**REVIEWED**
*By Sarah Collins at 12:43 pm, Jun 30, 2023*

6/29/2023

**Worklist: 6416**

| LAB_CASE | ITEM | ITEM_TYPE | DESCRIPTION |
|---|---|---|---|
| C2023-1170 | 1 | BLOOD | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1187 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1191 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1243 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1261 | 7 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1265 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1300 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1319 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1322 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1335 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1336 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1338 | 2 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1359 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1368 | 1 | UCK | AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ |
| C2023-1382 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1383 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1390 | 1 | BCK | AM 25/AM 26 Blood MultiDrug/THC Screen by LC-QQQ |
| C2023-1410 | 2 | UCK | AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ |
| C2023-1411 | 1 | UCK | AM 25/AM 26 Urine MultiDrug/THC Screen by LC-QQQ |

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

Extraction Date: 06/27/23 Analyst: Anne Nord
Plate lot#: 230119 Plate retest date: 07/19/2023

**Mobile phase A**: 10mM Ammonium Formate **Mobile phase B:** 0.1% Formic Acid in MeOH
0.5M Ammonium Hydroxide Ethyl Acetate LC 20% Methanol
**Blank Blood Lot**: 23C57106 **Blank Urine lot:** 61423 **Column**: Agilent Phenyl Hexyl (4.6x50mm, 2.7um)
**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.

## Analytic:

☒ 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
☒ 2. Urine hydrolysis pipette: 250 ul urine in blank well, add 40 ul BG Turbo, add 100 ul 500 mm sodium phosphate buffer mix for at least five minutes ambient temperature.
Pipette 250 µL blood **(calibrated pipette)** or 250 ul urine in wells of analytical (standards) plate. **Pipette ID: 390993**
☒ 3. Pipette **250 µL of 0.5 M ammonium hydroxide** in wells of analytical plate.
☒ 4. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
☒ 5. Transfer **300 µL of blood or urine+base** mixture to corresponding wells of SLE+ plate.
☒ 6. 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*
☒ 7. Wait 5 minutes.
☒ 8. Add **900 µL ethyl acetate.**
☒ 9. Wait 5 minutes.
☒ 10. Apply positive pressure for approx. 10-15 seconds. ***(12-15 PSI- Selector to the left).***
☒ 11. Add **900 µL ethyl acetate.**
☒ 12. Wait 5 minutes.
☒ 13. Apply positive pressure for approx. 10-15 seconds. ***(12-15 PSI- Selector to the left).***
☒ 14. Remove plate containing eluate. add 50 ul 1% HCl in MeOH Place on SPE Dry and evaporate to dryness at approx. 35°C.
*SPE Dry ID: 66819*
☒ 15. Reconstitute in **100 µL 20% LC MeOH** in LC Water 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? (If no is it described in comments?)
☒ 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

Toxicology AM method 25/28  external control prep

working solution 10000 ng/ml in meoh diphenhydramine, methamphetamine, alprazolam, morphine
Stock solution 1mg/ml 50 ul each in 4800 ul MeOH (VWR 21050767)

ppd 7/7/22: Exp: 7/7/23 lot 7722 by AMN

| Drug | lot | expiration |
|---|---|---|
| Methamphetamine | FE03132001 | 7/1/2025 |
| alprazolam | FE06102008 | 6/1/2025 |
| Diphenhydramine | FN02212011 | 3/1/2025 |
| Morphine | FE03232010 | 4/1/2025 |

**AM 25/28 control  500 ul working solution (7722) in 4500 ul negative urine (1000ng/mL Expected concentration)**

ppd 7/7/22, exp 7/7/23 lot u7722 negative urine 21522 by AMN

**AM 25/28  Blood Control: 50ul working solution (7722) in 4950 ul neg blood (100ng/mL Expected concentration)**

ppd 7/7/22, exp 7/7/23 lot b7722 neg blood 22B52016-3 by AMN

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A | cal 1 | 1300-1 | 1383-1 | | | | | 1368-1 | | | | |
| B | negative blood | 1319-1 | 1390-1 | | | | | | | | | |
| C | 1170-1 | 1322-1 | positive urine control | | | | | | | | | |
| D | 1187-1 | 1335-1 | negative urine | | | | | | | | | |
| E | 1243-1 | 1336-1 | | | | | | | | | | |
| F | 1191-1 | 1338-2 | | | | | | | | | | |
| G | 1265-1 | 1359-1 | 1411-1 | | | | | | | | | |
| H | 1261-7 | 1382-1 | 1410-2 | | | | | | | | | |

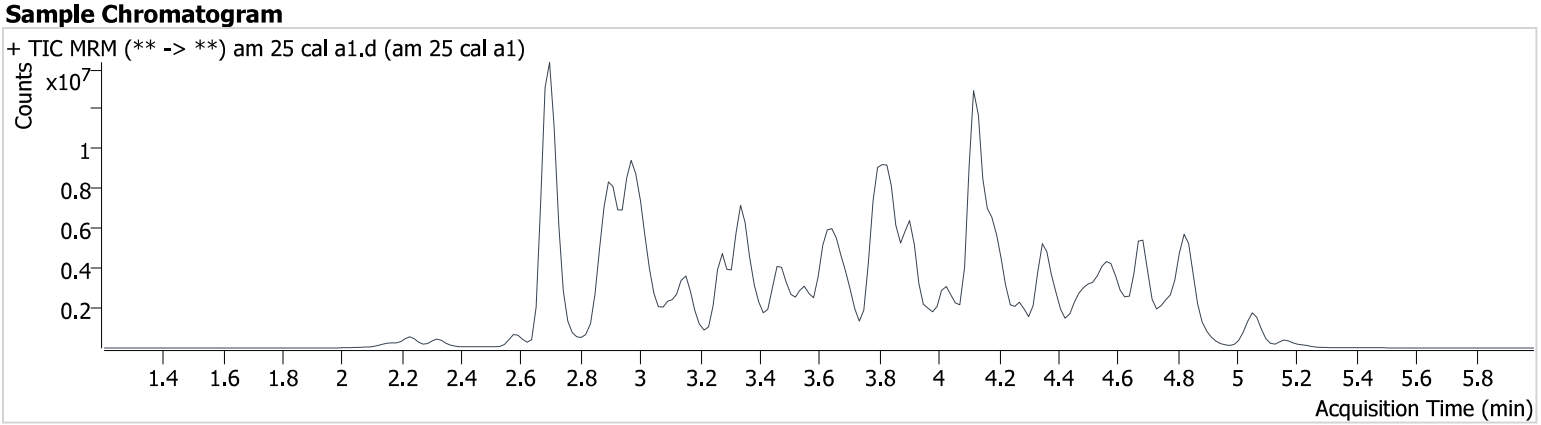
C2023-____-_ plate position 2

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\mds.batch.bin
**Calibration Last Update** 6/29/2023 12:20:22 PM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | am 25 cal a1.d |
| **Type** | Cal | **Sample** | am 25 cal a1 |
| **Acq. Method** | mds713.m | **Operator** | Anne Nord |
| **Sample Position** | P2-A1 | **Comment** | |
| **Injection Volume** | 2.5 | | |
| **Acq. Date-Time** | 6/27/2023 10:37:14 AM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**




| Name | RT | Resp. | S/N | S/N | ISTD Resp. | Calc. Conc. |
|---|---|---|---|---|---|---|
| 10-OH-Carbamazepine | 3.850 | 1964046 | 3382.8 | 99.6 | 6249942 | 10.000 |
| 6-MAM | 2.847 | 33087 | 6831.4 | 14661.2 | 724959 | 10.000 |
| 7-aminoclonazepam | 3.586 | 276753 | 224.1 | 467.5 | 1650112 | 10.000 |
| 7-aminoflunitrazepam | 3.816 | 546512 | 279.1 | 208.0 | 1650112 | 10.000 |
| 9-Hydroxyrisperidone | 3.916 | 3213805 | 1208.9 | 14523.6 | 1650112 | 10.000 |
| Acetyl Fentanyl | 3.782 | 193845 | 101.3 | 115755.4 | 7948436 | 10.000 |
| Acetyl Norfentanyl | 2.871 | 220654 | 296.7 | 117.5 | 14922208 | 10.000 |
| a-hydroxyalprazolam | 4.688 | 301537 | 325.0 | 10723.9 | 6249942 | 10.000 |
| alpha-hydroxymidazolam | 4.671 | 1082292 | 811.5 | 655.6 | 9618152 | 10.000 |
| alpha-PHP | 3.820 | 1527077 | 556.5 | 520.7 | 4373928 | 10.000 |
| alpha-PVP | 3.530 | 2146373 | 1618.5 | 1712.7 | 4373928 | 10.000 |
| Alprazolam | 4.767 | 1428426 | 441.7 | 582.3 | 9618152 | 10.000 |
| Amitriptyline | 4.586 | 1012554 | 691.5 | 381.2 | 2881000 | 10.000 |
| Amphetamine | 2.921 | 1654080 | 138.3 | 1534.2 | 4373928 | 10.000 |
| Benzoylecgonine | 3.431 | 258361 | 509.4 | 35.6 | 204612 | 10.000 |
| Brompheniramine | 4.183 | 69463 | 19787.7 | 9.3 | 4926013 | 10.000 |
| Buprenorphine | 4.130 | 43307 | 10374.9 | 152722.7 | 1016317 | 10.000 |
| Bupropion | 3.790 | 1837991 | 1120.6 | 552.9 | 7913756 | 10.000 |
| Carbamazepine | 4.344 | 4708151 | 1842.4 | 398.8 | 3381141 | 10.000 |
| Carisoprodol | 4.297 | 751932 | 747.8 | 247.4 | 3045095 | 10.000 |
| Chlordiazepoxide | 4.845 | 452973 | 207.3 | 1532.9 | 9618152 | 10.000 |
| Chlorpheniramine | 4.063 | 3542166 | 8814.2 | 60.9 | 4926013 | 10.000 |
| Chlorpromazine | 4.810 | 868867 | 264591.1 | 3540.5 | 3427770 | 10.000 |
| Citalopram | 4.228 | 1631732 | 446.7 | 841.5 | 32062406 | 10.000 |
| Clomimpramine | 4.811 | 1018974 | 114795.2 | 781.1 | 1826650 | 10.000 |
| Clonazepam | 4.628 | 878428 | 843.1 | 375.5 | 84654 | 10.000 |
| Clonazolam | 4.501 | 721332 | 2120.4 | 58948.1 | 6249942 | 10.000 |
| clozapine | 4.365 | 2471846 | 8900.4 | 537773.7 | 9347898 | 10.000 |
| Cocaethylene | 3.844 | 2135584 | 1245.0 | 936.9 | 9765462 | 10.000 |
| Cocaine | 3.615 | 3094934 | 1367.0 | 249.9 | 9765462 | 10.000 |
| Codeine | 2.698 | 216324 | 5086.5 | 156.8 | 3381141 | 10.000 |
| Cyclobenzaprine | 4.495 | 1860966 | 1936.1 | 78.2 | 2881000 | 10.000 |
| Desipramine | 4.557 | 2202389 | 317949.4 | 702.2 | 2881000 | 10.000 |
| Dextromethorphan | 4.172 | 1056430 | 1312.3 | 2391.0 | 4926013 | 10.000 |

# AM #25 Multi-Drug Screen Results

| Name | RT | Resp. | S/N | S/N | ISTD Resp. | Calc. Conc. |
|---|---|---|---|---|---|---|
| Dextrorphan | 3.404 | 1593488 | 552.5 | 1207.5 | 4373928 | 10.000 |
| Diazepam | 5.029 | 796795 | 1109.1 | 893.9 | 9618152 | 10.000 |
| Dihydrocodeine | 2.667 | 673410 | 2253.5 | 764.4 | 3381141 | 10.000 |
| Dimethyltriptamine | 2.979 | 1193760 | 763.4 | 831.4 | 4373928 | 10.000 |
| Diphenhydramine | 4.127 | 5291776 | 1411.1 | 6026.9 | 32062406 | 10.000 |
| Doxepin | 4.294 | 1178842 | 371.3 | 131.4 | 9347898 | 10.000 |
| Doxylamine | 3.664 | 4429293 | 1980.2 | 226.3 | 4373928 | 10.000 |
| Duloxetine | 4.508 | 30371 | 7832.9 | 490.9 | 1826650 | 10.000 |
| EDDP | 4.171 | 793390 | 265.7 | 349.9 | 1348630 | 10.000 |
| Estazolam | 4.677 | 4060259 | 599.4 | 2383.0 | 9618152 | 10.000 |
| Etizolam | 4.747 | 141868 | 46859.2 | 236457.9 | 9618152 | 10.000 |
| Fentanyl | 4.027 | 156682 | 43.1 | 148.5 | 8290722 | 10.000 |
| Flualprazolam | 4.595 | 503089 | 524.5 | 303.2 | 9618152 | 10.000 |
| Flunitrazepam | 4.735 | 1431961 | 907.7 | 255649.2 | 6249942 | 10.000 |
| Fluorofentanyl | 4.056 | 121390 | 39684.1 | 343.4 | 8290722 | 10.000 |
| Fluoxetine | 4.491 | 1398531 | 1830.0 | 85786.8 | 1826650 | 10.000 |
| Flurazepam | 4.209 | 1511588 | 475782.9 | 145330.1 | 1016317 | 10.000 |
| Hydrocodone | 2.942 | 707769 | 474.7 | 2293.0 | 3381141 | 10.000 |
| Hydromorphone | 2.322 | 784544 | 510.1 | 381.4 | 130487 | 10.000 |
| hydroxyzine | 4.623 | 2246962 | 1157.1 | 174.1 | 9347898 | 10.000 |
| Imipramine | 4.555 | 3007742 | 873.3 | 3466.1 | 2881000 | 10.000 |
| Ketamine | 3.375 | 1393532 | ∞ | 144.7 | 6150347 | 10.000 |
| Lamotrigine | 3.558 | 146358 | 498.6 | 22168.2 | 4373928 | 10.000 |
| Levamisole | 2.871 | 1326919 | 3130.8 | 100.4 | 9765462 | 10.000 |
| Levetiracetam | 2.585 | 739409 | ∞ | ∞ | 1650112 | 10.000 |
| Lorazepam | 4.596 | 200041 | 2864501919447 49.0 | 459.5 | 6249942 | 10.000 |
| Maprotiline | 4.586 | 639638 | 1417.8 | 217.5 | 2881000 | 10.000 |
| MDA | 3.041 | 1698607 | 530.7 | 81.3 | 15753999 | 10.000 |
| MDEA | 3.270 | 2126908 | 2944.1 | 735.8 | 15753999 | 10.000 |
| MDMA | 3.117 | 1994388 | 643.2 | 532.3 | 15753999 | 10.000 |
| Meperidine | 3.635 | 1267457 | 413.9 | 292.2 | 130487 | 10.000 |
| Meprobamate | 3.715 | 560410 | 563.8 | 90.5 | 3045095 | 10.000 |
| Methadone | 4.521 | 2874609 | 1458.5 | 1252.3 | 7948436 | 10.000 |
| Methamphetamine | 3.012 | 5290061 | ∞ | ∞ | 15753999 | 10.000 |
| Methocarbamol | 3.667 | 314837 | 1300.8 | 298.8 | 3045095 | 10.000 |
| Methylphenidate | 3.560 | 4679604 | 4034.7 | 376.4 | 7664859 | 10.000 |
| Metoprolol | 3.479 | 516400 | 1178.7 | 4318.6 | 4373928 | 10.000 |
| Midazolam | 4.564 | 320273 | 91272.8 | 70410.8 | 1650112 | 10.000 |
| Mirtazapine | 3.711 | 1582955 | 474341.2 | 10166.5 | 1016317 | 10.000 |
| Mitragynine | 4.208 | 235905 | 1051.1 | 190027.5 | 8290722 | 10.000 |
| Morphine | 2.156 | 191461 | ∞ | ∞ | 130487 | 10.000 |
| Norbuprenorphine | 3.886 | 40742 | 11493.5 | 25216.6 | 1016317 | 10.000 |
| Nordiazepam | 4.894 | 769826 | 493.5 | 247.7 | 9618152 | 10.000 |
| Norfentanyl | 3.360 | 3351498 | 418.0 | 268.2 | 14922208 | 10.000 |
| Norhydrocodone | 2.943 | 68196 | 55792.6 | 11560.5 | 3381141 | 10.000 |
| norketamine | 3.376 | 326985 | ∞ | ∞ | 6150347 | 10.000 |
| Normeperidine | 3.667 | 2906681 | 3117.3 | 738.9 | 130487 | 10.000 |
| Noroxycodone | 2.896 | 893431 | 515.9 | 67.7 | 3381141 | 10.000 |
| Nortriptyline | 4.603 | 1056379 | 269529.5 | 210.2 | 1826650 | 10.000 |
| O-desmethyl-tramadol | 2.900 | 3898549 | 1256.1 | 136.4 | 4318007 | 10.000 |
| O-Desmethylvenlafaxine | 3.281 | 1069735 | 1090.1 | ∞ | 4318007 | 10.000 |
| Olanzapine | 3.352 | 789828 | 655710.2 | 1083.1 | 1826650 | 10.000 |
| Oxazepam | 4.708 | 1349226 | 860.4 | 468.9 | 6249942 | 10.000 |
| Oxycodone | 2.894 | 1504888 | 526.3 | 659.1 | 6150347 | 10.000 |
| Oxymorphone | 2.227 | 920876 | 378.0 | 673.4 | 130487 | 10.000 |
| Paroxetine | 4.503 | 199288 | 71.0 | 3145.0 | 1826650 | 10.000 |
| Phenazepam | 4.807 | 1108220 | 85486.1 | 1253.4 | 9618152 | 10.000 |
| Phencyclidine | 3.975 | 2528703 | 544308.3 | 322.6 | 4318007 | 10.000 |
| Phentermine | 3.180 | 889341 | ∞ | ∞ | 7664859 | 10.000 |

# AM #25 Multi-Drug Screen Results

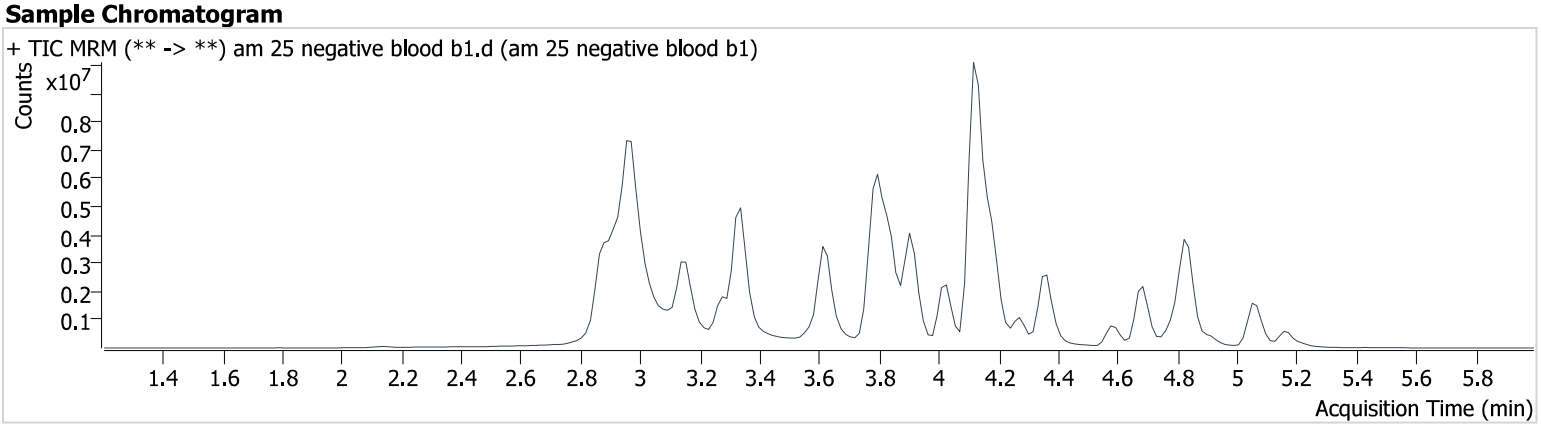
| Name | RT | Resp. | S/N | S/N | ISTD Resp. | Calc. Conc. |
|---|---|---|---|---|---|---|
| Phenytoin | 4.236 | 190088 | 204.5 | 176.7 | 84654 | 10.000 |
| primidone | 3.499 | 613820 | 1161.1 | 75.1 | 84654 | 10.000 |
| Promethazine | 4.463 | 3213767 | 22632.5 | 367.1 | 2881000 | 10.000 |
| Pseudoephedrine | 2.706 | 42955908 | 3389.1 | 1637.0 | 7664859 | 10.000 |
| Quetiapine | 4.393 | 2708205 | 700618.1 | 840.0 | 4926013 | 10.000 |
| Risperidone | 4.085 | 2608525 | 1178424.3 | 389.9 | 4926013 | 10.000 |
| Sertraline | 4.782 | 430467 | 2427.3 | 1309.4 | 1826650 | 10.000 |
| Sufentanil | 4.316 | 113474 | 37398.0 | 91.3 | 8290722 | 10.000 |
| Tapentadol | 3.484 | 2588389 | 2124.8 | 389.2 | 6150347 | 10.000 |
| Temazepam | 4.844 | 2384065 | 812.8 | 100.8 | 9618152 | 10.000 |
| Topiramate | 3.904 | 19312 | 7764.6 | 2400.8 | 119906 | 10.000 |
| Tramadol | 3.465 | 4400994 | 2615.3 | 41.4 | 724959 | 10.000 |
| Trazodone | 4.194 | 2195076 | 3061.2 | 352369.0 | 7948436 | 10.000 |
| Venlafaxine | 3.878 | 4471977 | 17370.6 | 222.5 | 4318007 | 10.000 |
| Zaleplon | 4.477 | 1209078 | 392639.4 | 1275.8 | 6249942 | 10.000 |
| Zolpidem | 3.814 | 3868936 | 5308.7 | 931.0 | 14516305 | 10.000 |
| Zopiclone | 3.886 | 170891 | ∞ | 655.7 | 736181 | 10.000 |

# AM #25 Multi-Drug Screen Results

| | |
|---|---|
| **Batch results** | D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\mds.batch.bin |
| **Calibration Last Update** | 6/29/2023 12:20:22 PM |

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | am 25 negative blood b1.d |
| **Type** | Sample | **Sample** | am 25 negative blood b1 |
| **Acq. Method** | mds713.m | **Operator** | Anne Nord |
| **Sample Position** | P2-B1 | **Comment** | |
| **Injection Volume** | 2.5 | | |
| **Acq. Date-Time** | 6/27/2023 10:44:06 AM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**

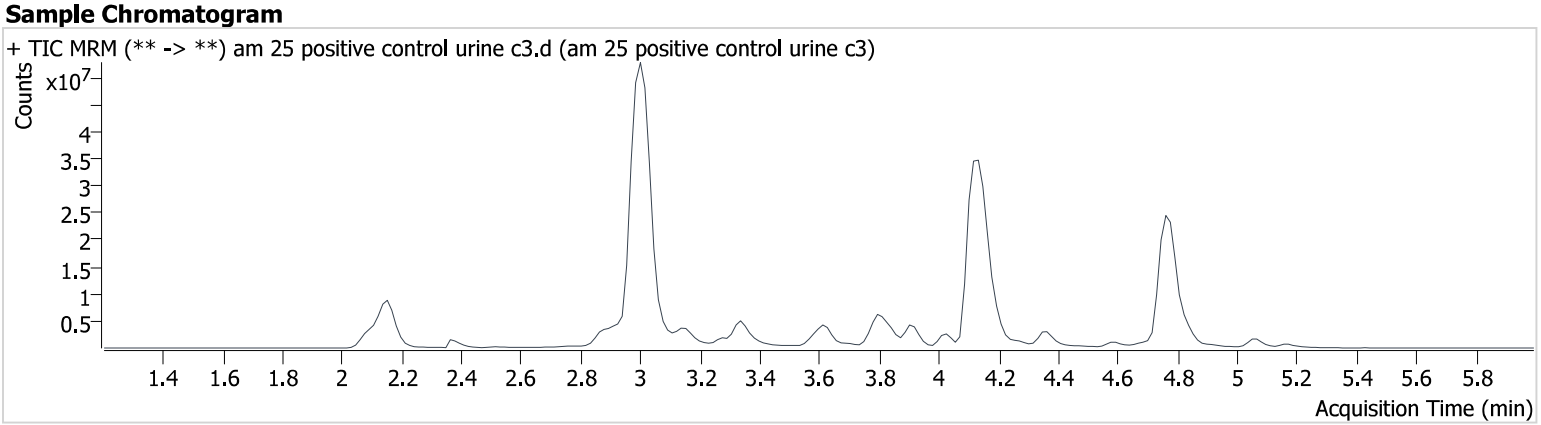


# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\mds.batch.bin
**Calibration Last Update** 6/29/2023 12:20:22 PM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | am 25 positive control urine c3.d |
| **Type** | Sample | **Sample** | am 25 positive control urine c3 |
| **Acq. Method** | mds713.m | **Operator** | Anne Nord |
| **Sample Position** | P2-C3 | **Comment** | |
| **Injection Volume** | 2.5 | | |
| **Acq. Date-Time** | 6/27/2023 12:38:11 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



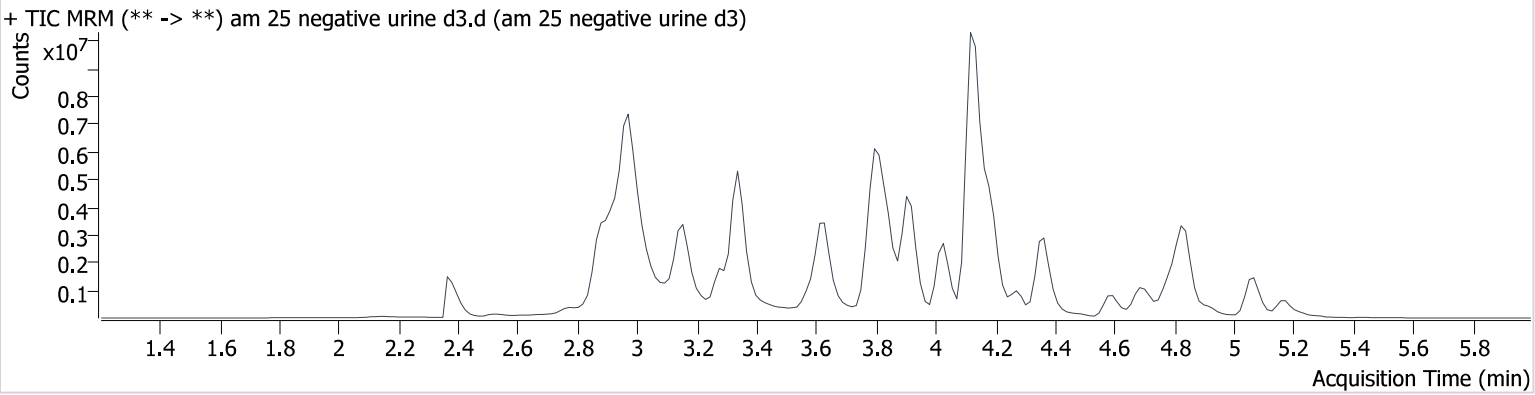

| Name | RT | Resp. | S/N | S/N | ISTD Resp. | Calc. Conc. |
|---|---|---|---|---|---|---|
| Alprazolam | 4.767 | 50184710 | 839.6 | ∞ | 7501176 | 450.481 |
| Diphenhydramine | 4.143 | 85838263 | ∞ | 1459.7 | 21985761 | 236.556 |
| Methamphetamine | 3.012 | 50287159 | ∞ | ∞ | 12401232 | 120.760 |
| Morphine | 2.156 | 13959937 | ∞ | ∞ | 142852 | 666.016 |

# AM #25 Multi-Drug Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\mds.batch.bin
**Calibration Last Update** 6/29/2023 12:20:22 PM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | am 25 negative urine d3.d |
| **Type** | Sample | **Sample** | am 25 negative urine d3 |
| **Acq. Method** | mds713.m | **Operator** | Anne Nord |
| **Sample Position** | P2-D3 | **Comment** | |
| **Injection Volume** | 2.5 | | |
| **Acq. Date-Time** | 6/27/2023 12:44:53 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



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

Extraction Date: 06/27/23 Analyst: Anne Nord

Plate lot#: 230113 Plate retest date: 7/13/23

**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**: 23C57106 **Urine Blank:** 61423
**Column**: Agilent Phenyl Hexyl (4.6x50mm: 2.7 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.

## Analytic:

☒ 1. Remove standards, plate, controls, and samples from cold storage. Allow to reach room temperature.
☒ 2. Urine hydrolysis: add 1.5 ml urine to blank plate, add 250 ul 1N KOH mix and incubate at 40 degrees for 15 minutes.
Pipette **1000 µL blood (calibrated pipette)** in wells of analytical (standards) plate. **Pipette ID: K52558G**
Pipette 1000 ul urine to analytical (standards) plate.
☒ 3. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
☒ 4. Pipette **500 µL 0.1% formic acid in blood** wells **500 ul saturated phosphate buffer in urine** wells of analytical plate.
☒ 5. Place on shaking incubator at ambient temp., 900 rpm for 15 minutes.
☒ 6. Transfer 8**00 µL 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: 66792
☒ 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.
*SPE Dry ID: 66819*
☒ 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.
☒ 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? Yes
☒ 5. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports

COMMENTS:

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| a | cal 1 | Internal control urine | 1300-1 | 1383-1 | | |
| b | cal 2 | negative blood | 1319-1 | 1390-1 | | |
| c | cal 3 | 1170-1 | 1322-1 | 1411-1 | | |
| d | cal 4 | 1187-1 | 1410-2 | negative urine | | |
| e | Cal 5 | 1243-1 | 1336-1 | 1368-1 | | |
| f | cal 6 | 1191-1 | 1338-2 | | | |
| g | cal 7 | 1265-1 | 1359-1 | | | |
| h | Internal control (blood) | 1261-7 | 1382-1 | | | |

Plate position 3

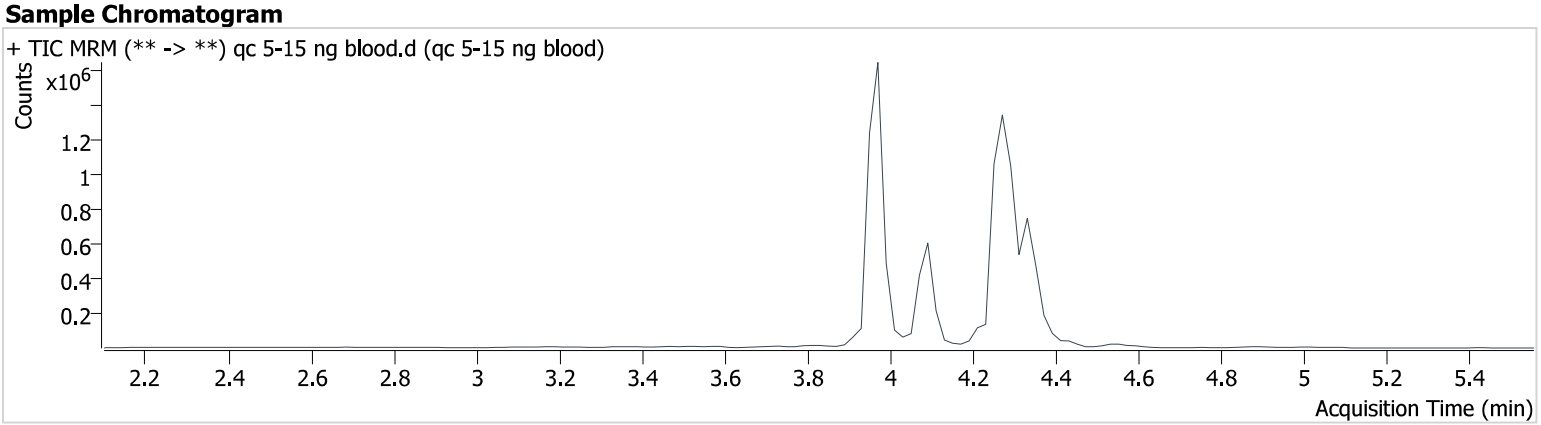
c2023-____-_

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | qc 5-15 ng blood.d |
| **Type** | QC | **Sample** | qc 5-15 ng blood |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-H1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 2:17:47 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



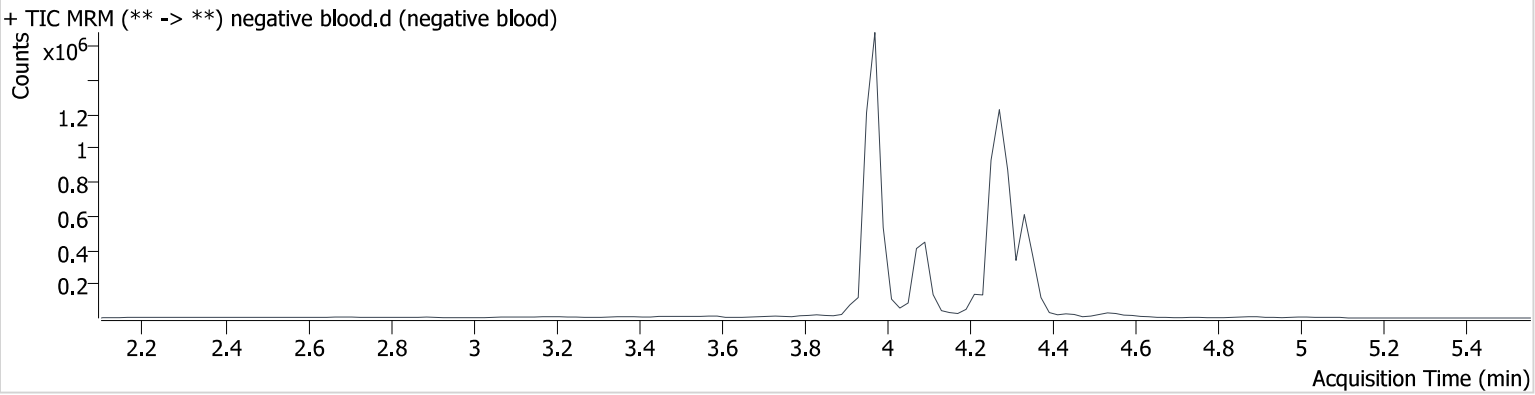

| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 37165 | 1015832 | 5.294 ng/ml |
| THC-COOH | 4.093 | 191091 | 992602 | 15.923 ng/ml |
| THC-OH | 3.979 | 38812 | 3893955 | 4.588 ng/ml |

# AM #26 Cannabinoids Screen Results

| | |
|---|---|
| **Batch results** | D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin |
| **Calibration Last Update** | 6/28/2023 8:22:34 AM |

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | negative blood.d |
| **Type** | Sample | **Sample** | negative blood |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-B2 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 2:24:15 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**

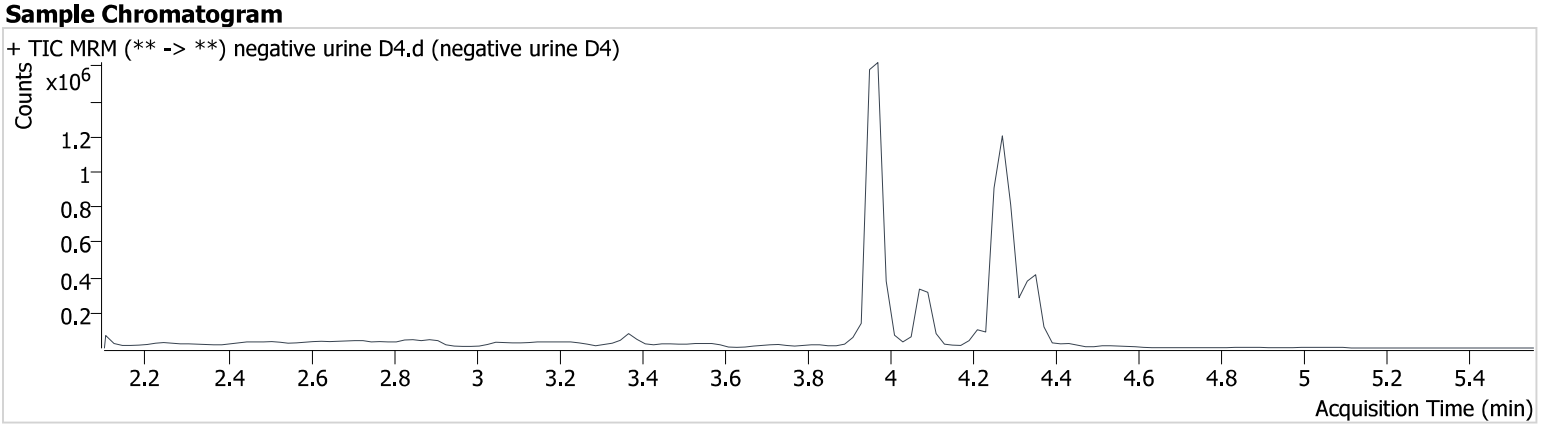


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | negative urine D4.d |
| **Type** | Sample | **Sample** | negative urine D4 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-D4 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 4:20:45 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**

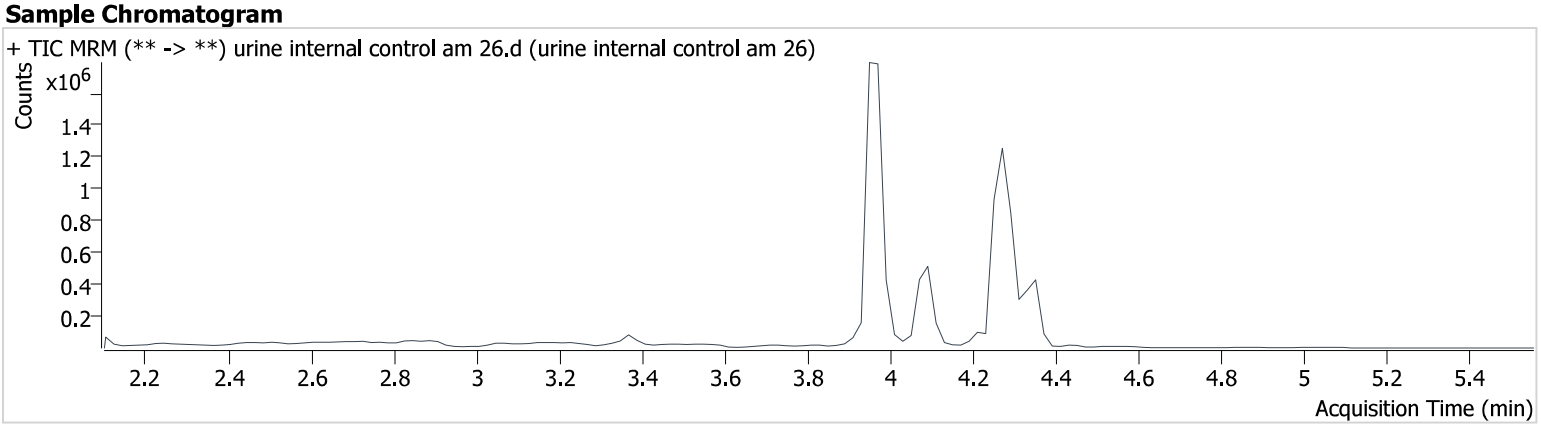


# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | urine internal control am 26.d |
| **Type** | Sample | **Sample** | urine internal control am 26 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-A2 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 4:33:41 PM | | |
| **Sample Info.** | | | |

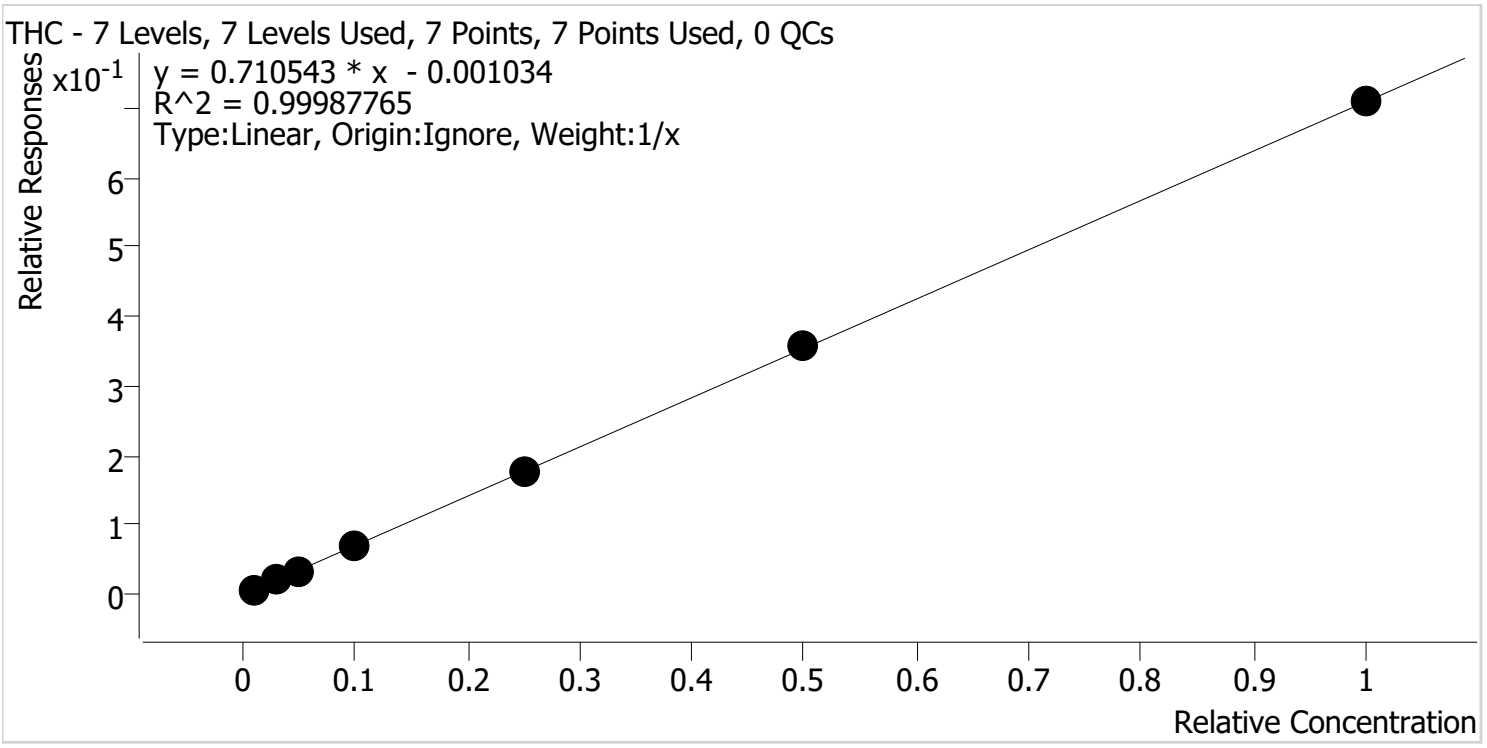
**Sample Chromatogram**




| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.365 | 28511 | 699745 | 5.880 ng/ml |
| THC-COOH | 4.093 | 129398 | 942142 | 11.448 ng/ml |
| THC-OH | 3.979 | 42267 | 4627791 | 4.221 ng/ml |

# Compound Calibration Report

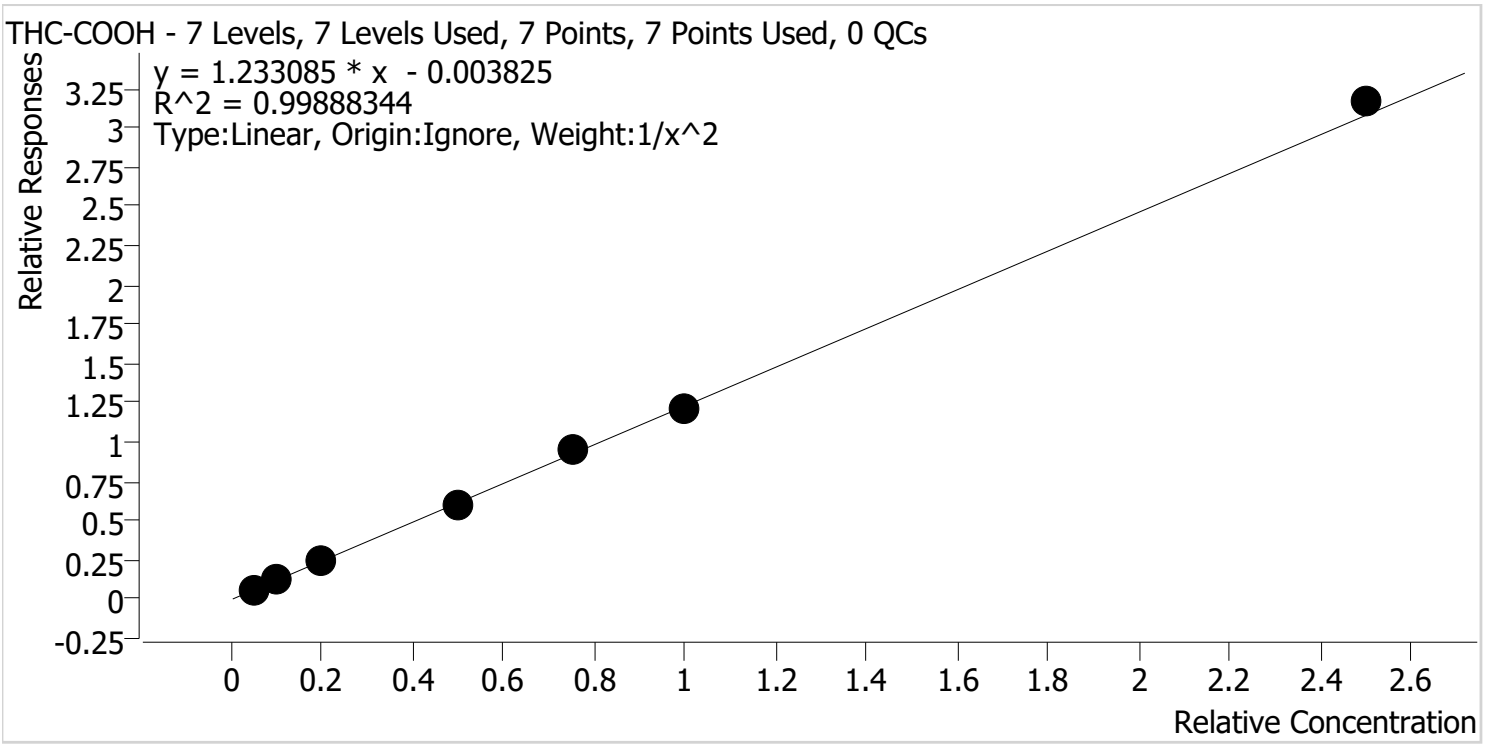
| | |
|---|---|
| **Batch results** | D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin |
| **Last Cal. Update** | 6/28/2023 8:22 AM |
| **Analyst Name** | ISP\datastor |
| **Analyte** | THC |
| **Internal Standard** | THC-d3 |




| Sample | Level | Enabled | Expected Concentration | Final Concentration | Accuracy |
|---|---|---|---|---|---|
| cal 1 | 1 | ✔ | 1.0 | 1.1 | 105.6 |
| cal 2 | 2 | ✔ | 3.0 | 3.0 | 99.9 |
| cal 3 | 3 | ✔ | 5.0 | 4.8 | 95.3 |
| cal 4 | 4 | ✔ | 10.0 | 9.8 | 98.1 |
| cal 5 | 5 | ✔ | 25.0 | 25.2 | 100.8 |
| cal-6 | 6 | ✔ | 50.0 | 50.2 | 100.3 |
| cal-7 | 7 | ✔ | 100.0 | 100.0 | 100.0 |

# Compound Calibration Report

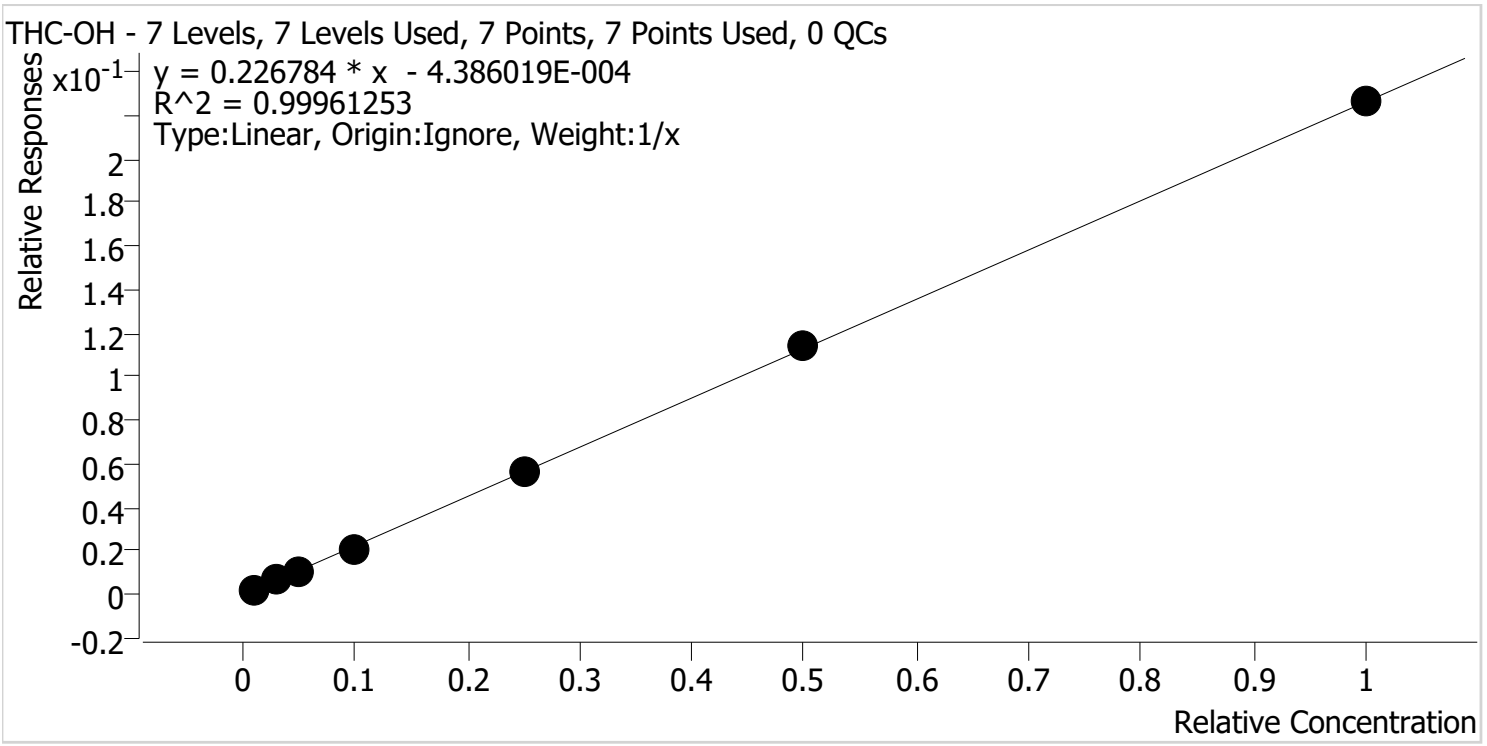
| | |
|---|---|
| **Batch results** | D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin |
| **Last Cal. Update** | 6/28/2023 8:22 AM |
| **Analyst Name** | ISP\datastor |
| **Analyte** | THC-COOH |
| **Internal Standard** | THC-COOH-d9 |




| Sample | Level | Enabled | Expected Concentration | Final Concentration | Accuracy |
|---|---|---|---|---|---|
| cal 1 | 1 | ✔ | 5.0 | 5.1 | 102.2 |
| cal 2 | 2 | ✔ | 10.0 | 9.6 | 95.9 |
| cal 3 | 3 | ✔ | 20.0 | 19.9 | 99.5 |
| cal 4 | 4 | ✔ | 50.0 | 48.9 | 97.7 |
| cal 5 | 5 | ✔ | 75.0 | 77.2 | 102.9 |
| cal-6 | 6 | ✔ | 100.0 | 99.0 | 99.0 |
| cal-7 | 7 | ✔ | 250.0 | 257.0 | 102.8 |

# Compound Calibration Report

| | |
|---|---|
| **Batch results** | D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin |
| **Last Cal. Update** | 6/28/2023 8:22 AM |
| **Analyst Name** | ISP\datastor |
| **Analyte** | THC-OH |
| **Internal Standard** | THC-OH-d3 |



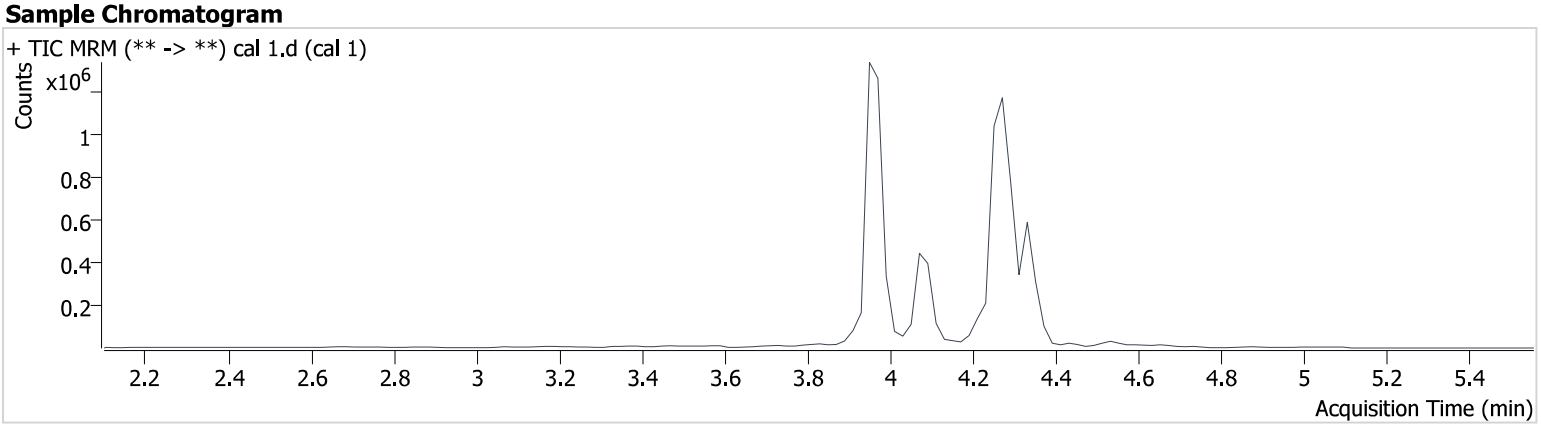

| Sample | Level | Enabled | Expected Concentration | Final Concentration | Accuracy |
|---|---|---|---|---|---|
| cal 1 | 1 | ✔ | 1.0 | 1.1 | 111.8 |
| cal 2 | 2 | ✔ | 3.0 | 2.9 | 96.8 |
| cal 3 | 3 | ✔ | 5.0 | 4.7 | 94.5 |
| cal 4 | 4 | ✔ | 10.0 | 9.6 | 96.2 |
| cal 5 | 5 | ✔ | 25.0 | 24.8 | 99.0 |
| cal-6 | 6 | ✔ | 50.0 | 50.9 | 101.7 |
| cal-7 | 7 | ✔ | 100.0 | 100.0 | 100.0 |

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | cal 1.d |
| **Type** | Cal | **Sample** | cal 1 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-A1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 1:32:19 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



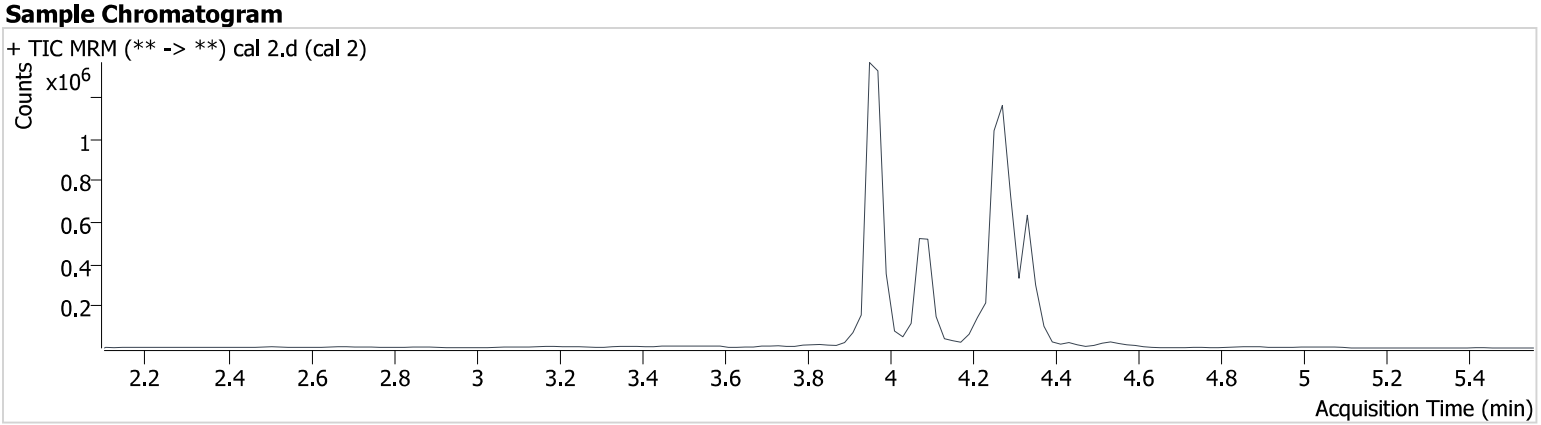

| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 5105 | 789273 | 1.056 ng/ml **Low** |
| THC-COOH | 4.093 | 58767 | 992693 | 5.111 ng/ml **Low** |
| THC-OH | 3.979 | 7708 | 3676991 | 1.118 ng/ml **Low** |

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | cal 2.d |
| **Type** | Cal | **Sample** | cal 2 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-B1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 1:38:58 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



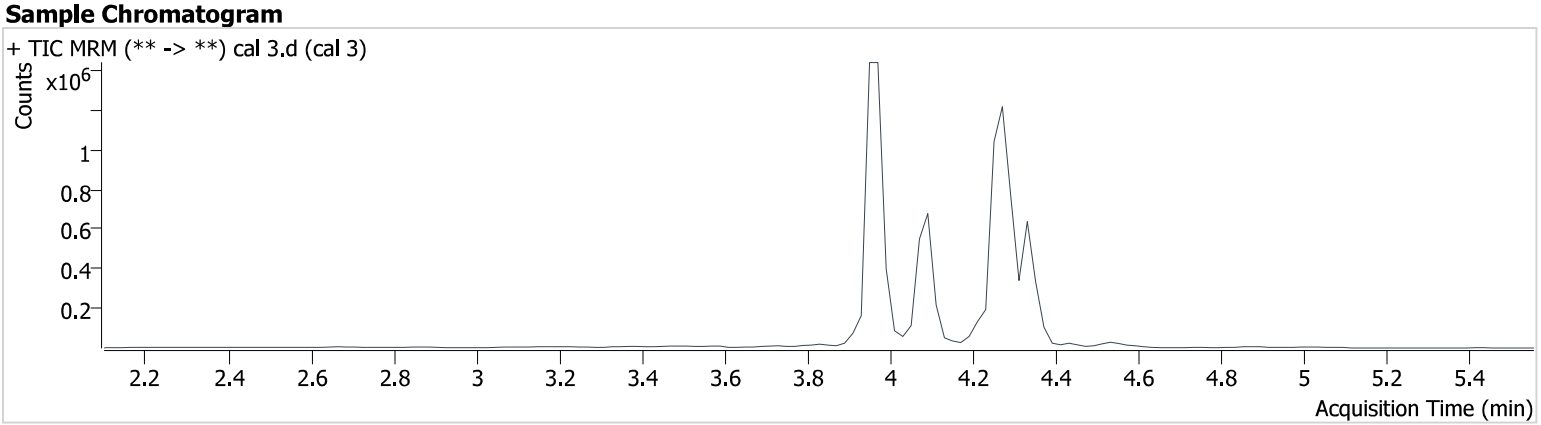

| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 17882 | 882571 | 2.997 ng/ml **Low** |
| THC-COOH | 4.093 | 128309 | 1121666 | 9.587 ng/ml **Low** |
| THC-OH | 3.979 | 22661 | 3685739 | 2.905 ng/ml **Low** |

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | cal 3.d |
| **Type** | Cal | **Sample** | cal 3 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-C1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 1:45:26 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



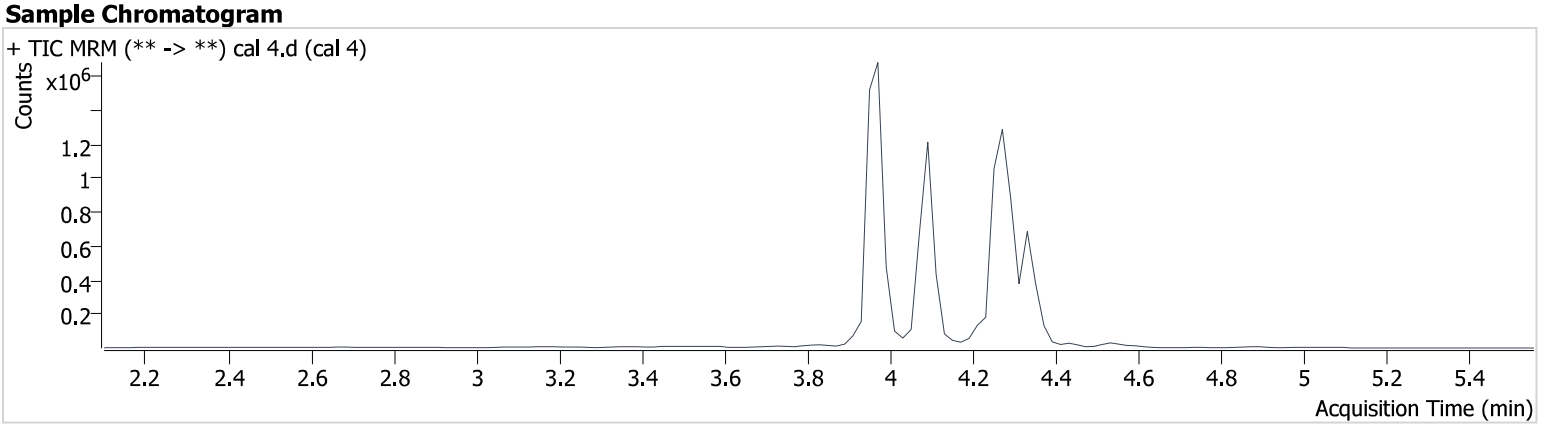

| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 28263 | 861192 | 4.764 ng/ml |
| THC-COOH | 4.093 | 261485 | 1082678 | 19.897 ng/ml |
| THC-OH | 3.979 | 39074 | 3803491 | 4.723 ng/ml |

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | cal 4.d |
| **Type** | Cal | **Sample** | cal 4 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-D1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 1:51:54 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



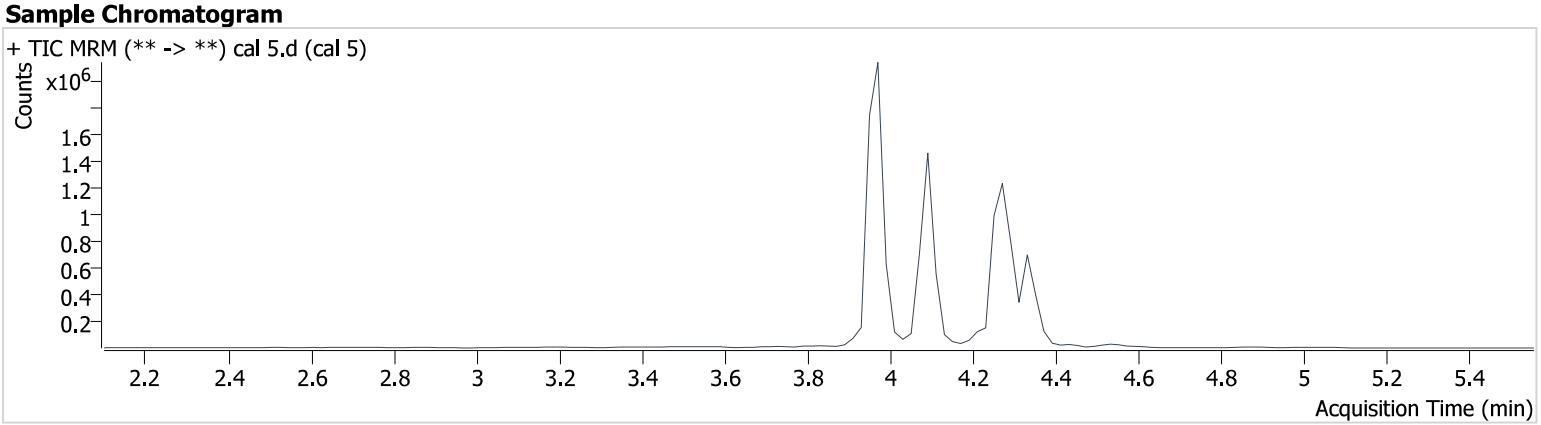

| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 61360 | 893781 | 9.807 ng/ml |
| THC-COOH | 4.093 | 671710 | 1122100 | 48.857 ng/ml |
| THC-OH | 3.979 | 82887 | 3877709 | 9.619 ng/ml |

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | cal 5.d |
| **Type** | Cal | **Sample** | cal 5 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-E1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 1:58:22 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



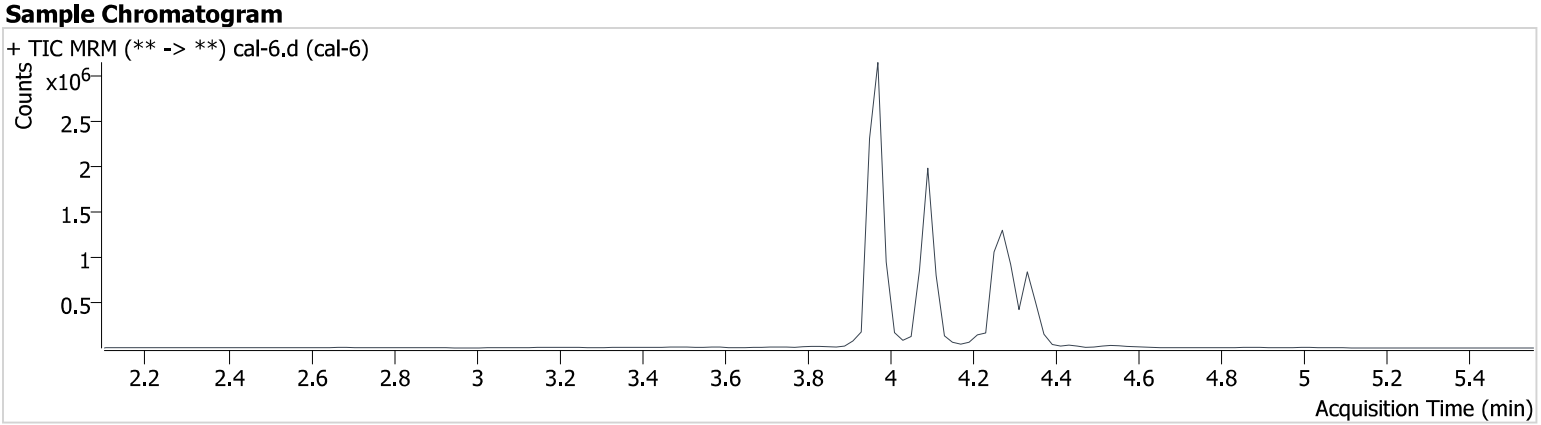

| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 151005 | 848085 | 25.204 ng/ml |
| THC-COOH | 4.093 | 899542 | 948818 | 77.196 ng/ml |
| THC-OH | 3.979 | 210657 | 3782218 | 24.753 ng/ml |

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | cal-6.d |
| **Type** | Cal | **Sample** | cal-6 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-F1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 2:04:51 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**



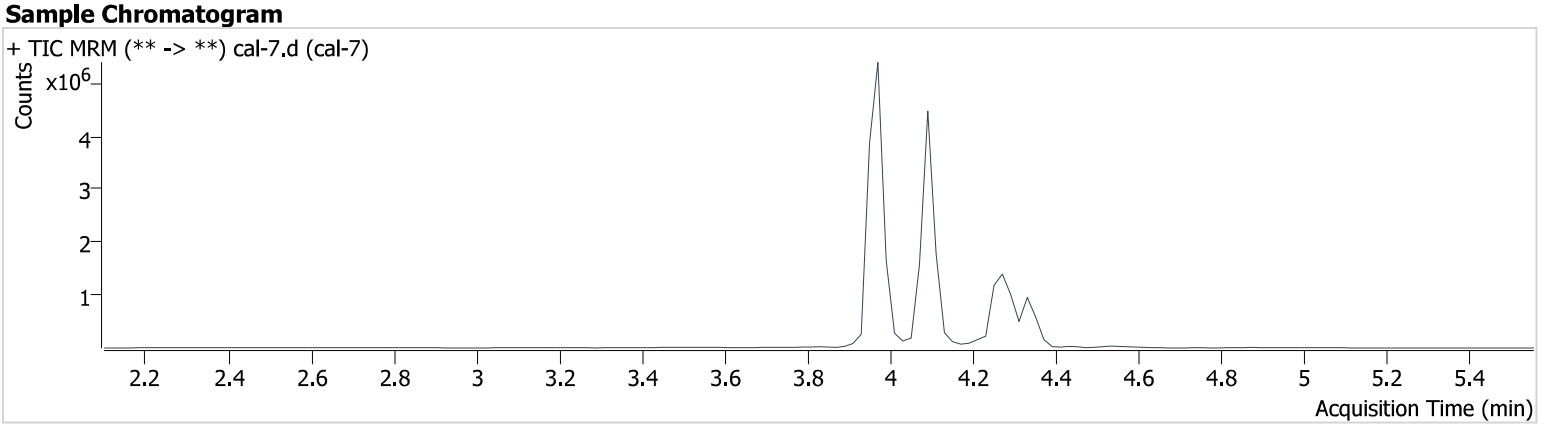

| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 320024 | 900263 | 50.174 ng/ml |
| THC-COOH | 4.093 | 1308373 | 1075524 | 98.965 ng/ml |
| THC-OH | 3.979 | 449811 | 3914508 | 50.862 ng/ml |

# AM #26 Cannabinoids Screen Results

**Batch results** D:\MassHunter\Data\2023\am 25-26\062723\QuantResults\cann.batch.bin
**Calibration Last Update** 6/28/2023 8:22:34 AM

| | | | |
|---|---|---|---|
| **Instrument** | 69679 | **Data File** | cal-7.d |
| **Type** | Cal | **Sample** | cal-7 |
| **Acq. Method** | am 26 cann scr 5-5-20.m | **Operator** | Anne Nord |
| **Sample Position** | P3-G1 | **Comment** | |
| **Injection Volume** | 5 | | |
| **Acq. Date-Time** | 6/27/2023 2:11:19 PM | | |
| **Sample Info.** | | | |

**Sample Chromatogram**




| Name | RT | Resp. | ISTD Resp. | Final Conc. |
|---|---|---|---|---|
| THC | 4.345 | 524840 | 739746 | 99.997 ng/ml |
| THC-COOH | 4.093 | 3315416 | 1047280 | 257.044 ng/ml |
| THC-OH | 3.979 | 1013009 | 4474570 | 100.021 ng/ml |