

**REVIEWED**

By Celena Shrum at 2:43 pm, Feb 28, 2019

2/22/2019

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**Worklist: 2977**

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>
P2019-0195	1	142587	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC



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**Worklist: 2988**

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>
P2019-0239	1	142927	AM 28 Blood Multi-Drug Quant Panel 2 by LC-QC



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

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Extraction Date: 02/25/19  
Plate lot#: 0530563

Analyst: Tamara Salazar  
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:** Hemostat 445283-1  
**LCMS-QQQ ID:** 59740

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

## 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: 16** in wells of analytical (standards) plate.
- 3. Place on shaking incubator at ambient temp., 900rpm for 15 minutes. *Shaker ID: 067105*
- 4. Pipette **250µL 0.5M 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: *022519 MDQ P1 P2 TS*  
Batch Name: *P2a wklst 2977\_final*
- 2. Make necessary changes to integration limits
- 3. Integration linear and R<sup>2</sup> 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 Amitriptyline, Etizolam, Maprotiline, Methocarbamol, Midazolam, Nortriptyline evaluated for this run.*

*Amitriptyline cal 3 dropped due to peaks cutting off.*

*Curves Limited: Methocarbamol 5-250, Maprotiline 5-250, Etizolam 5-250*

*Steps 3-16 were performed by Tamara Salazar, I, Sarah Pickle witnessed and approved 5  
all steps performed in the method.*



# Idaho State Police Forensic Services

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## AM #28 Blood Multi-Drug Confirmatory Analysis by LCMS-QQQ---Panel 2

### Methanol External Control Solution (Lot: 020419)

*100 ul each 1 mg/mL stock solution in 9600 ul MeOH*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>	<i>Expiration Date</i>
Methanol (LCMS)	Fisher	184782	
Midazolam	Cerilliant	FE01161704	04/30/2022
Etizolam	Cerilliant	FN06061606	11/30/2020
7-Aminoflunitrazepam	Cerilliant	FN01271505	02/28/2020
Flurazepam	Cerilliant	FE02101501	04/30/2020
Prepared:	02/04/19		
Prepared By:	Tamara Salazar		
Expires:	02/04/2020		

### Blood External Control Solution (Lot: WS020419)

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

*Approximately 50ng/mL of each compound.*

<i>Component</i>	<i>Source</i>	<i>Source Lot Number</i>
Negative Blood	Hemostat	445283-1
Methanol External Control Solution	-	020419
Prepared:	02/04/19	
Prepared by:	Tamara Salazar	
Expires:	02/04/20	

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# ISP FORENSICS - Pocatello Instrument # 59740

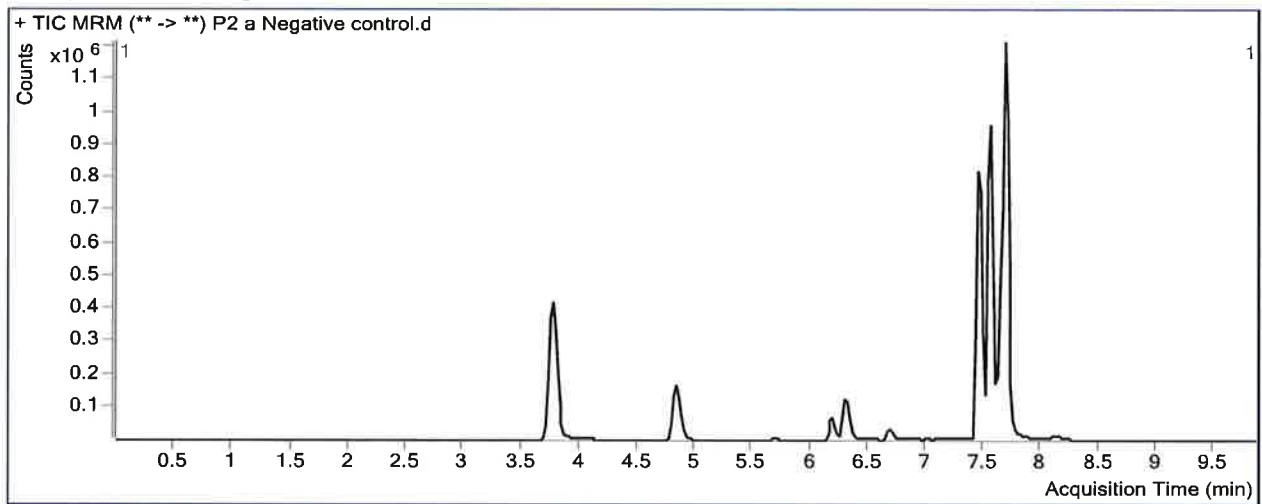
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:04 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 16:29 **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



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# ISP FORENSICS - Pocatello Instrument # 59740

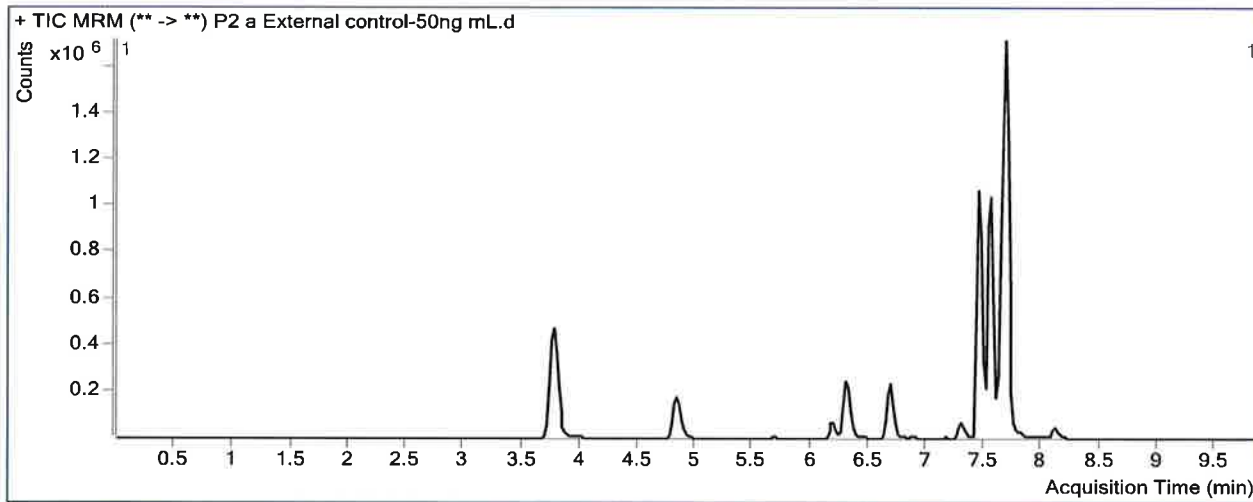
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:04 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 16:41 **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; 445283-1 + WS022018 50 ng flunitrazepam, zopiclone, chlorodia:

### Sample Chromatogram



### Results

Compound	ISTD Compound	RT	Response	ISTD Resp	Resp Ratio	Final Conc
Etizolam	Estazolam-D5	7.642	932075	2962489	0.3146	<u>44.3260</u>
Midazolam	Midazolam-D4	7.665	309901	1007330	0.3076	<u>45.3061</u>

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# ISP FORENSICS - Pocatello Instrument # 59740

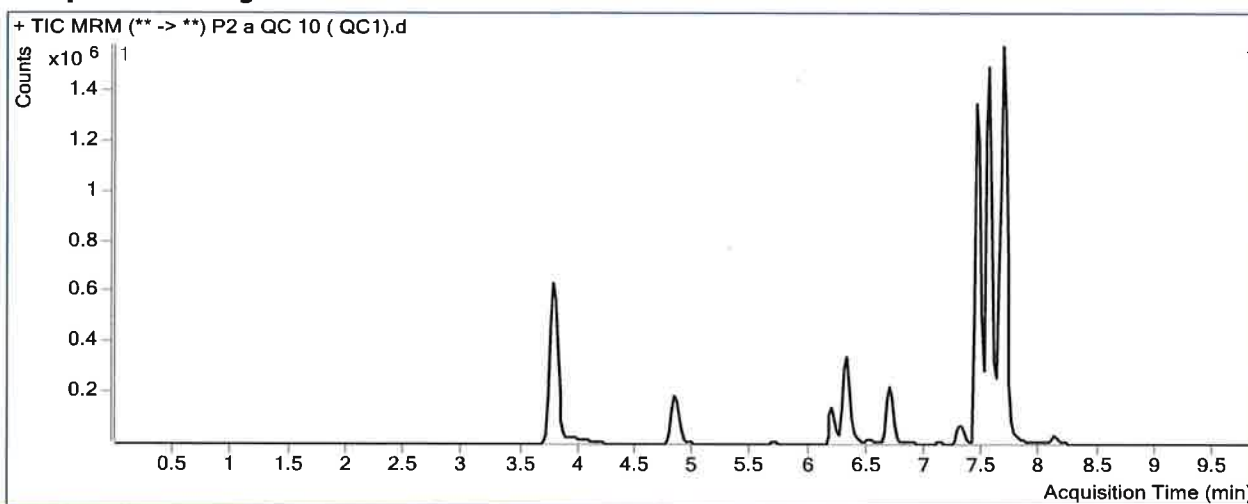
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:04 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 17:07 **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
Methocarbamol	Pseudoephedrine-D3	6.387	44885	2517051	0.0178	8.7447
Amitriptyline	Amitriptyline-D3	7.531	125084	285156	0.4387	8.1337
Maprotiline	Amitriptyline-D3	7.531	57003	285156	0.1999	9.3087
Nortriptyline	Nortriptyline-D3	7.554	44645	92492	0.4827	8.9439
Etizolam	Estazolam-D5	7.642	195726	3213793	0.0609	10.2805
Midazolam	Midazolam-D4	7.665	56141	991604	0.0566	9.6832

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# ISP FORENSICS - Pocatello Instrument # 59740

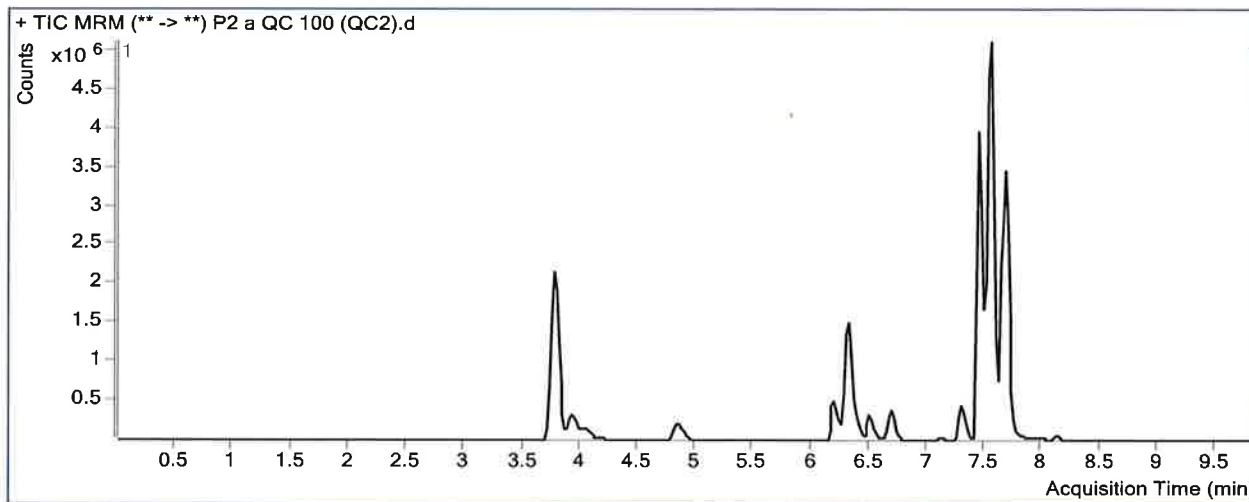
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:04 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

**Analysis Info**

**Acq Time** 2019-02-25 17:57 **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
Methocarbamol	Pseudoephedrine-D3	6.387	467221	2732549	0.1710	86.7478
Amitriptyline	Amitriptyline-D3	7.531	2045593	437104	4.6799	95.0333
Maprotiline	Amitriptyline-D3	7.511	1011113	437104	2.3132	92.2318
Nortriptyline	Nortriptyline-D3	7.554	752420	139301	5.4014	95.9855
Etizolam	Estazolam-D5	7.642	2139022	2654014	0.8060	110.2548
Midazolam	Midazolam-D4	7.665	756510	1102239	0.6863	99.0454



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# ISP FORENSICS - Pocatello Instrument # 59740

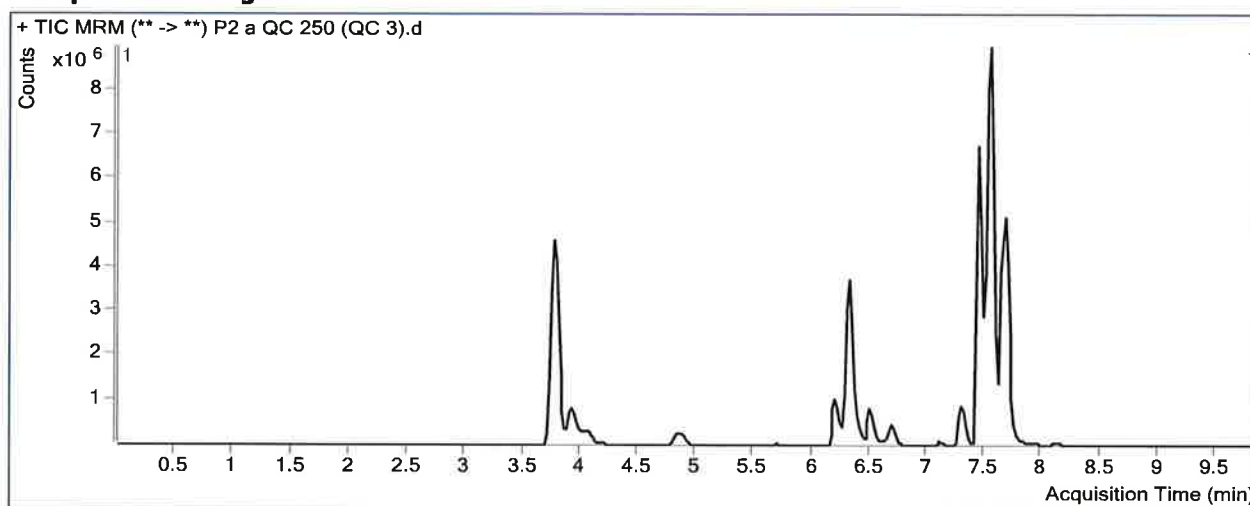
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:05 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 18:48 **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
Methocarbamol	Pseudoephedrine-D3	6.387	914027	2687184	0.3401	172.9042
Amitriptyline	Amitriptyline-D3	7.531	4268871	371450	11.4925	234.6178
Maprotiline	Amitriptyline-D3	7.511	2013211	371450	5.4199	214.1327
Nortriptyline	Nortriptyline-D3	7.554	1575451	109420	14.3982	255.1930
Etizolam	Estazolam-D5	7.642	4429290	1923639	2.3026	311.0742
Midazolam	Midazolam-D4	7.665	1765690	977620	1.8061	257.9490

# ISP FORENSICS - Pocatello Instrument # 59740

## Multi-Drug Confirmatory Analysis Report

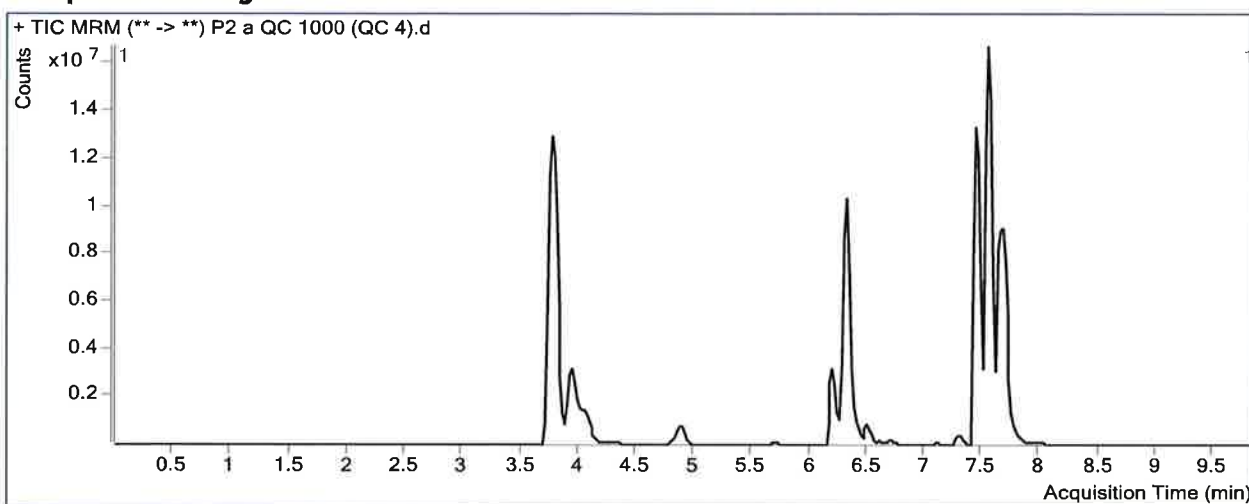
TS JS

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:05 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 19:13 **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	
<del>Methocarbamol</del>	<del>Pseudoephedrine-D3</del>	<del>6.387</del>	<del>2294404</del>	<del>2302700</del>	<del>0.9964</del>	<del>507.1481</del>	<i>outside curve range. TS</i>
Amitriptyline	Amitriptyline-D3	7.531	1573384	29563	53.2212	1089.6081	
<del>Maprotiline</del>	<del>Amitriptyline-D3</del>	<del>7.511</del>	<del>818099</del>	<del>29563</del>	<del>27.6730</del>	<del>1087.3119</del>	<i>outside curve range. TS</i>
Nortriptyline	Nortriptyline-D3	7.554	552895	8324	66.4228	1175.8237	
<del>Etizolam</del>	<del>Estazolam-D5</del>	<del>7.642</del>	<del>11998782</del>	<del>1441293</del>	<del>8.3250</del>	<del>1119.1898</del>	<i>outside curve range. TS</i>
Midazolam	Midazolam-D4	7.665	4922949	630047	7.8136	1110.4578	

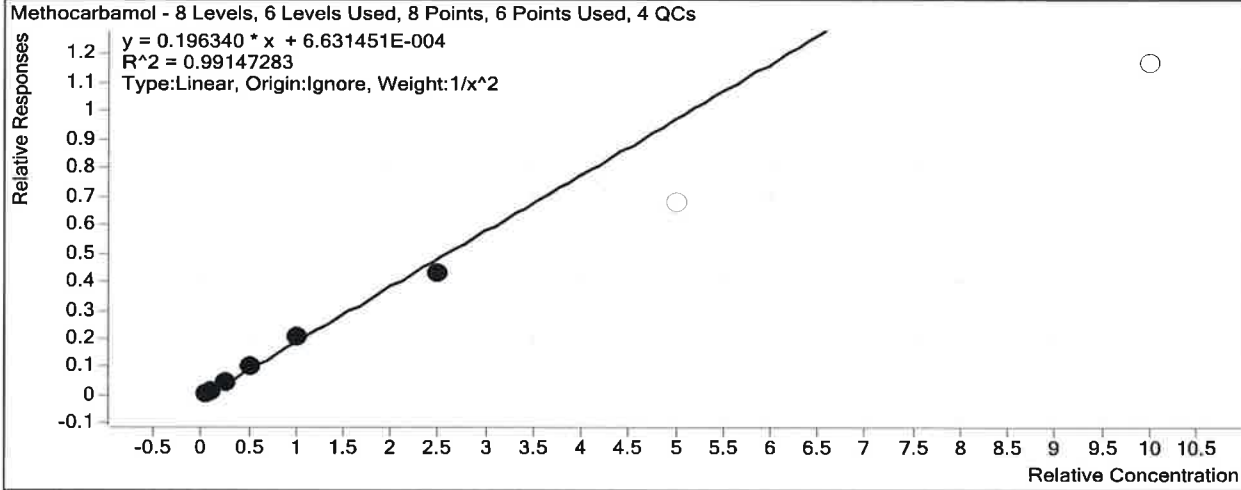
# ISP Forensics Calibration Curve Report

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**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st  
2977\_final.batch.bin

**Last Calib Update** 2/28/2019 9:01 AM      **Analyst Name** ISP TOX

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



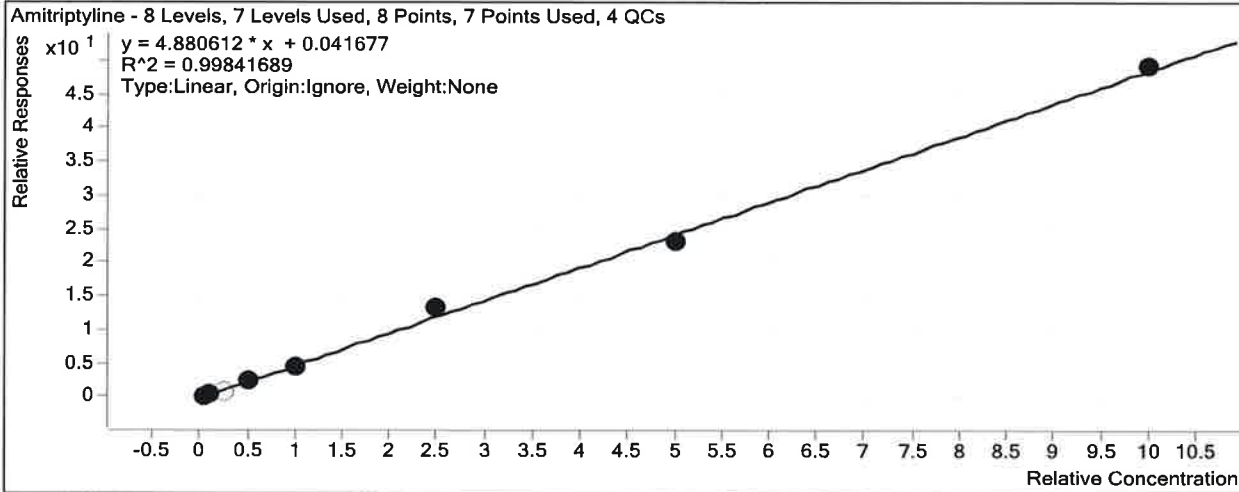
Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
P2 a cal 1-5ng.d	1	<input checked="" type="checkbox"/>	5	5.1	102.0
P2 a cal 2-10ng.d	2	<input checked="" type="checkbox"/>	10	9.3	93.5
P2 a QC 10 ( QC1).d	2	<input checked="" type="checkbox"/>	10	8.7	87.4
P2 a cal 3-25ng.d	3	<input checked="" type="checkbox"/>	25	25.5	102.0
P2 a cal 4-50ng.d	4	<input checked="" type="checkbox"/>	50	53.8	107.6
P2 a cal 5-100ng.d	5	<input checked="" type="checkbox"/>	100	106.6	106.6
P2 a QC 100 (QC2).d	5	<input checked="" type="checkbox"/>	100	86.7	86.7
P2 a cal 6-250ng.d	6	<input checked="" type="checkbox"/>	250	221.0	88.4
P2 a QC 250 (QC 3).d	6	<input checked="" type="checkbox"/>	250	172.9	69.2
P2 a cal 7-500ng.d	7	<input type="checkbox"/>	500	347.0	69.4
P2 a cal 8-1000ng.d	8	<input type="checkbox"/>	1000	594.5	59.4
P2 a QC 1000 (QC 4).d	8	<input checked="" type="checkbox"/>	1000	507.1	50.7

# ISP Forensics Calibration Curve Report

TS  
D

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st 2977\_final.batch.bin  
**Last Calib Update** 2/28/2019 9:01 AM **Analyst Name** ISP TOX

**Target Compound** Amitriptyline  
**Internal Standard** Amitriptyline-D3



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
P2 a cal 1-5ng.d	1	<input checked="" type="checkbox"/>	5	3.7	73.8
P2 a cal 2-10ng.d	2	<input checked="" type="checkbox"/>	10	10.2	102.2
P2 a QC 10 ( QC1).d	2	<input checked="" type="checkbox"/>	10	8.1	81.3
P2 a cal 3-25ng.d	3	<input type="checkbox"/>	25	18.0	72.2
P2 a cal 4-50ng.d	4	<input checked="" type="checkbox"/>	50	50.4	100.9
P2 a cal 5-100ng.d	5	<input checked="" type="checkbox"/>	100	92.4	92.4
P2 a QC 100 (QC2).d	5	<input checked="" type="checkbox"/>	100	95.0	95.0
P2 a cal 6-250ng.d	6	<input checked="" type="checkbox"/>	250	275.4	110.2
P2 a QC 250 (QC 3).d	6	<input checked="" type="checkbox"/>	250	234.6	93.8
P2 a cal 7-500ng.d	7	<input checked="" type="checkbox"/>	500	476.9	95.4
P2 a cal 8-1000ng.d	8	<input checked="" type="checkbox"/>	1000	1005.9	100.6
P2 a QC 1000 (QC 4).d	8	<input checked="" type="checkbox"/>	1000	1089.6	109.0

- Point dropped due to peaks cutting off. - TS

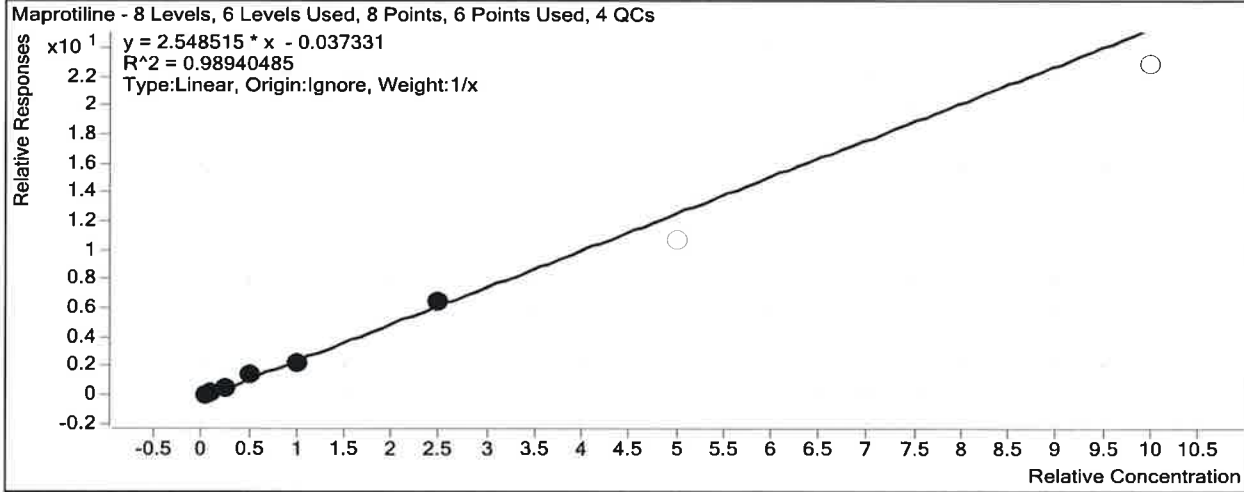
# ISP Forensics Calibration Curve Report

TS

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st  
2977\_final.batch.bin

**Last Calib Update** 2/28/2019 9:01 AM      **Analyst Name** ISP TOX

**Target Compound** *Maprotiline*  
**Internal Standard** *Amitriptyline-D3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
P2 a cal 1-5ng.d	1	<input checked="" type="checkbox"/>	5	4.9	98.3
P2 a cal 2-10ng.d	2	<input checked="" type="checkbox"/>	10	11.5	114.6
P2 a QC 10 ( QC1).d	2	<input checked="" type="checkbox"/>	10	9.3	93.1
P2 a cal 3-25ng.d	3	<input checked="" type="checkbox"/>	25	20.3	81.4
P2 a cal 4-50ng.d	4	<input checked="" type="checkbox"/>	50	57.1	114.2
P2 a cal 5-100ng.d	5	<input checked="" type="checkbox"/>	100	88.4	88.4
P2 a QC 100 (QC2).d	5	<input checked="" type="checkbox"/>	100	92.2	92.2
P2 a cal 6-250ng.d	6	<input checked="" type="checkbox"/>	250	257.8	103.1
P2 a QC 250 (QC 3).d	6	<input checked="" type="checkbox"/>	250	214.1	85.7
P2 a cal 7-500ng.d	7	<input type="checkbox"/>	500	419.9	84.0
P2 a cal 8-1000ng.d	8	<input type="checkbox"/>	1000	896.6	89.7
P2 a QC 1000 (QC 4).d	8	<input checked="" type="checkbox"/>	1000	1087.3	108.7

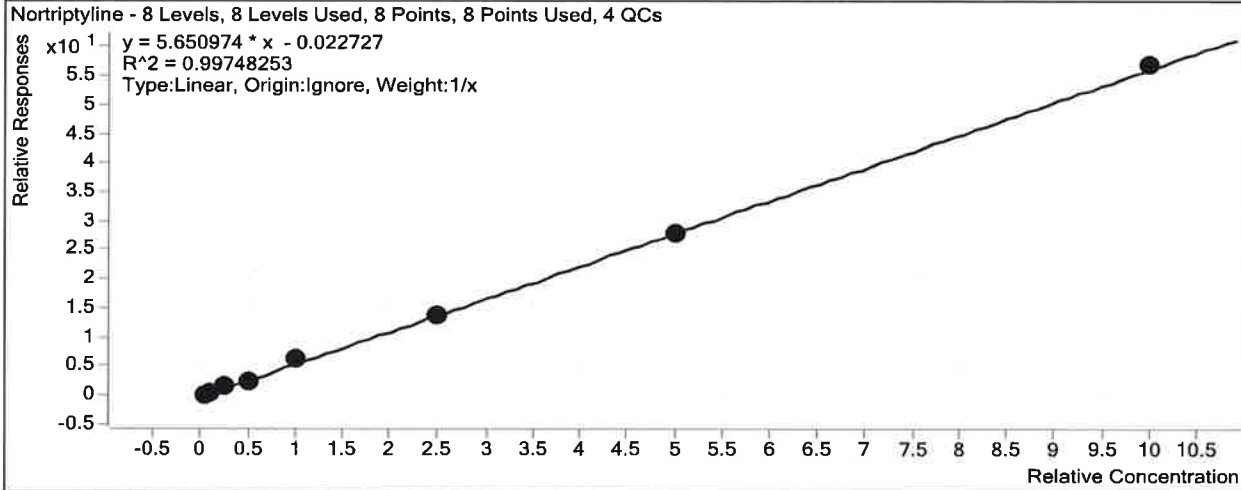
# ISP Forensics Calibration Curve Report

TS  
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**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st  
2977\_final.batch.bin

**Last Calib Update** 2/28/2019 9:01 AM      **Analyst Name** ISP TOX

**Target Compound** *Nortriptyline*  
**Internal Standard** *Nortriptyline-D3*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
P2 a cal 1-5ng.d	1	<input checked="" type="checkbox"/>	5	4.4	87.2
P2 a cal 2-10ng.d	2	<input checked="" type="checkbox"/>	10	10.5	105.3
P2 a QC 10 ( QC1).d	2	<input checked="" type="checkbox"/>	10	8.9	89.4
P2 a cal 3-25ng.d	3	<input checked="" type="checkbox"/>	25	28.1	112.3
P2 a cal 4-50ng.d	4	<input checked="" type="checkbox"/>	50	42.2	84.4
P2 a cal 5-100ng.d	5	<input checked="" type="checkbox"/>	100	115.2	115.2
P2 a QC 100 (QC2).d	5	<input checked="" type="checkbox"/>	100	96.0	96.0
P2 a cal 6-250ng.d	6	<input checked="" type="checkbox"/>	250	241.8	96.7
P2 a QC 250 (QC 3).d	6	<input checked="" type="checkbox"/>	250	255.2	102.1
P2 a cal 7-500ng.d	7	<input checked="" type="checkbox"/>	500	491.7	98.3
P2 a cal 8-1000ng.d	8	<input checked="" type="checkbox"/>	1000	1006.2	100.6
P2 a QC 1000 (QC 4).d	8	<input checked="" type="checkbox"/>	1000	1175.8	117.6

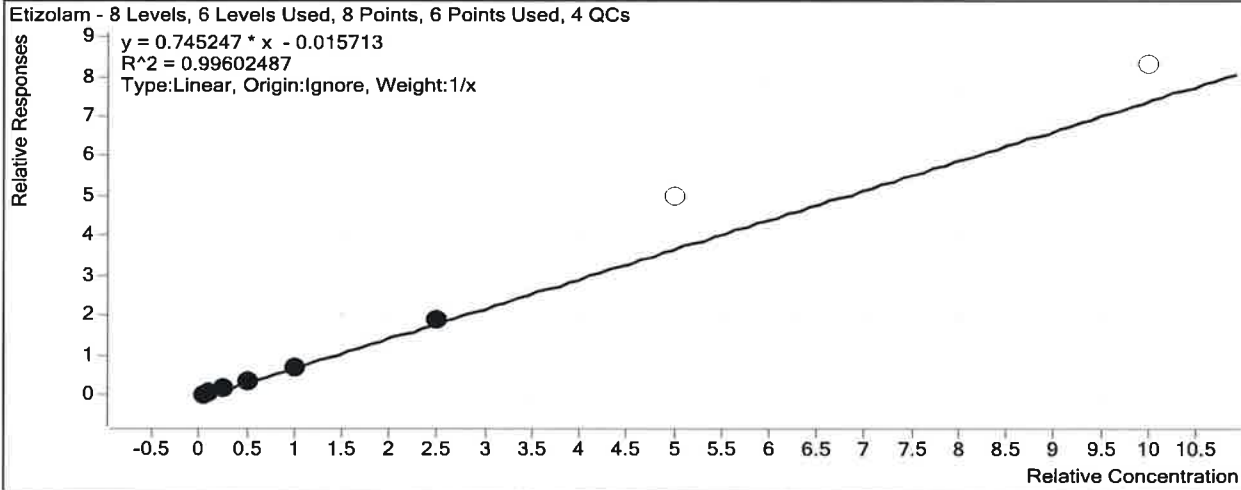
# ISP Forensics Calibration Curve Report

TS  
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**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st  
2977\_final.batch.bin

**Last Calib Update** 2/28/2019 9:01 AM      **Analyst Name** ISP TOX

**Target Compound** *Etizolam*  
**Internal Standard** *Estazolam-D5*



Sample	Level	Enabled	Exp Conc	Final Conc	Accuracy
P2 a cal 1-5ng.d	1	<input checked="" type="checkbox"/>	5	5.9	117.2
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	10.3	102.8
P2 a cal 3-25ng.d	3	<input checked="" type="checkbox"/>	25	22.5	90.0
P2 a cal 4-50ng.d	4	<input checked="" type="checkbox"/>	50	45.6	91.3
P2 a cal 5-100ng.d	5	<input checked="" type="checkbox"/>	100	95.7	95.7
P2 a QC 100 (QC2).d	5	<input checked="" type="checkbox"/>	100	110.3	110.3
P2 a cal 6-250ng.d	6	<input checked="" type="checkbox"/>	250	260.1	104.0
P2 a QC 250 (QC 3).d	6	<input checked="" type="checkbox"/>	250	311.1	124.4
P2 a cal 7-500ng.d	7	<input type="checkbox"/>	500	672.3	134.5
P2 a cal 8-1000ng.d	8	<input type="checkbox"/>	1000	1114.9	111.5
P2 a QC 1000 (QC 4).d	8	<input checked="" type="checkbox"/>	1000	1119.2	111.9

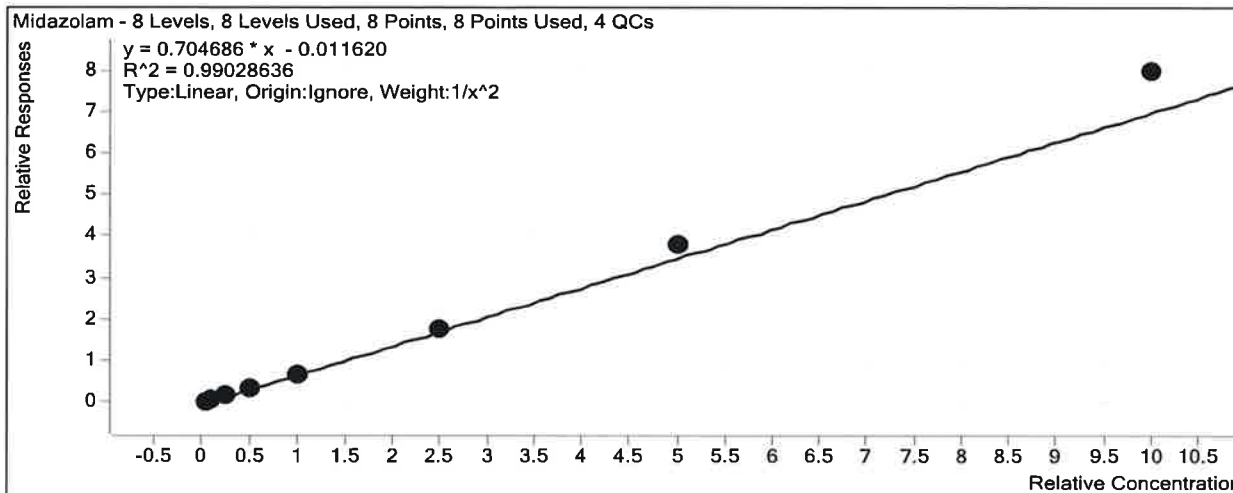
# ISP Forensics Calibration Curve Report

TS R

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st  
2977\_final.batch.bin

**Last Calib Update** 2/28/2019 9:01 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	107.1
P2 a cal 2-10ng.d	2	<input checked="" type="checkbox"/>	10	9.1	90.7
P2 a QC 10 ( QC1).d	2	<input checked="" type="checkbox"/>	10	9.7	96.8
P2 a cal 3-25ng.d	3	<input checked="" type="checkbox"/>	25	22.9	91.6
P2 a cal 4-50ng.d	4	<input checked="" type="checkbox"/>	50	46.1	92.3
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	99.0	99.0
P2 a cal 6-250ng.d	6	<input checked="" type="checkbox"/>	250	251.3	100.5
P2 a QC 250 (QC 3).d	6	<input checked="" type="checkbox"/>	250	257.9	103.2
P2 a cal 7-500ng.d	7	<input checked="" type="checkbox"/>	500	539.4	107.9
P2 a cal 8-1000ng.d	8	<input checked="" type="checkbox"/>	1000	1132.9	113.3
P2 a QC 1000 (QC 4).d	8	<input checked="" type="checkbox"/>	1000	1110.5	111.0



TS  
P

# ISP FORENSICS - Pocatello Instrument # 59740

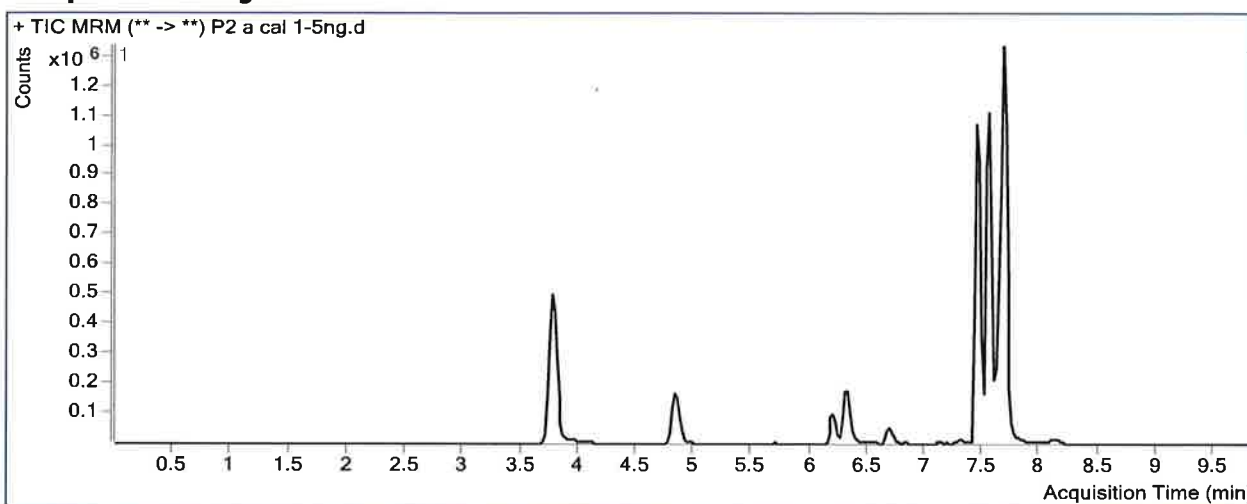
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wk1st 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:03 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 14:10 **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
Methocarbamol	Pseudoephedrine-D3	6.407	23766	2225661	0.0107	5.1009
Amitriptyline	Amitriptyline-D3	7.531	9845	44393	0.2218	3.6898
Maprotiline	Amitriptyline-D3	7.511	3903	44393	0.0879	4.9143
Nortriptyline	Nortriptyline-D3	7.534	3530	15784	0.2236	4.3593
Etizolam	Estazolam-D5	7.642	86422	3090123	0.0280	5.8611
Midazolam	Midazolam-D4	7.665	18555	710429	0.0261	5.3552

TS R

# ISP FORENSICS - Pocatello Instrument # 59740

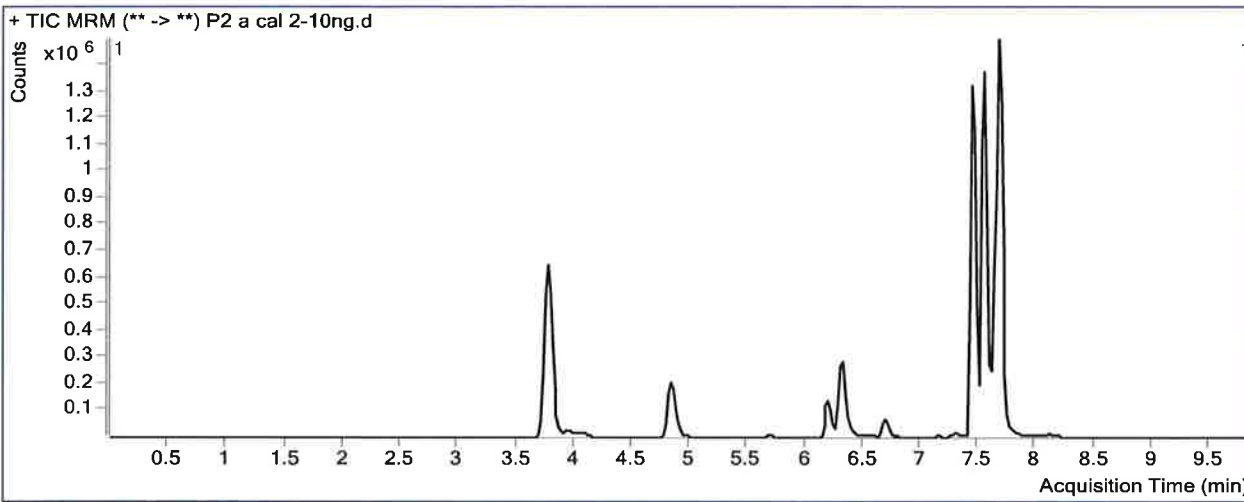
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:03 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

**Analysis Info**

**Acq Time** 2019-02-25 14:22 **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
Methocarbamol	Pseudoephedrine-D3	6.387	48960	2574684	0.0190	9.3475
Amitriptyline	Amitriptyline-D3	7.511	25170	46589	0.5403	10.2155
Maprotiline	Amitriptyline-D3	7.531	11871	46589	0.2548	11.4631
Nortriptyline	Nortriptyline-D3	7.554	9335	16311	0.5723	10.5304
Etizolam	Estazolam-D5	7.642	196238	3263919	0.0601	10.1760
Midazolam	Midazolam-D4	7.665	39753	759927	0.0523	9.0724

TS P

# ISP FORENSICS - Pocatello Instrument # 59740

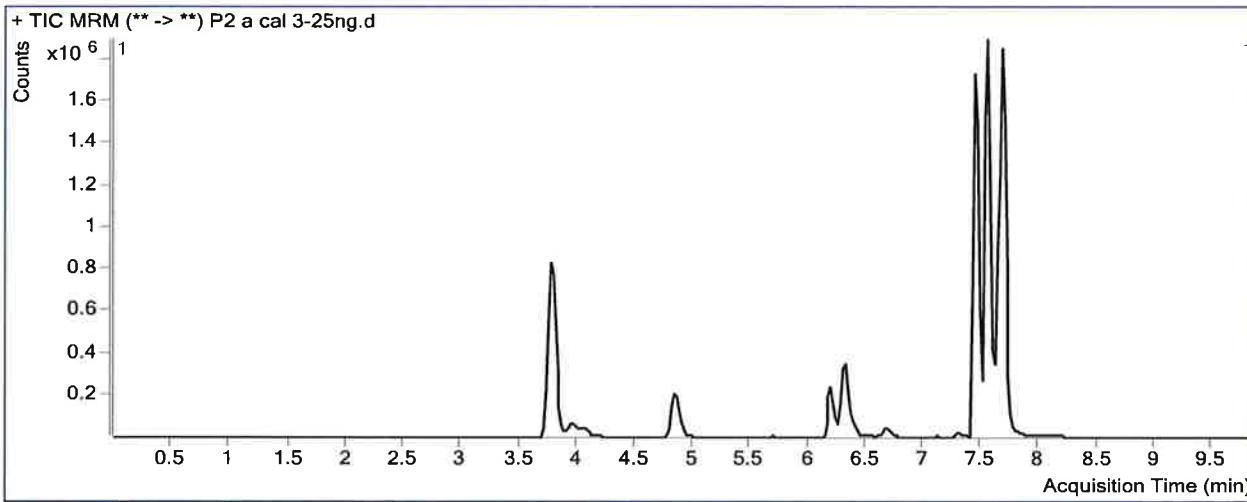
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:03 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

**Analysis Info**

**Acq Time** 2019-02-25 14:35 **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
Methocarbamol	Pseudoephedrine-D3	6.387	127484	2514137	0.0507	25.4883
Amitriptyline	Amitriptyline-D3	7.531	35022	37967	0.9224	18.0461
Maprotiline	Amitriptyline-D3	7.511	18270	37967	0.4812	20.3469
Nortriptyline	Nortriptyline-D3	7.554	17389	11125	1.5631	28.0626
Etizolam	Estazolam-D5	7.642	511648	3368865	0.1519	22.4876
Midazolam	Midazolam-D4	7.665	111981	747804	0.1497	22.8991

TS  
P

# ISP FORENSICS - Pocatello Instrument # 59740

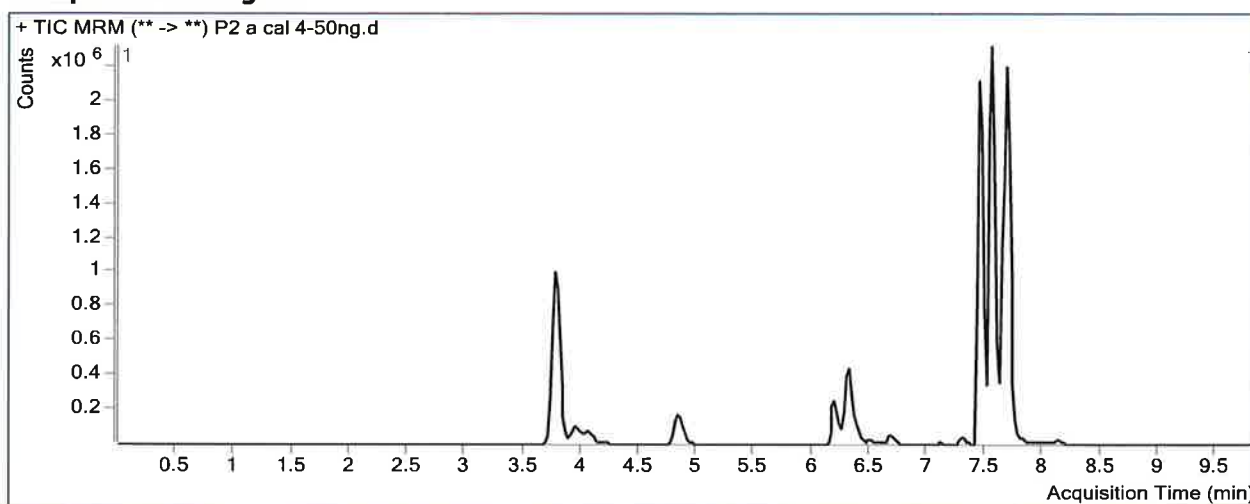
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:03 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 14:48 **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
Methocarbamol	Pseudoephedrine-D3	6.387	228129	2147037	0.1063	53.7792
Amitriptyline	Amitriptyline-D3	7.531	109964	43936	2.5028	50.4269
Maprotiline	Amitriptyline-D3	7.511	62292	43936	1.4178	57.0965
Nortriptyline	Nortriptyline-D3	7.554	42305	17920	2.3608	42.1789
Etizolam	Estazolam-D5	7.642	928160	2860580	0.3245	45.6464
Midazolam	Midazolam-D4	7.665	235154	749890	0.3136	46.1489

TS JS

# ISP FORENSICS - Pocatello Instrument # 59740

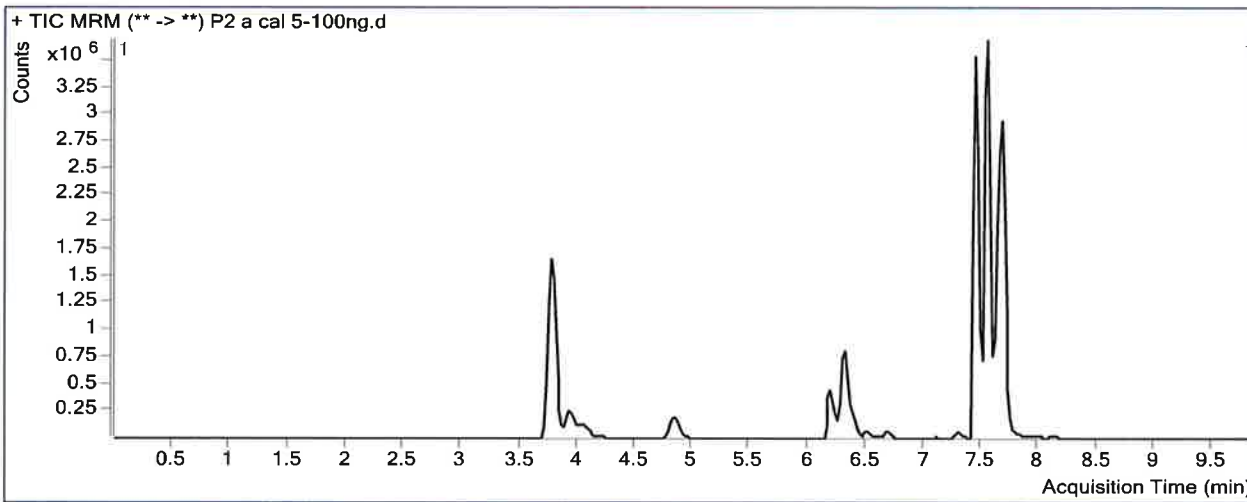
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:03 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

**Analysis Info**

**Acq Time** 2019-02-25 15:00 **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
Methocarbamol	Pseudoephedrine-D3	6.387	453624	2160866	0.2099	106.5825
Amitriptyline	Amitriptyline-D3	7.531	235801	51802	4.5519	92.4120
Maprotiline	Amitriptyline-D3	7.511	114751	51802	2.2152	88.3846
Nortriptyline	Nortriptyline-D3	7.534	82878	12774	6.4882	115.2178
Etizolam	Estazolam-D5	7.622	1916978	2747282	0.6978	95.7381
Midazolam	Midazolam-D4	7.665	514898	769678	0.6690	96.5819

TS  
D

# ISP FORENSICS - Pocatello Instrument # 59740

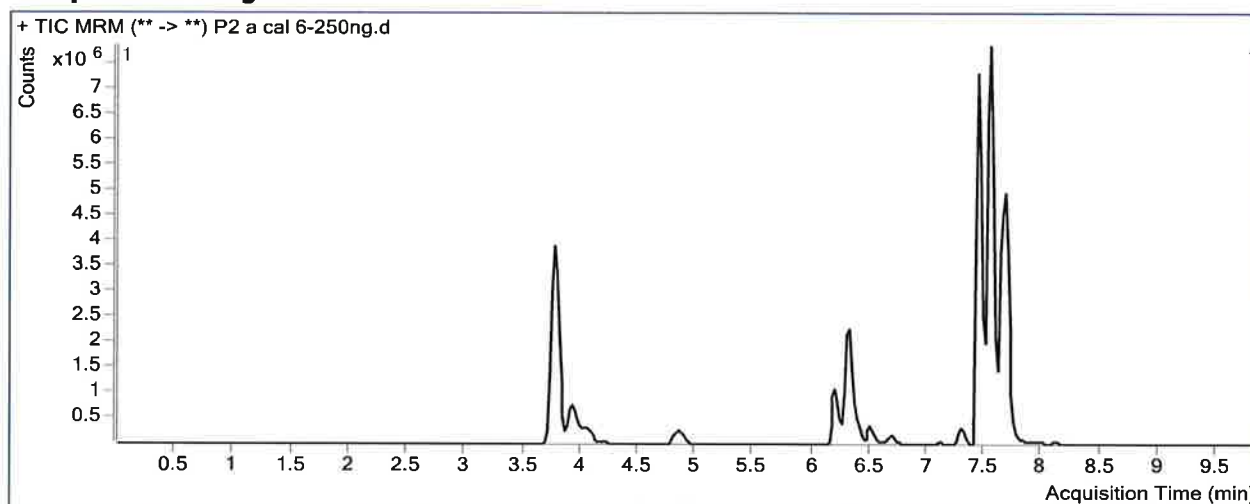
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:03 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 15:13 **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
Methocarbamol	Pseudoephedrine-D3	6.387	997094	2294101	0.4346	221.0303
Amitriptyline	Amitriptyline-D3	7.531	1538984	114149	13.4822	275.3866
Maprotiline	Amitriptyline-D3	7.511	745691	114149	6.5326	257.7946
Nortriptyline	Nortriptyline-D3	7.554	558945	40967	13.6438	241.8444
Etizolam	Estazolam-D5	7.642	4456960	2318189	1.9226	260.0907
Midazolam	Midazolam-D4	7.665	1379413	784099	1.7592	251.2967

TS JS

# ISP FORENSICS - Pocatello Instrument # 59740

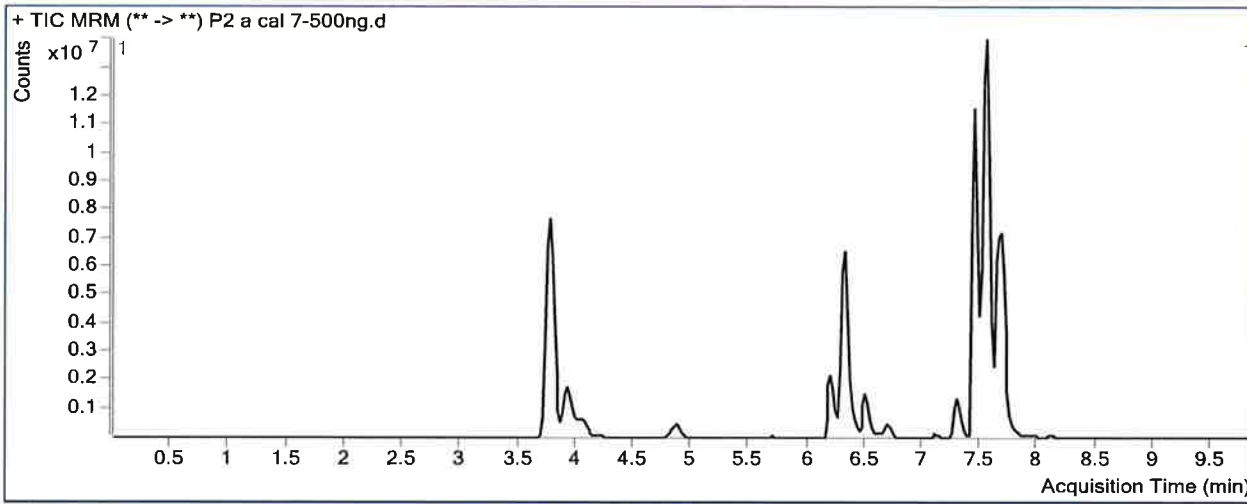
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:04 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

**Analysis Info**

**Acq Time** 2019-02-25 15:26 **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
Methocarbamol	Pseudoephedrine-D3	6.387	1646639	2414320	0.6820	347.0345
Amitriptyline	Amitriptyline-D3	7.531	6421376	275363	23.3197	476.9481
Maprotiline	Amitriptyline-D3	7.511	2936476	275363	10.6640	419.9049
Nortriptyline	Nortriptyline-D3	7.554	2331539	83987	27.7606	491.6553
Etizolam	Estazolam-D5	7.622	8097158	1621128	4.9948	672.3252
Midazolam	Midazolam-D4	7.665	3040956	802417	3.7897	539.4412

TS  
S

# ISP FORENSICS - Pocatello Instrument # 59740

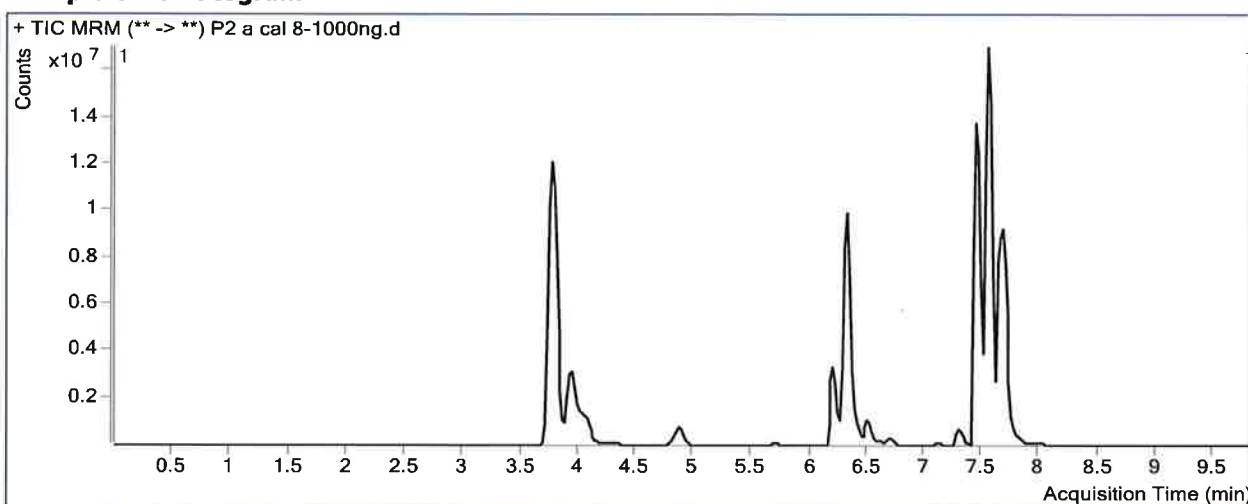
## Multi-Drug Confirmatory Analysis Report

**Batch Data Path** C:\MassHunter\Data\2019\AM 28\022519 MDQ P1 P2 TS\QuantResults\P2a wklst 2977\_final.batch.bin  
**Analysis Time** 2/28/2019 9:01 AM **Analyst Name** datastor  
**Report Time** 2/28/2019 9:04 AM **Reporter Name** datastor  
**Last Calib Update** 2/28/2019 9:01 AM **Batch State** Processed

### Analysis Info

**Acq Time** 2019-02-25 15:38 **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
Methocarbamol	Pseudoephedrine-D3	6.387	2398801	2053997	1.1679	594.4826
Amitriptyline	Amitriptyline-D3	7.531	2798501	56953	49.1368	1005.9212
Maprotiline	Amitriptyline-D3	7.511	1299195	56953	22.8116	896.5577
Nortriptyline	Nortriptyline-D3	7.554	912106	16048	56.8346	1006.1514
Etizolam	Estazolam-D5	7.642	11982135	1444780	8.2934	1114.9477
Midazolam	Midazolam-D4	7.665	4509175	565648	7.9717	1132.8897