






Worklist: 2730

| <u>LAB CASE</u> | <u>ITEM</u> | <u>TASK ID</u> | <u>DESCRIPTION</u> | |
|-----------------|-------------|----------------|---|---|
| M2018-3955 | 1 | 128854 | AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC |  |
| M2018-4517 | 1 | 128855 | AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC |  |
| M2018-4522 | 1 | 128856 | AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC |  |
| M2018-4630 | 1 | 128857 | AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC |  |
| M2018-4670 | 1 | 128858 | AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC |  |

AM# 28: Multi-Drug Quantitation in Blood by LC-MS/MS

Extraction Date: 10/10/18

Analyst: Sarah Pickle

Plate lot#: 0530563

Plate Expiration: 05/21/19

Mobile phase A: 5mM Amm Form + 0.01% FA
0.5M Ammonium Hydroxide

Mobile phase B: 0.01% Formic Acid in MeOH
Ethyl Acetate 20% Methanol in Water

Blank Blood Lot: 361331-1

Column: Agilent 120 EC-C18 (2.1x 100-4um)

LCMS-QQQ ID: 59740

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 **250µL blood (calibrated pipette) Pipette ID: #3** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 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: 067104
- 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: 067103
- 16. Reconstitute in **100µL 20% MeOH** and heat seal plate with foil. Place in autosampler and run worklist.

Post-Analytic

- 1. Create batch and process data.
Worklist path: *101018 MDQ P1 P2 SP* Batch Name: *P2a final*
- 2. Make necessary changes to integration limits
- 3. Integration linear and R² values ≥0.98 for each analyte.
- 4. For unknown samples and controls: response ratio within 20% of average of controls and standards, RT within +/- 5% (tramadol RT +/-2%), S/N for primary transition >10 and secondary transitions >5.
- 5. Did all QCs pass for each analyte? Y / N _____ Add Control data to QC tracking spreadsheet.
- 6. Central File Packet to include: LIMS Worklist, Method Checklist, Calibration and Control Reports.

COMMENTS: *Only chlordiazepoxide, doxepin, levamisole, midazolam, pseudoephedrine, and zopiclone were evaluated in this run.*



Idaho State Police Forensic Services

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AM #28 Blood Multi-Drug Confirmatory Analysis by LCMS-QQQ

Analyst: Sarah Pickle
Extraction Date: 10/10/18
Worklist Number: 2730

| <i>Reagent</i> | <i>Lot Number</i> | <i>Expiration Date</i> | <i>Date in Service</i> | <i>Date Out of Service</i> | <i>Initials</i> |
|--|-------------------|------------------------|------------------------|----------------------------|-----------------|
| ToxBox Benzo/Opiate Quant Plate | 0530563 | 5/21/19 | | | |
| Negative Blood | 361331-1 | | 05/25/18 | | |
| Methanol External Control Solution | 022018 | 02/20/19 | 02/20/18 | | |
| Blood External Control Solution | 081518 | 02/20/19 | 08/15/18 | | |
| 0.5M Ammonium Hydroxide | 082818 | 02/28/19 | 08/28/18 | | |
| Formic Acid (LCMS Grade) | 095180B | | 11/15/17 | | |
| Water (LCMS Grade) | 182702 | | 06/21/18 | | |
| Methanol (LCMS Grade) | 177145 | | 04/11/18 | | |
| Ammonium Formate (LCMS Grade) | A0287238 | | 01/30/17 | | |
| Ammonium Hydroxide (ACS grade or better) | 053200 | | 08/03/07 | | |
| Ethyl Acetate (ACS grade or better) | 100362 | | 06/26/17 | | |
| 20% LCMS Methanol in LCMS Water | 082818 | | 08/28/18 | | |
| 5mM Ammonium Formate + 0.01% Formic Acid in Water (Mobile Phase A) | 100918 | | 10/09/18 | | |
| 0.01% Formic Acid in Methanol (Mobile Phase B) | 100918 | | 10/09/18 | | |
| Needle Rinse--75% LCMS MeOH in LCMS Water | 100918 | | 10/09/18 | | |

Methanol External Control Solution (Lot: 022018)
100 ul each 1 mg/mL stock solution in 9700 ul MeOH

| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> | <i>Expiration Date</i> |
|------------------|----------------|--------------------------|------------------------|
| Methanol (LCMS) | Fisher | 172516 | |
| Zopiclone | Cerilliant | FE08291601 | 12/31/2021 |
| Chlordiazepoxide | Cerilliant | FE07241502 | 08/31/2020 |
| Flunitrazepam | Cerilliant | FE08051602 | 08/31/2021 |
| Prepared: | 02/20/18 | | |
| Prepared By: | Tamara Salazar | | |
| Expires: | 02/20/19 | | |

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Blood External Control Solution (Lot: WS081518)

50 ul of methanol external control solution was added to 9950 ul of blood.

| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> |
|------------------------------------|---------------|--------------------------|
| Negative Blood | Hemostat | 361331-1 |
| Methanol External Control Solution | | 022018 |
| Prepared: | 08/15/18 | |
| Prepared by: | Sarah Pickle | |
| Expires: | 02/20/19 | |

0.5M Ammonium Hydroxide (Lot: 082818)

| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> |
|--|----------------|--------------------------|
| Ammonium Hydroxide (ACS grade or better) | Fisher | 053200 |
| DI Water | - | - |
| Prepared: | 08/28/18 | |
| Prepared By: | Tamara Salazar | |
| Expires: | 02/28/19 | |

20% LCMS Methanol in LCMS Water (Lot: 082818)

| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> |
|--------------------|----------------|--------------------------|
| MeOH (LCMS Grade) | Fisher | 177145 |
| Water (LCMS Grade) | Fisher | 182702 |
| Prepared: | 08/28/18 | |
| Prepared By: | Tamara Salazar | |

5mM Ammonium Formate + 0.01% Formic Acid in Water (Lot: 100918)

| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> |
|------------------|----------------|--------------------------|
| Ammonium Formate | Arcos Organics | A0287238 |
| LCMS Water | Fisher | 182702 |
| Formic Acid | Fisher | 095180B |
| Prepared: | 10/09/18 | |
| Prepared By: | Tamara Salazar | |

0.01% Formic Acid in LCMS Methanol (Mobile Phase B) (Lot: 100918)

| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> |
|-------------------|----------------|--------------------------|
| Formic Acid | Fisher | 095180B |
| MeOH (LCMS Grade) | Fisher | 177145 |
| Prepared: | 10/09/18 | |
| Prepared By: | Tamara Salazar | |

Needle Rinse (75% LCMS MeOH in LCMS Water) (Lot: 100918)

| <i>Component</i> | <i>Source</i> | <i>Source Lot Number</i> |
|--------------------|---------------|--------------------------|
| MeOH (LCMS Grade) | Fisher | 177145 |
| Water (LCMS Grade) | Fisher | 182702 |
| Prepared: | 10/09/18 | |
| Prepared By: | Sarah Pickle | |

P

ISP FORENSICS - Pocatello Instrument # 59740

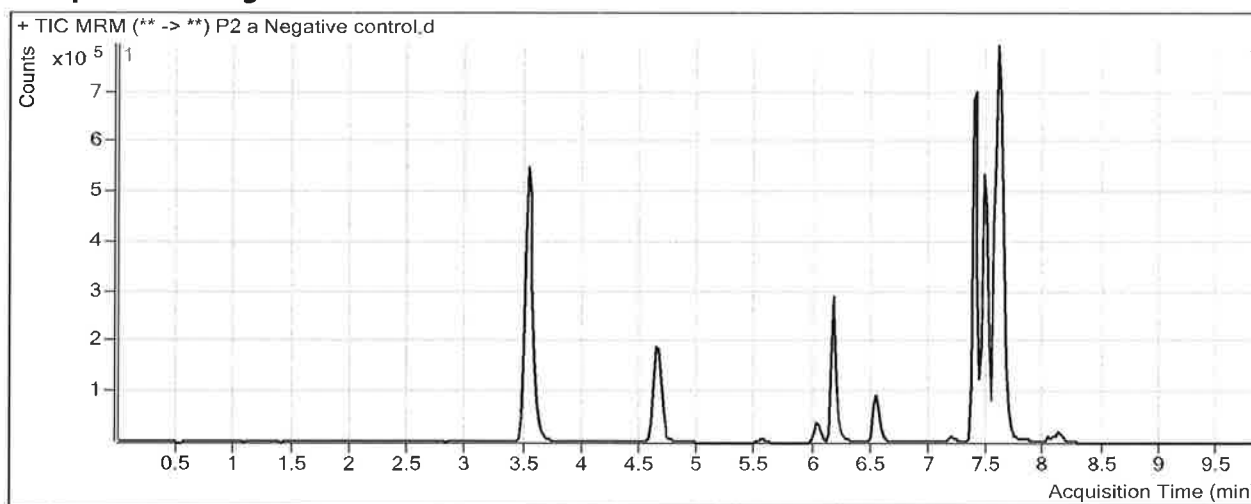
Multi-Drug Confirmatory Analysis Report

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Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:07 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 14:59 **Data File** P2 a Negative control.d
Sample Type Sample **Sample Name** P2 a Negative control.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-E6 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

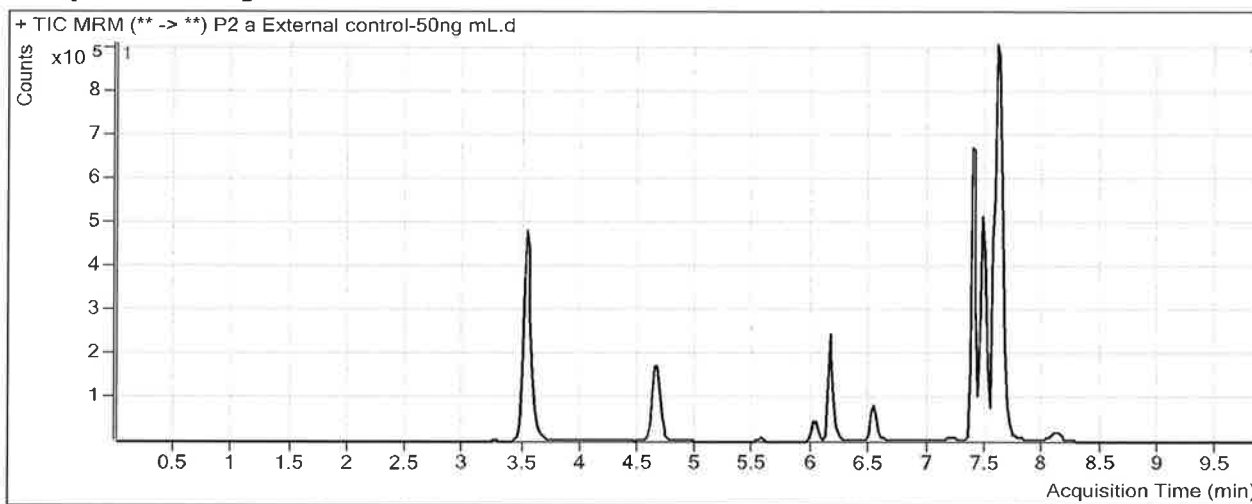
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:07 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 15:25 **Data File** P2 a External control-50ng mL.d
Sample Type Sample **Sample Name** P2 a External control-50ng mL.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-F6 **Sample Info**
Inj Vol -1 **Comment** AM 28; 361331-1 + WS022018 50 ng flunitrazepam, zopiclone, chlorodia:

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Zopiclone | Zopiclone-D4 | 6.031 | 63340 | 102167 | 0.6200 | 20.7293 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 283322 | 1690173 | 0.1676 | 41.3562 |

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ISP FORENSICS - Pocatello Instrument # 59740

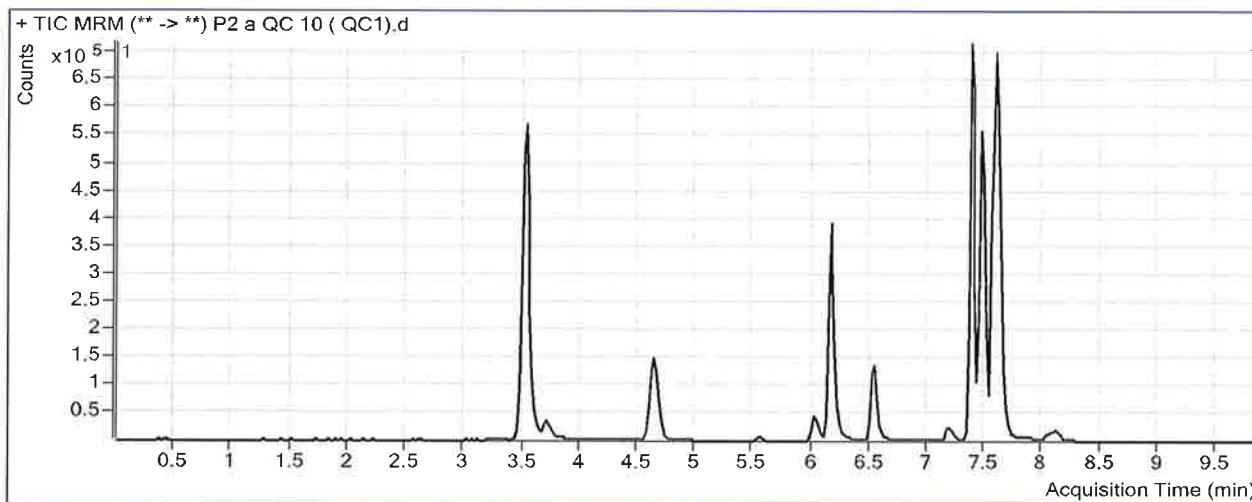
Multi-Drug Confirmatory Analysis Report

Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:07 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 16:16 **Data File** P2 a QC 10 (QC1).d
Sample Type QC **Sample Name** P2 a QC 10 (QC1).d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-A6 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.536 | 513228 | 2293809 | 0.2237 | 10.1802 |
| Levamisole | Pseudoephedrine-D3 | 3.704 | 87966 | 2293809 | 0.0383 | 8.9826 |
| Zopiclone | Zopiclone-D4 | 6.011 | 30752 | 114976 | 0.2675 | 9.8259 |
| Doxepin | Doxepin-D3 | 7.188 | 16966 | 65173 | 0.2603 | 9.8236 |
| Midazolam | Midazolam-D4 | 7.565 | 24309 | 521804 | 0.0466 | 8.8688 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 46234 | 1319637 | 0.0350 | 9.1804 |

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ISP FORENSICS - Pocatello Instrument # 59740

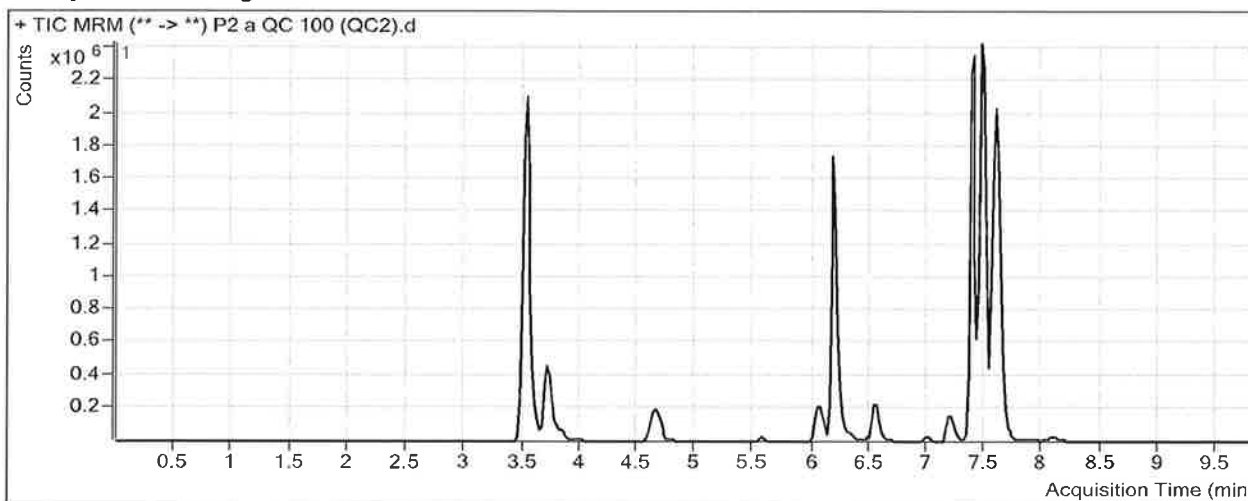
Multi-Drug Confirmatory Analysis Report

Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:08 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 17:19 **Data File** P2 a QC 100 (QC2).d
Sample Type QC **Sample Name** P2 a QC 100 (QC2).d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-B6 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.536 | 6628775 | 2637635 | 2.5132 | 96.2001 |
| Levamisole | Pseudoephedrine-D3 | 3.704 | 1280866 | 2637635 | 0.4856 | 96.8515 |
| Zopiclone | Zopiclone-D4 | 6.031 | 423830 | 135421 | 3.1297 | 98.3594 |
| Doxepin | Doxepin-D3 | 7.208 | 429016 | 127841 | 3.3559 | 95.3368 |
| Midazolam | Midazolam-D4 | 7.565 | 428416 | 702844 | 0.6095 | 103.6989 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 587635 | 1394485 | 0.4214 | 102.9372 |

ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

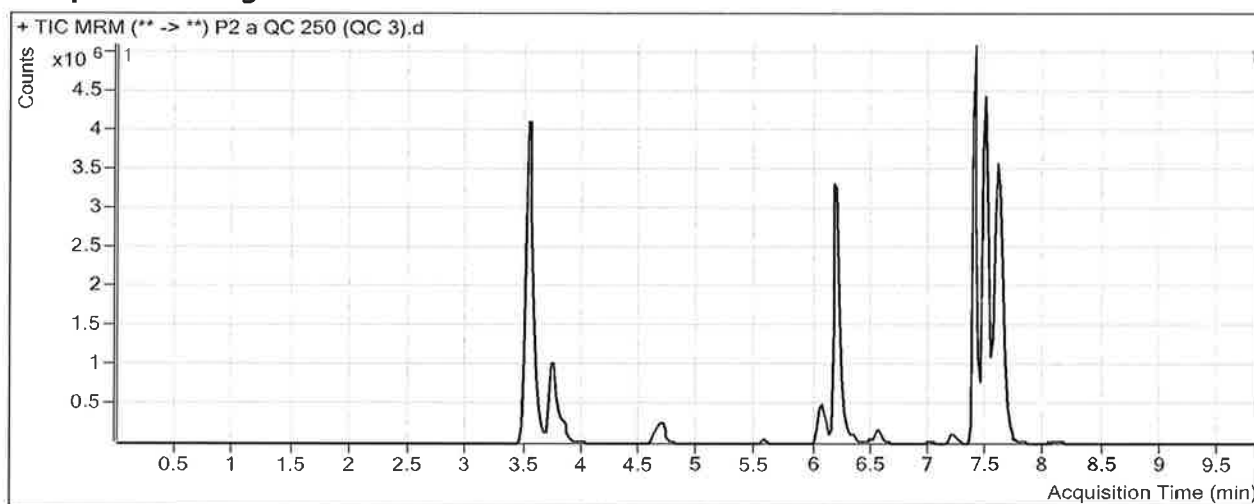
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:08 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 19:01 **Data File** P2 a QC 250 (QC 3).d
Sample Type QC **Sample Name** P2 a QC 250 (QC 3).d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-C6 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.556 | 16944449 | 2599864 | 6.5174 | 246.6532 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 3295816 | 2599864 | 1.2677 | 250.4979 |
| Zopiclone | Zopiclone-D4 | 6.031 | 996738 | 119919 | 8.3118 | 258.6470 |
| Doxepin | Doxepin-D3 | 7.208 | 343730 | 39079 | 8.7959 | 245.6150 |
| Midazolam | Midazolam-D4 | 7.565 | 946443 | 637710 | 1.4841 | 251.0211 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.627 | 1309993 | 1275900 | 1.0267 | 249.8271 |

ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

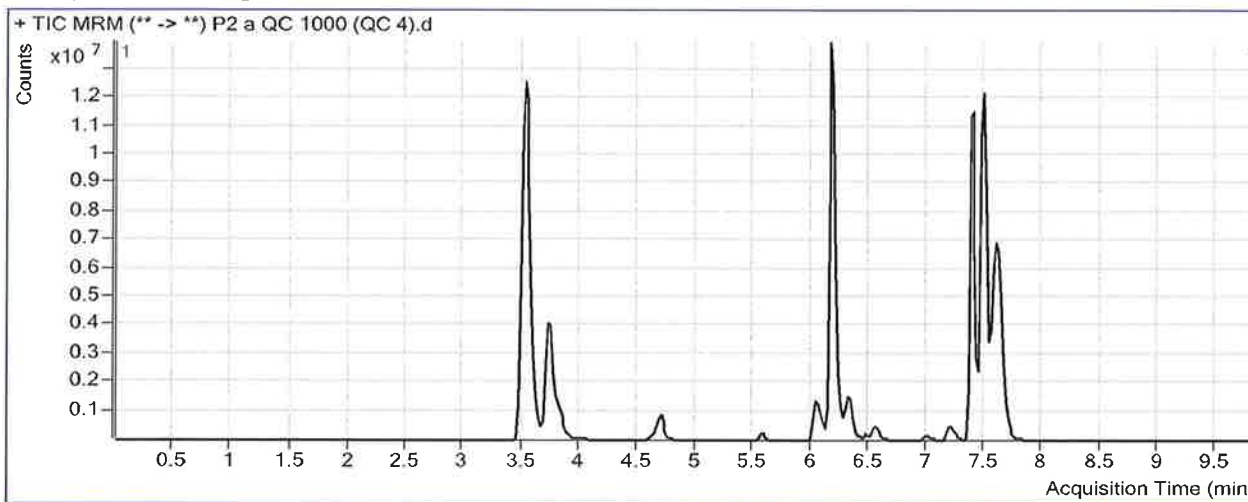
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:08 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 19:52 **Data File** P2 a QC 1000 (QC 4).d
Sample Type QC **Sample Name** P2 a QC 1000 (QC 4).d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-D6 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.536 | 63084867 | 2284133 | 27.6187 | 1039.4926 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 13237409 | 2284133 | 5.7954 | 1140.0058 |
| Zopiclone | Zopiclone-D4 | 6.031 | 2538942 | 80872 | 31.3948 | 972.6317 |
| Doxepin | Doxepin-D3 | 7.208 | 1579281 | 39247 | 40.2391 | 1114.2246 |
| Midazolam | Midazolam-D4 | 7.565 | 3137129 | 487382 | 6.4367 | 1085.2739 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.627 | 3026744 | 743480 | 4.0710 | 988.5767 |

ISP Forensics Calibration Curve Report

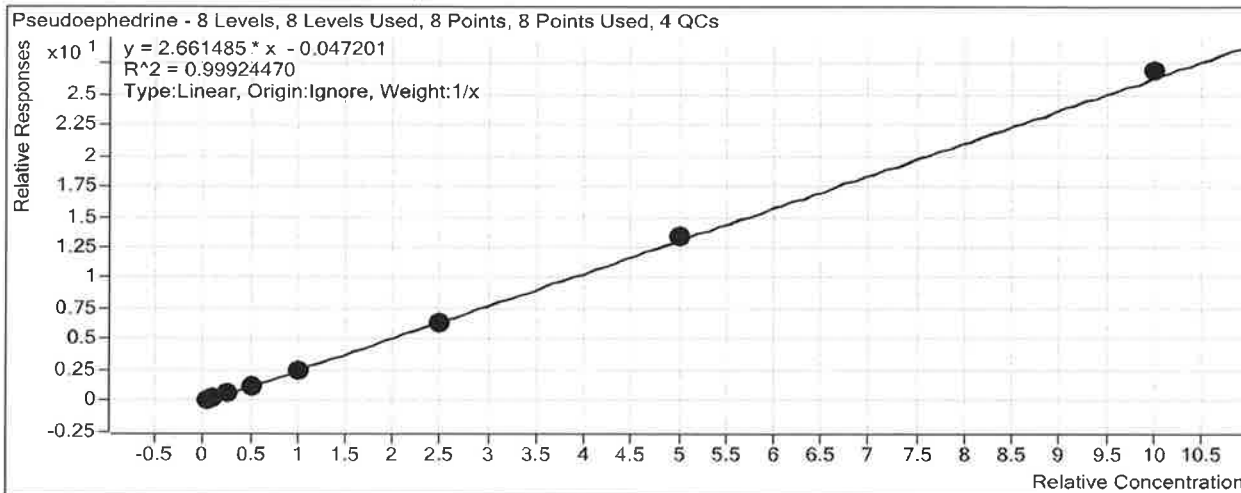
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin

Last Calib Update 10/12/2018 10:51 AM

Analyst Name ISP TOX

Target Compound *Pseudoephedrine*
Internal Standard *Pseudoephedrine-D3*



| Sample | Level | Enabled | Exp Conc | Final Conc | Accuracy |
|-----------------------|-------|-------------------------------------|----------|------------|----------|
| P2 a cal 1-5ng.d | 1 | <input checked="" type="checkbox"/> | 5 | 5.9 | 117.3 |
| P2 a cal 2-10ng.d | 2 | <input checked="" type="checkbox"/> | 10 | 10.2 | 101.8 |
| P2 a QC 10 (QC1).d | 2 | <input checked="" type="checkbox"/> | 10 | 10.2 | 101.8 |
| P2 a cal 3-25ng.d | 3 | <input checked="" type="checkbox"/> | 25 | 23.7 | 94.8 |
| P2 a cal 4-50ng.d | 4 | <input checked="" type="checkbox"/> | 50 | 46.9 | 93.7 |
| P2 a cal 5-100ng.d | 5 | <input checked="" type="checkbox"/> | 100 | 93.2 | 93.2 |
| P2 a QC 100 (QC2).d | 5 | <input checked="" type="checkbox"/> | 100 | 96.2 | 96.2 |
| P2 a cal 6-250ng.d | 6 | <input checked="" type="checkbox"/> | 250 | 242.5 | 97.0 |
| P2 a QC 250 (QC 3).d | 6 | <input checked="" type="checkbox"/> | 250 | 246.7 | 98.7 |
| P2 a cal 7-500ng.d | 7 | <input checked="" type="checkbox"/> | 500 | 503.3 | 100.7 |
| P2 a cal 8-1000ng.d | 8 | <input checked="" type="checkbox"/> | 1000 | 1014.4 | 101.4 |
| P2 a QC 1000 (QC 4).d | 8 | <input checked="" type="checkbox"/> | 1000 | 1039.5 | 103.9 |

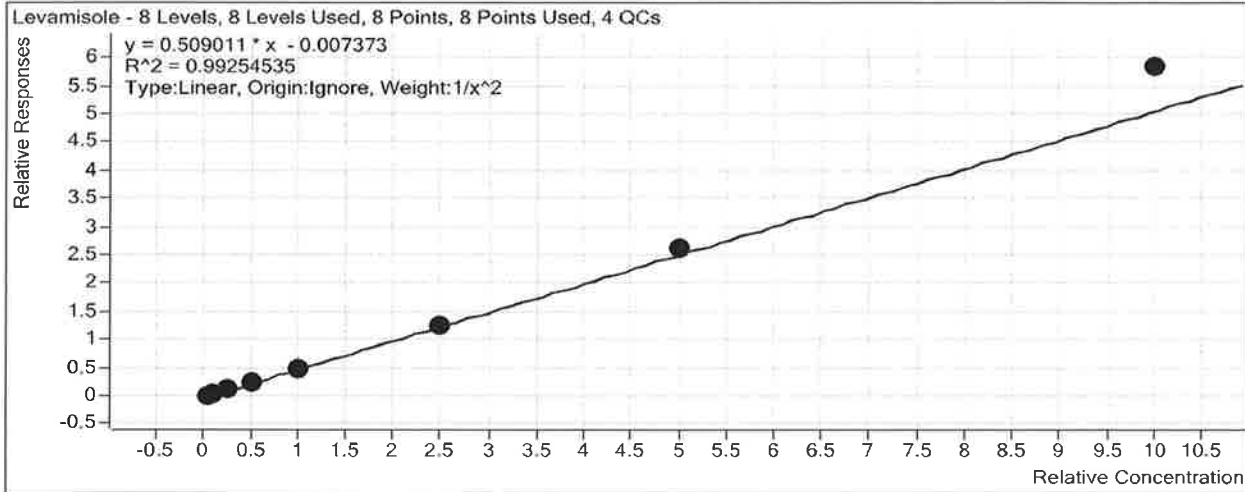
ISP Forensics Calibration Curve Report

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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin

Last Calib Update 10/12/2018 10:51 AM **Analyst Name** ISP TOX

Target Compound Levamisole
Internal Standard Pseudoephedrine-D3



| Sample | Level | Enabled | Exp Conc | Final Conc | Accuracy |
|-----------------------|-------|-------------------------------------|----------|------------|----------|
| P2 a cal 1-5ng.d | 1 | <input checked="" type="checkbox"/> | 5 | 5.3 | 105.0 |
| P2 a cal 2-10ng.d | 2 | <input checked="" type="checkbox"/> | 10 | 9.4 | 94.5 |
| P2 a QC 10 (QC1).d | 2 | <input checked="" type="checkbox"/> | 10 | 9.0 | 89.8 |
| P2 a cal 3-25ng.d | 3 | <input checked="" type="checkbox"/> | 25 | 22.9 | 91.7 |
| P2 a cal 4-50ng.d | 4 | <input checked="" type="checkbox"/> | 50 | 47.2 | 94.4 |
| P2 a cal 5-100ng.d | 5 | <input checked="" type="checkbox"/> | 100 | 96.9 | 96.9 |
| P2 a QC 100 (QC2).d | 5 | <input checked="" type="checkbox"/> | 100 | 96.9 | 96.9 |
| P2 a cal 6-250ng.d | 6 | <input checked="" type="checkbox"/> | 250 | 247.6 | 99.0 |
| P2 a QC 250 (QC 3).d | 6 | <input checked="" type="checkbox"/> | 250 | 250.5 | 100.2 |
| P2 a cal 7-500ng.d | 7 | <input checked="" type="checkbox"/> | 500 | 518.7 | 103.7 |
| P2 a cal 8-1000ng.d | 8 | <input checked="" type="checkbox"/> | 1000 | 1146.9 | 114.7 |
| P2 a QC 1000 (QC 4).d | 8 | <input checked="" type="checkbox"/> | 1000 | 1140.0 | 114.0 |

ISP Forensics Calibration Curve Report

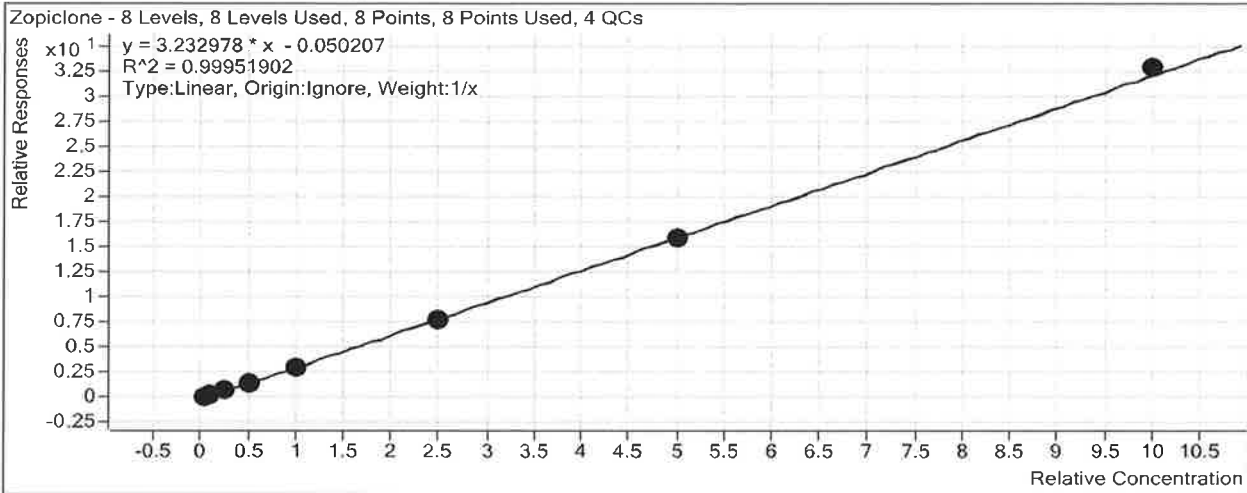
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin

Last Calib Update 10/12/2018 10:51 AM

Analyst Name ISP TOX

Target Compound Zopiclone
Internal Standard Zopiclone-D4



| Sample | Level | Enabled | Exp Conc | Final Conc | Accuracy |
|----------------------|-------|-------------------------------------|----------|------------|----------|
| P2 a cal 1-5ng.d | 1 | <input checked="" type="checkbox"/> | 5 | 5.6 | 112.5 |
| P2 a cal 2-10ng.d | 2 | <input checked="" type="checkbox"/> | 10 | 9.9 | 98.7 |
| P2 a QC 10 (QC1).d | 2 | <input checked="" type="checkbox"/> | 10 | 9.8 | 98.3 |
| P2 a cal 3-25ng.d | 3 | <input checked="" type="checkbox"/> | 25 | 24.6 | 98.6 |
| P2 a cal 4-50ng.d | 4 | <input checked="" type="checkbox"/> | 50 | 47.9 | 95.9 |
| P2 a cal 5-100ng.d | 5 | <input checked="" type="checkbox"/> | 100 | 96.6 | 96.6 |
| P2 a QC 100 (QC2).d | 5 | <input checked="" type="checkbox"/> | 100 | 98.4 | 98.4 |
| P2 a cal 6-250ng.d | 6 | <input checked="" type="checkbox"/> | 250 | 241.9 | 96.8 |
| P2 a QC 250 (QC3).d | 6 | <input checked="" type="checkbox"/> | 250 | 258.6 | 103.5 |
| P2 a cal 7-500ng.d | 7 | <input checked="" type="checkbox"/> | 500 | 496.5 | 99.3 |
| P2 a cal 8-1000ng.d | 8 | <input checked="" type="checkbox"/> | 1000 | 1016.8 | 101.7 |
| P2 a QC 1000 (QC4).d | 8 | <input checked="" type="checkbox"/> | 1000 | 972.6 | 97.3 |

ISP Forensics Calibration Curve Report

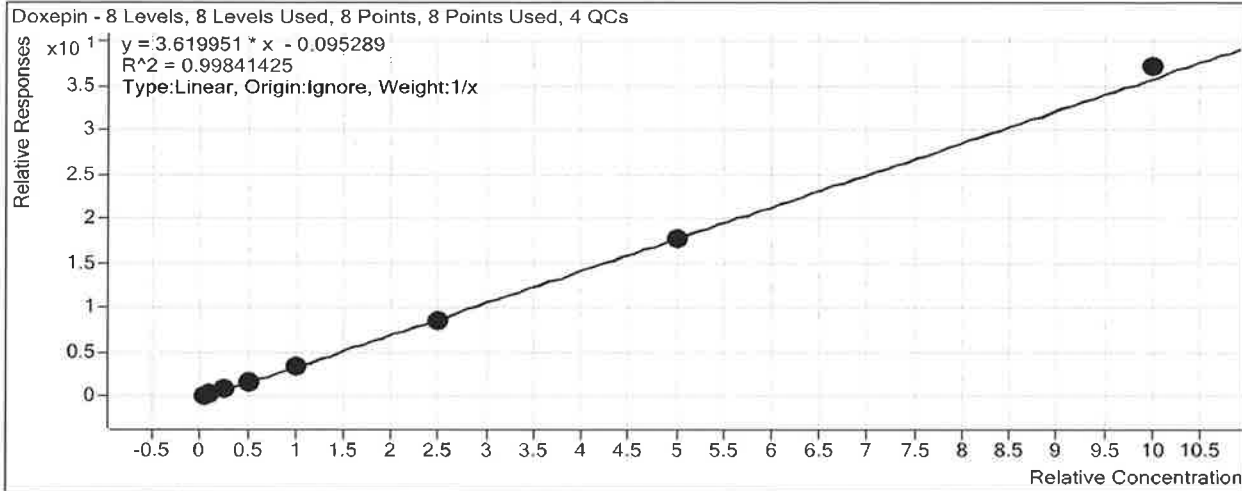
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin

Last Calib Update 10/12/2018 10:51 AM

Analyst Name ISP TOX

Target Compound Doxepin
Internal Standard Doxepin-D3



| Sample | Level | Enabled | Exp Conc | Final Conc | Accuracy |
|-----------------------|-------|-------------------------------------|----------|------------|----------|
| P2 a cal 1-5ng.d | 1 | <input checked="" type="checkbox"/> | 5 | 6.2 | 123.7 |
| P2 a cal 2-10ng.d | 2 | <input checked="" type="checkbox"/> | 10 | 10.4 | 104.0 |
| P2 a QC 10 (QC1).d | 2 | <input checked="" type="checkbox"/> | 10 | 9.8 | 98.2 |
| P2 a cal 3-25ng.d | 3 | <input checked="" type="checkbox"/> | 25 | 21.7 | 86.7 |
| P2 a cal 4-50ng.d | 4 | <input checked="" type="checkbox"/> | 50 | 45.9 | 91.8 |
| P2 a cal 5-100ng.d | 5 | <input checked="" type="checkbox"/> | 100 | 97.6 | 97.6 |
| P2 a QC 100 (QC2).d | 5 | <input checked="" type="checkbox"/> | 100 | 95.3 | 95.3 |
| P2 a cal 6-250ng.d | 6 | <input checked="" type="checkbox"/> | 250 | 237.7 | 95.1 |
| P2 a QC 250 (QC 3).d | 6 | <input checked="" type="checkbox"/> | 250 | 245.6 | 98.2 |
| P2 a cal 7-500ng.d | 7 | <input checked="" type="checkbox"/> | 500 | 490.5 | 98.1 |
| P2 a cal 8-1000ng.d | 8 | <input checked="" type="checkbox"/> | 1000 | 1030.0 | 103.0 |
| P2 a QC 1000 (QC 4).d | 8 | <input checked="" type="checkbox"/> | 1000 | 1114.2 | 111.4 |

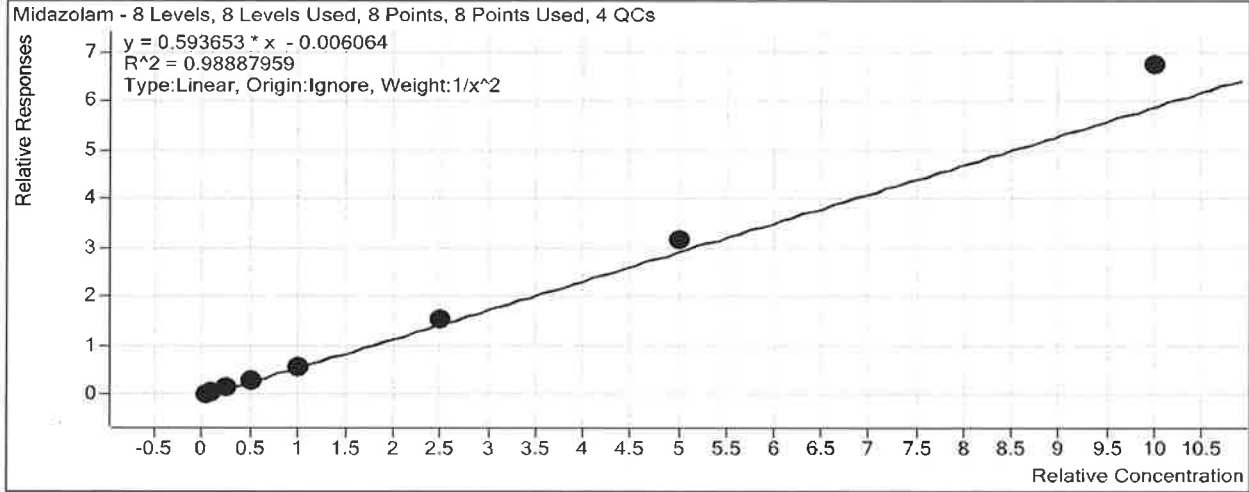
ISP Forensics Calibration Curve Report

P

Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin

Last Calib Update 10/12/2018 10:51 AM **Analyst Name** ISP TOX

Target Compound *Midazolam*
Internal Standard *Midazolam-D4*



| Sample | Level | Enabled | Exp Conc | Final Conc | Accuracy |
|-----------------------|-------|-------------------------------------|----------|------------|----------|
| P2 a cal 1-5ng.d | 1 | <input checked="" type="checkbox"/> | 5 | 5.4 | 108.1 |
| P2 a cal 2-10ng.d | 2 | <input checked="" type="checkbox"/> | 10 | 8.9 | 89.1 |
| P2 a QC 10 (QC1).d | 2 | <input checked="" type="checkbox"/> | 10 | 8.9 | 88.7 |
| P2 a cal 3-25ng.d | 3 | <input checked="" type="checkbox"/> | 25 | 22.7 | 91.0 |
| P2 a cal 4-50ng.d | 4 | <input checked="" type="checkbox"/> | 50 | 45.6 | 91.2 |
| P2 a cal 5-100ng.d | 5 | <input checked="" type="checkbox"/> | 100 | 96.9 | 96.9 |
| P2 a QC 100 (QC2).d | 5 | <input checked="" type="checkbox"/> | 100 | 103.7 | 103.7 |
| P2 a cal 6-250ng.d | 6 | <input checked="" type="checkbox"/> | 250 | 258.4 | 103.3 |
| P2 a QC 250 (QC 3).d | 6 | <input checked="" type="checkbox"/> | 250 | 251.0 | 100.4 |
| P2 a cal 7-500ng.d | 7 | <input checked="" type="checkbox"/> | 500 | 533.6 | 106.7 |
| P2 a cal 8-1000ng.d | 8 | <input checked="" type="checkbox"/> | 1000 | 1136.2 | 113.6 |
| P2 a QC 1000 (QC 4).d | 8 | <input checked="" type="checkbox"/> | 1000 | 1085.3 | 108.5 |

ISP Forensics Calibration Curve Report

P

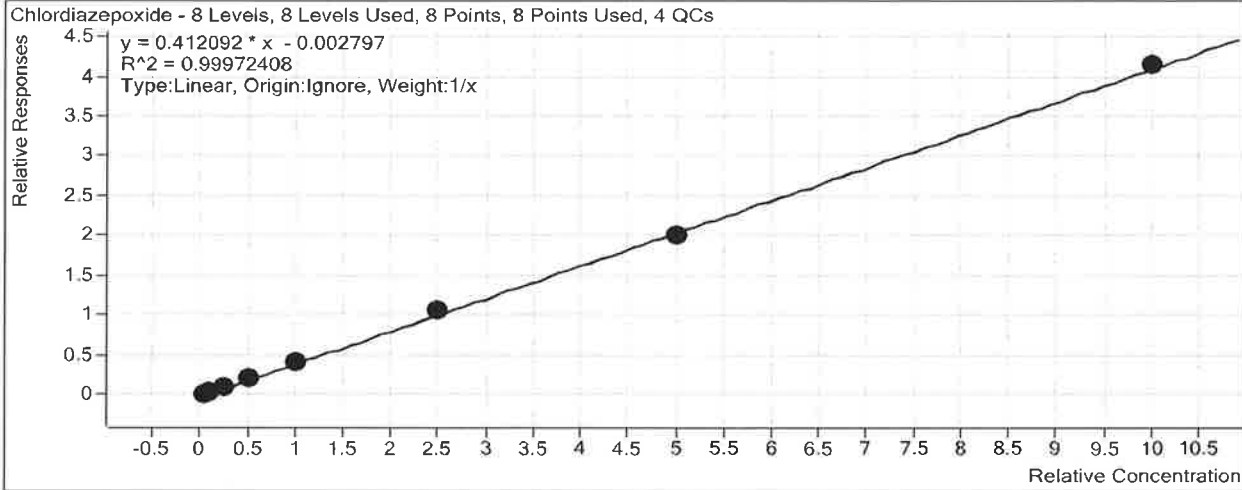
Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin

Last Calib Update 10/12/2018 10:51 AM

Analyst Name ISP TOX

Target Compound *Chlordiazepoxide*

Internal Standard *Chlordiazepoxide-D5*



| Sample | Level | Enabled | Exp Conc | Final Conc | Accuracy |
|-----------------------|-------|-------------------------------------|----------|------------|----------|
| P2 a cal 1-5ng.d | 1 | <input checked="" type="checkbox"/> | 5 | 5.3 | 105.9 |
| P2 a cal 2-10ng.d | 2 | <input checked="" type="checkbox"/> | 10 | 10.1 | 101.0 |
| P2 a QC 10 (QC1).d | 2 | <input checked="" type="checkbox"/> | 10 | 9.2 | 91.8 |
| P2 a cal 3-25ng.d | 3 | <input checked="" type="checkbox"/> | 25 | 24.3 | 97.4 |
| P2 a cal 4-50ng.d | 4 | <input checked="" type="checkbox"/> | 50 | 48.7 | 97.4 |
| P2 a cal 5-100ng.d | 5 | <input checked="" type="checkbox"/> | 100 | 96.9 | 96.9 |
| P2 a QC 100 (QC2).d | 5 | <input checked="" type="checkbox"/> | 100 | 102.9 | 102.9 |
| P2 a cal 6-250ng.d | 6 | <input checked="" type="checkbox"/> | 250 | 256.0 | 102.4 |
| P2 a QC 250 (QC 3).d | 6 | <input checked="" type="checkbox"/> | 250 | 249.8 | 99.9 |
| P2 a cal 7-500ng.d | 7 | <input checked="" type="checkbox"/> | 500 | 491.9 | 98.4 |
| P2 a cal 8-1000ng.d | 8 | <input checked="" type="checkbox"/> | 1000 | 1006.8 | 100.7 |
| P2 a QC 1000 (QC 4).d | 8 | <input checked="" type="checkbox"/> | 1000 | 988.6 | 98.9 |

ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

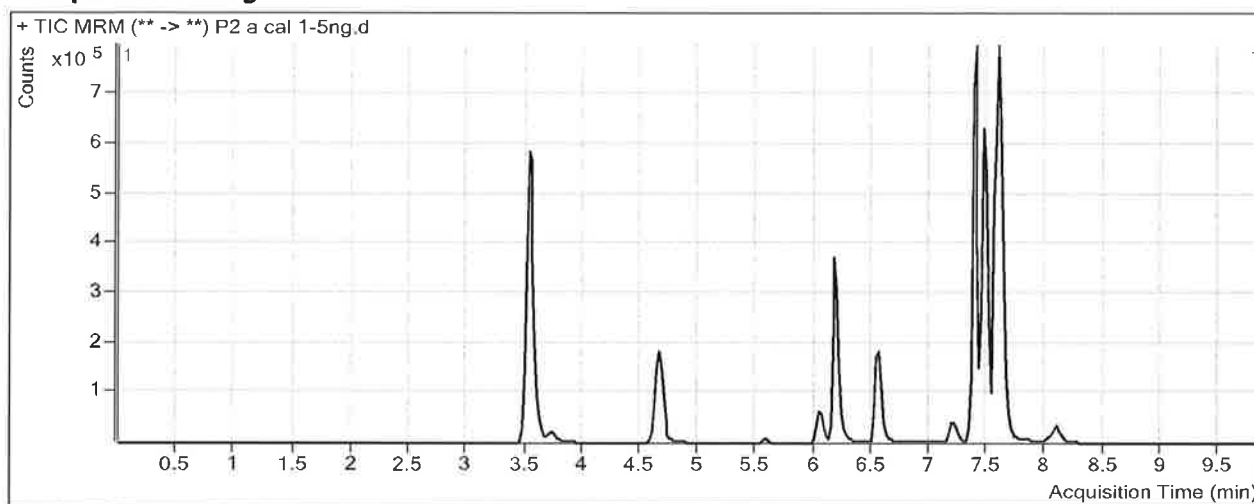
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Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:06 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 10:38 **Data File** P2 a cal 1-5ng.d
Sample Type Calibration **Sample Name** P2 a cal 1-5ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-A5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.556 | 293961 | 2698361 | 0.1089 | 5.8667 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 52240 | 2698361 | 0.0194 | 5.2520 |
| Zopiclone | Zopiclone-D4 | 6.051 | 27310 | 207416 | 0.1317 | 5.6257 |
| Doxepin | Doxepin-D3 | 7.208 | 19147 | 148973 | 0.1285 | 6.1829 |
| Midazolam | Midazolam-D4 | 7.565 | 18083 | 695216 | 0.0260 | 5.4030 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 29413 | 1546575 | 0.0190 | 5.2937 |

ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

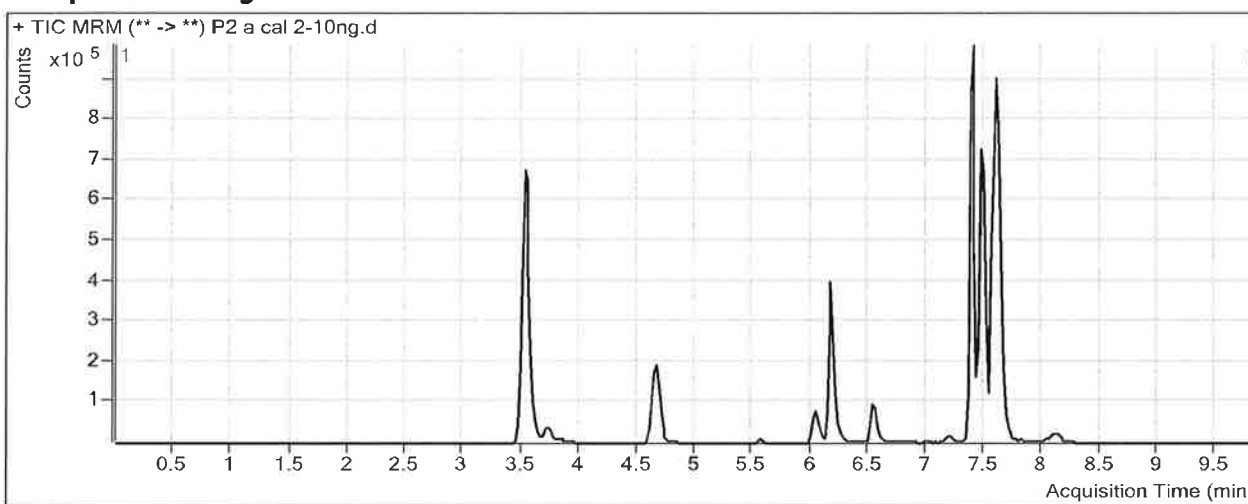
P

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Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:06 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 11:04 **Data File** P2 a cal 2-10ng.d
Sample Type Calibration **Sample Name** P2 a cal 2-10ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-B5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.556 | 625096 | 2792787 | 0.2238 | 10.1833 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 113713 | 2792787 | 0.0407 | 9.4477 |
| Zopiclone | Zopiclone-D4 | 6.031 | 55841 | 207756 | 0.2688 | 9.8667 |
| Doxepin | Doxepin-D3 | 7.188 | 12257 | 43569 | 0.2813 | 10.4038 |
| Midazolam | Midazolam-D4 | 7.565 | 32517 | 693940 | 0.0469 | 8.9149 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 67197 | 1730319 | 0.0388 | 10.1026 |

ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

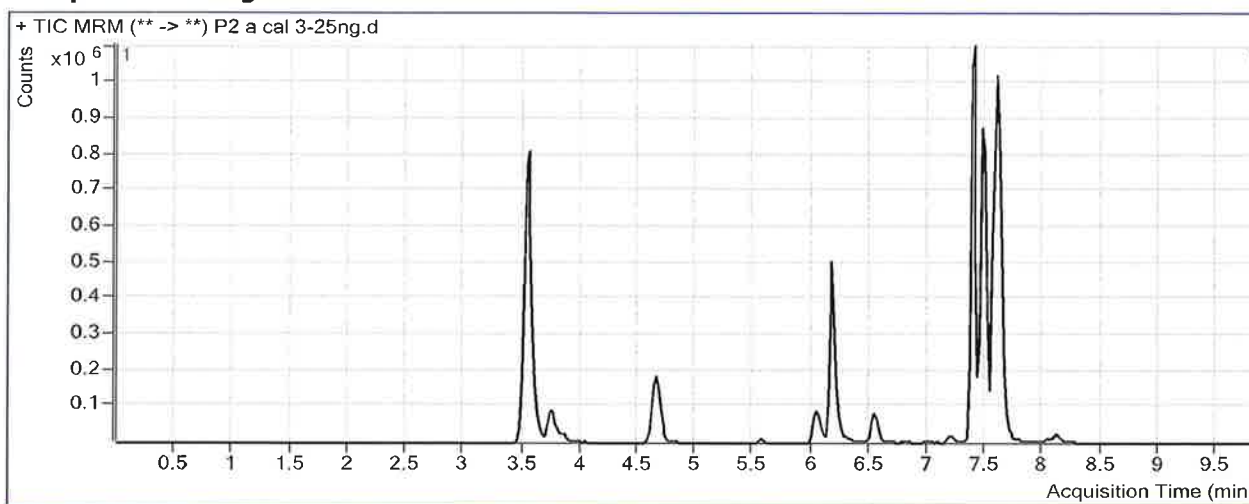
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Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:06 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 11:29 **Data File** P2 a cal 3-25ng.d
Sample Type Calibration **Sample Name** P2 a cal 3-25ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-C5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.556 | 1497817 | 2565248 | 0.5839 | 23.7119 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 280548 | 2565248 | 0.1094 | 22.9343 |
| Zopiclone | Zopiclone-D4 | 6.031 | 120559 | 161508 | 0.7465 | 24.6419 |
| Doxepin | Doxepin-D3 | 7.188 | 26024 | 37745 | 0.6895 | 21.6785 |
| Midazolam | Midazolam-D4 | 7.565 | 82022 | 636005 | 0.1290 | 22.7455 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 150554 | 1544131 | 0.0975 | 24.3387 |

ISP FORENSICS - Pocatello Instrument # 59740

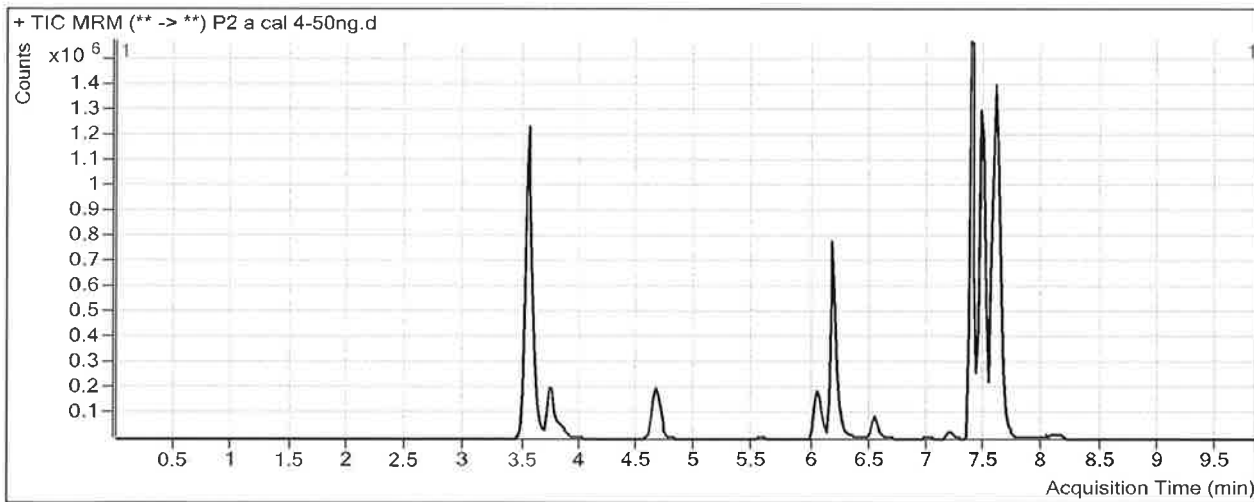
Multi-Drug Confirmatory Analysis Report

Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:06 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 11:55 **Data File** P2 a cal 4-50ng.d
Sample Type Calibration **Sample Name** P2 a cal 4-50ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-D5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.556 | 3188588 | 2657526 | 1.1998 | 46.8548 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 618718 | 2657526 | 0.2328 | 47.1877 |
| Zopiclone | Zopiclone-D4 | 6.031 | 331104 | 220850 | 1.4992 | 47.9259 |
| Doxepin | Doxepin-D3 | 7.188 | 50138 | 32010 | 1.5663 | 45.9018 |
| Midazolam | Midazolam-D4 | 7.565 | 165272 | 624472 | 0.2647 | 45.6029 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 307683 | 1554362 | 0.1979 | 48.7136 |

ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

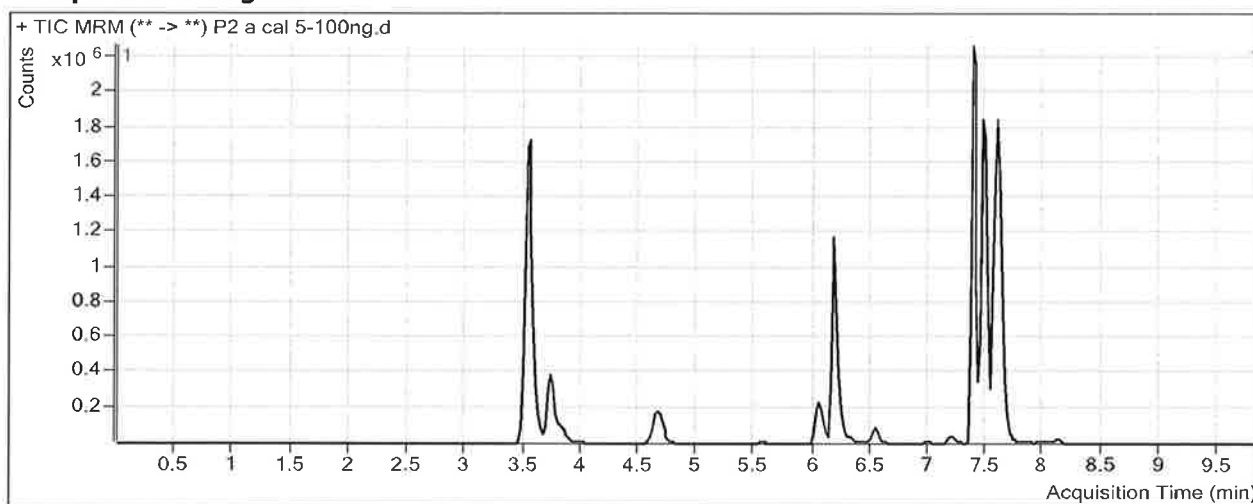
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:07 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 12:20 **Data File** P2 a cal 5-100ng.d
Sample Type Calibration **Sample Name** P2 a cal 5-100ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-E5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.556 | 5820272 | 2392550 | 2.4327 | 93.1760 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 1162620 | 2392550 | 0.4859 | 96.9148 |
| Zopiclone | Zopiclone-D4 | 6.031 | 431443 | 140353 | 3.0740 | 96.6350 |
| Doxepin | Doxepin-D3 | 7.188 | 97445 | 28348 | 3.4375 | 97.5914 |
| Midazolam | Midazolam-D4 | 7.565 | 327348 | 575066 | 0.5692 | 96.9086 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 533767 | 1346649 | 0.3964 | 96.8627 |

ISP FORENSICS - Pocatello Instrument # 59740

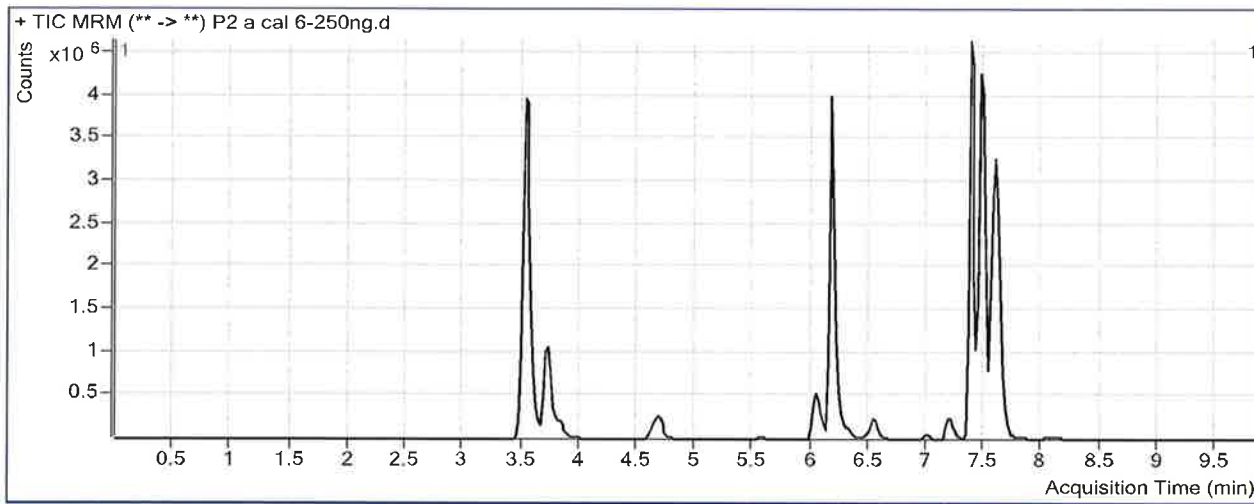
Multi-Drug Confirmatory Analysis Report

Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:07 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 12:46 **Data File** P2 a cal 6-250ng.d
Sample Type Calibration **Sample Name** P2 a cal 6-250ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-F5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.556 | 15935802 | 2487329 | 6.4068 | 242.4959 |
| Levamisole | Pseudoephedrine-D3 | 3.724 | 3116265 | 2487329 | 1.2529 | 247.5841 |
| Zopiclone | Zopiclone-D4 | 6.031 | 1120596 | 144195 | 7.7714 | 241.9324 |
| Doxepin | Doxepin-D3 | 7.188 | 724513 | 85135 | 8.5102 | 237.7231 |
| Midazolam | Midazolam-D4 | 7.565 | 908343 | 594602 | 1.5276 | 258.3522 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 1185086 | 1126379 | 1.0521 | 255.9908 |

P

ISP FORENSICS - Pocatello Instrument # 59740

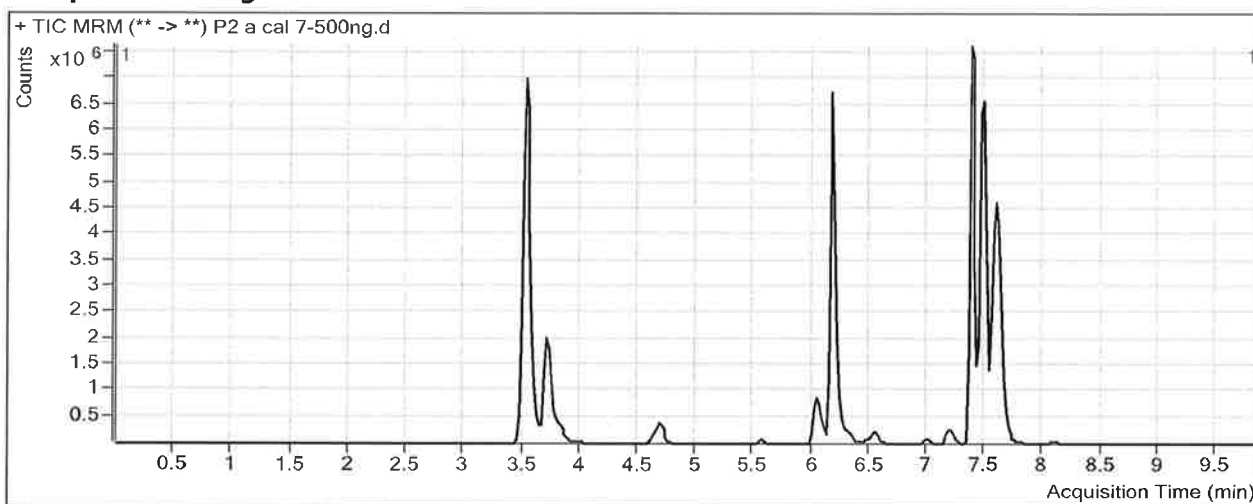
Multi-Drug Confirmatory Analysis Report

Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:07 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 13:12 **Data File** P2 a cal 7-500ng.d
Sample Type Calibration **Sample Name** P2 a cal 7-500ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-G5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.536 | 29683002 | 2223736 | 13.3483 | 503.3076 |
| Levamisole | Pseudoephedrine-D3 | 3.704 | 5854248 | 2223736 | 2.6326 | 518.6515 |
| Zopiclone | Zopiclone-D4 | 6.031 | 1819391 | 113691 | 16.0030 | 496.5450 |
| Doxepin | Doxepin-D3 | 7.188 | 888351 | 50297 | 17.6621 | 490.5431 |
| Midazolam | Midazolam-D4 | 7.565 | 1569773 | 496460 | 3.1619 | 533.6454 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.607 | 1845202 | 911544 | 2.0243 | 491.8943 |

ISP FORENSICS - Pocatello Instrument # 59740

Multi-Drug Confirmatory Analysis Report

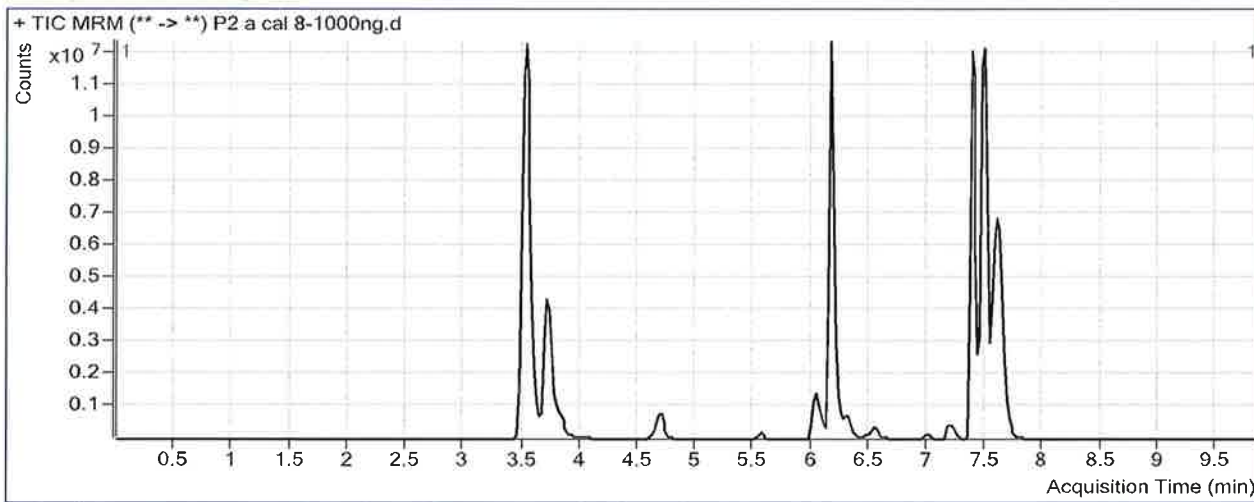
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Batch Data Path C:\MassHunter\Data\2018\MD Quant\101018 MDQ P1 P2 SP\QuantResults\P2a final.batch.bin
Analysis Time 10/12/2018 10:51 AM **Analyst Name** ISPUser
Report Time 10/12/2018 11:07 AM **Reporter Name** ISPUser
Last Calib Update 10/12/2018 10:51 AM **Batch State** Processed

Analysis Info

Acq Time 2018-10-11 13:37 **Data File** P2 a cal 8-1000ng.d
Sample Type Calibration **Sample Name** P2 a cal 8-1000ng.d
Dilution 1 **Acq Method** MDQ Panel 2a 06-22-18.m
Position P1-H5 **Sample Info**
Inj Vol -1 **Comment** AM 28-Panel 2

Sample Chromatogram



Results

| Compound | ISTD Compound | RT | Response | ISTD Resp | Resp Ratio | Final Conc |
|------------------|---------------------|-------|----------|-----------|------------|------------|
| Pseudoephedrine | Pseudoephedrine-D3 | 3.536 | 59890174 | 2222187 | 26.9510 | 1014.4038 |
| Levamisole | Pseudoephedrine-D3 | 3.704 | 12956662 | 2222187 | 5.8306 | 1146.9239 |
| Zopiclone | Zopiclone-D4 | 6.011 | 2621183 | 79857 | 32.8236 | 1016.8274 |
| Doxepin | Doxepin-D3 | 7.188 | 1469201 | 39506 | 37.1893 | 1029.9753 |
| Midazolam | Midazolam-D4 | 7.565 | 3008776 | 446457 | 6.7392 | 1136.2365 |
| Chlordiazepoxide | Chlordiazepoxide-D5 | 7.627 | 3016887 | 727634 | 4.1462 | 1006.8036 |