



Urine Drug Analysis Test No. 17-5671 Summary Report

A sample set contained three cases with individual scenarios, each comprised of one specimen bottle of human urine. Participants were requested to examine these items and report their findings. Data were returned from 93 participants and are compiled into the following tables:

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This report contains the data received from the participants in this test. Since these participants are located in many countries around the world, and it is their option how the samples are to be used (e.g., training exercise, known or blind proficiency testing, research and development of new techniques, etc.), the results compiled in the Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such. The Summary Comments are included for the benefit of participants to assist with maintaining or enhancing the quality of their results. These comments are not intended to reflect the general state of the art within the profession.

Participant results are reported using a randomly assigned "WebCode". This code maintains participant's anonymity, provides linking of the various report sections, and will change with every report.

Manufacturer's Information

The sample sets contained urine samples from three cases, each with an individual case scenario. Each case sample consisted of one specimen bottle containing 50mL of human urine. Participants were requested to analyze the urine samples and report the presence of any drugs/metabolites, any quantitative data obtained (including uncertainty), and the methods used.

SAMPLE PREPARATION: The urine used in this test was from the same lot, which tested negative for a variety of common drugs and controlled substances. A stock solution of each drug was used to spike each item. Items were prepared at separate times with different glassware using the following procedure.

ITEMS 1, 2, and 3 (PREPARATION): Sample preparation consisted of adding a predetermined amount of drug stock solution to a beaker containing human urine, where the equivalent of 2% w/v sodium fluoride was added and then stirred. A 50mL aliquot of the mixture was then transferred into each of the pre-labeled specimen bottles. All bottles were stored in a refrigerator immediately after production and remained there until the sample sets were prepared.

SAMPLE SET ASSEMBLY: A sample set was created by packing Items 1, 2, and 3 together. Each sample set was placed into a Department of Transportation regulated shipping container and returned to the refrigerator until shipment.

VERIFICATION: All three of the laboratories that conducted predistribution analysis of the samples indicated the presence of the expected drugs and/or a minimum of one expected metabolite per drug.

Item 1 Drug (Concentration)

Morphine (2500 ng/mL)
Hydromorphone (75 ng/mL)
7-aminoclonazepam (95 ng/mL)

Item 2 Drug (Concentration)

Methamphetamine (3000 ng/mL)
Amphetamine (390 ng/mL)

Item 3 Drug (Concentration)

Ketamine (250 ng/mL)
Norketamine (625 ng/mL)

Please note that the Preparation Value is the value used for calculations during the test preparation phase and may not necessarily represent the final concentration of the samples. It is advised to wait for the Grand Mean statistics available in the Summary and Individual Reports before evaluating performance.

Summary Comments

This test was designed to allow participants to assess their proficiency in the examination for the presence and concentration of drugs and/or metabolites in urine. Each participant was supplied with one specimen bottle containing 50mL of human urine spiked with differing drugs and/or metabolites for each of three case scenarios. Participants were asked to report the presence of any drugs/metabolites, any quantitative data obtained (including uncertainty), and methods used. (Refer to the Manufacturer's Information for preparation details.)

Of the 88 participants who reported screening results for Item 1, 86 (97.7%) reported the presence of opiates, morphine, and/or hydromorphone. Seven participants reported the presence of benzodiazepines and/or 7-aminoclonazepam. All 82 of the participants who reported confirmatory results for Item 1 reported the presence of morphine. The presence of hydromorphone was reported by 44 (53.7%) participants and the presence of 7-aminoclonazepam was reported by 11 (13.4%) participants.

Of the 90 participants who reported screening results for Item 2, 86 (95.6%) reported the presence of methamphetamine and/or amphetamine. All 87 participants who reported confirmatory results for Item 2 reported the presence of methamphetamine. The presence of amphetamine was also reported by 83 (95.4%) participants.

Of the 87 participants who reported screening results for Item 3, 50 (57.5%) reported "no drugs/metabolites detected" and 35 (40.2%) participants reported the presence of ketamine and/or norketamine. Of the 75 participants who reported confirmatory results for Item 3, 73 (97.3%) reported the presence of Ketamine. The presence of norketamine was also reported by 35 (46.7%) participants. Since immunoassays for ketamine are typically not used as often, this may explain the large number of participants who reported that they did not detect any drugs/metabolites as a result of screening testing. A majority of the participants that moved forward with further testing confirmed the presence of ketamine. Some laboratory protocols require further testing after negative screening results, depending on the type of case. The scenario for this item, a suspected drug facilitated sexual assault, may explain the large number of participants who moved forward with further testing and were ultimately able to identify ketamine.

For all three Items, immunoassay was the most common screening method and GC/MS was the most common confirmatory method utilized to analyze the samples.

If a participant indicated that the confirmatory quantitative result was a single determination and it was reported in ng/mL, the conclusive quantitative result was included in the raw data table. Due to the small number of participants who reported quantitative information, no grand mean statistics were calculated or determinations regarding "extreme" data made for any of the analytes in the three items.

Screening Results - Item 1

TABLE 1A Item 1

Item Scenario:

Case 1: A 76-year-old female has agreed to submit to regular monitoring of her pain management for severe chronic pain due to rheumatoid arthritis. A urine sample has been submitted for analysis.

Item Contents and Preparation Concentration: Morphine (2500 ng/mL)
Hydromorphone (75 ng/mL)
7-aminoclonazepam (95 ng/mL)

Webcode	Screening Results
2CRT9C	Common opioids class
2JL3EZ	Morphine (MOP)
2LBAYX	Opiates
2NGRZE	morphine, hydromorphone
39JZRH	MORPHINE, HYDROMORPHONE, 7-AMINOCLONAZEPAM
3DRM4Y	Opiates (Morphine)
3XL4NV	Opiates - morphine, hydromorphone
3ZPWLZ	Morphine, 7-amino-clonazepam
4RRLQV	Morphine
4T4HWZ	Opiates
6MFV4F	Drug Class - Opiates
6TKW2N	opioids
7322NE	Opiates
7G77WR	Morphine, Hydromorphone
7HF4AA	Common Opioids
87GTCL	opioids
8LAPCW	Opiates
8Q79EU	[Participant reported that drugs were detected, but did not report the drug class or name]
9HPTN7	Opiates
AJFKRM	Opiates
AXFE6H	Opiates
AYTUWX	OPIATE
B8Y9W6	Opioids
BH2CJM	Morphine
BL2PZK	Opiates
C2AXKL	OPIATES / OPIOIDS
C4FJ8L	Morphine
CTC78K	Opiates

TABLE 1A Item 1

Webcode	Screening Results
D4VYZT	Opiates
DBX9A8	Opiates
DKFQZT	Opiates
DNLBRY	opiates, morphine, hydromorphone
DZC3C3	Opiates (morphine, hydromorphone)
EHNDDR	Opiates
EKDKXP	In the screening done to the urine sample the presence of opiates was detected.
F3QJKX	Opiates/Morphine
F6JCFG	Opiates
F9D7DH	opiates
FKUY2R	EMIT Screen: positive for opiate; GC/MS possible: Flucanazole, 7-Aminoclonazepam, Morphine
FQW3RQ	opiate
G6X2EM	Opiates
G84JF4	Opiates
GME3AP	opiates
H8WUNC	Opiates
HDZXFV	Opiates
J23EEV	opioids
JEB3PD	Opiates and Opiods
JHWPJL	Opiates
JM4DY9	opiates (class)
JQ6GPB	Opiate-drug class
KPPG6L	Opiates
KVEXGB	opiates
L2EVL	common opioids
MJFWYR	Opioid EIA was indicative
MLG3CC	Morphine
MXMXU	opioids
MZMUHQ	Morphine, Hydromorphone
NQDW68	Hydromorphone and Morphine
P3ZHTD	MORPHINE
P87BH3	Opiates
PAEJRM	opioids
PEWJAN	Opiate drug class, 7-amino-clonazepam

TABLE 1A Item 1

Webcode	Screening Results
PUMNDB	Opiates
Q944V2	benzodiazepines and opiates, Morphine and Hydromorphone
QGRW6C	opiate
QJJVF6	The specimen screened positive for Opiates.
RJXHTC	opiates
RNBF3K	opiates
UFQ7L2	Opiates
UJDHQY	Opiates
UYMCE3	Opiates
V7JL37	Opiates
VJLAWL	opioids
VQ839K	opioids
VQM73C	Opiates;Morphine
VTW9TG	opioids
VX6W7J	Common opioids
WNTZW7	[Participant reported that drugs were detected, but did not report the drug class or name]
WUHG9W	Opiate
XGR3QE	OPIOIDS
XNTGAV	Opiates
XWH8U2	Opiates class positive
Y9WMDU	opiate class
YEGMT8	Opiates, Steroids, Fluconazole, 7-Aminoclonazepam
YEHFQF	Opiates (morphine and hydromorphone)
YG9JJM	Drug Class - Opiates
YV7VQ6	Morphine, Hydromorphone, 7-Aminoclonazepam
ZBE47Y	morphine, hydromorphone

Response Summary for Item 1	Participants: 88
Opiates, morphine and/or hydromorphone:	86
Benzodiazepines and/or 7-aminoclonazepam:	7
Other:	3
<p>Totals may add up to more than the total number of participants because participants can report multiple classes/drug names.</p>	

Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?

TABLE 1B Item 1

Item Scenario:

Case 1: A 76-year-old female has agreed to submit to regular monitoring of her pain management for severe chronic pain due to rheumatoid arthritis. A urine sample has been submitted for analysis.

Item Contents and Preparation Concentration: Morphine (2500 ng/mL)
Hydromorphone (75 ng/mL)
7-aminoclonazepam (95 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
2CRT9C	morphine	✓			
	hydromorphone	✓			
2JL3EZ	Morphine	✓			
2LBAYX	Morphine		2.4		ug/mL
2NGRZE	morphine	✓			
	hydromorphone	✓			
39JZRH	MORPHINE		2000	20%	ug/L
	HYDROMORPHONE	✓			
	7-AMINOCLONAZEPAM		55	20%	ug/L
3XL4NV	Morphine	✓			
	Hydromorphone	✓			
3ZPWLZ	Morphine	✓			
	7- aminoclonazepam	✓			
4RRLQV	Morphine	✓			
4T4HWZ	Morphine	✓			
6TKW2N	morphine	✓			
	hydromorphone	✓			
7G77WR	Morphine	✓			
	Hydromorphone	✓			
7HF4AA	Morphine	✓			
	Hydromorphone	✓			
87GTCL	morphine	✓			
	hydromorphone	✓			
8LAPCW	Morphine	✓			
8Q79EU	Morphin				
9EREYV	Morphine	✓			
9HPTN7	Morphine		2.32	± 0.40	µg/mL
AXFE6H	Morphine	✓			

TABLE 1B Item 1

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
AYTUWX	MORPHINE	✓			
	7-AMINOCLONAZEPAM	✓			
B8Y9W6	Morphine	✓			
	Hydromorphone	✓			
BFC6YQ	Morphine		1989.6		ng/ml
	Hydromorphone		94.5		ng/ml
	7-aminoclonazepam		34.4		ng/ml
BH2CJM	Morphine	✓			
BL2PZK	morphine	✓			
	hydromorphone	✓			
C2AXKL	MORPHINE	✓			
	HIDROMORPHONE	✓			
C4FJ8L	Morphine	✓			
CTC78K	Morphine	✓			
DKFQZT	Morphine	✓			
	Hydromorphone	✓			
DNLBRY	morphine	✓			
	hydromorphone				
DZC3C3	Morphine	✓			
	Hydromorphone	✓			
EHNDDR	Morphine	✓			
	Hydromorphone	✓			
EKDKXP	Morphine	✓			
F3QJKX	Morphine		2.22 µg/mL	± 0.39	µg/mL
F6JCFG	Morphine	✓			
F9D7DH	morphine	✓			
FKUY2R	Morphine	✓			
	7-Aminoclonazepam	✓			
FQW3RQ	morphine	✓			
G6X2EM	Morphine		2202		ng/ml
	7-aminoclonazepam	✓			
GME3AP	morphine	✓			
H8WUNC	Morphine	✓			
	Hydromorphone	✓			
HDZXFV	Morphine	✓			

TABLE 1B Item 1

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
J23EEV	morphine	✓			
	hydromorphone	✓			
JEB3PD	morphine	✓			
JHWPJL	Morphine	✓			
JM4DY9	morphine	✓			
JQ6GPB	Morphine	✓			
	Hydromorphone	✓			
KPPG6L	Morphine	✓			
	Hydromorphone	✓			
	6-Monoacetylmorphine	✓			
KVEXGB	morphine	✓			
	hydromorphone	✓			
L2EVL	morphine	✓			
	hydromorphone	✓			
MJFWYR	morphine	✓			
	hydromorphone	✓			
MLG3CC	Morphine	✓			
MR8HZJ	Morphine	✓			
	Hydromorphone	✓			
MXXMXU	morphine	✓			
	hydromorphone	✓			
MZMUHQ	Morphine	✓			
	Hydromorphone	✓			
NQDW68	Morphine		2334	467	ng/mL
	Hydromorphone		72	14	ng/mL
P3ZHTD	MORPHINE	✓			
P87BH3	Morphine, Free	✓			
	Hydromorphone, Free	✓			
PAEJRM	morphine	✓			
	hydromorphone	✓			
PEWJAN	Morphine	✓			
	Hydromorphone	✓			
	7-amino-clonazepam	✓			
PUMNDB	Morphine	✓			

TABLE 1B Item 1

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
Q944V2	morphine	✓			
	hydromorphone	✓			
	7-aminoclonazepam	✓			
	codeine	✓			
QGRW6C	morphine	✓			
RJXHTC	morphine	✓			
	hydromorphone	✓			
RNBF3K	morphine	✓			
	hydromorphone	✓			
UFQ7L2	Morphine	✓			
UJDHQY	morphine	✓			
UYMCE3	Morphine	✓			
	Hydromorphone	✓			
V7JL37	Morphine	✓			
VJLAWL	morphine	✓			
	hydromorphone	✓			
VQ839K	morphine	✓			
	hydromorphone	✓			
VQM73C	Morphine	✓			
	Hydromorphone	✓			
VTW9TG	morphine	✓			
	hydromorphone	✓			
VX6W7J	morphine	✓			
	hydromorphone	✓			
WNTZW7	Morphine	✓			
WUHG9W	Morphine	✓			
XGR3QE	MORPHINE	✓			
	HYDROMORPHONE	✓			
XNTGAV	Morphine	✓			
XWH8U2	Morphine	✓			
	Hydromorphone	✓			
	7-aminoclonazepam	✓			
Y9WMDU	morphine	✓			
YEGMT8	Morphine	✓			
	7-Aminoclonazepam	✓			
YEHFQF	morphine	✓			
	hydromorphone	✓			

TABLE 1B Item 1

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
YV7VQ6	Morphine	✓			
	Hydromorphone	✓			
	7-Aminoclonazepam	✓			
ZBE47Y	morphine	✓			
	hydromorphone	✓			

Response Summary for Item 1	Participants: 82
Morphine:	82
Hydromorphone:	44
7-aminoclonazepam:	11
Other:	2
Totals may add up to more than the total number of participants because participants can report multiple drugs/metabolites.	

Raw Data - Item 1

List of raw data determinations in ng/mL.

TABLE 1C Item 1

Item 1 Raw Data - Morphine
Preparation concentration: (2500 ng/mL)

Webcode	Raw Data (ng/mL)	
2LBAYX	2,457.1	2,459.7
39JZRH	2,075.0	1,962.0
BFC6YQ	1,989.6	
F3QJKX	2,223.0	
F6JCFG	2,550.0	
G6X2EM	2,252.1	2,152.4
H8WUNC	2,137.0	
NQDW68	2,334.0	

Statistical Analysis for Item 1 - Morphine

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 1C Item 1
Item 1 Raw Data - Hydromorphone
Preparation concentration: (75 ng/mL)

Webcode	Raw Data (ng/mL)
BFC6YQ	94.50
H8WUNC	79.00
NQDW68	72.00

Statistical Analysis for Item 1 - Hydromorphone

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 1C Item 1
Item 1 Raw Data - 7-aminoclonazepam
Preparation concentration: (95 ng/mL)

Webcode	Raw Data (ng/mL)	
39JZRH	55.38	54.67
BFC6YQ	34.40	

Statistical Analysis for Item 1 - 7-aminoclonazepam

Please note statistical analysis has not been provided due to the low number of raw data responses.

Reporting Procedures - Item 1

If quantitative analysis was performed, the reported concentrations are:

TABLE 1D Item 1

Webcode	Quantitative Reporting Procedures
2LBAYX	A single determination.
39JZRH	The mean of duplicate/several determinations.
8Q79EU	A single determination.
9HPTN7	A single determination.
BFC6YQ	A single determination.
F3QJKX	A single determination.
F6JCFG	A single determination.
G6X2EM	The mean of duplicate/several determinations.
NQDW68	A single determination.

Response Summary for Item 1	Participants: 9
A single determination:	7 (77.8%)
The mean of duplicate/several determinations:	2 (22.2%)

Methods of Analysis - Item 1

TABLE 1E Item 1

Webcode	Method	Screening	Confirmatory	Quantitation
2CRT9C	Immunoassay GC/MS	✓	✓	
2JL3EZ	Immunoassay GC/MS	✓	✓	
2LBAYX	Immunoassay GC/MS	✓	✓	
2NGRZE	Immunoassay GC/MS	✓ ✓	✓	
39JZRH	Immunoassay GC/MS LC/MS/MS LCMS-QTOF	✓ ✓ ✓	✓	✓
3DRM4Y	Immunoassay	✓		
3XL4NV	Immunoassay GC/MS LC/MS/MS	✓ ✓ ✓	✓	
3ZPWLZ	GC/MS LC/MS/MS	✓ ✓	✓ ✓	
4RRLQV	Immunoassay LC/MS/MS	✓	✓	
4T4HWZ	Immunoassay GC/MS	✓	✓	
6MFV4F	Immunoassay	✓		
6TKW2N	Immunoassay GC/MS	✓	✓	
7322NE	Immunoassay	✓		
7G77WR	Immunoassay GC/MS LC/MS/MS	✓ ✓ ✓	✓	
7HF4AA	Immunoassay GC/MS	✓	✓	
87GTCL	Immunoassay GC/MS	✓	✓	
8LAPCW	LC/MS LC/MS/MS	✓	✓	
8Q79EU	GC/MS GC/MS/MS Kit		✓	
9EREYV	GC/MS		✓	
9HPTN7	Immunoassay GC/MS	✓	✓	✓
AJFKRM	Immunoassay	✓		
AXFE6H	Immunoassay GC/MS	✓	✓	

TABLE 1E Item 1

Webcode	Method	Screening	Confirmatory	Quantitation
AYTUWX	Immunoassay GC/MS	✓ ✓	✓	
B8Y9W6	Immunoassay GC/MS	✓ ✓	✓	
BFC6YQ	Immunoassay GC/MS LC/MS	✓ ✓ ✓	✓ ✓	✓
BH2CJM	Immunoassay LC/MS/MS	✓	✓	
BL2PZK	Immunoassay GC/MS	✓	✓	
C2AXKL	Immunoassay GC/MS LC/MS/MS	✓	✓ ✓	
C4FJ8L	Immunoassay GC/MS	✓	✓	
CTC78K	Immunoassay GC/MS	✓	✓	
D4VYZT	Immunoassay	✓		
DBX9A8	Immunoassay	✓		
DKFQZT	Immunoassay GC/MS	✓ ✓	✓	
DNLBRY	Immunoassay GC/MS	✓	✓	
DZC3C3	Immunoassay GC/MS	✓	✓	
EHNDDR	Immunoassay GC/MS	✓ ✓	✓	
EKDKXP	GC/MS Multidrug test	✓	✓	
F3QJKX	Immunoassay GC/MS	✓	✓	
F6JCFG	Immunoassay GC/MS	✓	✓	✓
F9D7DH	Immunoassay GC/MS	✓	✓	
FKUY2R	Immunoassay GC/MS	✓ ✓	✓	
FQW3RQ	Immunoassay GC/MS	✓	✓	
G6X2EM	Immunoassay GC/MS LC/MS/MS	✓	✓ ✓	✓
G84JF4	Immunoassay	✓		

TABLE 1E Item 1

Webcode	Method	Screening	Confirmatory	Quantitation
GME3AP	Immunoassay GC/MS	✓	✓	
H8WUNC	Immunoassay LC/MS/MS	✓	✓	
HDZXFV	Immunoassay GC/MS	✓	✓	
J23EEV	Immunoassay GC/MS	✓	✓	
JEB3PD	Immunoassay GC/MS	✓	✓	
JHWPJL	Immunoassay GC/MS	✓	✓	
JM4DY9	Immunoassay GC/MS	✓	✓	
JQ6GPB	Immunoassay GC/MS	✓	✓	
KPPG6L	Immunoassay GC/MS	✓	✓	
KVEXGB	Immunoassay GC/MS	✓	✓	
L2EVLТ	Immunoassay GC/MS	✓ ✓	✓	
MJFWYR	Immunoassay GC/MS	✓	✓	
MLG3CC	Immunoassay LC/MS/MS	✓	✓	
MR8HZJ	GC/MS		✓	
MXXMXU	Immunoassay GC/MS	✓ ✓	✓	
MZMUHQ	Immunoassay GC/MS	✓	✓	
NQDW68	Immunoassay LC/MS/MS	✓	✓	✓
P3ZHTD	LC/MS LC/MS/MS	✓	✓	
P87BH3	Immunoassay GC/MS	✓ ✓	✓	
PAEJRM	Immunoassay GC/MS	✓	✓	
PEWJAN	Immunoassay GC/MS	✓ ✓	✓	
PUMNDB	Immunoassay GC/MS	✓ ✓	✓	

TABLE 1E Item 1

Webcode	Method	Screening	Confirmatory	Quantitation
Q944V2	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS		✓	
QGRW6C	Immunoassay	✓		
	GC/MS		✓	
RJXHTC	Immunoassay	✓		
	GC/MS		✓	
RNBF3K	Immunoassay	✓		
	GC/MS		✓	
UFQ7L2	Immunoassay	✓		
	GC/MS		✓	
UJDHQY	Immunoassay	✓		
	GC/MS		✓	
UYMCE3	Immunoassay	✓		
	GC/MS		✓	
V7JL37	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	
VJLAWL	Immunoassay	✓		
	GC/MS	✓	✓	
VQ839K	Immunoassay	✓		
	GC/MS		✓	
VQM73C	Immunoassay	✓		
	GC/MS	✓	✓	
VTW9TG	Immunoassay	✓		
	GC/MS		✓	
VX6W7J	Immunoassay	✓		
	GC/MS	✓	✓	
WNTZW7	Immunoassay	✓		
	GC/MS		✓	
WUHG9W	Immunoassay	✓		
	GC/MS		✓	
XGR3QE	Immunoassay	✓		
	GC/MS		✓	
XNTGAV	Immunoassay	✓		
	GC/MS		✓	
XWH8U2	Immunoassay	✓		
	GC/MS	✓	✓	
Y9WMDU	Immunoassay	✓		
	GC/MS		✓	
YEGMT8	Immunoassay	✓		
	GC/MS	✓	✓	
YEHFQF	Immunoassay	✓		
	GC/MS		✓	
YG9JJM	Immunoassay	✓		

TABLE 1E Item 1

Webcode	Method	Screening	Confirmatory	Quantitation
YV7VQ6	GC/MS		✓	
	LC/MS/MS	✓	✓	
	Rapid Chromatographic Immunoassay	✓		
ZBE47Y	LC/MS/MS	✓	✓	

Response Summary for Item 1			Participants: 90		
	Screening	Confirmatory	Quantitation		
Immunoassay:	81	0	0		
GC/MS:	22	73	3		
LC/MS:	3	1	1		
LC/MS/MS:	5	15	2		
Other:	3	0	0		

Additional Comments for Item 1

TABLE 1F Item 1

Webcode	Item 1 - Comments
2CRT9C	Internal Standard-Nalorphine
2LBAYX	The drugs we look for in our Opiates confirmation testing are Morphine, Dihydrocodeine (DHC), Codeine and 6-Monoacetylmorphine (6-MAM). The internal standards used are Morphine-D3, DHC-D6, Codeine-D3 and 6-MAM-D3.
39JZRH	All analytes confirmed using deuterated internal standards (D3 morphine, D3 hydromorphone, D4 7-aminoclonazepam). Limits of detection - 7-aminoclonazepam 30ug/L, morphine 30ug/L, hydromorphone 5ug/L
3XL4NV	D3-morphine - 100 ng/mL; D3-hydromorphone - 100 ng/mL
3ZPWLZ	A low instrumental response for hydromorphone was observed in Item 1, which may be consistent with morphine metabolism to hydromorphone in a long-term treatment or due to an incomplete derivatization during the analysis process.
4T4HWZ	Internal standard - SKF-525A.
6MFV4F	No confirmation completed. I have yet to be deemed competent for drug confirmations.
6TKW2N	Internal standards used: mepivacaine, nalorphine
7322NE	No confirmatory analysis completed for Item 1. Our laboratory currently does not perform urine opiate confirmations.
7G77WR	Internal standards: D3-hydromorphone, D3-morphine; Derivatized with BSTFA at 81C for two hours
7HF4AA	Internal standards used - mepivacaine & nalorphine
87GTCL	mepivacaine and nalorphine - internal standards
AXFE6H	ISTD: SKF-525A
AYTUWX	Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions. As per CTS analysis instructions: "Please do not report the presence/concentration of drugs in concentrations less than 10ng/mL". Our systems protocol: "Qualitative analysis will be performed for drug content." "The protocol is designed to identify drugs that can impair driving." Criteria to report out a positive drug: "GC/MS positive identification:", "The signal to noise ratio of the peak must be at least 3:1." "There must be at least six (6) significant m/z ions in the spectrum and encompass all significant ions. Two (2) ions (not including the base ion) must have a minimum abundance of 20% relative to the base ion (ion normalized to 100) and three other ions must have a minimum abundance of 10% relative to the base ion."
B8Y9W6	Internal standard is mepivacaine. Caffeine detected but not reported per page 1 of instructions.
C2AXKL	screening method: cut off 2000 ng/mL; confirmatory method: LOD 50 ng/mL; Internal standars: morphine D3, codeine D3
D4VYZT	Opiates screening cut-off is 300 ng/mL. Creatinine normal and greater than 20 mg/dL.
DBX9A8	No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs.
DNLBRY	Internal Standards: mepivacaine and nalorphine
DZC3C3	internal standards: Mepivacaine and Nalorphine

TABLE 1F Item 1

Webcode	Item 1 - Comments
EHNDDR	Nalorphine used as internal standard for opiate confirmation testing.
EKDKXP	The Internal Standard (STI) used is tetracosan, the limit of detection is 300 ng/mL (by GC-MS); It is evidenced that the use of an Opiate pain reliever such as morphine is used as stated in the case summary.
F3QJKX	Immunoassay cutoffs - Methamphetamine: 500 ng/mL, Amphetamine: 500 ng/mL, Morphine: 300 ng/mL, Benzoylcegonine: 300 ng/mL, C-THC: 50 ng/mL, Oxazepam: 300 ng/mL. IS for confirmation = Morphine - D3. LOQ for confirmation = 200 ng/mL.
F6JCFG	We perform quantitation to see if the analyte is above a cutoff. The cutoff is dictated by [State Legislation], which states Morphine has a 500 ng/mL cutoff. If the analyte is quantitated above the cutoff, the analyte is considered present and a qualitative identification may be reported. Morphine was reported as identified since it was above the 500 ng/mL cutoff.
FKUY2R	Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions
FQW3RQ	phenyltoloxamine (IRM), heptabarbital (IRM)
G84JF4	No confirmation was performed. Laboratory currently doesn't have a confirmation method for opiates in urine.
GME3AP	Internal standard - phenyltoloxamine
HDZXFV	Zolpidem was indicated by IA but not confirmed by GC/MS. 7-aminoclonazepam was indicated by GC/MS but not confirmed.
J23EEV	GC/MS Confirmatory Internal Standards: mepivacaine and nalorphine
JHWPJL	Internal standard - Phenyltoloxamine
JQ6GPB	Prazepam internal standard used during one of the confirmation analyses.
KPPG6L	Mepivacaine and Nalorphine-diTMS were the internal standards used. Codeine was indicated but not confirmed due to small peak and weak mass spectra. 7-aminoclonazepam was seen but not reported due to negative immunoassay screen. Hydromorphone related peak was seen but not reported due to no standard for comparison being available.
L2EVL	mepivacaine and/or nalorphine-internal standard
MJFWYR	ISTD: mepivacaine, nalorphine. caffeine was not reported.
MR8HZJ	Internal Standard was flurazepam
MXXMXU	internal standard - mepivacaine
MZMUHQ	Internal standard=mepivacaine
NQDW68	Internal Standards: d6-Morphine (for Morphine) and d6-Oxycodone (for Hydromorphone). LOD/LOQ for both analytes is 10 ng/mL.
P3ZHTD	INTERNAL STANDARD=ESTAZOLAM
PAEJRM	mepivacaine and nalorphine used as internal standards
RNBF3K	Internal standard: mepivacaine
VJLAWL	Internal Standards: mepivacaine and nalorphine
VQ839K	mepivacaine and nalorphine were used as internal standards for GC/MS

TABLE 1F Item 1

Webcode	Item 1 - Comments
VQM73C	Nalorphine -Internal Standard
VTW9TG	Internal standards used were mepivacaine and nalorphine. Analytes were butylated for analysis.
XGR3QE	INTERNAL STANDARDS: MEPIVACAINE, NALORPHINE
YEGMT8	Phenyltoloxamine used as internal reference material in base fraction. Hexobarbital used as internal reference material in acid fraction. Screening tests indicate the presence of other drugs not confirmed in this item. Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions.
YEHFQF	internal standards: mepivacaine, nalorphine
YG9JJM	The [Laboratory] does not currently perform confirmation analysis for the drug class of opiates for urine analysis.
YV7VQ6	Alere iCassette (THC) test device was used to screen for THC, referred to in 1-4 [Table 1E Item 1 - Methods of Analysis] as rapid chromatographic immunoassy. The cutoff for the assay is 50 ng/mL.

TABLE 2A Item 2

Webcode	Screening Results
BH2CJM	Amphetamine and Methamphetamine
BL2PZK	sympathomimetic amines
C2AXKL	METAMPHETAMINE
C4FJ8L	Amphetamine, Methamphetamine
CTC78K	Amphetamines
D4VYZT	Amphetamines
DBX9A8	Methamphetamine
DKFQZT	Amphetamines
DNLBRY	amphetamines, l and d-amphetamine, l and d-methamphetamine
DZC3C3	Amphetamines (d,l amphetamine & d,l methamphetamine)
EHNDDR	Amphetamines
EKDKXP	In the screening done to the urine sample the presence of Methamphetamine (METH).
F3QJKX	Methamphetamine
F6JCFG	Amphetamine/ Methamphetamine
F9D7DH	amphetamines
FKUY2R	EMIT Screen: positive Amphetamines; GC/MS: possible Flucanazole
FQW3RQ	amphetamine
G6X2EM	Amphetamines
G84JF4	Amphetamines
GME3AP	methamphetamine
H8WUNC	Amphetamines
HDZXFV	Amphetamines, Methamphetamine/MDMA
J23EEV	amphetamine class drugs
JEB3PD	MAMD
JHWPJL	Methamphetamine/MDMA
JM4DY9	methamphetamine/XTC (class)
JQ6GPB	Methamphetamine
KPPG6L	Amphetamne/MDA and Methamphetamine/MDMA
KVEXGB	amphetamine, methamphetamine
L2EVL	amphetamines
MJFWYR	amphetamine class EIA was indicative

TABLE 2A Item 2

Webcode	Screening Results
MLG3CC	Amphetamine, Methamphetamine
MXXMXU	amphetamines
MZMUHQ	d-amphetamine, d-methamphetamine, l-amphetamine, l-methamphetamine
NQDW68	Amphetamine and Methamphetamine
P3ZHTD	AMPHETAMINE, METHANPHETAMINE
P87BH3	Amphetamine Class
PAEJRM	amphetamines
PEWJAN	Methamphetamines drug class, Amphetamine
PUMNDB	Amphetamines
Q944V2	amphetamine and methamphetamine
QGRW6C	amphetamine, methamphetamine
QJJVF6	The specimen screened positive for Amphetamines.
RJXHTC	amphetamine class
RNBF3K	amphetamines
UFQ7L2	Amphetamines
UJDHQY	methamphetamine
UYMCE3	Methamphetamine
V7JL37	Amphetamine, metamphetamine
VJLAWL	amphetamines
VQ839K	amphetamines
VQM73C	Amphetamine Class
VTW9TG	amphetamines
VX6W7J	Amphetamines
WNTZW7	[Participant reported that drugs were detected, but did not report the drug class or name]
WUHG9W	Amphetamine
XGR3QE	AMPHETAMINES
XNTGAV	Methamphetamine
XWH8U2	Methamphetamine class
Y9WMDU	Amphetamine Class
YEGMT8	Amphetamines, Steroids
YEHFQF	amphetamines (l,d-amphetamine and l,d-methamphetamine)

TABLE 2A Item 2

Webcode	Screening Results
YG9JJM	Drug Class - Amphetamines
YV7VQ6	Amphetamine, Methamphetamine
ZBE47Y	amphetamine, methamphetamine

Response Summary for Item 2	Participants: 90
Methamphetamine and/or amphetamine:	86
Other:	4
<p>Totals may add up to more than the total number of participants because participants can report multiple drugs/analytes.</p>	

Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?

TABLE 2B Item 2

Item Scenario:

Case 2: A 18-year-old male was pulled over for speeding and erratic driving. A Drug Recognition Expert was brought in and reported dilated pupils, rapid speech, agitation, and lack of coordination. She also reported no horizontal or vertical nystagmus. A urine sample was collected for analysis a few hours after the incident had occurred.

Item Contents and Preparation Concentration: Methamphetamine (3000 ng/mL)
Amphetamine (390 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
2CRT9C	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
2JL3EZ	Metamfetamine	✓			
	Amfetamine	✓			
2LBAYX	Methamphetamine		2.3		ug/mL
	Amphetamine		0.27		ug/mL
2NGRZE	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
39JZRH	METHYLAMPHETAMINE		2200	20%	ug/L
	AMPHETAMINE		310	20%	ug/L
3DRM4Y	Methylamphetamine		4430.401		ng/ml
3XL4NV	Methamphetamine	✓			
	Amphetamine	✓			
3ZPWLZ	Methamphetamine	✓			
	Amphetamine	✓			
4RRLQV	Methamphetamine		2203		
	Amphetamine		271		
4T4HWZ	Methamphetamine	✓			
	Amphetamine	✓			
6TKW2N	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
7322NE	Methamphetamine	✓			
	Amphetamine	✓			
7G77WR	Methamphetamine	✓			
	Amphetamine	✓			

TABLE 2B Item 2

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
7HF4AA	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
7JQ9JR	Methamphetamine	✓			
	Amphetamine	✓			
87GTCL	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
8LAPCW	Methamphetamine	✓			
	Amphetamine	✓			
8Q79EU	Methylamphetamine				
	Amphetamine				
9EREYV	Methamphetamine	✓			
9HPTN7	Methamphetamine	✓			
	Amphetamine	✓			
AJVZ2H	Methamphetamine	✓			
	Amphetamine	✓			
AXFE6H	Methamphetamine	✓			
	Amphetamine	✓			
AYTUWX	Methamphetamine	✓			
	Amphetamine	✓			
B8Y9W6	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
BFC6YQ	Methamphetamine		1175.3		ng/ml
	Amphetamine		273.6		ng/ml
BH2CJM	Methamphetamine		2251		ng/ml
	Amphetamine		281		ng/ml
BL2PZK	methamphetamine	✓			
	amphetamine	✓			
C2AXKL	METAMPHETAMINE	✓			
	AMPHETAMINE	✓			
C4FJ8L	Methamphetamine	✓			
	Amphetamine	✓			
CTC78K	Methamphetamine	✓			
	Amphetamine	✓			

TABLE 2B Item 2

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
DKFQZT	Methamphetamine	✓			
	Amphetamine	✓			
DNLBRY	l-methamphetamine				
	d-methamphetamine				
	l-amphetamine				
	d-amphetamine				
DZC3C3	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
EHNDDR	Methamphetamine	✓			
	Amphetamine	✓			
EKDKXP	Methamphetamine	✓			
	Amphetamine	✓			
F3QJKX	Methamphetamine	✓			
	Amphetamine	✓			
F6JCFG	Methamphetamine	✓			
	Amphetamine	✓			
F9D7DH	methamphetamine	✓			
	amphetamine	✓			
FKUY2R	Methamphetamine	✓			
	Amphetamine	✓			
FQW3RQ	methamphetamine	✓			
	amphetamine	✓			
G6X2EM	Methamphetamine		2974		ng/ml
	Amphetamine		380		ng/ml
G84JF4	Methamphetamine	✓			
	Amphetamine	✓			
GME3AP	methamphetamine	✓			
	amphetamine	✓			
H8WUNC	Methamphetamine	✓			
	Amphetamine	✓			
HDZXFV	Methamphetamine	✓			
	Amphetamine	✓			
J23EEV	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
JEB3PD	methamphetamine	✓			

TABLE 2B Item 2

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
JHWPJL	Methamphetamine	✓			
	Amphetamine	✓			
JM4DY9	methamphetamine	✓			
JQ6GPB	Methamphetamine	✓			
	Amphetamine	✓			
KPPG6L	Methamphetamine	✓			
	Amphetamine	✓			
KVEXGB	methamphetamine	✓			
	amphetamine	✓			
L2EVL	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
MJFWYR	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
MLG3CC	Methamphetamine		2143		ng/ml
	Amphetamine		274		ng/ml
MR8HZJ	Methamphetamine	✓			
	Amphetamine	✓			
MXXMXU	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
MZMUHQ	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
NQDW68	Methamphetamine		2546	509	ng/mL
	Amphetamine		332	66	ng/mL
P3ZHTD	METHANPHETAMINE	✓			
	AMPHETAMINE	✓			
P87BH3	Methamphetamine		>2000		ng/mL
	Amphetamine		282	57	ng/mL
PAEJRM	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
PEWJAN	Methamphetamine	✓			
	Amphetamine	✓			

TABLE 2B Item 2

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
PUMNDB	Amphetamine	✓			
	Methamphetamine	✓			
Q944V2	methamphetamine	✓			
	amphetamine	✓			
QGRW6C	methamphetamine	✓			
	amphetamine	✓			
RJXHTC	methamphetamine	✓			
	amphetamine	✓			
RNBF3K	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
UFQ7L2	Methamphetamine	✓			
	Amphetamine	✓			
UJDHQY	methamphetamine	✓			
	amphetamine	✓			
UYMCE3	Methamphetamine	✓			
	Amphetamine	✓			
V7JL37	Methamphetamine	✓			
	Amphetamine	✓			
VJLAWL	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
VQ839K	d-methamphetamine	✓			
	l-methamphetamine	✓			
	d-amphetamine	✓			
	l-amphetamine	✓			
VQM73C	Methamphetamine	✓			
	Amphetamine	✓			
VTW9TG	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
VX6W7J	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
WNTZW7	Methamphetamine	✓			
	Amphetamine	✓			

TABLE 2B Item 2

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
WUHG9W	Methamphetamine	✓			
	Amphetamine	✓			
XGR3QE	L-METHAMPHETAMINE	✓			
	D-METHAMPHETAMINE	✓			
	L-AMPHETAMINE	✓			
	D-AMPHETAMINE	✓			
XNTGAV	Methamphetamine	✓			
	Amphetamine	✓			
XWH8U2	Methamphetamine	✓			
	Amphetamine	✓			
Y9WMDU	Methamphetamine	✓			
	Amphetamine	✓			
YEGMT8	Methamphetamine	✓			
	Amphetamine	✓			
YEHFQF	l-methamphetamine	✓			
	d-methamphetamine	✓			
	l-amphetamine	✓			
	d-amphetamine	✓			
YV7VQ6	Methamphetamine	✓			
	Amphetamine	✓			
ZBE47Y	methamphetamine	✓			
	amphetamine	✓			

Response Summary for Item 2**Participants: 87**

Methamphetamine: 87

Amphetamine: 83

Totals may add up to more than the total number of participants
because participants can report multiple drugs/metabolites.

Raw Data - Item 2

List of raw data determinations in ng/mL.

TABLE 2C Item 2

Item 2 Raw Data - Methamphetamine
Preparation concentration: (3000 ng/mL)

Webcode	Raw Data (ng/mL)		
2LBAYX	2,397.1	2,389.9	
39JZRH	2,299.0	2,127.0	
3DRM4Y	4,191.0	4,458.8	4,641.4
4RRLQV	2,156.0	2,249.0	
BFC6YQ	1,175.3		
BH2CJM	2,295.0	2,206.0	
F6JCFG	3,730.0		
G6X2EM	3,081.9	2,866.6	
MLG3CC	2,054.0	2,231.0	
NQDW68	2,546.0		

Statistical Analysis for Item 2 - Methamphetamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 2C Item 2
Item 2 Raw Data - Amphetamine
Preparation concentration: (390 ng/mL)

Webcode	Raw Data (ng/mL)	
2LBAYX	278.7	273.6
39JZRH	324.0	287.0
4RRLQV	264.0	278.0
BFC6YQ	273.6	
BH2CJM	277.0	286.0
F6JCFG	448.0	
G6X2EM	382.7	378.0
MLG3CC	277.0	271.0
NQDW68	332.0	
P87BH3	282.0	

Statistical Analysis for Item 2 - Amphetamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

Reporting Procedures - Item 2

If quantitative analysis was performed, the reported concentrations are:

TABLE 2D Item 2

Webcode	Quantitative Reporting Procedures
2LBAYX	A single determination.
39JZRH	The mean of duplicate/several determinations.
3DRM4Y	The mean of duplicate/several determinations.
4RRLQV	The mean of duplicate/several determinations.
8Q79EU	A single determination.
BFC6YQ	A single determination.
BH2CJM	The mean of duplicate/several determinations.
F6JCFG	A single determination.
G6X2EM	The mean of duplicate/several determinations.
G84JF4	A single determination.
MLG3CC	The mean of duplicate/several determinations.
NQDW68	A single determination.
P87BH3	A single determination.

Response Summary for Item 2	Participants: 13
A single determination:	7 (53.8%)
The mean of duplicate/several determinations:	6 (46.2%)

Methods of Analysis - Item 2

TABLE 2E Item 2

Webcode	Method	Screening	Confirmatory	Quantitation
2CRT9C	Immunoassay GC/MS	✓	✓	
2JL3EZ	Immunoassay GC/MS	✓	✓	
2LBAYX	Immunoassay GC/MS	✓	✓	
2NGRZE	Immunoassay GC/MS	✓ ✓	✓	
39JZRH	Immunoassay GC/MS LC/MS LC/MS/MS	✓ ✓ ✓	✓	✓
3DRM4Y	Immunoassay LC/MS	✓	✓	
3XL4NV	Immunoassay GC/MS LC/MS/MS	✓ ✓ ✓	✓	
3ZPWLZ	LC/MS/MS	✓	✓	
4RRLQV	Immunoassay GC/MS LC/MS/MS	✓	✓ ✓	✓
4T4HWZ	Immunoassay GC/MS	✓	✓	
6MFV4F	Immunoassay	✓		
6TKW2N	Immunoassay GC/MS	✓	✓	
7322NE	Immunoassay GC/MS	✓	✓	
7G77WR	Immunoassay GC/MS LC/MS/MS	✓ ✓ ✓	✓	
7HF4AA	Immunoassay GC/MS	✓	✓	
7JQ9JR	Immunoassay GC/MS	✓	✓	
87GTCL	Immunoassay GC/MS	✓	✓	
8LAPCW	LC/MS LC/MS/MS	✓	✓	
8Q79EU	GC/MS GC/MS/MS Kit		✓	

TABLE 2E Item 2

Webcode	Method	Screening	Confirmatory	Quantitation
9EREYV	GC/MS		✓	
9HPTN7	Immunoassay	✓		
	GC/MS		✓	
AJFKRM	Immunoassay	✓		
AJVZ2H	Immunoassay	✓		
	GC/MS		✓	
AXFE6H	Immunoassay	✓		
	GC/MS		✓	
AYTUWX	Immunoassay	✓		
	GC/MS	✓	✓	
B8Y9W6	Immunoassay	✓		
	GC/MS	✓	✓	
BFC6YQ	Immunoassay	✓		
	GC/MS	✓	✓	
	LC/MS/MS	✓	✓	
BH2CJM	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		✓	✓
BL2PZK	Immunoassay	✓		
	GC/MS		✓	
C2AXKL	Immunoassay	✓		
	GC/MS		✓	
C4FJ8L	Immunoassay	✓		
	GC/MS		✓	
CTC78K	Immunoassay	✓		
	GC/MS		✓	
D4VYZT	Immunoassay	✓		
DBX9A8	Immunoassay	✓		
DKFQZT	Immunoassay	✓		
	GC/MS	✓	✓	
DNLBRY	Immunoassay	✓		
	GC/MS		✓	
DZC3C3	Immunoassay	✓		
	GC/MS		✓	
EHNDDR	Immunoassay	✓		
	GC/MS	✓	✓	
EKDKXP	GC/MS		✓	
	Multidrugs test	✓		
F3QJKX	Immunoassay	✓		
	GC/MS		✓	
F6JCFG	Immunoassay	✓		
	GC/MS		✓	✓

TABLE 2E Item 2

Webcode	Method	Screening	Confirmatory	Quantitation
F9D7DH	Immunoassay GC/MS	✓	✓	
FKUY2R	Immunoassay GC/MS	✓ ✓	✓	
FQW3RQ	Immunoassay GC/MS	✓	✓	
G6X2EM	Immunoassay LC/MS/MS	✓	✓	✓
G84JF4	Immunoassay GC/MS	✓	✓	
GME3AP	Immunoassay GC/MS	✓	✓	
H8WUNC	Immunoassay GC/MS	✓	✓	
HDZXFV	Immunoassay GC/MS	✓	✓	
J23EEV	Immunoassay GC/MS	✓	✓	
JEB3PD	Immunoassay GC/MS	✓	✓	
JHWPJL	Immunoassay GC/MS	✓	✓	
JM4DY9	Immunoassay GC/MS	✓	✓	
JQ6GPB	Immunoassay GC/MS	✓	✓	
KPPG6L	Immunoassay GC/MS	✓	✓	
KVEXGB	Immunoassay GC/MS	✓	✓	
L2EVL	Immunoassay GC/MS	✓ ✓	✓	
MJFWYR	Immunoassay GC/MS	✓	✓	
MLG3CC	Immunoassay GC/MS LC/MS/MS	✓	✓ ✓	✓
MR8HZJ	GC/MS		✓	
MXXMXU	Immunoassay GC/MS	✓ ✓	✓	
MZMUHQ	Immunoassay GC/MS	✓	✓	

TABLE 2E Item 2

Webcode	Method	Screening	Confirmatory	Quantitation
NQDW68	Immunoassay GC/MS	✓	✓	✓
P3ZHTD	LC/MS LC/MS/MS	✓	✓	
P87BH3	Immunoassay GC/MS LC/MS/MS	✓ ✓	✓	✓
PAEJRM	Immunoassay GC/MS	✓	✓	
PEWJAN	Immunoassay GC/MS	✓ ✓	✓	
PUMNDB	Immunoassay GC/MS	✓ ✓	✓	
Q944V2	Immunoassay GC/MS LC/MS/MS	✓ ✓	✓	
QGRW6C	Immunoassay GC/MS	✓	✓	
RJXHTC	Immunoassay GC/MS	✓	✓	
RNBF3K	Immunoassay GC/MS	✓	✓	
UFQ7L2	Immunoassay GC/MS	✓	✓	
UJDHQY	Immunoassay GC/MS	✓	✓	
UYMCE3	Immunoassay GC/MS	✓	✓	
V7JL37	Immunoassay GC/MS	✓	✓	
VJLAWL	Immunoassay GC/MS	✓ ✓	✓	
VQ839K	Immunoassay GC/MS	✓	✓	
VQM73C	Immunoassay GC/MS	✓ ✓	✓	
VTW9TG	Immunoassay GC/MS	✓	✓	
VX6W7J	Immunoassay GC/MS	✓ ✓	✓	
WNTZW7	Immunoassay GC/MS	✓	✓	

TABLE 2E Item 2

Webcode	Method	Screening	Confirmatory	Quantitation
WUHG9W	Immunoassay GC/MS	✓	✓	
XGR3QE	Immunoassay GC/MS	✓	✓	
XNTGAV	Immunoassay GC/MS	✓	✓	
XWH8U2	Immunoassay GC/MS	✓	✓	
Y9WMDU	Immunoassay GC/MS	✓	✓	
YEGMT8	Immunoassay GC/MS	✓	✓	
YEHFQF	Immunoassay GC/MS	✓	✓	
YG9JJM	Immunoassay	✓		
YV7VQ6	GC/MS		✓	
	LC/MS/MS	✓		
	Rapid Chromatographic Immunoassay	✓		
ZBE47Y	LC/MS/MS	✓	✓	

Response Summary for Item 2		Participants: 92		
		Screening	Confirmatory	Quantitation
Immunoassay:		83	0	0
GC/MS:		21	78	2
LC/MS:		3	1	0
LC/MS/MS:		6	12	6
Other:		2	0	0

Additional Comments for Item 2

TABLE 2F Item 2

Webcode	Item 2 - Comments
2CRT9C	Internal standard- Mepivacaine
2LBAYX	The drugs looked for in our Amphetamines confirmation testing are Amphetamine, Methamphetamine, MDA, MDEA, MDMA and MBDB. The internal standards used are Amphetamine-D11, Methamphetamine-D14, MDA-D5, MDEA-D5, MDMA-D5 and MBDB-D5.
39JZRH	Internal standards for quantitation D5 methylamphetamine and D5 amphetamine
3DRM4Y	The internal Standard used was PAMP at a concentration of 5000 ng/ml
3XL4NV	D8-amphetamine 200 ng/mL; D5-methamphetamine 200 ng/mL
4T4HWZ	Internal Standard - n-Propylamphetamine. Performed TFA derivatization.
6MFV4F	No confirmation completed. I have yet to be deemed competent for drug confirmations.
6TKW2N	Internal standards used: mepivacaine, nalorphine
7322NE	Our amphetamine cutoff is 25 ng/mL and the internal standard used is amphetamine-D11. Our methamphetamine cutoff is 25 ng/mL and the internal standard used is methamphetamine-D14.
7G77WR	Internal standards: D8-amphetamine, D5-methamphetamine; Derivatizing agent: Heptafluorobutyric anhydride (HFBA)
7HF4AA	Internal standards used - mepivacaine & nalorphine
7JQ9JR	Mepivacaine -IS
87GTCL	mepivacaine - internal standard
9HPTN7	Sample screened negative for Amphetamine based on cutoff of 500 ng/mL. Qualitative GC/MS analysis detected amphetamine (LOD not determined).
AXFE6H	ISTD: n-propylamphetamine, TFA
B8Y9W6	Internal standard is mepivacaine. Caffeine detected but not reported per page 1 of instructions.
C2AXKL	Screening method: cut off: 300 ng/mL; Internal standars: Anfetamina D5, Propilanfetamina, MDMA-D5; LOD: 200 ng/mL
CTC78K	d-Isomer of methamphetamine confirmed on GC/MS by derivatization.
D4VYZT	Amphetamines screening cut-off is 500 ng/mL. Creatinine normal and greater than 20 mg/dL.
DBX9A8	No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs.
DNLBRY	Internal Standard: mepivacaine
DZC3C3	Internal standard- mepivacaine
EKDKXP	STI used is tetracosan, the limit of detection is 300 ng/mL, in the summary of the case shows that the sample is taken to a person under the effects of a stimulant that we tested positive for Methamphetamine and Amphetamine.
F3QJKX	Immunoassay cutoffs - Methamphetamine: 500 ng/mL, Amphetamine: 500 ng/mL, Morphine: 300 ng/mL, Benzoylcgonine: 300 ng/mL, C-THC: 50 ng/mL, Oxazepam: 300 ng/mL. IS for confirmation = Phentermine.

TABLE 2F Item 2

Webcode	Item 2 - Comments
F6JCFG	We perform quantitation to see if the analyte is above a cutoff. The cutoff is dictated by [State Legislation], which states Amphetamine and Methamphetamine have a 500 ng/mL cutoff each. If the analyte is quantitated above the cutoff, it is considered present and a qualitative identification may be reported. Amphetamine was not reported because it was quantitated below the cutoff; Methamphetamine was reported because it was quantitated above the cutoff. Forensic Toxicologists at my laboratory are not trained as Drug Recognition Experts. It is beyond my scope to evaluate symptoms presented from a DRE Examination and determine which drugs should be confirmed. Nevertheless, I reviewed the information I have from the DRE Student Manual (2015) and determined that either CNS Stimulants or Hallucinogens could cause the symptoms described. Hallucinogens were not detected by methods utilized. Our laboratory is not able to identify LSD by the methods we have available.
FQW3RQ	phenyltoloxamine (IRM), heptabarbital (IRM)
G84JF4	Laboratory does not quantify drugs in urine specimens. Used methamphetamine-d14, and amphetamine-d11 for the internal standard. Cutoff level set at 25ng/mL for methamphetamine and amphetamine.
GME3AP	Internal standard-phenyltoloxamine
HDZXFV	Zolpidem was indicated by IA, but not confirmed by GC/MS.
J23EEV	GC/MS Confirmatory Internal Standard: mepivacaine
JHWPJL	Internal standard - Phenyltoloxamine
KPPG6L	Mepivacaine, Methamphetamine D-11, and Amphetamine D-11 were internal standards. Fluconazole indicated in sample, but not confirmed due to not having a standard for comparison available. Trace peak of codeine seen in sample, but not reported due to negative immunoassay screen and poor mass spectra.
L2EVL	mepivacaine-internal standard
MJFWYR	ISTD: mepivacaine (& nalorphine). caffeine was not reported.
MR8HZJ	Internal Standard was flurazepam.
MXXMXU	internal standard - mepivacaine
MZMUHQ	Internal standard-mepivacaine
NQDW68	Internal Standards: d11-Amphetamine and d14-Methamphetamine. LOD/LOQ for both analytes is 50 ng/mL.
P3ZHTD	INTERNAL STANDARD=ESTAZOLAM
PAEJRM	mepivacaine and nalorphine used as internal standards
RNBF3K	Internal standard: mepivacaine
VJLAWL	Internal Standards: mepivacaine
VQ839K	mepivacaine and nalorphine were used as internal standards for GC/MS
VTW9TG	Internal standard used was mepivacaine. Samples were derivatized via acetylation and using trifluoroacetyl-propyl chloride for d- and l- determination.
XGR3QE	Internal Standard: Mepivacaine

TABLE 2F Item 2

Webcode	Item 2 - Comments
YEGMT8	Phenyltoloxamine used as internal reference material in base fraction. Hexobarbital used as internal reference material in acid fraction. Screening tests indicate the presence of other drugs not confirmed in this item. Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions.
YEHFQF	internal standards: mepivacaine
YG9JJM	I am currently not competent in the analysis of Amphetamines confirmations.
YV7VQ6	Alere iCassette (THC) test device was used to screen for THC, referred to in 2-4 [Table 2E Item 2 - Methods of Analysis] as rapid chromatographic immunoassay. The cutoff for the assay is 50 ng/mL.

Screening Results - Item 3

TABLE 3A Item 3

Item Scenario:

Case 3: A 24-year-old female arrived at the police station the day after she suspects she was the victim of a drug-facilitated sexual assault. She had dinner with a man she met on an online dating website. She woke up the following morning in an unfamiliar location, undressed, and disoriented. She states that she is not a heavy drinker, yet has no memory of most of the previous night. A urine sample was collected for analysis approximately 24 hours after the suspected incident.

Item Contents and Preparation Concentration: Ketamine (250 ng/mL)
Norketamine (625 ng/mL)

Webcode	Screening Results
2CRT9C	No drugs/metabolites detected
2JL3EZ	Ketamine
2LBAYX	No drugs/metabolites detected
2NGRZE	ketamine
39JZRH	KETAMINE, KETAMINE METABOLITE
3DRM4Y	Ketamine
3ZPWLZ	Ketamine, Norketamine
4RRLQV	Ketamine and Norketamine
4T4HWZ	No drugs/metabolites detected
6MFV4F	No drugs/metabolites detected
6TKW2N	No drugs/metabolites detected
7322NE	No drugs/metabolites detected
7G77WR	Ketamine
7HF4AA	No drugs/metabolites detected
7JQ9JR	No drugs/metabolites detected
87GTCL	No drugs/metabolites detected
8LAPCW	[Participant reported that drugs were detected, but did not report the drug class or name]
8Q79EU	No drugs/metabolites detected
9HPTN7	No drugs/metabolites detected
AJFKRM	No drugs/metabolites detected
AXFE6H	No drugs/metabolites detected
AYTUWX	Ketamine
B8Y9W6	No drugs/metabolites detected
BH2CJM	Ketamine and Norketamine
BL2PZK	ketamine, norketamine
C2AXKL	ketamine
C4FJ8L	Norketamine, Ketamine
CTC78K	No drugs/metabolites detected

TABLE 3A Item 3

Webcode	Screening Results
D4VYZT	No drugs/metabolites detected
DBX9A8	No drugs/metabolites detected
DKFQZT	Ketamine, norketamine
DNLBRY	No drugs/metabolites detected
DZC3C3	No drugs/metabolites detected
EHNDDR	Ketamine, Norketamine
EKDKXP	No drugs/metabolites detected; In the screening performed no Detectable presence of drugs.
F3QJKX	No drugs/metabolites detected
F6JCFG	No drugs/metabolites detected
F9D7DH	No drugs/metabolites detected
FKUY2R	GC/MS screen: possible Ketamine
FQW3RQ	No drugs/metabolites detected
G6X2EM	Norketamine and ketamine
G84JF4	No drugs/metabolites detected
GME3AP	No drugs/metabolites detected
H8WUNC	Ketamine, NorKetamine
HDZXFV	No drugs/metabolites detected
J23EEV	No drugs/metabolites detected
JEB3PD	No drugs/metabolites detected
JHWPJL	No drugs/metabolites detected
JM4DY9	No drugs/metabolites detected
JQ6GPB	No drugs/metabolites detected
KPPG6L	No drugs/metabolites detected
KVEXGB	ketamine, norketamine
L2EVL	ketamine
MJFWYR	No drugs/metabolites detected
MLG3CC	Ketamine, Norketamine
MXXMXU	ketamine
MZMUHQ	Ketamine
NQDW68	No drugs/metabolites detected
P3ZHTD	KETAMINE, NORKETAMINE
P87BH3	Ketamine
PAEJRM	No drugs/metabolites detected
PEWJAN	Ketamine
PUMNDB	No drugs/metabolites detected

TABLE 3A Item 3

Webcode	Screening Results
Q944V2	Ketamine and metabolite (Norketamine)
QGRW6C	No drugs/metabolites detected
QJJVF6	No drugs/metabolites detected
RNBF3K	ketamine
UFQ7L2	Ketamine
UJDHQY	No drugs/metabolites detected
UYMCE3	No drugs/metabolites detected
V7JL37	No drugs/metabolites detected
VJLAWL	ketamine
VQ839K	ketamine
VQM73C	Ketamine; Norketamine
VTW9TG	No drugs/metabolites detected
VX6W7J	Ketamine
WNTZW7	[Participant reported that drugs were detected, but did not report the drug class or name]
WUHG9W	No drugs/metabolites detected
XGR3QE	No drugs/metabolites detected
XNTGAV	No drugs/metabolites detected
XWH8U2	No drugs/metabolites detected
Y9WMDU	No drugs/metabolites detected
YEGMT8	Ketamine, Steroids, Norketamine
YEHFQF	No drugs/metabolites detected
YG9JJM	No drugs/metabolites detected
YV7VQ6	Norketamine, Ketamine
ZBE47Y	ketamine, norketamine

Response Summary for Item 3	Participants: 87
Ketamine and/or norketamine:	35
Other:	1
No drugs/metabolites detected:	50
Totals may add up to more than the total number of participants because participants can report multiple drugs/analytes.	

Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?

TABLE 3B Item 3

Item Scenario:

Case 3: A 24-year-old female arrived at the police station the day after she suspects she was the victim of a drug-facilitated sexual assault. She had dinner with a man she met on an online dating website. She woke up the following morning in an unfamiliar location, undressed, and disoriented. She states that she is not a heavy drinker, yet has no memory of most of the previous night. A urine sample was collected for analysis approximately 24 hours after the suspected incident.

Item Contents and Preparation Concentration: Ketamine (250 ng/mL)
Norketamine (625 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
2CRT9C	Ketamine	✓			
2JL3EZ	Ketamine Ketamine-M (nor-)	✓ ✓			
2NGRZE	ketamine	✓			
39JZRH	KETAMINE KETAMINE METABOLITE	✓ ✓			
3ZPWLZ	Ketamine Norketamine	✓ ✓			
4RRLQV	Ketamine Norketamine	✓ ✓			
4T4HWZ	Ketamine Norketamine	✓ ✓			
6TKW2N	ketamine	✓			
7G77WR	Ketamine	✓			
7HF4AA	Ketamine	✓			
7JQ9JR	Ketamine	✓			
87GTCL	ketamine	✓			
8LAPCW	Ketamine Norketamine	✓ ✓			
8Q79EU	No drugs/metabolites detected				
9EREYV	Ketamine Norketamine	✓ ✓			
AXFE6H	Ketamine Norketamine	✓ ✓			
AYTUWX	Ketamine Norketamine	✓ ✓			

TABLE 3B Item 3

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
B8Y9W6	ketamine	✓			
BFC6YQ	Ketamine Norketamine		197.5 740.8		ng/ml ng/ml
BH2CJM	Ketamine Norketamine	✓ ✓			
BL2PZK	ketamine norketamine	✓ ✓			
C2AXKL	ketamine nor-Ketamine	✓ ✓			
C4FJ8L	Ketamine Norketamine	✓ ✓			
CTC78K	Ketamine	✓			
DKFQZT	Ketamine Norketamine	✓			
DNLBRY	ketamine				
DZC3C3	Ketamine	✓			
EHNDDR	Ketamine Norketamine	✓ ✓			
EKDKXP	Ketamine Norketamine	✓ ✓			
F6JCFG	Ketamine	✓			
F9D7DH	ketamine norketamine	✓ ✓			
FKUY2R	Ketamine	✓			
FQW3RQ	ketamine	✓			
G6X2EM	Ketamine Norketamine		249 601		ng/ml ng/ml
GME3AP	ketamine norketamine	✓ ✓			
H8WUNC	Ketamine Norketamine	✓ ✓			
HDZXFV	Ketamine Norketamine	✓ ✓			
J23EEV	ketamine	✓			
JEB3PD	No drugs/metabolites detected				

TABLE 3B Item 3

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
JHWPJL	Ketamine	✓			
	Norketamine	✓			
JM4DY9	ketamine	✓			
	norketamine	✓			
JQ6GPB	Ketamine	✓			
KPPG6L	Ketamine	✓			
KVEXGB	ketamine	✓			
	norketamine	✓			
L2EVL	ketamine	✓			
MJFWYR	ketamine	✓			
MLG3CC	Ketamine	✓			
	Norketamine	✓			
MR8HZJ	Ketamine	✓			
	Norketamine	✓			
MXXMXU	ketamine	✓			
MZMUHQ	Ketamine	✓			
P3ZHTD	KETAMINE	✓			
	NORKETAMINE	✓			
P87BH3	Ketamine	✓			
PAEJRM	ketamine	✓			
PEWJAN	Ketamine	✓			
Q944V2	ketamine	✓			
	Ketamine metabolite	✓			
QGRW6C	ketamine	✓			
RNBF3K	ketamine	✓			
UFQ7L2	Ketamine	✓			
UJDHQY	ketamine	✓			
	norketamine	✓			
V7JL37	Ketamine	✓			
	Norketamine	✓			
VJLAWL	ketamine	✓			
VQ839K	ketamine	✓			
VQM73C	Ketamine	✓			
	Norketamine	✓			
VTW9TG	Ketamine	✓			

TABLE 3B Item 3

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
VX6W7J	Ketamine	✓			
WNTZW7	Ketamine Norketamine	✓ ✓			
WUHG9W	Ketamine Norketamine	✓ ✓			
XGR3QE	ketamine	✓			
XNTGAV	ketamine norketamine	✓ ✓			
XWH8U2	Ketamine	✓			
Y9WMDU	Ketamine	✓			
YEGMT8	Ketamine	✓			
YEHFQF	ketamine	✓			
YV7VQ6	Ketamine Norketamine	✓ ✓			
ZBE47Y	ketamine norketamine	✓ ✓			

Response Summary for Item 3		Participants: 75
	Ketamine:	73
	Norketamine:	35
	No drugs/metabolites detected:	2
	Other:	2
<p>Totals may add up to more than the total number of participants because participants can report multiple drugs/metabolites.</p>		

Raw Data - Item 3

List of raw data determinations in ng/mL.

TABLE 3C Item 3

Item 3 Raw Data - Ketamine **Preparation concentration: (250 ng/mL)**

Webcode	Raw Data (ng/mL)	
BFC6YQ	197.5	
G6X2EM	240.9	257.2

Statistical Analysis for Item 3 - Ketamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

TABLE 3C Item 3
Item 3 Raw Data - Norketamine
Preparation concentration: (625 ng/mL)

Webcode	Raw Data (ng/mL)	
BFC6YQ	740.8	
G6X2EM	583.3	618.4

Statistical Analysis for Item 3 - Norketamine

Please note statistical analysis has not been provided due to the low number of raw data responses.

Reporting Procedures - Item 3

If quantitative analysis was performed, the reported concentrations are:

TABLE 3D Item 3

WebCode	Quantitative Reporting Procedures
8Q79EU	A single determination.
BFC6YQ	A single determination.
G6X2EM	The mean of duplicate/several determinations.
MJFWYR	A single determination.

Response Summary for Item 3	Participants: 4
A single determination:	3 (75.0%)
The mean of duplicate/several determinations:	1 (25.0%)

Methods of Analysis - Item 3

TABLE 3E Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
2CRT9C	Immunoassay GC/MS	✓	✓	
2JL3EZ	Immunoassay GC/MS	✓	✓	
2LBAYX	Immunoassay	✓		
2NGRZE	Immunoassay GC/MS	✓ ✓	✓	
39JZRH	Immunoassay GC/MS LC/MS/MS	✓ ✓ ✓	✓ ✓	
3DRM4Y	Immunoassay	✓		
3ZPWLZ	LC/MS/MS	✓	✓	
4RRLQV	Immunoassay GC/MS	✓	✓	
4T4HWZ	Immunoassay GC/MS	✓	✓	
6MFV4F	Immunoassay	✓		
6TKW2N	Immunoassay GC/MS	✓	✓	
7322NE	Immunoassay	✓		
7G77WR	Immunoassay GC/MS LC/MS/MS	✓ ✓ ✓	✓	
7HF4AA	Immunoassay GC/MS	✓	✓	
7JQ9JR	Immunoassay GC/MS	✓	✓	
87GTCL	Immunoassay GC/MS	✓	✓	
8LAPCW	LC/MS LC/MS/MS	✓	✓	
8Q79EU	GC/MS GC/MS/MS Kit		✓	
9EREYV	GC/MS		✓	
9HPTN7	Immunoassay	✓		
AJFKRM	Immunoassay	✓		
AXFE6H	GC/MS		✓	
AYTUWX	Immunoassay GC/MS	✓ ✓	✓	
B8Y9W6	Immunoassay GC/MS	✓ ✓	✓	
BFC6YQ	Immunoassay LC/MS/MS	✓ ✓	✓	

TABLE 3E Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
BH2CJM	Immunoassay GC/MS	✓	✓	
BL2PZK	Immunoassay GC/MS	✓ ✓	✓	
C2AXKL	GC/MS LC/MS/MS	✓	✓	
C4FJ8L	Immunoassay GC/MS	✓	✓	
CTC78K	Immunoassay GC/MS	✓	✓	
D4VYZT	Immunoassay	✓		
DBX9A8	Immunoassay	✓		
DKFQZT	Immunoassay GC/MS	✓ ✓	✓	
DNLBRY	Immunoassay GC/MS	✓	✓	
DZC3C3	Immunoassay GC/MS	✓	✓	
EHNDDR	Immunoassay GC/MS	✓ ✓	✓	
EKDKXP	GC/MS Multidrugs test	✓	✓	
F3QJKX	Immunoassay	✓		
F6JCFG	Immunoassay GC/MS	✓	✓	
F9D7DH	Immunoassay GC/MS	✓	✓	
FKUY2R	Immunoassay GC/MS	✓ ✓	✓	
FQW3RQ	Immunoassay GC/MS	✓	✓	
G6X2EM	Immunoassay LC/MS/MS	✓	✓	✓
G84JF4	Immunoassay	✓		
GME3AP	Immunoassay GC/MS	✓ ✓	✓	
H8WUNC	GC/MS LC/MS/MS	✓	✓	
HDZXFV	Immunoassay GC/MS	✓	✓	
J23EEV	Immunoassay GC/MS	✓	✓	
JEB3PD	Immunoassay GC/MS	✓	✓	

TABLE 3E Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
JHWPJL	Immunoassay GC/MS	✓ ✓	✓	
JM4DY9	Immunoassay GC/MS	✓	✓	
JQ6GPB	Immunoassay GC/MS	✓	✓	
KPPG6L	Immunoassay GC/MS	✓	✓	
KVEXGB	Immunoassay GC/MS	✓ ✓	✓	
L2EVL	Immunoassay GC/MS	✓ ✓	✓	
MJFWYR	Immunoassay GC/MS	✓	✓	
MLG3CC	Immunoassay GC/MS	✓	✓	
MR8HZJ	GC/MS		✓	
MXXMXU	Immunoassay GC/MS	✓ ✓	✓	
MZMUHQ	Immunoassay GC/MS	✓	✓	
NQDW68	Immunoassay	✓		
P3ZHTD	LC/MS LC/MS/MS	✓	✓	
P87BH3	GC/MS	✓	✓	
PAEJRM	Immunoassay GC/MS	✓	✓	
PEWJAN	Immunoassay GC/MS	✓ ✓	✓	
PUMNDB	Immunoassay GC/MS	✓ ✓		
Q944V2	Immunoassay GC/MS	✓ ✓	✓	
QGRW6C	Immunoassay GC/MS	✓	✓	
RNBF3K	Immunoassay GC/MS	✓ ✓	✓	
UFQ7L2	GC/MS	✓	✓	
UJDHQY	GC/MS	✓	✓	
UYMCE3	Immunoassay	✓		
V7JL37	Immunoassay GC/MS LC/MS/MS	✓	✓ ✓	
VJLAWL	Immunoassay GC/MS	✓ ✓	✓	

TABLE 3E Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
VQ839K	Immunoassay GC/MS	✓ ✓	✓	
VQM73C	Immunoassay GC/MS	✓ ✓	✓	
VTW9TG	Immunoassay GC/MS	✓ ✓	✓	
VX6W7J	Immunoassay GC/MS	✓ ✓	✓	
WNTZW7	Immunoassay GC/MS	✓	✓	
WUHG9W	Immunoassay GC/MS	✓	✓	
XGR3QE	Immunoassay GC/MS	✓ ✓	✓	
XNTGAV	GC/MS	✓	✓	
XWH8U2	Immunoassay GC/MS	✓ ✓	✓	
Y9WMDU	Immunoassay GC/MS	✓	✓	
YEGMT8	Immunoassay GC/MS	✓ ✓	✓	
YEHFQF	Immunoassay GC/MS	✓	✓	
YG9JJM	Immunoassay	✓		
YV7VQ6	GC/MS LC/MS/MS	✓ ✓	✓	
	Rapid Chromatographic Immunoassay	✓		
ZBE47Y	LC/MS/MS	✓	✓	

Response Summary for Item 3			Participants: 89		
	Screening	Confirmatory	Quantitation		
Immunoassay:	73	0	0		
GC/MS:	30	69	0		
LC/MS:	2	0	0		
LC/MS/MS:	8	8	1		
Other:	2	0	0		

Additional Comments for Item 3

TABLE 3F Item 3

WebCode	Item 3 - Comments
2CRT9C	Internal Standard- Mepivacaine
2LBAYX	Using the VIVA-E System, the sample was screened for the following: Amphetamines, Benzodiazepines, Cocaine metabolite, Creatinine, Ecstasy, Ethyl alcohol, Methadone, Opiates and Cannabinoids. Using the ELISA method, the sample was screened for Flunitrazepam.
39JZRH	We do not routinely quantitate drugs in urine - qualitative screening only
3XL4NV	No analyses were performed on this sample.
4T4HWZ	Internal Standard - SKF-525A
6TKW2N	Internal standards used: mepivacaine, nalorphine
7322NE	Urine screened using Enzyme-Linked ImmunoSorbent Assay.
7HF4AA	Internal standards used - mepivacaine & nalorphine
7JQ9JR	Mepivacaine- IS; Norketamine - no standard available for confirmation
87GTCL	mepivacaine - internal standard
AXFE6H	ISTD: SKF-525A, barbital
B8Y9W6	Internal standard is mepivacaine. Caffeine detected but not reported per page 1 of instructions.
C2AXKL	Screening: cut off 50 ng/mL; Confirmatory: LOD: 30 ng/mL; Internal standars: Benzoilecgonine D3, cocaine D3
CTC78K	Confirmed by analyzing two different extracts on the GC/MS.
D4VYZT	Screening was performed for Amphetamines (500 ng/dL cut-off), Opiates (300 ng/dL cut-off), Benzodiazepines (300 ng/dL cut-off), Cocaine (150 ng/dL cut-off), and THC (50 ng/dL cut-off). Creatinine was normal and greater than 20 mg/dL)
DBX9A8	No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs.
DNLBRY	Internal Standard: mepivacaine
DZC3C3	Internal standard- mepivacaine
EHNDDR	GHB D6 was used as an internal standard for GHB testing.
EKDKXP	STI tetracosan; in the screening performed any drug was detected, but the case summary show the use of a nervous system depressant, by confirmation in GC-MS; the presence of ketamine and norketamine was detected.
F3QJKX	Immunoassay cutoffs - Methamphetamine: 500 ng/mL, Amphetamine: 500 ng/mL, Morphine: 300 ng/mL, Benzoilecgonine: 300 ng/mL, C-THC: 50 ng/mL, Oxazepam: 300 ng/mL.

TABLE 3F Item 3

WebCode	Item 3 - Comments
F6JCFG	There is no cutoff for Ketamine. Ketamine was reported as identified because it has the same retention time and mass spectrum as a verified reference material of ketamine; the peak height is at least 3x the signal to noise (visually confirmed by extracting a prominent ion and comparing peak height to baseline noise); and a library entry gave greater than 80% match to the library ketamine entry. Finally, Ketamine was not found in a method blank analyzed on the same GC-MS immediately prior to the case sample. Norketamine was detected but not identified because my laboratory does not have a verified reference material for this drug metabolite and we require analyzing a verified reference material on the same GC-MS as the case sample within 24 hours to make a comparison and identification between a reference material and an analyte.
FKUY2R	Qualitative analysis will be performed for drug content. The protocol is designed to identify drugs that can impair driving.
FQW3RQ	phenyltoloxamine (IRM) and heptabarbital (IRM)
G84JF4	The following assays screened negative: Amphetamines, Benzodiazepines, Cannabinoids, Cocaine/Metabolite, Opiates, and Phencyclidine.
GME3AP	Internal standard(s) - phenyltoloxamine, ghb-d6
HDZXFV	Zolpidem was indicated by IA but not confirmed by GC/MS
J23EEV	GC/MS Confirmatory Internal Standard: mepivacaine
JHWPJL	Internal standard - Phenyltoloxamine
JQ6GPB	Norketamine was also detected but not confirmed as we do not have a reference material for it in our laboratory and we are not required to confirm metabolites if the parent drug is present.
KPPG6L	Mepivacaine was the internal standard used. A Ketamine related compound was indicated but not reported due to no standard for comparison being available. Codeine was indicated in the sample, but not reported due to negative immunoassay screen.
L2EVL	mepivacaine-internal standard
MJFWYR	ISTD: mepivacaine (& nalorphine). caffeine was not reported.
MR8HZJ	Internal Standard was flurazepam.
MXXMXU	internal standard - mepivacaine
MZMUHQ	Internal standards=mepivacaine
P3ZHTD	INTERNAL STANDARD= ESTAZOLAM
P87BH3	Norketamine detected.
PAEJRM	mepivacaine and nalorphine used as internal standards
QGRW6C	Ketamine not part of immunoassay screen. Sample also screened by GCMS for GHB, as this is part of our protocol for alleged drug-facilitated sexual assault cases. Results negative for GHB.
RNBF3K	Internal standard: mepivacaine
UYMCE3	Confirmation not performed as screening results were negative.
V7JL37	GHB negative

TABLE 3F Item 3

WebCode	Item 3 - Comments
VJLAWL	Internal Standard: mepivacaine
VQ839K	mepivacaine and nalorphine were used as internal standards for GC/MS
VTW9TG	Internal standard used was mepivacaine.
XGR3QE	Internal Standard: Mepivacaine
Y9WMDU	Norketamine was also indicated, not pursued- no Reference Material available in the lab, as well as, confirmation of Ketamine
YEGMT8	Phenyltoloxamine used as internal reference material in base fraction. Hexobarbital used as internal reference material in acid fraction. Screening tests indicate the presence of other drugs not confirmed in this item. Drug Facilitated Sexual Assault analysis not performed at this laboratory. Norketamine reference material not available due to time constraints. Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions.
YEHFQF	internal standard: mepivacaine
YV7VQ6	Alere iCassette (THC) test device was used to screen for THC, referred to in 3-4 [Table 3E Item 3 - Methods of Analysis] as rapid chromatographic immunoassay. The cutoff for the assay is 50 ng/mL.

Additional Test Comments

TABLE 4

WebCode	Additional Comments
39JZRH	We do not routinely quantitate drugs in urine - most analytes receive qualitative screening only
3ZPWLZ	Caffeine was detected in all three items.
AJFKRM	Items 1 and 2 were screened by analyst [Name], while Item 3 was screened by analyst [Name]. The cutoff concentrations for the presumptive positive assays are as followed; opiates (200 ng/mL) and methamphetamine (200 ng/mL). Confirmatory analysis was not conducted.
AJVZ2H	Item 1 and 3- Not analyzed. (Only assigned item 2 in house.)
AYTUWX	Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions. As per CTS analysis instructions: "Please do not report the presence/concentration of drugs in concentrations less than 10ng/mL". Our systems protocol: "Qualitative analysis will be performed for drug content." "The protocol is designed to identify drugs that can impair driving." Criteria to report out a positive drug: "GC/MS positive identification:", "The signal to noise ratio of the peak must be at least 3:1." "There must be at least six (6) significant m/z ions in the spectrum and encompass all significant ions. Two (2) ions (not including the base ion) must have a minimum abundance of 20% relative to the base ion (ion normalized to 100) and three other ions must have a minimum abundance of 10% relative to the base ion."
DBX9A8	No confirmation assay available for urine analysis at this laboratory. No sendout testing authorized for PTs.
EKDKXP	The Multidrugs test detects 10 metabolites. Multidrugs: AMPHET, OPIAT, BENZO; TCA; BARB; METH; COCAINE; THC; PCP and MDMA.
FKUY2R	Note: due to our labs protocols for qualitative analysis and drug confirmation our results may reflect drugs that are not to be reported as per CTS – Forensic Testing Program directions
FQW3RQ	received in laboratory on 9/26/2017
QJVF6	The specimens were screened for five drug classes utilizing Siemens EMIT technology only. No confirmatory testing was performed.
Y9WMDU	samples were checked into the [Laboratory] on 10/10/2017, and forwarded to [Name].
YEGMT8	Drug Facilitated Sexual Assault analysis not performed at this laboratory.

Appendix: Data Sheet

Collaborative Testing Services ~ Forensic Testing Program

Test No. 17-5671: Urine Drug Analysis

DATA MUST BE RECEIVED BY November 27, 2017 TO BE INCLUDED IN THE REPORT

Participant Code:

WebCode:

Accreditation Release Statement

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and A2LA. Please select one of the following statements to ensure your data is handled appropriately.

- This participant's data is intended for submission to ASCLD/LAB, ANAB, and/or A2LA. (Accreditation Release section on the last page must be completed and submitted.)
- This participant's data is **NOT** intended for submission to ASCLD/LAB, ANAB or A2LA.

Scenario:

Investigators have submitted three urine specimens from three separate cases for your analysis. Using your laboratory's procedures, analyze each sample and report the presence of any drugs and/or metabolites.

Case 1: A 76-year-old female has agreed to submit to regular monitoring of her pain management for severe chronic pain due to rheumatoid arthritis. A urine sample has been submitted for analysis.

Case 2: A 18-year-old male was pulled over for speeding and erratic driving. A Drug Recognition Expert was brought in and reported dilated pupils, rapid speech, agitation, and lack of coordination. She also reported no horizontal or vertical nystagmus. A urine sample was collected for analysis a few hours after the incident had occurred.

Case 3: A 24-year-old female arrived at the police station the day after she suspects she was the victim of a drug-facilitated sexual assault. She had dinner with a man she met on an online dating website. She woke up the following morning in an unfamiliar location, undressed, and disoriented. She states that she is not a heavy drinker, yet has no memory of most of the previous night. A urine sample was collected for analysis approximately 24 hours after the suspected incident.

Instructions:

****PLEASE NOTE**** *The purpose of this test is the examination of drugs listed in section 1308 of Title 21 Code of Federal Regulations under the United States Controlled Substances Act that fall into the following classes: benzodiazepines, nonbenzodiazepine hypnotics (z-drugs), barbiturates, opioids, illicit hallucinogens, illicit stimulants, illicit depressants, and cannabinoids. Please test accordingly.*

-Please do not report the presence/concentration of drugs in concentrations less than 10ng/mL.

-Samples may contain methanol and acetonitrile as artifacts from production.

Items Submitted (Sample Pack UDRG):

Item 1: Urine sample from Case 1

Item 2: Urine sample from Case 2

Item 3: Urine sample from Case 3

Please return all pages of this data sheet.

Page 1 of 9

Participant Code:

WebCode:

Screening Results for Item 1:

1-1.) Please indicate the screening results for Item 1

- No drugs detected utilizing screening methods.
- Drug(s) detected (list each class and/or drug name below).

Confirmatory Results for Item 1:

1-2.) What drugs/metabolites were detected in Item 1? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

The number of boxes shown does not indicate the number of analytes present. If additional space is needed, copy this page or attach your own form following this layout.

- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Please return all pages of this data sheet.

Participant Code:

WebCode:

Results for Item 1 (continued):

1-3.) If quantitative analysis was performed, are the reported concentrations for Item 1:

- A single determination? The mean of duplicate / several determinations?
- Other? (Specify): _____

1-4.) Please check the methods used to analyze Item 1 by selecting whether each method used was for screening, confirmatory testing and/or quantitation.

<u>Method Used</u>	<u>Screening</u>	<u>Confirmatory</u>	<u>Quantitation</u>
Immunoassay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LC/MS/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

1-5.) Additional Comments for Item 1

Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please return all pages of this data sheet.

Participant Code:

WebCode:

Screening Results for Item 2:

2-1.) Please indicate the screening results for Item 2

- No drugs detected utilizing screening methods.
- Drug(s) detected (list each class and/or drug name below).

Confirmatory Results for Item 2:

2-2.) What drugs/metabolites were detected in Item 2? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

The number of boxes shown does not indicate the number of analytes present. If additional space is needed, copy this page or attach your own form following this layout.

- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Please return all pages of this data sheet.

Participant Code:

WebCode:

Results for Item 2 (continued):

2-3.) If quantitative analysis was performed, are the reported concentrations for Item 2:

- A single determination? The mean of duplicate / several determinations?
- Other? (Specify): _____

2-4.) Please check the methods used to analyze Item 2 by selecting whether each method used was for screening, confirmatory testing and/or quantitation.

<u>Method Used</u>	<u>Screening</u>	<u>Confirmatory</u>	<u>Quantitation</u>
Immunoassay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LC/MS/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2-5.) Additional Comments for Item 2

Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Participant Code:

WebCode:

Screening Results for Item 3:

3-1.) Please indicate the screening results for Item 3

- No drugs detected utilizing screening methods.
- Drug(s) detected (list each class and/or drug name below).

Confirmatory Results for Item 3:

3-2.) What drugs/metabolites were detected in Item 3? If quantitative determinations were performed, please record raw data in the provided spaces in ng/mL.

The number of boxes shown does not indicate the number of analytes present. If additional space is needed, copy this page or attach your own form following this layout.

- No drugs/metabolites detected utilizing confirmatory methods.

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units
_____	<input type="checkbox"/>	_____	_____	(_____)
Date(s) Analysis Performed on Analyte: _____				
Raw Data (ng/mL):				
_____	_____	_____	_____	_____

Please return all pages of this data sheet.

Participant Code:

WebCode:

Results for Item 3 (continued):

3-3.) If quantitative analysis was performed, are the reported concentrations for Item 3:

- A single determination? The mean of duplicate / several determinations?
- Other? (Specify): _____

3-4.) Please check the methods used to analyze Item 3 by selecting whether each method used was for screening, confirmatory testing and/or quantitation.

<u>Method Used</u>	<u>Screening</u>	<u>Confirmatory</u>	<u>Quantitation</u>
Immunoassay	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LC/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LC/MS/MS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3-5.) Additional Comments for Item 3

Please include any relevant information such as internal standard(s) used, limits of detection, etc.

Please return all pages of this data sheet.

Participant Code:

WebCode:

Date Samples Received: _____

Additional Comments on Test

<p><u>Return Instructions:</u> Data must be received via online data entry, fax (please include a cover sheet), or mail by <i>November 27, 2017</i> to be included in the report. Emailed data sheets are not accepted.</p> <p>QUESTION? TEL: +1-571-434-1925 (8 am - 4:30 pm EST) EMAIL: forensics@cts-interlab.com www.ctsforensics.com</p>	<p>Participant Code: ONLINE DATA ENTRY: www.cts-portal.com</p> <p>FAX: +1-571-434-1937</p> <p>MAIL: Collaborative Testing Services, Inc. P.O. Box 650820 Sterling, VA 20165-0820 USA</p>
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Please return all pages of this data sheet.

Collaborative Testing Services ~ Forensic Testing Program

RELEASE OF DATA TO ACCREDITATION BODIES

The following Accreditation Releases will apply only to:

Participant Code:

WebCode:

for Test No. **17-5671: Urine Drug Analysis**

This release page must be completed and received by **November 27, 2017** to have this participant's submitted data included in the reports forwarded to the respective Accreditation Bodies.

Have the laboratory's designated individual complete the following steps **only if your laboratory is accredited in this testing/calibration discipline** by one or more of the following Accreditation Bodies.

Step 1: Provide the applicable Accreditation Certificate Number(s) for your laboratory

ASCLD/LAB Certificate No. _____

ANAB Certificate No. _____

A2LA Certificate No. _____

Step 2: Complete the Laboratory Identifying Information in its entirety

Signature and Title _____

Laboratory Name _____

Location (City/State) _____

Accreditation Release	
Return Instructions	
<i>Please submit the completed Accreditation Release at the same time as your full data sheet. See Data Sheet Return Instructions on the previous page.</i>	<i>Questions? Contact us 8 am-4:30 pm EST Telephone: +1-571-434-1925 email: forensics@cts-interlab.com</i>

Please return all pages of this data sheet.