

Quantitative Drug Analysis - Methamphetamine HCl

Test No. 19-505 Summary Report

Each sample set consisted of two items containing different concentrations of methamphetamine HCl. Participants were asked to determine the concentration of methamphetamine HCl in each item. Data were returned from 89 participants and are compiled into the following tables:

	<u>Page</u>
<u>Manufacturer's Information</u>	<u>2</u>
<u>Summary Comments</u>	<u>3</u>
<u>Table 1: Reported Results</u>	<u>4</u>
<u>Table 2: Reporting Procedures</u>	<u>9</u>
<u>Table 3: Raw Data & Statistical Analysis</u>	<u>13</u>
<u>Table 4: Method of Analysis</u>	<u>20</u>
<u>Table 5: Additional Comments</u>	<u>23</u>
<u>Supplemental: Bivariate Control Analysis</u>	<u>24</u>
<u>Appendix: Data Sheet</u>	

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 pack consisted of two items containing different concentrations of methamphetamine HCl and lactose. Participants were requested to analyze each item and report the quantitative determination of methamphetamine HCl present in the samples.

SAMPLE PREPARATION-

The appropriate amount of methamphetamine HCl and lactose for each item were thoroughly mixed to ensure homogeneity.

ITEMS 1 and 2 (PREPARATION): For each Item, approximately 500 mg of the powder was weighed out and deposited into a glassine bag, which was folded and secured with a label. The folded glassine bag was placed into a small zip top bag and heat sealed closed. The heat sealed bag was then placed into a pre-labeled envelope.

SAMPLE PACK ASSEMBLY: One of each of the Item 1 and Item 2 envelopes was placed into a larger pre-labeled sample pack envelope.

VERIFICATION: Laboratories that conducted predistribution analysis of the samples reported consistent results that were comparable to the preparation concentrations of methamphetamine HCl. The following methods were used to examine the items: GC, GC/FID.

<u>Item</u>	<u>Preparation methamphetamine HCl</u>
1	89%
2	62%

Summary Comments

This test was designed to allow participants to assess their proficiency in the determination of powdered methamphetamine HCl concentrations. Each participant was supplied with a sample set consisting of two items containing lactose and different concentrations of methamphetamine HCl. Participants were requested to determine the methamphetamine HCl concentration for both items. (Refer to the Manufacturer's Information for preparation details.)

The results are separated into two tables: reported results and raw analytical data. The table of reported results shows the concentration that each participant would report according to their normal reporting procedures (e.g. mean, lowest result, truncated results). The table of raw data shows the results from each determination made by the laboratory to produce their reported results.

The raw data was used to calculate the grand mean and the standard deviation for each item. Participants with "extreme" data (± 3 STD from grand mean) have been marked with an "X" and their results were excluded from the calculations of the grand mean and standard deviation. Of the 89 responding participants, four participants reported "extreme" data for Item 2, and an additional three participants reported "extreme" data for both Items 1 and 2. Two participants did not report raw data determinations for either item. The calculated grand mean of Item 1 was 88.56 with a standard deviation of 2.009 and the grand mean of Item 2 was 60.89 with a standard deviation of 1.476. These calculations are supplied to assist the participants and accrediting bodies in determining the acceptability of the results.

As a supplemental examination of the raw data, Bivariate Control Analysis was also performed to analyze the measurement of both samples simultaneously. In this analysis, a comparative performance value (CPV) is provided for each participant, which is a (unitless) ratio indicating the number of standard deviations a participant's results are from the Grand Mean. The closer a participant's CPV is to zero, the more consistent their results are with the other participants' data. For the graphical portion, an ellipse was drawn so that 95% of the time a randomly selected participant was inside of it. Five participants whose results fell outside of the 95% ellipse, but within the 99% control limit have been marked with a "*". An additional 10 participants with results that fell outside the 99% control limit have been marked with an "X" and their results were excluded from the calculations for this supplemental examination. Two participants that did not report raw data for either item were marked with an "M" and also excluded from the calculations. For more information regarding Bivariate Control Analysis, please see the supplemental section at the end of this report.

Participants used a variety of methods to examine the samples. The most common method of analysis utilized was GC/FID.

Reported Results

What is the concentration of methamphetamine HCl in each of the samples?

TABLE 1 - Reported Results

WebCode	Item 1	Item 2	Uncertainty (k)
Preparation concentration:	89%	62%	
2J3AJH	88.1 ± 6.8 (%)	60.9 ± 4.7 (%)	
2TA4FV	94 ± 5 (%)	62 ± 5 (%)	2
2VXGGM	88.6 ± 5.4 (wt %)	62.0 ± 3.8 (wt %)	3
33PBRP	92.8 ± 7.0 (%)	64.3 ± 4.9 (%)	2
3FDHKK	88.9 ± 4.0 (%)	61.3 ± 4.0 (%)	2
3ZQVKN	88% ± 2.1%	60% ± 1.4%	2
4NNWBT	91.57% ± 6.41%	61.02% ± 4.27%	2
63PXJN	85.7 (%)	59.5 (%)	
6KJQ6L	87.7 ± 8.7 (%)	62.7 ± 6.2 (%)	3
6LEG9F	92.0 ± 7.5 (%)	67.2 ± 7.5 (%)	2
6UDTCP	90 ± 6 (%)	62 ± 6 (%)	2
76PKBH	88 ± 9 (%)	61 ± 6 (%)	95.45
7GJ2ZJ	89 ± 5.5 (%)	61 ± 5.5 (%)	5.5
7KZ9KC	87.3 ± 6.7 (%)	60.2 ± 4.6 (%)	2
83D98L	86 ± 3 (%)	59 ± 3 (%)	2
9MJX4F	88.7 ± 4.8 (%w/w)	60.8 ± 3.3 (%w/w)	2
9NRFVK	89 ± 3 (%)	61 ± 3 (%)	2
9PMV7W	93.5 ± 7.8 (%)	63.8 ± 5.3 (%)	2
AN8VL8	87 ± 7 (%)	59 ± 7 (%)	2

TABLE 1 - Reported Results

WebCode	Item 1	Item 2	Uncertainty (k)
Preparation concentration:	89%	62%	
AZ4W8N	0.43 ± 0.03 (grams)	0.30 ± 0.02 (grams)	2
B9A77Z	83.54 ± 8.09 (percent)	55.80 ± 8.09 (percent)	2
BG7YFF	80 (%)	56 (%)	
C299ZA	91.8 ± 4.3 (Percentage)	62.8 ± 3.0 (Percentage)	2
CAZRCW	90 ± 9.5 (%)	62 ± 6.6 (%)	2.576
CULHBT	90.8 ± 7.6 (%)	63.7 ± 5.3 (%)	2
CWARMF	86.3 ± 2.8 (% w/w)	59.2 ± 1.9 (% w/w)	3
D23J4B	87 ± 10 (%)	59 ± 6 (%)	3
E88ENB	88 ± 10 (%)	62 ± 7 (%)	3
E8L22J	81.23 (%)	55.46 (%)	
EH6F3Z	87 ± 5 (%)	60 ± 5 (%)	2
EVBCL3	86 ± 5 (%)	60 ± 5 (%)	2
EVEXYA	85 ± 9 (%)	58 ± 6 (%)	3
FXWD3A	92 ± 10 (%)	63 ± 7 (%)	3
G27AM3	89.1 ± 10.5 (%)	59.9 ± 9.7 (%)	2
G2TJYR	88 ± 7 (%(percent))	60 ± 5 (%(percent))	3
G9Q48E	88 ± 7 (%)	61 ± 7 (%)	2
GFB9XU	88.4 ± 7.6 (%)	60.6 ± 5.0 (%)	2
GJNCJP	90 ± 8 (%)	57 ± 5 (%)	3
GMCLVC	87 ± 3 (%)	60 ± 3 (%)	2

TABLE 1 - Reported Results

WebCode	Item 1	Item 2	Uncertainty (k)
Preparation concentration:	89%	62%	
GTFMV7	88.6 ± 0.2 (% by weight)	61.1 ± 0.3 (% by weight)	2
HLVQTG	86.7 ± 6 (%)	62.5 ± 5 (%)	2
HTGPG4	90.6 ± 4.0 (%)	63.2 ± 4.0 (%)	2
HUNYD8	86.8 ± 3.4 (%)	60.0 ± 3.4 (%)	2
HWFZD4	89.0 ± 4.0 (%)	63.1 ± 4.0 (%)	2
KQHDEZ	89.4 ± 4.2 (%)	62.1 ± 2.9 (%)	2
LDLVXX	86.2 ± 6.6 (percent)	59.7 ± 4.7 (percent)	2
LP3DUB	92.2 ± 1.2 (%)	69.0 ± 1.2 (%)	1.2
LRAT89	89 ± 3.4 (%)	60 ± 3.4 (%)	3
LZYJLN	83.6 ± 7.2 (%)	55.9 ± 4.7 (%)	2
MA6NE6	87 ± 3 (%)	59 ± 3 (%)	2
N9MYNX	92.2 ± 4.6 (%)	64.1 ± 4.4 (%)	2.025
NAJALL	87 ± 7 (% HCl)	60 ± 5 (% HCl)	3
NMNQA2	71 ± 5 (%)	48 ± 3 (%)	2.43
NV2MCM	88.7 ± 7.4 (%)	60.9 ± 5.0 (%)	2
NWED3J	88 ± 7 (as HCl)	59 ± 5 (as HCl)	3
PF3WTW	89.6 ± 4.0 (%)	62.1 ± 4.0 (%)	2
PVGHY8	86.16 ± 6.03 (%)	59.85 ± 4.19 (%)	2
Q8AYN9	0.43 ± 0.03 (grams)	0.30 ± 0.02 (grams)	2
QMXEMY	89.5 ± 1.9 (% by weight)	61.0 ± 1.9 (% by weight)	2

TABLE 1 - Reported Results

WebCode	Item 1	Item 2	Uncertainty (k)
Preparation concentration:	89%	62%	
QZNBKQ	87 ± 7 (%)	57 ± 7 (%)	2
RD7HWG	86 ± 7 (%)	59 ± 5 (%)	3
RMUEXH	89.6 ± 7.2 (%)	62.0 ± 4.8 (%)	2
T3N27V	89.9 ± 3.0 (%)	62.3 ± 1.7 (%)	2
T4ZVQ3	87 ± 5 (%)	60 ± 5 (%)	2.15
TFRHWX	86.5 ± 2.2 (mg/mL)	59.1 ± 1.6 (mg/mL)	
TJP9WH	86.7 ± 6.8 (%)	60.2 ± 4.7 (%)	2
TLJURU	88.9 ± 1.0 (%)	60.8 ± 0.1 (%)	
TTZAHH	86.3 ± 6.8 (%)	59.7 ± 5.0 (%)	2
U27PLV	88 ± 8.8 (%)	59 ± 5.9 (%)	2
UQQKRE	88 ± 7 (%)	60 ± 5 (%)	3
V2HPYH	87.48 ± 7.89 (%)	58.88 ± 7.89 (%)	2
V6G2W3	78.5 (%)	54.6 (%)	
VNZT3U	88.7 ± 2.9 (%)	61.1 ± 2.0 (%)	3.3%
VQJTFN	88.4 ± 4.2 (%)	60.2 ± 2.8 (%)	2
WB7VD2	85.7 ± 5.9 (%)	59.1 ± 8.7 (%)	2
WMGD4J	88 ± 5 (%)	59 ± 5 (%)	2
WX2HEN	90.2 ± 4.2 (%)	62.0 ± 2.9 (%)	2
XBGZKX	88.13 ± 1.58 (%)	61.32 ± 0.27 (%)	2
XDMRBP	90.02 ± 0.46 (%)	62.04 ± 0.40 (%)	
XMWWMF	87.49 ± 7.32 (%)	64.39 ± 7.32 (%)	2

TABLE 1 - Reported Results

WebCode	Item 1	Item 2	Uncertainty (k)
Preparation concentration:	89%	62%	
XTG8JW	88 ± 3.4 (%)	60 ± 3.4 (%)	3
Y2BDCX	89 ± 6 (%)	61 ± 6 (%)	2
YZCC4K	87.2 ± 6.7 (%)	60.6 ± 4.7 (%)	2
ZLVY7J	89.3 ± 5.5 (%)	60.9 ± 3.8 (%)	2
ZMBXMN	85.1 ± 1.1	58.8 ± 0.5	95%
ZPUA2J	87.5 ± 5.5 (%)	61.5 ± 3.9 (%)	2
ZVHXWP	87.5 ± 5.5 (%)	59.0 ± 3.7 (%)	
ZXAVBM	89.6 ± 5.4 (%)	58.6 ± 3.5 (%)	2
ZZDQR6	88.5 ± 7.4 (%)	61.2 ± 5.1 (%)	2

Reporting Procedures

TABLE 2

WebCode	Reporting Procedures
2J3AJH	The mean of duplicate/several determinations.
2TA4FV	The mean of duplicate/several determinations.
2VXGGM	The mean of duplicate/several determinations.
33PBRP	The mean of duplicate/several determinations.
3FDHKK	The mean of duplicate/several determinations.
3ZQVKN	The mean of duplicate/several determinations.
4NNWBT	The mean of duplicate/several determinations.
63PXJN	The mean of duplicate/several determinations.
6KJQ6L	The mean of duplicate/several determinations.
6LEG9F	The mean of duplicate/several determinations.
6UDTCP	The mean of duplicate/several determinations.
76PKBH	The mean of duplicate/several determinations.
7GJ2ZJ	The mean of duplicate/several determinations.
7KZ9KC	The mean of duplicate/several determinations.
83D98L	The mean of duplicate/several determinations.
9MJX4F	The mean of duplicate/several determinations.
9NRFVK	The mean of duplicate/several determinations.
9PMV7W	The mean of duplicate/several determinations.
AN8VL8	The lowest value of duplicate/several determinations.
AZ4W8N	The mean of duplicate/several determinations.
B9A77Z	The mean of duplicate/several determinations.
BG7YFF	The mean of duplicate/several determinations.
C299ZA	Single determination
CAZRCW	The mean of duplicate/several determinations.
CULHBT	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
CWARMF	The mean of duplicate/several determinations.
D23J4B	The mean of duplicate/several determinations.
E88ENB	The mean of duplicate/several determinations.
E8L22J	The mean of duplicate/several determinations.
EH6F3Z	The mean of at least 3 integrated NMR peaks; reported mean is truncated.
EVBCL3	The mean of at least three (3) integrated peaks. The reported mean is then truncated.
EVEXYA	The mean of duplicate/several determinations.
FXWD3A	The mean of duplicate/several determinations.
G27AM3	The mean of duplicate/several determinations.
G2TJYR	The mean of duplicate/several determinations.
G9Q48E	The mean of duplicate/several determinations.
GFB9XU	The mean of duplicate/several determinations.
GJNCJP	The mean of duplicate/several determinations.
GMCLVC	The mean of duplicate/several determinations.
GTFMV7	The lowest mean of several determinations
HLVQTG	The mean of duplicate/several determinations.
HTGPG4	The mean of duplicate/several determinations.
HUNYD8	Run in duplicate. Average normalized area to calculate purity.
HWFZD4	The mean of duplicate/several determinations.
KQHDEZ	Single determination
LDLVXX	The mean of duplicate/several determinations.
LP3DUB	The mean of duplicate/several determinations.
LRAT89	The mean of duplicate/several determinations.
LZYJLN	The mean of duplicate/several determinations.
MA6NE6	The mean of duplicate/several determinations.
N9MYNX	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
NAJALL	The mean of duplicate/several determinations.
NMNQA2	The lowest value of duplicate/several determinations.
NV2MCM	The mean of duplicate/several determinations.
NWED3J	The mean of duplicate/several determinations.
PF3WTW	The mean of duplicate/several determinations.
PVGHY8	The mean of duplicate/several determinations.
Q8AYN9	The mean of duplicate/several determinations.
QMXEMY	The mean of duplicate/several determinations.
QZNBKQ	The lowest value of duplicate/several determinations.
RD7HWG	The mean of duplicate/several determinations.
RMUEXH	The mean of duplicate/several determinations.
T3N27V	The mean of duplicate/several determinations.
T4ZVQ3	The lowest value of duplicate/several determinations.
TFRHWX	The mean of duplicate/several determinations.
TJP9WH	The mean of duplicate/several determinations.
TLJURU	3 integrals are taken per sample. It is the mean of the lowest integral per sample.
TTZAAH	The mean of duplicate/several determinations.
U27PLV	The mean of duplicate/several determinations.
UQQKRE	The mean of duplicate/several determinations.
V2HPYH	The mean of duplicate/several determinations.
VNZT3U	The mean of duplicate/several determinations.
VQJTFN	Single Determination
WB7VD2	The mean of duplicate/several determinations.
WMGD4J	The mean of at least three integrated peaks; the mean is then truncated.
WX2HEN	I used a simple single point ultra-violet quantitation method scanning between 225.00 and 285.00 nanometers.
XBGZKX	The mean of duplicate/several determinations.

TABLE 2

WebCode	Reporting Procedures
XDMRBP	The mean of duplicate/several determinations.
XMWWMF	The mean of duplicate/several determinations.
XTG8JW	The mean of duplicate/several determinations.
Y2BDCX	The mean of duplicate/several determinations.
YZCC4K	The mean of duplicate/several determinations.
ZLVY7J	The mean of duplicate/several determinations.
ZMBXMN	The mean of duplicate/several determinations.
ZPUA2J	The mean of duplicate/several determinations.
ZVHXWP	The mean of duplicate/several determinations.
ZXAVBM	The mean of duplicate/several determinations.
ZZDQR6	The mean of duplicate/several determinations.

Response Summary		Participants: 88
The mean of duplicate/several determinations:	78 (88.6%)	
The lowest value of duplicate/several determinations:	4 (4.5%)	
Other:	6 (6.8%)	

Raw Data

List of raw data determinations in percent.

TABLE 3 - Item 1

WebCode	Item 1	Preparation target concentration : 89%						Mean	
2J3AJH	87.68	88.12	88.02	88.39	88.42	88.25	88.15		
2TA4FV	95.00	93.00	94.00				94.00		
2VXGGM	89.49	88.73	89.81	86.48			88.63		
33PBRP	93.90	91.60					92.75		
3FDHKK	89.17	88.90	88.61				88.89		
3ZQVKN	87.83	88.13					87.98		
4NNWBT	91.93	91.21					91.57		
63PXJN	86.00	85.40					85.70		
6KJQ6L	87.60	62.20					74.90 X		
6LEG9F	90.85	92.66	92.40				91.97		
6UDTCP	90.27	90.60	90.64				90.50		
76PKBH	88.74	88.17	87.75	90.33	88.27	84.52	87.96		
7GJ2ZJ	87.74	89.82					88.78		
7KZ9KC	87.49	87.24	87.26	87.40	87.40	87.02	87.30		
83D98L	86.67	84.77	86.70				86.05		
9MJX4F	88.90	88.60					88.75		
9NRFVK	89.20	89.31	88.64				89.05		
9PMV7W	92.98	94.10					93.54		
AN8VL8	88.10	88.30	88.50	87.40	87.50	87.80	87.93		
AZ4W8N	89.72	90.23	90.18	90.51			90.16		
B9A77Z	84.34	82.69	83.57				83.53		
BG7YFF									
C299ZA	91.84						91.84		
CAZRCW	89.96	89.60	91.40				90.32		
CULHBT	91.07	90.73					90.90		
CWARMF	87.20	85.40					86.30		
D23J4B	86.67	88.19					87.43		
E88ENB	88.38	87.89					88.14		
E8L22J	78.89	78.98	84.56	82.88	81.95	79.59	82.35	80.63	81.23 X
EH6F3Z	88.68	86.37	86.85	87.54	88.03			87.49	

TABLE 3 - Item 1

WebCode	Item 1		Preparation target concentration : 89%					Mean	
EVBCL3	88.12	85.79	86.16	87.14	87.57		86.96		
EVEXYA	84.85	85.18					85.02		
FXWD3A	91.48	91.68					91.58		
G27AM3	91.24	90.13	83.47	89.27	88.46	91.82	89.07		
G2TJYR	88.06	88.38					88.22		
G9Q48E	88.36	89.44	88.52				88.77		
GFB9XU	89.79	89.99	87.38	88.49	86.81	87.84	88.38		
GJNCJP	91.38	90.35					90.87		
GMCLVC	87.12	87.11	87.82				87.35		
GTFMV7	88.60	88.50	88.80	88.50			88.60		
HLVQTG	88.10	87.90	85.40	87.40	86.50	85.70	87.10	85.80	86.74
HTGPG4	90.77	90.59	90.41					90.59	
HUNYD8	86.80							86.80	
HWFZD4	88.17	89.50	89.38					89.02	
KQHDEZ	89.38							89.38	
LDLVXX	85.87	85.95	86.06	86.38	86.15	86.63		86.17	
LP3DUB	92.50	91.80						92.15	
LRAT89	89.40	89.70	89.50	89.70	89.80			89.62	
LZYJLN	84.30	84.81	84.96	83.07	82.59	82.03		83.63	
MA6NE6	87.92	87.79	88.10					87.94	
N9MYNX	93.14	91.40						92.27	
NAJALL	87.36	87.79						87.58	
NMNQA2	71.00	72.00						71.50 X	
NV2MCM	88.93	90.56	87.26	88.46	88.52	88.49		88.70	
NWED3J	89.16	88.06						88.61	
PF3WTW	89.98	89.82	88.98					89.60	
PVGHY8	86.82	85.50						86.16	
Q8AYN9	89.74	89.42	89.33	89.40				89.47	
QMXEMY	89.23	89.68	89.44	89.83				89.55	
QZNBKQ	87.90	87.90	87.70	88.20	88.20	88.00		87.98	
RD7HWG	86.65	86.73						86.69	
RMUEXH	88.22	89.47	89.52	90.55	90.11	89.45		89.55	

TABLE 3 - Item 1

WebCode	Item 1		Preparation target concentration : 89%						Mean
T3N27V	88.50	89.60	89.70	89.80	90.20	90.90	91.20	90.60	90.06
T4ZVQ3	87.00	87.00	87.00	87.00	88.00	87.00			87.17
TFRHWX	86.56	86.48							86.52
TJP9WH	85.98	86.27	86.81	86.98	87.32	86.93			86.72
TLJURU	88.40	90.20	88.20	88.90	88.70				88.88
TTZAHH	86.48	86.92	86.82	85.65	86.70	85.34			86.32
U27PLV	89.60	87.50							88.55
UQQKRE	88.60	88.50							88.55
V2HPYH	88.28	88.18	85.98						87.48
V6G2W3									
VNZT3U	88.77	88.71							88.74
VQJTFN	88.40								88.40
WB7VD2	85.83	85.49							85.66
WMGD4J	89.49	87.64	88.33	89.30	89.33				88.82
WX2HEN	90.17								90.17
XBGZKX	89.72	86.55							88.13
XDMRBP	89.84	90.24	90.01	89.52	89.44	89.67	90.29	90.88	89.99
XMWWMF	90.27	86.70	85.50						87.49
XTG8JW	88.70	88.80	89.00	88.90	89.00				88.88
Y2BDCX	89.21	89.60	88.44						89.08
YZCC4K	87.38	87.26	87.59	87.26	86.90	87.02			87.24
ZLVY7J	91.00	91.10	87.80	87.30					89.30
ZMBXMN	85.80	85.60	84.70	84.40					85.13
ZPUA2J	89.30	89.30	85.80	85.70					87.53
ZVHXWP	87.74	87.38							87.56
ZXAVBM	91.38	89.83	87.80	89.50					89.63
ZZDQR6	88.65	88.46							88.56

Statistical Analysis for Item 1

Participants: 89

Preparation Target Concentration:	89%	Number of Participants Included:	84
Grand Mean:	88.56	Number of Participants Excluded:	3
Standard Deviation:	2.009	Number of Participants without Raw Data:	2

TABLE 3 - Item 2

WebCode	Item 2		Preparation target concentration : 62%					Mean	
2J3AJH	60.75	61.24	60.71	60.88	60.94	60.83	60.89		
2TA4FV	63.00	62.00	62.00				62.33		
2VXGGM	63.20	63.31	60.52	61.25			62.07		
33PBRP	63.50	65.00					64.25		
3FDHKK	61.35	61.19	61.27				61.27		
3ZQVKN	60.49	59.87					60.18		
4NNWBT	60.80	61.24					61.02		
63PXJN	59.70	59.40					59.55		
6KJQ6L	87.80	63.20					75.50 X		
6LEG9F	66.65	67.10	67.79				67.18 X		
6UDTCP	62.18	62.66	62.49				62.44		
76PKBH	61.17	60.77	60.36	61.91	62.67	61.66	61.42		
7GJ2ZJ	59.59	61.68					60.64		
7KZ9KC	60.15	60.25	60.23	60.25	60.14	60.31	60.22		
83D98L	59.49	59.72	59.20				59.47		
9MJX4F	60.60	61.00					60.80		
9NRFVK	61.08	61.39	60.73				61.07		
9PMV7W	64.12	63.51					63.82		
AN8VL8	59.90	59.60	59.70	60.40	60.30	60.10	60.00		
AZ4W8N	62.14	60.71	61.08	61.58			61.38		
B9A77Z	56.39	55.17	55.83				55.80 X		
BG7YFF									
C299ZA	62.75						62.75		
CAZRCW	63.36	62.36	62.62				62.78		
CULHBT	63.46	63.96					63.71		
CWARMF	59.70	58.80					59.25		
D23J4B	59.61	59.38					59.50		
E88ENB	61.99	62.21					62.10		
E8L22J	54.38	52.47	57.48	56.99	56.62	53.94	57.50	54.31	55.46 X
EH6F3Z	59.99	60.28	60.76					60.34	
EVBCL3	59.82	60.01	60.09	60.38				60.07	
EVEXYA	57.95	58.56						58.26	

TABLE 3 - Item 2

WebCode	Item 2		Preparation target concentration : 62%						Mean
FXWD3A	62.67	63.60							63.14
G27AM3	55.54	56.84	63.55	60.51	60.12	62.93			59.92
G2TJYR	60.44	60.51							60.48
G9Q48E	61.71	61.39	60.95						61.35
GFB9XU	61.77	60.56	60.90	59.73	59.91	60.88			60.63
GJNCJP	58.56	56.81							57.69
GMCLVC	60.77	60.58	60.75						60.70
GTFMV7	61.30	60.90	61.10	61.00					61.08
HLVQTG	61.80	62.10	62.80	63.30	62.50	63.00	62.50	62.10	62.51
HTGPG4	63.23	62.83	63.38						63.15
HUNYD8	60.00								60.00
HWFZD4	62.57	63.03	63.59						63.07
KQHDEZ	62.12								62.12
LDLVXX	59.09	59.80	59.61	59.47	59.97	60.22			59.69
LP3DUB	69.90	68.00							68.95 X
LRAT89	60.60	60.50	60.80	60.80	60.70				60.68
LZYJLN	56.28	56.43	54.96	56.15	56.60	55.20			55.94 X
MA6NE6	59.64	59.86	59.97						59.82
N9MYNX	64.77	63.62							64.20
NAJALL	60.67	60.43							60.55
NMNQA2	48.00	49.00							48.50 X
NV2MCM	60.70	61.33	61.85	60.77	60.25	60.26			60.86
NWED3J	59.21	58.97							59.09
PF3WTW	61.91	62.34	62.15						62.13
PVGHY8	60.22	59.43							59.83
Q8AYN9	61.91	62.03	61.98	61.75					61.92
QMXEMY	60.66	60.82	61.34	61.28					61.03
QZNBKQ	58.30	58.60	58.40	57.90	57.90	58.10			58.20
RD7HWG	59.54	59.18							59.36
RMUEXH	62.00	62.19	62.06	61.97	62.11	61.77			62.02
T3N27V	62.30	63.00	63.30	62.90	62.60	62.50	62.30	63.00	62.74
T4ZVQ3	60.00	60.00	60.00	60.00	60.00	60.00			60.00

TABLE 3 - Item 2

WebCode	Item 2		Preparation target concentration : 62%						Mean
TFRHWX	58.48	59.77							59.13
TJP9WH	59.70	60.31	60.41	60.13	60.26	60.18			60.17
TLJURU	60.90	60.70	60.80	60.80					60.80
TTZAHH	59.60	60.04	58.62	59.36	59.59	60.91			59.69
U27PLV	59.30	60.40							59.85
UQQKRE	60.27	60.75							60.51
V2HPYH	58.69	58.95	59.01						58.88
V6G2W3									
VNZT3U	61.01	61.35							61.18
VQJTFN	60.20								60.20
WB7VD2	59.19	59.03							59.11
WMGD4J	59.50	60.03	60.11	60.21					59.96
WX2HEN	62.00								62.00
XBGZKX	61.04	61.59							61.32
XDMRBP	61.86	61.93	62.07	62.11	62.86	62.28	61.47	62.10	62.09
XMWWMF	58.15	63.07	71.96						64.39
XTG8JW	60.30	60.20	60.50	60.30	60.70				60.40
Y2BDCX	61.86	61.13	61.04						61.34
YZCC4K	60.19	60.85	60.67	60.60	60.73	60.65			60.62
ZLVY7J	61.00	60.70	60.90	60.90					60.88
ZMBXMN	59.10	58.90	58.40	58.70					58.78
ZPUA2J	61.30	61.30	61.30	61.90					61.45
ZVHXWP	59.11	59.01							59.06
ZXAVBM	58.14	56.96	59.68	59.80					58.65
ZZDQR6	61.30	61.14							61.22

Statistical Analysis for Item 2				Participants: 89
Preparation Target Concentration:	62%	Number of Participants Included:	80	
Grand Mean:	60.89	Number of Participants Excluded:	7	
Standard Deviation:	1.476	Number of Participants without Raw Data:	2	

TABLE 3 - Response Summary

Response Summary	Item 1	Item 2
Preparation concentration	89%	62%
Grand Mean	88.56	60.89
Standard Deviation	2.009	1.476

Method of Analysis

TABLE 4 - Methods

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
2J3AJH							✓	
2TA4FV					✓			
2VXGGM							✓	
33PBRP								NMR
3FDHKK						✓		
3ZQVKN		✓						
4NNWBT				✓				
63PXJN		✓				✓		
6KJQ6L							✓	
6LEG9F				✓				
6UDTCP							✓	
76PKBH		✓						
7GJ2ZJ		✓	✓			✓		
7KZ9KC							✓	
83D98L		✓						HPLC-DAD
9MJX4F		✓						
9NRFVK		✓						
9PMV7W		✓						
AN8VL8							✓	
AZ4W8N							✓	
B9A77Z			✓	✓				
BG7YFF		✓						
C299ZA						✓		
CAZRCW					✓			
CULHBT		✓						
CWARMF							✓	
D23J4B							✓	
E88ENB							✓	
E8L22J		✓					✓	
EH6F3Z								Proton NMR
EVBCL3								NMR

TABLE 4 - Methods

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
EVEXYA							✓	
FXWD3A							✓	
G27AM3							✓	
G2TJYR							✓	
G9Q48E		✓				✓		
GFB9XU							✓	
GJNCJP							✓	
GMCLVC		✓						HPLC-DAD
GTFMV7								NMR
HLVQTG	✓							
HTGPG4						✓		
HUNYD8							✓	
HWFZD4						✓		
KQHDEZ			✓	✓		✓		
LDLVXX							✓	
LP3DUB				✓				
LRAT89	✓							
LZYJLN							✓	
MA6NE6		✓						
N9MYNX				✓				
NAJALL							✓	
NMNQA2							✓	
NV2MCM							✓	
NWED3J							✓	
PF3WTW						✓		
PVGHY8				✓				
Q8AYN9							✓	
QMXEMY							✓	
QZNBKQ							✓	
RD7HWG							✓	
RMUEXH							✓	
T3N27V							✓	

TABLE 4 - Methods

WebCode	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	Other
T4ZVQ3							✓	
TFRHWX		✓						
TJP9WH							✓	
TLJURU								qNMR
TTZAHH			✓				✓	Color Tests, TLC, GC/FID/MS, DART-TOF
U27PLV		✓						
UQQKRE							✓	
V2HPYH				✓				
V6G2W3				✓				
VNZT3U								quantitative proton NMR
VQJTFN						✓		
WB7VD2							✓	
WMGD4J								NMR
WX2HEN						✓		
XBGZKX					✓			
XDMRBP								HPLC-DAD
XMWWMF				✓				
XTG8JW	✓							
Y2BDCX							✓	
YZCC4K							✓	
ZLVY7J		✓						
ZMBXMN				✓				
ZPUA2J		✓						
ZVHXWP							✓	
ZXAVBM							✓	
ZZDQR6		✓						

Response Summary								Participants: 89
Participants	GC	LC	FTIR	GC/MS	LC/MS	UV	GC/FID	
89	3	19	4	11	3	11	39	
Percent	3.4%	21.3%	4.5%	12.4%	3.4%	12.4%	43.8%	

Additional Comments

TABLE 5

WebCode	Additional Comments
7GJ2ZJ	FTIR used to ID and rough estimate of purity
9NRFVK	Color tests, FTIR, and GCMS were used to identify methamphetamine in the samples. The weight of the received material was: Item 1 0.483 grams +/- 0.008 grams, Item 2 0.483 grams +/- 0.008 grams. The calculated weights, applying the purity would be: Item 1 0.429 grams of methamphetamine, Item 2 0.294 grams of methamphetamine. The coverage range applying weight and purity uncertainties would be: Item 1 (0.408-0.451 grams), Item 2 (0.275-0.314 grams).
CWARMF	In routine practice concentration (% purity) is calculated based on Methamphetamine base, and in the case report the weight of methamphetamine base for the whole sample was reported. Not the concentration.
E8L22J	Item 1 & Item 2 were found to contain Lactose.
EH6F3Z	Item 1: 5 out of 6 possible integral values were used to determined purity. Item 2: 3 out of 6 possible integral values were used to determined purity. Both items also contained lactose.
EVBCL3	For Item 1, 5 out of a possible 6 integral values were used to determine the purity. For Item 2, 4 out of a possible 6 integral values were used.
GTFMV7	4 replicates were run per item using the Meth Quant NMR experiment. The peak purities of 3 methamphetamine HCl proton peaks were determined using maleic acid as the internal standard. The 3 peak purities were calculated per replicate and were averaged. The lowest averaged peak purity was used in determining the percent of methamphetamine HCl in each item.
N9MYNX	Our lab did calculations to determine methamphetamine HCl purity per PT instructions.
WMGD4J	For Item 1, 5 out of a possible 6 integral values were used to determine the purity. For Item 2, 4 out of a possible 6 integral values were used to determine the purity.
WX2HEN	RESULTS AND CONCLUSIONS: Methamphetamine hydrochloride was detected in Lab Item 1 (net weight – 0.49 gram, purity – 90.2% +/- 4.2%, actual methamphetamine hydrochloride – 0.4 gram +/- 0.1 gram). Methamphetamine hydrochloride was detected in Lab Item 2 (net weight – 0.49 gram, purity – 62.0% +/- 2.9%, actual methamphetamine hydrochloride – 0.3 gram +/- 0.1 gram).

Supplemental: Hotelling T-Squared Bivariate Control Analysis

Hotelling T-Squared Bivariate Control Analysis is used in many other industries to examine results. Although not typically used in forensic science, CTS is presenting an introduction to this type of statistical data analysis. A laboratory may choose to delve deeper in a participant's results by studying both sets of statistics available in this report. The statistics presented in Table 3 - Raw Data of this report examine the results of each item independently of each other. However, because the same materials are chosen for both samples, there should be a correlation of measurement performance between the two samples. A bi-variate analysis technique judges measurement performance on both samples simultaneously, represented as an ellipse. For each participant, the mean of Item 1 (x-axis) is plotted against the mean of Item 2 (y-axis). The horizontal and vertical cross-hairs are the grand means for each Item. When 20 or more participants are included in the statistics, an ellipse is drawn so that 95% of the time a randomly selected participant will be included inside.

When considering your participant's position on the plot relative to the ellipse, remember that, generally speaking, if a participant's plotted point falls on the major axis outside of the ellipse, the participant is consistent in its measurements between the two samples but exhibits an offset from the grand mean (systematic difference). If a plotted point falls to the side of the ellipse, it indicates possible differences in the way that the participant tested the two samples or differences in sample behavior (consistency difference). The two-sample plot enables you to see which sample, if either, is "extreme" and to ascertain the nature of the "extreme" data.

Systematic Difference

Bias is illustrated in the control ellipse on the two sample plot. If a particular analysis/sample combination did not show bias, the control ellipse would become a circle. Differences in procedures, conditions, instrumentation and sample preparation all contribute to the bias of a participant. When these differences become too large, a participant may receive a Data Flag. When the test results for both samples are both high or low compared to the group, a participant has a fixed set of factors on which to focus to identify a cause. Furthermore, since additional testing on similar samples should produce similar high or low results, it is possible to determine that a systematic error has been successfully corrected.

Consistency Difference

The participant's results indicate that there are differences in the way the two samples tested (the plotted point falls to the side of the ellipse). This type of error may be attributed to the analyst deviating from the procedure when testing one of the samples or a material interaction occurrence with the instrument or room conditions. The inconsistency is reflected in the Comparative Performance Values (CPV) for the two samples, such as a +1.5 CPV for Item 1 and a -2.2 CPV for Item 2. CPV is the number of standard deviations a value is from the grand mean.

Key for Data Flags		
<u>Data Flag</u>	<u>Statistically Included/Excluded</u>	<u>Explanation</u>
*	Included	Results fall outside 95% ellipse, but within a 99% control limit (ellipse) that is calculated.
X	Excluded	Results fall outside of 99% control limit.
M	Excluded	Data is missing for at least one item

Bivariate Control Analysis

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
2J3AJH		88.15	-0.247	-0.21	60.89	0.147	0.00
2TA4FV	X	94.00	5.607	2.71	62.33	1.589	0.98
2VXGGM		88.63	0.234	0.03	62.07	1.326	0.80
33PBRP		92.75	4.357	2.09	64.25	3.506	2.28
3FDHKK		88.89	0.499	0.16	61.27	0.524	0.26
3ZQVKN		87.98	-0.415	-0.29	60.18	-0.564	-0.48
4NNWBT	*	91.57	3.177	1.50	61.02	0.276	0.09
63PXJN		85.70	-2.693	-1.42	59.55	-1.194	-0.91
6KJQ6L	X	74.90	-13.493	-6.80	75.50	14.756	9.90
6LEG9F	X	91.97	3.577	1.70	67.18	6.436	4.26
6UDTCP		90.50	2.111	0.97	62.44	1.699	1.05
76PKBH		87.96	-0.430	-0.30	61.42	0.679	0.36
7GJ2ZJ		88.78	0.389	0.11	60.64	-0.106	-0.17
7KZ9KC		87.30	-1.092	-0.63	60.22	-0.523	-0.45
83D98L		86.05	-2.347	-1.25	59.47	-1.274	-0.96
9MJX4F		88.75	0.357	0.09	60.80	0.056	-0.06
9NRFVK		89.05	0.657	0.24	61.07	0.322	0.12
9PMV7W	*	93.54	5.147	2.48	63.82	3.071	1.98
AN8VL8		87.93	-0.460	-0.31	60.00	-0.744	-0.60
AZ4W8N		90.16	1.767	0.80	61.38	0.633	0.33
B9A77Z	*	83.53	-4.860	-2.50	55.80	-4.948	-3.45
BG7YFF	M						
C299ZA		91.84	3.447	1.63	62.75	2.006	1.26
CAZRCW		90.32	1.927	0.88	62.78	2.036	1.28
CULHBT		90.90	2.505	1.16	63.71	2.964	1.91

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
CWARMF		86.30	-2.093	-1.13	59.25	-1.494	-1.11
D23J4B		87.43	-0.963	-0.56	59.50	-1.249	-0.94
E88ENB		88.14	-0.258	-0.21	62.10	1.356	0.82
E8L22J	X	81.23	-7.165	-3.65	55.46	-5.283	-3.68
EH6F3Z		87.49	-0.901	-0.53	60.34	-0.400	-0.37
EVBCL3		86.96	-1.438	-0.80	60.07	-0.671	-0.55
EVEXYA		85.02	-3.378	-1.77	58.26	-2.489	-1.78
FXWD3A		91.58	3.187	1.50	63.14	2.391	1.52
G27AM3		89.07	0.672	0.25	59.92	-0.829	-0.66
G2TJYR		88.22	-0.173	-0.17	60.48	-0.269	-0.28
G9Q48E		88.77	0.380	0.11	61.35	0.606	0.31
GFB9XU		88.38	-0.010	-0.09	60.63	-0.119	-0.18
GJNCJP	X	90.87	2.472	1.15	57.69	-3.059	-2.17
GMCLVC		87.35	-1.043	-0.60	60.70	-0.044	-0.13
GTFMV7		88.60	0.207	0.02	61.08	0.331	0.13
HLVQTG	X	86.74	-1.656	-0.91	62.51	1.768	1.10
HTGPG4		90.59	2.198	1.01	63.15	2.405	1.53
HUNYD8		86.80	-1.593	-0.88	60.00	-0.744	-0.60
HWFZD4		89.02	0.622	0.23	63.07	2.322	1.47
KQHDEZ		89.38	0.987	0.41	62.12	1.376	0.83
LDLVXX		86.17	-2.220	-1.19	59.69	-1.051	-0.81
LP3DUB	X	92.15	3.757	1.79	68.95	8.206	5.46
LRAT89		89.62	1.227	0.53	60.68	-0.064	-0.14
LZYJLN	*	83.63	-4.767	-2.46	55.94	-4.808	-3.35
MA6NE6		87.94	-0.457	-0.31	59.82	-0.921	-0.72
N9MYNX		92.27	3.877	1.85	64.20	3.451	2.24
NAJALL		87.58	-0.818	-0.49	60.55	-0.194	-0.23

WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
NMNQA2	X	71.50	-16.893	-8.49	48.50	-12.244	-8.39
NV2MCM		88.70	0.310	0.07	60.86	0.116	-0.02
NWED3J		88.61	0.217	0.02	59.09	-1.654	-1.22
PF3WTW		89.60	1.202	0.51	62.13	1.386	0.84
PVGHY8		86.16	-2.233	-1.20	59.83	-0.919	-0.72
Q8AYN9		89.47	1.079	0.45	61.92	1.173	0.70
QMXEMY		89.55	1.152	0.49	61.03	0.281	0.09
QZNBKQ	*	87.98	-0.410	-0.29	58.20	-2.544	-1.82
RD7HWG		86.69	-1.703	-0.93	59.36	-1.384	-1.04
RMUEXH		89.55	1.160	0.49	62.02	1.272	0.76
T3N27V		90.06	1.669	0.75	62.74	1.993	1.25
T4ZVQ3		87.17	-1.227	-0.69	60.00	-0.744	-0.60
TFRHWX		86.52	-1.873	-1.02	59.13	-1.619	-1.20
TJP9WH		86.72	-1.678	-0.92	60.17	-0.579	-0.49
TLJURU		88.88	0.487	0.16	60.80	0.056	-0.06
TTZAHH		86.32	-2.075	-1.12	59.69	-1.058	-0.81
U27PLV		88.55	0.157	-0.01	59.85	-0.894	-0.70
UQQKRE		88.55	0.157	-0.01	60.51	-0.234	-0.26
V2HPYH		87.48	-0.913	-0.54	58.88	-1.861	-1.36
V6G2W3	M						
VNZT3U		88.74	0.347	0.09	61.18	0.436	0.20
VQJTFN		88.40	0.007	-0.08	60.20	-0.544	-0.47
WB7VD2		85.66	-2.733	-1.44	59.11	-1.634	-1.21
WMGD4J		88.82	0.425	0.13	59.96	-0.779	-0.63
WX2HEN		90.17	1.777	0.80	62.00	1.256	0.75
XBGZKX		88.13	-0.261	-0.21	61.32	0.573	0.29
XDMRBP		89.99	1.593	0.71	62.09	1.341	0.81

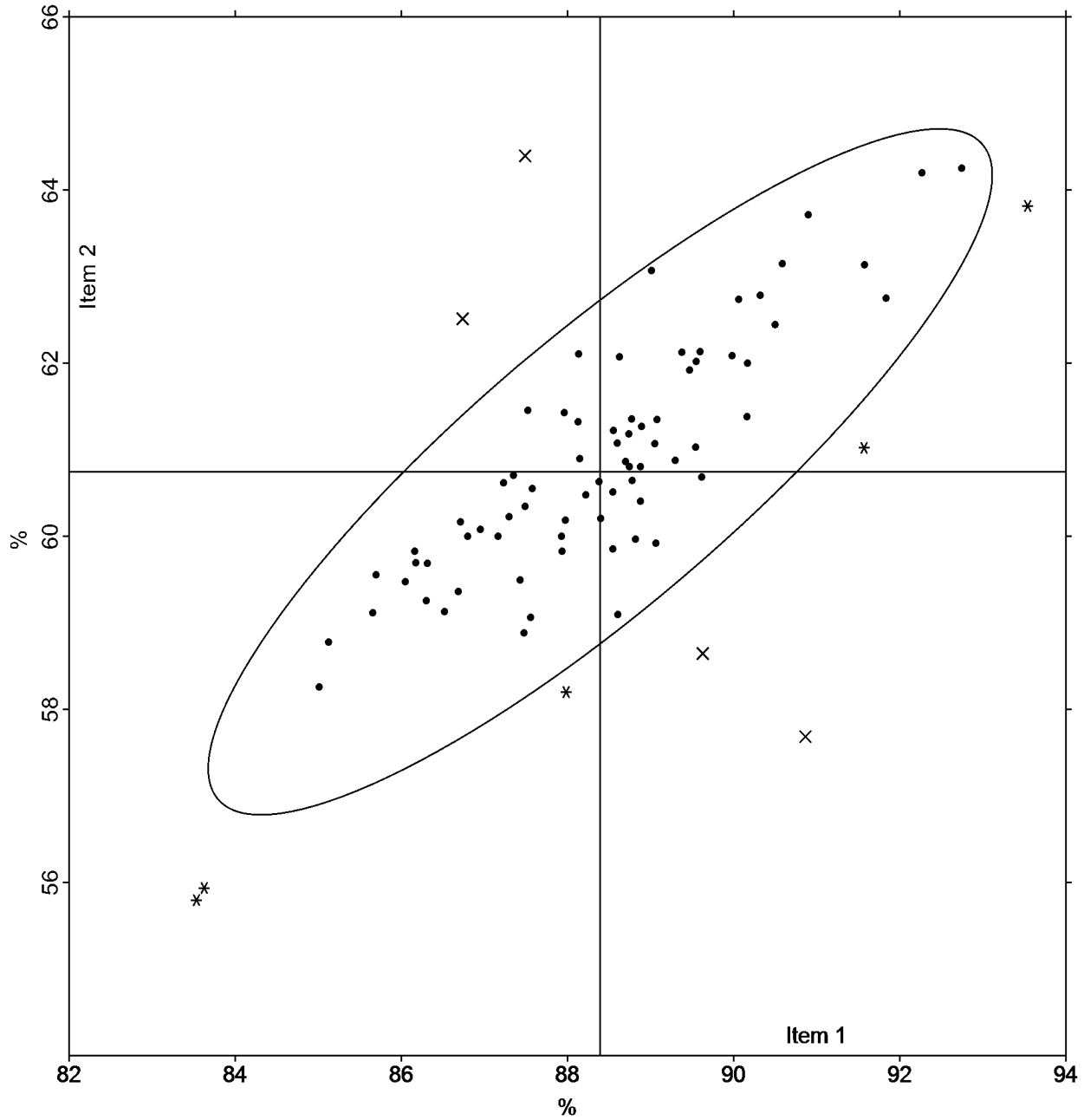
WebCode	Data Flag	Item 1			Item 2		
		Participant Mean	Difference from Grand Mean	CPV	Participant Mean	Difference from Grand Mean	CPV
XMWWMF	X	87.49	-0.903	-0.53	64.39	3.649	2.37
XTG8JW		88.88	0.487	0.16	60.40	-0.344	-0.33
Y2BDCX		89.08	0.688	0.26	61.34	0.599	0.31
YZCC4K		87.24	-1.158	-0.66	60.62	-0.129	-0.19
ZLVY7J		89.30	0.907	0.37	60.88	0.131	-0.01
ZMBXMN		85.13	-3.268	-1.71	58.78	-1.969	-1.43
ZPUA2J		87.53	-0.868	-0.52	61.45	0.706	0.38
ZVHXWP		87.56	-0.837	-0.50	59.06	-1.687	-1.24
ZXAVBM	X	89.63	1.234	0.53	58.65	-2.099	-1.52
ZZDQR6		88.56	0.163	0.00	61.22	0.475	0.22

Response Summary	Item 1	Item 2	Participants: 89
Preparation Concentration	89%	62%	
Grand Mean	88.39	60.74	
Standard Deviation	1.88	1.58	
Participants Included: 77	Participants Excluded: 10	Participants without Raw Data for both items: 2	

Bivariate Control Analysis

Item 1 Grand Mean: 88.39

Item 2 Grand Mean: 60.74



-End of Report-
(Appendix may follow)

Test No. 19-505: Quantitative Drug Analysis - Methamphetamine HCl

DATA MUST BE SUBMITTED BY **July 15, 2019, 11:59 p.m.** TO BE INCLUDED IN THE REPORT

Participant Code: U1234A

WebCode: XZ34LL

The Accreditation Release section can be accessed by using the "Continue to Final Submission" button above. This information can be entered at any time prior to submitting to CTS.

Test Description:

Investigators have submitted two powdered methamphetamine HCl samples from separate cases to be quantitatively examined. Using your laboratory's procedures, analyze each sample and report the quantitative determination of methamphetamine HCl present in the samples.

-Please follow your laboratory's policies and procedures for sample homogenization.

-This is not intended as a qualitative test but rather as a quantitative examination of the methamphetamine HCl present in the samples.

Items Submitted (Sample Pack DQ1):

Items 1 & 2: Powdered methamphetamine HCl samples

1a.) What is the concentration of methamphetamine HCl in each of the samples? (Results should be reported using your laboratory reporting criteria for decimal places, uncertainty, and units.)

Reported Concentration	Uncertainty (k= <input style="width: 40px; border: 1px solid black;" type="text" value="1"/>)	Units
Item 1: <input style="width: 150px;" type="text"/>	± <input style="width: 80px;" type="text"/>	(<input style="width: 100px;" type="text"/>)
Item 2: <input style="width: 150px;" type="text"/>	± <input style="width: 80px;" type="text"/>	(<input style="width: 100px;" type="text"/>)

1b.) Are the values listed above:

The mean of duplicate / several determinations?

The lowest value of duplicate / several determinations?

Other? (Specify):

2.) Please list your raw data determinations below in percent of methamphetamine HCl. (Results not reported in % will be excluded from statistical calculations.)

Item 1 (%)	Item 2 (%)
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>

3.) What methods were used to quantitatively examine the items?

- | | | |
|---------------------------------|--|-------------------------------|
| <input type="checkbox"/> GC | <input type="checkbox"/> LC | <input type="checkbox"/> FTIR |
| <input type="checkbox"/> GC/MS | <input type="checkbox"/> LC/MS | <input type="checkbox"/> UV |
| <input type="checkbox"/> GC/FID | <input type="checkbox"/> Other (specify): <input type="text"/> | |

4.) Additional Comments

Please note: Any additional formatting applied in the free form space below will not transfer to the Summary Report and may cause your information to be illegible. This includes additional spacing and returns that present your responses in lists and tabular formats.

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)