









REVIEWED

By Anne Nord at 9:26 am, Aug 01, 2019

7/26/2019

cg

Worklist: 3578

<u>LAB_CASE</u>	<u>ITEM</u>	<u>TASK_ID</u>	<u>DESCRIPTION</u>	
C2019-1218	1	158562	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	
C2019-1219	1	158563	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	
M2019-3185	6	158565	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	
M2019-3186	3	158566	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	
P2019-2092	1	158568	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	
P2019-2150	1	158569	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	
P2019-2197	1	158572	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	
P2019-2239	1	158574	AM 13 Urine LCMS-QQQ Benzodiazepines and ;	

Some calibrators/controls/samples had to be reinjected as there was poor ISTD response.

cg

AM 13: Benzo and Z-Drugs LCMS Urine Extraction

Extraction Date: 07/29/2019
Negative Blood/Urine Lot: POC031319
Positive Control Working Solution Lot: WS013119
Calibrator Working Solution Lot #'s: WS021319
Oxazepam Glucuronide Lot: Alltech 715-5035
LC Column: Agilent Poroshell 120 EC-C18 (2.1x75mm; 2.7 Micron)

Analyst: Celena Shrum
LCMS-QQQ ID: Abby
b-glucuronidase Lot: Kura 4150

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. Prep Non-Extracted Calibrators:

Level	ng/mL	Working Solution (ng/μL)	Volume to add (μL)
Blank	-	-	-
1	10	1	10
2	25	1	25
3	50	1	50
4	100	1	100
5	500	10	50
6	1000	10	100
7	3000 (Urine)	10	300

Analytic:

- 1. Remove working solutions, external control, negative urine and case samples from cold storage.
- 2. **Blood:** Add 1mL samples, and controls to Extraction tube. **Urine:** To each labeled round bottomed tube add 1mL sample, using negative blood or urine sample for both negative and positive control. Positive control: spike negative blood or urine with 300uL positive control working solution. Urine Required additional glucuronide positive and negative controls.
- 3. To all samples: add 100uL Internal Standard Working Solution.
- 4. For Urine Only: Glucuronide Cleaving:
 - 4.1. Add 20uL of 2M Acetate buffer to all urine samples, Vortex.
 - 4.2. To all but negative glucuronide control: add 76uL Kura b-glucuronidase. Cap and gently rock.
 - 4.3. Place in oven at ~60C for approx. 30 minutes.
- 5. Add 4mL water to all extraction tubes. Urine Samples: Transfer into the extraction tubes.
- 6. Place on tube rocker at ambient temp for ~ 10 minutes.
- 7. Centrifuge for ~ 10 min at ~2500rpm.
Optional: To break up emulsions: re-centrifuge at ~3000rpm for ~5 minutes
- 8. Transfer solvent to tapered bottom tube and evaporate to dryness under nitrogen @ 37C.
- 9. Reconstitute with 100uL of 9:1 mobile phase A:B
- 10. Transfer to labeled ALS vial with insert.
- 11. Run using appropriate LCMS Instrument Acquisition.

Post-Analytic

- 1. Complete Data Analysis on all samples and corresponding sample blanks
LCMS Data Path: C:\MassHunter\Data\2019\AM 13\AM 13 Worklist 3578 CS\QuantResults\am 13 worklist 3578
- 2. Did positive and negative control samples provide intended response? Y / N
- 3. RT within +/-5% of Calibrators; Ion Ratios within +/- 20% of the calibrator average for the run.
- 4. Central File Packet to include: LIMS Worklist, Method Checklist, Working solution prep sheet, and Control sample LCMS data printouts.

Comments: Cutoff for 7-aminoclonazepam and 7-aminoflunitrazepam for this run will be 50ng/mL, flurazepam not analyzed.

Compound Calibration Report

Cutoff for this compound for this run is 50ng/mL.



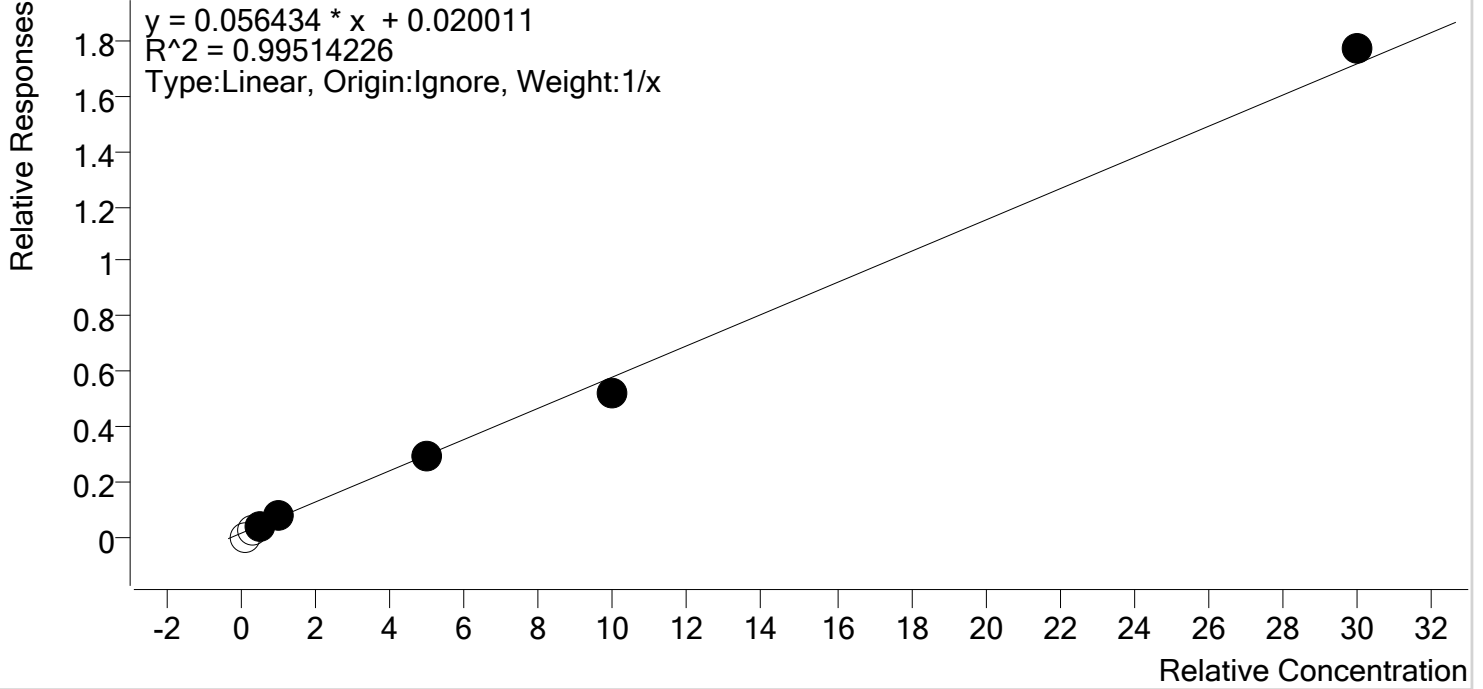
Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

Last Cal. Update 7/30/2019 9:08 AM

Analyst Name ISP\datastor

Analyte 7-Aminoclonazepam **Internal Standard** 7-Aminoflunitrazepam-D7 ISTD

7-Aminoclonazepam - 7 Levels, 5 Levels Used, 7 Points, 5 Points Used, 0 QCs



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	x	10.0	0.0	0.0
Cal 2- 25ng	2	x	25.0	7.8	31.1
Cal 3 -50ng	3	✓	50.0	44.5	89.1
Cal 4-100ng-reinject2	4	✓	100.0	118.3	118.3
Cal 5-500ng	5	✓	500.0	502.4	100.5
Cal 6-1000ng	6	✓	1000.0	890.0	89.0
Cal 7-3000ng	7	✓	3000.0	3094.8	103.2

Compound Calibration Report

Cutoff for this compound for this run is 50ng/mL.

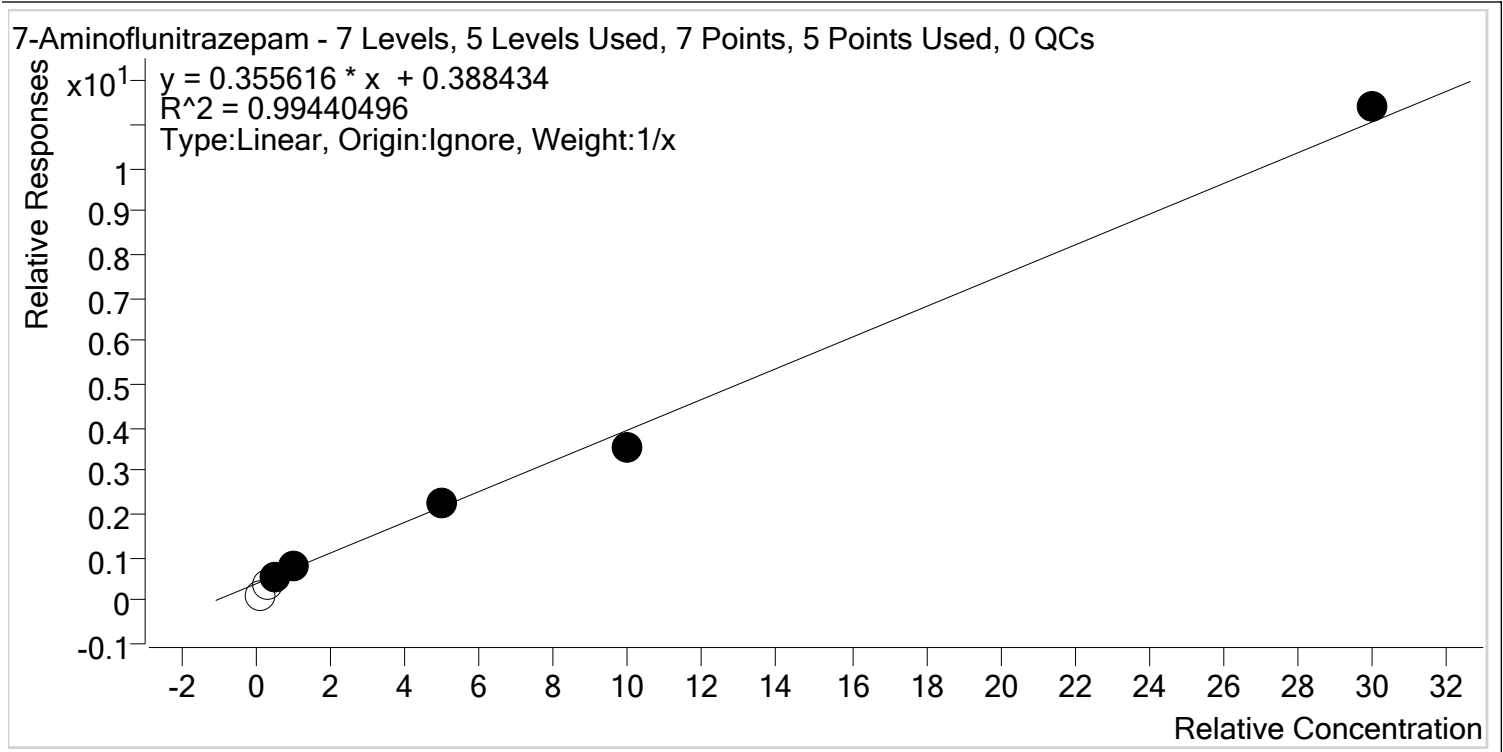


Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

Last Cal. Update 7/30/2019 9:08 AM

Analyst Name ISP\datastor

Analyte 7-Aminoflunitrazepam **Internal Standard** 7-Aminoflunitrazepam-D7 ISTD

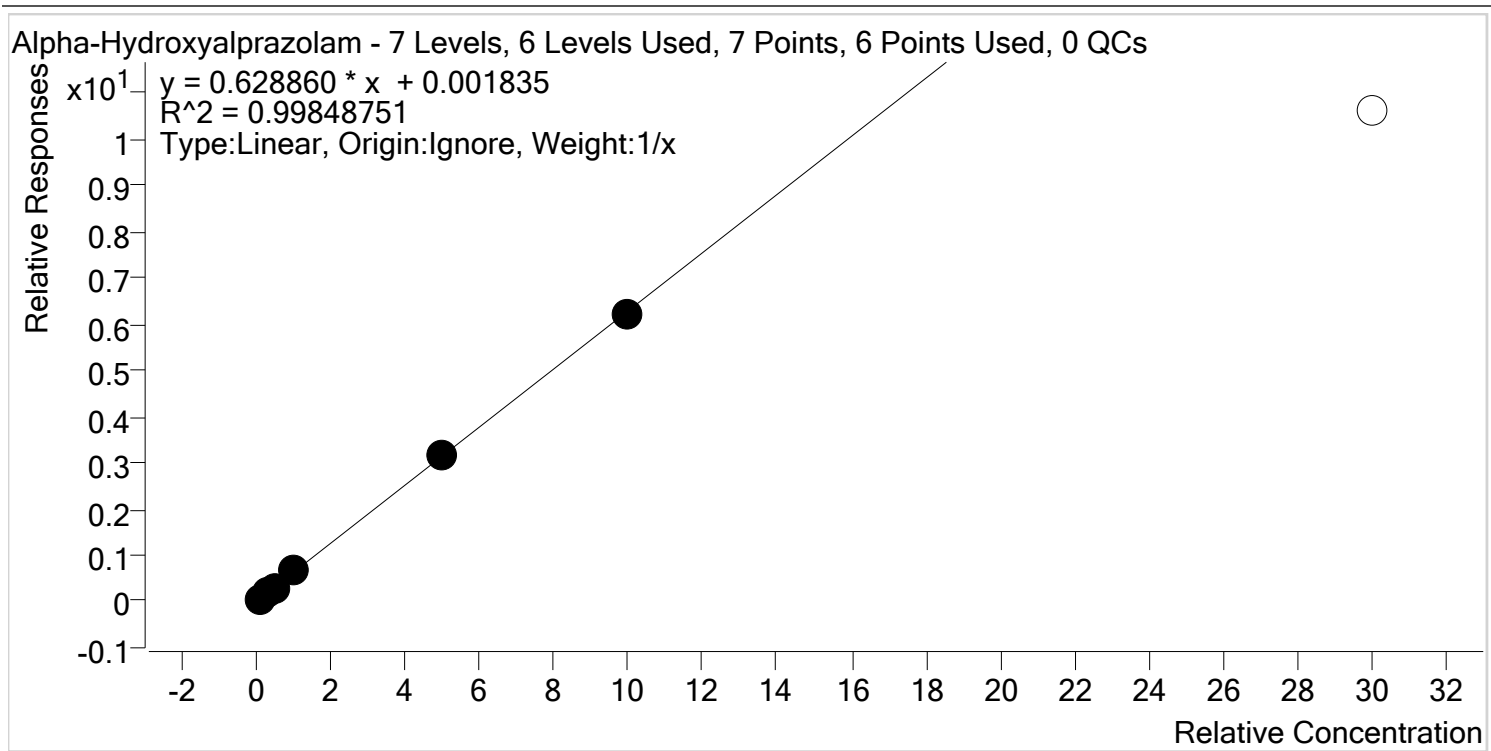


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	x	10.0	0.0	0.0
Cal 2- 25ng	2	x	25.0	0.0	0.0
Cal 3 -50ng	3	✓	50.0	45.0	90.1
Cal 4-100ng-reinject2	4	✓	100.0	116.2	116.2
Cal 5-500ng	5	✓	500.0	513.9	102.8
Cal 6-1000ng	6	✓	1000.0	876.6	87.7
Cal 7-3000ng	7	✓	3000.0	3098.2	103.3



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Alpha-Hydroxyalprazolam **Internal Standard** Alphahydroxyalprazolam-D5 ISTD

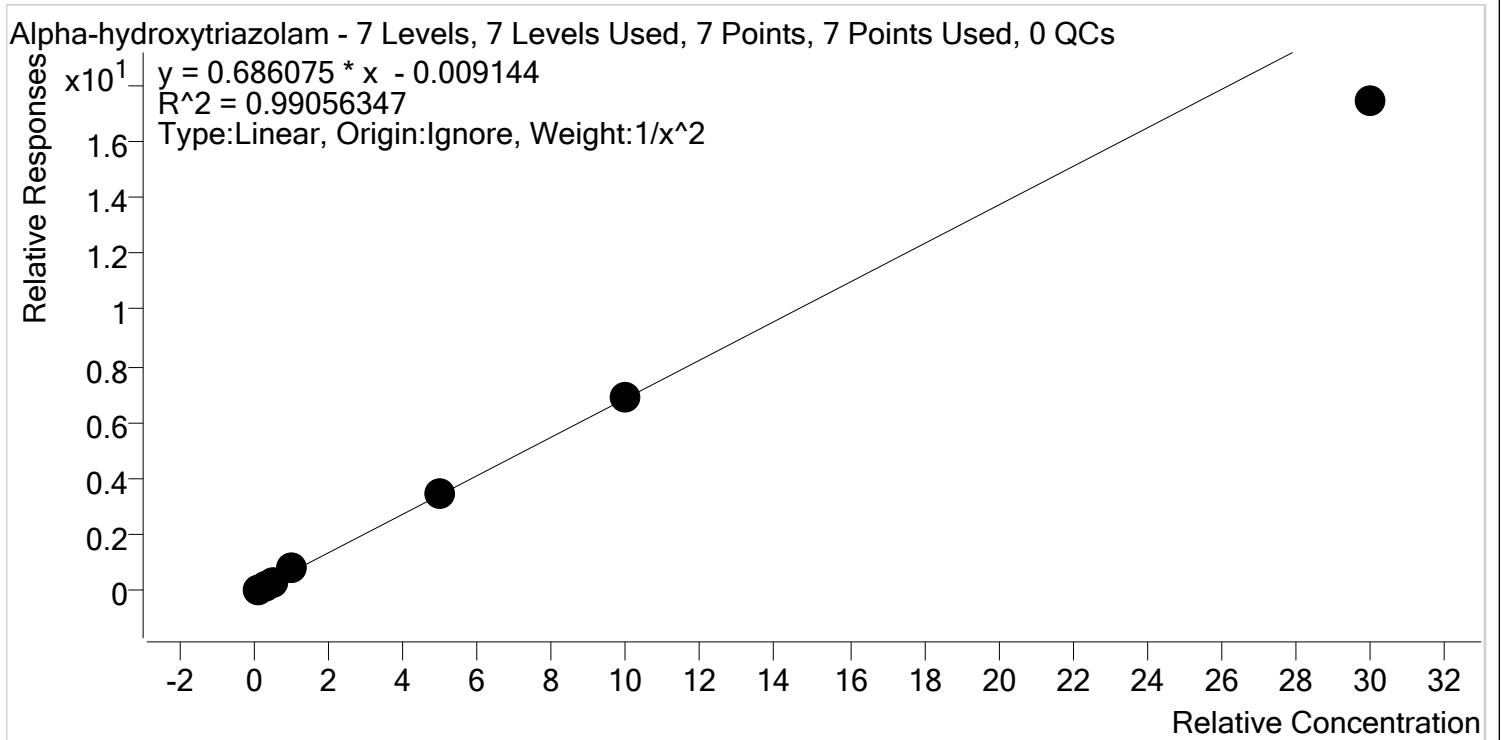


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	8.0	79.8
Cal 2- 25ng	2	✓	25.0	27.9	111.5
Cal 3 -50ng	3	✓	50.0	49.1	98.2
Cal 4-100ng-reinject2	4	✓	100.0	111.5	111.5
Cal 5-500ng	5	✓	500.0	500.7	100.1
Cal 6-1000ng	6	✓	1000.0	987.8	98.8
Cal 7-3000ng	7	✗	3000.0	1687.5	56.3



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Alpha-hydroxytriazolam **Internal Standard** Nordiazepam-D5 ISTD



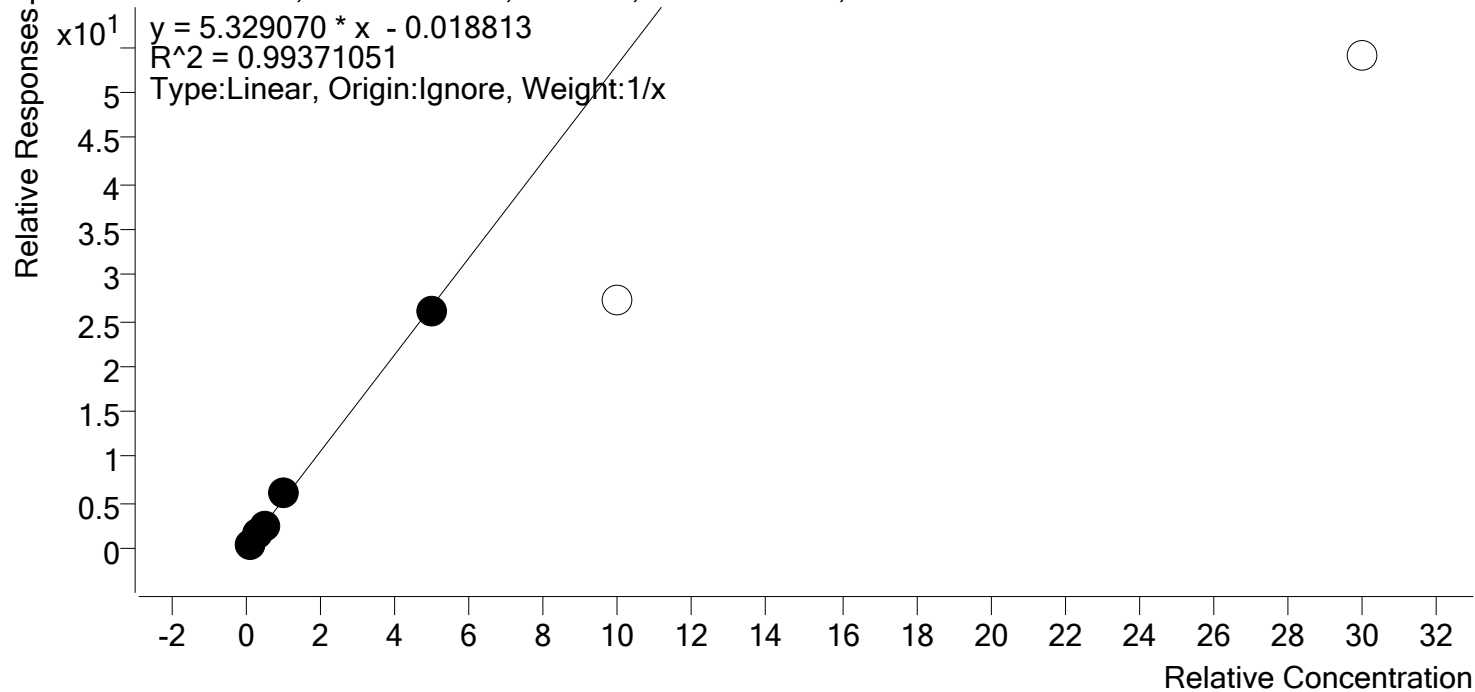
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.8	98.0
Cal 2- 25ng	2	✓	25.0	25.5	101.8
Cal 3 -50ng	3	✓	50.0	49.8	99.6
Cal 4-100ng-reinject2	4	✓	100.0	113.4	113.4
Cal 5-500ng	5	✓	500.0	514.0	102.8
Cal 6-1000ng	6	✓	1000.0	997.6	99.8
Cal 7-3000ng	7	✓	3000.0	2538.9	84.6



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Alprazolam **Internal Standard** Alphahydroxyalprazolam-D5 ISTD

Alprazolam - 7 Levels, 5 Levels Used, 7 Points, 5 Points Used, 0 QCs



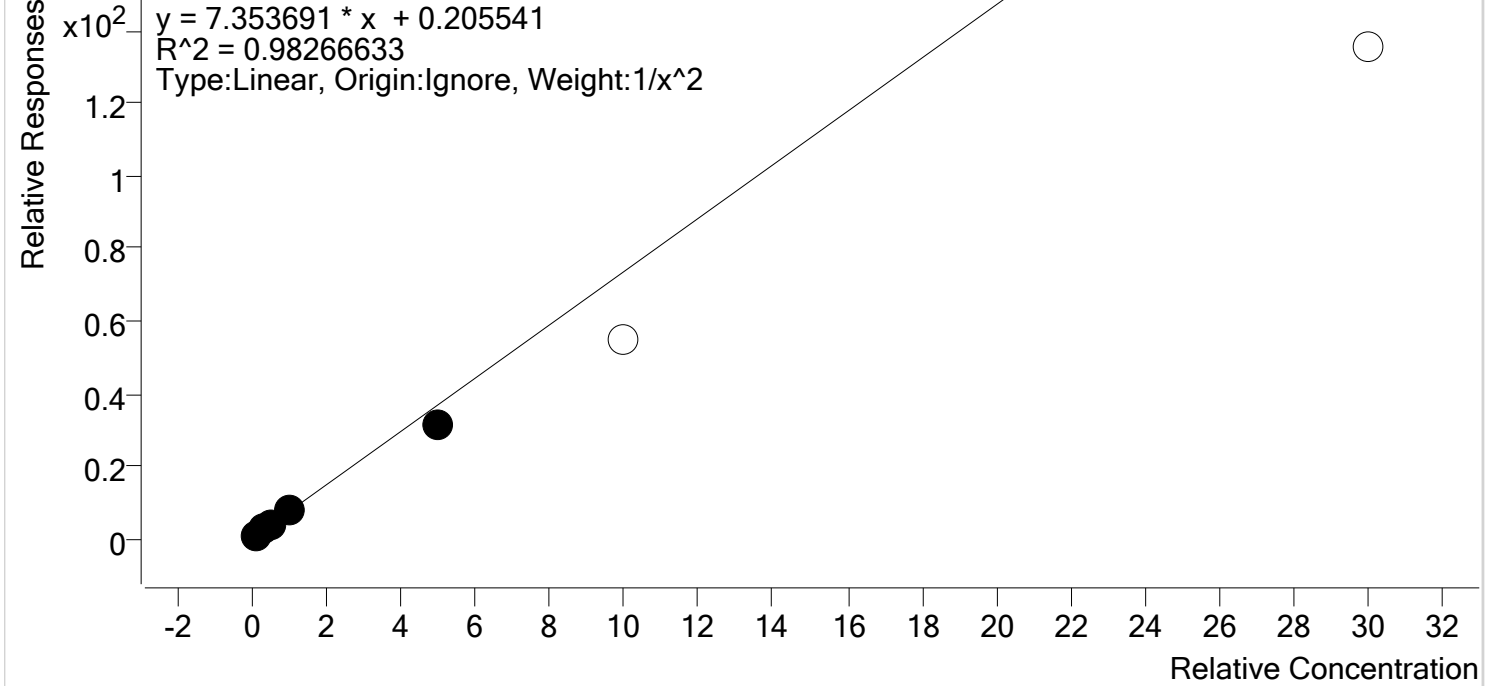
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	8.0	79.9
Cal 2- 25ng	2	✓	25.0	27.7	110.7
Cal 3 -50ng	3	✓	50.0	48.6	97.2
Cal 4-100ng-reinject2	4	✓	100.0	115.1	115.1
Cal 5-500ng	5	✓	500.0	485.7	97.1
Cal 6-1000ng	6	✗	1000.0	510.4	51.0
Cal 7-3000ng	7	✗	3000.0	1015.4	33.8



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Chlordiazepoxide **Internal Standard** Nordiazepam-D5 ISTD

Chlordiazepoxide - 7 Levels, 5 Levels Used, 7 Points, 5 Points Used, 0 QCs

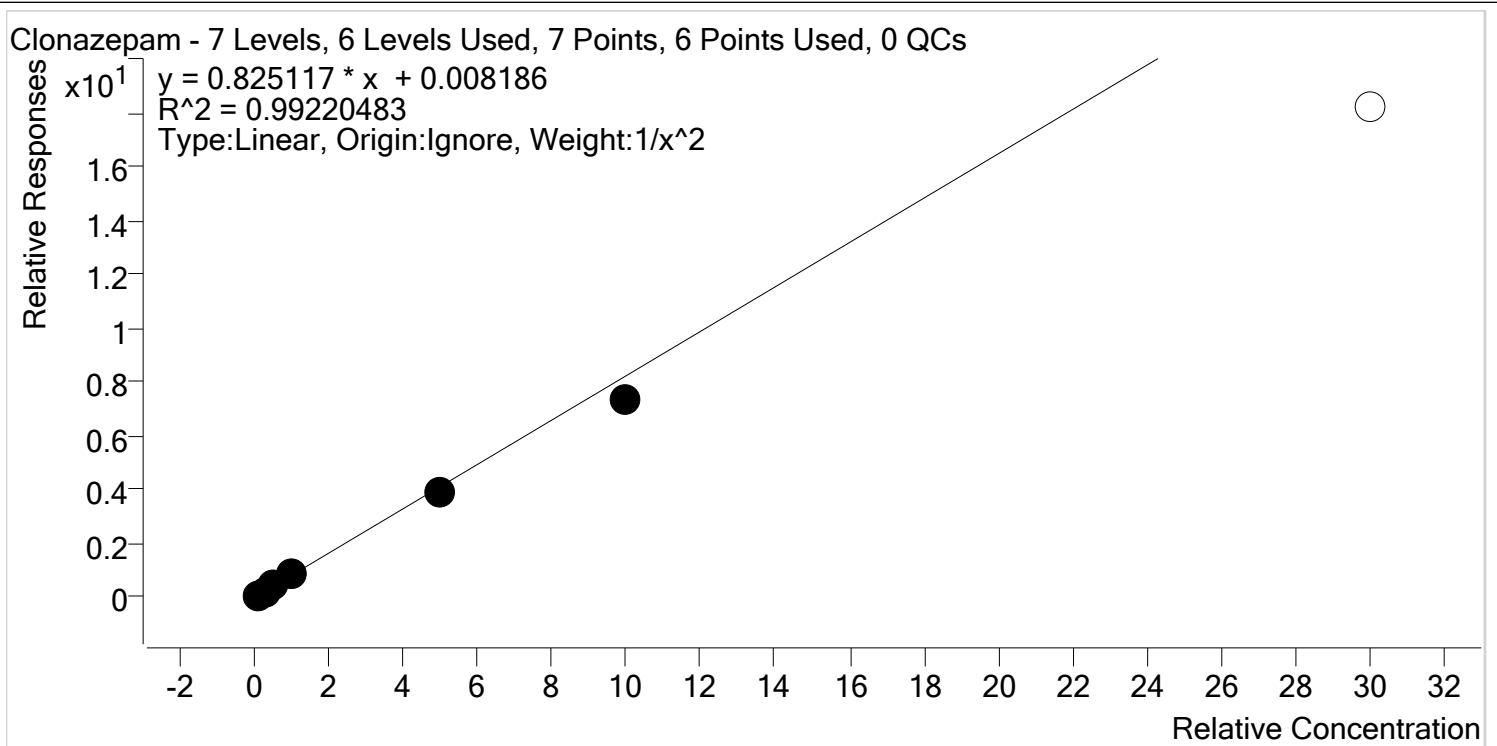


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.4	93.8
Cal 2- 25ng	2	✓	25.0	28.4	113.5
Cal 3 -50ng	3	✓	50.0	52.1	104.2
Cal 4-100ng-reinject2	4	✓	100.0	102.9	102.9
Cal 5-500ng	5	✓	500.0	428.4	85.7
Cal 6-1000ng	6	✗	1000.0	750.1	75.0
Cal 7-3000ng	7	✗	3000.0	1840.7	61.4



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Clonazepam **Internal Standard** Clonazepam-D4 ISTD

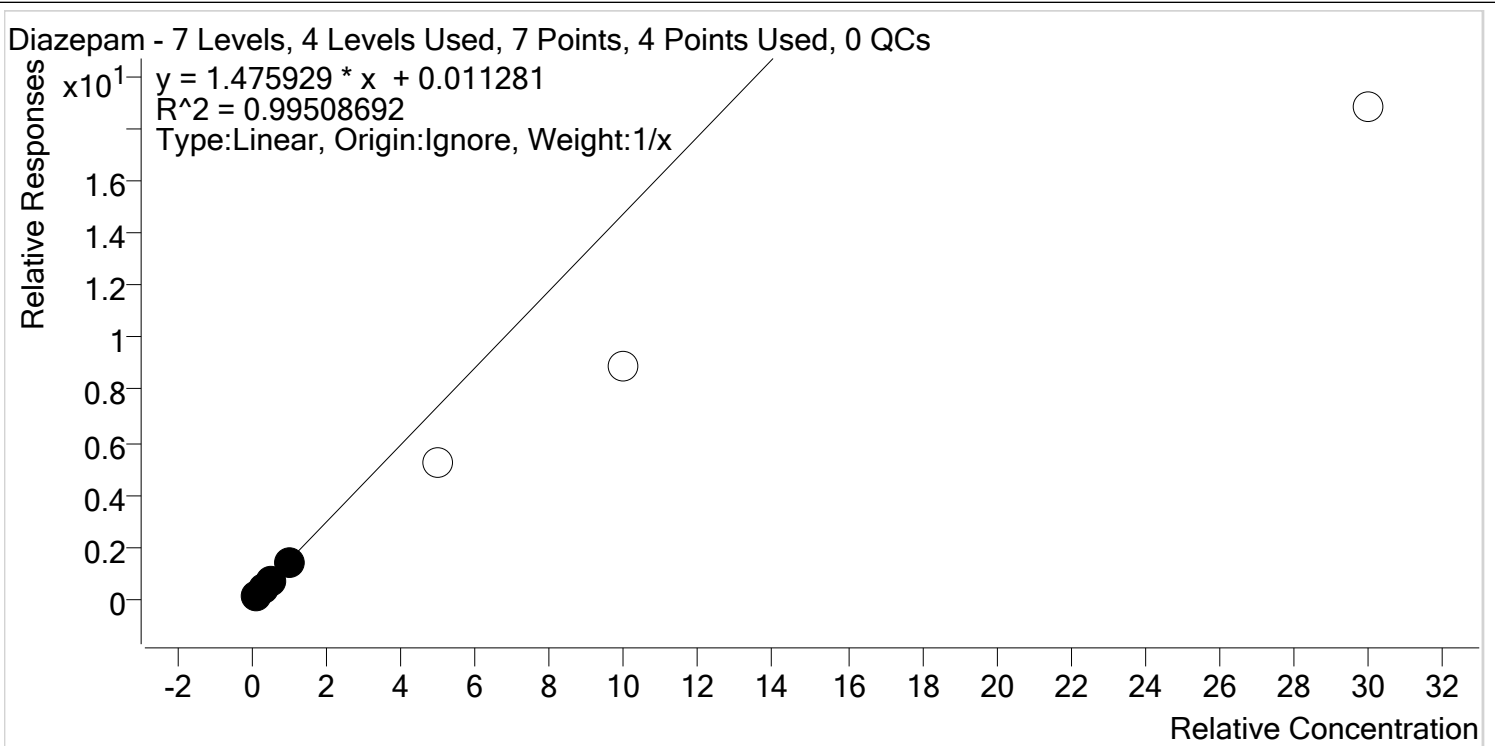


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.7	96.6
Cal 2- 25ng	2	✓	25.0	26.2	104.9
Cal 3 -50ng	3	✓	50.0	51.6	103.1
Cal 4-100ng-reinject2	4	✓	100.0	109.9	109.9
Cal 5-500ng	5	✓	500.0	482.4	96.5
Cal 6-1000ng	6	✓	1000.0	889.8	89.0
Cal 7-3000ng	7	✗	3000.0	2209.8	73.7



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Diazepam **Internal Standard** Diazepam-D5 ISTD

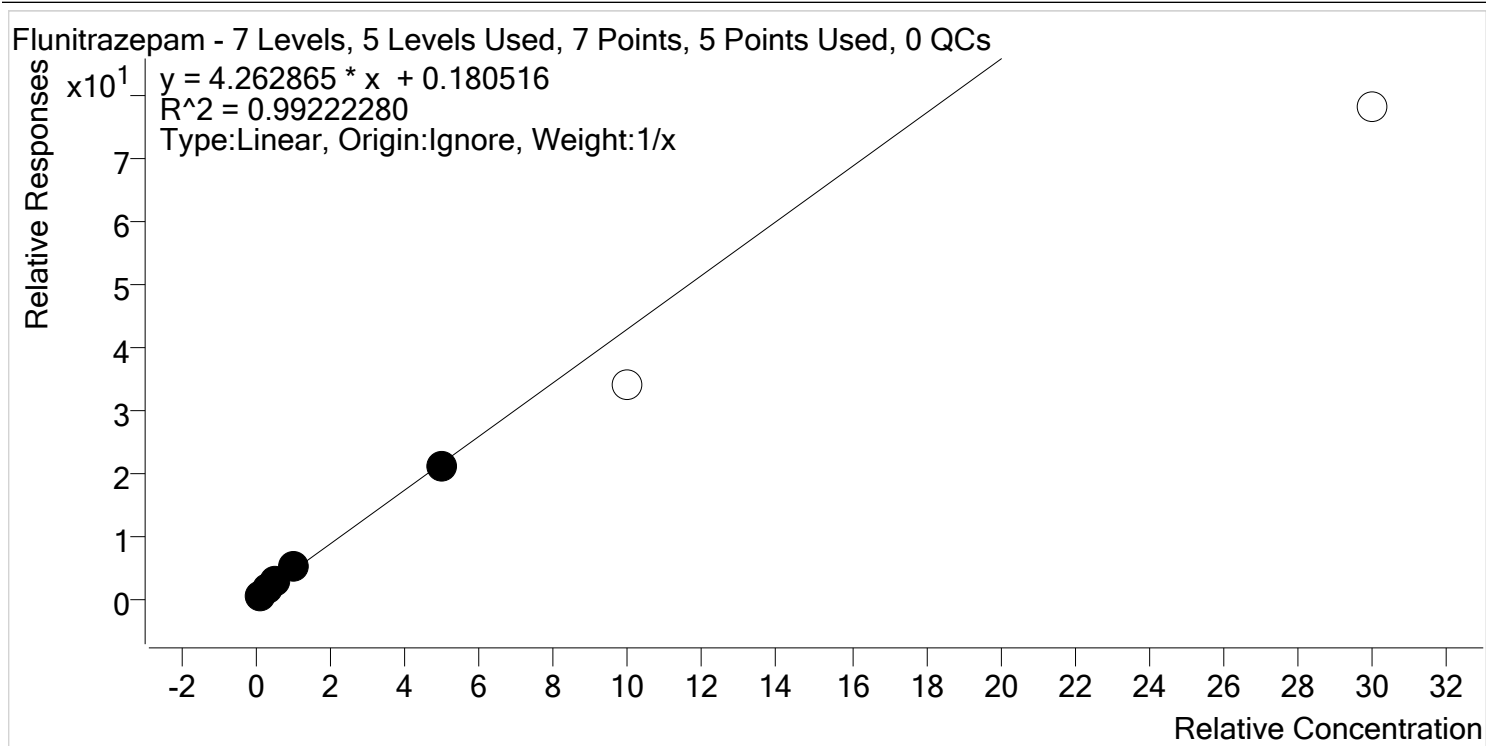


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.0	90.3
Cal 2- 25ng	2	✓	25.0	27.7	110.9
Cal 3 -50ng	3	✓	50.0	50.5	101.0
Cal 4-100ng-reinject2	4	✓	100.0	97.7	97.7
Cal 5-500ng	5	x	500.0	357.5	71.5
Cal 6-1000ng	6	x	1000.0	599.9	60.0
Cal 7-3000ng	7	x	3000.0	1273.7	42.5



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Flunitrazepam **Internal Standard** Clonazepam-D4 ISTD



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	7.4	73.6
Cal 2- 25ng	2	✓	25.0	26.7	106.9
Cal 3 -50ng	3	✓	50.0	53.7	107.5
Cal 4-100ng-reinject2	4	✓	100.0	115.7	115.7
Cal 5-500ng	5	✓	500.0	481.5	96.3
Cal 6-1000ng	6	✗	1000.0	789.2	78.9
Cal 7-3000ng	7	✗	3000.0	1822.6	60.8

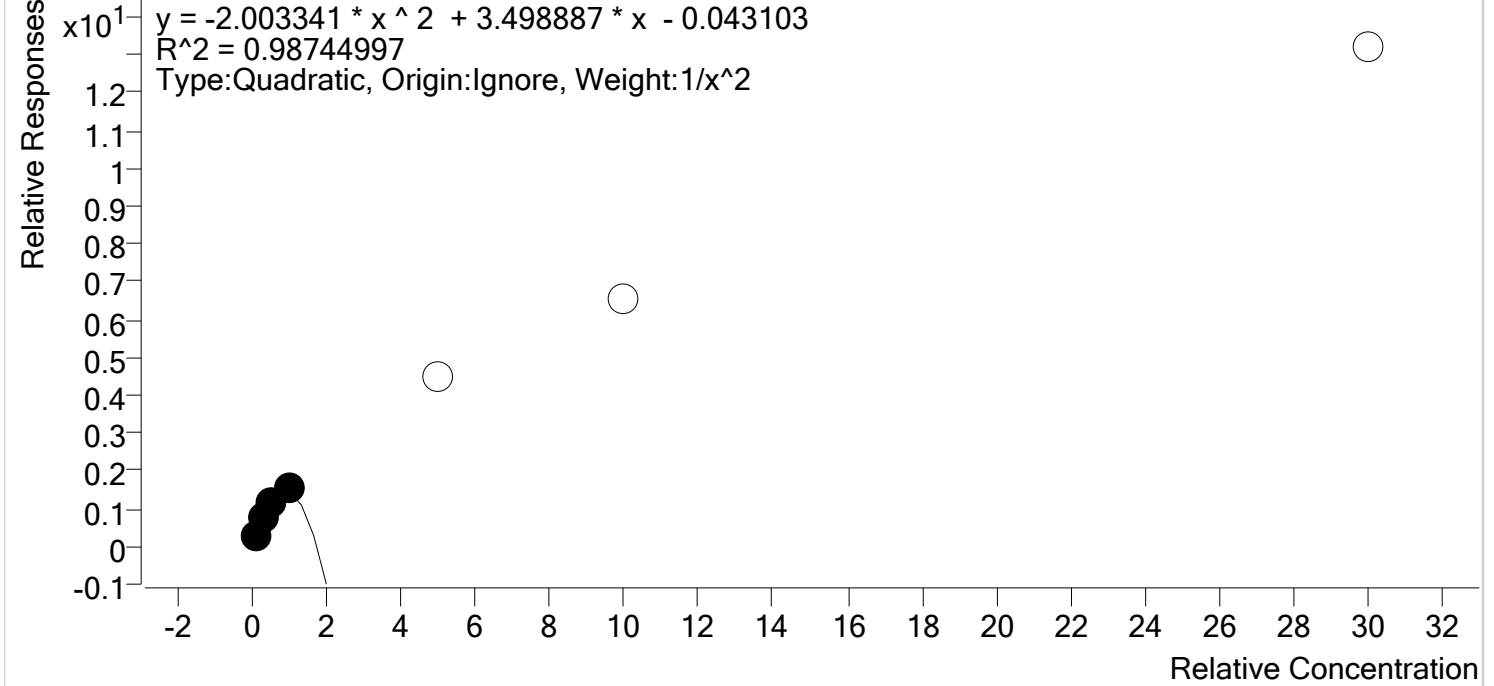
Compound Calibration Report

Compound not evaluated for this run.



Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Flurazepam **Internal Standard** Diazepam-D5 ISTD

Flurazepam - 7 Levels, 4 Levels Used, 7 Points, 4 Points Used, 0 QCs

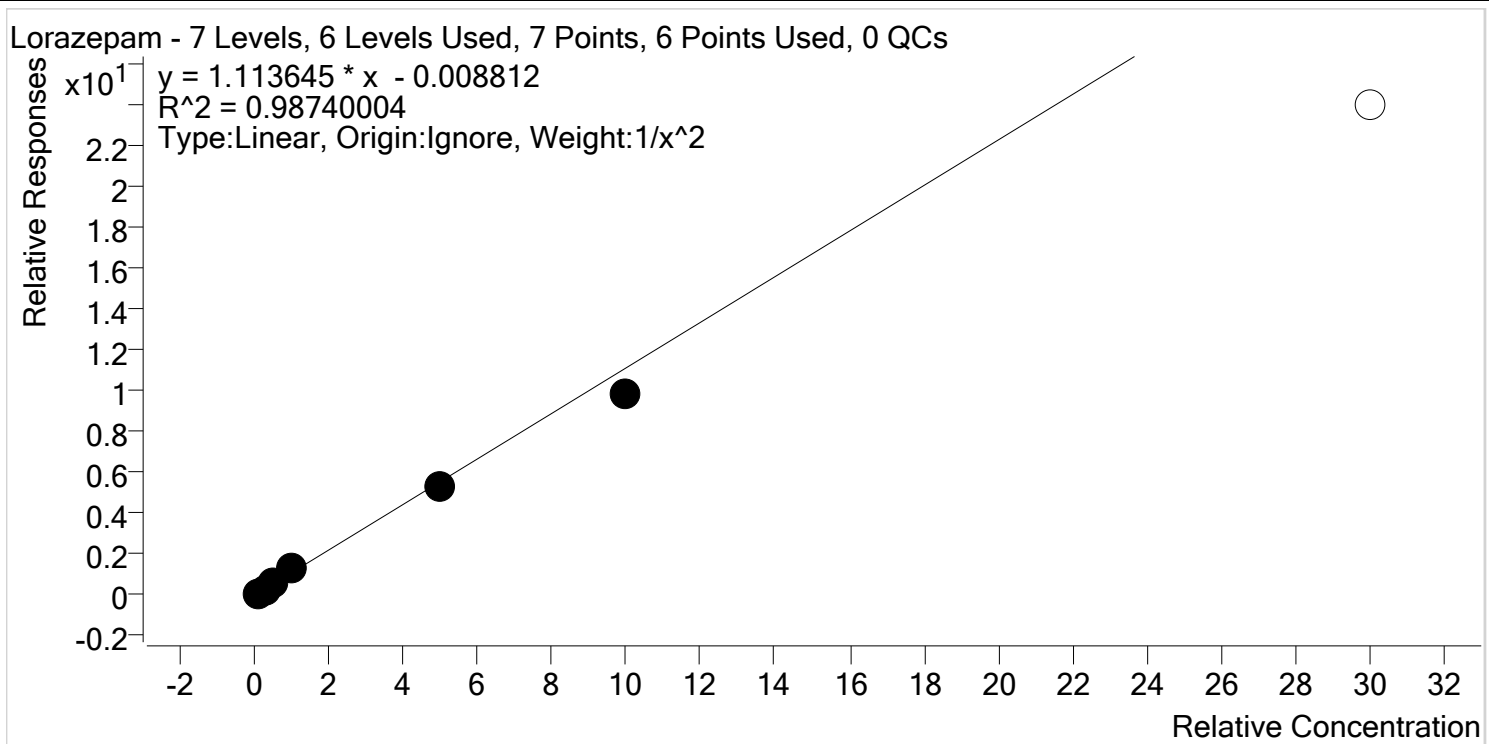


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.9	98.8
Cal 2- 25ng	2	✓	25.0	26.9	107.5
Cal 3 -50ng	3	✓	50.0	43.6	87.2
Cal 4-100ng-reinject2	4	✓	100.0	ND	
Cal 5-500ng	5	✗	500.0	ND	
Cal 6-1000ng	6	✗	1000.0	ND	
Cal 7-3000ng	7	✗	3000.0	ND	



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Lorazepam **Internal Standard** Nordiazepam-D5 ISTD



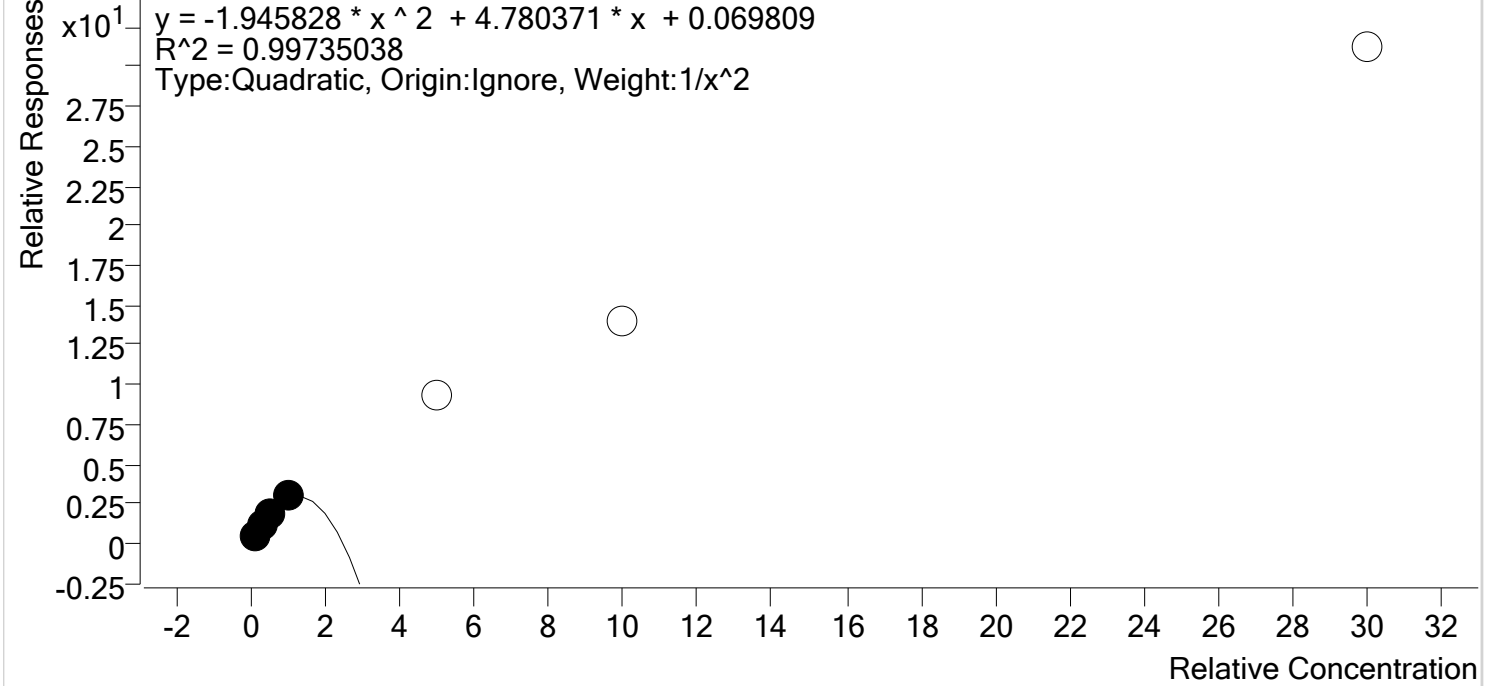
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.7	96.7
Cal 2- 25ng	2	✓	25.0	26.5	106.0
Cal 3 -50ng	3	✓	50.0	49.0	98.0
Cal 4-100ng-reinject2	4	✓	100.0	115.5	115.5
Cal 5-500ng	5	✓	500.0	478.2	95.6
Cal 6-1000ng	6	✓	1000.0	882.0	88.2
Cal 7-3000ng	7	✗	3000.0	2152.4	71.7



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Midazolam **Internal Standard** Clonazepam-D4 ISTD

Midazolam - 7 Levels, 4 Levels Used, 7 Points, 4 Points Used, 0 QCs



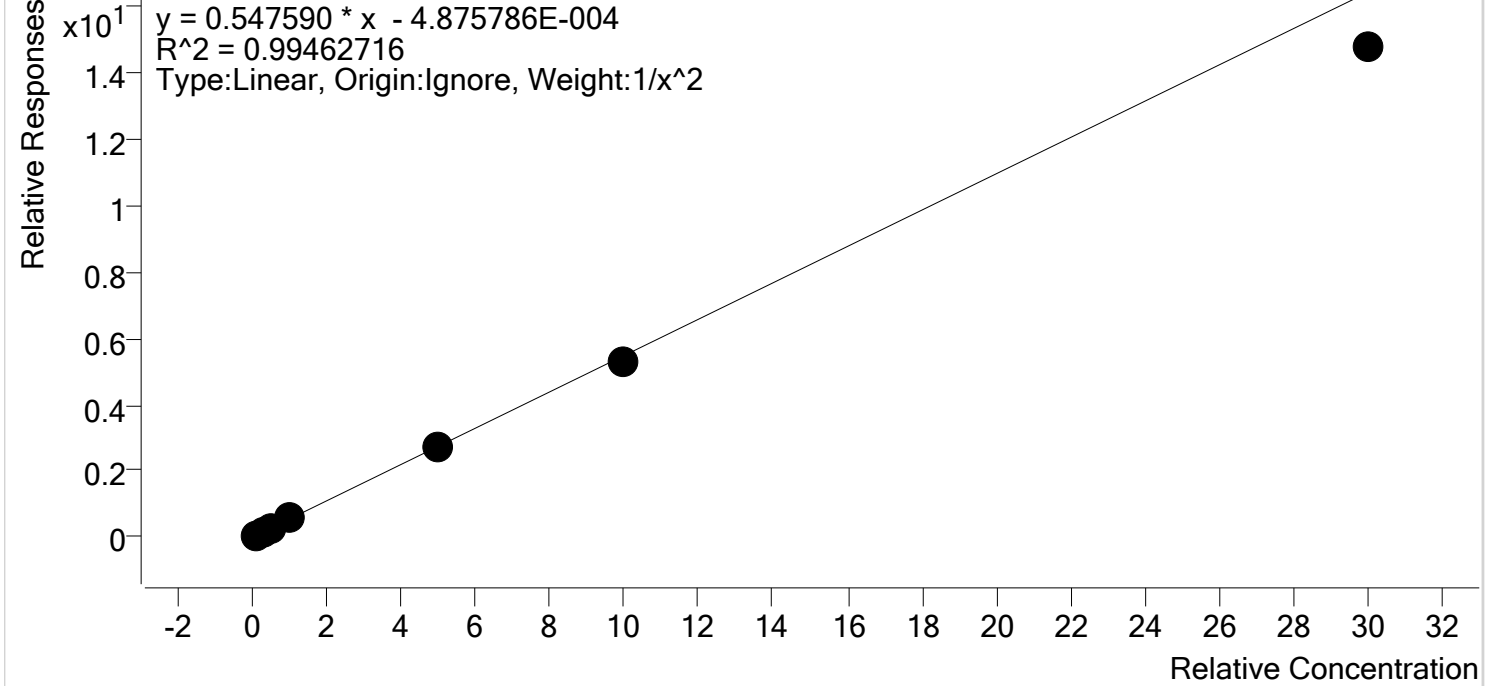
Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.9	99.3
Cal 2- 25ng	2	✓	25.0	25.9	103.6
Cal 3 -50ng	3	✓	50.0	47.3	94.6
Cal 4-100ng-reinject2	4	✓	100.0	106.0	106.0
Cal 5-500ng	5	x	500.0	ND	
Cal 6-1000ng	6	x	1000.0	ND	
Cal 7-3000ng	7	x	3000.0	ND	



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Nitrazepam **Internal Standard** Clonazepam-D4 ISTD

Nitrazepam - 7 Levels, 7 Levels Used, 7 Points, 7 Points Used, 0 QCs

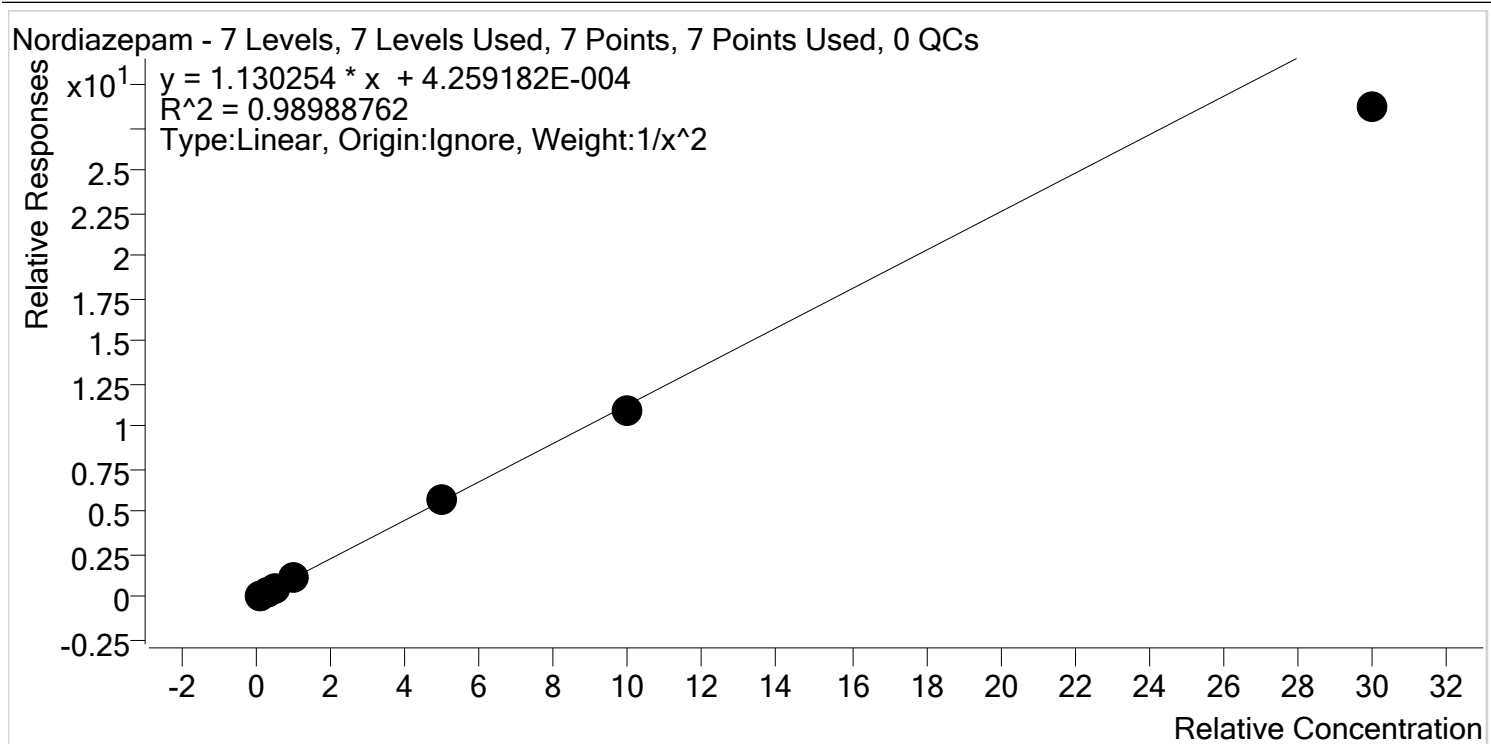


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.7	96.9
Cal 2- 25ng	2	✓	25.0	25.8	103.3
Cal 3 -50ng	3	✓	50.0	52.2	104.4
Cal 4-100ng-reinject2	4	✓	100.0	109.4	109.4
Cal 5-500ng	5	✓	500.0	498.0	99.6
Cal 6-1000ng	6	✓	1000.0	964.3	96.4
Cal 7-3000ng	7	✓	3000.0	2696.5	89.9



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Nordiazepam **Internal Standard** Nordiazepam-D5 ISTD

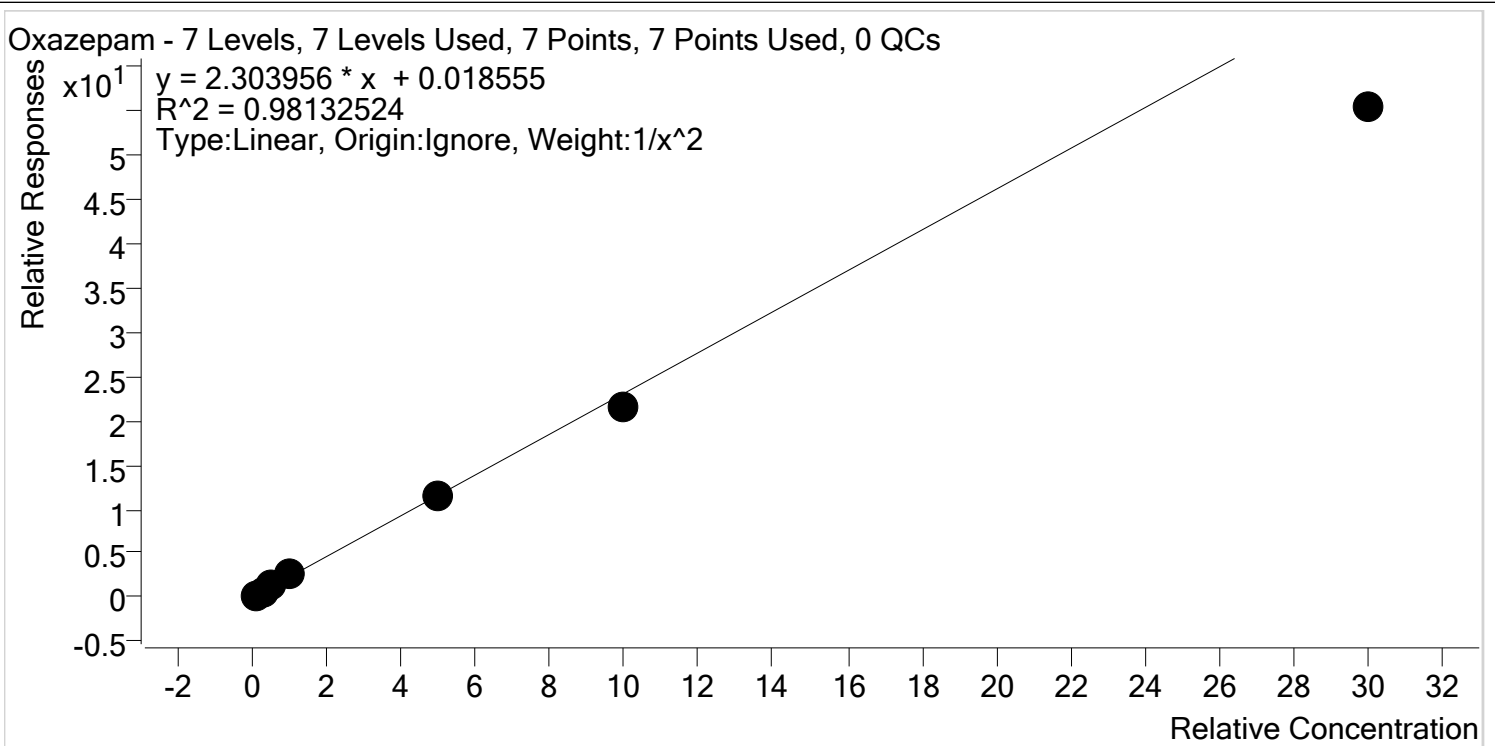


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.4	94.4
Cal 2- 25ng	2	✓	25.0	27.5	110.0
Cal 3 -50ng	3	✓	50.0	52.0	104.0
Cal 4-100ng-reinject2	4	✓	100.0	108.6	108.6
Cal 5-500ng	5	✓	500.0	504.1	100.8
Cal 6-1000ng	6	✓	1000.0	973.5	97.3
Cal 7-3000ng	7	✓	3000.0	2543.7	84.8



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Oxazepam **Internal Standard** Oxazepam-D5 ISTD

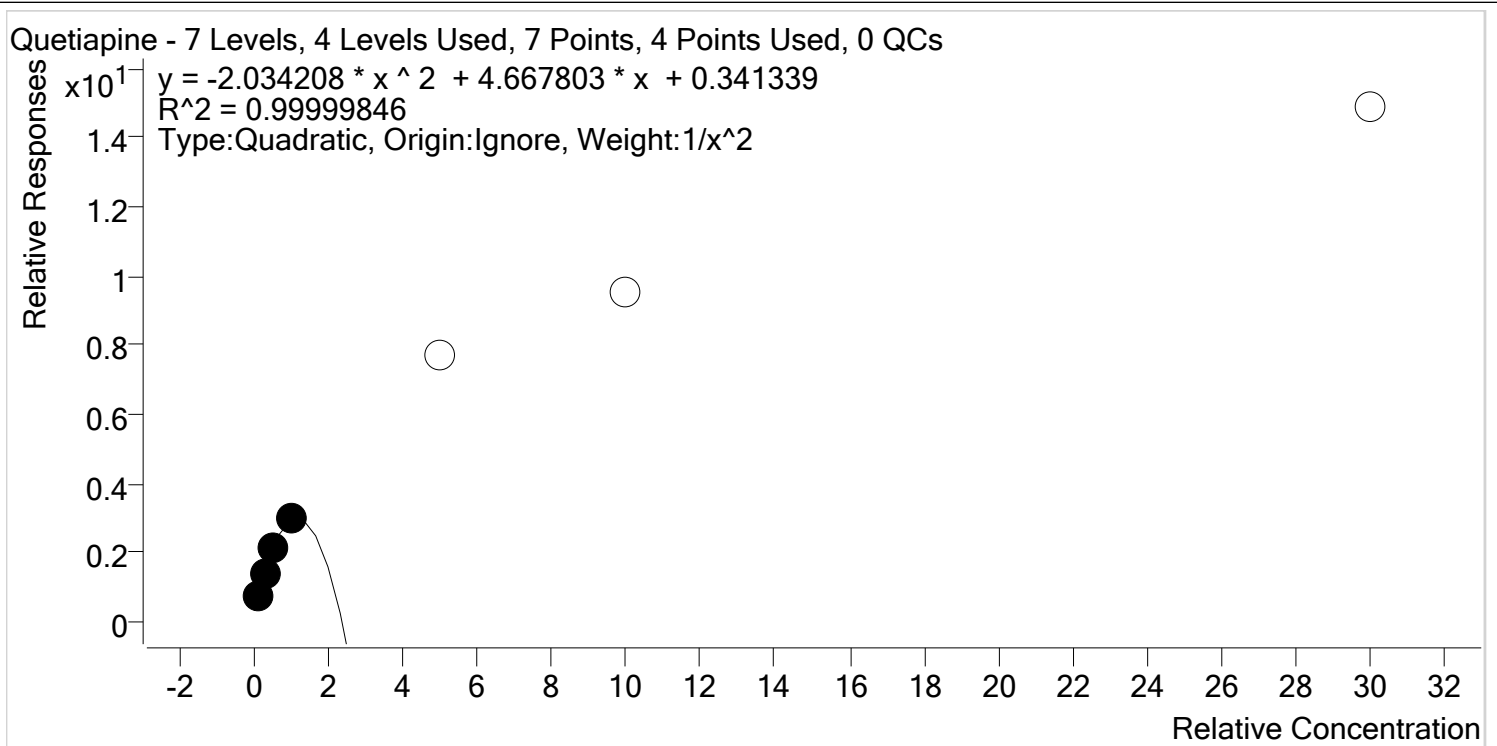


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.3	93.2
Cal 2- 25ng	2	✓	25.0	27.3	109.4
Cal 3 -50ng	3	✓	50.0	54.2	108.5
Cal 4-100ng-reinject2	4	✓	100.0	114.7	114.7
Cal 5-500ng	5	✓	500.0	502.3	100.5
Cal 6-1000ng	6	✓	1000.0	937.0	93.7
Cal 7-3000ng	7	✓	3000.0	2401.9	80.1



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Quetiapine **Internal Standard** Temazepam-D5 ISTD

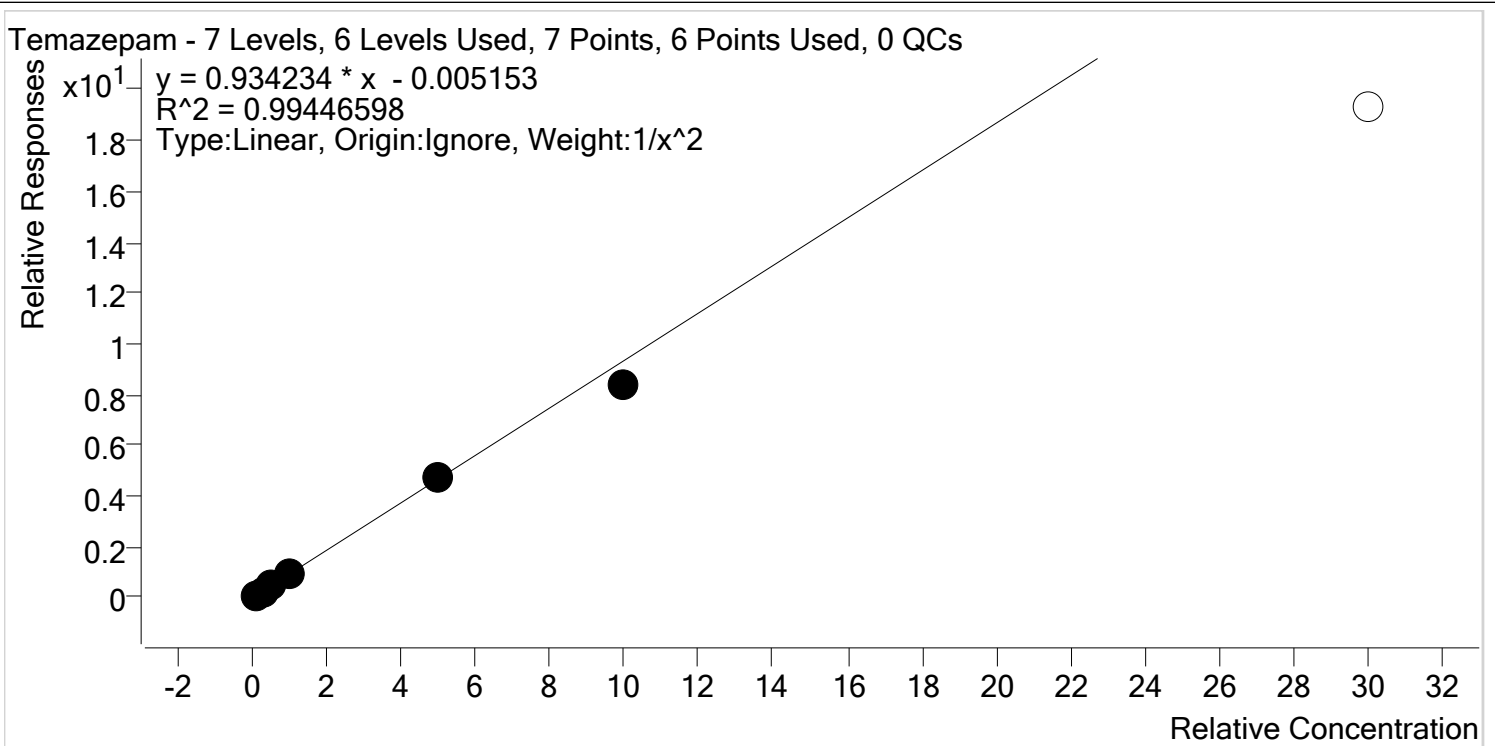


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	10.0	100.0
Cal 2- 25ng	2	✓	25.0	25.0	100.1
Cal 3 -50ng	3	✓	50.0	49.9	99.9
Cal 4-100ng-reinject2	4	✓	100.0	100.2	100.2
Cal 5-500ng	5	x	500.0	ND	
Cal 6-1000ng	6	x	1000.0	ND	
Cal 7-3000ng	7	x	3000.0	ND	



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Temazepam **Internal Standard** Temazepam-D5 ISTD

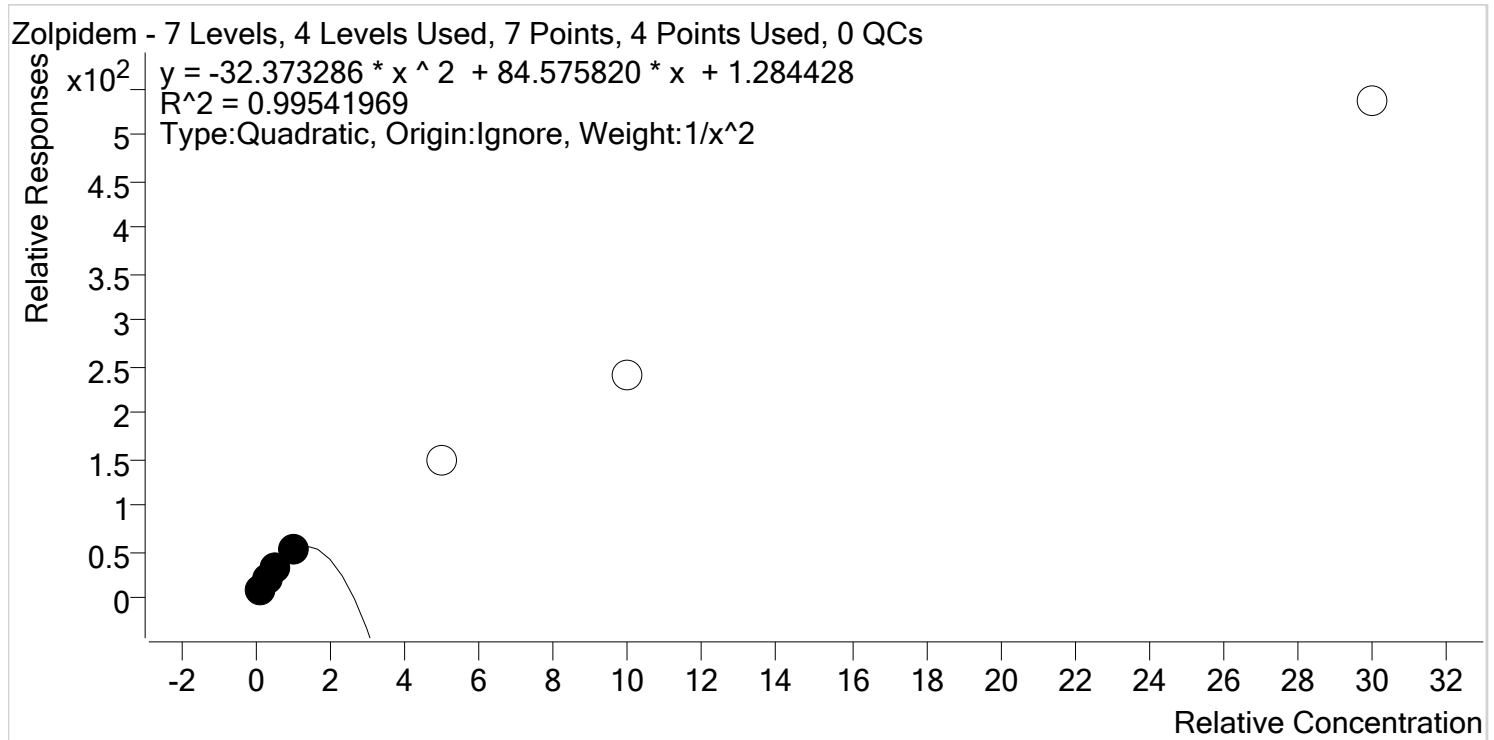


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.7	97.1
Cal 2- 25ng	2	✓	25.0	26.3	105.4
Cal 3 -50ng	3	✓	50.0	50.6	101.1
Cal 4-100ng-reinject2	4	✓	100.0	106.6	106.6
Cal 5-500ng	5	✓	500.0	502.9	100.6
Cal 6-1000ng	6	✓	1000.0	893.1	89.3
Cal 7-3000ng	7	✗	3000.0	2067.0	68.9



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Zolpidem **Internal Standard** Nordiazepam-D5 ISTD

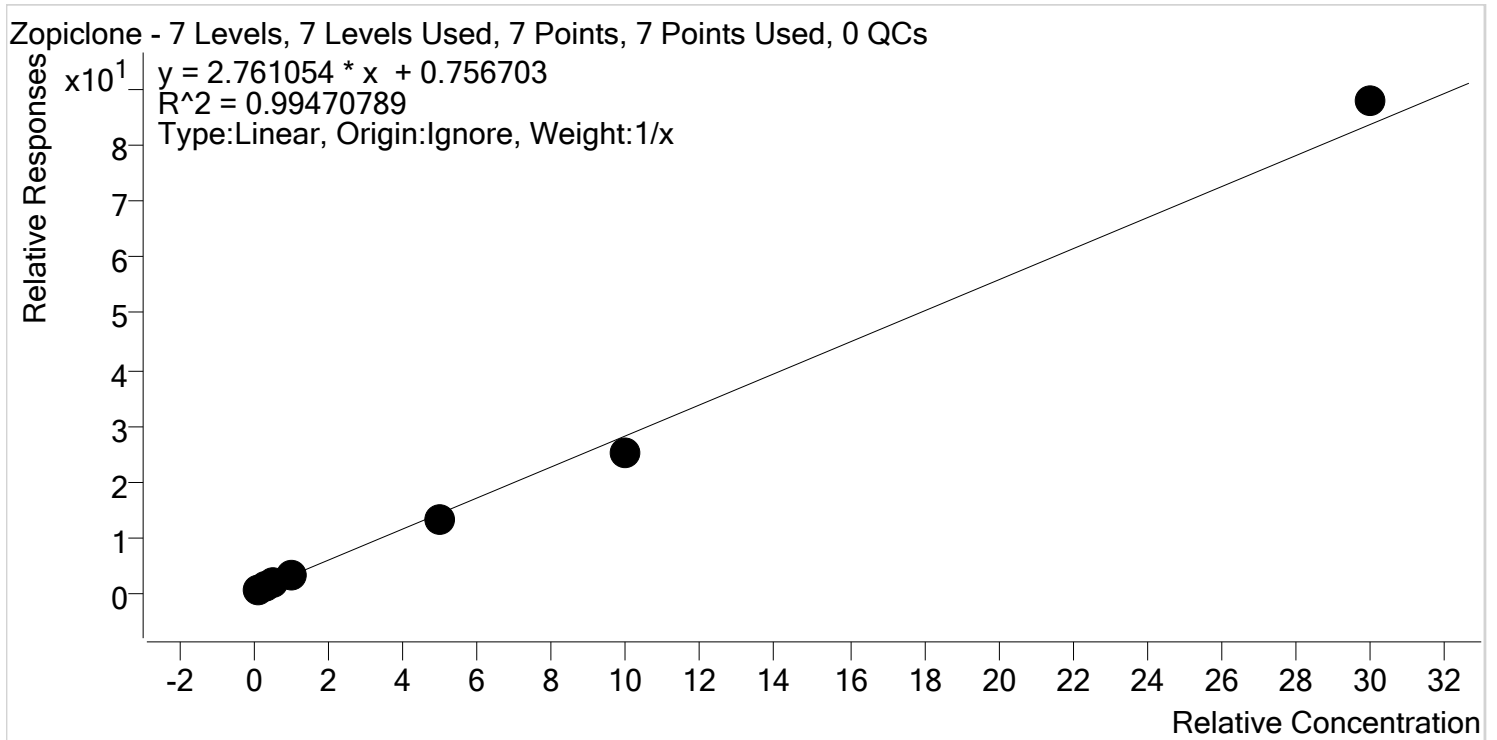


Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	9.9	99.1
Cal 2- 25ng	2	✓	25.0	26.2	104.9
Cal 3 -50ng	3	✓	50.0	46.5	93.0
Cal 4-100ng-reinject2	4	✓	100.0	106.2	106.2
Cal 5-500ng	5	x	500.0	ND	
Cal 6-1000ng	6	x	1000.0	ND	
Cal 7-3000ng	7	x	3000.0	ND	



Compound Calibration Report

Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Last Cal. Update 7/30/2019 9:08 AM
Analyst Name ISP\datastor
Analyte Zopiclone **Internal Standard** Nordiazepam-D5 ISTD



Sample	Level	Enabled	Expected Concentration	Final Concentration	Accuracy
Cal 1-10ng	1	✓	10.0	11.0	110.3
Cal 2- 25ng	2	✓	25.0	26.0	104.0
Cal 3 -50ng	3	✓	50.0	49.6	99.1
Cal 4-100ng-reinject2	4	✓	100.0	100.5	100.5
Cal 5-500ng	5	✓	500.0	462.6	92.5
Cal 6-1000ng	6	✓	1000.0	885.9	88.6
Cal 7-3000ng	7	✓	3000.0	3149.4	105.0

AM #13 Benzodiazepines and Z-Drugs



Batch results

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

Calibration Last Update

7/30/2019 9:08:01 AM

Instrument

Falco

Data File

Negative Control.d

Type

Sample

Sample

Negative Control

Acq. Method

Benzos_Z_Drugs 053019 FINAL-5ul.m

Sample Position

P5-B1

Comment

Worklist 3578

Injection Volume

5

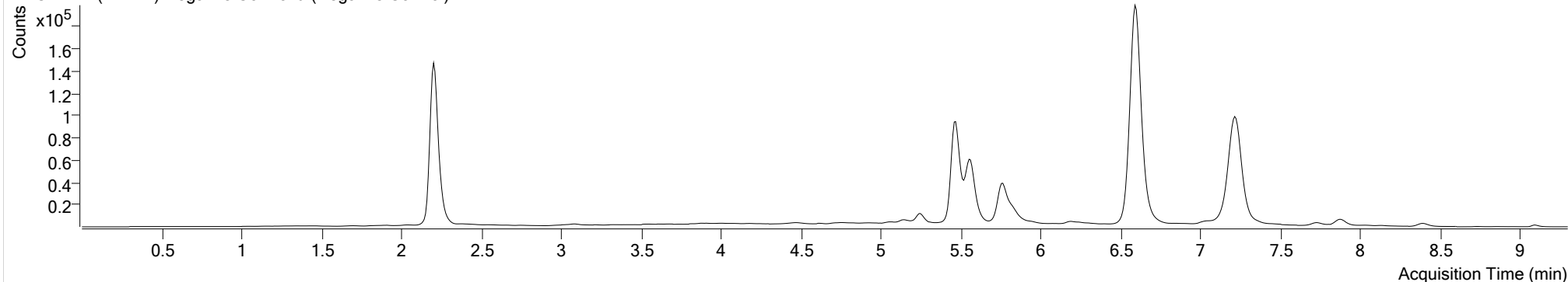
Acq. Date-Time

7/29/2019 4:07:12 PM

Sample Info.

Sample Chromatogram

+ TIC MRM (** -> **) Negative Control.d (Negative Control)



AM #13 Benzodiazepines and Z-Drugs



Batch results

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

Calibration Last Update

7/30/2019 9:46:40 AM

Instrument

Falco

Data File

Positive Control.d

Type

Sample

Sample

Positive Control

Acq. Method

Benzos_Z_Drugs 053019 FINAL-5ul.m

Sample Position

P5-B2

Comment

Worklist 3578

Injection Volume

5

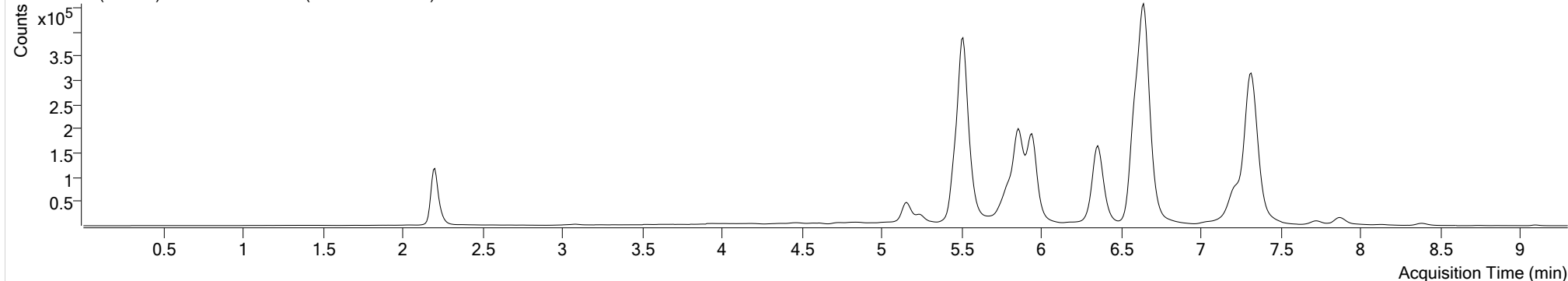
Acq. Date-Time

7/29/2019 4:19:42 PM

Sample Info.

Sample Chromatogram

+ TIC MRM (** -> **) Positive Control.d (Positive Control)



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Alprazolam	5.942	562244	4250.15	33.4	373.25	35570	296.9676 ng/ml
Clonazepam	5.798	136872	2722.91	42.1	2569.82	62327	265.1560 ng/ml
Diazepam	7.318	1324582	∞	37.8	4577.26	250884	356.9526 ng/ml
Flunitrazepam	6.354	531943	3785.85	42.7	4283.46	62327	195.9772 ng/ml
Lorazepam	5.856	200176	2166.61	100.5	4769.17	75224	239.7435 ng/ml
Nitrazepam	5.160	103599	1953.63	51.6	1569.05	62327	303.6367 ng/ml
Oxazepam	5.514	1018259	7617.20	49.1	10962.16	147239	299.3597 ng/ml
Temazepam	6.642	1575333	46591.22	33.4	1794.33	749107	225.6503 ng/ml

AM #13 Benzodiazepines and Z-Drugs

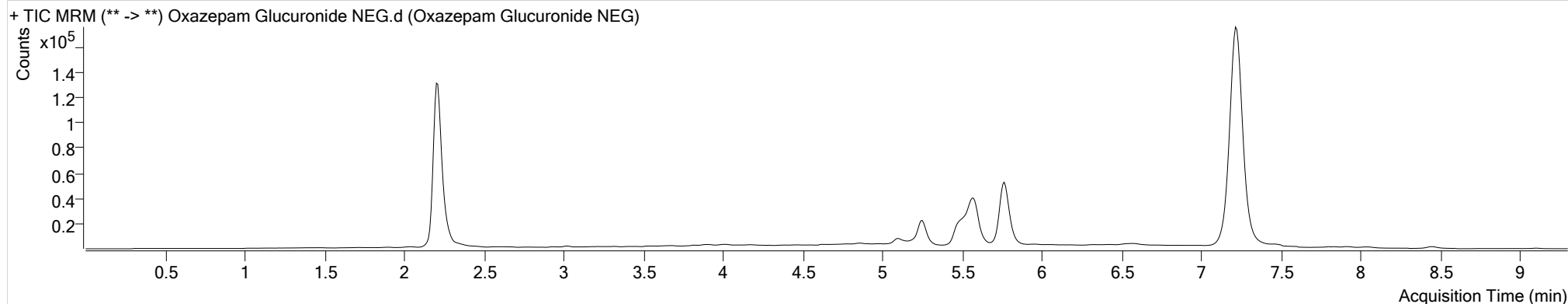


Batch results D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
Calibration Last Update 7/30/2019 9:08:01 AM

Instrument Falco
Type Sample
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A8
Injection Volume 5
Acq. Date-Time 7/29/2019 2:52:10 PM
Sample Info.

Data File Oxazepam Glucuronide NEG.d
Sample Oxazepam Glucuronide NEG
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Oxazepam	5.513	33178	566.17	49.1	209.35	19351	73.6109 ng/ml

AM #13 Benzodiazepines and Z-Drugs

**Batch results**

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

Calibration Last Update

7/30/2019 9:08:01 AM

Instrument

Falco

Data File

Oxazepam Glucuronide POS-reinject.d

Type

Sample

Sample

Oxazepam Glucuronide POS-reinject

Acq. Method

Benzos_Z_Drugs 053019 FINAL-5ul.m

Comment

Worklist 3578

Sample Position

P5-A9

Injection Volume

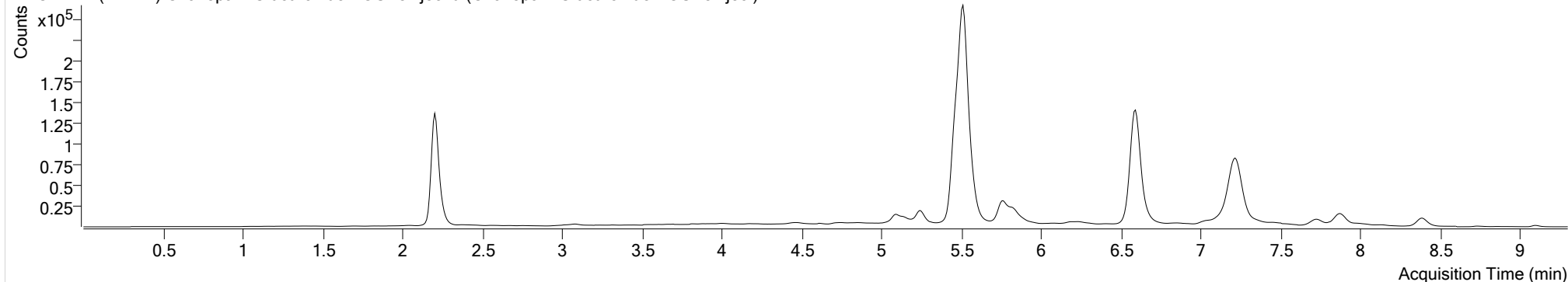
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Acq. Date-Time

7/29/2019 3:54:42 PM

Sample Info.**Sample Chromatogram**

+ TIC MRM (** -> **) Oxazepam Glucuronide POS-reinject.d (Oxazepam Glucuronide POS-reinject)



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Oxazepam	5.514	658419	∞	48.9	44845.46	148509	191.6264 ng/ml

AM #13 Benzodiazepines and Z-Drugs



Batch results

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

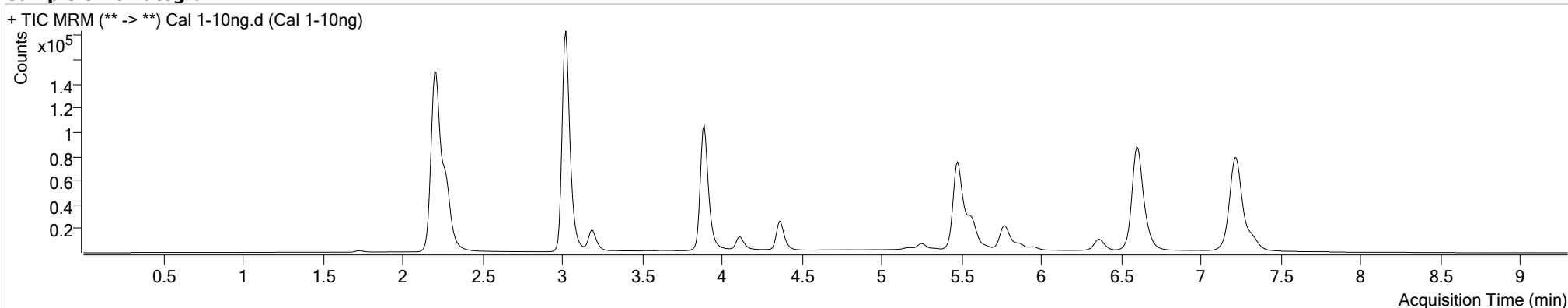
Calibration Last Update

7/30/2019 9:08:01 AM

Instrument Type Falco
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A1
Injection Volume 5
Acq. Date-Time 7/29/2019 12:59:40 PM
Sample Info.

Data File Cal 1-10ng.d
Sample Cal 1-10ng
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Alpha-Hydroxyalprazolam	5.290	1105	17.57	90.0	51.16	21254	7.9781 ng/ml
Alpha-hydroxytriazolam	5.331	2953	61.36	58.8	54.60	50832	9.8013 ng/ml
Alprazolam	5.950	8650	64.57	31.3	63.05	21254	7.9900 ng/ml
Chlordiazepoxide	3.193	45501	2065.13	32.0	829.41	50832	9.3774 ng/ml
Clonazepam	5.806	5083	248.85	38.7	161.48	57823	9.6614 ng/ml
Diazepam	7.326	35466	1087.74	39.8	467.64	245276	9.0327 ng/ml
Flunitrazepam	6.363	28591	618.01	41.2	324.35	57823	7.3644 ng/ml
Flurazepam	4.359	69393	795.23	25.4	1304.82	245276	9.8763 ng/ml
Lorazepam	5.864	5024	259.92	102.7	284.46	50832	9.6657 ng/ml
Midazolam	4.108	30387	1178.32	29.7	575.80	57823	9.9345 ng/ml
Nitrazepam	5.168	3041	150.78	53.4	92.15	57823	9.6936 ng/ml
Nordiazepam	5.658	5445	210.67	58.3	5.00	50832	9.4391 ng/ml
Oxazepam	5.522	22490	447.84	48.4	446.83	96398	9.3207 ng/ml
Quetiapine	3.887	251583	17653.86	50.2	5731.43	319385	9.9985 ng/ml
Temazepam	6.659	27317	704.42	34.2	307.87	319385	9.7068 ng/ml
Zolpidem	3.024	475253	13458.02	37.0	8792.01	50832	9.9120 ng/ml
Zopiclone	2.275	53946	2892.94	61.6	1750.55	50832	11.0311 ng/ml

AM #13 Benzodiazepines and Z-Drugs



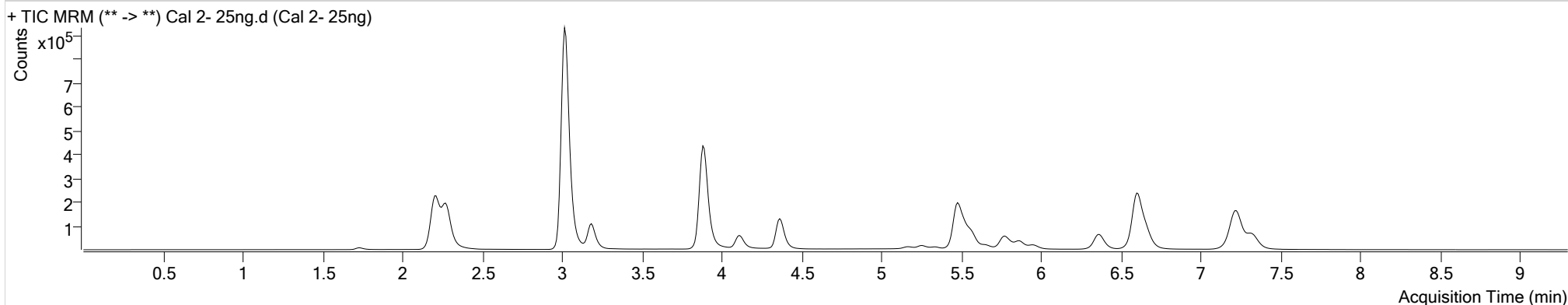
Batch results
Calibration Last Update

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
7/30/2019 9:08:01 AM

Instrument Falco
Type Cal
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A2
Injection Volume 5
Acq. Date-Time 7/29/2019 1:12:10 PM
Sample Info.

Data File Cal 2- 25ng.d
Sample Cal 2- 25ng
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
7-Aminoclonazepam	1.737	20537	969.25	35.3	479.10	841802	7.7707 ng/ml
Alpha-Hydroxyalprazolam	5.290	8326	365.10	74.1	281.40	47000	27.8782 ng/ml
Alpha-hydroxytriazolam	5.339	20025	991.05	56.9	466.10	121015	25.4522 ng/ml
Alprazolam	5.950	68448	1826.50	29.4	873.03	47000	27.6814 ng/ml
Chlordiazepoxide	3.184	277329	7556.57	30.9	4658.73	121015	28.3686 ng/ml
Clonazepam	5.806	32685	1258.37	41.2	700.06	145582	26.2179 ng/ml
Diazepam	7.326	222214	∞	39.6	1301.77	528427	27.7274 ng/ml
Flunitrazepam	6.363	192183	2903.30	42.9	2387.75	145582	26.7328 ng/ml
Flurazepam	4.359	397599	7542.81	25.8	856.73	528427	26.8705 ng/ml
Lorazepam	5.864	34649	789.00	103.6	1772.15	121015	26.5017 ng/ml
Midazolam	4.108	171469	4108.87	29.5	2124.91	145582	25.9110 ng/ml
Nitrazepam	5.168	20513	1337.23	52.8	468.89	145582	25.8211 ng/ml
Nordiazepam	5.658	37671	1706.83	55.4	1042.68	121015	27.5038 ng/ml
Oxazepam	5.522	156998	11534.20	48.9	1441.80	242120	27.3389 ng/ml
Quetiapine	3.879	1156777	122075.29	51.4	37660.81	837068	25.0216 ng/ml
Temazepam	6.659	201700	2991.73	33.7	706.97	837068	26.3438 ng/ml
Zolpidem	3.016	2569113	200520.06	37.3	12886.97	121015	26.2127 ng/ml
Zopiclone	2.283	178418	3905.13	61.7	3925.79	121015	25.9916 ng/ml

AM #13 Benzodiazepines and Z-Drugs



Batch results

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

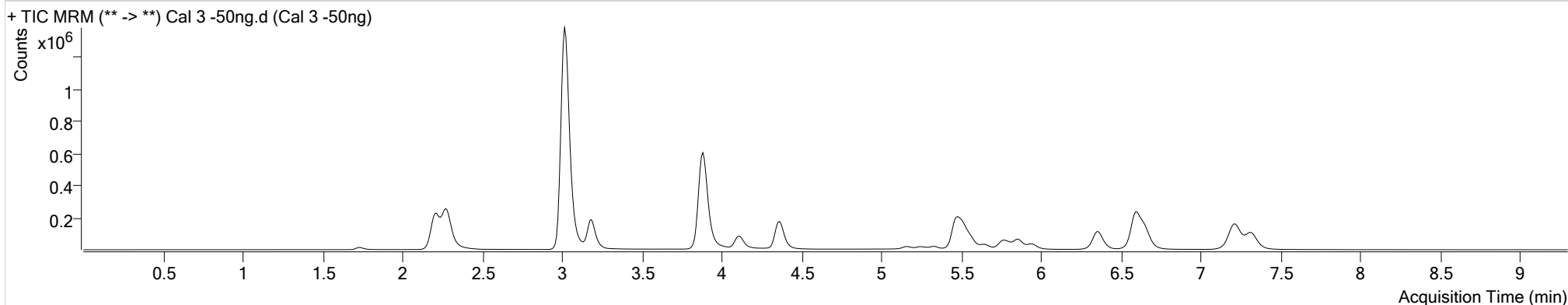
Calibration Last Update

7/30/2019 9:08:01 AM

Instrument Type Falco
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A3
Injection Volume 5
Acq. Date-Time 7/29/2019 1:24:40 PM
Sample Info.

Data File Cal 3 -50ng.d
Sample Cal 3 -50ng
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
7-Aminoclonazepam	1.737	37025	2043.27	35.4	1056.16	820010	44.5487 ng/ml
7-Aminoflunitrazepam	2.274	449837	∞	34.0	3677.36	820010	45.0320 ng/ml
Alpha-Hydroxyalprazolam	5.281	15854	∞	85.8	655.38	51018	49.1247 ng/ml
Alpha-hydroxytriazolam	5.331	39992	1117.28	58.3	1081.06	120249	49.8086 ng/ml
Alprazolam	5.942	131125	1804.76	31.3	193.56	51018	48.5819 ng/ml
Chlordiazepoxide	3.184	485259	9373.05	31.1	4050.97	120249	52.0815 ng/ml
Clonazepam	5.798	59810	2079.61	41.5	1083.86	137925	51.5632 ng/ml
Diazepam	7.318	388661	∞	39.7	3567.45	513446	50.5230 ng/ml
Flunitrazepam	6.354	340808	∞	43.8	3613.03	137925	53.7303 ng/ml
Flurazepam	4.359	565809	5618.60	26.6	192.13	513446	43.6228 ng/ml
Lorazepam	5.856	64540	2379.39	103.3	3244.98	120249	48.9863 ng/ml
Midazolam	4.108	261487	∞	30.3	1320.97	137925	47.3093 ng/ml
Nitrazepam	5.160	39364	1532.85	51.4	907.55	137925	52.2091 ng/ml
Nordiazepam	5.650	70723	2354.60	56.7	1705.94	120249	51.9981 ng/ml
Oxazepam	5.514	296778	15177.29	48.1	3335.27	233974	54.2488 ng/ml
Quetiapine	3.879	1740425	71946.82	50.4	9204.60	803922	49.9328 ng/ml
Temazepam	6.651	375541	5403.55	33.2	2183.22	803922	50.5536 ng/ml
Zolpidem	3.016	4043213	313806.50	37.1	221422.73	120249	46.5210 ng/ml

Cal 3 -50ng

AM #13 Benzodiazepines and Z-Drugs



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
Zopiclone	2.283	255516	19399.05	62.5	21733.16	120249	49.5530 ng/ml

AM #13 Benzodiazepines and Z-Drugs



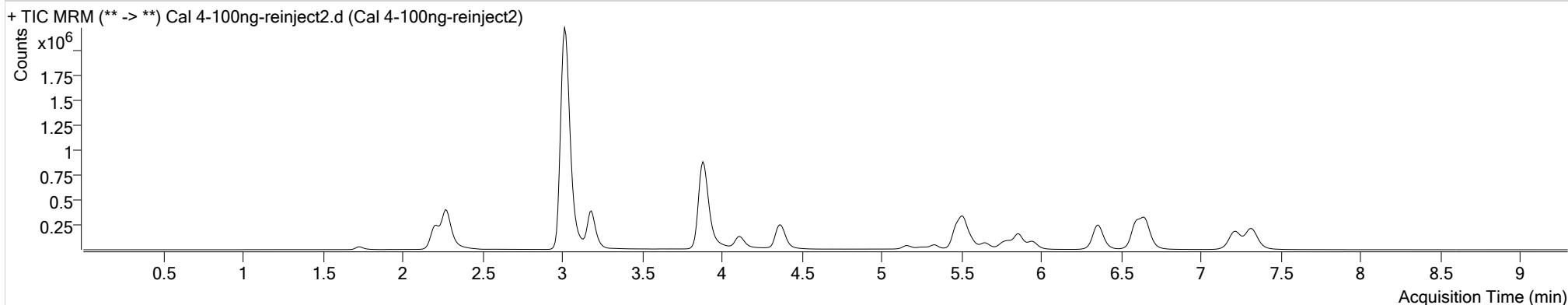
Batch results
Calibration Last Update

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
7/30/2019 9:08:01 AM

Instrument Type Falco
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A4
Injection Volume 5
Acq. Date-Time 7/29/2019 3:42:12 PM
Sample Info.

Data File Cal 4-100ng-reinject2.d
Sample Cal 4-100ng-reinject2
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
7-Aminoclonazepam	1.728	73323	2440.53	36.8	1062.64	845171	118.2700 ng/ml
7-Aminoflunitrazepam	2.274	677590	∞	36.4	1719.79	845171	116.2166 ng/ml
Alpha-Hydroxyalprazolam	5.281	39615	∞	87.7	672.91	56328	111.5440 ng/ml
Alpha-hydroxytriazolam	5.331	100030	6123.40	58.4	∞	130130	113.3747 ng/ml
Alprazolam	5.950	344373	7184.26	32.5	3310.34	56328	115.0768 ng/ml
Chlordiazepoxide	3.184	1011424	12659.58	31.3	11889.43	130130	102.8989 ng/ml
Clonazepam	5.798	139294	5116.70	41.1	1555.92	152208	109.9198 ng/ml
Diazepam	7.318	833848	∞	39.7	4183.92	573678	97.7168 ng/ml
Flunitrazepam	6.354	777942	7308.67	41.9	∞	152208	115.6623 ng/ml
Lorazepam	5.856	166254	7708.36	100.0	6166.79	130130	115.5133 ng/ml
Midazolam	4.108	449072	∞	27.9	626.46	152208	105.9564 ng/ml
Nitrazepam	5.160	91142	1593.79	52.9	1444.76	152208	109.4404 ng/ml
Nordiazepam	5.650	159852	2380.20	56.4	2411.96	130130	108.6458 ng/ml
Oxazepam	5.514	712440	27979.84	48.6	7423.50	267683	114.7134 ng/ml
Quetiapine	3.879	2769376	∞	51.0	24023.21	930575	100.1761 ng/ml
Temazepam	6.651	921633	9850.90	33.2	5938.44	930575	106.5626 ng/ml
Zolpidem	3.016	7103337	∞	36.9	31886.42	130130	106.1651 ng/ml
Zopiclone	2.275	459685	2829.84	60.9	3037.56	130130	100.5341 ng/ml

AM #13 Benzodiazepines and Z-Drugs



Batch results

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

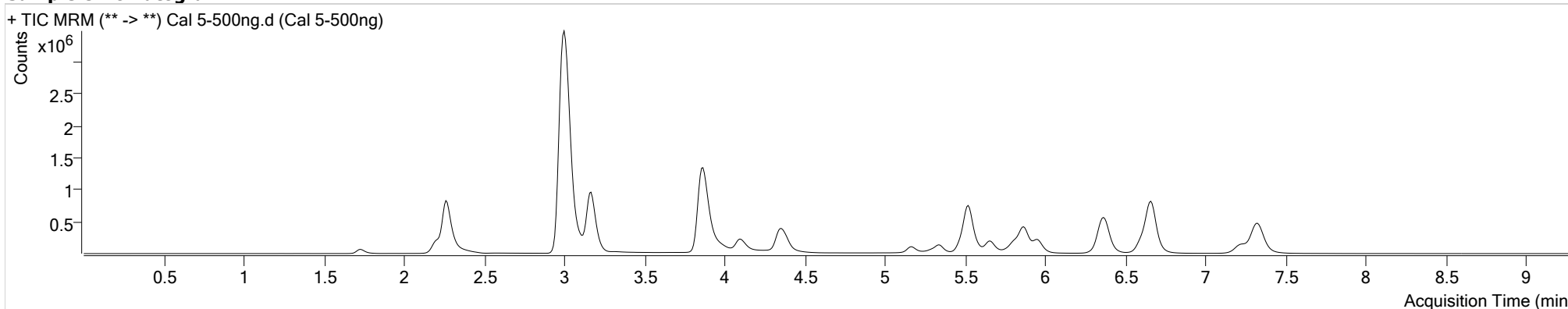
Calibration Last Update

7/30/2019 9:08:01 AM

Instrument Type Falco
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A5
Injection Volume 5
Acq. Date-Time 7/29/2019 1:49:40 PM
Sample Info.

Data File Cal 5-500ng.d
Sample Cal 5-500ng
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
7-Aminoclonazepam	1.728	184741	5721.87	35.2	1949.82	608683	502.3554 ng/ml
7-Aminoflunitrazepam	2.266	1348833	∞	33.7	∞	608683	513.9118 ng/ml
Alpha-Hydroxyalprazolam	5.290	119843	2321.88	87.4	199.37	38043	500.6502 ng/ml
Alpha-hydroxytriazolam	5.339	298604	3080.52	58.0	3250.01	84896	514.0011 ng/ml
Alprazolam	5.950	983898	15282.52	32.2	2077.25	38043	485.6699 ng/ml
Chlordiazepoxide	3.167	2692257	78057.71	30.6	53386.18	84896	428.4490 ng/ml
Clonazepam	5.806	367634	10441.16	41.0	2262.82	92166	482.4336 ng/ml
Diazepam	7.326	2033214	∞	39.5	∞	384568	357.4510 ng/ml
Flunitrazepam	6.363	1908446	∞	43.0	12615.93	92166	481.5102 ng/ml
Lorazepam	5.864	451401	13713.65	101.6	11796.96	84896	478.2407 ng/ml
Nitrazepam	5.168	251314	4902.55	52.6	4220.06	92166	498.0442 ng/ml
Nordiazepam	5.658	483710	3580.29	57.0	5295.31	84896	504.0673 ng/ml
Oxazepam	5.522	2031622	23548.37	48.9	53346.03	175264	502.3183 ng/ml
Temazepam	6.659	2893196	223257.48	33.5	24051.66	616519	502.8665 ng/ml
Zopiclone	2.258	1148504	101203.19	62.1	64605.85	84896	462.5638 ng/ml

AM #13 Benzodiazepines and Z-Drugs



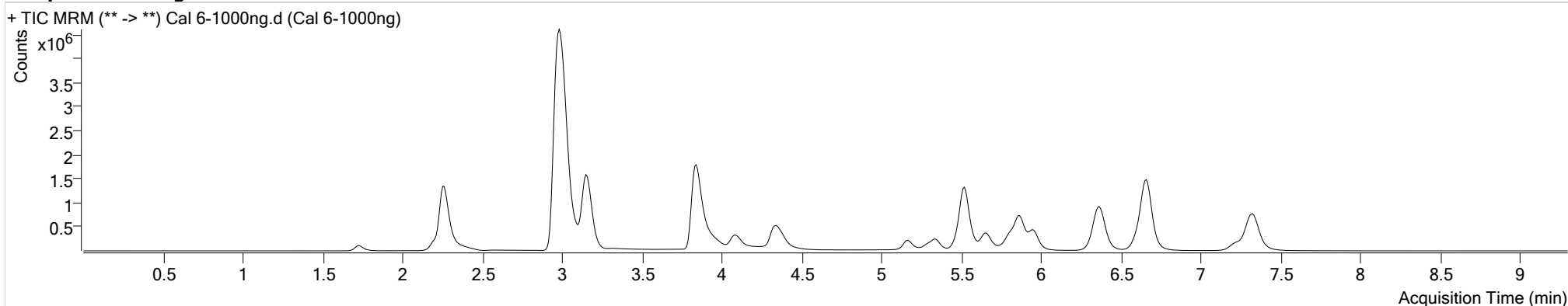
Batch results
Calibration Last Update

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin
7/30/2019 9:08:01 AM

Instrument Type Falco
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A6
Injection Volume 5
Acq. Date-Time 7/29/2019 2:02:10 PM
Sample Info.

Data File Cal 6-1000ng.d
Sample Cal 6-1000ng
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
7-Aminoclonazepam	1.728	314489	6130.40	35.8	3950.23	602148	890.0106 ng/ml
7-Aminoflunitrazepam	2.266	2111068	∞	33.7	∞	602148	876.6372 ng/ml
Alpha-Hydroxyalprazolam	5.290	267644	7171.24	91.4	3706.86	43072	987.8248 ng/ml
Alpha-hydroxytriazolam	5.339	577729	8290.77	56.9	∞	84526	997.5657 ng/ml
Alprazolam	5.950	1170784	∞	32.4	3526.23	43072	510.4220 ng/ml
Chlordiazepoxide	3.151	4679892	118363.84	30.6	18449.92	84526	750.1075 ng/ml
Clonazepam	5.806	710859	7438.44	40.5	9220.41	96714	889.8078 ng/ml
Diazepam	7.326	3505022	∞	39.4	∞	395328	599.9497 ng/ml
Flunitrazepam	6.363	3271050	31603.64	42.7	∞	96714	789.1759 ng/ml
Lorazepam	5.864	829529	30400.23	101.4	15726.67	84526	882.0289 ng/ml
Nitrazepam	5.168	510630	4843.04	52.7	7157.04	96714	964.2795 ng/ml
Nordiazepam	5.658	930076	∞	56.7	∞	84526	973.4952 ng/ml
Oxazepam	5.522	3844409	149162.96	48.6	11542.75	177925	937.0102 ng/ml
Temazepam	6.659	5680352	185973.21	33.5	59256.26	681189	893.1413 ng/ml
Zopiclone	2.250	2131457	59041.39	62.1	64504.70	84526	885.8864 ng/ml

AM #13 Benzodiazepines and Z-Drugs



Batch results

D:\MassHunter\Data\2019\AM 13\AM 13 worklist 3578 CS\QuantResults\am 13 worklist 3578.batch.bin

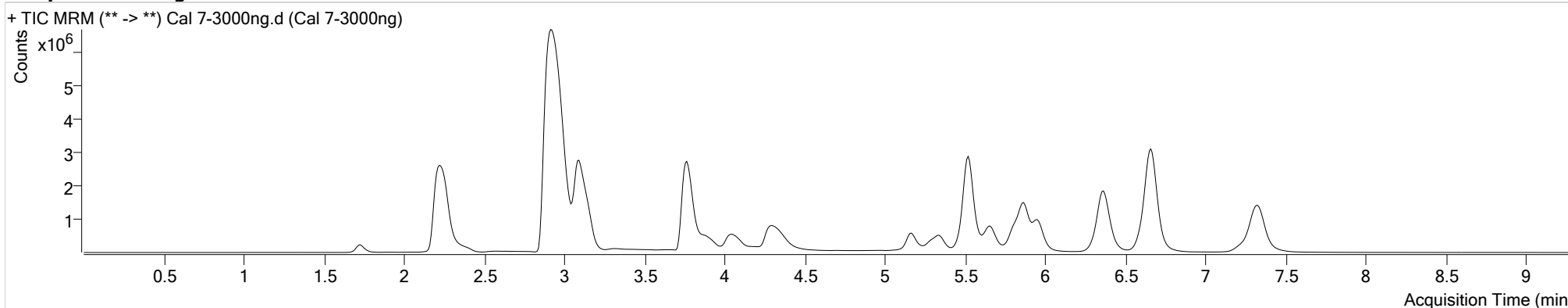
Calibration Last Update

7/30/2019 9:08:01 AM

Instrument Type Falco
Acq. Method Benzos_Z_Drugs 053019 FINAL-5ul.m
Sample Position P5-A7
Injection Volume 5
Acq. Date-Time 7/29/2019 2:14:40 PM
Sample Info.

Data File Cal 7-3000ng.d
Sample Cal 7-3000ng
Comment Worklist 3578

Sample Chromatogram



Name	RT	Resp.	S/N	Ratio	S/N	ISTD Resp.	Final Conc.
7-Aminoclonazepam	1.728	642609	29532.51	35.8	2984.57	363768	3094.8154 ng/ml
7-Aminoflunitrazepam	2.257	4149190	∞	34.3	∞	363768	3098.2024 ng/ml
Alpha-Hydroxyalprazolam	5.281	551773	∞	94.9	∞	51986	1687.5164 ng/ml
Alpha-hydroxytriazolam	5.339	1290088	∞	57.8	5822.06	74103	2538.8788 ng/ml
Alprazolam	5.950	2812031	∞	33.0	230.32	51986	1015.3979 ng/ml
Chlordiazepoxide	3.092	10045564	1999775.20	30.2	95636.68	74103	1840.6715 ng/ml
Clonazepam	5.806	1608944	4249.87	41.1	5237.85	88201	2209.8305 ng/ml
Diazepam	7.326	7104930	∞	39.3	∞	377719	1273.6934 ng/ml
Flunitrazepam	6.363	6868689	20818.54	42.7	6498.35	88201	1822.6073 ng/ml
Lorazepam	5.864	1775584	6985.10	101.4	9478.87	74103	2152.3879 ng/ml
Nitrazepam	5.168	1302321	38606.03	52.0	7409.57	88201	2696.5300 ng/ml
Nordiazepam	5.658	2130472	∞	56.6	∞	74103	2543.6644 ng/ml
Oxazepam	5.522	9004602	690779.27	48.6	21555.20	162667	2401.8516 ng/ml
Temazepam	6.659	13265256	226326.94	33.5	∞	687130	2066.9828 ng/ml
Zopiclone	2.208	6499871	280015.46	62.5	189081.93	74103	3149.4400 ng/ml