1
Injection Volume 5
Acq. Date-Time 6/10/2019 1:48:00 PM
Sample Info.

Data File cal-7.d
Sample cal-7
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.040	773709	516490	107.1680 ng/ml
THC-COOH	3.548	356481	193241	101.8244 ng/ml
THC-OH	3.615	323392	1941540	100.5301 ng/ml

AM #26 Cannabinoids Screen Results

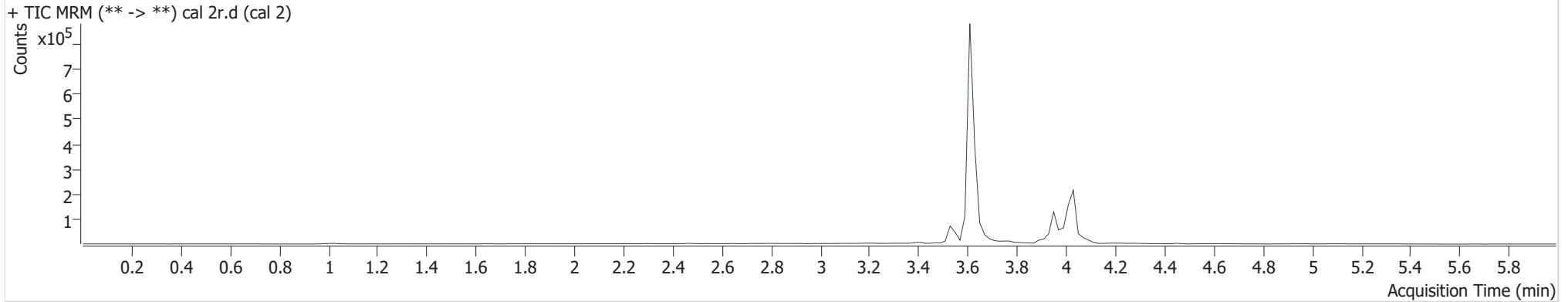


Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Calibration Last Update 6/11/2019 11:38:39 AM

Instrument 69679
Type Cal
Acq. Method am 26 cann screen.m
Sample Position P3-B1
Injection Volume 5
Acq. Date-Time 6/10/2019 3:36:41 PM
Sample Info.

Data File cal 2r.d
Sample cal 2
Operator Anne Nord
Comment

Sample Chromatogram



Name	RT	Resp.	ISTD Resp.	Final Conc.
THC	4.020	35496	501419	3.1168 ng/ml
THC-COOH	3.548	19949	172817	5.7484 ng/ml Low
THC-OH	3.615	9038	1736753	3.1139 ng/ml

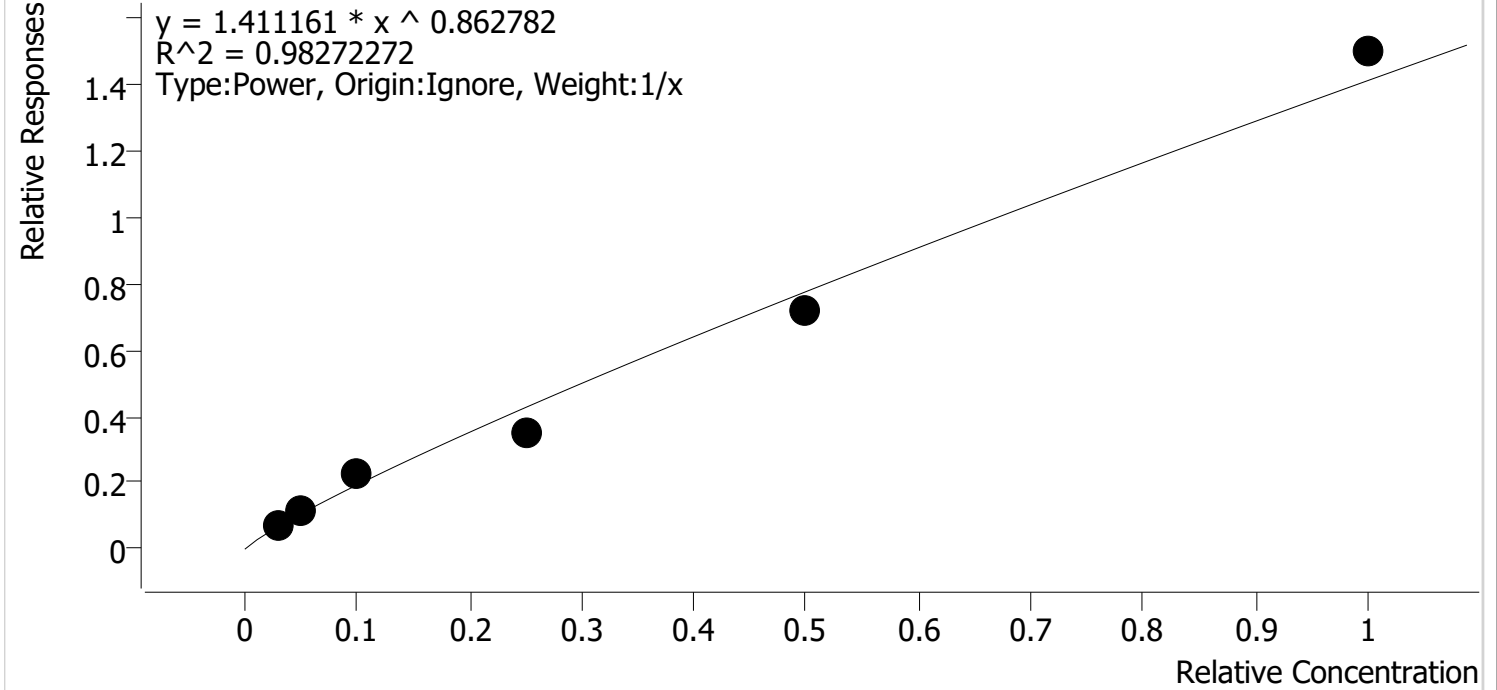
Compound Calibration Report

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Last Cal. Update 6/11/2019 11:38 AM
Analyst Name ISP\datastor
Analyte THC



Internal Standard THC-d3

THC - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 1 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 2	2	✓	3.0	3.1	103.9
cal 3	3	✓	5.0	5.4	109.0
cal 4	4	✓	10.0	12.2	122.3
cal 5	5	✓	25.0	20.2	80.9
cal-6	6	✓	50.0	45.5	91.0
cal-7	7	✓	100.0	107.2	107.2

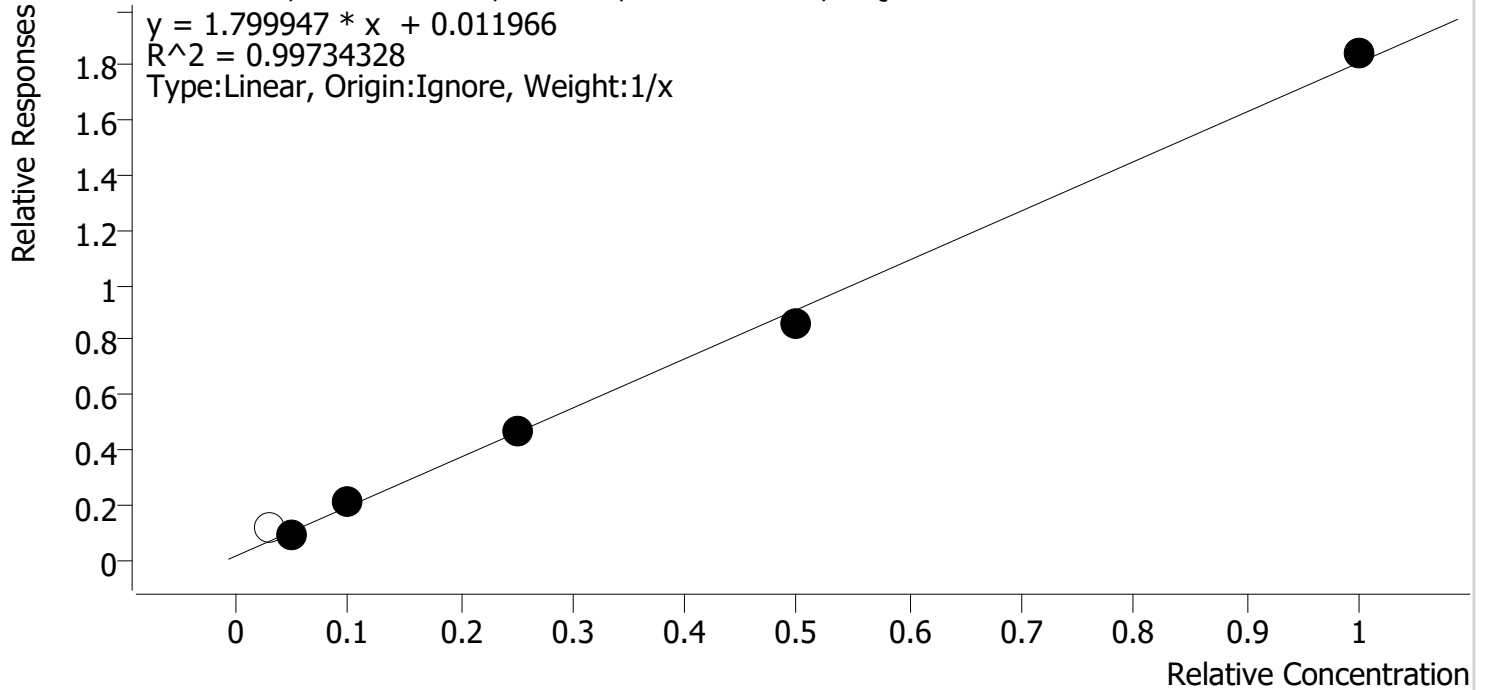
Compound Calibration Report

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Last Cal. Update 6/11/2019 11:38 AM
Analyst Name ISP\datastor
Analyte THC-COOH



Internal Standard THC-COOH-d9

THC-COOH - 6 Levels, 5 Levels Used, 6 Points, 5 Points Used, 1 QCs



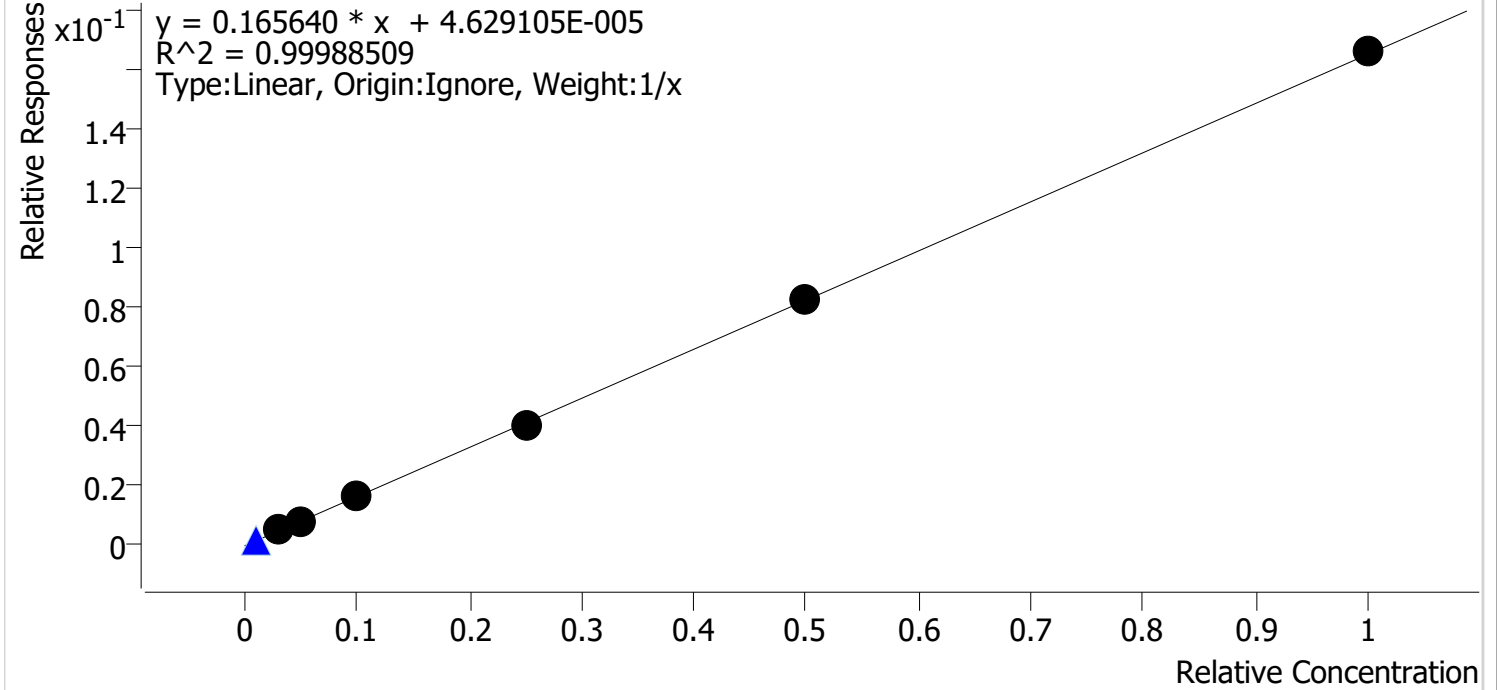
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 2	2	x	3.0	5.7	191.6
cal 3	3	✓	5.0	4.6	91.9
cal 4	4	✓	10.0	11.1	111.2
cal 5	5	✓	25.0	25.1	100.2
cal-6	6	✓	50.0	47.4	94.8
cal-7	7	✓	100.0	101.8	101.8

Compound Calibration Report

Batch results D:\MassHunter\Data\2019\am 25-26\061019\QuantResults\cann screen.batch.bin
Last Cal. Update 6/11/2019 11:38 AM
Analyst Name ISP\datastor
Analyte THC-OH **Internal Standard** THC-OH-d3



THC-OH - 6 Levels, 6 Levels Used, 6 Points, 6 Points Used, 1 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
cal 2	2	✓	3.0	3.1	103.8
cal 3	3	✓	5.0	5.0	99.2
cal 4	4	✓	10.0	9.8	97.9
cal 5	5	✓	25.0	24.7	98.7
cal-6	6	✓	50.0	49.9	99.9
cal-7	7	✓	100.0	100.5	100.5