

Blood Drug Analysis Test No. 19-5661 Summary Report

The sample sets contained blood samples from three cases, each with an individual case scenario. Each case sample consisted of two grey-topped vials containing human blood. Participants were requested to examine these items and report their findings. Data were returned from 115 participants and are compiled into the following tables:

	<u>Page</u>
Manufacturer's Information	<u>2</u>
Summary Comments	<u>3</u>
Table 1: Item 1 Results	<u>4</u>
Table 2: Item 2 Results	<u>40</u>
Table 3: Item 3 Results	<u>69</u>
Table 4: Additional Comments	<u>100</u>

Appendix: Data Sheet

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

Each sample set contained blood samples from three cases, each with an individual case scenario. Each case sample consisted of two grey-topped vials containing human blood. Participants were asked to analyze the blood samples and report the presence of any drugs/metabolites and quantitative data obtained (including uncertainty).

SAMPLE PREPARATION-

The human blood used in this test was from the same lot, which tested negative for a variety of common controlled substances prior to being obtained from a commercial supplier.

A stock solution of each drug was used to spike specific items. These solutions were obtained in sealed ampoules and were not opened until needed for production. Items were prepared at separate times using the following procedure.

ITEMS 1, 2, and 3 (PREPARATION): Item preparation consisted of adding a predetermined amount of drug stock solution to human whole blood. It was stirred before pipetting the mixture into each of the pre-labeled vials, which contained Potassium Oxalate and Sodium Fluoride. The vials were sealed and inverted multiple times to mix the chemicals in the vials with the blood solution. All vials were placed in a refrigerator immediately after production and stored there until the sample sets were prepared.

SAMPLE SET ASSEMBLY: Each sample set contained two vials of each of the three Items and placed into a Department of Transportation regulated shipping container. The sample packs were then returned to the refrigerator until shipment.

VERIFICATION-

Laboratories that conducted predistribution analysis of the samples reported consistent drug/metabolite identifications with one exception. Only one participant reported the presence of alpha-Hydroxyalprazolam. The reported concentration results were comparable to the preparation drug concentrations. This information is representative of a small number of laboratories, evaluation of results should be deferred until the Summary Report is published.

Item 1 Drug (Concentration)

Hydromorphone (400 ng/mL) Alprazolam (80 ng/mL)

alpha-Hydroxyalprazolam (75 ng/mL)

Item 2 Drug (Concentration) Diazepam (375 ng/mL)

Nordiazepam (420 ng/mL)

Item 3 Drug (Concentration)

Codeine (1000 ng/mL) Morphine (200 ng/mL)

Please note that the preparation concentration 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.

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 blood. Each participant was supplied with two vials containing human blood spiked with differing drugs and/or metabolites for each of three case scenarios. Participants were asked to report the presence of any drugs/metabolites, quantitative data obtained (including uncertainty), and methods used. (Refer to the Manufacturer's Information for preparation details.)

Of the 114 participants who reported screening results for Item 1, 113 participants reported drug(s) detected. Of these participants, 111 reported one or a combination of the following: Hydromorphone, Opioids, Alprazolam, alpha-Hydroxyalprazolam, and/or Benzodiazepines. There were other responses reported by 14 participants which included 12 participants reporting additional drugs other than those listed above, and two participants that did not list a drug name/class or left the field blank. There were 109 participants that reported results for confirmatory analysis for Item 1. The presence of Hydromorphone and Alprazolam was each confirmed by 91.7% of participants and alpha-Hydroxyalprazolam was confirmed by 56.9% of participants. Four participants reported that there were no drugs/metabolites detected.

There were 113 participants who reported screening results for Item 2; all but one participant reported drug(s) detected. Of the 112 participants who reported detection, 111 reported the presence of Diazepam, Nordiazepam, and/or Benzodiazepines with only one participant reporting an additional substance present. The remaining participant reported drugs detected during screening however did not include drug name or class. There were 104 participants that reported results for confirmatory analysis for Item 2. The presence of Diazepam was confirmed by 98.1% of participants, and the presence of Nordiazepam was confirmed by 96.2% of participants. One of these participants also reported the presence of another controlled substance. There was one participant that reported no drugs/metabolites detected.

Of the 111 participants who reported screening results for Item 3, all but one reported drug(s) detected; 109 of these participants reported the presence of Codeine, Morphine, and/or Opioids. The remaining participant did not report a drug name or class. There were 102 participants that reported results for confirmatory analysis for Item 3. The presence of Codeine was confirmed by 98.0% of participants, and the presence of Morphine was confirmed by 97.1% of participants. Two participants who reported the presence Codeine and Morphine also reported other substances. One participant reported a drug class for both Items 2 and 3 for the confirmatory analysis.

If a participant indicated that the confirmatory quantitative result was a single determination and reported it in ng/mL, the conclusive quantitative result was included in the raw data table. The raw data was used to calculate the grand mean and standard deviation for each item and are supplied to assist the participants and accrediting bodies in determining the acceptability of results. For Item 1, two participants were determined to have "extreme" data (±3 STD from grand mean) for Alprazolam and alpha-Hydroxyalprazolam. For Item 2, there were also two participants that were determined to have "extreme" data for Diazepam and Nordiazepam. For Item 3, one participant was determined to have "extreme" data for Morphine.

Screening Results - Item 1

TABLE 1A: Item 1

Item Scenario:

A 29 year-old male was found deceased in his bed with blood and mucous around his nose. His friends helped him to bed the previous night due to sleepiness, dizziness, and stumbling.

Item Contents and Preparation Concentration: Hydromorphone (400 ng/mL) Alprazolam (80 ng/mL) alpha-Hydroxyalprazolam (75 ng/mL)

Webcode	Screening Results
22JZHB	Hydromorphone, Alprazolam, Alpha-hydroxyalprazolam
29L9P4	Benzodiazepines
2PT2XZ	benzodiazepines, opioids
2WUFKM	Alprazolam, Hydromorphone, Ibuprofen, Naproxen.
2XJQCF	Benzodiazepines Opiates
39X8GR	Benzodiazepines opiates
3EP7EV	a-hydroxyalprazolam, alprazolam, hydromorphone
3LNZ73	No drugs/metabolites detected
3UH6Y4	[Participant reported that drugs were detected, but did not report the drug class or name]
3VUZLV	benzodiazepines (alprazolam) opiates (hydromorphone)
4ENVXJ	Alprazolam. Hydromorphone.
4HG29E	benzodiazepines opiates
4JFYP2	Benzodiazepines Opiates
4R8MEC	Opiates, Benzodiazepines
4YTFPC	Opiates Benzodiazepines
62AZCR	Morphine, Hydromorphone, Alprazolam, alpha-Hydroxyalprazolam
6HETG7	Hydromorphone Alprazolam alpha-Hydroxyalprazolam
6PXWN9	opiates, benzodiazepines
6TX6TJ	alpha-hydroxyalprazolam, Alprazolam, Hydromorphone
77ZWEN	Hydromorphone Hydroxy Alprazolam Alprazolam
7A6KVY	Benzodiazepines Opiates
7PVL9W	Benzodiazepines Opiates

Webcode	Screening Results
83HVTG	Opiates, Benzodiazepines, Oxycodone
8CL4FT	Opioids Benzodiazepines Hydromorphone Alprazolam
92J78J	Benzodiazepines, Opiates
9EBRDE	Hydromorphone Alprazolam Hydroxyalprazolam
9P67BQ	Benzodiazepines; alprazolam Opiates
9T4RYM	Hydromorphone Alprazolam
9TLFH3	Alprazolam, alpha-hydroxyalprazolam, and hydromorphone.
A2EAT7	Opiates, Benzodiazepines
AYPY3D	opiates/opioids, benzodiazepines
B2XCHU	Benzodiazepines, Opiates
B8XVFH	Hydromorphone
BLKZRL	Alprazolam, alpha-hydroxyalprazolam, hydromorphone, caffeine
BZYBAG	Opiates Benzodiazepines Oxycodone/Oxymorphone
CNG98F	Opiate, Benzodiazepine
D94WEM	Oxycodone Hydromorphone Alprazolam
DQMX7H	Opiates Benzodiazepines
DZBL6R	Hydromorphone Alprazolam Alpha-hydroxy Alprazolam
EDVNX4	Benzodiazepines and opiates.
FAMVGA	BENZODIAZEPINES, OPIATES, OPIOIDS
FE6TCR	Benzodiazepine and Opioids
FJCJGH	Alprazolam, alpha-OH-alprazolam, hydromorphone
FRR3WC	Preliminarily found to contain Benzodiazepines, Opiates, and Opioids.
FXUC34	Benzodiazepines Opiates
FYTAJR	Benzodiazepines (Alprazolam, alpha-Hydroxyalprazolam), Narcotics (Morphine/Hydromorphone/Oxymorphone)
G7M7D8	benzodiazepines, opiates, and opioids
GEFCEL	Opiates (QTOF: Hydromorphone) Benzodiazepines (QTOF: Alprazolam, alpha-Hydroxyalprazolam)

Webcode	Screening Results
GFBX3K	Benzodiazepines Opiates
GWGYZT	Opiates Benzodiazepines Oxycodone/Oxymorphone
GZHXGD	Opiates, Benzodiazepines
Н4АТ9В	Hydromorphone Alpha-Hydroxyalprazolam Alprazolam
HFNQDE	Hydromorphone Alprazolam
HU8CZT	alprazolam alphahydroxyalprazolam hydromorphone
HWEQ8Y	Benzodiazepines, Opiates
HXA636	alprazolam, hydromorphone, alpha-hydroxyalprazolam
JDUK99	Benzodiazepines Opiates
JGHWCK	No immunoassay screening performed
JHCKUF	Hydromorphone Hydrocodone Alprazolam
JHDB3J	Benzodiazepines Opiates
JM7J66	a-hydroxyalprazolam, alprazolam, hydromorphone
JRE33X	Benzodiazepines and opiates
KRX23G	Positive benzodiazepines and opioids Positive alprazolam and hydromorphone
M6VWA8	Hydromorphone
MAZW4A	Benzodiazepines, opiates
MEZYE6	benzodiazepines and opioids alprazolam and hydromorphone
MLDXZ4	EMIT screening tested positive for Benzodiazepines and Opiates.
MMCX9F	Benzodiazepines Opiates
NDZ9YA	Benzodiazepines, opiates
NK47T9	Benzodiazepines Opiates Generic Opioids
NN2QG6	ELISA: Benzodiazepine and Opiate GC/MS: poss. Alprazolam
NN4EXH	alpha-hydroxyalprazolam, alprazolam, hydromorphone
P7EUBV	Opiates Benzodiazepines

Webcode	Screening Results
P8PRPC	Benzodiazepines, Opiates
PAWR7C	Benzodiazepines Opiates
PJJQUW	Opiates, Benzodiazepines
PRHFDM	alprazolam alphahydroxyalprazolam hydromorphone
PRUCG7	Benzodiazepines Opiates
PRVZ4B	Immunoassay: benzodiazepines and opioids LC/MS/MS: alprazolam
PVD8JX	Benzodiazepines Opiates Oxycodone/oxymorphone
PXM8N6	Benzodiazepines and Opiates
Q2JHT4	Alprazolam Alpha-Hydroxy Alprazolam Hydromorphone
Q93LZ7	Hydromorphone Alprazolam Alpha-Hydroxy Alprazolam
Q9EDV9	Certain benzodiazepines: alprazolam Common opioids: hydromorphone
RCFQ9Z	Opiates ELISA Positive Benzodiazepines ELISA Positive
RJF6VM	Opiate presumptive positive Benzodiazepine presumptive positive
RJYTF3	Alpha-Hydroxyalprazolam Alprazolam Hydromorphone
RMFFRM	Opiate Benzodiazepine
RUWPH4	Hydromorphone Alprazolam
TN62XH	ALPRAZOLAM
TRNYRZ	opiates, benzodiazepines
TY3ZQA	Benzodiazepines, Opiates
U69YV9	Benzodiazepines and Opiates
UC42XJ	Opiates Benzodiazepines Oxycodone/oxymorphone
URHAW3	Benzodiazepines Opiates

Webcode	Screening Results
V8AENV	Alpha-hydroxy alprazolam Alprazolam Hydromorphone
VHAR3B	Benzodiazepine Opiate
VZ96H4	common opioids, certain benzodiazepines (alprazolam)
VZA4AQ	Benzodiazepines Opiates
WH6WUN	Benzodiazepines, oxycodone/oxymorphone and opiates
WJ3X32	alprazolam alpha-hydroxyalprazolam hydromorphone
XE39YY	opiates benzodiazepines
XHKFEL	Opiates Benzodiazepines
XMVQ6V	Alprazolam, OH-alprazolam, Hydromorphone
XP4TY7	Benzodiazepines, Opiates
XQEL9M	Opiates and Benzodiazepines
Y36U7F	Opiates and Benzodiazepines
Y69M77	opiates benzodiazepines
Y7MRZX	Benzodiazepines, Opiates
YCRVLQ	Benzodiazepines, opiates, opioids
YZWGNE	Opiate Benzodiazepine Oxycodone/Oxymorphone
ZLBNDD	Opiates Benzodiazepines
ZMBMUZ	alprazolam (benzodiazepines), hydromorphone (opioids)
ZR3VVL	opiates and benzodiazepines
ltem 1 - Res	ponse Summary Participants Reporting Screening Results: 114
	Hydromorphone and/or Opioids: 109 am, alpha-Hydroxyalprazolam and/or Benzodiazepines: 109 No drugs/metabolites detected: 1 *Other: 14
	Participants can report multiple drugs/metabolites; therefore, the sum of the values here may be greater than the total number of participants responding for this item.

*This category represents the total number of participants that reported a response other than that which is listed above.

Confirmatory Results - Item 1

What drugs/metabolites were detected in Item 1?

TABLE 1B: Item 1

Item Scenario:

A 29 year-old male was found deceased in his bed with blood and mucous around his nose. His friends helped him to bed the previous night due to sleepiness, dizziness, and stumbling.

Item Contents and Preparation Concentration:

Hydromorphone (400 ng/mL) Alprazolam (80 ng/mL) alpha-Hydroxyalprazolam (75 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
22JZHB	Hydromorphone		365	70	ng/mL
	Alprazolam		78	18	ng/mL
	alpha-hydroxyalprazolam		84	17	ng/mL
29L9P4	Hydromorphone	1			
	Alprazolam	1			
	alpha-hydroxyalprazolam	1			
2PT2XZ	Hydromorphone		0.35	0.09	mg/L
	Alprazolam		55	17	μ g/L
2WUFKM	Hydromorphone		380	96	ng/mL
	Alprazolam		60	4	ng/mL
	lbuprofen		<5000		ng/mL
	Naproxen		<5000		ng/mL
2XJQCF	Hydromorphone		0.33	0.05	mg/L
	Alprazolam		0.086	0.011	mg/L
39X8GR	Hydromorphone	1			
	Alprazolam	\checkmark			
	alpha-hydroxyalprazolam	1			
3EP7EV	Hydromorphone		375.28	63.79	ng/mL
	Alprazolam		75.56	12.08	ng/mL
	alpha-hydroxyalprazolam	1			
3LNZ73	Hydromorphone	1			
	Alprazolam	1			
	alpha-hydroxyalprazolam	1			
3UH6Y4	Alprazolam	1			
	Methamphetamine	✓			
	Morphine	✓			
3VUZLV	Hydromorphone		0.36	0.09	mg/L
	Alprazolam		62	19	mcg/L

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
4ENVXJ	Hydromorphone		0.32	15%	mg/L
	Alprazolam		Approx 0.08	15%	mg/L
4HG29E	Hydromorphone		137	+/-29	ng/mL
	Alprazolam		104	+/-18	ng/mL
	alpha-hydroxyalprazolam		85	+/-18	ng/mL
4JFYP2	Hydromorphone Alprazolam				
4R8MEC	Hydromorphone		200	20.73%	ng/mL
	Alprazolam		66	17.68%	ng/mL
	alpha-hydroxyalprazolam		69	20.92%	ng/mL
4YTFPC	Hydromorphone		209	20.73	%
	Alprazolam		79	17.68	%
	alpha-hydroxyalprazolam		83	20.92	%
62AZCR	Hydromorphone Alprazolam alpha-hydroxyalprazolam Morphine				
6HETG7	Hydromorphone		387	75	ng/mL
	Alprazolam		67	15	ng/mL
	alpha-hydroxyalprazolam		96	20	ng/mL
6PXWN9	Hydromorphone		206	20.73%	ng/ml
	Alprazolam		82	17.68%	ng/ml
	alpha-hydroxyalprazolam		68	20.92%	ng/ml
6TX6TJ	Hydromorphone		338.43	43.99	ng/ml
	Alprazolam		85.86	19.74	ng/ml
	alpha-hydroxyalprazolam		68.19	10.91	ng/ml
77ZWEN	Hydromorphone		241	27.7	ng/mL
	Alprazolam		94	2.8	ng/mL
	alpha-hydroxyalprazolam		165.2	6.0	ng/mL
7Α6ΚVΥ	Hydromorphone Alprazolam	5 5			
7PVL9W	Benzodiazepines	1			
	Opiates	✓			
B3HVTG	Hydromorphone		169	+/- 35	ng/ml
	Alprazolam		89	+/- 16	ng/ml
	alpha-hydroxyalprazolam		89	+/- 19	ng/ml
8CL4FT	Hydromorphone		0.52	0.14	mg/L
	riyaromorphone		0.02	0.17	mg/∟

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
92J78J	Hydromorphone		419	46	ng/mL
	Alprazolam		98	15	ng/mL
	alpha-hydroxyalprazolam		88	6	ng/mL
9EBRDE	Hydromorphone		359	35	ng/mL
	Alprazolam		76	7	ng/mL
	alpha-hydroxyalprazolam		> 80		ng/mL
9P67BQ	Hydromorphone		0.37	0.10	mg/L
	Alprazolam		62	19	mcg/L
9T4RYM	Hydromorphone	✓			
	Alprazolam	\checkmark			
9TLFH3	Hydromorphone	1			
	Alprazolam	\checkmark			
	alpha-hydroxyalprazolam	1			
A2EAT7	Hydromorphone		206	+/-43	ng/mL
	Alprazolam		96	+/-17	ng/mL
	alpha-hydroxyalprazolam		83	+/-17	ng/mL
AYPY3D	Alprazolam		76		ng/mL
B2XCHU	Hydromorphone	✓			
	Alprazolam	1			
B8XVFH	Hydromorphone	1			
BLKZRL	Hydromorphone		348	37	ng/mL
	Alprazolam		80	12	ng/mL
BZYBAG	Hydromorphone		173	+/-36	ng/mL
	Alprazolam		82	+/-15	ng/mL
	alpha-hydroxyalprazolam		81	+/-17	ng/mL
CNG98F	Hydromorphone	1			
	Alprazolam	1			
	alpha-hydroxyalprazolam	\checkmark			
D94WEM	Hydromorphone	1			
	Alprazolam	\checkmark			
DQMX7H	Hydromorphone		293	8.1%	ug/L
	Alprazolam		78	6.1%	ug/L
	alpha-hydroxyalprazolam	\checkmark			
DZBL6R	Hydromorphone		Above 100 ng/ml	NA	NA
	Alprazolam		73.6 ng/ml	13.2	ng/ml
	alpha-hydroxyalprazolam		66.1 ng/ml	14.5	ng/ml
EDVNX4	Hydromorphone		0.35	±0.06	μ g/ml
	Alprazolam		82	±15	ng/ml

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
FAMVGA	No drugs/metabolites detected	ed			
FE6TCR	Hydromorphone	1			
FJCJGH	Hydromorphone Alprazolam alpha-hydroxyalprazolam	5 5 5			
FRR3WC	No drugs/metabolites detected	ed			
FXUC34	Hydromorphone Alprazolam alpha-hydroxyalprazolam		146 96 83	+/- 30 +/- 17 +/- 17	ng/mL ng/mL ng/mL
FYTAJR	Hydromorphone Alprazolam alpha-hydroxyalprazolam		327 81.2 72.3	65.5 16.3 14.5	ng/mL ng/mL ng/mL
G7M7D8	No drugs/metabolites detected	ed			
GEFCEL	Hydromorphone Alprazolam alpha-hydroxyalprazolam	1	0.35 0.087	0.06 0.011	mg/L mg/L
GFBX3K	Hydromorphone Alprazolam alpha-hydroxyalprazolam	\ \ \			
GZHXGD	Hydromorphone		0.38	.12	mcg/mL
H4AT9B	Hydromorphone Alprazolam alpha-hydroxyalprazolam		410.98 73.96 66.92	45.20 8.13 8.69	ng/mL ng/mL ng/mL
HU8CZT	Hydromorphone Alprazolam alpha-hydroxyalprazolam	1	0.084 0.075	0.013 0.012	mg/L mg/L
HWEQ8Y	Hydromorphone Alprazolam		0.34 80	0.06 14	ug/mL ng/mL
HXA636	Hydromorphone Alprazolam		350 75		ng/mL ng/mL
JGHWCK	Hydromorphone Alprazolam alpha-hydroxyalprazolam	\ \			
JHCKUF	Hydromorphone Alprazolam Hydrocodone				

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
JHDB3J	Hydromorphone Alprazolam	5 5			
JM7J66	Hydromorphone		354.13	46.03	ng/ml
	Alprazolam		88.35	20.32	ng/ml
	alpha-hydroxyalprazolam		65.66	10.50	ng/ml
JRE33X	Hydromorphone		0.38	0.06	μ g/mL
	Alprazolam		78	14	ng/mL
KRX23G	Hydromorphone		0.35	0.09	mg/L
	Alprazolam		66	20	μ g/L
M6VWA8	Hydromorphone	\checkmark			
MAZW4A	Hydromorphone	1			
	Alprazolam		81	22	ng/mL
MEZYE6	Hydromorphone		0.37	0.10	mg/L
	Alprazolam		71	21	ng/mL
MLDXZ4	Alprazolam	1			
MMCX9F	Hydromorphone		304	61	ng/mL
	Alprazolam		80	16	ng/mL
	alpha-hydroxyalprazolam		75	15	ng/mL
NDZ9YA	Hydromorphone	1			
	Alprazolam		82	22	ng/mL
NN2QG6	Hydromorphone	1			
	Alprazolam	1			
	alpha-hydroxyalprazolam	\checkmark			
NN4EXH	Hydromorphone		343.06	+/- 58.32	ng/mL
	Alprazolam		74.59	+/- 11.93	ng/mL
	alpha-hydroxyalprazolam	\checkmark			
P7EUBV	Hydromorphone		135	+/- 28	ng/mL
	Alprazolam		84	+/- 15	ng/mL
	alpha-hydroxyalprazolam		76	+/- 16	ng/mL
P8PRPC	Hydromorphone	\checkmark			
	Alprazolam	1			
PAWR7C	Hydromorphone	✓			
	Alprazolam	1			
	alpha-hydroxyalprazolam	\checkmark			
PJJQUW	Hydromorphone		155	+/- 32	ng/ml
	Alprazolam		90	+/- 16	ng/ml
	alpha-hydroxyalprazolam		74	+/- 15	ng/ml

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
PRHFDM	Hydromorphone		330	56	ng/mL
	Alprazolam		0.075	0.012	mg/L
	alpha-hydroxyalprazolam		0.069	0.011	mg/L
PRUCG7	Hydromorphone	1			
	Alprazolam		70	15	ng/mL
PRVZ4B	Hydromorphone		0.38	0.10	mg/L
	Alprazolam		71	21	μ g/L
PVD8JX	Hydromorphone		243	+/-50	ng/ml
	Alprazolam		91	+/-16	ng/ml
	alpha-hydroxyalprazolam		86	+/-18	ng/ml
PXM8N6	Hydromorphone		423	±60	ng/mL
	Alprazolam		81	±9	ng/mL
	alpha-hydroxyalprazolam		80	±13	ng/mL
Q2JHT4	Hydromorphone	1			
	Alprazolam	1			
	alpha-hydroxyalprazolam				
Q93LZ7	Hydromorphone	1			
	Alprazolam	1			
	alpha-hydroxyalprazolam	1			
Q9EDV9	Hydromorphone		0.34	0.09	mg/L
	Alprazolam		61	15	μ g/L
RCFQ9Z	Hydromorphone		132	+/-27	ng/ml
	Alprazolam		86	+/-15	ng/ml
	alpha-hydroxyalprazolam		72	+/-15	ng/ml
RJF6VM	Hydromorphone		148	20.73	%
	Alprazolam		110	17.68	%
	alpha-hydroxyalprazolam		78	20.92	%
RJYTF3	Hydromorphone		406.31	44.69	ng/mL
	Alprazolam		86.62	9.52	ng/mL
	alpha-hydroxyalprazolam		93.71	12.18	ng/mL
RMFFRM	Hydromorphone		205	20.73	%
	Alprazolam		87	17.68	%
	alpha-hydroxyalprazolam		72	20.92	%
RUWPH4	Hydromorphone	1			
	Alprazolam	1			
TN62XH	Alprazolam		69.5	27.8	ng/ml

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
TRNYRZ	Hydromorphone Alprazolam alpha-hydroxyalprazolam	J J J			
TY3ZQA	Hydromorphone Alprazolam	√ √			
U69YV9	Hydromorphone Alprazolam alpha-hydroxyalprazolam	J J J			
UC42XJ	Hydromorphone Alprazolam alpha-hydroxyalprazolam		147 73 69	20.73% 17.68% 20.92%	ng/ml ng/ml ng/ml
URHAW3	Hydromorphone Alprazolam alpha-hydroxyalprazolam	J	285 85	4.4 6.1	% %
V8AENV	Hydromorphone Alprazolam alpha-hydroxyalprazolam		365 66 69	110 20 21	ng/mL ng/mL ng/mL
VZ96H4	Hydromorphone Alprazolam		0.36 68	0.09 20	mg/L μg/L
VZA4AQ	Hydromorphone Alprazolam alpha-hydroxyalprazolam		242 90 76	+/-20.73% +/-17.68% +/-20.92%	ng/mL ng/mL ng/mL
WH6WUN	Hydromorphone Alprazolam alpha-hydroxyalprazolam		252 86 82	+/- 52 +/- 15 +/-17	ng/ml ng/ml ng/ml
WJ3X32	Hydromorphone Alprazolam alpha-hydroxyalprazolam	1	344.51 73.82	58.57 11.81	ng/ml ng/ml
XE39YY	Hydromorphone Alprazolam alpha-hydroxyalprazolam		313 77 61		ng/mL ng/mL ng/mL
XHKFEL	Hydromorphone Alprazolam alpha-hydroxyalprazolam		133 88 74	+/-28 +/-16 +/-16	ng/mL ng/mL ng/mL
XMVQ6V	Hydromorphone Alprazolam alpha-hydroxyalprazolam	J J	0.1		mg/L

Webcode	Qu Analyte Reported	valitative Only	Reported Concentration	Uncertainty	Units
XP4TY7	Hydromorphone	1			
	Alprazolam	1			
XQEL9M	Hydromorphone		187	+/- 39	ng/mL
	Alprazolam		92	+/- 16	ng/mL
	alpha-hydroxyalprazolam		75	+/- 16	ng/mL
Y36U7F	Hydromorphone		213	20.73%	ng/mL
	Alprazolam		89	17.68%	ng/mL
	alpha-hydroxyalprazolam		67	20.92%	ng/mL
Y69M77	Hydromorphone	1			
	Alprazolam	1			
Y7MRZX	Hydromorphone		320	31%	ng/mL
	, Alprazolam	1			0.
YCRVLQ	No drugs/metabolites detected]			
YZWGNE	Hydromorphone		216	20.73%	ng/mL
	Alprazolam		83	17.68%	ng/mL
	alpha-hydroxyalprazolam		67	20.92%	ng/mL
ZLBNDD	Hydromorphone		209	+/- 20.73%	ng/mL
	Alprazolam		93	+/- 17.68%	ng/mL
	alpha-hydroxyalprazolam		76	+/- 20.92%	ng/mL
ZMBMUZ	Hydromorphone		0.34	0.09	mg/L
	Alprazolam		70	21	mcg/L
ZR3VVL	Hydromorphone		209	43	ng/mL
	Alprazolam		75	13	ng/mL
	alpha-hydroxyalprazolam		84	18	ng/mL
ltem 1 - Re	esponse Summary	Pc	articipants Reporting (Confirmatory Res	sults: 109
	Hydroma	orphone:	100		
		razolam:	100		
	alpha-Hydroxyalpı		62		
	aipna-⊓yaroxyaipi No drugs/metabolites c		4		
	INO ULUGS/ITTETUDOTTES C				
		*Other:	5		
	Participants can report multiple de may be greater than the toto	-			

*This category represents the total number of participants that reported a response other than that which is listed above.

Raw Data - Item 1

List of raw data determinations in ng/mL.

TABLE 1C: Item 1

Item 1 Raw Data - Hydromorphone

Preparation concentration: 400 ng/mL

Webcode	Raw Data	(ng/mL)				Participant Mean
22JZHB	365.0					365.0
2PT2XZ	345.9					345.9
2WUFKM	379.0	386.0				382.5
2XJQCF	328.5	326.0				327.3
3EP7EV	375.3					375.3
3VUZLV	359.7					359.7
4ENVXJ	332.6	325.2				328.9
4HG29E	137.5					137.5
4R8MEC	200.0					200.0
4YTFPC	209.1					209.1
6HETG7	387.0					387.0
6PXWN9	206.0					206.0
6TX6TJ	356.0	338.4				347.2
77ZWEN	222.0	275.7	218.8	266.4	222.4	241.1
83HVTG	169.0					169.0
8CL4FT	517.5					517.5
9EBRDE	361.7	356.2				359.0
9P67BQ	373.0					373.0
A2EAT7	206.6					206.6
BLKZRL	357.5	339.0				348.2
BZYBAG	173.0					173.0
DQMX7H	293.0					293.0
DZBL6R	289.4					289.4
EDVNX4	353.9					353.9
FXUC34	146.0					146.0
GEFCEL	349.5	347.5				348.5
GZHXGD	382.0					382.0
H4AT9B	411.0					411.0

Item 1 Raw Data - Hydromorphone

Preparation concentration: 400 ng/mL

Webcode	Raw Date	a (ng/mL)		Participant Mean
HWEQ8Y	340.2			340.2
HXA636	350.0	330.0	390.0	356.7
JM7J66	354.1			354.1
JRE33X	387.7			387.7
KRX23G	354.6			354.6
MEZYE6	369.0			369.0
MMCX9F	304.0			304.0
P7EUBV	135.5			135.5
PJJQUW	155.0			155.0
PRHFDM	339.4			339.4
PRVZ4B	381.4			381.4
PVD8JX	243.0			243.0
PXM8N6	422.6			422.6
Q9EDV9	335.6			335.6
RCFQ9Z	132.5			132.5
RJF6VM	148.5			148.5
RJYTF3	406.3			406.3
RMFFRM	205.7			205.7
UC42XJ	147.5			147.5
URHAW3	303.0	285.4	278.3	288.9
V8AENV	336.4	377.8	383.7	366.0
VZ96H4	363.9			363.9
VZA4AQ	242.0			242.0
WH6WUN	252.0			252.0
WJ3X32	344.5			344.5
XHKFEL	133.5			133.5
XQEL9M	187.0			187.0
Y36U7F	213.0			213.0
Y7MRZX	324.0			324.0
YZWGNE	216.0			216.0
ZLBNDD	209.0			209.0

Item 1 Raw Data - Hydromorphone Preparation concentration: 400 ng/mL

Webcode	Raw Data (ng	/mL)	Participant Mean
ZMBMUZ	343.9		343.9
ZR3VVL	209.0		209.0
Statistical Ar	nalysis for Item 1	- Hydromorphone	
Grand	Mean: 291.7	Number of Participants Included: 6	Number of Participants without Raw Data or Data that was not
Standard Dev	viation: 93.01	Number of Participants Excluded: C	reported in ng/mL: 0

ltem 1 Raw Data - Alprazolam

Preparation concentration: 80 ng/mL

Webcode	Raw Date	n (ng/mL)				Participant Mean
22JZHB	78.00					78.00
2PT2XZ	54.78					54.78
2WUFKM	552.0					552.0 X
2XJQCF	86.65	84.60				85.63
3EP7EV	75.56					75.56
3VUZLV	62.14					62.14
4ENVXJ	79.84	87.08				83.46
4HG29E	104.0					104.0
4R8MEC	66.10					66.10
4YTFPC	79.23					79.23
6HETG7	67.00					67.00
6PXWN9	82.50					82.50
6TX6TJ	85.86					85.86
77ZWEN	91.77	95.39	98.80	94.04	92.62	94.52
83HVTG	89.00					89.00
8CL4FT	66.72					66.72
9EBRDE	74.28	78.70				76.49
9P67BQ	61.51					61.51
A2EAT7	96.02					96.02
AYPY3D	76.15					76.15
BLKZRL	82.62	76.58				79.60
BZYBAG	82.60					82.60
DQMX7H	78.00					78.00
DZBL6R	73.64					73.64
EDVNX4	82.50					82.50
FXUC34	96.70					96.70
GEFCEL	87.25	86.60				86.93
H4AT9B	73.96					73.96
HU8CZT	84.21					84.21
HWEQ8Y	80.79					80.79
HXA636	77.00	75.00	75.00			75.67

ltem 1 Raw Data - Alprazolam

Preparation concentration: 80 ng/mL

Webcode	Raw Date	a (ng/mL)		Participant Mean
JM7J66	88.35			88.35
JRE33X	78.93			78.93
KRX23G	65.83			65.83
MAZW4A	82.32	80.90		81.61
MEZYE6	70.80			70.80
MMCX9F	80.00			80.00
NDZ9YA	82.93	81.70		82.32
P7EUBV	84.70			84.70
PJJQUW	90.00			90.00
PRHFDM	75.74			75.74
PRUCG7	70.30			70.30
PRVZ4B	70.78			70.78
PVD8JX	91.00			91.00
PXM8N6	80.80			80.80
Q9EDV9	61.27			61.27
RCFQ9Z	86.40			86.40
RJF6VM	110.0			110.0
RJYTF3	86.62			86.62
RMFFRM	87.54			87.54
UC42XJ	73.00			73.00
URHAW3	88.60	84.97		86.79
V8AENV	61.69	68.72	70.55	66.99
VZ96H4	68.27			68.27
VZA4AQ	90.70			90.70
WH6WUN	86.00			86.00
WJ3X32	73.83			73.83
XHKFEL	88.20			88.20
XMVQ6V	100.0			100.0
XQEL9M	92.30			92.30
Y36U7F	89.40			89.40
YZWGNE	83.50			83.50

Item 1 Raw Data - Alprazolam

Preparation concentration: 80 ng/mL

Webcode	Raw Data (ng	/mL)	Participant Mean
ZLBNDD	93.90		93.90
ZMBMUZ	70.43		70.43
ZR3VVL	75.40		75.40
Statistical Ar	alysis for Item 1	- Alprazolam	
Grand	Mean: 80.64	Number of Participants Included: 64	Number of Participants without Raw Data or Data that was not
Standard Dev	iation: 10.79	Number of Participants Excluded: 1	reported in ng/mL: 0

Item 1 Raw Data - alpha-Hydroxyalprazolam Preparation concentration: 75 ng/mL

22JZHB 84.00 4HG29E 85.30 4R8MEC 69.30 4YTFPC 83.07 6HETG7 96.00 6PXWN9 68.00 6TX6TJ 68.19 77ZWEN 161.5 171.2 172.3 161.4 159.8 83HVTG 89.00 A2EAT7 83.06 BZYBAG 81.50 DZBL6R 66.18	84.00 85.30 69.30 83.07 96.00 68.00 68.19 165.2 X
4R8MEC 69.30 4YTFPC 83.07 6HETG7 96.00 6PXWN9 68.00 6TX6TJ 68.19 77ZWEN 161.5 171.2 172.3 161.4 159.8 83HVTG 89.00	69.30 83.07 96.00 68.00 68.19
4YTFPC 83.07 6HETG7 96.00 6PXWN9 68.00 6TX6TJ 68.19 77ZWEN 161.5 171.2 172.3 161.4 159.8 83HVTG 89.00 42EAT7 83.06 42EAT7 83.06 BZYBAG 81.50 50 50 50 50 DZBL6R 66.18 566 566 566 MMCX9F 75.00 76.50 50 50	83.07 96.00 68.00 68.19
6HETG7 96.00 6PXWN9 68.00 6TX6TJ 68.19 77ZWEN 161.5 171.2 172.3 161.4 159.8 83HVTG 89.00 89.00 42EAT7 83.06 42EAT7 83.06 BZYBAG 81.50 50 50 50 50 50 50 DZBL6R 66.18 66.92 50 50 50 50 50 HU8CZT 75.67 50	96.00 68.00 68.19
6PXWN9 68.00 6TX6TJ 68.19 77ZWEN 161.5 171.2 172.3 161.4 159.8 83HVTG 89.00 89.00 200 200 200 A2EAT7 83.06 81.50 200 200 200 200 DZBL6R 66.18 200 <	68.00 68.19
6TX6TJ 68.19 77ZWEN 161.5 171.2 172.3 161.4 159.8 83HVTG 89.00 89.00 161.4 159.8 A2EAT7 83.06 10 1000000000000000000000000000000000000	68.19
77ZWEN 161.5 171.2 172.3 161.4 159.8 83HVTG 89.00 89.00 426477 83.06 426477 A2EAT7 83.06 81.50 4000 4000 4000 DZBL6R 66.18 66.18 4000 4000 4000 FXUC34 83.10 4000 4000 4000 4000 4000 H4AT9B 66.92 4000	
83HVTG 89.00 A2EAT7 83.06 BZYBAG 81.50 DZBL6R 66.18 FXUC34 83.10 H4AT9B 66.92 HU8CZT 75.67 JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	165.2 X
A2EAT7 83.06 BZYBAG 81.50 DZBL6R 66.18 FXUC34 83.10 H4AT9B 66.92 HU8CZT 75.67 JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	
BZYBAG 81.50 DZBL6R 66.18 FXUC34 83.10 H4AT9B 66.92 HU8CZT 75.67 JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	89.00
DZBL6R 66.18 FXUC34 83.10 H4AT9B 66.92 HU8CZT 75.67 JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	83.06
FXUC34 83.10 H4AT9B 66.92 HU8CZT 75.67 JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	81.50
H4AT9B 66.92 HU8CZT 75.67 JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	66.18
HU8CZT 75.67 JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	83.10
JM7J66 65.66 MMCX9F 75.00 P7EUBV 76.50	66.92
MMCX9F 75.00 P7EUBV 76.50	75.67
P7EUBV 76.50	65.66
	75.00
PJJQUW 74.00	76.50
	74.00
PRHFDM 69.12	69.12
00.68 XL8DV9	86.00
PXM8N6 79.80	79.80
RCFQ9Z 72.90	72.90
RJF6VM 78.50	78.50
RJYTF3 93.71	93.71
RMFFRM 72.72	72.72
UC42XJ 69.50	
V8AENV 63.04 67.78 78.88	69.50
VZA4AQ 76.90	69.50 69.90
WH6WUN 82.00	
KHKFEL 74.40	69.90

Item 1 Raw Data - alpha-Hydroxyalprazolam

Preparation concentration: 75 ng/mL

Webcode	Raw Data (ng	/mL)	Participant Mean
XQEL9M	75.50		75.50
Y36U7F	67.20		67.20
YZWGNE	67.70		67.70
ZLBNDD	76.80		76.80
ZR3VVL	84.20		84.20
Statistical /	Analysis for Item 1	- alpha-Hydroxyalprazolam	
Gran	d Mean: 76.78	Number of Participants Included: 35	Number of Participants without Raw Data or Data that was not
Standard D	eviation: 7.998	Number of Participants Excluded: 1	reported in ng/mL: 0

Item 1 Raw Data - Other

Webcode	Analyte	Raw Data (ng/mL)
2WUFKM	lbuprofen	77.00
	Naproxen	117.00

Statistical Analysis for Item 1 - Other

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:

Webcode	Quantitative Reporting Procedures
22JZHB	A single determination.
2PT2XZ	A single determination.
2WUFKM	A single determination.
2XJQCF	The mean of duplicate/several determinations.
3EP7EV	A single determination.
3VUZLV	A single determination.
4ENVXJ	The mean of duplicate/several determinations.
4HG29E	A single determination.
4R8MEC	A single determination.
4YTFPC	A single determination.
6HETG7	A single determination.
6PXWN9	A single determination.
6TX6TJ	A single determination.
77ZWEN	The mean of duplicate/several determinations.
83HVTG	A single determination.
8CL4FT	A single determination.
92J78J	The mean of duplicate/several determinations.
9EBRDE	A single determination.
9P67BQ	A single determination.
A2EAT7	A single determination.
AYPY3D	A single determination.
BLKZRL	The mean of duplicate/several determinations.
BZYBAG	A single determination.
DQMX7H	A single determination.
DZBL6R	A single determination.
EDVNX4	A single determination.
FAMVGA	A single determination.
FRR3WC	A single determination.
FXUC34	A single determination.

Webcode	Quantitative Reporting Procedures
FYTAJR	A single determination.
G7M7D8	A single determination.
GEFCEL	The mean of duplicate/several determinations.
GZHXGD	A single determination.
H4AT9B	A single determination.
HU8CZT	A single determination.
HWEQ8Y	A single determination.
HXA636	The mean of duplicate/several determinations.
JM7J66	A single determination.
JRE33X	A single determination.
KRX23G	A single determination.
MAZW4A	The mean of duplicate/several determinations.
MEZYE6	A single determination.
MMCX9F	A single determination.
NDZ9YA	The mean of duplicate/several determinations.
NN4EXH	A single determination.
P7EUBV	A single determination.
PJJQUW	A single determination.
PRHFDM	A single determination.
PRUCG7	A single determination.
PRVZ4B	A single determination.
PVD8JX	A single determination.
PXM8N6	A single determination.
Q9EDV9	A single determination.
RCFQ9Z	A single determination.
RJF6VM	A single determination.
RJYTF3	A single determination.
RMFFRM	A single determination.
TN62XH	A single determination.
UC42XJ	A single determination.
URHAW3	A single determination.
V8AENV	The mean of duplicate/several determinations.

Webcode	Quantitative Report	ing Procedures	
VZ96H4	A single determination.		
VZA4AQ	A single determination.		
WH6WUN	A single determination.		
WJ3X32	A single determination.		
XE39YY	A single determination.		
XHKFEL	A single determination.		
XMVQ6V	A single determination.		
XQEL9M	A single determination.		
Y36U7F	A single determination.		
Y7MRZX	A single determination.		
YCRVLQ	A single determination.		
YZWGNE	A single determination.		
ZLBNDD	A single determination.		
ZMBMUZ	A single determination.		
ZR3VVL	A single determination.		
Response Su	ummary for Item 1		Participants: 76
	A single determination:	66 (86.8%)	
The	mean of duplicate/several determinations:	10 (13.2%)	

Methods of Analysis - Item 1

Webcode	Method	Screening	Confirmatory	Quantitation
22JZHB	LC/MS/MS	1	1	\checkmark
	Immunoassay	1		
29L9P4	Immunoassay	✓		
	LC/MS/MS		<i>✓</i>	
2PT2XZ	Immunoassay	1		
	LC/MS/MS		1	\checkmark
	GC/MS		1	✓
2WUFKM	Immunoassay	\checkmark		
	UPLC-QTOF MS	\checkmark		
	LC/MS/MS		1	1
2XJQCF	Immunoassay			
	LC-QTOF		1	<i>.</i>
	LC/MS/MS			\checkmark
39X8GR	Immunoassay	\checkmark		
	GC/MS		1	
3EP7EV	LC/MS/MS	1	1	\checkmark
3LNZ73	GC/MS	✓		
	LC/MS/MS		1	
3UH6Y4	Immunoassay	✓		
	GC/MS		✓	
	LC/MS/MS		1	
3VUZLV	Immunoassay	✓		
	LC/MS/MS	\checkmark	\checkmark	\checkmark
	GC/MS		1	\checkmark
4ENVXJ	HPLC-DAD	✓		
	Immunoassay	\checkmark		
	LC/MS	\checkmark		
	LC/MS/MS			\checkmark
4HG29E	Immunoassay	1		
	GC/MS		1	
	LC/MS/MS			\checkmark
	GC/FID		1	
4JFYP2	Immunoassay	\checkmark		
	GC/MS		<i>✓</i>	
4R8MEC	LC/MS/MS		1	1
	Immunoassay	\checkmark		
4YTFPC	LC/MS/MS		1	1
	Immunoassay	1		
62AZCR	LC/MS/MS	✓	1	
6HETG7	LC/MS/MS	1	1	1
	Immunoassay	1		
6PXWN9	Immunoassay	1		
5171117	LC/MS/MS	•	1	1

TABLE 1E: Item 1

Webcode	Method	Screening	Confirmatory	Quantitation
6TX6TJ	LC/MS/MS	1	1	1
77ZWEN	LC/MS/MS	\checkmark	1	1
7Α6ΚVΥ	Immunoassay GC/MS	\checkmark	1	
7PVL9W	Immunoassay	1		
83HVTG	Immunoassay LC/MS/MS	\checkmark	1	1
8CL4FT	Immunoassay LC/MS/MS GC/MS	✓ ✓	√ √	
92J78J	Immunoassay GC/MS LC/MS/MS	1	✓	1
9EBRDE	LC/MS/MS Immunoassay LC-TOF-MS	√ √	\checkmark	1
9P67BQ	lmmunoassay LC/MS/MS GC/MS	√ √	\ \	√ √
9T4RYM	GC/MS	\checkmark	1	
9TLFH3	LC/MS/MS	1	1	
A2EAT7	Immunoassay LC/MS/MS	\checkmark	1	1
AYPY3D	Immunoassay LC/MS/MS	\checkmark	1	1
B2XCHU	Immunoassay GC/MS	\checkmark	1	
B8XVFH	GC/MS	<i>✓</i>	1	
BLKZRL	LC/MS/MS		1	1
BZYBAG	Immunoassay GC/MS LC/MS/MS	1	√ √	1
CNG98F	Immunoassay GC/MS	√ √	1	
D94WEM	lmmunoassay LC/QTOF-MS GC/MS LC/MS/MS	/ /	\ \	
DQMX7H	lmmunoassay GC/MS LC/MS GC/NPD	✓	1	J J
DZBL6R	LC/MS/MS	✓	1	1
EDVNX4	Immunoassay LC/MS/MS	\checkmark	1	1

Webcode	Method	Screening	Confirmatory	Quantitation
FAMVGA	Immunoassay LC/MS/MS	\checkmark	1	1
FE6TCR	Immunoassay GC/MS	\checkmark	1	
FJCJGH	GC/MS LC/MS/MS	√ √	1	
FRR3WC	Immunoassay LC/MS/MS	1	1	1
FXUC34	Immunoassay GC/MS LC/MS GC/FID	✓	\ \ \	1
FYTAJR	LC/MS/MS	1	1	1
G7M7D8	Immunoassay LC/MS/MS	\checkmark	1	1
GEFCEL	lmmunoassay QTOF LC/MS/MS	√ ✓	✓	1
GFBX3K	Immunoassay GC/MS	√ √	1	
GWGYZT	Immunoassay	1		
GZHXGD	Immunoassay GC/MS	\checkmark	1	1
Н4АТ9В	LC/MS/MS	1	1	1
HFNQDE	LC/MS/MS	1		
HU8CZT	LC-TOF-MS LC/MS/MS	\checkmark	1	1
HWEQ8Y	Immunoassay LC/MS/MS	1	1	1
HXA636	LC/MS/MS LC-TOFMS Immunoassay	√ √	1	1
JDUK99	Immunoassay	✓		
JGHWCK	GC/MS		1	
IHCKUF	Immunoassay GC/MS	\checkmark	1	
JHDB3J	Immunoassay GC/MS	\checkmark	1	
JM7J66	LC/MS/MS	✓	1	1
JRE33X	Immunoassay LC/MS/MS	\checkmark	1	1
KRX23G	lmmunoassay LC/MS GC/MS	√ √	√ ✓	
M6VWA8	GC/MS	✓	1	

Webcode	Method	Screening	Confirmatory	Quantitation
MAZW4A	Immunoassay	1		
	GC/MS		1	\checkmark
	LC/MS/MS		\checkmark	
MEZYE6	Immunoassay	✓		
	LC/MS/MS	1	1	1
	GC/MS		\checkmark	1
MLDXZ4	Immunoassay	/		
	GC/MS		1	
лмсх9F	Immunoassay			
VIIVICA 71	LC/MS/MS	•	1	1
		√	•	·
NDZ9YA	Immunoassay	V	1	1
	GC/MS		<i>s</i>	V
	LC/MS/MS		V	
√K47T9	Immunoassay			
	LC/MS/MS	✓		
N2QG6	Immunoassay	\checkmark		
	GC/MS	\checkmark	\checkmark	
NN4EXH	LC/MS/MS	✓	1	1
P7EUBV	Immunoassay	/		
/LODV	GC/MS	-	1	
	LC/MS/MS		1	1
28PRPC		1		
OFKE	Immunoassay GC/MS	v	1	
			V	
AWR7C	Immunoassay		,	
	GC/MS	✓	1	
NJQUW	Immunoassay	\checkmark		
	GC/MS			
	LC/MS/MS		\checkmark	\checkmark
PRHFDM	Immunoassay	\checkmark		
	GC/MS		\checkmark	
	LC-TOF-MS	\checkmark		
	LC/MS/MS			1
PRUCG7	Immunoassay	✓		
	GC/MS	\checkmark	1	
	LC/MS/MS		1	
PRVZ4B	Immunoassay			
	LC/MS/MS	•	1	1
	GC/MS	•	v	1
		✓	•	•
VD8JX	Immunoassay	V	1	1
	LC/MS/MS		1	✓
YM8N6	Immunoassay		-	-
	LC/MS/MS			
	GC/MS/MS		1	1
Q2JHT4	GC/MS	✓	✓ ✓	
	LC/MS	1	1	

Webcode	Method	Screening	Confirmatory	Quantitation
Q93LZ7	GC/MS LC/MS	\ \	\ \	
Q9EDV9	Immunoassay GC/MS	\checkmark	\ \	1
RCFQ9Z	LC/MS/MS Immunoassay GC/MS	✓	 ✓	
RJF6VM	LC/MS/MS Immunoassay GC/MS LC/MS/MS	1	<i>J</i>	
RJYTF3	LC/MS/MS	✓		 ✓
RMFFRM	Immunoassay LC/MS/MS	1	1	1
RUWPH4	GC/MS	✓	1	
TN62XH	LC/MS/MS	1	1	1
TRNYRZ	Immunoassay GC/MS	√ √	1	
TY3ZQA	Immunoassay GC/MS	1	1	
U69YV9	Immunoassay GC/MS	√ √	1	
UC42XJ	Immunoassay LC/MS/MS	1	1	1
URHAW3	Immunoassay GC/MS LC/MS GC/NPD	1	1	\$ \$
V8AENV	GC/MS LC/MS/MS Immunoassay	\ \ \	1	1
VHAR3B	Immunoassay	✓		
VZ96H4	Immunoassay LC/MS/MS GC/MS	√ √	√ √	√ √
VZA4AQ	lmmunoassay GC/MS LC/MS/MS	√ √	<i>✓</i>	1
WH6WUN	Immunoassay LC/MS/MS	1	1	1
WJ3X32	LC/MS/MS	1	✓	✓
XE39YY	Immunoassay LC/MS/MS	\checkmark	1	1
XHKFEL	Immunoassay LC/MS/MS GC/MS	1	✓ ✓	V

Blood Drug Analysis

Webcode	Method	Screening	Confirmatory	Quantitation
XMVQ6V	HPLC-DAD	1		1
	LC/MS/MS	1		
XP4TY7	Immunoassay GC/MS	\checkmark	1	
XQEL9M	Immunoassay LC/MS/MS	1	1 1	1
	GC/MS GC/FID		✓ ✓	
Y36U7F	lmmunoassay GC/MS LC/MS/MS	J	5 5	1
Y69M77	Immunoassay GC/MS	1	1	
Y7MRZX	lmmunoassay GC/MS LC/MS/MS	1	\ \	
YCRVLQ	lmmunoassay LC/MS/MS	\checkmark	1	1
YZWGNE	lmmunoassay GC-MS / GC-FID LC/MS/MS	J	√ √	1
ZLBNDD	lmmunoassay GC/MS LC/MS/MS	1 1	<i>✓</i>	1
ZMBMUZ	Immunoassay LC/MS/MS GC/MS	J J	\ \	1 1
ZR3VVL	Immunoassay GC/MS LC/MS/MS	1	√ √	1
Response Sum	mary for Item 1			Participants: 114
		Screening	Confirmatory	Quantitation
	Immunoassay:	88	0	0
	GC/MS:	18	57	11
	LC/MS:	4	4	3
	LC/MS/MS:	28	71	65
	Other:	10	8	5

Additional Comments for Item 1

Webcode	Item 1 - Comments
22JZHB	Internal standard used to quantitate hydromorphone was Hydromorphone-D3. Internal standard used to quantitate alprazolam and alpha-hydroxyalprazolam was Alprazolam-D5. These three analytes have a reportable concentration range of 10-1000 ng/mL using seven calibrators and three positive controls. The immunoassay screen was used to determine the absence of cannabinoids.
29L9P4	Cut-off 10 ng/mL: alprazolam e hydroxyalprazolam. Cut-off 50 ng/mL:hydromorphone
2PT2XZ	Internal standards: nalorphine, diazepam-d5
2WUFKM	Screening: Immunoassay and UPLC-QTOF MS (Waters). Salting-out assisted extraction. Internal Standards: Cyclobarbitone, Prazepam & D3-Methadone. Hydromorphone & Alprazolam Quantitative Analysis. Instrument: UPLC-TQD (Waters). Internal Standard: D3- Hydromorphone and D5- Diazepam. LOD: 2 ng/mL for Hydromorphone and 1 ng/mL for Alprazolam Only. Hydromorphone report from the mean of duplicate.
2XJQCF	Hydromorphone-D3 and Alprazolam-D5 used as internal standards. LOQ for hydromorphone is 10 ng/mL, LOQ for alprazolam is 50 ng/mL.
3VUZLV	internal standards: mepivacaine, diazepam-d5, nalorphine
4ENVXJ	Hydromorphone ISTD = D3 Hydromorphone. Alprazolam ISTD = Prazepam. Meloxicam, omeprazole and hydroxychloroquine also detected but not reported.
4JFYP2	Mepivacaine and Nalorphine-diTMS- Internal Standard
6HETG7	lmmunoassay was used for THC Screening. Hydromorphone-D3 used for Hydromorphone Internal Standard. Alprazolam-D5 used for Alprazolam and alpha-Hydroxyalprazolam Internal Standards
6PXWN9	The quantitation of hydromorphone required a 10x dilution.
6TX6TJ	a-hydroxyalprazolam: Internal standard - a-hydroxyalprazolam-D5; LOQ - 5ng/ml. Alprazolam: Internal standard - Alprazolam-D5; LOQ - 5ng/ml. Hydromorphone: Internal standard - Hydromorphone-D6; LOQ - 5ng/ml
7PVL9W	Only Screening analysis was able to be performed by the laboratory
93EQTX	sample not examined
9EBRDE	Hydroxyalprazolam: detected beyond highest calibrator; therefore, reported as 'greater than' highest standard used in the method.
9P67BQ	LC/MS/MS Screen IS: Mepivacaine. Alprazolam quant IS: Diazepam-d5. Hydromorphone quant IS: Nalorphine. GC confirmatory screen IS: Mepivacaine
AYPY3D	Hydromorphone indicated. At the time of this analysis- identification/confirmatory analysis is not available from our laboratory.
B2XCHU	Internal Standards - Mepivacaine, Nalorphine
BLKZRL	screening by LC QTOF, confirmations/quantitations by LCMSMS. [From Table 1- Item 1 Results: Raw Data for Hydromorphone ">320". Non-numeric value was removed in order to perform statistical analysis.]
CNG98F	Butyl Acetate Extraction has Promazine as ISTD. Benzodiazepine Extraction has Prazepam as ISTD. Opiate Extraction has Nalorphine as ISTD
DZBL6R	Our upper limit of quantitation for Hydromorphone is 100 ng/ml. Any concentration over that is reported out as "greater than 100 ng/ml".

Webcode	Item 1 - Comments
EDVNX4	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine and zolpidem. Benzodiazepine confirmation panel includes alprazolam, diazepam, 7-aminoclonazepam, clonazepam, lorazepam, nordiazepam, oxazepam and temazepam. LOD for the panel is 5ng/ml. LOQ for the panel is 10ng/ml. Opiate confirmation panel includes 6-monoacetylmorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, and oxymorphone. 6-MAM and fentanyl have a LOD of 0.5ng/ml and a LOQ of 1ng/ml. The remaining analytes have a LOD of 5ng/ml and a LOQ of 10ng/ml. Alprazolam-D5 and hydromorphone-D3 used as internal standards. Laboratory does not routinely analyze postmortem samples (outside scope of testing).
FAMVGA	Assay Cutoff* (ng/mL) Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Meprobamate 100, Barbiturates 50, Methadone 10, Benzodiazepines 10, Opiates 10, Buprenorphine 5, Opioids 10, Cannabinoids 10, Phencyclidine 5, Benzoylecgonine 50, TCA 25, Dextromethorphan 5, Tramadol 5, Fentanyl 1, Zolpidem 10. Confirmatory testing by LC/MS/MS for: Delta-9-THC 0.5 – 50ng/ml, 11-hydroxy-Delta-9-THC 0.5 – 50ng/ml, 11-nor-9-carboxy-Delta-9-THC 5.0 - 500ng/ml. [Participant submitted data in a format that could not be reproduced in this report.]
FJCJGH	Gabapentin was also detected in the sample which may be present as artifact as indicated in the supplied information.
FRR3WC	Immunoassay screening analysis for Buprenorphine did not meet quality control criteria; results not reported. Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Analyte (Range): Delta-9-THC (0.5 – 50), 11-hydroxy-Delta-9-THC (0.5 – 50), 11-nor-9-carboxy-Delta-9-THC (5.0 - 500). Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
FYTAJR	Internal standards used are all deuterated respective compounds of interest. Lower Limits of Detection: Hydromorphone 5ng/mL, alpha-Hydroxyalprazolam 4ng/mL, Alprazolam 4ng/mL
G7M7D8	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Analyte (Range): Delta-9-THC (0.5 – 50), 11-hydroxy-Delta-9-THC (0.5 – 50), 11-nor-9-carboxy-Delta-9-THC (5.0 - 500). Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
GEFCEL	LOQ for hydromorphone is 10 ng/mL; IS Hydromorphone-D3. LOQ for alprazolam is 50 ng/mL; IS Alprazolam-D5. All three items indicated low concentrations of metoprolol, diltiazem and doxylamine by QTOF. None of these was confirmed.
GFBX3K	Drug Screen for Blood: Promazine ISTD used. Benzodiazepine Confirmation: 30uL Prazepam ISTD (20mg/mL) used. Opiate Confirmation: 30uL of Nalorphine ISTD (100ug/mL) used.
GWGYZT	ELISA Screening Only
GZHXGD	Screening cutoffs: oxazepam = 0.050 mcg/mL, c-thc = 0.020 mcg/mL, methamphetamine = 0.020 mcg/mL, amphetamine = 0.020 mcg/mL, morphine = 0.020 mcg/mL, benzoylecgonine = 0.050 mcg/mL. Opiate confirmation: LOQ for hydrocodone, oxycodone, hydromorphone, oxymorphone, codeine, and morphine is 0.020 mcg/mL. LOQ for monoacetylmorphine is 0.010 mcg/mL. Benzodiazepine confirmation not performed.

TABLE 1F: Item 1

Webcode	Item 1 - Comments
HWEQ8Y	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Benzodiazapine confirmation/quantitation panel includes: alprazolam, diazepam, 7-aminoclonazepam, clonazepam, lorazepam, nordiazepam, oxazepam, and temazepam. The following internal standards are used: 7-aminoclonazepam D-4, alprazolam D-5, diazepam D-5, clonazepam D-4, nordiazepam D-5, oxazepam D-5, and temazepam D-5. LOD for all benzodiazapines quantitated is 5 ng/mL. LOQ for all benzodiazapines quantitated is 10 ng/mL. Opiate confirmation panel includes 6-monoacetylmorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, and oxymorphone. The following internal standards are used: 6-monoacetylmorphine D-3, codeine D-6, fentanyl D-5, hydrocodone D-6, hydromorphone D-3, methadone D-3, morphine D-3, oxycodone D-3, and oxymorphone D-3. 6-MAM and fentanyl have an LOD of 0.05 ng/mL and an LOQ of 1 ng/mL. The remaining analytes have an LOD of 5 ng/mL and an LOQ of 10 ng/mL. The laboratory does not routinely analyze postmortem samples (outside scope of testing).
HXA636	the values for alprazolam and hydromorphone would be reported as approximate as we have no uncertainty of measurement.
JDUK99	Benzodiazepines assay cutoff: 20 ng/mL. Opiate assay Cutoff: 20 ng/mL
JHDB3J	Internal standards: Mepivacaine, Nalorphine-diTMS
JM7J66	a-hydroxyalprazolam: Internal standard - a-hydroxyalprazolam-D5; LOQ 5ng/ml. Alprazolam: Internal standard - Alprazolam-D5; LOQ 5ng/ml. Hydromorphone: Internal standard - Hydromorphone-D6; LOQ 5ng/ml
JRE33X	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Benzodiazepines confirmation/quantitation panel includes 7-aminoclonazepam, alprazolam, diazepam, clonazepam, lorazepam, nordiazepam, oxazepam, and temazepam using 7-aminoclonazepam-D4, alprazolam-D5, diazepam-D5, clonazepam-D4, nordiazepam-D5, oxazepam-D5, and temazepam-D5 as internal standards. LOD for all aforementioned benzodiazepines is 5 ng/mL; LOQ is 10 ng/mL. Opiates confirmation/quantitation panel includes 6-MAM, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, and oxymorphone using 6-MAM-D3, codeine-D6, fentanyl-D5, hydrocodone-D6, hydromorphone-D3, methadone-D3, morphine-D3, oxycodone-D3, and oxymorphone-D3 as internal standards. LOD for 6-MAM and fentanyl is 0.5 ng/mL; LOQ is 1.0 ng/mL. LOD for remaining aforementioned opiates is 5 ng/mL; LOQ is 10 ng/mL. Laboratory does not routinely analyze postmortem samples.
KRX23G	Mepivacaine was the internal standard for LC/MS screening. Diazepam-d5 was the internal standard for LC/MS confirmation. Nalorphine was the internal standard for GC/MS confirmation
MAZW4A	Internal standards: GC/MS Qualitative: NPA/SKF. GC/MS quantitative: Alprazolam-d5. LC/MS/MS qualitative: codeine-d6, hydrocodone-d6, morphine-d6
MMCX9F	Alpha-Hydroxyalprazolam: Internal Std.: Alpha-Hydroxyalprazolam-d5. LOD/LOQ: 5.0 ng/mL. Alprazolam: Internal Std.: Alprazolam-d5. LOD/LOQ: 5.0 ng/mL. Hydromorphone: Internal Std.: Oxycodone-d6. LOD/LOQ: 10.0 ng/mL
NDZ9YA	Internal standards: GC/MS Qualitative: NPA/SKF. GC/MS quantitative: Alprazolam-d5. LC/MS/MS qualitative: codeine-d6, hydrocodone-d6, morphine-d6
P8PRPC	Internal standards used: Mepivacaine, Nalorphine-diTMS. Indications of Codeine, Estazolam, alpha-Hydroxyalprazolam trimethylsilyl ether
PAWR7C	Butyl Acetate Screen - Promazine - Internal Standard. Benzodiazepine Confirmation - Prazepam - Internal Standard. Opiate Confirmation - Nalorphine - Internal Standard

TABLE	1F: Ite	m 1
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Webcode	Item 1 - Comments
PRVZ4B	LC/MS/MS Screen Internal Standard: mepivacaine. hydromorphone quantitation Internal Standard: nalorphine. hydromorphone quantitation LOR: 3.1 μ g/L. alprazolam quantitation Internal Standard: diazepam-d5. alprazolam quantitation LOR: 3.125 μ g/L
PXM8N6	The ELISA immunoassay was used to screen for six classes of drugs: amphetamines, benzodiazepines, cannabinoids, cocaine, opiates and PCP. The benzodiazepines analysis was performed on the LC/MS/MS. The cut off/limit of detection is 10 ng/mL. The internal standards used for alprazolam and alpha-hydroxyalprazolam were alprazolam-d5 and alpha-hydroxyalprazolam-d5, respectively. The compounds were extracted by solid phase extraction targeting free, non-conjugated/non-protein bound compounds. The opiates analysis was performed on the GC/MS/MS. The cut off is 10 ng/mL and the limit of detection is 5ng/mL. The internal standard used for hydromorphone was Hydromorphone-D6. The compound was extracted by solid phase extraction targeting free, non-conjugated/non-protein bound compounds.
Q2JHT4	Internal Standard: Estazolam
Q93LZ7	Internal Standard: Flurazepam and Malorphine. LoD = 10 ng/mL
Q9EDV9	Diazepam-d5, mepivacaine, gabapentin-d4, mepivacaine, nalorphine
TRNYRZ	Prazepam internal standard used for Benzodiazepine confirmation. Nalorphine internal standard used for Opiate confirmation.
TY3ZQA	Internal Standards - Mepivacaine, Nalorphine
U69YV9	Internal Standards used: Nalorphine (opiate), Prazepam (benzo) and Promazine (gc/ms screen)
V8AENV	ISTDs=Diazepam-D5 , Hydromorphone-D3. LOQ/LOD 5 ng/mL alprazolam, OH-alprazolam. LOQ?LOD 2ng/mL Hydromorphone
VHAR3B	Our laboratory does not confirm for benzodiazepine and opiate in house. These tests are sent to a reference laboratory for confirmation.
VZ96H4	internal standards: diazepam d5, nalorphine, mepivacaine
VZA4AQ	IS - Mepivicaine (GC/MS); IS - D5-diazepam and D5-alpha-hydroxy-alprazolam (LC/MS/MS, LOQ = 15 ng/mL); IS - D3-morphine, D4-buprenorphine, D6-oxycodone (LC/MS/MS, LOQ = 1 or 10 ng/mL depending on analyte).
WJ3X32	The expanded uncertainty is reported at the coverage probability of 99.73% (k=3)
XQEL9M	GC/MS and GC/FID were used to confirm Alprazolam. LC/MS/MS was used to confirm and quantitate the drugs.
Y36U7F	Uncertainty of Measurement uses k factor=2 at a 95.45% confidence level for the above drugs
Y69M77	Internal standards used were nalorphine and mepivacaine
Y7MRZX	Alprazolam: IS = D5 Diazepam, Hydromorphone: LOQ = 0.025 ug/mL , IS - D3 Hydromorphone
YCRVLQ	Analysis by high performance liquid chromatography/tandem mass spectrometry in whole blood for: Analyte (Range): Delta-9-THC (0.5 – 50), 11-hydroxy-Delta-9-THC (0.5 – 50), 11-nor-9-carboxy-Delta-9-THC (5.0 - 500). Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
ZLBNDD	IS - Mepivicaine (GC/MS); IS - D5 Diazepam and D5-alpha-hydroxy-alprazolam (LC/MS/MS, LOQ = 15 ng/mL); IS - D3-Morphine, D4-Buprenorphine, D6-Oxycodone (LC/MS/MS, LOQ = 1 ng/mL or 10 ng/mL depending on analyte)

TABLE 1F: Item 1

Webcode			lten	n 1 - Co	ommen	ts			
		 		с I		L.			

ZMBMUZ Internal standard used for quantitation of alprazolam was diazepam-d5. Internal standard used for quantitation of hydromorphone was nalorphine; butylation was employed for analysis.

Screening Results - Item 2

TABLE 2A: Item 2

Item Scenario:

A 73 year-old female was pulled over for running a stop sign. The officer noticed that the driver seemed confused and was shaking. Breath alcohol test resulted in 0.00 percent. Blood was collected 30 minutes later.

Item Contents and Preparation Concentration:	Diazepam (375 ng/mL)
	Nordiazepam (420 ng/mL)

Webcode	Screening Results
22JZHB	Diazepam, Nordiazepam
29L9P4	benzodiazepines
2PT2XZ	benzodiazepines
2WUFKM	Diazepam and Nordiazepam.
2XJQCF	Benzodiazepines
3EP7EV	nordiazepam, diazepam
3LNZ73	No drugs/metabolites detected
3UH6Y4	benzodiazepine
3VUZLV	benzodiazepines (diazepam, nordiazepam)
4ENVXJ	Diazepam. Desmethyldiazepam.
4HG29E	benzodiazepines
4JFYP2	Benzodiazepines
4R8MEC	Benzodiazepines
4YTFPC	Benzodiazepines
62AZCR	Nordiazepam and Diazepam
6HETG7	Diazepam Nordiazepam
6PXWN9	benzodiazepines
6TX6TJ	Diazepam, Nordiazepam
77ZWEN	Diazepam Nordiazepam
7A6KVY	Benzodiazepines
7PVL9W	Benzodiazepines
83HVTG	Benzodiazepines
8CL4FT	Benzodiazepines Diazepam Nordiazepam
92J78J	Benzodiazepines
93EQTX	Diazepam
9EBRDE	Diazepam Nordiazepam
9P67BQ	Benzodiazepines; nordiazepam, diazepam

9T4RYMDiazepam Nordiazepam9TLFH3Diazepam and nordiazepam.A2EAT7BenzodiazepinesAYPY3DBenzodiazepinesB2XCHUBenzodiazepinesB8XVFHDiazepam NordiazepamBLKZRLDiazepam, Nordiazepam, CaffeineBZYBAGBenzodiazepinesCNG98FBenzodiazepineD94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepam NordiazepinesDZNX4Benzodiazepines
A2EAT7BenzodiazepinesAYPY3DBenzodiazepinesB2XCHUBenzodiazepinesB8XVFHDiazepam NordiazepamBLKZRLDiazepam, Nordiazepam, CaffeineBZYBAGBenzodiazepinesCNG98FBenzodiazepineD94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepamEDVNX4Benzodiazepines
AYPY3DBenzodiazepinesB2XCHUBenzodiazepinesB8XVFHDiazepam NordiazepamBLKZRLDiazepam, Nordiazepam, CaffeineBZYBAGBenzodiazepinesCNG98FBenzodiazepineD94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepam NordiazepinesEDVNX4Benzodiazepines
B2XCHUBenzodiazepinesB8XVFHDiazepam NordiazepamBLKZRLDiazepam, Nordiazepam, CaffeineBZYBAGBenzodiazepinesCNG98FBenzodiazepineD94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepam BenzodiazepinesEDVNX4Benzodiazepines
B8XVFHDiazepam NordiazepamBLKZRLDiazepam, Nordiazepam, CaffeineBZYBAGBenzodiazepinesCNG98FBenzodiazepineD94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepamEDVNX4Benzodiazepines
NordiazepamBLKZRLDiazepam, Nordiazepam, CaffeineBZYBAGBenzodiazepinesCNG98FBenzodiazepineD94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepam BenzodiazepinesEDVNX4Benzodiazepines
BZYBAG Benzodiazepines CNG98F Benzodiazepine D94WEM Diazepam Nordiazepam Nordiazepam DQMX7H Benzodiazepines DZBL6R Diazepam EDVNX4 Benzodiazepines
CNG98FBenzodiazepineD94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepamEDVNX4Benzodiazepines
D94WEMDiazepam NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepamEDVNX4Benzodiazepines
NordiazepamDQMX7HBenzodiazepinesDZBL6RDiazepamEDVNX4Benzodiazepines
DZBL6R Diazepam EDVNX4 Benzodiazepines
EDVNX4 Benzodiazepines
FAMVGA Benzodiazepines
FE6TCR Benzodiazepines
FJCJGH Diazepam, nordiazepam
FRR3WC Preliminarily found to contain Benzodiazepines.
FXUC34 Benzodiazepines
FYTAJRBenzodiazepines (Diazepam, Nordiazepam)
G7M7D8 benzodiazepines
GEFCEL Benzodiazepines (QTOF: Diazepam, Nordiazepam)
GFBX3K Benzodiazepines
GWGYZT Benzodiazepines
GZHXGD Benzodiazepines
H4AT9B Nordiazepam Diazepam
HFNQDE Diazepam Nordiazepam
HU8CZT diazepam nordiazepam
HWEQ8Y Benzodiazepines
HXA636 diazepam, noridazepam
JDUK99 Benzodiazepines
JGHWCK No immunoassay screening performed
JHCKUF Benzodiazepine

Webcode	Screening Results
JHDB3J	Benzodiazepines
JM7J66	Diazepam, Nordiazepam
JRE33X	Benzodiazepines
KRX23G	Positive benzodiazepines Positive diazepam and nordiazepam
M6VWA8	Diazepam Nordiazepam
MAZW4A	Benzodiazepines
MEZYE6	Benzodiazepines diazepam and nordiazepam
MLDXZ4	EMIT screening tested positive for Benzodiazepines.
MMCX9F	Benzodiazepines
NDZ9YA	Benzodiazepines
NK47T9	Benzodiazepines
NN2QG6	ELISA: Benzodiazepine GC/MS: Diazepam and Nordiazepam
NN4EXH	diazepam, nordiazepam
P7EUBV	Benzodiazepines
PAWR7C	Benzodiazepines Diazepam Nordiazepam
PJJQUW	Benzodiazepines
PRHFDM	diazepam nordiazepam
PRUCG7	Benzodiazepines
PRVZ4B	Immunoassay: benzodiazepines LC/MS/MS: diazepam & nordiazepam
PVD8JX	Benzodiazepines
PXM8N6	Benzodiazepines
Q2JHT4	Diazepam Nordiazepam
Q93LZ7	Diazepam Nordizepam
Q9EDV9	Certain benzodiazepines: diazepam & nordiazepam
RCFQ9Z	Benzodiazepines ELISA Positive
RJF6VM	Benzodiazepine presumptive positive
RJYTF3	Nordiazepam Diazepam
RMFFRM	Benzodiazepine
RUWPH4	Diazepam Nordiazepam

Webcode	Screening Results	
TN62XH	DESMETHYLDIAZEPAM DIAZEPAM	
TRNYRZ	Benzodiazepines, Diazepam, Nordiazepa	Im
TY3ZQA	Benzodiazepines	
U69YV9	Benzodiazepines	
UC42XJ	Benzodiazepines	
URHAW3	Benzodiazepines	
V8AENV	Diazepam Nordiazepam	
VHAR3B	Benzodiazepine	
VZ96H4	certain benzodiazepines (diazepam, nord	liazepam)
VZA4AQ	Benzodiazepines	
WH6WUN	Benzodiazepines	
WJ3X32	diazepam, nordiazepam	
XE39YY	benzodiazepines	
XHKFEL	Benzodiazepines	
XMVQ6V	Diazepam, Nordazepam	
XP4TY7	benzodiazepines	
XQEL9M	Benzodiazepines	
Y36U7F	Benzodiazepines	
Y69M77	benzodiazepines	
Y7MRZX	Benzodiazepines	
YCRVLQ	Benzodiazepines	
YZWGNE	Benzodiazepine	
ZLBNDD	Benzodiazepines	
ZMBMUZ	diazepam & nordiazepam (benzodiazepir	nes)
ZR3VVL	benzodiazepines	
Item 2 - Res	sponse Summary	Participants Reporting Screening Results: 113
Diazepo	am, Nordiazepam, and/or Benzodiazepines:	111
	No drugs/metabolites detected:	1
	*Other:	2
	Participants can report multiple drugs/metal	bolites; therefore, the sum of the values here of participants responding for this item.

*This category represents the total number of participants that reported a response other than that which is listed above.

Confirmatory Results - Item 2

What drugs/metabolites were detected in Item 2?

TABLE 2B: Item 2

Item Scenario:

A 73 year-old female was pulled over for running a stop sign. The officer noticed that the driver seemed confused and was shaking. Breath alcohol test resulted in 0.00 percent. Blood was collected 30 minutes later.

Item Contents and Preparation Concentration:

Diazepam (375 ng/mL) Nordiazepam (420 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
22JZHB	Diazepam		319	66	ng/mL
	Nordiazepam		267	87	ng/mL
29L9P4	Diazepam	1			
	Nordiazepam	1			
2PT2XZ	Diazepam		0.35	0.11	mg/L
	Nordiazepam		0.35	0.11	mg/L
2WUFKM	Diazepam		400	31	ng/mL
	Nordiazepam		460	62	ng/mL
2XJQCF	Diazepam		0.38	0.04	mg/L
	Nordiazepam		0.45	0.04	mg/L
3EP7EV	Diazepam		369.52	62.81	ng/mL
	Nordiazepam		428.72	94.31	ng/mL
3LNZ73	Diazepam	1			
	Nordiazepam	1			
3UH6Y4	Diazepam	1			
	Nordiazepam	<i>✓</i>			
	Methamphetamine	✓			
3VUZLV	Diazepam		0.32	0.10	mg/L
	Nordiazepam		0.35	0.11	mg/L
4ENVXJ	Diazepam		Approx 0.3	15%	mg/L
	Nordiazepam		Approx 0.4	15%	mg/L
4HG29E	Diazepam		349	+/-57	ng/mL
	Nordiazepam		408	+/-81	ng/mL
4JFYP2	Diazepam	1			
	Nordiazepam	\checkmark			
4R8MEC	Diazepam		383	16.19%	ng/mL
	Nordiazepam		409	19.88%	ng/mL

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
4YTFPC	Diazepam		396	16.19	%
	Nordiazepam		478	19.88	%
62AZCR	Diazepam Nordiazepam	√ √			
6HETG7	Diazepam Nordiazepam		344 348	71 113	ng/mL ng/mL
6PXWN9	Diazepam Nordiazepam		>250 >250		ng/ml ng/ml
6TX6TJ	Diazepam Nordiazepam		397.15 356.60	63.54 60.62	ng/ml ng/ml
77ZWEN	Diazepam Nordiazepam		402 1966	5.7 63.5	ng/mL ng/mL
7A6KVY	Diazepam Nordiazepam	√ √			
7PVL9W	Benzodiazepines	✓			
83HVTG	Diazepam Nordiazepam		454 525	+/- 74 +/- 104	ng/ml ng/ml
8CL4FT	Diazepam Nordiazepam		0.31 0.30	0.09 0.09	mg/L mg/L
92J78J	Diazepam Nordiazepam		387 420	39 34	ng/mL ng/mL
93EQTX	Diazepam		338	20%	ug/L
9EBRDE	Diazepam Nordiazepam		0.35 0.39	0.03 0.04	mg/L mg/L
9P67BQ	Diazepam Nordiazepam		0.29 0.44	0.09 0.13	mg/L mg/L
9T4RYM	Diazepam Nordiazepam	√ √			
9TLFH3	Diazepam Nordiazepam	\$ \$			
A2EAT7	Diazepam Nordiazepam		393 452	+/-64 +/-90	ng/mL ng/mL
AYPY3D	Diazepam Nordiazepam		340 400		ng/mL ng/mL

Qualitative Reported Webcode Only Units **Analyte Reported** Concentration Uncertainty 1 B2XCHU Diazepam 1 Nordiazepam 1 **B8XVFH** Diazepam 1 Nordiazepam **BLKZRL** 352 40 Diazepam ng/mL Nordiazepam 407 58 ng/mL **BZYBAG** 382 +/-62 Diazepam ng/mL 456 +/-91 Nordiazepam ng/mL 1 CNG98F Diazepam 1 Nordiazepam 1 D94WEM Diazepam 1 Nordiazepam DQMX7H Diazepam 0.42 3.2% mg/L 0.44 Nordiazepam 4.1% mg/L DZBL6R 62.9 331.5 ng/ml Diazepam ng/ml EDVNX4 0.35 Diazepam ±0.07 μ g/ml Nordiazepam 0.40 ±0.08 μ g/ml 1 FE6TCR Diazepam 1 Nordiazepam 1 FJCJGH Diazepam 1 Nordiazepam 397 +/- 64 FXUC34 Diazepam ng/mL 446 +/- 89 Nordiazepam ng/mL FYTAJR Diazepam 362 72.5 ng/mL 391 78.3 Nordiazepam ng/mL GEFCEL Diazepam 0.40 0.04 mg/L mg/L Nordiazepam 0.51 0.04 1 **GFBX3K** Diazepam 1 Nordiazepam GZHXGD No drugs/metabolites detected H4AT9B Diazepam 350.95 35.09 ng/mL 422.30 50.67 Nordiazepam ng/mL HU8CZT 0.37 0.057 Diazepam mg/L Nordiazepam 0.41 0.063 mg/L

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
HWEQ8Y	Diazepam		0.37	0.07	ug/mL
	Nordiazepam		0.41	0.08	ug/mL
HXA636	Diazepam		380	100	ng/mL
	Nordiazepam		440		ng/mL
JGHWCK	Diazepam	1			
	Nordiazepam	1			
JHCKUF	Diazepam	1			
	Nordiazepam	1			
JHDB3J	Diazepam	1			
	Nordiazepam	1			
JM7J66	Diazepam		370.40	59.26	ng/ml
	Nordiazepam		400.03	68.00	ng/ml
JRE33X	Diazepam		0.40	0.07	μ g/mL
	Nordiazepam		0.48	0.09	μ g/mL
KRX23G	Diazepam		0.33	0.10	mg/L
	Nordiazepam		0.39	0.12	mg/L
M6VWA8	Diazepam	1			
	Nordiazepam	 Image: A start of the start of			
MAZW4A	Diazepam	1			
	Nordiazepam	✓			
MEZYE6	Diazepam		0.37	0.11	mg/L
	Nordiazepam		0.41	0.12	mg/L
MLDXZ4	Diazepam	1			
	Nordiazepam	1			
MMCX9F	Diazepam		357	71	ng/mL
	Nordiazepam		401	80	ng/mL
NDZ9YA	Diazepam	1			
	Nordiazepam	1			
NN2QG6	Diazepam	1			
	Nordiazepam	1			
NN4EXH	Diazepam		343.78	+/- 58.44	ng/mL
	Nordiazepam		383.13	+/- 84.28	ng/mL
P7EUBV	Diazepam		401	+/- 65	ng/mL
	Nordiazepam		432	+/- 86	ng/mL

Qualitative Reported Webcode Only Units **Analyte Reported** Concentration Uncertainty 1 PAWR7C Diazepam 1 Nordiazepam PJJQUW 375 +/- 61 Diazepam ng/ml Nordiazepam 425 +/- 84 ng/ml PRHFDM 0.33 Diazepam 0.051 mg/L Nordiazepam 0.38 0.059 mg/L 1 PRUCG7 Diazepam 1 Nordiazepam 0.34 PRVZ4B Diazepam 0.10 mg/L Nordiazepam 0.35 0.11 mg/L 336 54 PVD8JX Diazepam ng/ml 376 75 Nordiazepam ng/ml PXM8N6 Diazepam 381 ± 66 ng/mL 409 ± 91 ng/mL Nordiazepam 1 Q2JHT4 Diazepam 1 Nordiazepam 1 Q93LZ7 Diazepam 1 Nordiazepam Q9EDV9 0.33 0.10 Diazepam mg/L 0.32 0.10 mg/L Nordiazepam RCFQ9Z Diazepam 437 +/-71 ng/ml Nordiazepam 458 +/-91 ng/ml % RJF6VM 346 16.19 Diazepam 438 % Nordiazepam 19.88 **RJYTF3** Diazepam 360.27 36.02 ng/mL Nordiazepam 405.84 48.70 ng/mL % 376 RMFFRM Diazepam 16.19 416 19.88 % Nordiazepam RUWPH4 1 Diazepam 1 Nordiazepam 319.4 TN62XH 127.8 Diazepam ng/ml Nordiazepam 439.3 175.7 ng/ml 1 TRNYRZ Diazepam 1 Nordiazepam

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
TY3ZQA	Diazepam	\checkmark			
	Nordiazepam	1			
U69YV9	Diazepam	\checkmark			
	Nordiazepam	1			
UC42XJ	Diazepam		350	16.19%	ng/ml
	Nordiazepam		382	19.88%	ng/ml
URHAW3	Diazepam	1			
	Nordiazepam	1			
V8AENV	Diazepam		342	103	ng/mL
	Nordiazepam		494	148	ng/mL
VZ96H4	Diazepam		0.34	0.10	mg/L
	Nordiazepam		0.47	0.14	mg/L
VZA4AQ	Diazepam		348	+/- 16.19%	ng/mL
	Nordiazepam		383	+/- 19.88%	ng/mL
WH6WUN	Diazepam		430	+/- 70	ng/ml
	Nordiazepam		363	+/- 72	ng/ml
WJ3X32	Diazepam		368.98	62.73	ng/ml
	Nordiazepam		410.50	90.31	ng/ml
XE39YY	Diazepam		372		ng/mL
	Nordiazepam		369		ng/mL
XHKFEL	Diazepam		330	+/-54	ng/mL
	Nordiazepam		362	+/-72	ng/mL
XMVQ6V	Diazepam		0.2		mg/L
	Nordiazepam		0.3		mg/L
XP4TY7	Diazepam	1			
	Nordiazepam	\checkmark			
XQEL9M	Diazepam		382	+/- 62	ng/mL
	Nordiazepam		416	+/- 83	ng/mL
Y36U7F	Diazepam		369	16.19%	ng/mL
	Nordiazepam		439	19.88%	ng/mL
Y69M77	Diazepam	1			
	Nordiazepam				
Y7MRZX	Diazepam	1			
	Nordiazepam	1			

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
YZWGNE	Diazepam		389	16.19%	ng/mL
	Nordiazepam		450	19.88%	ng/mL
ZLBNDD	Diazepam		361	+/- 16.19%	ng/mL
	Nordiazepam		435	+/- 19.88%	ng/mL
ZMBMUZ	Diazepam		0.33	0.10	mg/L
	Nordiazepam		0.32	0.10	mg/L
ZR3VVL	Diazepam		442	72	ng/mL
	Nordiazepam		459	91	ng/mL
ltem 2 - Resp	onse Summary	Part	icipants Reporting	Confirmatory Re	esults: 10
		Diazepam:	102		

Participants can report multiple drugs/metabolites; therefore, the sum of the values here

*Other:

Nordiazepam:

No drugs/metabolites detected:

may be greater than the total number of participants responding for this item.

*This category represents the total number of participants that reported a response other than that which is listed above.

100

1 2

Raw Data - Item 2

List of raw data determinations in ng/mL.

TABLE 2C: Item 2

ltem 2 Raw Data - Diazepam

Preparation concentration: 375 ng/mL

2WUFKM 398.0 398.0 2XUQCF 377.0 377.5 377.3 3EP7EV 369.5 369.5 369.5 3VUZLV 323.8 323.8 323.8 4ENVXJ 315.5 362.5 339.0 4HG29E 349.0 349.0 349.0 4RMEC 383.0 383.0 396.3 4TFPC 396.3 396.3 396.3 6HETG7 344.0 344.0 344.0 6TX6TJ 397.2 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 309.0 300.0 300.0	Webcode	Raw Data	(ng/mL)				Participant Mean
2WUFKM 398.0 398.0 2XUQCF 377.0 377.5 377.3 3EP7EV 369.5 369.5 369.5 3VUZLV 323.8 323.8 323.8 4ENVXJ 315.5 362.5 339.0 4HG29E 349.0 349.0 349.0 4R8MEC 383.0 383.0 383.0 4YTFPC 396.3 396.3 396.3 6HETG7 344.0 344.0 344.0 6TX6TJ 397.2 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 309.0 309.0 309.0 309.0 309.0 309.0 309.0 338.0 92.2 338.0 92.2 338.0 92.2 334.0 309.0 309.0 309.0 309.0 309.0 309.0 309.0 309.0 338.0 92.2 338.0 92.2 338.0 92.2 338.0 92.2 338.0 92.2 338.0 92.1 309.0 309.0 309.0 <	22JZHB	319.0					319.0
ZXIQCF 377.0 377.5 377.3 3EP7EV 369.5 369.5 369.5 3VUZLV 323.8 323.8 323.8 4ENVXJ 315.5 362.5 339.0 4HG29E 349.0 349.0 349.0 4RBMEC 383.0 383.0 383.0 4YTFPC 396.3 396.3 396.3 6HETG7 344.0 344.0 344.0 6TX6TJ 397.2 397.2 397.2 7ZZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 309.0 309.0 309.0 309.0 309.0 395.2 309.0 395.2 309.0 <td>2PT2XZ</td> <td>348.6</td> <td></td> <td></td> <td></td> <td></td> <td>348.6</td>	2PT2XZ	348.6					348.6
3EP7EV 369.5 369.5 3VUZLV 323.8 323.8 4ENVXJ 315.5 362.5 339.0 4HG29E 349.0 349.0 349.0 4RBMEC 383.0 383.0 383.0 4YTFPC 396.3 396.3 383.0 4YTFPC 396.3 396.3 344.0 6TX6TJ 397.2 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 344.0 348.7 392.2 388.0 99.0 92EQTX 342.0 334.0 369.0 362.0 <td>2WUFKM</td> <td>398.0</td> <td></td> <td></td> <td></td> <td></td> <td>398.0</td>	2WUFKM	398.0					398.0
3VUZLV 323.8 323.8 3VUZLV 323.8 323.8 4ENVXJ 315.5 362.5 339.0 4HG29E 349.0 349.0 349.0 4RBMEC 383.0 383.0 383.0 4YTFPC 396.3 396.3 396.3 6HETG7 344.0 344.0 344.0 6TX6TJ 397.2 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 309.0 309.0 309.0 99.0 92EQTX 342.0 334.0 338.0 99.0 99.0 393.6 347.9 9P67BQ 291.1 291.1 291.1 291.1 291.1 291.1 A2EAT7 393.6 393.6 393.6 352.1 362.0 362.0 DQMX7H 420.0 440.0 430.0 344.0 362.0 362.0 362.0 DQMX7H 420.0 440.0 430.0 31.5 331.5 331.5 355.8 <	2XJQCF	377.0	377.5				377.3
4ENVXU 315.5 362.5 339.0 4HG29E 349.0 349.0 349.0 4R8MEC 383.0 383.0 383.0 4YTFPC 396.3 396.3 396.3 6HETG7 344.0 344.0 344.0 6TX6TJ 397.2 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 399.0 399.0 399.0 399.0 8CL4FT 309.0 309.0 309.0 399.0<	3EP7EV	369.5					369.5
HG29E 349.0 349.0 4HG29E 383.0 383.0 4R8MEC 383.0 383.0 4YTFPC 396.3 396.3 6HETG7 344.0 344.0 6TX6TJ 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 454.0 388.0 99.0 92EQTX 342.0 334.0 309.0 309.0 309.0 92.2 92EQTX 342.0 334.0 309.0 309.0 92.2	3VUZLV	323.8					323.8
4R8MEC 383.0 383.0 4YTFPC 396.3 396.3 6HETG7 344.0 344.0 6TX6TJ 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 454.0 309.0 309.0 8CL4FT 309.0 309.0 309.0 338.0 92.2 92EQTX 342.0 334.0 338.0 92.2 334.0 309.0 92EQTX 342.0 334.0 309.0 309.0 92.1 309.0 92.1 347.9 91.1 291.1 291.1 291.1 291.1 291.1 291.1 344.0 344.0 344.0 344.0 344.0 344.0 344.0 344.0 344.0 344.0 344.0 344.0 342.0 344.0 344.0 345.1 355.1 355.1 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8 355.8	4ENVXJ	315.5	362.5				339.0
4YTFPC 396.3 396.3 4HTG7 344.0 344.0 6TX6TJ 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 454.0 454.0 8CL4FT 309.0 309.0 309.0 93EQTX 342.0 334.0 338.0 9EBRDE 347.3 348.4 347.9 9P67BQ 291.1 291.1 291.1 A2EAT7 393.6 393.6 393.6 AYPY3D 344.0 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	4HG29E	349.0					349.0
6HETG7 344.0 344.0 6TX6TJ 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 454.0 454.0 8CL4FT 309.0 309.0 309.0 93EQTX 342.0 334.0 338.0 9EBRDE 347.3 348.4 347.9 9P67BQ 291.1 291.1 A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 331.5 EDVNX4 355.8 355.8 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	4R8MEC	383.0					383.0
6TX6TJ 397.2 397.2 77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 454.0 8CL4FT 309.0 309.0 309.0 93EQTX 342.0 334.0 338.0 9EBRDE 347.3 348.4 347.9 9P67BQ 291.1 291.1 A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 BZYBAG 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 EDVNX4 355.8 355.8 FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	4YTFPC	396.3					396.3
77ZWEN 411.3 396.5 403.2 401.4 348.7 392.2 83HVTG 454.0 454.0 309.0 309.0 8CL4FT 309.0 309.0 309.0 338.0 93EQTX 342.0 334.0 338.0 398.0 9EBRDE 347.3 348.4 347.9 391.1 9P67BQ 291.1 291.1 291.1 A2EAT7 393.6 393.6 393.6 AYPY3D 344.0 344.0 342.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 31.5 EDVNX4 355.8 355.8 355.8 55.8 FXUC34 397.0 397.0 397.0 397.0	6HETG7	344.0					344.0
83HVTG 454.0 454.0 82HVTG 454.0 309.0 92EQTX 342.0 334.0 338.0 92BRDE 347.3 348.4 347.9 9P67BQ 291.1 291.1 291.1 A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 355.8 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	6TX6TJ	397.2					397.2
8CL4FT 309.0 309.0 93EQTX 342.0 334.0 338.0 9EBRDE 347.3 348.4 347.9 9P67BQ 291.1 291.1 291.1 A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 355.8 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	77ZWEN	411.3	396.5	403.2	401.4	348.7	392.2
93EQTX 342.0 334.0 338.0 9EBRDE 347.3 348.4 347.9 9P67BQ 291.1 291.1 A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	83HVTG	454.0					454.0
9EBRDE 347.3 348.4 347.9 9P67BQ 291.1 291.1 A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 355.8 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	8CL4FT	309.0					309.0
PP67BQ 291.1 291.1 A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	93EQTX	342.0	334.0				338.0
A2EAT7 393.6 393.6 AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 EDVNX4 355.8 355.8 FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	9EBRDE	347.3	348.4				347.9
AYPY3D 344.0 344.0 BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 EDVNX4 355.8 355.8 FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	9P67BQ	291.1					291.1
BLKZRL 374.3 329.8 352.1 BZYBAG 382.0 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 331.5 EDVNX4 355.8 355.8 355.8 FXUC34 397.0 397.0 397.0 GEFCEL 408.0 401.0 404.5	A2EAT7	393.6					393.6
BZYBAG 382.0 382.0 DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 EDVNX4 355.8 355.8 FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	AYPY3D	344.0					344.0
DQMX7H 420.0 440.0 430.0 DZBL6R 331.5 331.5 EDVNX4 355.8 355.8 FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	BLKZRL	374.3	329.8				352.1
DZBL6R 331.5 331.5 EDVNX4 355.8 355.8 FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	BZYBAG	382.0					382.0
EDVNX4 355.8 355.8 FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	DQMX7H	420.0	440.0				430.0
FXUC34 397.0 397.0 GEFCEL 408.0 401.0 404.5	DZBL6R	331.5					331.5
GEFCEL 408.0 401.0 404.5	EDVNX4	355.8					355.8
	FXUC34	397.0					397.0
H4AT9B 351.0 351.0	GEFCEL	408.0	401.0				404.5
	H4AT9B	351.0					351.0

Item 2 Raw Data - Diazepam Preparation concentration: 375 ng/mL

Webcode	Raw Data	(ng/mL)		Participant Mean
HU8CZT	372.4			372.4
HWEQ8Y	378.8			378.8
HXA636	380.0	380.0	380.0	380.0
JM7J66	370.4			370.4
JRE33X	407.7			407.7
KRX23G	330.5			330.5
MEZYE6	368.8			368.8
MMCX9F	357.0			357.0
P7EUBV	401.0			401.0
PJJQUW	375.0			375.0
PRHFDM	331.9			331.9
PRVZ4B	340.5			340.5
PVD8JX	336.0			336.0
PXM8N6	381.0			381.0
Q9EDV9	327.2			327.2
RCFQ9Z	437.0			437.0
RJF6VM	346.0			346.0
RJYTF3	360.3	389.5		374.9
RMFFRM	376.7			376.7
UC42XJ	350.0			350.0
V8AENV	319.4	355.0	351.7	342.0
VZ96H4	339.0			339.0
VZA4AQ	348.0			348.0
WH6WUN	430.0			430.0
WJ3X32	369.0			369.0
XHKFEL	330.5			330.5
XMVQ6V	200.0			200.0 X
XQEL9M	382.0			382.0
Y36U7F	369.0			369.0
YZWGNE	389.0			389.0

TABLE 2C: Item 2

Item 2 Raw Data - Diazepam Preparation concentration: 375 ng/mL

Webcode	Raw Data (ng,	/mL)	Participant Mean
ZLBNDD	361.0		361.0
ZMBMUZ	330.9		330.9
ZR3VVL	442.0		442.0
Statistical An	alysis for Item 2	- Diazepam	
Grand N	Mean: 366.6	Number of Participants Included: 60	Number of Participants without Raw Data or Data that was not
Standard Devi	ation: 33.76	Number of Participants Excluded: 1	reported in ng/mL: 0

Item 2 Raw Data - Nordiazepam Preparation concentration: 420 ng/mL

Webcode	Raw Data (I	ng/mL)				Participant Mean
22JZHB	267.0					267.0
2PT2XZ	351.5					351.5
2WUFKM	458.0					458.0
2XJQCF	450.5	454.5				452.5
3EP7EV	428.7					428.7
3VUZLV	348.5					348.5
4ENVXJ	419.1	381.5				400.3
4HG29E	408.0					408.0
4R8MEC	409.0					409.0
4YTFPC	478.0					478.0
6HETG7	348.0					348.0
6TX6TJ	356.6					356.6
77ZWEN	1,908.6	1,956.2	2,075.1	1,944.8	1,946.4	1,966.2 X
83HVTG	525.0					525.0
8CL4FT	303.5					303.5
9EBRDE	387.2	402.2				394.7
9P67BQ	437.1					437.1
A2EAT7	452.1					452.1
AYPY3D	402.4					402.4
BLKZRL	431.2	383.6				407.4
BZYBAG	456.0					456.0
DQMX7H	440.0	460.0				450.0
EDVNX4	402.7					402.7
FXUC34	446.0					446.0
GEFCEL	510.0	513.0				511.5
H4AT9B	422.3					422.3
HU8CZT	412.0					412.0
HWEQ8Y	412.7					412.7
HXA636	440.0	440.0	440.0			440.0
JM7J66	400.0					400.0

Item 2 Raw Data - Nordiazepam Preparation concentration: 420 ng/mL

Webcode	Raw Data	ng/mL)	Participant Mean
JRE33X	480.4		480.4
KRX23G	392.9		392.9
MEZYE6	409.0		409.0
MMCX9F	401.0		401.0
P7EUBV	432.0		432.0
PJJQUW	425.0		425.0
PRHFDM	381.0		381.0
PRVZ4B	350.2		350.2
PVD8JX	376.0		376.0
PXM8N6	409.0		409.0
Q9EDV9	324.6		324.6
RCFQ9Z	458.0		458.0
RJF6VM	438.0		438.0
RJYTF3	405.8	448.8	427.3
RMFFRM	416.3		416.3
UC42XJ	382.0		382.0
V8AENV	493.6	494.8	494.2
VZ96H4	473.5		473.5
VZA4AQ	383.0		383.0
WH6WUN	363.0		363.0
WJ3X32	410.5		410.5
XHKFEL	362.5		362.5
XMVQ6V	300.0		300.0
XQEL9M	416.0		416.0
Y36U7F	439.0		439.0
YZWGNE	450.0		450.0
ZLBNDD	435.0		435.0
ZMBMUZ	320.2		320.2
ZR3VVL	459.0		459.0

Statistical Analysis for Item 2 - Nordiazepam						
Grand Mean: 410.2	Number of Participants Included: 58	Number of Participants without Raw Data or Data that was not				
Standard Deviation: 51.73	Number of Participants Excluded: 1	reported in ng/mL: 0				

Reporting Procedures - Item 2

If quantitative analysis was performed, the reported concentrations are:

Webcode	Quantitative Reporting Procedures
22JZHB	A single determination.
2PT2XZ	A single determination.
2WUFKM	A single determination.
2XJQCF	The mean of duplicate/several determinations.
3EP7EV	A single determination.
3VUZLV	A single determination.
4ENVXJ	The mean of duplicate/several determinations.
4HG29E	A single determination.
4R8MEC	A single determination.
4YTFPC	A single determination.
6HETG7	A single determination.
6PXWN9	A single determination.
6TX6TJ	A single determination.
77ZWEN	The mean of duplicate/several determinations.
7Α6Κνγ	Not quantitated
83HVTG	A single determination.
8CL4FT	A single determination.
92J78J	The mean of duplicate/several determinations.
93EQTX	The mean of duplicate/several determinations.
9EBRDE	A single determination.
9P67BQ	A single determination.
A2EAT7	A single determination.
AYPY3D	A single determination.
BLKZRL	The mean of duplicate/several determinations.
BZYBAG	A single determination.
DQMX7H	A single determination.
DZBL6R	A single determination.
EDVNX4	A single determination.
FXUC34	A single determination.

Webcode	Quantitative Reporting Procedures
FYTAJR	A single determination.
GEFCEL	The mean of duplicate/several determinations.
H4AT9B	A single determination.
HU8CZT	A single determination.
HWEQ8Y	A single determination.
HXA636	The mean of duplicate/several determinations.
JM7J66	A single determination.
JRE33X	A single determination.
KRX23G	A single determination.
MEZYE6	A single determination.
MMCX9F	A single determination.
NN4EXH	A single determination.
P7EUBV	A single determination.
PJJQUW	A single determination.
PRHFDM	A single determination.
PRVZ4B	A single determination.
PVD8JX	A single determination.
PXM8N6	A single determination.
Q9EDV9	A single determination.
RCFQ9Z	A single determination.
RJF6VM	A single determination.
RJYTF3	A single determination.
RMFFRM	A single determination.
TN62XH	A single determination.
UC42XJ	A single determination.
V8AENV	The mean of duplicate/several determinations.
VZ96H4	A single determination.
VZA4AQ	A single determination.
WH6WUN	A single determination.
WJ3X32	A single determination.
XE39YY	A single determination.
XHKFEL	A single determination.

Webcode	Quantitative Reporting Proced	lures
XMVQ6V	A single determination.	
XQEL9M	A single determination.	
Y36U7F	A single determination.	
YZWGNE	A single determination.	
ZLBNDD	A single determination.	
ZMBMUZ	A single determination.	
ZR3VVL	A single determination.	
Response	Summary for Item 2	Participants: 68
	A single determination: 58 (85.3%)	
Т	The mean of duplicate/several determinations: 9 (13.2%)	

Other: 1 (1.5%)

Methods of Analysis - Item 2

Webcode	Method	Screening	Confirmatory	Quantitation
22JZHB	LC/MS/MS	1	✓	✓
	Immunoassay	✓		
29L9P4	Immunoassay	\checkmark		
	LC/MS/MS		1	
2PT2XZ	Immunoassay		_	_
	LC/MS/MS	/	1	1
2WUFKM	Immunoassay			
	UPLC-QTOF MS	\checkmark	,	
	LC/MS/MS		<i>✓</i>	<i>,</i>
2XJQCF	Immunoassay	5	,	
	LC-QTOF	<i>✓</i>	1	1
	LC/MS/MS		/	
3EP7EV	LC/MS/MS	/	1	<i>✓</i>
3LNZ73	GC/MS		1	
	LC/MS		V	
3UH6Y4	Immunoassay	1	1	
	GC/MS		✓ ✓	
0) // 171) /	LC/MS/MS	✓	v	
3VUZLV	Immunoassay LC/MS/MS	5 5	1	
		v	v	· · · · · · · · · · · · · · · · · · ·
4ENVXJ	LC/MS/MS Immunoassay	1		V
	LC/MS	1		
	HPLC-DAD	1		
4HG29E	Immunoassay	1		
1110272	GC/MS		1	
	LC/MS/MS		1	1
	GC/FID		\checkmark	
4JFYP2	Immunoassay	1		
	GC/MS		1	
4R8MEC	LC/MS/MS		✓	1
	Immunoassay	1		
4YTFPC	LC/MS/MS		✓	✓
	Immunoassay	1		
62AZCR	LC/MS/MS	1	1	
6HETG7	LC/MS/MS	1	1	1
	Immunoassay	1		
6PXWN9	Immunoassay	✓		
	LC/MS/MS		1	1
6TX6TJ	LC/MS/MS	1	\checkmark	1
77ZWEN	LC/MS/MS	1	1	1
7A6KVY	Immunoassay	1		
	GC/MS		1	

Webcode	Method	Screening	Confirmatory	Quantitation
7PVL9W	Immunoassay	<i>√</i>		
83HVTG	Immunoassay	✓		
	LC/MS/MS		1	1
8CL4FT	Immunoassay			
	LC/MS/MS	\checkmark	1	
92J78J	Immunoassay	\checkmark	_	
	GC/MS		1	1
	LC/MS/MS			
93EQTX	LC/MS/MS			
9EBRDE	LC/MS/MS	,	1	\checkmark
	Immunoassay LC-TOF-MS	<i>J</i>		
9P67BQ	Immunoassay LC/MS/MS		1	1
	GC/MS	v	1	v
9T4RYM	GC/MS	/		
9TLFH3	LC/MS/MS	· · · · · · · · · · · · · · · · · · ·		
			v	
A2EAT7	Immunoassay LC/MS/MS	v	1	1
AYPY3D		/	•	•
ATFISD	Immunoassay GC/MS	v	1	
	LC/MS/MS		1	1
B2XCHU	Immunoassay	✓		
	GC/MS		1	
B8XVFH	GC/MS	1	1	
BLKZRL	LC/MS/MS		1	1
BZYBAG	Immunoassay	1		
	GC/MS		1	
	LC/MS/MS		1	\checkmark
CNG98F	Immunoassay	1		
	GC/MS	\checkmark	1	
D94WEM	Immunoassay	\checkmark		
	LC/QTOF-MS			
	GC/MS		,	
	LC/MS/MS	,	1	
DQMX7H	Immunoassay		/	
	GC/MS Gc/NPD		1	
		✓	/	•
DZBL6R	LC/MS/MS		V	✓
EDVNX4	lmmunoassay LC/MS/MS	~	1	1
FAMVGA	Immunoassay	1		
FE6TCR	Immunoassay	✓		
	GC/MS		1	

Webcode	Method	Screening	Confirmatory	Quantitation
FJCJGH	GC/MS	/	_	
	LC/MS/MS	v	\checkmark	
FRR3WC	Immunoassay	/		
FXUC34	Immunoassay	\checkmark	1	
	GC/MS			1
	LC/MS GC/FID		1	v
FYTAJR	LC/MS/MS	1		1
G7M7D8	Immunoassay	1		
GEFCEL	Immunoassay	✓		
	QTOF	\checkmark	1	
	LC/MS/MS			1
GFBX3K	Immunoassay	\checkmark		
	GC/MS	\checkmark	1	
GWGYZT	Immunoassay	1		
GZHXGD	Immunoassay	\checkmark		
H4AT9B	LC/MS/MS	\checkmark	1	1
HFNQDE	LC/MS/MS	✓		
HU8CZT	LC-TOF-MS	1		
	LC/MS/MS		1	1
HWEQ8Y	Immunoassay	✓		
	LC/MS/MS		1	1
HXA636	LC/MS/MS		1	1
	Immunoassay	\checkmark		
	LC-TOFMS	\checkmark		
JDUK99	lmmunoassay	\checkmark		
JGHWCK	GC/MS		1	
JHCKUF	Immunoassay	\checkmark		
	GC/MS		1	
JHDB3J	Immunoassay	\checkmark	_	
	GC/MS		1	
JM7J66	LC/MS/MS	\checkmark	1	1
JRE33X	Immunoassay	\checkmark	_	
	LC/MS/MS		1	1
KRX23G	Immunoassay		,	
	LC/MS			
M6VWA8	GC/MS	✓	1	
MAZW4A	Immunoassay	1	,	
	GC/MS		5	
	LC/MS/MS		✓	
MEZYE6	Immunoassay	↓ ↓	1	1
	LC/MS/MS		v	v
MLDXZ4	Immunoassay	V	1	
	GC/MS		✓	

Webcode	Method	Screening	Confirmatory	Quantitation
MMCX9F	Immunoassay LC/MS/MS	\checkmark	1	1
NDZ9YA	Immunoassay GC/MS LC/MS/MS	1	J J	
NK47T9	Immunoassay LC/MS/MS	\ \		
NN2QG6	Immunoassay GC/MS	\ \	1	
NN4EXH	LC/MS/MS	1	1	1
P7EUBV	Immunoassay GC/MS LC/MS/MS	\checkmark	J J	1
PAWR7C	Immunoassay GC/MS	\$ \$	1	
PJJQUW	Immunoassay GC/MS LC/MS/MS	<i>√</i>	J J	1
PRHFDM	Immunoassay GC/MS LC/MS/MS	1	1	1
PRUCG7	Immunoassay GC/MS LC/MS/MS	✓ ✓	1	
PRVZ4B	Immunoassay LC/MS/MS	\$ \$	1	1
PVD8JX	Immunoassay LC/MS/MS	1	1	1
PXM8N6	Immunoassay LC/MS/MS	1	1	1
Q2JHT4	GC/MS LC/MS	√ √	\ \	
Q93LZ7	GC/MS LC/MS	√ √	\ \	
Q9EDV9	Immunoassay LC/MS/MS	1	1	1
RCFQ9Z	Immunoassay GC/MS LC/MS/MS	\checkmark	1	1
RJF6VM	Immunoassay GC/MS LC/MS/MS	1	<i>」</i> ノ	1
RJYTF3	LC/MS/MS	1	1	1
RMFFRM	Immunoassay LC/MS/MS	1	1	1
RUWPH4	GC/MS	1	1	

Webcode	Method	Screening	Confirmatory	Quantitation
TN62XH	LC/MS/MS	1	1	1
FRNYRZ	Immunoassay	1		
	GC/MS	\checkmark	\checkmark	
TY3ZQA	Immunoassay	\checkmark		
	GC/MS		1	
J69YV9	Immunoassay	\checkmark		
	GC/MS	\checkmark	1	
JC42XJ	lmmunoassay LC/MS/MS	\checkmark	1	1
URHAW3	Immunoassay	1		
	GC/MS		1	
/8AENV	GC/MS	1		
	LC/MS/MS	\checkmark	1	1
	Immunoassay	\checkmark		
/HAR3B	Immunoassay	1		
/Z96H4	Immunoassay	✓		
	LC/MS	\checkmark	1	1
	GC/MS		1	
/ZA4AQ	Immunoassay	\checkmark		
	GC/MS	\checkmark		
	LC/MS/MS		1	1
WH6WUN	Immunoassay	✓		
	LC/MS/MS		1	1
WJ3X32	LC/MS/MS	1	1	1
KE39YY	Immunoassay	✓		
	LC/MS/MS		1	1
KHKFEL	Immunoassay	 ✓ 		
	LC/MS/MS		1	1
	GC/MS		1	
KMVQ6V	GC/MS			1
	HPLC-DAD	\checkmark		
XP4TY7	Immunoassay	✓		
	GC/MS		1	
KQEL9M	Immunoassay	1		
	LC/MS/MS		1	1
	GC/MS		1	
	GC/FID		1	
Y36U7F	Immunoassay	1		
	GC/MS		1	
	LC/MS/MS		1	1
Y69M77	Immunoassay	1		
	GC/MS		1	
Y7MRZX	Immunoassay	✓		
	LC/MS/MS		1	
YCRVLQ	Immunoassay	1		

Webcode	Method	Screening	Confirmatory	Quantitation
YZWGNE	Immunoassay	1		
	GC-MS / GC-FID		✓	
	LC/MS/MS		1	\checkmark
ZLBNDD	Immunoassay	1		
	GC/MS	1		
	LC/MS/MS		✓	\checkmark
ZMBMUZ	Immunoassay	1		
	LC/MS/MS	1	✓	\checkmark
ZR3VVL	Immunoassay	1		
	GC/MS		1	
	LC/MS/MS		\checkmark	1
Response Sum	nmary for Item 2			Participants: 113
		Screening	Confirmatory	Quantitation

	Screening	Confirmatory	Quantitation
Immunoassay:	86	0	0
GC/MS:	19	44	1
LC/MS:	5	6	2
LC/MS/MS:	26	65	61
Other:	9	6	1

Additional Comments for Item 2

Webcode	Item 2 - Comments
22JZHB	Internal standard used to quantitate diazepam and nordiazepam was Diazepam-D5. These two analytes have a reportable concentration range of 10-1000 ng/mL using seven calibrators and three positive controls. The immunoassay screen was used to determine the absence of cannabinoids.
29L9P4	Cut-off 10 ng/mL: diazepam, nordiazepam
2PT2XZ	Internal standard: diazepam-d5
2WUFKM	Screening: Immunoassay and UPLC-QTOF MS (Waters). Salting-out assisted extraction. Internal Standards: Cyclobarbitone, Prazepam & D3-Methadone. Diazepam and Nordiazepam Quantitative Analysis. Instrument: UPLC-TQD (Waters). Internal Standard: D5-Diazepam. LOD for both Diazepam and Nordiazepam: 1 ng/mL
2XJQCF	Internal standards are Diazepam-D5 and Nordiazepam-D5. LOQ is 100 ng/mL for both analytes.
3EP7EV	[Variations in analyte spelling were updated for consistency purposes for the inclusion in statistical analysis.]
3VUZLV	internal standards: mepivacaine, diazepam-d5
4ENVXJ	Diazepam ISTD = D5 Diazepam. Desmethyldiazepam ISTD = D5 Desmethyldiazepam. Meloxicam, omeprazole and hydroxychloroquine also detected but not reported. [Variations in analyte spelling were updated for consistency purposes for the inclusion in statistical analysis.]
4JFYP2	Mepivacaine- Internal Standard
6HETG7	Immunoassay was used for THC Screening. Diazepam-D5 used for Diazepam and Nordiazepam Internal Standards
6TX6TJ	Diazepam: Internal standard - Diazepam-D5; LOQ - 5ng/ml. Nordiazepam: Internal standard - Nordiazepam-D5; LOQ - 5ng/ml
7PVL9W	Only Screening analysis was able to be performed by the laboratory
93EQTX	diazepam-d5 internal standard. 20% measurement of uncertainty set by [Agency]. In-House MoU = 13.7%
9P67BQ	LC/MS/MS Screen IS: Mepivacaine. Diazepam, nordiazepam quant IS: Diazepam-d5. GC confirmatory screen IS: Mepivacaine
B2XCHU	Internal Standards - Mepivacaine
BLKZRL	screening by LC QTOF, confirmations/quantitations by LCMSMS
CNG98F	Butyl Acetate Extraction has Promazine as ISTD. Benzodiazepine Extraction has Prazepam as ISTD
DZBL6R	Nordiazepam was detected in the drug screen, however, nordiazepam failed during the last drug screen validation process so it is not reported out currently.
EDVNX4	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine and zolpidem. Benzodiazepine confirmation panel includes alprazolam, diazepam, 7-aminoclonazepam, clonazepam, lorazepam, nordiazepam, oxazepam and temazepam. LOD for the panel is 5ng/ml. LOQ for the panel is 10ng/ml. Diazepam-D5 and nordiazepam-D5 used as internal standards.
FAMVGA	Assay Cutoff* (ng/mL) Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Meprobamate 100, Barbiturates 50, Methadone 10, Benzodiazepines 10, Opiates 10, Buprenorphine 5, Opioids 10, Cannabinoids 10, Phencyclidine 5, Benzoylecgonine 50, TCA 25, Dextromethorphan 5, Tramadol 5, Fentanyl 1, Zolpidem 10. [Participant submitted data in a format that could not be reproduced in this report.]
FJCJGH	Gabapentin was also detected in the sample which may be present as artifact as indicated in the supplied information.

Webcode	Item 2 - Comments
FRR3WC	Immunoassay screening analysis for Buprenorphine did not meet quality control criteria; results not reported. Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
FYTAJR	Internal standards used are all deuterated respective compounds of interest. Sample analyzed undiluted 11/20/19 found to be above upper limit of quantitation, Sample analyzed with a x2 dilution 11/21/19 with results being within range of quantitation. Lower Limits of Detection: Diazepam & Nordiazepam 4ng/mL
G7M7D8	Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
GEFCEL	LOQ for Diazepam and Nordiazepam is 100 ng/mL. IS used were Diazepam-D-5 and Nordiazepam-D5. All three items indicated low concentrations of metoprolol, diltiazem and doxylamine by QTOF. None of these was confirmed.
GFBX3K	Drug Screen for Blood: Promazine ISTD used. Benzodiazepine Confirmation: 30uL Prazepam ISTD (20mg/mL) used.
GWGYZT	ELISA Screening only
GZHXGD	Screening cutoffs: oxazepam= 0.050 mcg/mL, c-thc = 0.020 mcg/mL, methamphetamine = 0.020 mcg/mL, amphetamine = 0.020 mcg/mL, morphine = 0.020 mcg/mL, benzoylecgonine = 0.050 mcg/mL. Benzodiazepine confirmation not performed.
HWEQ8Y	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Benzodiazapine confirmation/quantitation panel includes: alprazolam, diazepam, 7-aminoclonazepam, clonazepam, lorazepam, nordiazepam, oxazepam, and temazepam. The following internal standards are used: 7-aminoclonazepam D-4, alprazolam D-5, diazepam D-5, clonazepam D-4, nordiazepam D-5, oxazepam D-5, and temazepam D-5. LOD for all benzodiazapines quantitated is 5 ng/mL. LOQ for all benzodiazapines quantitated is 10 ng/mL.
HXA636	The value of nordiazepam would be reported as approximate as we have no uncertainty of measurement.
JDUK99	Benzodiazepines assay cutoff: 20 ng/mL
JHDB3J	Internal standard: Mepivacaine and Nalorphine
JM7J66	Diazepam: Internal Standard - Diazepam-D5; LOQ 5ng/ml. Nordiazepam: Internal Standard - Nordiazepam-D5; LOQ 5ng/ml
JRE33X	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Benzodiazepine confirmation/quantitation panel includes 7-aminoclonazepam, alprazolam, diazepam, clonazepam, lorazepam, nordiazepam, oxazepam, and temazepam using 7-aminoclonazepam-D4, alprazolam-D5, diazepam-D5, clonazepam-D4, nordiazepam-D5, oxazepam-D5, and temazepam-D5 as internal standards. LOD for all aforementioned benzodiazepines is 5 ng/mL; LOQ is 10 ng/mL.
KRX23G	Mepivacaine was the internal standard for LC/MS screening. Diazepam-d5 was the internal standard for LC/MS confirmation
MAZW4A	Internal standards: GC/MS Qualitative: NPA/SKF. LC/MS/MS qualitative: prazepam-d5
MMCX9F	Diazepam: Internal Std.: Diazepam-d5. LOD/LOQ: 10.0 ng/mL. Nordiazepam: Internal Std.: Nordiazepam-d5. LOD/LOQ: 10.0 ng/mL

Webcode	Item 2 - Comments
NDZ9YA	Internal standards: GC/MS Qualitative: NPA/SKF. LC/MS/MS qualitative: prazepam-d5
PAWR7C	Butyl Acetate Screen - Promazine - Internal Standard. Benzodiazepine Confirmation - Prazepam - Internal Standard
PRVZ4B	LC/MS/MS Screen Internal Standard: mepivacaine. diazepam & nordiazepam quantitation Internal Standard: diazepam-d5. diazepam & nordiazepam quantitation LOR: 25 µg/L
PXM8N6	The ELISA immunoassay was used to screen for six classes of drugs: amphetamines, benzodiazepines, cannabinoids, cocaine, opiates and PCP. The benzodiazepines analysis was performed on the LC/MS/MS. The cut off/limit of detection is 10 ng/mL. The internal standards used for nordiazepam and diazepam were nordiazepam-d5 and diazepam-d5, respectively. The compounds were extracted by solid phase extraction targeting free, non-conjugated/non-protein bound compounds.
Q2JHT4	Internal Standard: Estazolam
Q93LZ7	Internal Standard: Flurazepam and Malorphine. LoD = 10 ng/mL
Q9EDV9	Diazepam-d5, mepivacaine
TRNYRZ	Prazepam internal standard used for Benzodiazepine confirmation.
TY3ZQA	Internal Standards - Mepivacaine
U69YV9	Internal Standards used: Prazepam (benzo) and Promazine (gc/ms screen)
V8AENV	ISTD=Diazepam-D5. LOQ/LOD 5 ng/mL
VHAR3B	Our laboratory does not confirm for benzodiazepine in house. This test is sent to a reference laboratory for confirmation.
VZ96H4	internal standards: diazepam d5, mepivacaine
VZA4AQ	IS - Mepivicaine (GC/MS); IS - D5-diazepam and D5-alpha-hydroxy-alprazolam (LC/MS/MS, LOQ = 15 ng/mL)
WJ3X32	The expanded uncertainty is reported at the coverage probability of 99.73% ($k=3$).
XQEL9M	GC/MS and GC/FID were used to confirm both drugs found in this sample. LC/MS/MS was used to confirm and quantitate the drugs.
Y36U7F	Uncertainty of Measurement uses k factor=2 at a 95.45% confidence level for the above drugs
Y69M77	Internal standard used was mepivacaine.
Y7MRZX	Diazepam and Nordiazepam: IS = D5 Diazepam
YCRVLQ	Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
ZLBNDD	IS - Mepivicaine (GC/MS); IS - D5 Diazepam and D5-alpha-hydroxy-alprazolam (LC/MS/MS, LOQ = 15 ng/mL)
ZMBMUZ	Internal standard used for quantitation was diazepam-d5.

ZMBMUZ Internal standard used for quantitation was diazepam-d5.

Screening Results - Item 3

TABLE 3A: Item 3

Item Scenario:

A 40 year-old male was in a single vehicle accident when his vehicle crashed into a utility pole. Motorists said that the driver appeared to be "nodding" off while driving. A breath alcohol test resulted in a 0.00 percent. Blood was collected 60 minutes later.

Item Contents and Preparation Concentration:	Codeine (1000 ng/mL)
	Morphine (200 ng/mL)

Webcode **Screening Results** 22JZHB Morphine, Codeine 29L9P4 codeine and morphine 2PT2XZ opioids 2WUFKM Codeine (free), Morphine (free), Ibuprofen and Naproxen. 2XJQCF Opiates 3EP7EV codeine, morphine **3LNZ73** No drugs/metabolites detected 3UH6Y4 opiates **3VUZLV** opiates (morphine, codeine) 4ENVXJ Morphine. Codeine. 4HG29E Opiates 4JFYP2 Opiates 4R8MEC Opiates 4YTFPC Opiates 62AZCR Morphine and Codeine 6HETG7 Morphine Codeine 6PXWN9 opiates 6TX6TJ Codeine, Morphine 77ZWEN Morphine Codeine 7A6KVY Opiates 7PVL9W Opiates 83HVTG Opiates 8CL4FT Opioids Codeine Morphine Opiates 92J78J 93EQTX Morphine 9EBRDE Codeine Morphine 9P67BQ Opiates

TABLE 3A: Item 3

Webcode	Screening Results
9T4RYM	Morphine Codeine
9TLFH3	Codeine and morphine.
A2EAT7	Opiates
AYPY3D	Opiates/opioids
B8XVFH	Morphine Codeine
BLKZRL	Codeine, Morphine, Caffeine
BZYBAG	Opiates
CNG98F	Opiate
D94WEM	Oxycodone Codeine Morphine
DQMX7H	Opiates
DZBL6R	Codeine Morphine
EDVNX4	Opiates
FAMVGA	Opiates and Opioids
FE6TCR	Opioids
FJCJGH	Codeine, morphine
FRR3WC	Preliminarily found to contain Opiates and Opioids.
FXUC34	Opiates
FYTAJR	Narcotics (Codeine, Morphine/Hydromorphone/Oxymorphone, Dihydrocodeine), Other (Norcodeine)
G7M7D8	opiates and opioids
GEFCEL	Opiates (QTOF: Codeine, Morphine)
GFBX3K	Opiates
GWGYZT	Opiates
GZHXGD	opiates
H4AT9B	Codeine Morphine
HFNQDE	Codeine Morphine
HU8CZT	morphine codeine
HWEQ8Y	Opiates
HXA636	codeine, morphine
JDUK99	Opiates
JGHWCK	No immunoassay screening performed
JHDB3J	Opiates
JM7J66	Codeine, Morphine

TABLE 3A: Item 3

Webcode	Screening Results
JRE33X	Opiates
KRX23G	Positive opioids Positive morphine and codeine
M6VWA8	Morphine Codeine
MAZW4A	Opiates
MEZYE6	Opioids morphine and codeine
MLDXZ4	EMIT screening tested positive for Opiates.
MMCX9F	Opiates
NDZ9YA	opiates
NK47T9	Opiates Generic Opioids
NN2QG6	ELISA: Opiate GC/MS: Codeine
NN4EXH	codeine, morphine
P7EUBV	Opiates
PAWR7C	Opiates Codeine
PJJQUW	Opiates
PRHFDM	morphine codeine
PRUCG7	Opiates
PRVZ4B	Immunoassay: opioids LC/MS/MS: morphine & codeine
PVD8JX	Opiates
PXM8N6	Opiates
Q2JHT4	Morphine Codeine
Q93LZ7	Morphine Codeine
Q9EDV9	Common opioids: codeine & morphine
RCFQ9Z	Opiates ELISA Positive
RJF6VM	Opiate presumptive positive
RJYTF3	Morphine Codeine
RMFFRM	Opiate
RUWPH4	Morphine Codeine
TN62XH	CODEINE MORPHINE
TRNYRZ	Opiates, Codeine
TY3ZQA	Opiates

TABLE 3A: Item 3

Webcode	Screening Results	
U69YV9	Opiates	
UC42XJ	Opiates	
URHAW3	Codeine Morphine	
V8AENV	Codeine Morphine	
VHAR3B	Opiate	
VZ96H4	common opioids	
VZA4AQ	Opiates	
WH6WUN	Opiates	
WJ3X32	morphine, codeine	
XE39YY	opiates	
XHKFEL	Opiates	
XMVQ6V	Codeine, Meloxicam, Morphine	
XP4TY7	opiates	
XQEL9M	Opiates	
Y36U7F	Opiates	
Y69M77	opiates	
Y7MRZX	Opiates	
YCRVLQ	Opiates, opioids	
YZWGNE	Opiate	
ZLBNDD	Opiates	
ZMBMUZ	morphine & codeine (opioids)	
ZR3VVL	opiates	
ltem 3 - Res	sponse Summary	Participants Reporting Screening Results: 111

Codeine, Morphine, and/or Opioids: 109

No drugs/metabolites detected: 1

*Other: 6

Participants can report multiple drugs/metabolites; therefore, the sum of the values here may be greater than the total number of participants responding for this item.

*This category represents the total number of participants that reported a response other than that which is listed above.

Confirmatory Results - Item 3

What drugs/metabolites were detected in Item 3?

TABLE 3B: Item 3

Item Scenario:

A 40 year-old male was in a single vehicle accident when his vehicle crashed into a utility pole. Motorists said that the driver appeared to be "nodding" off while driving. A breath alcohol test resulted in a 0.00 percent. Blood was collected 60 minutes later.

Item Contents and Preparation Concentration:

Codeine (1000 ng/mL) Morphine (200 ng/mL)

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
22JZHB	Codeine		800	128	ng/mL
	Morphine		208	42	ng/mL
29L9P4	Codeine	1			
	Morphine	\checkmark			
2PT2XZ	Codeine		1.0	0.3	mg/L
	Morphine		0.22	0.06	mg/L
2WUFKM	Codeine		1100	200	ng/mL
	Morphine		220	50	ng/mL
	lbuprofen		<5000		ng/mL
	Naproxen		<5000		ng/mL
2XJQCF	Codeine		0.94	0.18	mg/L
	Morphine		0.22	0.06	mg/L
3EP7EV	Codeine	1			
	Morphine	1			
3LNZ73	Codeine	1			
	Morphine	1			
3UH6Y4	Codeine	1			
	Morphine	1			
3VUZLV	Codeine		0.71	0.18	mg/L
	Morphine		0.21	0.05	mg/L
4ENVXJ	Codeine		Approx 1.0	15%	mg/L
	Morphine		0.20	15%	mg/L
4HG29E	Codeine		640	+/-111	ng/mL
	Morphine		215	+/-38	ng/mL
4JFYP2	Codeine				
	Morphine				

Qualitative Reported Uncertainty Webcode **Analyte Reported** Units Only Concentration 4R8MEC Codeine 958 17.28% ng/mL 240 17.80% Morphine ng/mL 4YTFPC Codeine 951 17.28 % Morphine 222 17.80 % 62AZCR 1 Codeine 1 Morphine 6HETG7 670 Codeine 107 ng/mL 195 39 Morphine ng/mL 6PXWN9 736 Codeine 17.28% ng/ml Morphine 215 17.80% ng/ml 6TX6TJ Codeine 836.84 125.52 ng/ml 192.90 Morphine 40.50 ng/ml 77ZWEN Codeine 1075 34.4 ng/mL 239 Morphine 18.4 ng/mL 7A6KVY 1 Codeine Morphine 1 7PVL9W 1 opiates 83HVTG Codeine 760 +/- 131 ng/ml 273 Morphine +/- 49 ng/ml 8CL4FT Codeine 0.98 0.25 mg/L 0.23 Morphine 0.06 mg/L 92J78J 983 Codeine 88 ng/mL 209 19 Morphine ng/mL 93EQTX 167 25% Morphine ug/L 9EBRDE Codeine 1.2 0.1 mg/L Morphine 218 19 ng/mL 9P67BQ Codeine 0.88 0.23 mg/L Morphine 0.20 0.05 mg/L 1 9T4RYM

TABLE 3B: Item 3

9TLFH3

A2EAT7

Codeine

Morphine

Codeine

Morphine

Codeine

Morphine

ng/mL

ng/mL

+/-145

+/-35

841

198

1

1

1

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
AYPY3D	Codeine		1000		ng/mL
	Morphine		180		ng/mL
B8XVFH	Codeine	1			
	Morphine	1			
BLKZRL	Codeine		877	87	ng/mL
	Morphine		178	16	ng/mL
BZYBAG	Codeine		750	+/-130	ng/mL
	Morphine		228	+/-41	ng/mL
CNG98F	Codeine	1			
	Morphine	1			
D94WEM	Codeine	1			
	Morphine	1			
DQMX7H	Codeine		816	3.7%	ug/L
	Morphine		197	1.9%	ug/L
DZBL6R	Codeine		Above 500 ng/ml	NA	NA
	Morphine		192.1 ng/ml	36.4	ng/ml
EDVNX4	Codeine		0.9	±0.2	µg/ml
	Morphine		0.21	±0.04	µg/ml
FE6TCR	Codeine	1			
FJCJGH	Codeine	1			
	Morphine	1			
FXUC34	Codeine		833	+/- 144	ng/mL
	Morphine		218	+/- 39	ng/mL
FYTAJR	Codeine		987	198	ng/mL
	Morphine		202	40.5	ng/mL
GEFCEL	Codeine		0.89	0.17	mg/L
	Morphine		0.19	0.05	mg/L
GFBX3K	Codeine	1			
	Morphine	1			
GZHXGD	Codeine		1.15	0.32	mcg/mL
	Morphine		0.193	0.059	mcg/mL
H4AT9B	Codeine		1156.42	127.20	ng/mL
	Morphine		187.51	20.62	ng/mL

Qualitative Reported Uncertainty Webcode **Analyte Reported** Units Only Concentration HU8CZT Codeine 1.0 0.17 mg/L Morphine 0.21 0.035 mg/L HWEQ8Y Codeine 0.9 0.2 ug/mL Morphine 0.21 0.04 ug/mL HXA636 Codeine 830 210 ng/mL 210 60 Morphine ng/mL **JGHWCK** 1 Codeine 1 Morphine JHDB3J / Codeine 1 Morphine JM7J66 Codeine 795.89 119.38 ng/ml Morphine 191.93 40.30 ng/ml JRE33X Codeine 0.9 0.2 μ g/mL Morphine 0.21 0.04 μ g/mL KRX23G Codeine 0.91 0.24 mg/L Morphine 1 0.22 0.06 mg/L M6VWA8 1 Codeine 1 Morphine MAZW4A Codeine 897 395 ng/mL 1 Morphine MEZYE6 Codeine 1.0 0.3 mg/L Morphine 0.23 0.06 mg/L 1 MLDXZ4 Codeine MMCX9F Codeine 1031 206 ng/mL 196 39 Morphine ng/mL NDZ9YA Codeine 967 425 ng/mL 1 Morphine / NN2QG6 Codeine 1 Morphine NN4EXH 1 Codeine 1 Morphine P7EUBV Codeine 640 +/- 111 ng/mL +/- 35 199 Morphine ng/mL

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
PAWR7C	Codeine	\checkmark			
	Morphine	1			
PJJQUW	Codeine		764	+/-132	ng/ml
	Morphine		225	+/- 40	ng/ml
PRHFDM	Codeine		0.93	0.15	mg/L
	Morphine		0.19	0.032	mg/L
PRUCG7	Codeine		860	120	ng/mL
	Morphine		179	29	ng/mL
PRVZ4B	Codeine		1.1	0.3	mg/L
	Morphine		0.23	0.06	mg/L
PVD8JX	Codeine		736	127	ng/ml
	Morphine		234	42	ng/ml
PXM8N6	Codeine		>1000		ng/mL
	Morphine		195	±28	ng/mL
Q2JHT4	Codeine	1			
	Morphine	1			
Q93LZ7	Codeine	1			
	Morphine	1			
Q9EDV9	Codeine		0.99	0.26	mg/L
	Morphine		0.21	0.05	mg/L
RCFQ9Z	Codeine		660	+/-114	ng/ml
	Morphine		217	+/-39	ng/ml
RJF6VM	Codeine		524	17.28	%
	Morphine		196	17.80	%
RJYTF3	Codeine		1015.97	111.75	ng/mL
	Morphine		209.63	23.05	ng/mL
RMFFRM	Codeine		776	17.24	%
	Morphine		206	17.8	%
RUWPH4	Codeine	1			
	Morphine	1			
TN62XH	Codeine		834.6	333.8	ng/ml
	Morphine		357.2	142.9	ng/ml
TRNYRZ	Codeine	1			
	Morphine	1			

Webcode	Analyte Reported	Qualitative Only	Reported Concentration	Uncertainty	Units
TY3ZQA	Codeine	1			
	Morphine	1			
U69YV9	Codeine	1			
	Morphine	1			
UC42XJ	Codeine		800	17.28%	ng/ml
	Morphine		240	17.80%	ng/ml
URHAW3	Codeine	1			
	Morphine	1			
V8AENV	Codeine		917	275	ng/mL
	Morphine		190	57	ng/mL
VZ96H4	Codeine		0.95	0.25	mg/L
	Morphine		0.23	0.06	mg/L
VZA4AQ	Codeine		916	+/-17.28%	ng/mL
	Morphine		212	+/- 17.80%	ng/mL
WH6WUN	Codeine		835	+/- 144	ng/ml
	Morphine		251	+/- 45	ng/ml
WJ3X32	Codeine	1			
	Morphine	1			
XE39YY	Codeine		884		ng/mL
	Morphine		199		ng/mL
XHKFEL	Codeine		690	+/-119	ng/mL
	Morphine		217	+/-39	ng/mL
XMVQ6V	Codeine		0.958		mg/L
_	Morphine		0.153		mg/L
	Meloxicam		0.08		mg/L
XP4TY7	Codeine	1			
	Morphine	1			
XQEL9M	Codeine		829	+/- 143	ng/mL
	Morphine		227	+/- 40	ng/mL
Y36U7F	Codeine		720	17.28%	ng/mL
	Morphine		184	17.80%	ng/mL
Y69M77	Codeine	1			
	Morphine	1			
Y7MRZX	Codeine		880	31%	ng/mL
	Codellie			01/0	ng/me

Webcode	Analyte Reported	Qualitativ Only	ve Reported Concentration	Uncertainty	Units			
YZWGNE	Codeine		843	17.28%	ng/mL			
	Morphine		179	17.80%	ng/mL			
ZLBNDD	Codeine		855	+/- 17.28%	ng/mL			
	Morphine		215	+/- 17.80 %	ng/mL			
ZMBMUZ	Codeine		1.0	0.3	mg/L			
	Morphine		0.23	0.06	mg/L			
ZR3VVL	Codeine		755	130	ng/mL			
	Morphine		206	37	ng/mL			
ltem 3 - Res	ponse Summary	F	Participants Reporting C	onfirmatory Res	ults: 102			
		Codeine:	100					
		Morphine:	99					
		*Other:	3					
F	Participants can report multiple drugs/metabolites therefore the sum of the values here may be greater than the total number of participants responding for this item.							

*This category represents the total number of participants that reported a response other than that which is listed above.

Raw Data - Item 3

List of raw data determinations in ng/mL.

TABLE 3C: Item 3

Item 3 Raw Data - Codeine Preparation concentration: 1000 ng/mL

Webcode	Raw Data (ng/mL)				Participant Mean
22JZHB	800.0					800.0
2PT2XZ	999.8					999.8
2WUFKM	1,018.0	1,095.0				1,056.5
2XJQCF	940.0	946.0				943.0
3VUZLV	710.1					710.1
4ENVXJ	1,022.8	1,020.4				1,021.6
4HG29E	640.0					640.0
4R8MEC	958.0					958.0
4YTFPC	951.2					951.2
6HETG7	670.0					670.0
6PXWN9	736.0					736.0
6TX6TJ	836.8					836.8
77ZWEN	1,097.3	1,039.4	1,098.9	1,035.1	1,103.6	1,074.9
83HVTG	760.0					760.0
8CL4FT	982.1					982.1
9EBRDE	1,151.6	1,178.5				1,165.0
9P67BQ	884.7					884.7
A2EAT7	841.6					841.6
AYPY3D	1,006.8					1,006.8
BLKZRL	864.9	889.1				877.0
BZYBAG	750.0					750.0
DQMX7H	840.0	791.0				815.5
DZBL6R	855.0					855.0
EDVNX4	963.4					963.4
FXUC34	833.0					833.0
GEFCEL	874.0	910.0				892.0
GZHXGD	1,150.0					1,150.0
H4AT9B	1,156.4					1,156.4

Item 3 Raw Data - Codeine Preparation concentration: 1000 ng/mL

Webcode	Raw Data (I	ng/mL)				Pc	irticipant Mea n
HU8CZT	1,034.4						1,034.4
HWEQ8Y	919.2						919.2
HXA636	770.0	810.0	780.0	880.0	890.0	850.0	830.0
M7J66	795.9						795.9
IRE33X	966.9						966.9
<rx23g< td=""><td>907.5</td><td></td><td></td><td></td><td></td><td></td><td>907.5</td></rx23g<>	907.5						907.5
MAZW4A	885.2	909.7					897.5
MEZYE6	1,031.0						1,031.0
MMCX9F	1,031.0						1,031.0
NDZ9YA	967.4	966.9					967.1
P7EUBV	640.0						640.0
NJQUW	764.0						764.0
PRHFDM	935.4						935.4
PRUCG7	862.0						862.0
PRVZ4B	1,051.8						1,051.8
VD8JX	736.0						736.0
XM8N6	1,052.5						1,052.5
Q9EDV9	993.4						993.4
RCFQ9Z	660.0						660.0
SJF6VM	524.0						524.0
RJYTF3	1,016.0						1,016.0
RMFFRM	776.9						776.9
JC42XJ	800.0						800.0
/8AENV	821.6	1,005.1	926.0				917.5
/Z96H4	948.3						948.3
/ZA4AQ	916.0						916.0
VH6WUN	835.0						835.0
(HKFEL	690.0						690.0
(MVQ6V	958.0						958.0
QEL9M	829.0						829.0
(36U7F	720.0						720.0

Item 3 Raw Data - Codeine Preparation concentration: 1000 ng/mL

Webcode	Raw Data (ng/mL)	Participant Mean
Y7MRZX	875.0	875.0
YZWGNE	843.0	843.0
ZLBNDD	855.0	855.0
ZMBMUZ	1,017.5	1,017.5
ZR3VVL	755.0	755.0

Grand Mean:	885.7	Number of Participants Included: 64	4 Number of Participants without Raw Data or Data that was not
Standard Deviation:	136.3	Number of Participants Excluded: 0	reported in ng/mL: 0

Item 3 Raw Data - Morphine Preparation concentration: 200 ng/mL

Webcode	Raw Data	(ng/mL)				Participant Mean
22JZHB	208.0					208.0
2PT2XZ	218.0					218.0
2WUFKM	209.0	228.0				218.5
2XJQCF	226.5	216.0				221.3
3VUZLV	210.5					210.5
4ENVXJ	203.7	191.7				197.7
4HG29E	215.0					215.0
4R8MEC	240.0					240.0
4YTFPC	222.0					222.0
6HETG7	195.0					195.0
6PXWN9	215.0					215.0
6TX6TJ	192.9	195.6				194.3
77ZWEN	225.5	218.6	236.6	252.7	262.7	239.2
83HVTG	273.0					273.0 X
8CL4FT	233.8					233.8
93EQTX	167.0	166.0				166.5
9EBRDE	221.1	215.9				218.5
9P67BQ	199.3					199.3
A2EAT7	198.8					198.8
AYPY3D	178.3					178.3
BLKZRL	189.9	170.1	173.7			177.9
BZYBAG	228.5					228.5
DQMX7H	198.5	194.6				196.6
DZBL6R	192.1					192.1
EDVNX4	217.4					217.4
FXUC34	218.0					218.0
GEFCEL	196.0	193.0				194.5
GZHXGD	193.0					193.0
H4AT9B	187.5					187.5
HU8CZT	211.0					211.0
HWEQ8Y	211.3					211.3

Item 3 Raw Data - Morphine Preparation concentration: 200 ng/mL

Webcode	Raw Data ((ng/mL)				Pa	rticipant Mean
HXA636	220.0	230.0	230.0	200.0	200.0	200.0	213.3
JM7J66	191.9						191.9
JRE33X	218.8						218.8
KRX23G	221.1						221.1
MEZYE6	227.3						227.3
MMCX9F	196.0						196.0
P7EUBV	199.0						199.0
PJJQUW	225.0						225.0
PRHFDM	196.1						196.1
PRUCG7	179.0						179.0
PRVZ4B	226.9						226.9
PVD8JX	234.0						234.0
PXM8N6	194.6						194.6
Q9EDV9	210.3						210.3
RCFQ9Z	217.0						217.0
RJF6VM	196.0						196.0
RJYTF3	209.6						209.6
RMFFRM	206.5						206.5
UC42XJ	240.0						240.0
V8AENV	197.8	184.8	189.9				190.8
VZ96H4	231.3						231.3
VZA4AQ	212.0						212.0
WH6WUN	251.0						251.0
XHKFEL	217.0						217.0
XMVQ6V	153.0						153.0
XQEL9M	227.0						227.0
Y36U7F	184.0						184.0
Y7MRZX	177.0						177.0
YZWGNE	179.0						179.0
ZLBNDD	215.0						215.0

Item 3 Raw Data - Morphine Preparation concentration: 200 ng/mL

Webcode	Raw Data (ng/	/mL)	Participant Mean
ZMBMUZ	226.4		226.4
ZR3VVL	206.0		206.0
Statistical Ar	nalysis for Item 3	- Morphine	
Grand	Mean: 207.9	Number of Participants Included: 62	Number of Participants without Raw Data or Data that was not
Standard Dev	iation: 19.54	Number of Participants Excluded: 1	reported in ng/mL: 0

Item 3 Raw Data - Other

Webcode	Analyte	Raw Data (ng/mL)	
2WUFKM	Ibuprofen	82.00	
	Naproxen	112.0	
XMVQ6V	Meloxicam	800.0	

Statistical Analysis for Item 3 - Other

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:

WebCode	Quantitative Reporting Procedures
22JZHB	A single determination.
2PT2XZ	A single determination.
2WUFKM	The mean of duplicate/several determinations.
2XJQCF	The mean of duplicate/several determinations.
3VUZLV	A single determination.
4ENVXJ	The mean of duplicate/several determinations.
4HG29E	A single determination.
4R8MEC	A single determination.
4YTFPC	A single determination.
6HETG7	A single determination.
6PXWN9	A single determination.
6TX6TJ	A single determination.
77ZWEN	The mean of duplicate/several determinations.
83HVTG	A single determination.
8CL4FT	A single determination.
92J78J	The mean of duplicate/several determinations.
93EQTX	The mean of duplicate/several determinations.
9EBRDE	A single determination.
9P67BQ	A single determination.
A2EAT7	A single determination.
AYPY3D	A single determination.
BLKZRL	The mean of duplicate/several determinations.
BZYBAG	A single determination.
DQMX7H	The mean of duplicate/several determinations.
DZBL6R	A single determination.
EDVNX4	A single determination.
FXUC34	A single determination.

WebCode	Quantitative Reporting Procedures
FYTAJR	A single determination.
GEFCEL	The mean of duplicate/several determinations.
H4AT9B	A single determination.
HU8CZT	A single determination.
HWEQ8Y	A single determination.
HXA636	The mean of duplicate/several determinations.
JM7J66	A single determination.
JRE33X	A single determination.
KRX23G	A single determination.
MAZW4A	The mean of duplicate/several determinations.
MEZYE6	A single determination.
MMCX9F	A single determination.
NDZ9YA	The mean of duplicate/several determinations.
P7EUBV	A single determination.
PJJQUW	A single determination.
PRHFDM	A single determination.
PRUCG7	A single determination.
PRVZ4B	A single determination.
PVD8JX	A single determination.
PXM8N6	A single determination.
Q9EDV9	A single determination.
RCFQ9Z	A single determination.
RJF6VM	A single determination.
RJYTF3	A single determination.
RMFFRM	A single determination.
TN62XH	A single determination.
UC42XJ	A single determination.
V8AENV	The mean of duplicate/several determinations.
VZ96H4	A single determination.
VZA4AQ	A single determination.

WebCode	Quantitative Reporting Procedures	
WH6WUN	A single determination.	
XE39YY	A single determination.	
XHKFEL	A single determination.	
XMVQ6V	A single determination.	
XQEL9M	A single determination.	
Y36U7F	A single determination.	
Y7MRZX	A single determination.	
YZWGNE	A single determination.	
ZLBNDD	A single determination.	
ZMBMUZ	A single determination.	
ZR3VVL	A single determination.	
Response S	ummary for Item 3	Participants: 68
	A single determination: 55 (80.9%)	

The mean of duplicate/several determinations: 13 (19.1%)

Methods of Analysis - Item 3

WebCode	Method	Screening	Confirmatory	Quantitation
22JZHB	LC/MS/MS Immunoassay	\ \	\checkmark	\checkmark
29L9P4	LC/MS/MS GC/MS	1	1	
2PT2XZ	Immunoassay LC/MS/MS GC/MS	J J	<i>√</i>	1
2WUFKM	Immunoassay UPLC-QTOF MS LC/MS/MS	J J	<i>✓</i>	v
2XJQCF	Immunoassay LC-QTOF LC/MS/MS	√ √	<i>√</i>	1
3EP7EV	LC/MS/MS	✓	1	
3LNZ73	GC/MS		1	
3UH6Y4	Immunoassay GC/MS LC/MS/MS	J	\ \	
3VUZLV	Immunoassay LC/MS/MS GC/MS	1 1	✓	1
4ENVXJ	LC/MS/MS Immunoassay LC/MS HPLC - DAD	5 5 5		1
4HG29E	Immunoassay GC/MS LC/MS/MS GC/FID	1	5 5 5	1
4JFYP2	Immunoassay GC/MS	1	1	
4R8MEC	LC/MS/MS Immunoassay	1	1	1
4YTFPC	LC/MS/MS Immunoassay	1	1	V
62AZCR	LC/MS/MS	1	1	
6HETG7	LC/MS/MS Immunoassay	\ \	✓	1
6PXWN9	Immunoassay LC/MS/MS	1	1	1
6TX6TJ	LC/MS/MS	1	1	✓
77ZWEN	LC/MS/MS	✓	1	\checkmark

WebCode	Method	Screening	Confirmatory	Quantitation
7Α6ΚVΥ	Immunoassay GC/MS	\checkmark	1	
7PVL9W	Immunoassay	\checkmark		
83HVTG	Immunoassay	1		
	LC/MS/MS		1	1
BCL4FT	Immunoassay	1		
	LC/MS/MS	1		
	GC/MS		\checkmark	
92J78J	Immunoassay	1		
	GC/MS		\checkmark	
	LC/MS/MS			\checkmark
93EQTX	LC/MS/MS			1
PEBRDE	Immunoassay	✓		
	LC/MS/MS		\checkmark	1
	LC-TOF-MS	\checkmark		
PP67BQ	Immunoassay	1		
	LC/MS/MS	\checkmark		
	GC/MS		\checkmark	\checkmark
9T4RYM	GC/MS	1	1	
PTLFH3	LC/MS/MS	1	1	
A2EAT7	Immunoassay	1		
	LC/MS/MS		\checkmark	\checkmark
AYPY3D	Immunoassay GC/MS	\checkmark	1	
38XVFH	GC/MS	1	1	
BLKZRL	LC/MS/MS		 ✓ 	 ✓
BZYBAG	Immunoassay	✓		
DZTDAO	GC/MS	·	1	
	LC/MS/MS		✓ ✓	\checkmark
CNG98F	Immunoassay			
	GC/MS	✓	1	
D94WEM	Immunoassay		-	
	LC/QTOF-MS	,		
	GC/MS	·	1	
DQMX7H	Immunoassay			
	GC/MS	•	1	
	LC/MS		-	\checkmark
DZBL6R	LC/MS/MS	✓	✓	✓
EDVNX4	Immunoassay		-	
	LC/MS/MS	•	\checkmark	\checkmark
AMVGA	Immunoassay	1		
E6TCR	Immunoassay	1		
	GC/MS		1	
JCJGH	GC/MS	✓		
	LC/MS/MS	1	✓	

WebCode	Method	Screening	Confirmatory	Quantitation
FRR3WC	Immunoassay	✓		
FXUC34	Immunoassay	1		
	GC/MS			_
	LC/MS			<i>,</i>
	GC/FID			
FYTAJR	LC/MS/MS	1	<i>,</i>	<i>,</i>
G7M7D8	Immunoassay	1		
GEFCEL	Immunoassay			
	QTOF		1	,
	LC/MS/MS			1
GFBX3K	Immunoassay			
	GC/MS	<i>✓</i>	1	
GWGYZT	Immunoassay	\checkmark		
GZHXGD	Immunoassay	✓		
	GC/MS		<i>✓</i>	\checkmark
Н4АТ9В	LC/MS/MS	1	1	1
HFNQDE	LC/MS/MS	✓		
HU8CZT	LC-TOF-MS	1		
	LC/MS/MS		<i>✓</i>	1
HWEQ8Y	Immunoassay	1		
	LC/MS/MS		<i>✓</i>	1
HXA636	LC/MS		1	1
	Immunoassay	1		
	LC-TOFMS			
JDUK99	Immunoassay	✓		
JGHWCK	GC/MS		1	
JHDB3J	Immunoassay	✓		
	GC/MS		1	
JM7J66	LC/MS/MS	✓	 ✓ 	 ✓
JRE33X	Immunoassay	/		
JNLOON	LC/MS/MS	÷	1	1
KRX23G	Immunoassay	1		
	LC/MS	1		
	GC/MS		1	
M6VWA8	GC/MS	✓	 ✓ 	
MAZW4A	Immunoassay	/		
	GC/MS	÷	1	
	LC/MS/MS		1	1
MEZYE6	Immunoassay	1		
	GC/MS		1	1
MLDXZ4	Immunoassay	\$\lambda\$		
	GC/MS	-	1	
MMCX9F	Immunoassay			
	LC/MS/MS	-	1	1

	Method	Screening	Confirmatory	Quantitation
NDZ9YA	Immunoassay	\checkmark	_	
	GC/MS			
	LC/MS/MS		1	\checkmark
NK47T9	Immunoassay	\checkmark		
	LC/MS/MS	\checkmark		
NN2QG6	Immunoassay	1		
	GC/MS	1	\checkmark	
NN4EXH	LC/MS/MS	✓	1	
P7EUBV	Immunoassay	1		
.,	GC/MS		1	
	LC/MS/MS		1	1
PAWR7C	Immunoassay	\[
	GC/MS	1	1	
PJJQUW	Immunoassay	/		
LJJØOW	GC/MS	v	1	
	LC/MS/MS		5	1
			•	•
PRHFDM	LC-TOF-MS	V	1	1
	LC/MS/MS	,	v	V
PRUCG7	Immunoassay	<i>,</i>		
	GC/MS	1	<i>✓</i>	
PRVZ4B	Immunoassay			
	LC/MS			_
	GC/MS		<i>✓</i>	1
PVD8JX	Immunoassay	\checkmark		
	LC/MS/MS		\checkmark	
PXM8N6	Immunoassay	1		
	Opiates		\checkmark	1
Q2JHT4	GC/MS	1	✓	
	LC/MS	1	1	
Q93LZ7	GC/MS	1	 ✓ 	
	LC/MS	1	1	
Q9EDV9	Immunoassay	1		
Q7LDV7	GC/MS	•	1	1
	LC/MS/MS		1	·
		/		
RCFQ9Z	Immunoassay GC/MS	v	1	
	LC/MS/MS		•	1
		/		•
RJF6VM	Immunoassay	V	1	
	GC/MS		v .	1
	LC/MS/MS		• •	
RJYTF3	LC/MS/MS		<i>✓</i>	v
RMFFRM	Immunoassay	\checkmark	_	
	LC/MS/MS		1	1
5. N. (5	GC/MS	✓	1	
RUWPH4	00/1015			

WebCode	Method	Screening	Confirmatory	Quantitation
TRNYRZ	Immunoassay GC/MS	√ √	1	
TY3ZQA	Immunoassay GC/MS	✓ ✓		
U69YV9	Immunoassay GC/MS	✓ ✓	, ,	
UC42XJ	Immunoassay LC/MS/MS	✓ ✓	 ✓	✓
URHAW3	Immunoassay GC/MS	✓	1	
V8AENV	GC/MS LC/MS/MS Immunoassay	\ \ \	✓	✓
VHAR3B	Immunoassay			
VZ96H4	Immunoassay LC/MS GC/MS	J J	✓	✓
VZA4AQ	Immunoassay GC/MS LC/MS/MS	\ \	✓	✓
WH6WUN	Immunoassay LC/MS/MS	\checkmark	✓	<i>√</i>
WJ3X32	LC/MS/MS	1	1	
XE39YY	Immunoassay LC/MS/MS	\checkmark	1	1
XHKFEL	Immunoassay LC/MS/MS GC/MS	J	√ √	1
XMVQ6V	HPLC-DAD LC/MS/MS	\checkmark		\ \
XP4TY7	Immunoassay GC/MS	\checkmark	1	
XQEL9M	Immunoassay LC/MS/MS GC/MS GC/FID	1	\ \ \	1
Y36U7F	Immunoassay GC/MS LC/MS/MS	1	✓ ✓	✓
Y69M77	Immunoassay GC/MS	\checkmark	1	
Y7MRZX	Immunoassay GC/MS	\checkmark	1	
YCRVLQ	Immunoassay	✓		

WebCode	Method	Screening	Confirmatory	Quantitation
YZWGNE	Immunoassay	✓		
	GC-MS / GC-FID		\checkmark	
	LC/MS/MS		\checkmark	1
ZLBNDD	Immunoassay	1		
	GC/MS	\checkmark		
	LC/MS/MS		\checkmark	1
ZMBMUZ	Immunoassay	✓		
	GC/MS		\checkmark	1
ZR3VVL	Immunoassay	✓		
	GC/MS		\checkmark	
	LC/MS/MS		\checkmark	1
Response Sum	mary for Item 3			Participants: 111

Response Summary for Item 3			Participants: 111
	Screening	Confirmatory	Quantitation
Immunoassay:	82	0	0
GC/MS:	17	55	9
LC/MS:	6	4	3
LC/MS/MS:	24	52	51
Other:	9	7	2

Additional Comments for Item 3

WebCode	Item 3 - Comments
22JZHB	Internal standard used to quantitate morphine was Morphine-D3. Internal standard used to quantitate codeine was Codeine-D6. These two analytes have a reportable concentration range of 10-1000 ng/mL using seven calibrators and three positive controls. The immunoassay screen was used to determine the absence of cannabinoids.
29L9P4	Cut-off 50 ng/mL: codeine, morphine
2PT2XZ	Internal standard: nalorphine
2WUFKM	Screening: Immunoassay and UPLC-QTOF MS (Waters). Salting-out assisted extraction. Internal Standards: Cyclobarbitone, Prazepam & D3-Methadone. Morphine & Codeine Quantitative Analysis. Instrument: UPLC-TQD (Waters). Internal Standard: D3-Morphine & D3-Codeine. LOD for both Codeine & Morphine: 2 ng/mL
2XJQCF	Internal standards are Codeine-D3 and Morphine-D3. LOQ is 10 ng/mL for both drugs.
3VUZLV	internal standards: mepivacaine, nalorphine
4ENVXJ	Morphine ISTD = D3 Morphine. Codeine ISTD = D3 Codeine. Meloxicam, omeprazole and hydroxychloroquine also detected but not reported.
4JFYP2	Mepivacaine and Nalorphine-diTMS- Internal Standard
6HETG7	Immunoassay was used for THC Screening. Morphine-D3 used for Morphine Internal Standard. Codeine-D6 used for Codeine Internal Standard
6PXWN9	The quantitation of codeine required a 10x dilution.
6TX6TJ	Codeine: Internal standard - Codeine-D6; LOQ - 5ng/ml. Morphine: Internal standard - Morphine-D6; LOQ - 5ng/ml
7A6KVY	Norcodeine - indicated, but not reported
7PVL9W	Only Screening analysis was able to be performed by the laboratory
93EQTX	Morphine-d6 internal standard. 20% measurement of uncertainty set by [Agency]. In-House MoU = 16.2%
9P67BQ	LC/MS/MS Screen IS: Mepivacaine. GC confirmatory screen IS: Mepivacaine. Codeine, morphine quant IS: Nalorphine
BLKZRL	screening by LC QTOF, confirmations/quantitations by LCMSMS. [From Table 3- Item 3 Results: Raw data for Codeine ">640". Non-numeric value was removed in order to perform statistical analysis.]
CNG98F	Butyl Acetate Extraction has Promazine as ISTD. Opiate Extraction has Nalorphine as ISTD
DZBL6R	Our upper limit of quantitation for Codeine is 500 ng/ml, any concentration above that is reported out as "greater than 500 ng/ml".

WebCode	Item 3 - Comments
EDVNX4	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine and zolpidem. Opiate confirmation panel includes 6-monoacetylmorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, and oxymorphone. 6-MAM and fentanyl have a LOD of 0.5ng/ml and a LOQ of 1ng/ml. The remaining analytes have a LOD of 5ng/ml and a LOQ of 10ng/ml. Morphine-D3 and codeine-D6 used as internal standards.
FAMVGA	Assay Cutoff* (ng/mL) Assay Cutoff* (ng/mL) Meth /Amphetamines 20, Meprobamate 100, Barbiturates 50, Methadone 10, Benzodiazepines 10, Opiates 10, Buprenorphine 5, Opioids 10, Cannabinoids 10, Phencyclidine 5, Benzoylecgonine 50, TCA 25, Dextromethorphan 5, Tramadol 5, Fentanyl 1, Zolpidem 10. [Participant submitted data in a format that could not be reproduced in this report.]
FJCJGH	Gabapentin was also detected in the sample which may be present as artifact as indicated in the supplied information.
FRR3WC	Immunoassay screening analysis for Buprenorphine did not meet quality control criteria; results not reported. Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
FYTAJR	Internal standards used are all deuterated respective compounds of interest. Codeine result taken from a x2 diluted sample as the undiluted sample was above upper limit of quantitation. Lower Limits of Detection: Codeine and Morphine 5ng/mL
G7M7D8	Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
GEFCEL	LOQ for Codeine and Morphine is 10 ng/mL. IS used were Codeine-D3 and Morphine-D3. All three items indicated low concentrations of metoprolol, diltiazem and doxylamine by QTOF. None of these was confirmed.
GFBX3K	Drug Screen for Blood: Promazine ISTD used. Opiate Confirmation: 30uL of Nalorphine ISTD (100ug/mL) used.
GWGYZT	ELISA Screening only
GZHXGD	Screening cutoffs: oxazepam = 0.050 mcg/mL, c-thc = 0.020 mcg/mL, methamphetamine = 0.020 mcg/mL, amphetamine = 0.020 mcg/mL, morphine = 0.020 mcg/mL, benzoylecgonine = 0.050 mcg/mL. Opiate confirmation: LOQ for hydrocodone, oxycodone, hydromorphone, oxymorphone, codeine, and morphine is 0.040 mcg/mL. LOQ for monoacetylmorphine is 0.020 mcg/mL
HWEQ8Y	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Opiate confirmation panel includes 6-monoacetylmorphine, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, and oxymorphone. The following internal standards are used: 6-monoacetylmorphine D-3, codeine D-6, fentanyl D-5, hydrocodone D-6, hydromorphone D-3, methadone D-3, morphine D-3, oxycodone D-3, and oxymorphone D-3. 6-MAM and fentanyl have an LOD of 0.05 ng/mL and an LOQ of 1 ng/mL. The remaining analytes have an LOD of 5 ng/mL and an LOQ of 10 ng/mL

WebCode	Item 3 - Comments
JDUK99	Opiates assay cutoff: 20 ng/mL
JHCKUF	Item was not assigned
JHDB3J	Internal standards: Mepivacaine, Nalorphine-diTMS Norcodeine indicated
JM7J66	Codeine: Internal Standard - Codeine-D6; LOQ 5ng/ml. Morphine: Internal Standard - Morphine-D6; LOQ 5ng/ml
JRE33X	ELISA screening panel includes: amphetamine, benzodiazepines, buprenorphine, cannabinoids, carisoprodol, cocaine and metabolites, fentanyl, methadone, methamphetamine, opiates, oxycodone/oxymorphone, phencyclidine, and zolpidem. Opiates confirmation/quantitation panel includes 6-MAM, codeine, fentanyl, hydrocodone, hydromorphone, methadone, morphine, oxycodone, and oxymorphone using 6-MAM-D3, codeine-D6, fentanyl-D5, hydrocodone-D6, hydromorphone-D3, methadone-D3, morphine-D3, oxycodone-D3, and oxymorphone-D3 as internal standards. LOD for 6-MAM and fentanyl is 0.5 ng/mL; LOQ is 1.0 ng/mL. LOD for remaining aforementioned opiates is 5 ng/mL; LOQ is 10 ng/mL.
KRX23G	Mepivacaine was the internal standard for LC/MS screening. Nalorphine was the internal standard for GC/MS confirmation
MAZW4A	Internal standards: GC/MS Qualitative: NPA/SKF. LC/MS/MS quantitative: codeine-d6. LC/MS/MS qualitative: codeine-d6, hydrocodone-d6, morphine-d6
MMCX9F	Codeine: Internal Std.: Codeine-d6. LOD/LOQ: 10.0 ng/mL. Morphine: Internal Std.: Morphine-d6. LOD/LOQ: 10.0 ng/mL
NDZ9YA	Internal standards: GC/MS Qualitative: NPA/SKF. LC/MS/MS quantitative: codeine-d6. LC/MS/MS qualitative: codeine-d6, hydrocodone-d6, morphine-d6
PAWR7C	Butyl Acetate Screen - Promazine - Internal Standard. Opiate Confirmation - Nalorphine - Internal Standard
PRVZ4B	LC/MS/MS Screen Internal Standard: mepivacaine. morphine & codeine quantitation Internal Standard: nalorphine. morphine quantitation LOR: 3.1 μ g/L. codeine quantitation LOR: 8 μ g/L
PXM8N6	The ELISA immunoassay was used to screen for six classes of drugs: amphetamines, benzodiazepines, cannabinoids, cocaine, opiates and PCP. The opiates analysis was performed on the GC/MS/MS. The cut off is 10 ng/mL and the limit of detection is 5ng/mL. The internal standard used for morphine and codeine was morphine-D6 and codeine-d6, respectively. The compound was extracted by solid phase extraction targeting free, non-conjugated/non-protein bound compounds. The concentration of Codeine exceeds the analytical linear range established by the laboratory for biological matrices. Therefore, the concentration is greater than the highest calibrator (1000 ng/mL).
Q2JHT4	Internal Standard: Estazolam
Q93LZ7	Internal Standard: Flurazepam and Malorphine. LoD = 10 ng/mL
Q9EDV9	mepivacaine & nalorphine
TRNYRZ	Nalorphine internal standard used for Opiate confirmation.
TY3ZQA	Internal Standards - Mepivacaine, Nalorphine
U69YV9	Internal Standards used: Nalorphine (opiate) and Promazine (gc/ms screen)

WebCode	Item 3 - Comments
V8AENV	ISTDs= Codeine-D3 , Morphine-D3. LOQ/LOD 10 ng/mL Codeine, Morphine
VHAR3B	Our laboratory does not confirm for opiate in house. This test is sent to a reference laboratory for confirmation.
VZ96H4	internal standards: nalorphine, mepivacaine
VZA4AQ	IS - Mepivicaine (GC/MS); IS - D3-morphine, D4-buprenorphine, D6-oxycodone (LC/MS/MS, LOQ = 1 or 10 ng/mL depending on analyte).
XQEL9M	GC/MS and GC/FID were used to confirm Codeine. LC/MS/MS was used to confirm and quantitate the drugs.
Y36U7F	Uncertainty of Measurement uses k factor=2 at a 95.45% confidence level for the above drugs
Y69M77	Internal standard used was mepivacaine
Y7MRZX	Codeine: LOQ = 0.025 ug/mL, IS - D6 Codeine, Morphine: LOQ = 0.025 ug/mL, IS - D6 Morphine
YCRVLQ	Analysis by immunoassay screening in whole blood for: Analyte (Cutoff): Meth /Amphetamines (20), Barbiturates (50), Benzodiazepines (10), Buprenorphine (5), Cannabinoids (10), Benzoylecgonine (50), Dextromethorphan (5), Fentanyl (1), Meprobamate (100), Methadone (10), Opiates (10), Opioids (10), Phencyclidine (5), TCA (25), Tramadol (5), Zolpidem (10)
ZLBNDD	IS - Mepivicaine (GC/MS); IS - D3-Morphine, D4-Buprenorphine, D6-Oxycodone (LC/MS/MS, LOQ = 1 ng/mL or 10 ng/mL depending on analyte)
ZMBMUZ	Internal standard used for quantitation was nalorphine. Morphine was butylated for analysis.

Additional Test Comments

TABLE 4

WebCode	Additional Comments
2WUFKM	Caffeine and Theophylline were detected in three items. Hydroxychloroquine was also detected in three items, it was artifact and therefore, the result did not submitted.
93EQTX	Sample 1 not examined. Sample 2 & 3 examined for drugs specified under [Legislation] - THC, 6-MAM, Amphetamine, BZE, Clonazepam, Cocaine, Diazepam, Flunitrazepam, Ketamine, Lorazepam, LSD, MDMA, Methadone, Methylamphetamine, Morphine, Oxazepam and Temazepam. Method also includes Etizolam. No other analytes were included in screening.
DZBL6R	Please see the notes about the Hydromrphone and Codeine results [Table 3F: Additional Comments, Item 3].
GEFCEL	All three items indicated low concentrations of metoprolol, diltiazem and doxylamine by QTOF. None of these was confirmed.
GZHXGD	Benzodiazepine confirmation not performed on items 1 and 2.
KRX23G	For all items diltiazem, hydroxychloroquine, caffeine, and gabapentin were detected by the LC/MS/MS screening method. However, due to the fact that these compounds had been identified as artifacts introduced during production of the samples they were not confirmed or added to the report.
MAZW4A	Caffeine may have been present in the samples, but this lab does not currently report caffeine.
NDZ9YA	Caffeine may have been present in the samples, but our lab does not report caffeine at this time.
PRVZ4B	All three blood samples were contaminated with hydroxychloroquine, gabapentin, diltiazem, and caffeine from your laboratory.

-End of Report-(Appendix may follow) **Collaborative Testing Services ~ Forensic Testing Program**

Test No. 19-5661: Blood Drug Analysis

DATA MUST BE SUBMITTED BY Nov. 25, 2019, 11:59 p.m. TO BE INCLUDED IN THE REPORT

Participant Code: U1234C

WebCode: 2BRWGT

Scenario:

Investigators have submitted two vials of blood from each of three separate cases for your analysis. Using your laboratory's procedures, analyze each item and report the presence of any drugs and/or metabolites.Case 1: A 29 year-old male was found deceased in his bed with blood and mucous around his nose. His friends helped him to bed the previous night due to sleepiness, dizziness, and stumbling. Case 2: A 73 year-old female was pulled over for running a stop sign. The officer noticed that the driver seemed confused and was shaking. The result of a breath alcohol test was 0.00%. Blood was collected 30 minutes later.Case 3: A 40 year-old male was in a single vehicle accident when his vehicle crashed into a utility pole. Motorists said that the driver appeared to be "nodding" off while driving. The result of a breath alcohol test was 0.00%. Blood was collected 60 minutes later.

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.

-Samples may contain some or all of the following as artifacts from production: gabapentin, hydroxychloroquine, caffeine, diltiazem, acetonitrile, and methanol.

Items Submitted (Sample Pack BDRG):

Item 1: Two vials of blood from Case 1 Item 2: Two vials of blood from Case 2 Item 3: Two vials of blood from Case 3

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).

No drugs/metabolites detected utilizing confirmatory methods.

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.

	Analyte	Qualitati	ve Only?	Reported Concentry	ation	Uncertainty		Units	
	•						()
Date((s) Analysis Performed on Analyte:								
Raw I	Data (ng/mL):								

- 1-3). If quantitative analysis was performed, are the reported concentrations above
 - A single determination?
 The mean of duplicate / several determinations?
 - Other? (Specify):
- 1-4). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation

1-5). Additional Comments for Item 1

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

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).

No drugs/metabolites detected utilizing confirmatory methods.

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.

	Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Units ()
Date(s)) Analysis Performed on Analyte:					
Raw Da	ata (ng/mL):					

- 2-3). If quantitative analysis was performed, are the reported concentrations above
 - A single determination?
 The mean of duplicate / several determinations?
 - Other? (Specify):
- 2-4). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation

2-5). Additional Comments for Item 2

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

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).

No drugs/metabolites detected utilizing confirmatory methods.

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.

	Analyte	Qualitative Only?	Reported Concentration	Uncertainty	Ui	nits
Date	e(s) Analysis Performed on Analyte:				\	,
Raw	Data (ng/mL):					

- 3-3). If quantitative analysis was performed, are the reported concentrations above
 - A single determination?
 The mean of duplicate / several determinations?
 - Other? (Specify):
- 3-4). Please select the analysis method(s) performed and check whether it was used for screening, confirmatory testing, and/or quantitation. Please list each method only once.

Method Used	Screening	Confirmatory	Quantitation

3-5). Additional Comments for Item 3

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

Date Samples Received:

Additional Comments on Test

Research Questions

1: Would your laboratory find value in a quantitative THC in blood proficiency test?

2: What amount of blood is needed (in mL) to test for THC, including screening and confirmatory testing?

3: What is the common concentration range for THC in blood that your laboratory encounters?

RELEASE OF DATA TO ACCREDITATION BODIES

The Accreditation Release is accessed by pressing the "Continue to Final Submission" button online and can be completed at any time prior to submission to CTS.

CTS submits external proficiency test data directly to ASCLD/LAB, ANAB, and/or 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 below must be completed.)

This participant's data is **not** intended for submission to ASCLD/LAB, ANAB, and/or A2LA.

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				
ANAB Certificate No. (Include ASCLD/LAB Certificate here) A2LA Certificate No.				
Step 2: Complete the Laboratory Identifying Information in its entirety				
Authorized Contact Person and Title				
Laboratory Name				
Location (City/State)				