



«Tit» «Name» «Fam_Nam»
«Organization»
«Address1»
«Address_2»
«PO_Box» «City». «Country»

Sevilla, February, 2016

Proficiency Test 2015-2

Laboratory Code: «**Lab_code**»

Dear participants,

Enclosed you will find the report of the Proficiency Test 2015-2 on Drugs of Abuse in Hair, organized by the Society of Hair Testing.

Each of the participating laboratories received an identifying code. Your particular code is «**Lab_code**».

Sets of three samples were sent to forty four participating laboratories. Forty one of them sent the report forms back.

Sample contents were as follows:

- * Sample A contained opiates (6-MAM, morphine, codeine, acetylcodeine and heroin), cocaine, BE, norcocaine and traces of cocaethylene) and cannabis (THC, CBD, CBN and THC-COOH). It also contained methadone, dihydrocodeine, diazepam, nordiazepam, tramadol, EME and AEME.
- * Sample B contained contained traces of cocaine, BE). Median concentration of cocaine is below the cut-off proposed by SoHT.
- * Sample C opiates (6-MAM, morphine, codeine, acetylcodeine and heroin), cocaine, BE, cocaethylene and norcocaine) traces of amphetamine compounds (amphetamine methamphetamine and MDMA) and cannabis (THC, CBD, CBN and THC-COOH). It also contained dihydrocodeine, diazepam, nordiazepam, tramadol, EME, AEME and traces of methadone.

Z-score

Z-score has been calculated based on robust estimators (median instead of mean and interquartile instead of standard deviation).

Z-score has been calculated as follows:

$$\text{Z-score} = (x - \chi) / \text{IQR}$$

Where:

x: Concentration reported by the participant

χ : Median concentration obtained from the participating laboratories

IQR: Interquartile range: It is calculated as: Q3-Q1 (the upper quartile minus the lower quartile)

Q3: Third quartile (percentile 75)

Q1: First quartile (percentile 25)

Decision criteria

The following criteria have been adopted:

Satisfactory results: $Z\text{-score} \leq \pm 2$

Questionable results: $2 < Z\text{-score} \leq 3$

Unsatisfactory results: $Z\text{-score} \geq 3$

Yours faithfully,

Carmen Jurado

QUALITATIVE RESULTS

Laboratory Code: **Lab**

Sample A				Sample B				Sample C			
Substances	A	T	F	Substances	A	T	F	Substances	A	T	F
MAM		P		D		N		MAM		P	
Morphine		P						Morphine		P	
Codeine		P						Codeine		P	
Cocaine		P						Cocaine		P	
BE		P						BE		P	
THC		P						Amphetamine*		P	
THC-COOH		P						Methamphetamine*		P	
								MDMA*		P	
								THC		P	
								THC-COOH		P	

* The median concentrations of amphetamine, methamphetamine and MDMA in Sample C are 0.16 ng/mg, 0.11 ng/mg and 0.11 ng/mg, respectively. All of them are lower than the cut-off proposed by SoHT (0.2 ng/mg).

A: Your answer
T: True answer
F: False answer

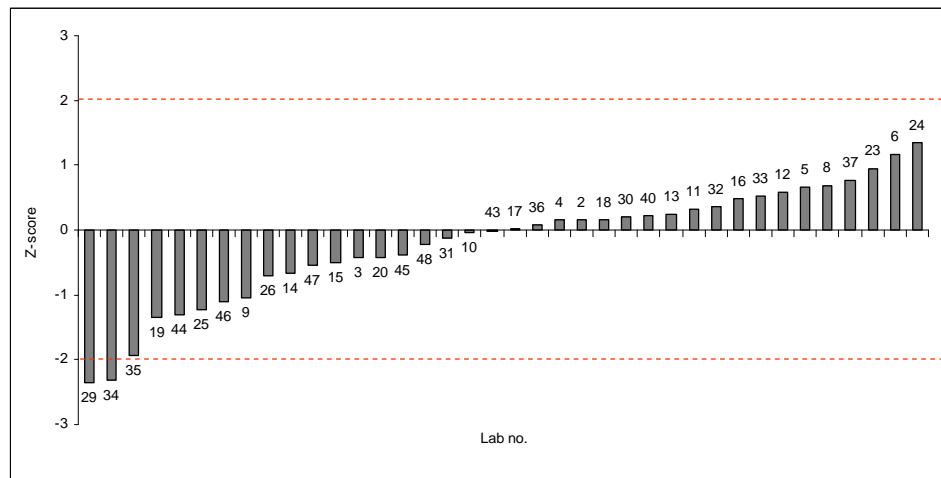
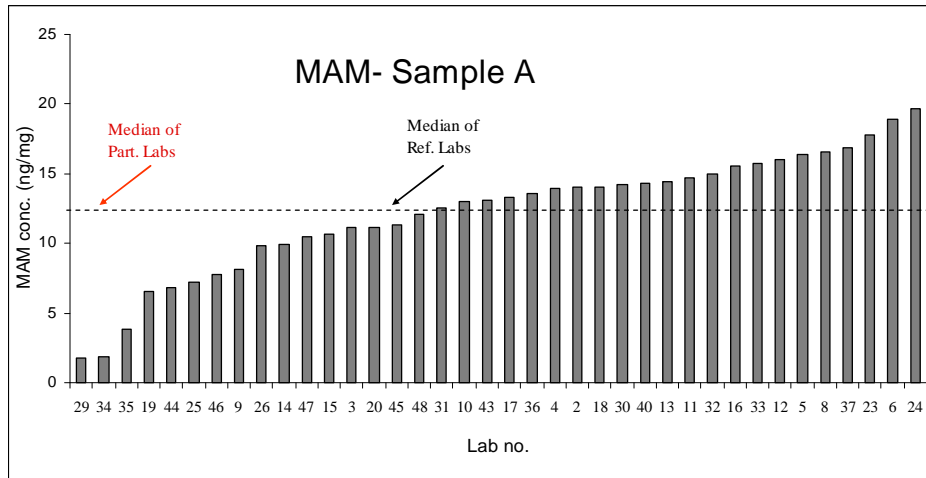
P: Positive
N: Negative

NR: Not reported
NA: Not analyzed

FN: False Negative
FP: False Positive

Comments:

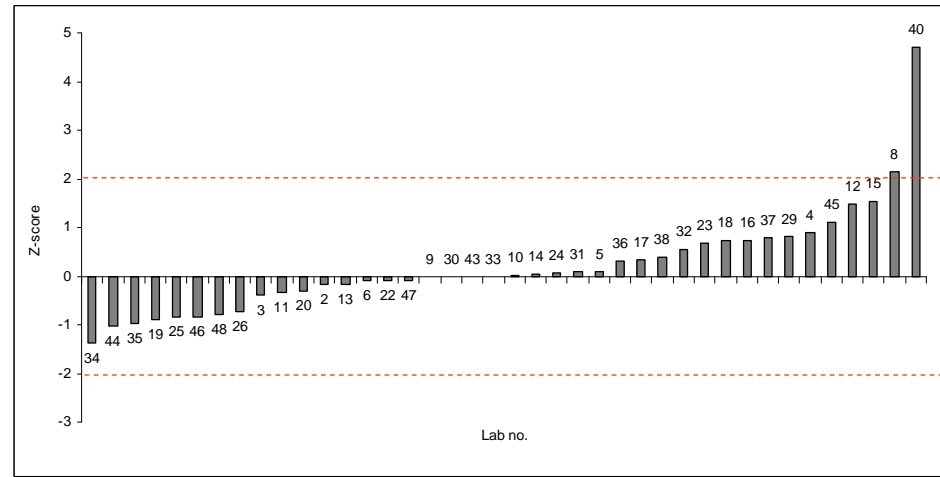
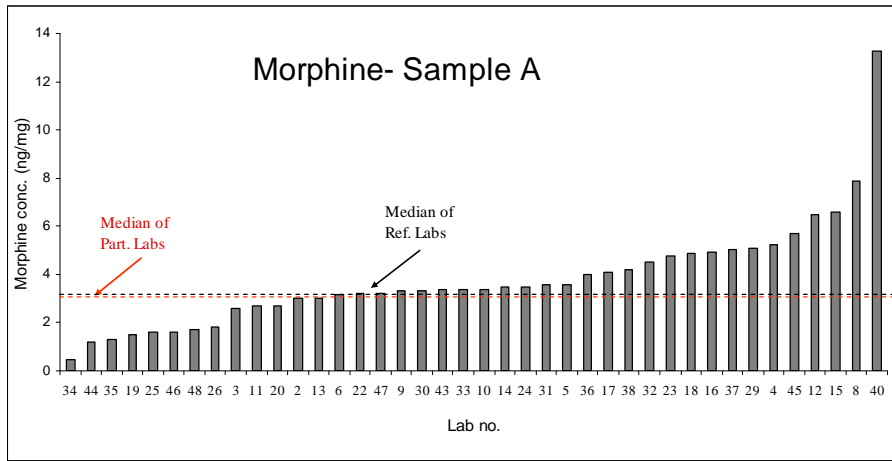
- Sample A contains methadone, CBD, CBN, norcocaine, dihydrocodeine, diazepam, tramadol and traces of cocaethylene (0.02 ng/mg, median concentration).
- Sample B contains traces of cocaine (0.06 ng/mg, median concentration) and benzoylecgonine (0.17 ng/mg, median concentration).
- Sample C contains CBD, CBN, norcocaine, cocaethylene, dihydrocodeine, diazepam and tramadol and traces of methadone



Lab.	MAM (ng/mg)	Z-score	Result
29	1,75	-2,35	Questionable
34	1,91	-2,32	Questionable
35	3,80	-1,93	Satisfactory
19	6,60	-1,35	Satisfactory
44	6,82	-1,31	Satisfactory
25	7,20	-1,23	Satisfactory
46	7,80	-1,11	Satisfactory
9	8,13	-1,04	Satisfactory
26	9,80	-0,70	Satisfactory
14	9,93	-0,67	Satisfactory
47	10,5	-0,55	Satisfactory
15	10,72	-0,51	Satisfactory
3	11,10	-0,43	Satisfactory
20	11,15	-0,42	Satisfactory
45	11,31	-0,39	Satisfactory
48	12,10	-0,22	Satisfactory
31	12,56	-0,13	Satisfactory
10	12,97	-0,04	Satisfactory
43	13,09	-0,02	Satisfactory
17	13,30	0,02	Satisfactory
36	13,60	0,08	Satisfactory
4	13,95	0,16	Satisfactory
2	14,00	0,17	Satisfactory
18	14,00	0,17	Satisfactory
30	14,20	0,21	Satisfactory
40	14,30	0,23	Satisfactory

Lab.	MAM (ng/mg)	Z-score	Result
13	14,40	0,25	Satisfactory
11	14,74	0,32	Satisfactory
32	15,00	0,37	Satisfactory
16	15,50	0,47	Satisfactory
33	15,76	0,53	Satisfactory
12	16,00	0,58	Satisfactory
5	16,40	0,66	Satisfactory
8	16,54	0,69	Satisfactory
37	16,87	0,76	Satisfactory
23	17,77	0,94	Satisfactory
6	18,90	1,17	Satisfactory
24	19,70	1,34	Satisfactory
22	> 10		
38	> 5		
21	P		

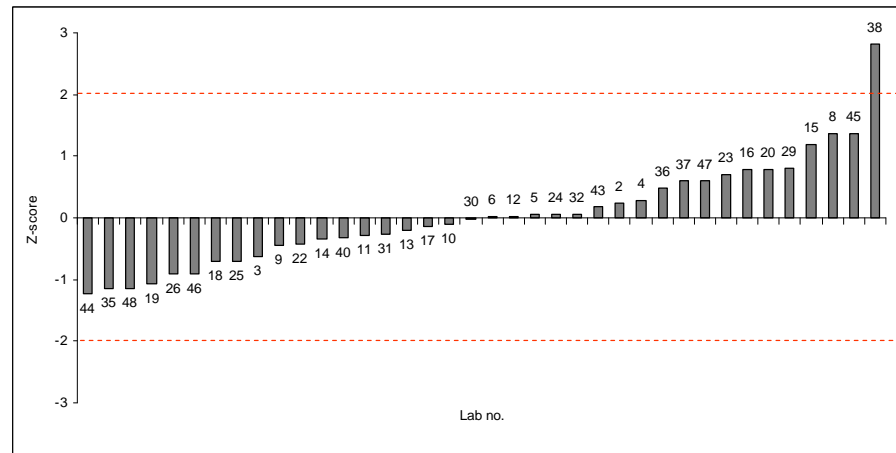
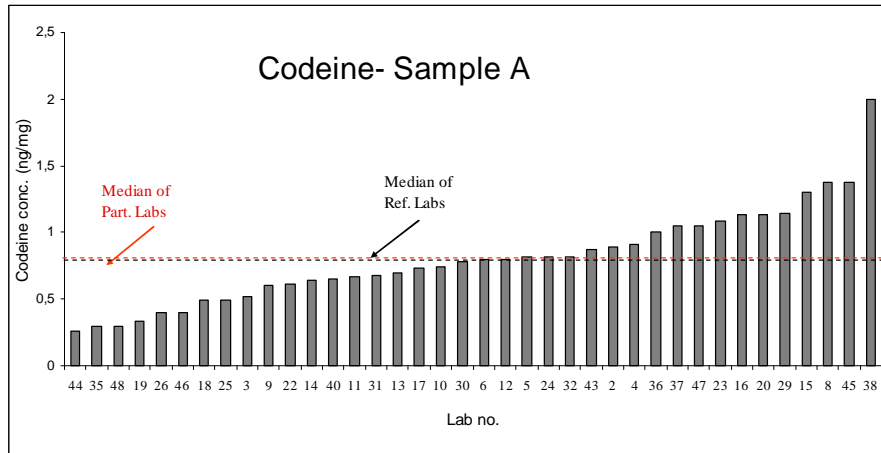
Average	12,215
SD	4,28
CV%	35,04
Median	13,19
Minimum	1,75
Quartile 25	10,07
Quartile 75	14,935
Maximum	19,7
Iqr	4,86



Lab.	Morphine (ng/mg)	Z-score	Result
34	0,49	-1,36	Satisfactory
44	1,19	-1,03	Satisfactory
35	1,30	-0,98	Satisfactory
19	1,50	-0,89	Satisfactory
25	1,60	-0,84	Satisfactory
46	1,60	-0,84	Satisfactory
48	1,70	-0,79	Satisfactory
26	1,84	-0,72	Satisfactory
3	2,57	-0,38	Satisfactory
11	2,68	-0,33	Satisfactory
20	2,72	-0,31	Satisfactory
2	3,00	-0,17	Satisfactory
13	3,00	-0,17	Satisfactory
6	3,15	-0,10	Satisfactory
22	3,19	-0,08	Satisfactory
47	3,20	-0,08	Satisfactory
9	3,32	-0,02	Satisfactory
30	3,32	-0,02	Satisfactory
43	3,36	-0,004	Satisfactory
33	3,37	0	Satisfactory
10	3,38	0,004	Satisfactory
14	3,47	0,05	Satisfactory
24	3,50	0,06	Satisfactory
31	3,58	0,10	Satisfactory
5	3,59	0,10	Satisfactory
36	4,00	0,30	Satisfactory

Lab.	Morphine (ng/mg)	Z-score	Result
17	4,1	0,36	Satisfactory
38	4,2	0,396	Satisfactory
32	4,5	0,53	Satisfactory
23	4,79	0,67	Satisfactory
18	4,9	0,72	Satisfactory
16	4,93	0,74	Satisfactory
37	5,04	0,79	Satisfactory
29	5,06	0,80	Satisfactory
4	5,25	0,89	Satisfactory
45	5,7	1,10	Satisfactory
12	6,5	1,48	Satisfactory
15	6,61	1,53	Satisfactory
8	7,88	2,14	Questionable
40	13,3	4,71	Unsatisfactory
21	P		

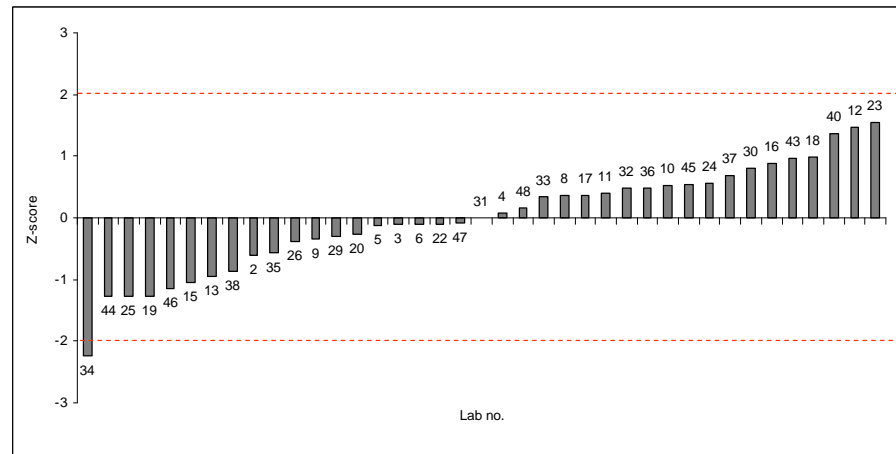
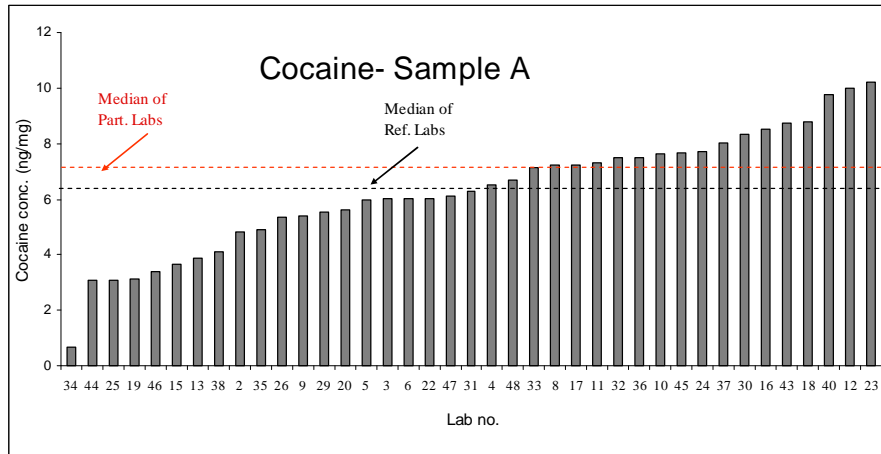
Average	3,8095
SD	2,18
CV%	57,22
Median	3,37
Minimum	0,49
Quartile 25	2,71
Quartile 75	4,82
Maximum	13,30
Iqr	2,11



Lab.	Codeine (ng/mg)	Z-score	Result
44	0,26	-1,23	Satisfactory
35	0,30	-1,14	Satisfactory
48	0,30	-1,14	Satisfactory
19	0,33	-1,07	Satisfactory
26	0,40	-0,91	Satisfactory
46	0,40	-0,91	Satisfactory
18	0,49	-0,70	Satisfactory
25	0,49	-0,70	Satisfactory
3	0,523	-0,62	Satisfactory
9	0,60	-0,44	Satisfactory
22	0,61	-0,42	Satisfactory
14	0,64	-0,35	Satisfactory
40	0,65	-0,32	Satisfactory
11	0,67	-0,28	Satisfactory
31	0,68	-0,26	Satisfactory
13	0,70	-0,21	Satisfactory
17	0,73	-0,14	Satisfactory
10	0,75	-0,10	Satisfactory
30	0,78	-0,02	Satisfactory
6	0,80	0,02	Satisfactory
12	0,80	0,02	Satisfactory
5	0,82	0,07	Satisfactory
24	0,82	0,07	Satisfactory
32	0,82	0,07	Satisfactory
43	0,87	0,19	Satisfactory
2	0,89	0,23	Satisfactory

Lab.	Codeine (ng/mg)	Z-score	Result
4	0,91	0,30	Satisfactory
36	1,00	0,49	Satisfactory
37	1,05	0,60	Satisfactory
47	1,05	0,60	Satisfactory
23	1,09	0,70	Satisfactory
16	1,13	0,79	Satisfactory
20	1,13	0,79	Satisfactory
29	1,14	0,81	Satisfactory
15	1,30	1,19	Satisfactory
8	1,38	1,37	Satisfactory
45	1,38	1,37	Satisfactory
38	2,00	2,81	Questionable

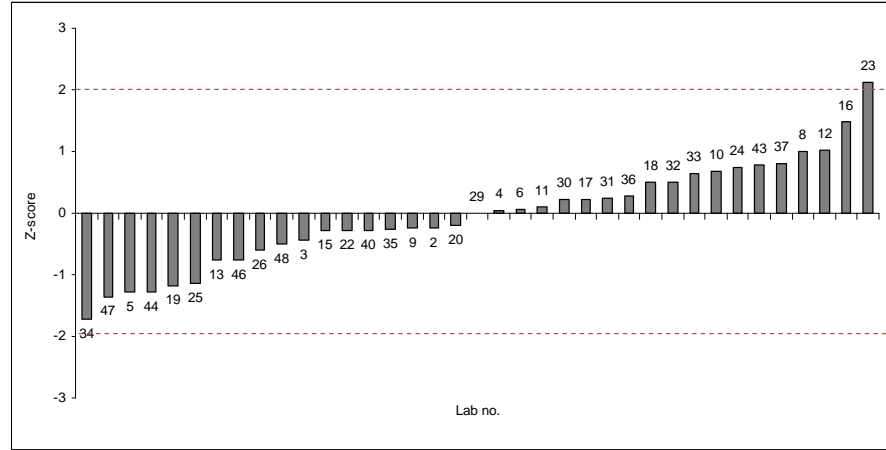
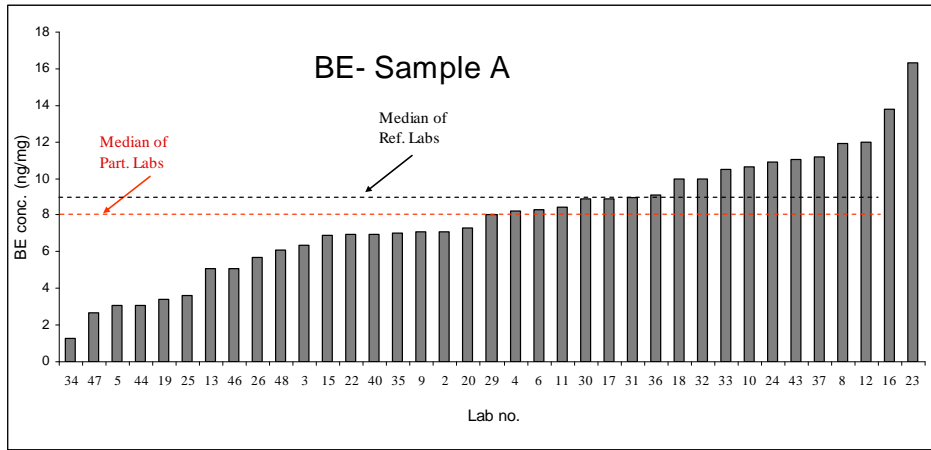
Average	0,81
SD	0,35
CV%	43,75
Median	0,79
Minimum	0,26
Quartile 25	0,60
Quartile 75	1,03
Maximum	2
Iqr	0,43



Lab.	Cocaine (ng/mg)	Z-score	Result
34	0,68	-2,23	Questionable
44	3,09	-1,27	Satisfactory
25	3,10	-1,27	Satisfactory
19	3,11	-1,26	Satisfactory
46	3,40	-1,15	Satisfactory
15	3,64	-1,06	Satisfactory
13	3,90	-0,95	Satisfactory
38	4,10	-0,87	Satisfactory
2	4,80	-0,59	Satisfactory
35	4,90	-0,56	Satisfactory
26	5,36	-0,37	Satisfactory
9	5,42	-0,35	Satisfactory
29	5,52	-0,31	Satisfactory
20	5,63	-0,26	Satisfactory
5	5,98	-0,13	Satisfactory
3	6,04	-0,10	Satisfactory
6	6,04	-0,10	Satisfactory
22	6,04	-0,10	Satisfactory
47	6,10	-0,08	Satisfactory
31	6,30	0	Satisfactory
4	6,52	0,09	Satisfactory
48	6,70	0,16	Satisfactory
33	7,14	0,33	Satisfactory
8	7,21	0,36	Satisfactory
17	7,22	0,36	Satisfactory
11	7,33	0,41	Satisfactory

Lab.	Cocaine (ng/mg)	Z-score	Result
32	7,50	0,48	Satisfactory
36	7,50	0,48	Satisfactory
10	7,61	0,52	Satisfactory
45	7,69	0,55	Satisfactory
24	7,70	0,56	Satisfactory
37	8,05	0,69	Satisfactory
30	8,32	0,80	Satisfactory
16	8,54	0,89	Satisfactory
43	8,75	0,97	Satisfactory
18	8,80	0,99	Satisfactory
40	9,77	1,38	Satisfactory
12	10,00	1,47	Satisfactory
23	10,20	1,55	Satisfactory
21	P		

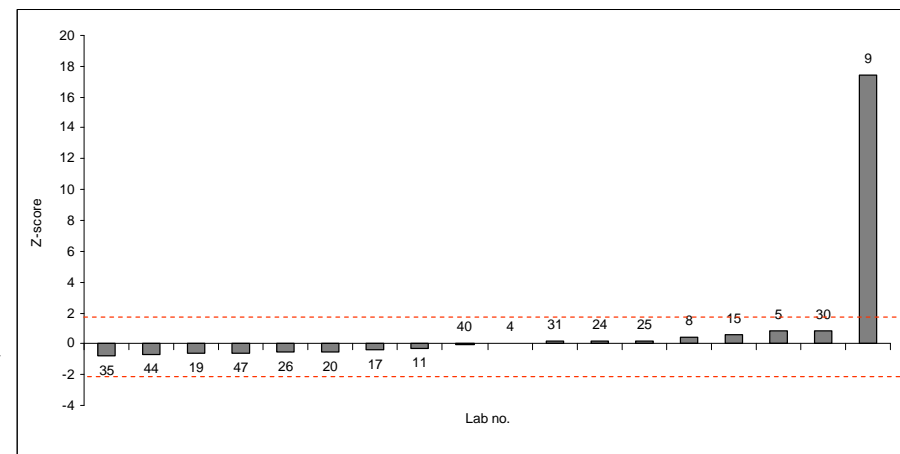
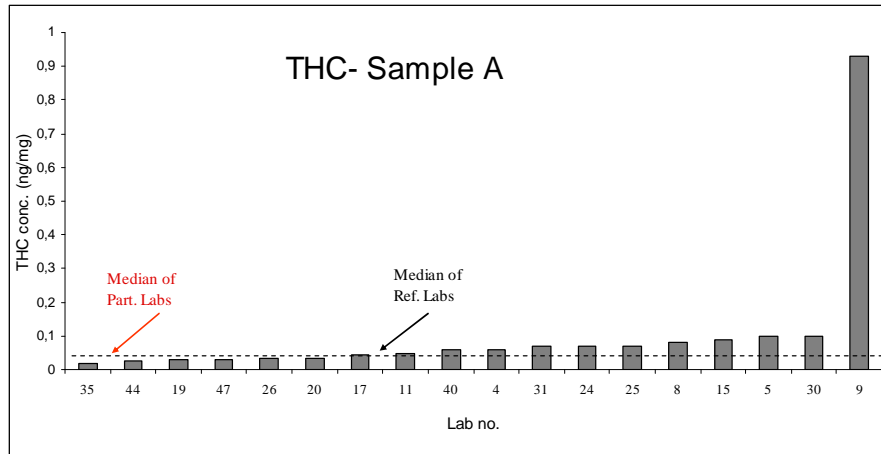
Average	6,3
SD	2,11
CV%	33,446
Median	6,30
Minimum	0,68
Quartile 25	5,13
Quartile 75	7,65
Maximum	10,2
Iqr	2,52



Lab.	BE (ng/mg)	Z-score	Result
34	1,30	-1,73	Satisfactory
47	2,70	-1,37	Satisfactory
5	3,05	-1,28	Satisfactory
44	3,08	-1,270	Satisfactory
19	3,42	-1,18	Satisfactory
25	3,60	-1,14	Satisfactory
13	5,10	-0,75	Satisfactory
46	5,10	-0,75	Satisfactory
26	5,67	-0,61	Satisfactory
48	6,10	-0,50	Satisfactory
3	6,36	-0,43	Satisfactory
15	6,92	-0,29	Satisfactory
22	6,94	-0,28	Satisfactory
40	6,95	-0,28	Satisfactory
35	7,03	-0,26	Satisfactory
9	7,08	-0,25	Satisfactory
2	7,10	-0,24	Satisfactory
20	7,28	-0,19	Satisfactory
29	8,04	0	Satisfactory
4	8,22	0,05	Satisfactory
6	8,30	0,07	Satisfactory
11	8,42	0,10	Satisfactory
30	8,87	0,21	Satisfactory
17	8,90	0,22	Satisfactory
31	8,95	0,23	Satisfactory
36	9,11	0,27	Satisfactory

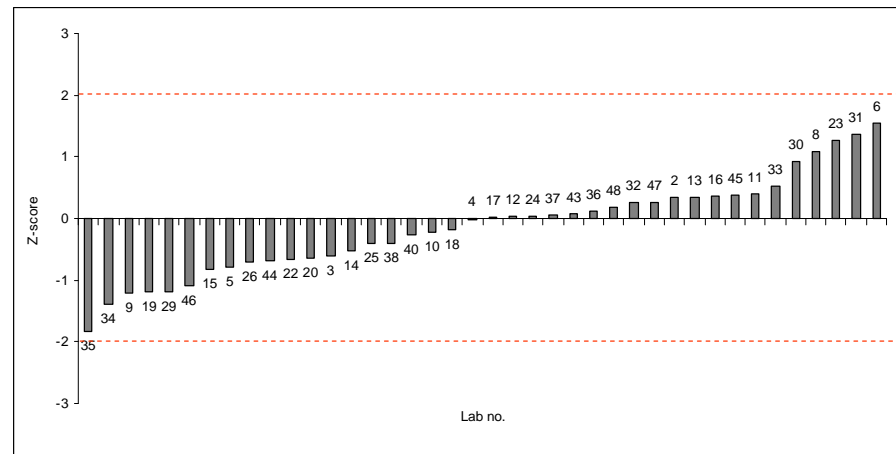
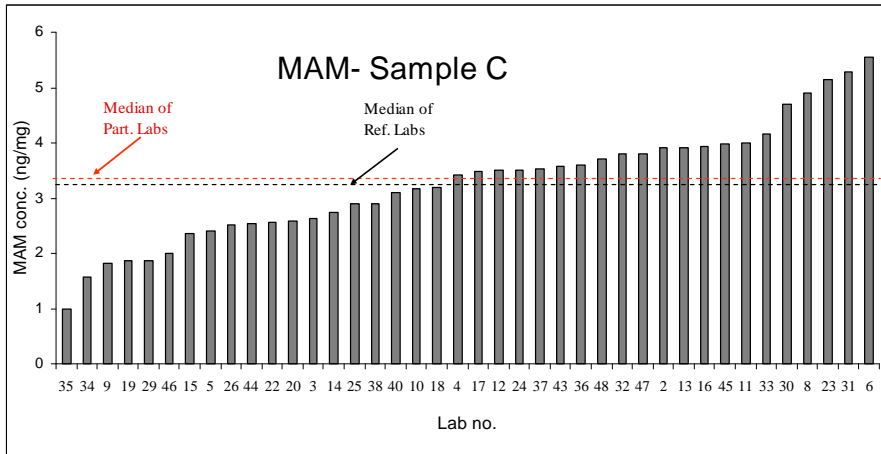
Lab.	BE (ng/mg)	Z-score	Result
18	10,00	0,50	Satisfactory
32	10,00	0,50	Satisfactory
33	10,53	0,64	Satisfactory
10	10,66	0,67	Satisfactory
24	10,90	0,73	Satisfactory
43	11,05	0,77	Satisfactory
37	11,18	0,80	Satisfactory
8	11,92	0,99	Satisfactory
12	12,00	1,01	Satisfactory
16	13,80	1,48	Satisfactory
23	16,34	2,13	Questionable
38	>5		
21	P		

Average	7,89
SD	3,22
CV%	40,85
Median	8,04
Minimum	1,30
Quartile 25	6,10
Quartile 75	10,00
Maximum	16,34
Iqr	3,90



Lab.	THC	Z-score	Result
35	0,02	-0,80	Satisfactory
44	0,024	-0,72	Satisfactory
19	0,03	-0,60	Satisfactory
47	0,03	-0,60	Satisfactory
26	0,032	-0,56	Satisfactory
20	0,034	-0,52	Satisfactory
17	0,043	-0,34	Satisfactory
11	0,047	-0,26	Satisfactory
40	0,058	-0,04	Satisfactory
4	0,06	0	Satisfactory
31	0,069	0,18	Satisfactory
24	0,07	0,20	Satisfactory
25	0,07	0,20	Satisfactory
8	0,081	0,42	Satisfactory
15	0,09	0,60	Satisfactory
5	0,10	0,80	Satisfactory
30	0,10	0,80	Satisfactory
9	0,93	17,4	Unsatisfactory
2	P		
46	P		

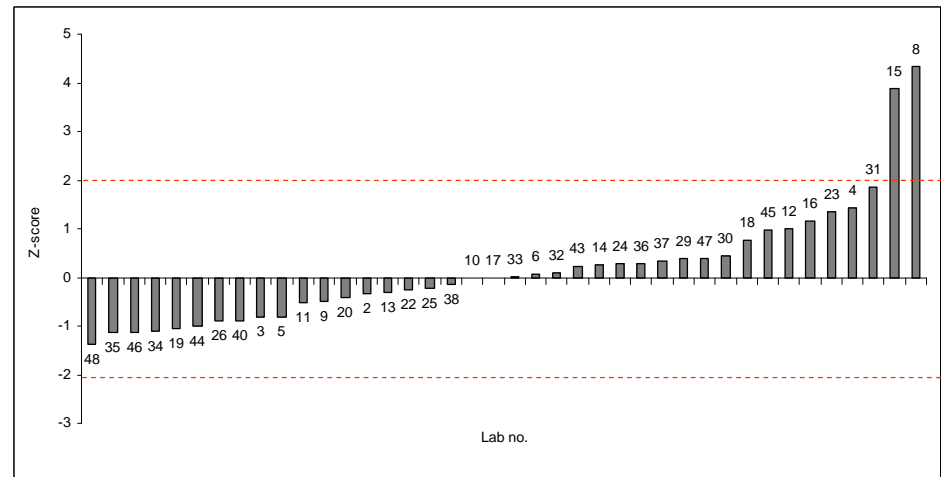
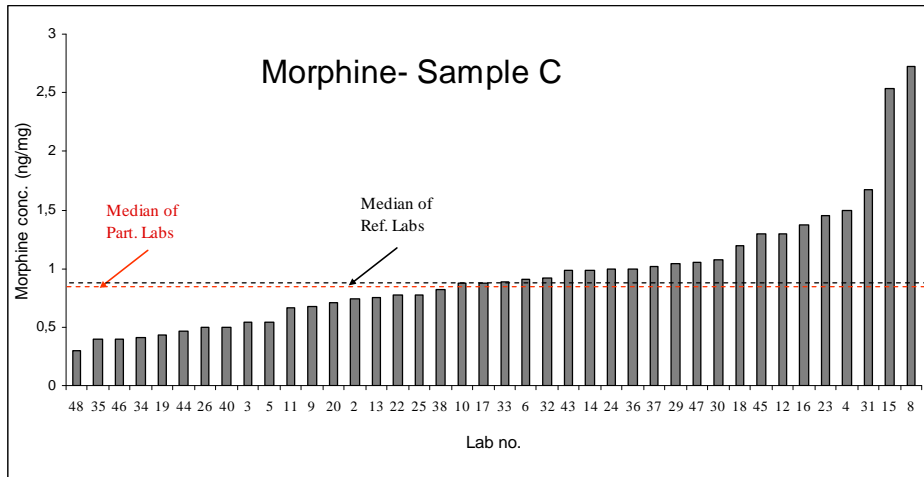
Average	0,10
SD	0,20
CV%	192,27
Median	0,06
Minimum	0,02
Quartile 25	0,03
Quartile 75	0,08
Maximum	0,93
Iqr	0,05



Lab.	MAM (ng/mg)	Z-score	Result
35	1,00	-1,83	Satisfactory
34	1,58	-1,39	Satisfactory
9	1,82	-1,22	Satisfactory
19	1,86	-1,19	Satisfactory
29	1,86	-1,19	Satisfactory
46	2,00	-1,08	Satisfactory
15	2,35	-0,82	Satisfactory
5	2,40	-0,78	Satisfactory
26	2,51	-0,70	Satisfactory
44	2,54	-0,68	Satisfactory
22	2,57	-0,66	Satisfactory
20	2,58	-0,65	Satisfactory
3	2,63	-0,61	Satisfactory
14	2,74	-0,53	Satisfactory
25	2,90	-0,41	Satisfactory
38	2,90	-0,41	Satisfactory
40	3,10	-0,26	Satisfactory
10	3,16	-0,22	Satisfactory
18	3,20	-0,19	Satisfactory
4	3,42	-0,02	Satisfactory
17	3,48	0,02	Satisfactory
12	3,50	0,04	Satisfactory
24	3,50	0,04	Satisfactory
37	3,53	0,06	Satisfactory
43	3,57	0,09	Satisfactory
36	3,60	0,11	Satisfactory

Lab.	MAM (ng/mg)	Z-score	Result
48	3,70	0,19	Satisfactory
32	3,80	0,26	Satisfactory
47	3,80	0,26	Satisfactory
2	3,90	0,33	Satisfactory
13	3,90	0,33	Satisfactory
16	3,93	0,36	Satisfactory
45	3,97	0,39	Satisfactory
11	3,99	0,40	Satisfactory
33	4,15	0,52	Satisfactory
30	4,69	0,92	Satisfactory
8	4,91	1,09	Satisfactory
23	5,14	1,26	Satisfactory
31	5,28	1,36	Satisfactory
6	5,54	1,56	Satisfactory
21	P		

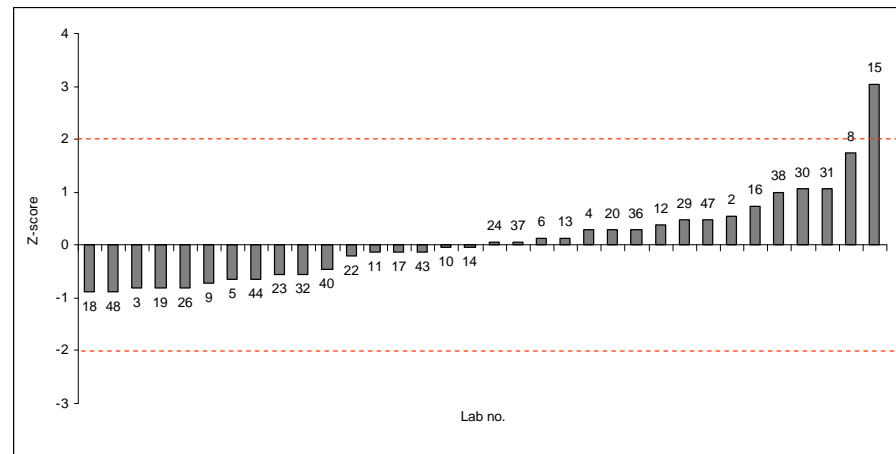
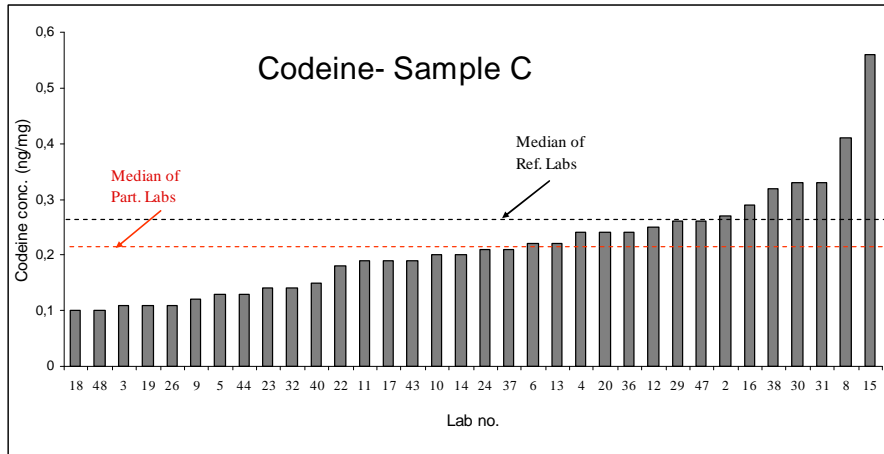
Average	3,275
SD	1,02
CV%	31,28
Median	3,45
Minimum	1,00
Quartile 25	2,56
Quartile 75	3,90
Maximum	5,54
Iqr	1,34



Lab.	Morphine (ng/mg)	Z-score	Result
48	0,30	-1,36	Satisfactory
35	0,40	-1,13	Satisfactory
46	0,40	-1,13	Satisfactory
34	0,41	-1,10	Satisfactory
19	0,43	-1,06	Satisfactory
44	0,46	-0,99	Satisfactory
26	0,50	-0,89	Satisfactory
40	0,50	-0,89	Satisfactory
3	0,54	-0,8	Satisfactory
5	0,54	-0,8	Satisfactory
11	0,66	-0,52	Satisfactory
9	0,67	-0,49	Satisfactory
20	0,71	-0,4	Satisfactory
2	0,74	-0,33	Satisfactory
13	0,75	-0,30	Satisfactory
22	0,77	-0,26	Satisfactory
25	0,78	-0,23	Satisfactory
38	0,82	-0,14	Satisfactory
10	0,88	0	Satisfactory
17	0,88	0	Satisfactory
33	0,89	0,02	Satisfactory
6	0,91	0,07	Satisfactory
32	0,92	0,09	Satisfactory
43	0,98	0,23	Satisfactory
14	0,99	0,26	Satisfactory
24	1,00	0,28	Satisfactory

Lab.	Morphine (ng/mg)	Z-score	Result
36	1,00	0,28	Satisfactory
37	1,02	0,33	Satisfactory
29	1,04	0,38	Satisfactory
47	1,05	0,40	Satisfactory
30	1,07	0,45	Satisfactory
18	1,20	0,75	Satisfactory
45	1,29	0,96	Satisfactory
12	1,30	0,99	Satisfactory
16	1,37	1,15	Satisfactory
23	1,45	1,34	Satisfactory
4	1,49	1,43	Satisfactory
31	1,67	1,86	Satisfactory
15	2,53	3,88	Unsatisfactory
8	2,72	4,33	Unsatisfactory
21	P		

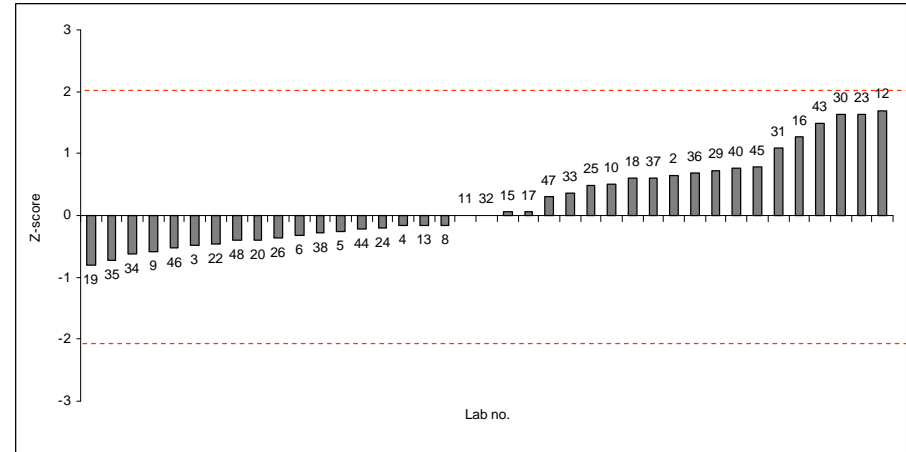
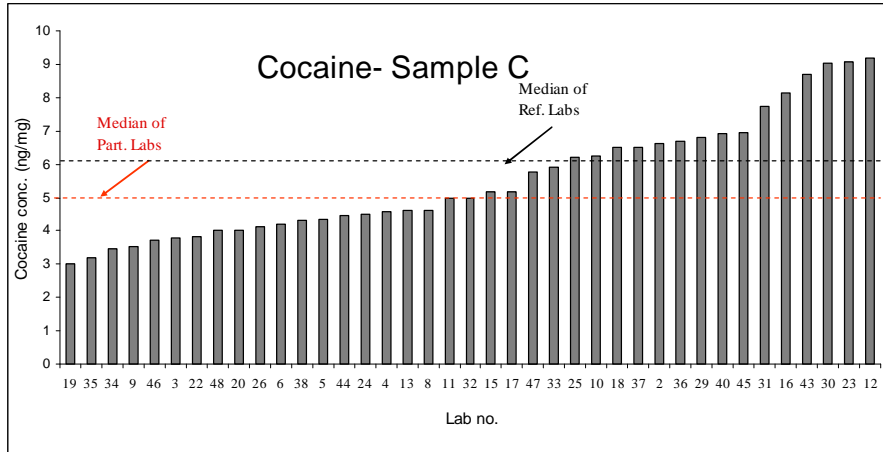
Average	0,95
SD	0,50
CV%	53,06
Median	0,88
Minimum	0,30
Quartile 25	0,63
Quartile 75	1,055
Maximum	2,72
Iqr	0,425



Lab.	Codeine (ng/mg)	Z-score	Result
18	0,10	-0,90	Satisfactory
48	0,10	-0,90	Satisfactory
3	0,11	-0,81	Satisfactory
19	0,11	-0,81	Satisfactory
26	0,11	-0,81	Satisfactory
9	0,12	-0,73	Satisfactory
5	0,13	-0,64	Satisfactory
44	0,13	-0,64	Satisfactory
23	0,14	-0,56	Satisfactory
32	0,14	-0,56	Satisfactory
40	0,15	-0,47	Satisfactory
22	0,18	-0,21	Satisfactory
11	0,19	-0,13	Satisfactory
17	0,19	-0,13	Satisfactory
43	0,19	-0,13	Satisfactory
10	0,20	-0,04	Satisfactory
14	0,20	-0,04	Satisfactory
24	0,21	0,04	Satisfactory
37	0,21	0,04	Satisfactory
6	0,22	0,13	Satisfactory
13	0,22	0,13	Satisfactory
4	0,24	0,30	Satisfactory
20	0,24	0,30	Satisfactory
36	0,24	0,30	Satisfactory
12	0,25	0,38	Satisfactory
29	0,26	0,47	Satisfactory

Lab.	Codeine (ng/mg)	Z-score	Result
47	0,26	0,47	Satisfactory
2	0,27	0,56	Satisfactory
16	0,29	0,73	Satisfactory
38	0,32	0,98	Satisfactory
30	0,33	1,07	Satisfactory
31	0,33	1,07	Satisfactory
8	0,41	1,75	Satisfactory
15	0,56	3,03	Unsatisfactory
46	P		

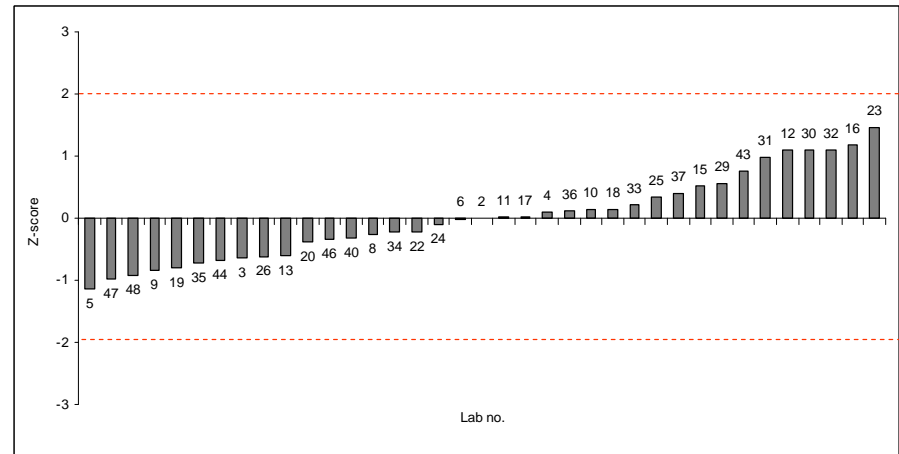
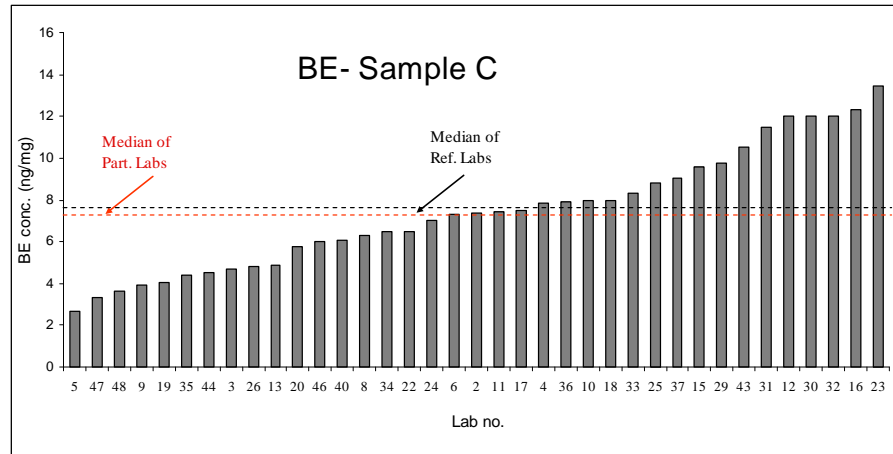
Average	0,22
SD	0,09
CV%	44,34
Median	0,205
Minimum	0,1
Quartile 25	0,14
Quartile 75	0,257
Maximum	0,56
Iqr	0,117



Lab.	Cocaine (ng/mg)	Z-score	Result
19	3,01	-0,80	Satisfactory
35	3,20	-0,72	Satisfactory
34	3,44	-0,62	Satisfactory
9	3,54	-0,58	Satisfactory
46	3,70	-0,52	Satisfactory
3	3,78	-0,49	Satisfactory
22	3,83	-0,47	Satisfactory
48	4,00	-0,40	Satisfactory
20	4,01	-0,40	Satisfactory
26	4,11	-0,36	Satisfactory
6	4,20	-0,32	Satisfactory
38	4,30	-0,28	Satisfactory
5	4,36	-0,26	Satisfactory
44	4,47	-0,21	Satisfactory
24	4,50	-0,20	Satisfactory
4	4,58	-0,17	Satisfactory
13	4,60	-0,16	Satisfactory
8	4,62	-0,15	Satisfactory
11	4,99	-0,004	Satisfactory
32	5,00	0	Satisfactory
15	5,15	0,06	Satisfactory
17	5,16	0,06	Satisfactory
47	5,77	0,31	Satisfactory
33	5,91	0,36	Satisfactory
25	6,20	0,48	Satisfactory
10	6,24	0,50	Satisfactory

Lab.	Cocaine (ng/mg)	Z-score	Result
18	6,50	0,60	Satisfactory
37	6,50	0,60	Satisfactory
2	6,60	0,64	Satisfactory
36	6,70	0,68	Satisfactory
29	6,80	0,72	Satisfactory
40	6,93	0,77	Satisfactory
45	6,96	0,78	Satisfactory
31	7,72	1,09	Satisfactory
16	8,15	1,26	Satisfactory
43	8,70	1,48	Satisfactory
30	9,05	1,62	Satisfactory
23	9,08	1,63	Satisfactory
12	9,20	1,68	Satisfactory
21	P		

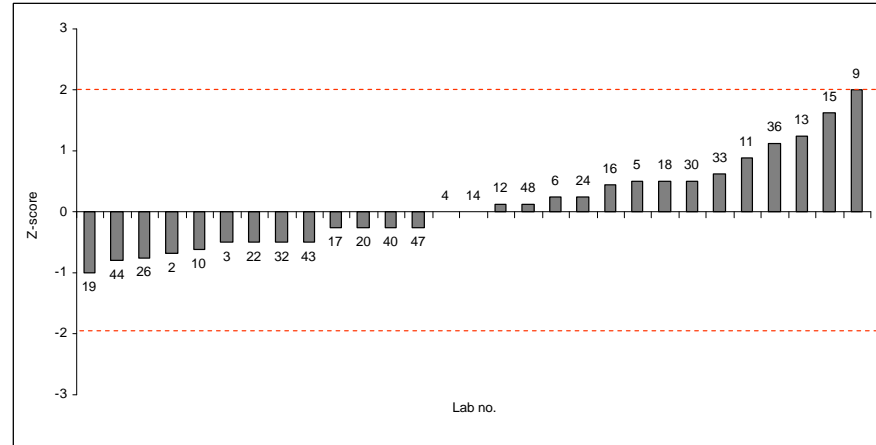
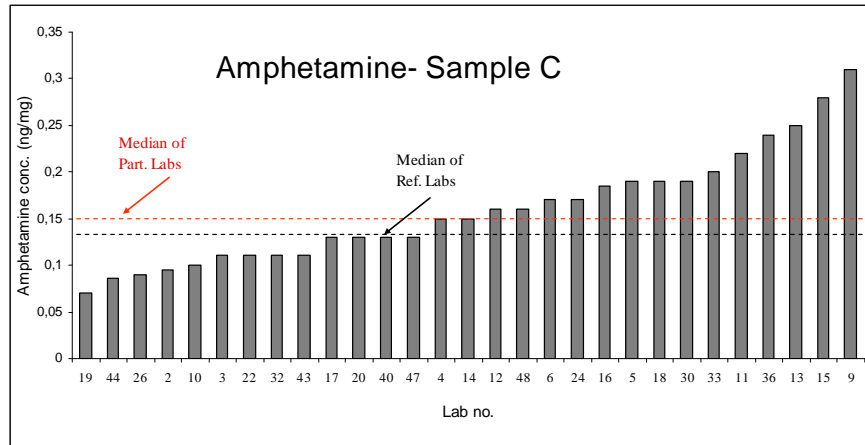
Average	5,53
SD	1,74
CV%	31,43
Median	5,00
Minimum	3,01
Quartile 25	4,155
Quartile 75	6,65
Maximum	9,20
Iqr	2,495



Lab.	BE (ng/mg)	Z-score	Result
5	2,69	-1,13	Satisfactory
47	3,31	-0,98	Satisfactory
48	3,60	-0,91	Satisfactory
9	3,94	-0,83	Satisfactory
19	4,04	-0,81	Satisfactory
35	4,40	-0,72	Satisfactory
44	4,53	-0,69	Satisfactory
3	4,71	-0,65	Satisfactory
26	4,84	-0,62	Satisfactory
13	4,90	-0,60	Satisfactory
20	5,78	-0,39	Satisfactory
46	6,00	-0,34	Satisfactory
40	6,09	-0,31	Satisfactory
8	6,28	-0,27	Satisfactory
34	6,46	-0,22	Satisfactory
22	6,51	-0,21	Satisfactory
24	7,00	-0,10	Satisfactory
6	7,33	-0,02	Satisfactory
2	7,40	0	Satisfactory
11	7,45	0,01	Satisfactory
17	7,49	0,02	Satisfactory
4	7,84	0,10	Satisfactory
36	7,89	0,12	Satisfactory
10	8,00	0,14	Satisfactory
18	8,00	0,14	Satisfactory
33	8,34	0,22	Satisfactory

Lab.	BE (ng/mg)	Z-score	Result
25	8,80	0,34	Satisfactory
37	9,06	0,40	Satisfactory
15	9,58	0,52	Satisfactory
29	9,76	0,57	Satisfactory
43	10,55	0,76	Satisfactory
31	11,50	0,98	Satisfactory
12	12,00	1,10	Satisfactory
30	12,00	1,10	Satisfactory
32	12,00	1,10	Satisfactory
16	12,30	1,18	Satisfactory
23	13,47	1,46	Satisfactory
38	>5		
21	P		

Average	7,45
SD	2,81
CV%	37,64
Median	7,40
Minimum	2,69
Quartile 25	4,90
Quartile 75	9,06
Maximum	13,47
Iqr	4,16

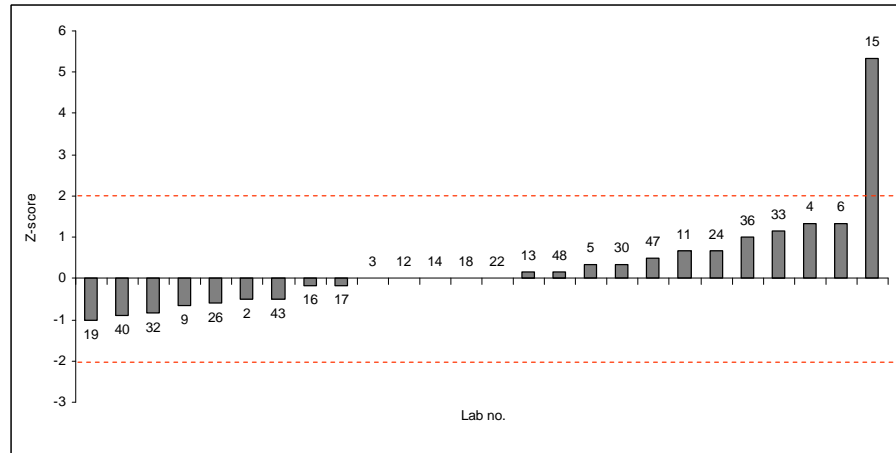
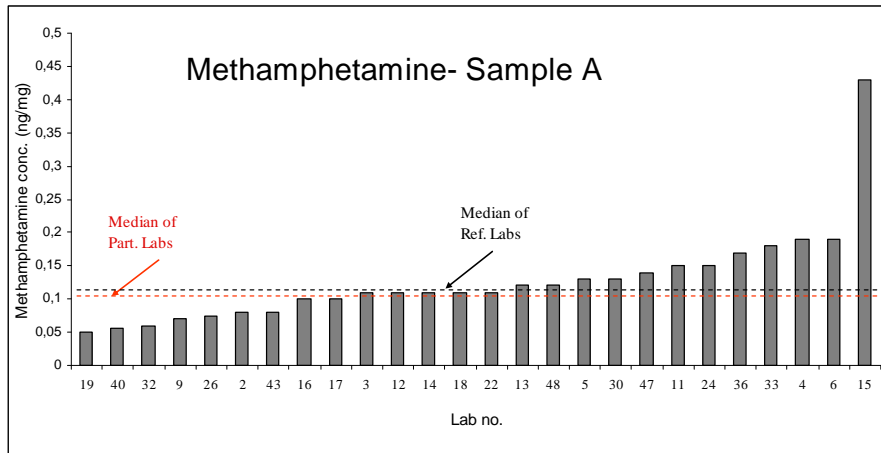


Lab.	Amphetamine (ng/mg)	Z-score	Result
19	0,07	-1,00	Satisfactory
44	0,086	-0,80	Satisfactory
26	0,09	-0,75	Satisfactory
2	0,095	-0,69	Satisfactory
10	0,10	-0,62	Satisfactory
3	0,11	-0,50	Satisfactory
22	0,11	-0,50	Satisfactory
32	0,11	-0,50	Satisfactory
43	0,11	-0,50	Satisfactory
17	0,13	-0,25	Satisfactory
20	0,13	-0,25	Satisfactory
40	0,13	-0,25	Satisfactory
47	0,13	-0,25	Satisfactory
4	0,15	0	Satisfactory
14	0,15	0	Satisfactory
12	0,16	0,12	Satisfactory
48	0,16	0,12	Satisfactory
6	0,17	0,25	Satisfactory
24	0,17	0,25	Satisfactory
16	0,185	0,4375	Satisfactory
5	0,19	0,50	Satisfactory
18	0,19	0,50	Satisfactory
30	0,19	0,5	Satisfactory
33	0,20	0,62	Satisfactory
11	0,22	0,87	Satisfactory
36	0,24	1,12	Satisfactory

Lab.	Amphetamine (ng/mg)	Z-score	Result
13	0,25	1,25	Satisfactory
15	0,28	1,62	Satisfactory
9	0,31	2	Questionable

Average	0,16
SD	0,06
CV%	36,93
Median	0,15
Minimum	0,07
Quartile 25	0,11
Quartile 75	0,19
Maximum	0,31
Iqr	0,08

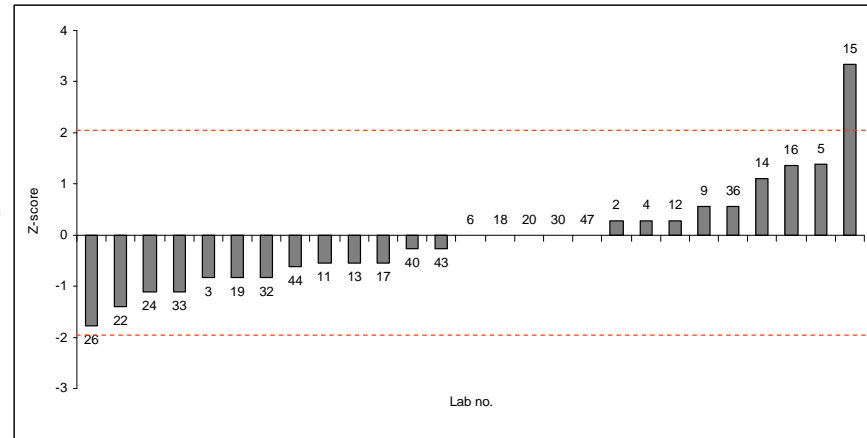
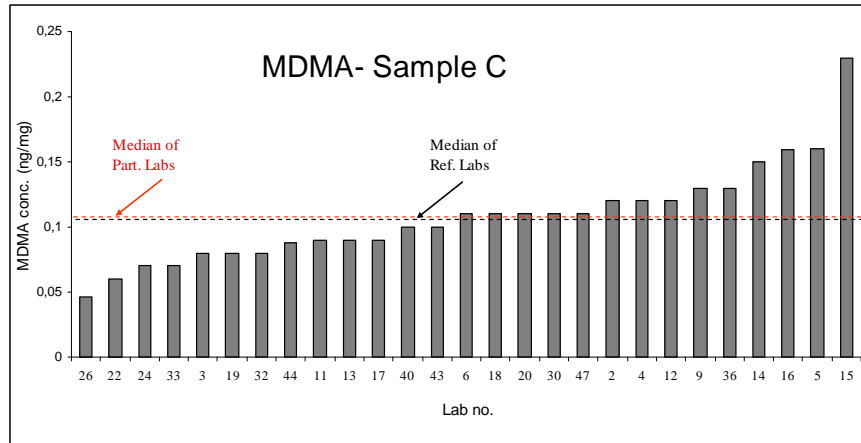
The median Amphetamine concentration is below the cut-off proposed by SoHT (0.20 ng/mg)



Lab.	Methamphet. (ng/mg)	Z-score	Result
19	0,05	-1,00	Satisfactory
40	0,056	-0,90	Satisfactory
32	0,06	-0,83	Satisfactory
9	0,07	-0,67	Satisfactory
26	0,074	-0,60	Satisfactory
2	0,08	-0,50	Satisfactory
43	0,08	-0,50	Satisfactory
16	0,10	-0,17	Satisfactory
17	0,10	-0,17	Satisfactory
3	0,11	0	Satisfactory
12	0,11	0	Satisfactory
14	0,11	0	Satisfactory
18	0,11	0	Satisfactory
22	0,11	0	Satisfactory
13	0,12	0,17	Satisfactory
48	0,12	0,17	Satisfactory
5	0,13	0,33	Satisfactory
30	0,13	0,33	Satisfactory
47	0,14	0,50	Satisfactory
11	0,15	0,67	Satisfactory
24	0,15	0,67	Satisfactory
36	0,17	1	Satisfactory
33	0,18	1,17	Satisfactory
4	0,19	1,33	Satisfactory
6	0,19	1,33	Satisfactory
15	0,43	5,33	Unsatisfactory

Average	0,13
SD	0,07
CV%	56,34
Median	0,11
Minimum	0,05
Quartile 25	0,09
Quartile 75	0,15
Maximum	0,43
Iqr	0,06

The median Methamphetamine concentration is below the cut-off proposed by SoHT (0.20 ng/mg)

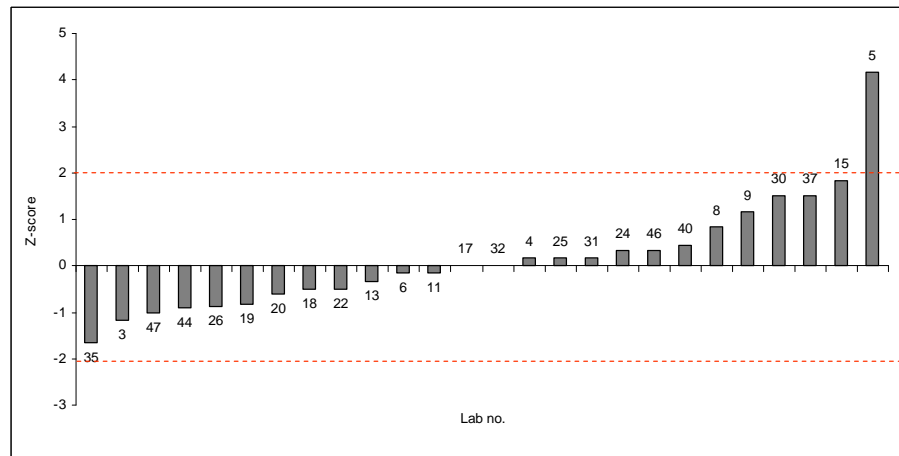
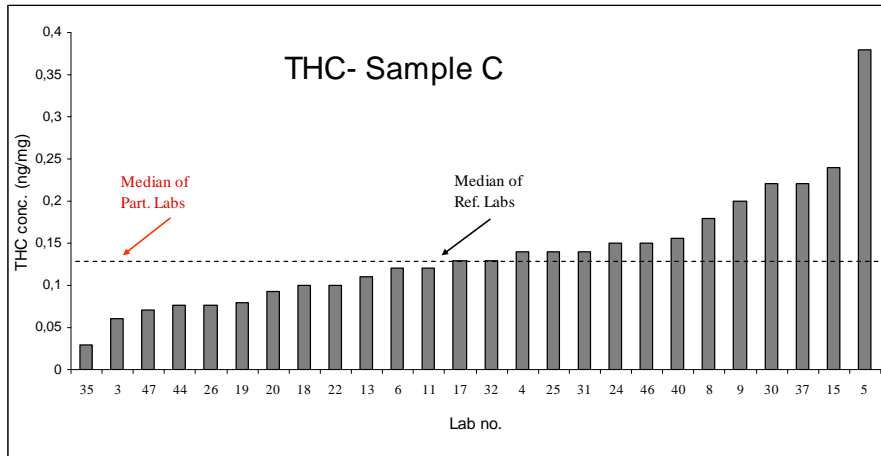


Lab.	MDMA (ng/mg)	Z-score	Result
26	0,046	-1,78	Satisfactory
22	0,06	-1,39	Satisfactory
24	0,07	-1,11	Satisfactory
33	0,07	-1,11	Satisfactory
3	0,08	-0,83	Satisfactory
19	0,08	-0,83	Satisfactory
32	0,08	-0,83	Satisfactory
44	0,088	-0,61	Satisfactory
11	0,09	-0,56	Satisfactory
13	0,09	-0,56	Satisfactory
17	0,09	-0,56	Satisfactory
40	0,19	-0,28	Satisfactory
43	0,19	-0,28	Satisfactory
6	0,11	0	Satisfactory
18	0,11	0	Satisfactory
20	0,11	0	Satisfactory
30	0,11	0	Satisfactory
47	0,11	0	Satisfactory
2	0,12	0,28	Satisfactory
4	0,12	0,28	Satisfactory
12	0,12	0,28	Satisfactory
9	0,13	0,56	Satisfactory
36	0,13	0,56	Satisfactory
14	0,15	1,11	Satisfactory
16	0,159	1,36	Satisfactory
5	0,16	1,39	Satisfactory

Lab.	MDMA (ng/mg)	Z-score	Result
15	0,23	3,33	Unsatisfactory

Average	0,11
SD	0,04
CV%	33,97
Median	0,11
Minimum	0,046
Quartile 25	0,084
Quartile 75	0,12
Maximum	0,23
Iqr	0,036

The median MDMA concentration is below the cut-off proposed by SoHT (0.20 ng/mg)



Lab.	THC (ng/mg)	Z-score	Result
35	0,03	-1,67	Satisfactory
3	0,06	-1,17	Satisfactory
47	0,07	-1,00	Satisfactory
44	0,076	-0,90	Satisfactory
26	0,077	-0,88	Satisfactory
19	0,08	-0,83	Satisfactory
20	0,093	-0,62	Satisfactory
18	0,10	-0,50	Satisfactory
22	0,10	-0,50	Satisfactory
13	0,11	-0,33	Satisfactory
6	0,12	-0,17	Satisfactory
11	0,12	-0,17	Satisfactory
17	0,13	0	Satisfactory
32	0,13	0	Satisfactory
4	0,14	0,17	Satisfactory
25	0,14	0,17	Satisfactory
31	0,14	0,17	Satisfactory
24	0,15	0,33	Satisfactory
46	0,15	0,33	Satisfactory
40	0,156	0,43	Satisfactory
8	0,18	0,83	Satisfactory
9	0,20	1,17	Satisfactory
30	0,22	1,50	Satisfactory
37	0,22	1,50	Satisfactory
15	0,24	1,83	Satisfactory
5	0,38	4,17	Unsatisfactory

Average	0,14
SD	0,07
CV%	50,58
Median	0,13
Minimum	0,03
Quartile 25	0,09
Quartile 75	0,15
Maximum	0,38
Iqr	0,06