

# US EPA Tune Check Report

Operator Name Jaswal  
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\P8111123 MS1.b  
Acq. Date-Time 2023-11-11 09:52:53  
Report Comment ---  
Instrument Name G8403A SG19224459

[No Gas]

## Sensitivity

| Mass | Conc. [ug/l] | Count | CPS       | Resp (Required) [cps/ug/l] | Resp (Flag) | RSD%   | RSD% (Required) |
|------|--------------|-------|-----------|----------------------------|-------------|--------|-----------------|
| 9    |              | 9167  | 91665.45  |                            |             | 0.898  | 5.000           |
| 24   |              | 71520 | 715201.27 |                            |             | 1.367  | 5.000           |
| 25   |              | 9479  | 94795.00  |                            |             | 0.605  | 5.000           |
| 26   |              | 11083 | 110828.57 |                            |             | 0.524  | 5.000           |
| 59   |              | 70480 | 704796.71 |                            |             | 0.585  | 5.000           |
| 113  |              | 7767  | 77674.32  |                            |             | 1.058  | 5.000           |
| 115  |              | 97690 | 976895.69 |                            |             | 1.187  | 5.000           |
| 206  |              | 25784 | 257841.10 |                            |             | 0.955  | 5.000           |
| 207  |              | 23193 | 231927.57 |                            |             | 0.784  | 5.000           |
| 208  |              | 56093 | 560927.94 |                            |             | 1.055  | 5.000           |
| 220  |              | 0     | 2.10      |                            |             | 63.888 |                 |

| Mass | RSD% (Flag) |
|------|-------------|
| 9    |             |
| 24   |             |
| 25   |             |
| 26   |             |
| 59   |             |
| 113  |             |
| 115  |             |
| 206  |             |
| 207  |             |
| 208  |             |
| 220  |             |

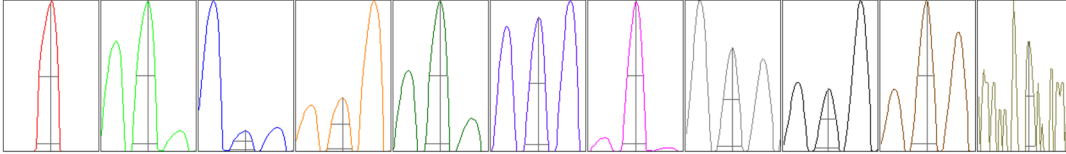
| Mass | Rep#1 Count | Rep#2 Count | Rep#3 Count | Rep#4 Count | Rep#5 Count |
|------|-------------|-------------|-------------|-------------|-------------|
| 9    | 9285        | 9119        | 9200        | 9068        | 9160        |
| 24   | 71307       | 72535       | 71965       | 69955       | 71839       |
| 25   | 9536        | 9470        | 9522        | 9389        | 9481        |
| 26   | 11117       | 11155       | 11090       | 11007       | 11045       |
| 59   | 70387       | 70771       | 71019       | 69998       | 70224       |
| 113  | 7838        | 7778        | 7842        | 7735        | 7644        |
| 115  | 98844       | 97755       | 98022       | 95746       | 98080       |
| 206  | 25958       | 25747       | 26105       | 25513       | 25598       |
| 207  | 23224       | 23071       | 23497       | 23060       | 23113       |
| 208  | 56328       | 56421       | 56563       | 55084       | 56067       |

# US EPA Tune Check Report

| Mass | Rep#1 Count | Rep#2 Count | Rep#3 Count | Rep#4 Count | Rep#5 Count |
|------|-------------|-------------|-------------|-------------|-------------|
| 220  | 0           | 0           | 0           | 0           | 0           |

Integration Time [sec] 0.1

## Resolution/Axis



| Mass | Peak Height | Axis   | Axis (Required) | Axis (Flag) |
|------|-------------|--------|-----------------|-------------|
| 9    | 16275.29    | 9.00   | 8.90 - 9.10     |             |
| 24   | 127600.24   | 24.00  | 23.90 - 24.10   |             |
| 25   | 17145.86    | 25.00  | 24.90 - 25.10   |             |
| 26   | 19972.37    | 26.00  | 25.90 - 26.10   |             |
| 59   | 133258.76   | 59.00  | 58.90 - 59.10   |             |
| 113  | 15982.67    | 113.05 | 112.90 - 113.10 |             |
| 115  | 202480.66   | 115.05 | 114.90 - 115.10 |             |
| 206  | 52245.49    | 206.00 | 205.90 - 206.10 |             |
| 207  | 46900.80    | 206.95 | 206.90 - 207.10 |             |
| 208  | 112387.90   | 208.00 | 207.90 - 208.10 |             |
| 220  | 0.40        | 220.15 | -               |             |

| Mass | W-50% | W-5%  | W-5% (Required) | W-5% (Flag) |
|------|-------|-------|-----------------|-------------|
| 9    | 0.61  | 0.740 | 0.900           |             |
| 24   | 0.59  | 0.785 | 0.900           |             |
| 25   | 0.58  | 0.782 | 0.900           |             |
| 26   | 0.58  | 0.785 | 0.900           |             |
| 59   | 0.56  | 0.764 | 0.900           |             |
| 113  | 0.49  | 0.756 | 0.900           |             |
| 115  | 0.50  | 0.752 | 0.900           |             |
| 206  | 0.50  | 0.776 | 0.900           |             |
| 207  | 0.50  | 0.773 | 0.900           |             |
| 208  | 0.50  | 0.800 | 0.900           |             |
| 220  | 0.24  | 0.340 |                 |             |

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

## Tune Parameters

### Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.85 L/min Dilution Gas 0.40 L/min

# US EPA Tune Check Report

|              |        |                |          |               |            |
|--------------|--------|----------------|----------|---------------|------------|
| RF Power     | 1600 W | Option Gas     | ---      | Auxiliary Gas | 0.90 L/min |
| RF Matching  | 1.80 V | Nebulizer Pump | 0.10 rps | Plasma Gas    | 15.0 L/min |
| Sample Depth | 9.0 mm | S/C Temp       | 2 °C     |               |            |

## Lens Parameters

|            |          |               |        |            |        |
|------------|----------|---------------|--------|------------|--------|
| Extract 1  | -6.0 V   | Omega Lens    | 10.9 V | Deflect    | 13.8 V |
| Extract 2  | -235.0 V | Cell Entrance | -30 V  | Plate Bias | -50 V  |
| Omega Bias | -120 V   | Cell Exit     | -50 V  |            |        |

## Cell Parameters

|         |            |              |        |                       |       |
|---------|------------|--------------|--------|-----------------------|-------|
| Use Gas | No         | 3rd Gas Flow | ---    | Energy Discrimination | 4.0 V |
| He Flow | 0.0 mL/min | OctP Bias    | -8.0 V |                       |       |
| H2 Flow | ---        | OctP RF      | 140 V  |                       |       |

## QP Parameters

|             |     |             |        |         |        |
|-------------|-----|-------------|--------|---------|--------|
| Mass Gain   | 124 | Axis Gain   | 0.9992 | QP Bias | -4.0 V |
| Mass Offset | 125 | Axis Offset | 0.01   |         |        |

## Hardware Settings

### Torch

|         |        |         |         |
|---------|--------|---------|---------|
| Torch H | 1.3 mm | Torch V | -0.9 mm |
|---------|--------|---------|---------|

### EM

|               |        |           |        |          |        |
|---------------|--------|-----------|--------|----------|--------|
| Discriminator | 4.6 mV | Analog HV | 2303 V | Pulse HV | 1661 V |
|---------------|--------|-----------|--------|----------|--------|

[He]

## Sensitivity

| Mass | Conc. [ug/l] | Count | CPS       | Resp (Required) [cps/ug/l] | Resp (Flag) | RSD%  | RSD% (Required) |
|------|--------------|-------|-----------|----------------------------|-------------|-------|-----------------|
| 59   |              | 15921 | 159208.15 |                            |             | 0.685 |                 |
| 89   |              | 10456 | 104555.87 |                            |             | 0.562 |                 |
| 205  |              | 19023 | 190225.18 |                            |             | 0.582 |                 |

| Mass | RSD% (Flag) |
|------|-------------|
| 59   |             |
| 89   |             |
| 205  |             |

| Mass | Rep#1 Count | Rep#2 Count | Rep#3 Count | Rep#4 Count | Rep#5 Count |
|------|-------------|-------------|-------------|-------------|-------------|
| 59   | 15863       | 15986       | 16080       | 15820       | 15854       |
| 89   | 10483       | 10517       | 10472       | 10447       | 10361       |
| 205  | 19023       | 19194       | 19043       | 18907       | 18946       |

Integration Time [sec] 0.1

## Tune Parameters

### Plasma Parameters

|              |        |                |            |               |            |
|--------------|--------|----------------|------------|---------------|------------|
| Plasma Mode  | ---    | Nebulizer Gas  | 0.85 L/min | Dilution Gas  | 0.40 L/min |
| RF Power     | 1600 W | Option Gas     | ---        | Auxiliary Gas | 0.90 L/min |
| RF Matching  | 1.80 V | Nebulizer Pump | 0.10 rps   | Plasma Gas    | 15.0 L/min |
| Sample Depth | 9.0 mm | S/C Temp       | 2 °C       |               |            |

### Lens Parameters

|           |        |            |        |         |       |
|-----------|--------|------------|--------|---------|-------|
| Extract 1 | -6.0 V | Omega Lens | 10.9 V | Deflect | 3.8 V |
|-----------|--------|------------|--------|---------|-------|

# US EPA Tune Check Report

|                          |            |               |         |                       |         |
|--------------------------|------------|---------------|---------|-----------------------|---------|
| Extract 2                | -235.0 V   | Cell Entrance | -50 V   | Plate Bias            | -60 V   |
| Omega Bias               | -120 V     | Cell Exit     | -70 V   |                       |         |
| <b>Cell Parameters</b>   |            |               |         |                       |         |
| Use Gas                  | Yes        | 3rd Gas Flow  | ---     | Energy Discrimination | 5.0 V   |
| He Flow                  | 4.5 mL/min | OctP Bias     | -18.0 V |                       |         |
| H2 Flow                  | ---        | OctP RF       | 190 V   |                       |         |
| <b>QP Parameters</b>     |            |               |         |                       |         |
| Mass Gain                | 124        | Axis Gain     | 0.9992  | QP Bias               | -13.0 V |
| Mass Offset              | 125        | Axis Offset   | 0.01    |                       |         |
| <b>Hardware Settings</b> |            |               |         |                       |         |
| <b>Torch</b>             |            |               |         |                       |         |
| Torch H                  | 1.3 mm     | Torch V       | -0.9 mm |                       |         |
| <b>EM</b>                |            |               |         |                       |         |
| Discriminator            | 4.6 mV     | Analog HV     | 2303 V  | Pulse HV              | 1661 V  |