


b/ 12/2023

REVIEWED
By Britany Wylie at 2:21 pm, Jun 14, 2023

Worklist: 6401

| <u>LAB_CASE</u> | <u>ITEM</u> | <u>ITEM_TYPE</u> | <u>DESCRIPTION</u> |
|-----------------|-------------|------------------|--------------------|
| C2023-1025 | 1 | UCK | AM 2 Urine Toxi A |
| C2023-1142 | 1 | UCK | AM 2 Urine Toxi A |
| C2023-1144 | 1 | UCK | AM 2 Urine Toxi A |



AM 2: De-Tox Tube A Urine Extraction

Extraction Date 6/8/23

Analyst: Anne Nord

Negative Urine Lot: 12522

GC/MS ID: deadlift

Pre-Analytic:

- 1. *Positive Control Working Solution Preparation Instructions:*
Tube A positive control may be commercially obtained or prepared in-house. At a minimum, the control must contain at least one phenethylamine at an approximate concentration between 500 and 3000 ng/mL, and one opiate at an approximate concentration between 300 and 3000 ng/mL.
- 2. Verify Tune and Tune evaluation completed within the previous 7 days. Tune and Tune evaluation reports initialed and filed.
- 3. Create GCMS sequence to include controls, case blanks and case samples.

Analytic:

- 1. Remove working solutions, controls, and samples from cold storage.

(Optional Steps for Enzyme Hydrolysis- completed in addition to General extraction without Hydrolysis)
 - 2a. In labeled round bottom Extraction tubes: add 4.5mL of case samples, and controls.
 - 2b. Add 150uL of 2M acetate buffer, vortex.
 - 2c. Add 100uL glucuronidase, cap and rock gently.
 - 2d. Heat at 60C for 2 hours. Allow to cool before proceeding to step 3.
- 3. To each labeled De-Tox Tube add 5mL sample, Positive control: spike positive control working solution.
- 4. Place on tube rocker at ambient temp for approx. 10 minutes.
- 5. Centrifuge for approx. 10 min at ~2500-3000rpm.
- 6. Transfer solvent (upper layer) to new tube, and evaporate to ~100-300uL.
- 7. Transfer to labeled ALS vial with insert.
- 8. Place ALS Vials in appropriate location on GCMS rack and run using appropriate GCMS method.

Post-Analytic

- 1. Complete Data analysis on all samples and corresponding sample blanks
- 2. Did positive and negative control samples provide intended response? Yes
- 3. Sample Criteria for ID: RT +/- 0.2 min. (or 0.1 min. for phenethylamines)
- 4. Central File Packet to include: LIMS Worklist, Method Checklist, Working solution prep sheet(s), Positive control GCMS data printouts,

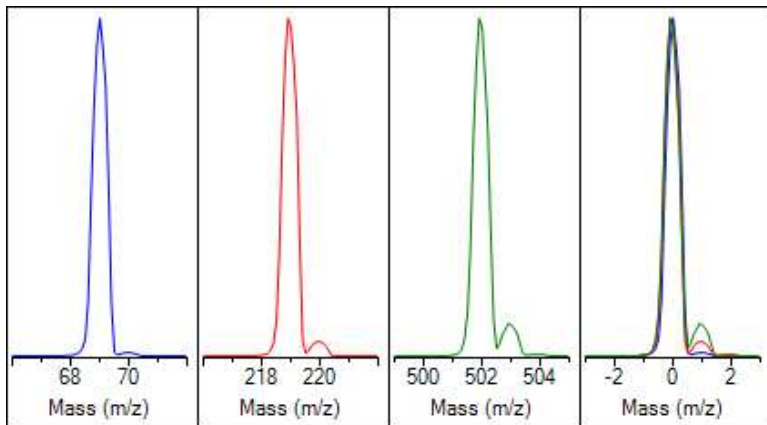
Autotune - 5977C

Tune timestamp: 6/8/2023 11:04 AM (UTC-07:00)

Deadlift

D:\MASSHUNTER\GCMS\1\5977\atune.u

US2238MA23

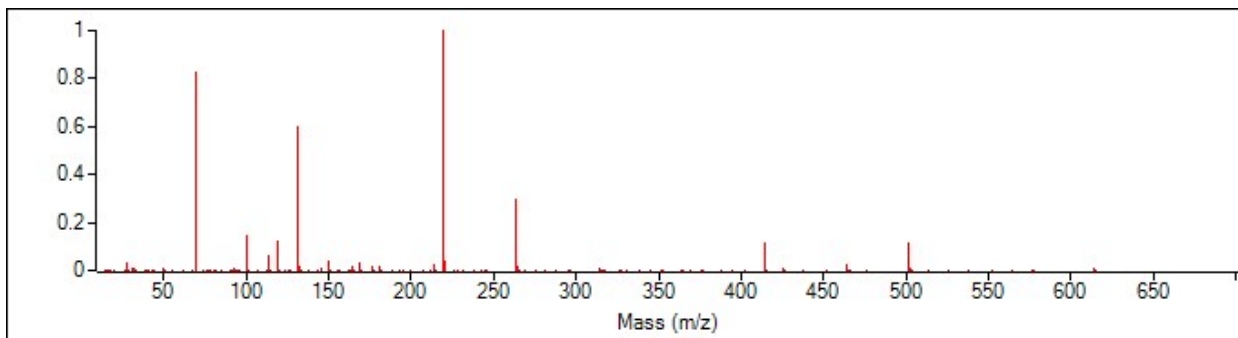


| | | | |
|---------------------------------|-------------|----------------|--------|
| Ion Polarity | Pos | PFTBA | Open |
| Emission | 34.6 | Mass Gain | 258 |
| Electron Energy | 70.0 | Mass Offset | -23 |
| Filament | 2 | Amu Gain | 2908 |
| Repeller | 24.34 | Amu Offset | 137.50 |
| Ion Focus | 90.3 | Width219 | -0.035 |
| Entrance Lens | 22.7 | DC Polarity | Pos |
| Ent Lens Offset | 10.98 | HED Enable | On |
| Ion Body | 0.00 | EM Volts | 1008.6 |
| Post Extractor 1 | 0 | Extractor Lens | 0.00 |
| Post Extractor 2 | 0 | Scan Speed | 3 |
| JetClean Flow Actual/[Setpoint] | 0.00 [0.00] | Averages | 3 |

| Actual m/z | Abund | Rel Abund | Pw50 |
|------------|---------|-----------|------|
| 69.00 | 338,398 | 100.0% | 0.59 |
| 218.90 | 401,313 | 118.6% | 0.60 |
| 501.90 | 49,339 | 14.6% | 0.60 |

| Temperatures and Pressures | | | |
|----------------------------|-----|-------------|----------|
| MS Source | 230 | Turbo Speed | 100.0 |
| MS Quad | 150 | Hi Vac | 2.09e-05 |

| Low | High | Step | Speed | Threshold | Peaks | Base | Abundance | Total Ion |
|-------|--------|------|-------|-----------|-------|--------|-----------|-----------|
| 10.00 | 701.00 | 0.10 | 3 | 100 | 139 | 219.00 | 381,760 | 1,452,726 |



| Target m/z | Actual m/z | Abund | Rel Abund | Iso m/z | Iso Abund | Iso Ratio |
|------------|------------|---------|-----------|---------|-----------|-----------|
| 69.00 | 69.00 | 317,504 | 100.0% | 70.00 | 3,659 | 1.2% |
| 219.00 | 219.00 | 381,760 | 120.2% | 220.00 | 16,776 | 4.4% |
| 502.00 | 502.00 | 46,176 | 14.5% | 503.00 | 4,687 | 10.2% |

Air/Water Check: H2O ~0.8% N2 ~3.8% O2 ~0.8% CO2 ~0.1% N2/H2O ~473.2%

Column(1) Flow: 2.47 Column(2): 0.00 ml/min Interface Temp: 250

Ramp Criteria:

Ion Focus maximum 90 volts using ion 502; Electron Multiplier Gain 78346.319

Repeller maximum 35 volts using ion 219; Gain Factor 0.7835

Mass Gain Values(Scan Speed): 268(3) 274(2) 285(1) 299(0) 352(FS1) 351(FS2)

| TARGET MASS: | 50 | 69 | 131 | 219 | 414 | 502 | 1091 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|
| Amu Offset | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 | 137.5 |
| Entrance Lens Offset | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |

Report Created: 6/8/2023 11:04 AM (UTC-07:00)

Instrument Name : Deadlift
 DC Polarity : Positive
 Filament 2
 Current Vacuum status :High Vacuum: 1.81E-05 Torr Turbo:100%

| | | |
|--|--------|----|
| BasePeak should be 69 or 219 | | OK |
| Position of mass 69 | 69.00 | OK |
| Position of mass 219 | 219.00 | OK |
| Position of mass 502 | 502.00 | OK |
| Position of isotope mass 70 | 70.00 | OK |
| Position of isotope mass 220 | 220.00 | OK |
| Position of isotope mass 503 | 503.03 | OK |
| Ratio of mass 70 to mass 69(0.5 - 1.6%) | 1.13 | OK |
| Ratio of mass 220 to mass 219(3.2 - 5.4%) | 4.35 | OK |
| Ratio of mass 503 to mass 502(7.9 - 12.3%) | 9.92 | OK |
| Ratio of 219 to 69 should be > 40% and is | 120.42 | OK |
| Ratio of 502 to 69 should be > 2.4% and is | 14.24 | OK |
| Mass 69 Precursor (<= 3%) | 0.27 | OK |
| Mass 219 Precursor (<= 6%) | 0.51 | OK |
| Mass 502 Precursor (<= 12%) | 0.77 | OK |

597x Air and Water Check
 Thu Jun 08 14:44:57 2023 Instrument: Deadlift
 D:\MassHunter\GCMS\1\5977\ATUNE.U US2238MA23

| | | |
|----------------------------------|------|----|
| Testing for a leak in the system | | |
| Ratio of 18 to 69 (<20%) | 0.77 | OK |
| Ratio of 28 to 69 (<10%) | 3.67 | OK |
| Electron Multiplier Voltage | 1009 | OK |

Tune portion of System Verification passed.



Idaho State Police Forensic Services

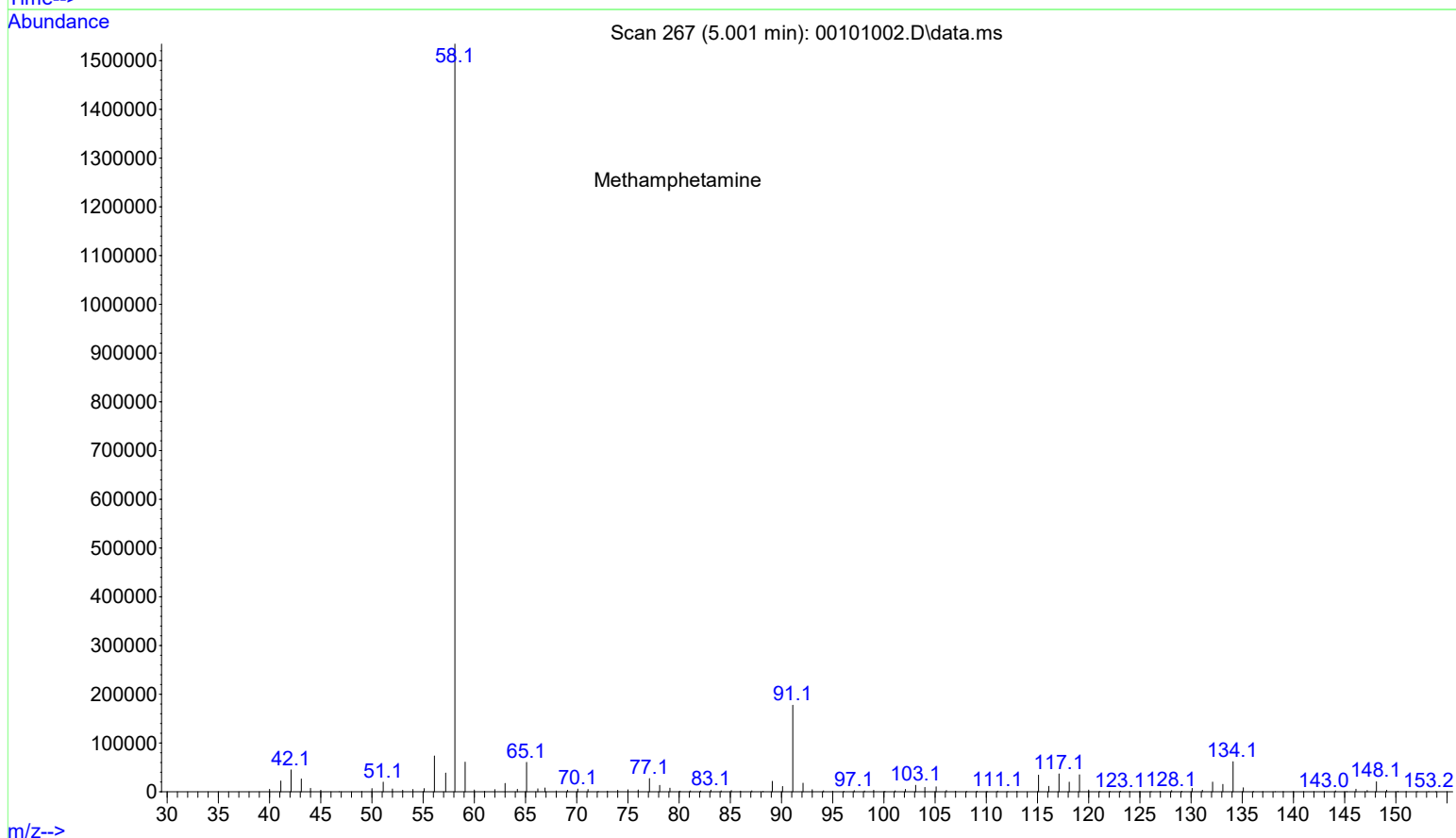
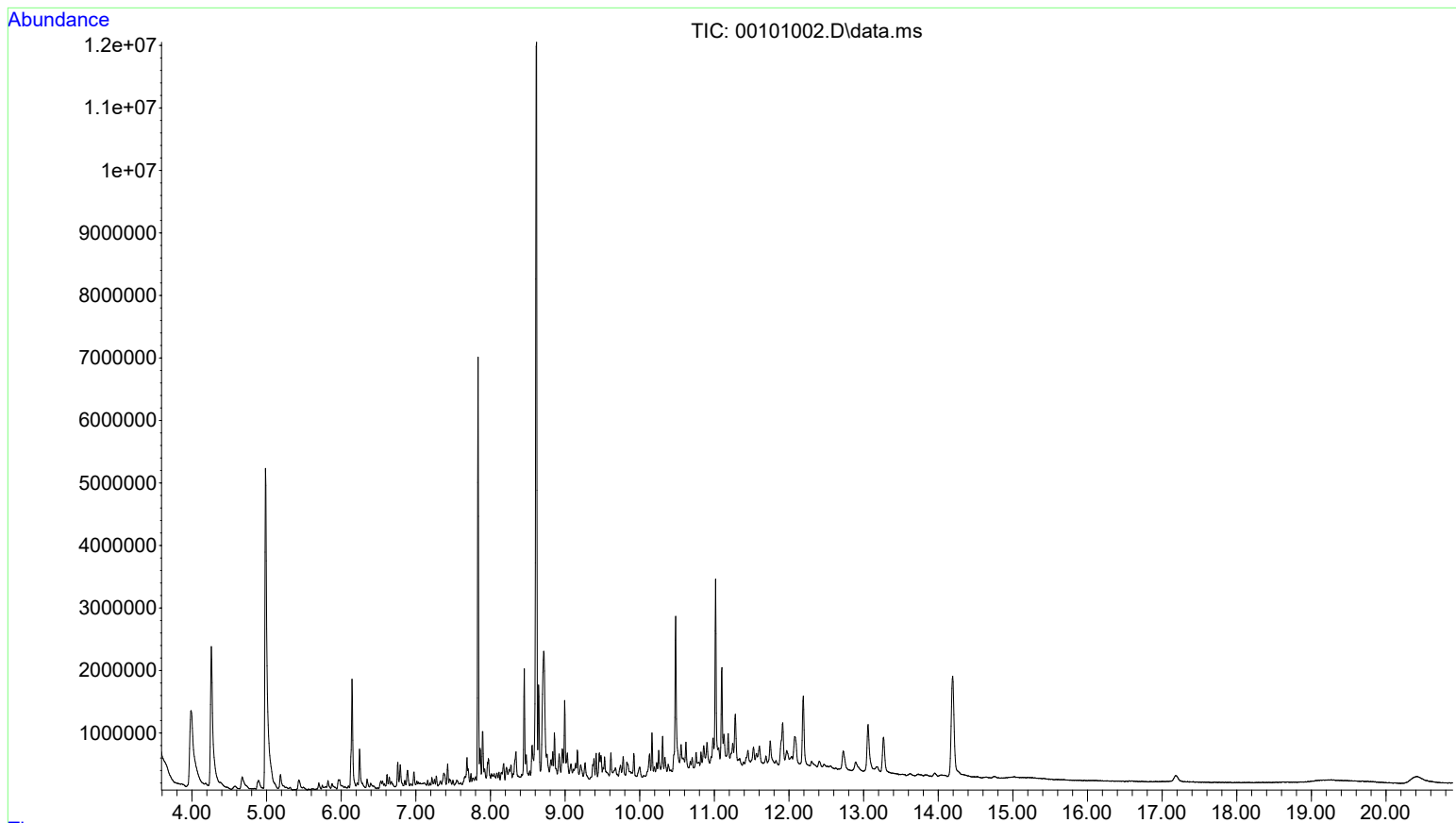
Toxicology AM #2 working solution

150 μ L of 1mg/mL stock was added of each drug to 9700 μ L of LC MeOH. ~15000ng/ml

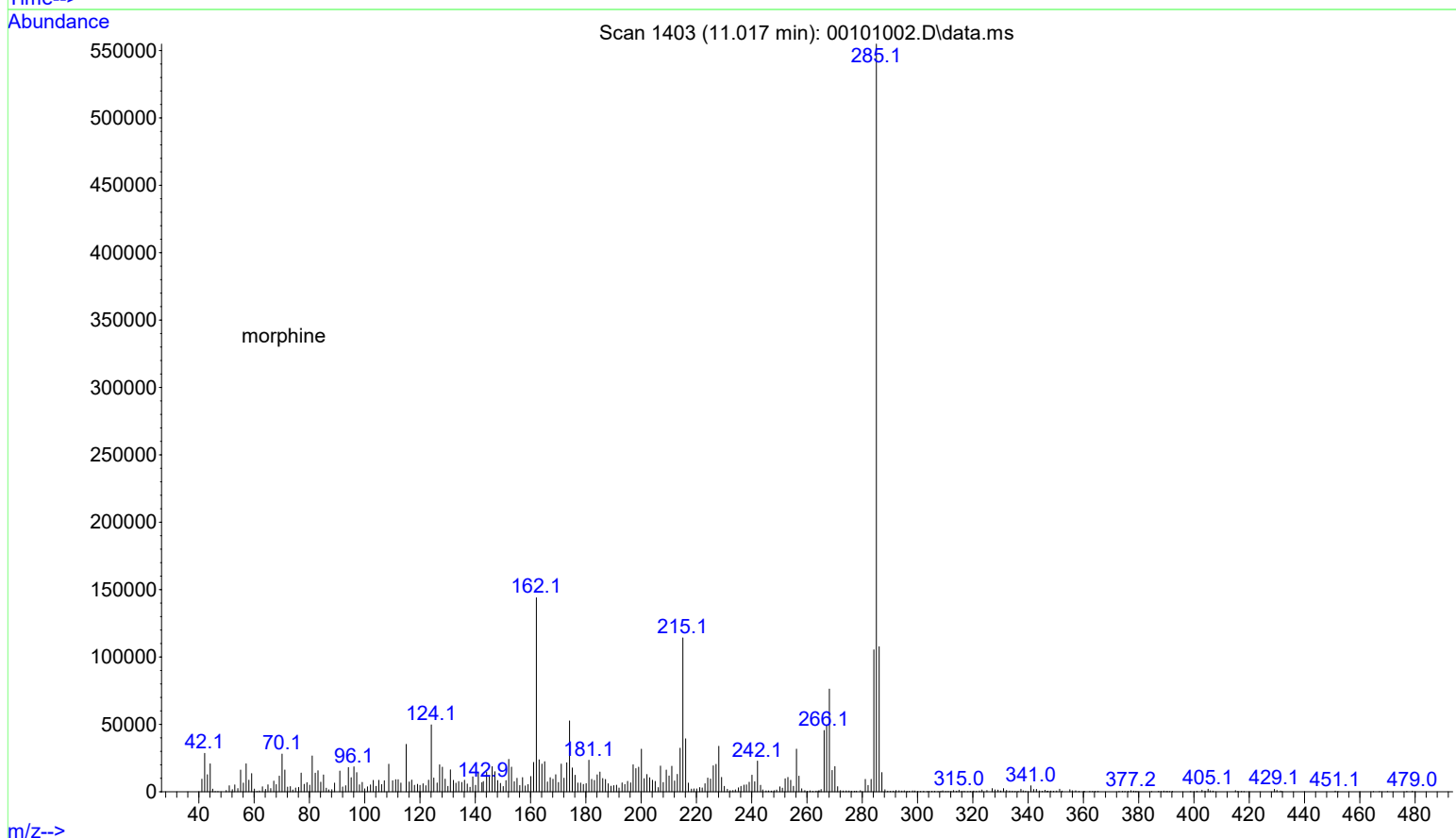
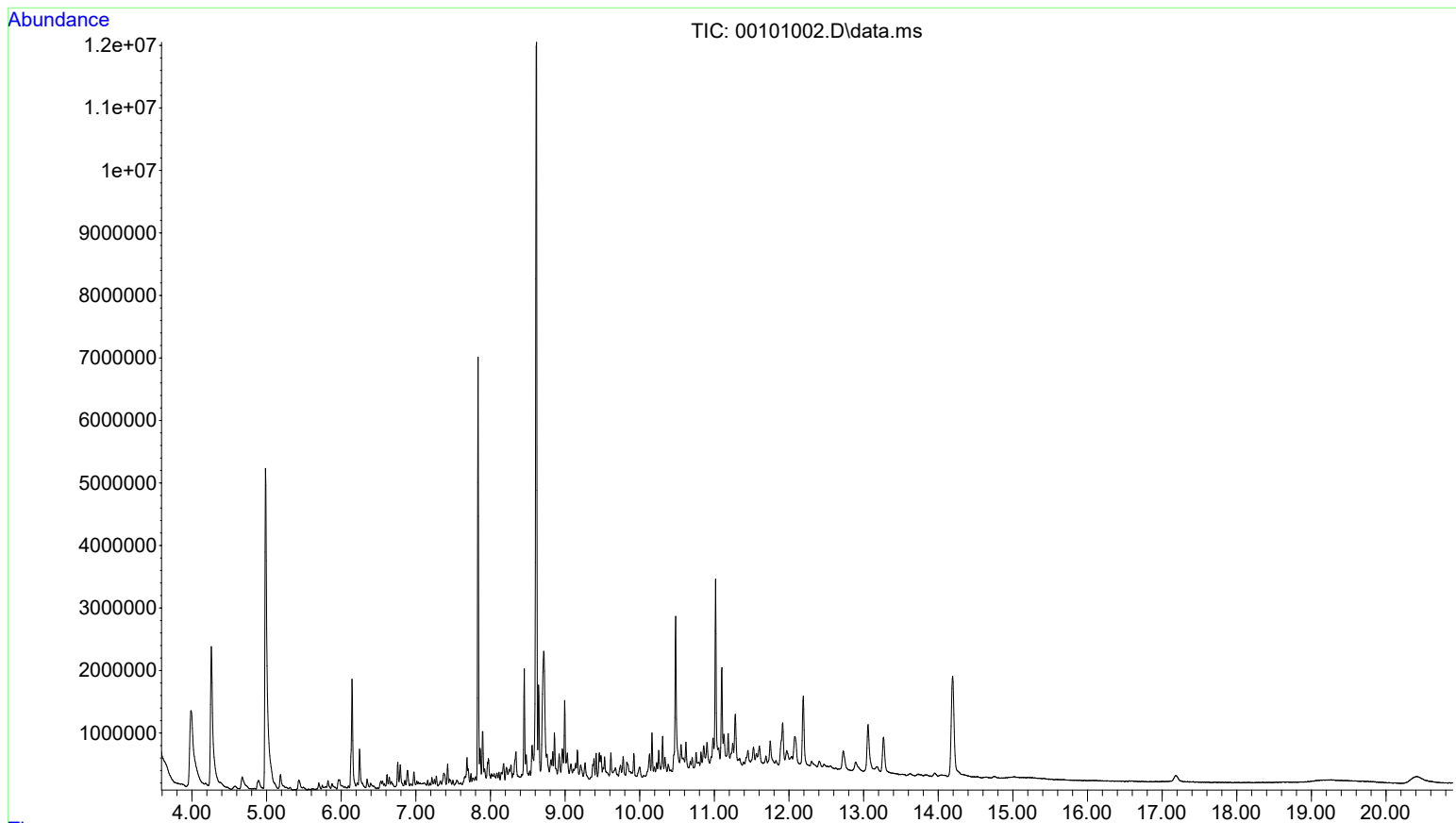
| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> | <i>Expiration Date</i> |
|------------------|------------------------------|--------------------------|------------------------|
| Methamphetamine | Cerilliant | FE03132001 | 7/1/2025 |
| Morphine | Cerilliant | FE03232010 | 4/1/2025 |
| Prepared: | 06/08/2023 Lot number 060824 | | |
| Expires: | 06/08/2024 | | |
| Prepared By: | Anne Nord | | |

AM 2 control add 500 ul working solution to 4500 ul negative urine and extract approximate concentration 1500 ng/ml.

File :D:\MassHunter\GCMS\1\data\2023\0060823\00101002.D
Operator :
Acquired : 08 Jun 2023 16:12 using AcqMethod am2.M
Instrument : Deadlift
Sample Name: positive control urine
Misc Info : am2
Vial Number: 1



File :D:\MassHunter\GCMS\1\data\2023\0060823\00101002.D
Operator :
Acquired : 08 Jun 2023 16:12 using AcqMethod am2.M
Instrument : Deadlift
Sample Name: positive control urine
Misc Info : am2
Vial Number: 1



File :D:\MassHunter\GCMS\1\data\2023\0060823\00201003.D
Operator :
Acquired : 08 Jun 2023 16:36 using AcqMethod am2.M
Instrument : Deadlift
Sample Name: negative control urine
Misc Info : am2
Vial Number: 2

