



Sevilla, March 2022

Proficiency Test 2021-2

Laboratory Code:

Dear participants,

Enclosed you will find the report of the Proficiency Test 2021-2 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

Sets of three samples were sent to sixty-eight participating laboratories. Sixty-five of them have sent the report forms back.

This report includes quantitative evaluations of the results. This time we have also included other compounds that have been reported by more than one participating laboratory.

Z-score

Z-score has been calculated as follows:

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

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

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

Yours faithfully.

Carmen Jurado

SAMPLE A

Sample A contents were as follows:

- Opiate compounds: 6-MAM, morphine and codeine
- Cocaine compounds: cocaine, BE, norcocaine and low concentrations of cocaethylene (0.03 ng/mg median conc.)
- Amphetamine compounds: amphetamine, methamphetamine, MDMA and low concentrations of MDA (0.02 ng/mg median conc.)
- Cannabis compounds: THC, THC-COOH
- Methadone and EDDP
- Tramadol
- Diazepam and Nordazepam

Other compounds reported by more than one participating laboratory were:

Compound	N*	Average	SD	CV%	Median	Minimum	Quartile 25	Quartile 75	Maximum	Iqr
DHC	21	0,34	0,15	44,47	0,28	0,16	0,21	0,43	0,70	0,22
AEME	11	0,79	0,19	24,11	0,83	0,28	0,75	0,90	1,00	0,15
Acod	10	1,13	0,34	30,02	1,05	0,60	0,90	1,37	1,58	0,47
Heroin	10	0,69	0,21	30,90	0,67	0,40	0,52	0,79	1,09	0,27
Hydromorphone	10	0,07	0,04	54,92	0,07	0,01	0,05	0,11	0,13	0,06
Hydrocodone	9	0,05	0,02	54,37	0,04	0,02	0,02	0,07	0,08	0,05
Diphenhydramine	7	0,02	0,01	24,72	0,02	0,01	0,02	0,02	0,03	0,00
EME	7	0,27	0,12	45,02	0,23	0,16	0,21	0,28	0,55	0,07
Buprenorphine	5	0,02	0,02	92,95	0,01	0,01	0,01	0,03	0,05	0,02
Tilidine	5	0,02	0,01	38,57	0,02	0,01	0,02	0,02	0,03	0,00
Zolpidem	5	0,01	0,01	51,24	0,02	0,00	0,01	0,02	0,02	0,01
Fentanyl	4	0,06	0,08	130,76	0,01	0,00	0,00	0,09	0,17	0,08
Nortilidine	4	0,11	0,02	17,86	0,11	0,08	0,10	0,12	0,13	0,03
o-Desmethyltramadol	4	0,02	0,02	64,80	0,03	0,00	0,01	0,04	0,04	0,03
Dextrometorphan	3	0,03	0,00	6,25	0,03	0,03	0,03	0,03	0,03	0,00
JWH-073	3	0,14	0,11	76,06	0,14	0,03	0,09	0,20	0,25	0,11
JWH-081	3	0,01	0,01	55,56	0,01	0,00	0,01	0,01	0,01	0,01
Mirtazapine	3	0,05	0,00	0,00	0,05	0,05	0,05	0,05	0,05	0,00
Tramadol Met	3	0,10	0,03	29,65	0,12	0,06	0,09	0,12	0,13	0,04
Zopiclone	3	0,01	0,00	40,82	0,01	0,01	0,01	0,01	0,02	0,01
Citalopram	2	0,08	0,00	0,00	0,08	0,08	0,08	0,08	0,08	0,00
Doxepine	2	0,06	0,00	0,00	0,06	0,06	0,06	0,06	0,06	0,00
Doxylamine	2	0,02	0,00	14,89	0,02	0,02	0,02	0,03	0,03	0,00
Hydroxyzine	2	0,04	0,00	0,00	0,04	0,04	0,04	0,04	0,04	0,00
JWH-122	2	0,01	0,00	0,00	0,01	0,01	0,01	0,01	0,01	0,00
Ketamine	2	0,04	0,03	91,78	0,04	0,00	0,02	0,05	0,07	0,03
MDPV	2	0,01	0,00	60,00	0,01	0,00	0,00	0,01	0,01	0,00

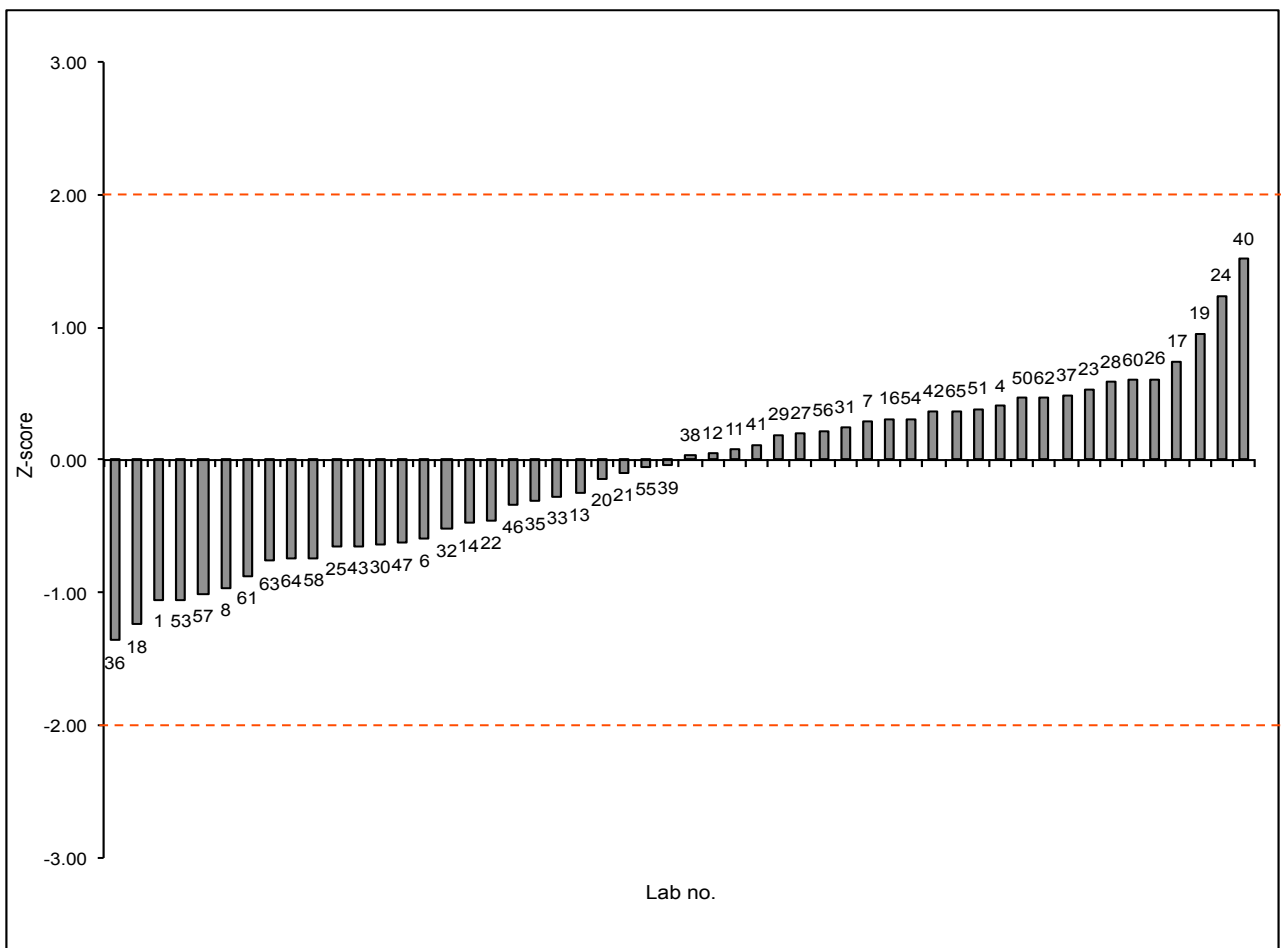
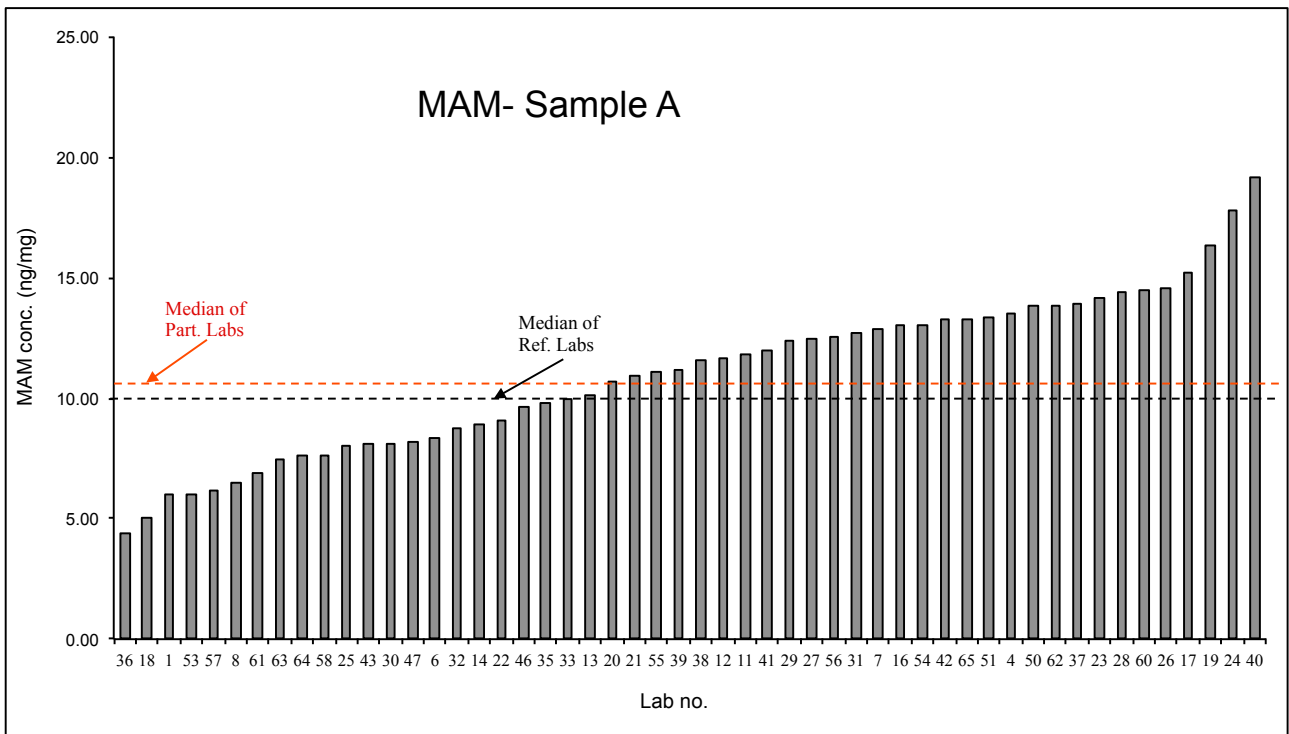
6-MONOACETILMORPHINE (MAM)

Lab	MAM (ng/mg)	Z-score	Result
1	6.00	-1.05	Satisfactory
2	>10.00		
3	>5.00		
4	13.50	0.41	Satisfactory
5	>5.00		
6	8.34	-0.59	Satisfactory
7	12.90	0.29	Satisfactory
8	6.46	-0.96	Satisfactory
10	>5.00		
11	11.80	0.08	Satisfactory
12	11.65	0.05	Satisfactory
13	10.11	-0.25	Satisfactory
14	8.94	-0.48	Satisfactory
15	>3.00		
16	13.00	0.31	Satisfactory
17	15.23	0.74	Satisfactory
18	5.00	-1.24	Satisfactory
19	16.33	0.96	Satisfactory
20	10.70	-0.14	Satisfactory
21	10.92	-0.09	Satisfactory
22	9.06	-0.45	Satisfactory
23	14.16	0.54	Satisfactory
24	17.80	1.24	Satisfactory
25	8.05	-0.65	Satisfactory
26	14.56	0.61	Satisfactory
27	12.45	0.20	Satisfactory
28	14.43	0.59	Satisfactory
29	12.38	0.19	Satisfactory
30	8.11	-0.64	Satisfactory
31	12.67	0.25	Satisfactory
32	8.72	-0.52	Satisfactory
33	10.00	-0.27	Satisfactory
34	>5.00		
35	9.79	-0.31	Satisfactory
36	4.39	-1.36	Satisfactory
37	13.93	0.49	Satisfactory
38	11.59	0.04	Satisfactory
39	11.20	-0.04	Satisfactory
40	19.20	1.51	Satisfactory
41	12.00	0.12	Satisfactory
42	13.30	0.37	Satisfactory
43	8.07	-0.65	Satisfactory
44	38.88	Outlier*	
46	9.65	-0.34	Satisfactory
47	8.20	-0.62	Satisfactory
49	>1.40		
50	13.80	0.47	Satisfactory
51	13.39	0.39	Satisfactory
53	6.00	-1.05	Satisfactory
54	13.00	0.31	Satisfactory
55	11.13	-0.05	Satisfactory
56	12.54	0.22	Satisfactory

Lab	MAM (ng/mg)	Z-score	Result
57	6.20	-1.01	Satisfactory
58	7.60	-0.74	Satisfactory
59	P		
60	14.50	0.60	Satisfactory
61	6.92	-0.87	Satisfactory
62	13.80	0.47	Satisfactory
63	7.47	-0.76	Satisfactory
64	7.59	-0.74	Satisfactory
65	13.30	0.37	Satisfactory

* Lab 44 has not been included in the statistical study

Average	11.00
SD	3.28
CV%	29.87
Median	11.40
Minimum	4.39
Quartile 25	8.18
Quartile 75	13.32
Maximum	19.20
Iqr	5.15



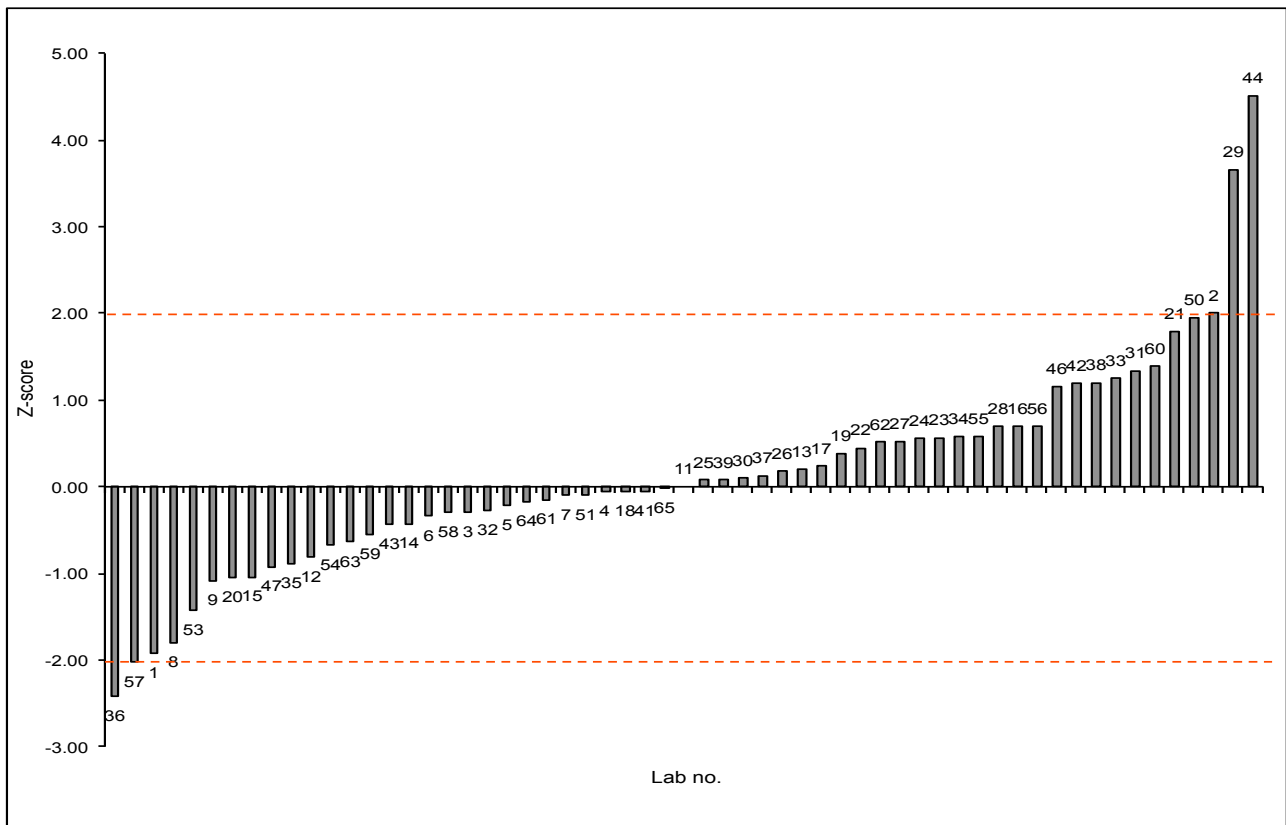
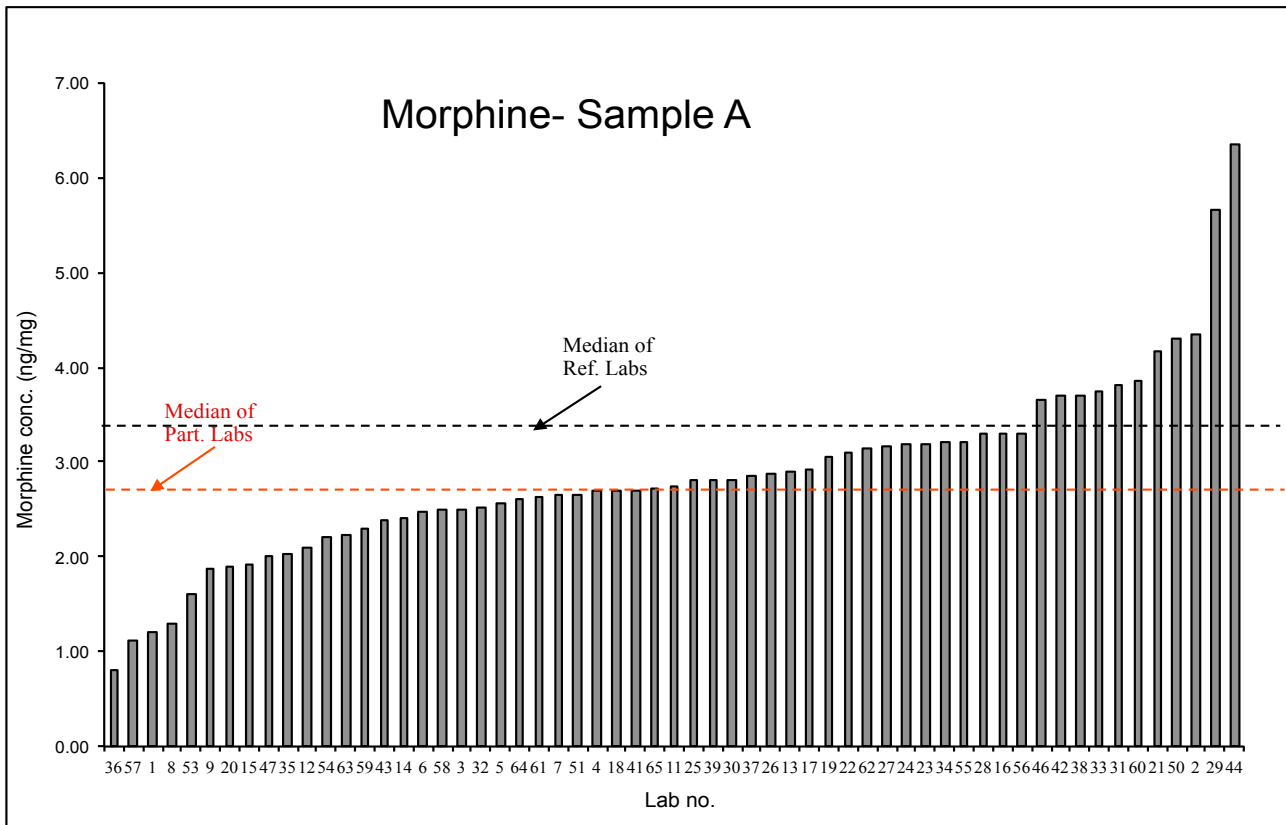
MORPHINE

Lab	Morphine (ng/mg)	Z-score	Result
1	1.20	-1.93	Satisfactory
2	4.34	2.00	Satisfactory
3	2.50	-0.30	Satisfactory
4	2.70	-0.05	Satisfactory
5	2.57	-0.22	Satisfactory
6	2.47	-0.34	Satisfactory
7	2.66	-0.10	Satisfactory
8	1.30	-1.80	Satisfactory
9	1.87	-1.09	Satisfactory
10	>1.00		
11	2.74	0.00	Satisfactory
12	2.09	-0.81	Satisfactory
13	2.90	0.20	Satisfactory
14	2.40	-0.43	Satisfactory
15	1.91	-1.04	Satisfactory
16	3.30	0.70	Satisfactory
17	2.93	0.24	Satisfactory
18	2.70	-0.05	Satisfactory
19	3.05	0.39	Satisfactory
20	1.90	-1.05	Satisfactory
21	4.18	1.80	Satisfactory
22	3.10	0.45	Satisfactory
23	3.19	0.57	Satisfactory
24	3.19	0.56	Satisfactory
25	2.80	0.07	Satisfactory
26	2.88	0.18	Satisfactory
27	3.16	0.53	Satisfactory
28	3.30	0.70	Satisfactory
29	5.67	3.66	Unsatisfactory
30	2.82	0.10	Satisfactory
31	3.81	1.34	Satisfactory
32	2.52	-0.28	Satisfactory
33	3.74	1.25	Satisfactory
34	3.20	0.58	Satisfactory
35	2.03	-0.89	Satisfactory
36	0.81	-2.42	Questionable
37	2.85	0.13	Satisfactory
38	3.70	1.20	Satisfactory
39	2.80	0.07	Satisfactory
40	10.20	Outlier*	
41	2.70	-0.05	Satisfactory
42	3.70	1.20	Satisfactory
43	2.40	-0.43	Satisfactory
44	6.35	4.51	Unsatisfactory
46	3.66	1.16	Satisfactory
47	2.00	-0.93	Satisfactory
49	>1.40		
50	4.30	1.95	Satisfactory
51	2.66	-0.10	Satisfactory
53	1.60	-1.43	Satisfactory
54	2.20	-0.68	Satisfactory
55	3.20	0.58	Satisfactory

Lab	Morphine (ng/mg)	Z-score	Result
56	3.30	0.70	Satisfactory
57	1.12	-2.03	Satisfactory
58	2.50	-0.30	Satisfactory
59	2.30	-0.55	Satisfactory
60	3.85	1.39	Satisfactory
61	2.62	-0.15	Satisfactory
62	3.15	0.51	Satisfactory
63	2.23	-0.64	Satisfactory
64	2.61	-0.17	Satisfactory
65	2.72	-0.03	Satisfactory

* Lab 40 has not been included in the statistical study

Average	2.85
SD	0.95
CV%	33.33
Median	2.74
Minimum	0.81
Quartile 25	2.40
Quartile 75	3.20
Maximum	6.35
Iqr	0.80



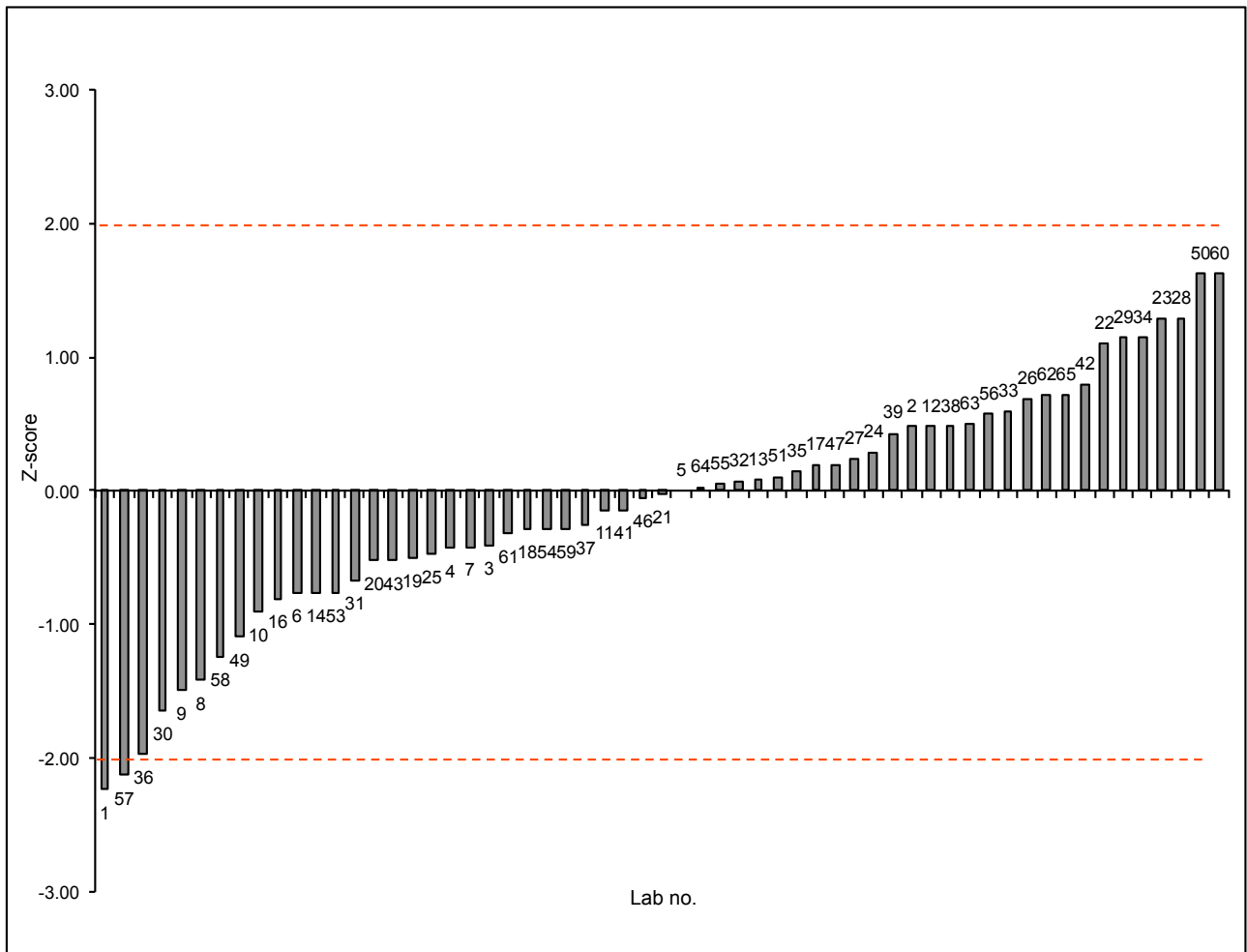
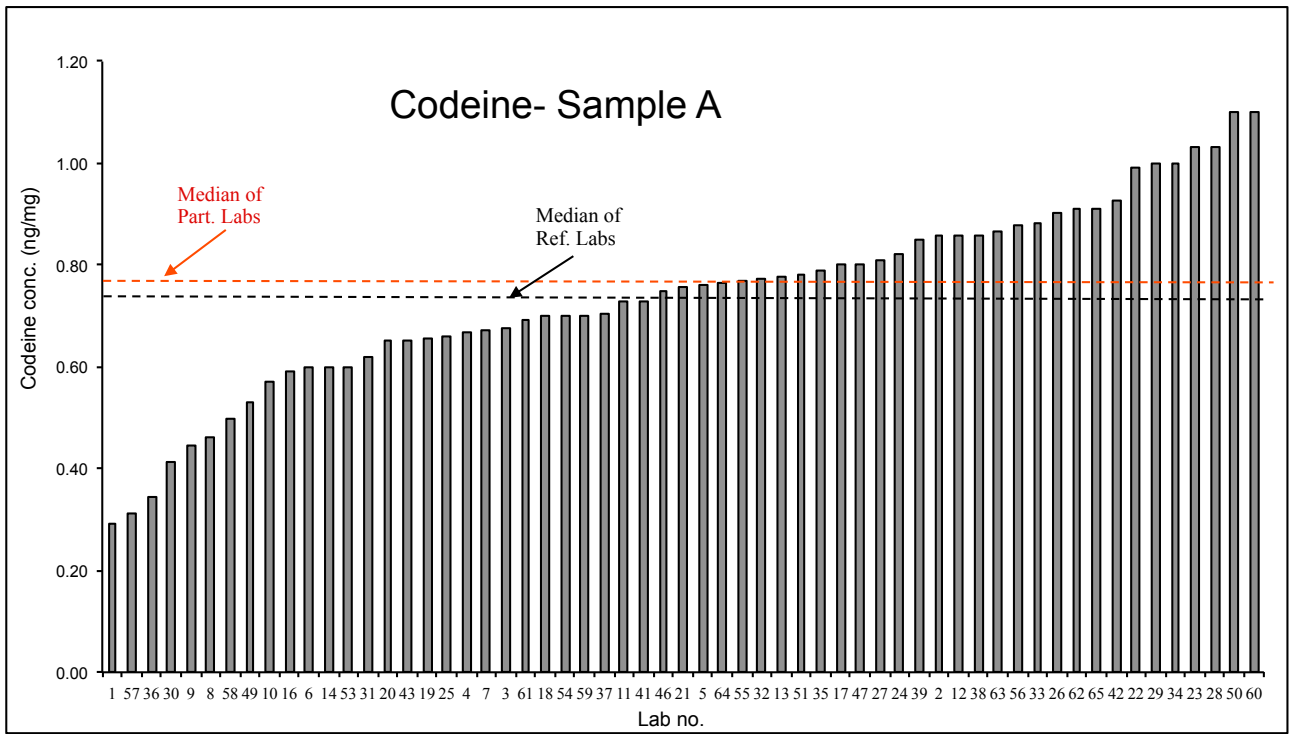
CODEINE

Lab	Codeine (ng/mg)	Z-score	Result
1	0.29	-2.24	Questionable
2	0.86	0.48	Satisfactory
3	0.67	-0.41	Satisfactory
4	0.67	-0.43	Satisfactory
5	0.76	0.00	Satisfactory
6	0.60	-0.76	Satisfactory
7	0.67	-0.42	Satisfactory
8	0.46	-1.42	Satisfactory
9	0.45	-1.50	Satisfactory
10	0.57	-0.90	Satisfactory
11	0.73	-0.14	Satisfactory
12	0.86	0.48	Satisfactory
13	0.78	0.08	Satisfactory
14	0.60	-0.76	Satisfactory
15	N		
16	0.59	-0.81	Satisfactory
17	0.80	0.19	Satisfactory
18	0.70	-0.29	Satisfactory
19	0.66	-0.50	Satisfactory
20	0.65	-0.52	Satisfactory
21	0.76	-0.02	Satisfactory
22	0.99	1.10	Satisfactory
23	1.03	1.29	Satisfactory
24	0.82	0.29	Satisfactory
25	0.66	-0.48	Satisfactory
26	0.90	0.69	Satisfactory
27	0.81	0.24	Satisfactory
28	1.03	1.29	Satisfactory
29	1.00	1.14	Satisfactory
30	0.42	-1.64	Satisfactory
31	0.62	-0.67	Satisfactory
32	0.78	0.07	Satisfactory
33	0.88	0.59	Satisfactory
34	1.00	1.14	Satisfactory
35	0.79	0.14	Satisfactory
36	0.35	-1.97	Satisfactory
37	0.71	-0.26	Satisfactory
38	0.86	0.48	Satisfactory
39	0.85	0.43	Satisfactory
40	2.30	Outlier	2.30
41	0.73	-0.14	Satisfactory
42	0.93	0.79	Satisfactory
43	0.65	-0.52	Satisfactory
44	3.19	Outlier	3.19
46	0.75	-0.05	Satisfactory
47	0.80	0.19	Satisfactory
49	0.53	-1.10	Satisfactory
50	1.10	1.62	Satisfactory
51	0.78	0.10	Satisfactory
53	0.60	-0.76	Satisfactory
54	0.70	-0.29	Satisfactory
55	0.77	0.05	Satisfactory

Lab	Codeine (ng/mg)	Z-score	Result
56	0.88	0.57	Satisfactory
57	0.31	-2.13	Questionable
58	0.50	-1.24	Satisfactory
59	0.70	-0.29	Satisfactory
60	1.10	1.62	Satisfactory
61	0.69	-0.32	Satisfactory
62	0.91	0.71	Satisfactory
63	0.87	0.50	Satisfactory
64	0.77	0.03	Satisfactory
65	0.91	0.71	Satisfactory

Labs 40 & 44 have not ben included in the statistical study

Average	0.74
SD	0.18
CV%	24.74
Median	0.76
Minimum	0.29
Quartile 25	0.65
Quartile 75	0.86
Maximum	1.10
Iqr	0.21

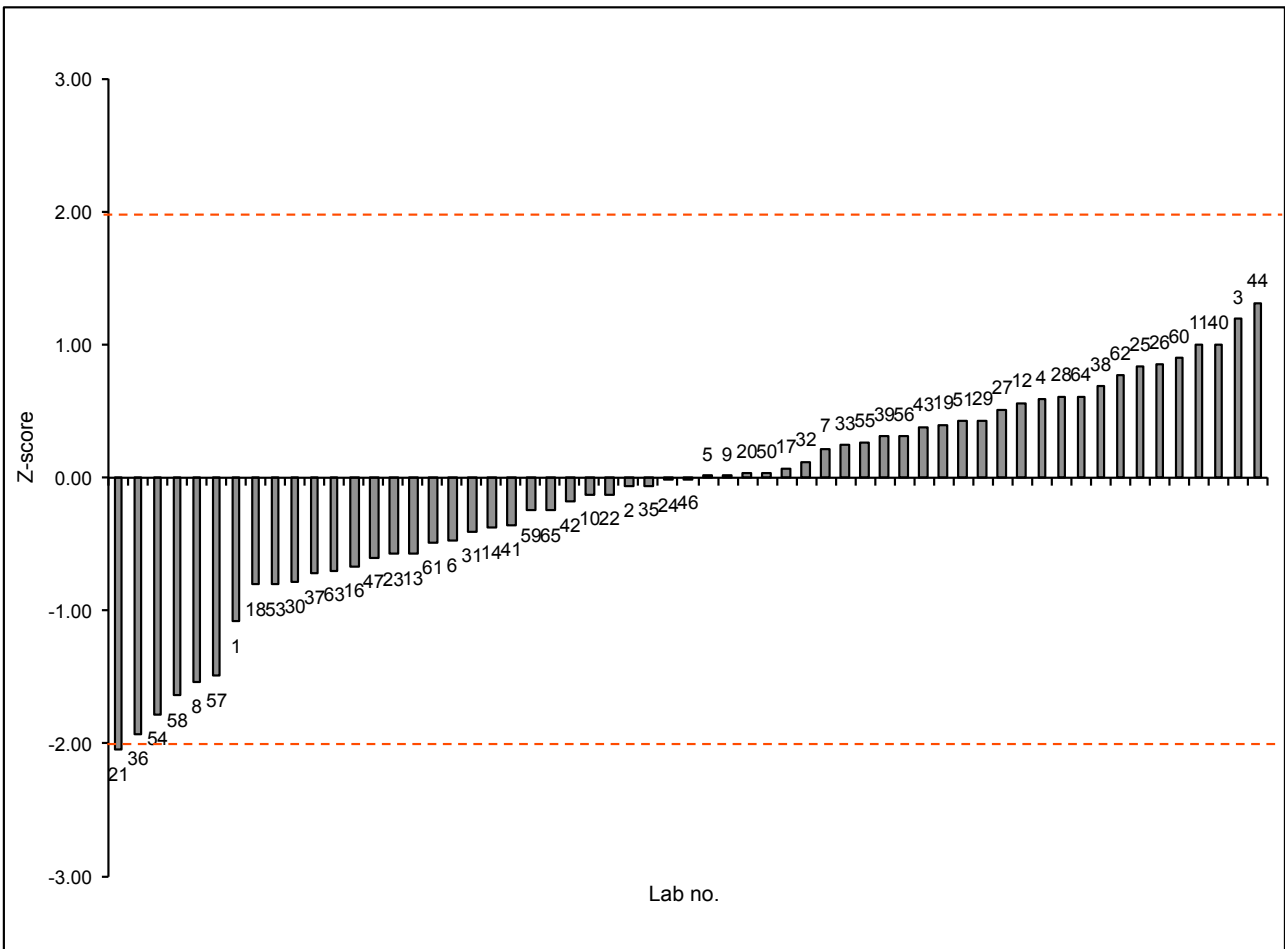
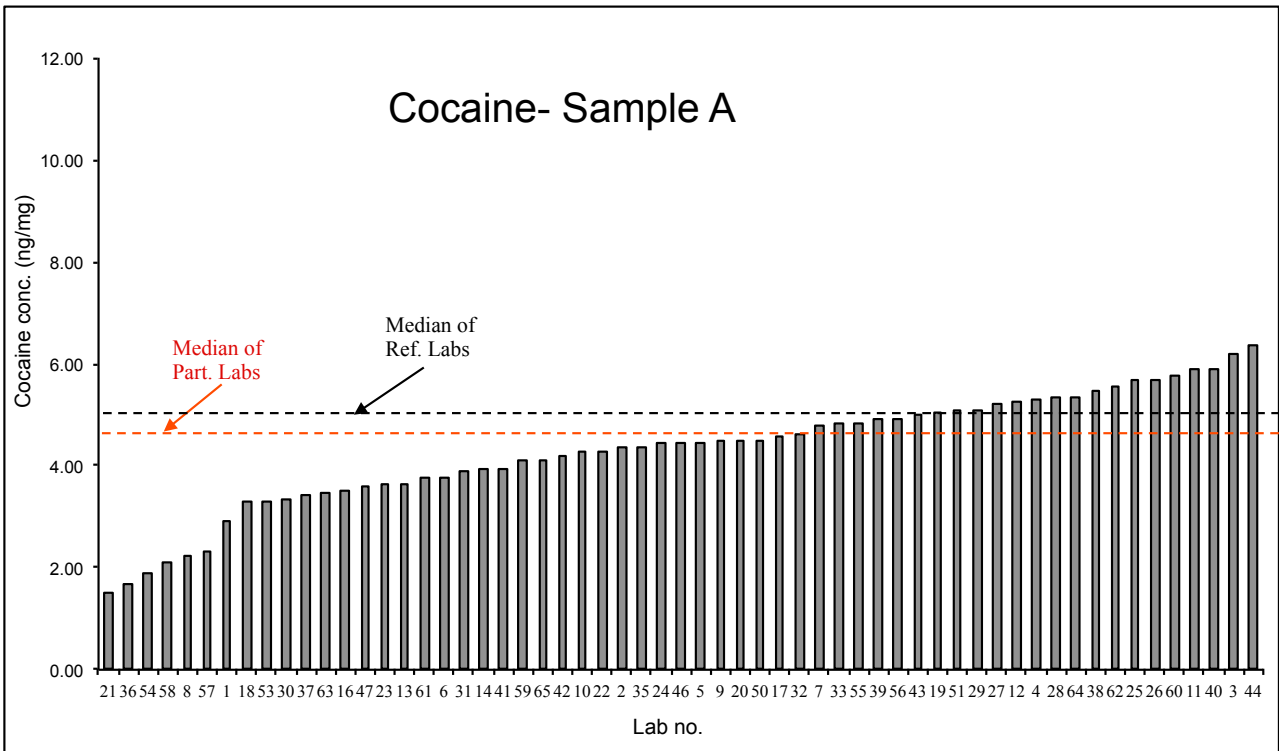


COCAINE

Lab	Cocaine (ng/mg)	Z-score	Result
1	2.90	-1.08	Satisfactory
2	4.37	-0.07	Satisfactory
3	6.17	1.19	Satisfactory
4	5.30	0.58	Satisfactory
5	4.47	0.00	Satisfactory
6	3.78	-0.47	Satisfactory
7	4.78	0.22	Satisfactory
8	2.25	-1.53	Satisfactory
9	4.47	0.01	Satisfactory
10	4.28	-0.13	Satisfactory
11	5.90	1.00	Satisfactory
12	5.27	0.56	Satisfactory
13	3.64	-0.57	Satisfactory
14	3.92	-0.38	Satisfactory
15	>3.00		
16	3.50	-0.67	Satisfactory
17	4.56	0.07	Satisfactory
18	3.30	-0.81	Satisfactory
19	5.03	0.40	Satisfactory
20	4.50	0.03	Satisfactory
21	1.51	-2.05	Questionable
22	4.28	-0.13	Satisfactory
23	3.63	-0.58	Satisfactory
24	4.43	-0.02	Satisfactory
25	5.66	0.83	Satisfactory
26	5.68	0.85	Satisfactory
27	5.20	0.51	Satisfactory
28	5.34	0.61	Satisfactory
29	5.08	0.43	Satisfactory
30	3.33	-0.79	Satisfactory
31	3.88	-0.40	Satisfactory
32	4.63	0.12	Satisfactory
33	4.81	0.24	Satisfactory
34	>5.00		
35	4.38	-0.06	Satisfactory
36	1.69	-1.92	Satisfactory
37	3.43	-0.72	Satisfactory
38	5.45	0.69	Satisfactory
39	4.90	0.31	Satisfactory
40	5.90	1.00	Satisfactory
41	3.95	-0.35	Satisfactory
42	4.20	-0.18	Satisfactory
43	5.02	0.39	Satisfactory
44	6.35	1.32	Satisfactory
46	4.46	0.00	Satisfactory
47	3.60	-0.60	Satisfactory
49	>3.60		
50	4.50	0.03	Satisfactory
51	5.07	0.42	Satisfactory
53	3.30	-0.81	Satisfactory
54	1.90	-1.78	Satisfactory
55	4.84	0.26	Satisfactory

Lab	Cocaine (ng/mg)	Z-score	Result
56	4.90	0.31	Satisfactory
57	2.31	-1.49	Satisfactory
58	2.10	-1.64	Satisfactory
59	4.10	-0.25	Satisfactory
60	5.75	0.90	Satisfactory
61	3.75	-0.49	Satisfactory
62	5.56	0.76	Satisfactory
63	3.46	-0.69	Satisfactory
64	5.34	0.61	Satisfactory
65	4.10	-0.25	Satisfactory

Average	4.31
SD	1.12
CV%	25.91
Median	4.46
Minimum	1.51
Quartile 25	3.63
Quartile 75	5.08
Maximum	6.35
Iqr	1.44

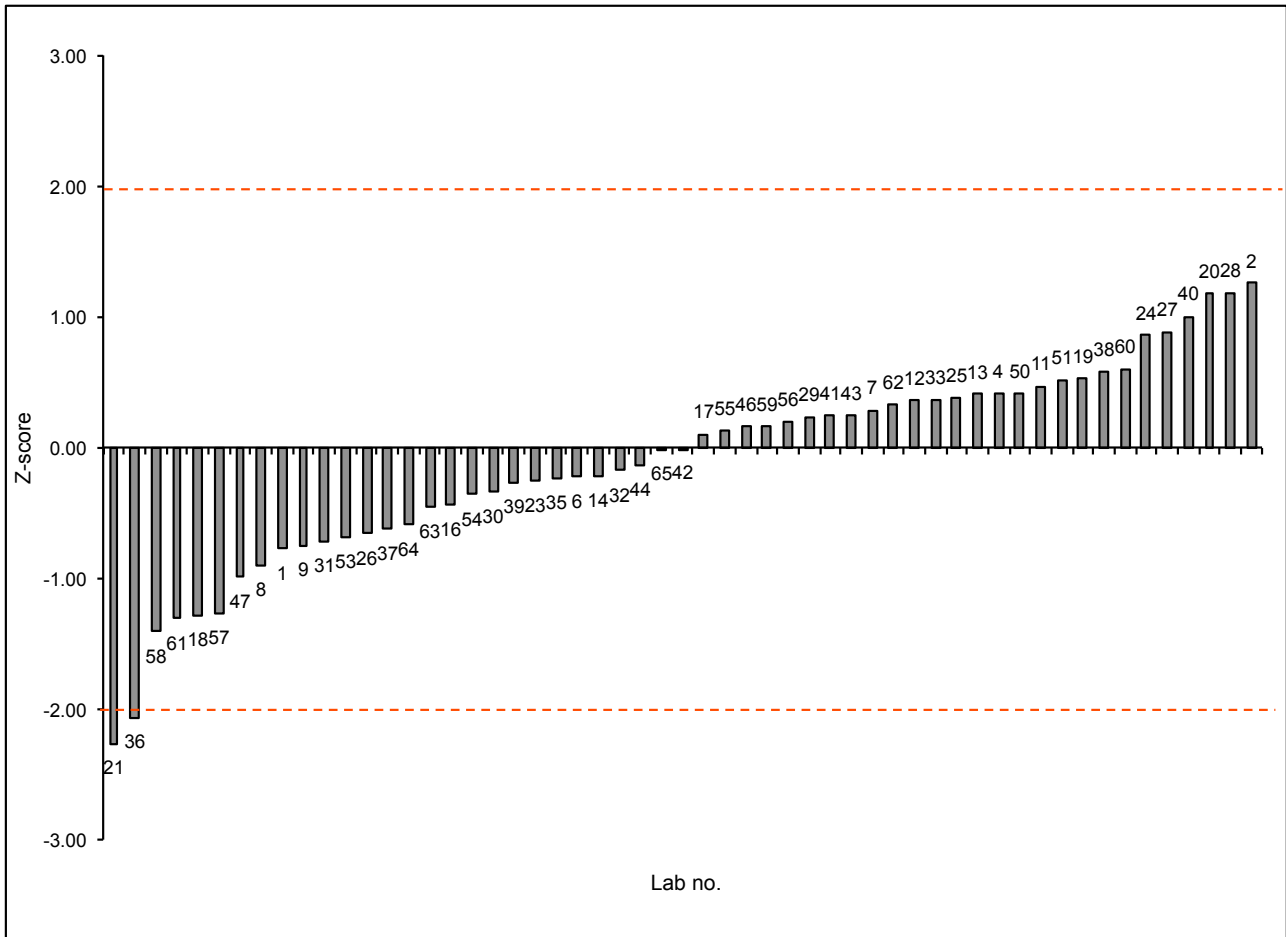
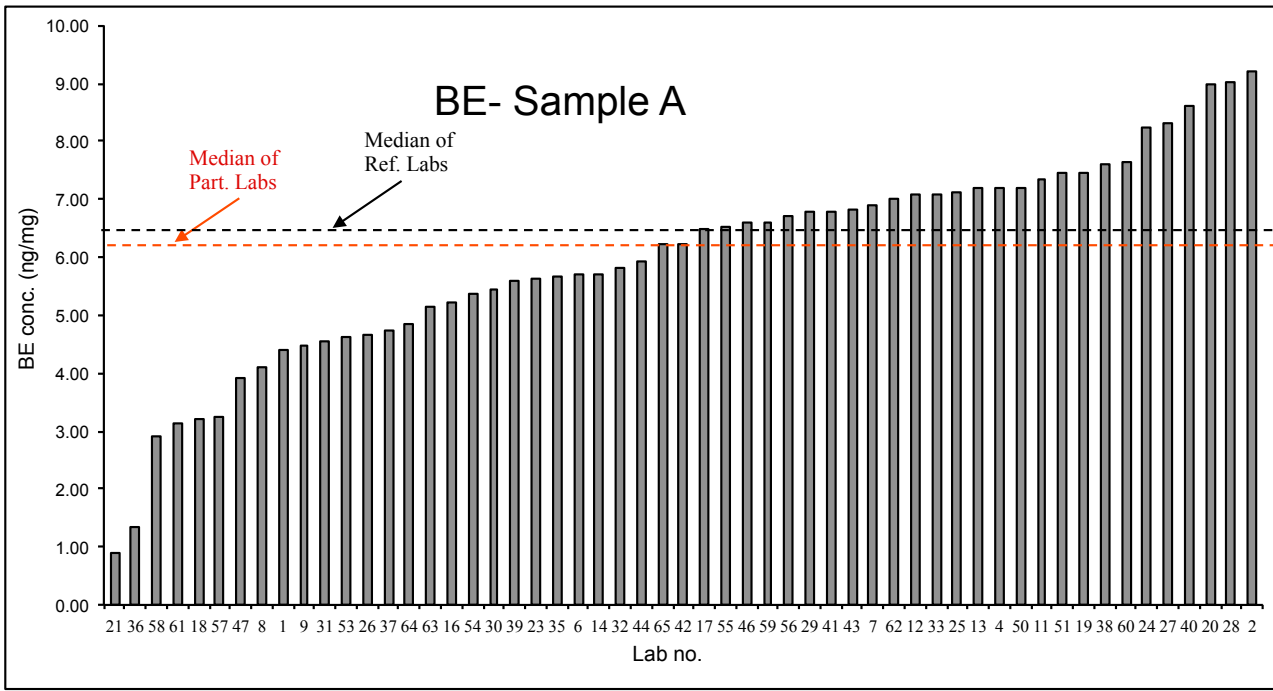


BENZOYLECGONINE (BE)

Lab	BE (ng/mg)	Z-score	Result
1	4.40	-0.78	Satisfactory
2	9.19	1.26	Satisfactory
3	>1.00		
4	7.20	0.41	Satisfactory
5	>5.00		
6	5.70	-0.22	Satisfactory
7	6.91	0.29	Satisfactory
8	4.11	-0.90	Satisfactory
9	4.46	-0.75	Satisfactory
10	>1.00		
11	7.34	0.47	Satisfactory
12	7.08	0.36	Satisfactory
13	7.19	0.41	Satisfactory
14	5.71	-0.22	Satisfactory
15	>3.00		
16	5.20	-0.44	Satisfactory
17	6.47	0.10	Satisfactory
18	3.20	-1.28	Satisfactory
19	7.47	0.53	Satisfactory
20	9.00	1.17	Satisfactory
21	0.89	-2.26	Questionable
23	5.63	-0.25	Satisfactory
24	8.25	0.86	Satisfactory
25	7.12	0.38	Satisfactory
26	4.68	-0.66	Satisfactory
27	8.32	0.89	Satisfactory
28	9.02	1.18	Satisfactory
29	6.79	0.24	Satisfactory
30	5.42	-0.34	Satisfactory
31	4.55	-0.71	Satisfactory
32	5.81	-0.18	Satisfactory
33	7.09	0.36	Satisfactory
34	>0.50		
35	5.68	-0.23	Satisfactory
36	1.36	-2.06	Questionable
37	4.75	-0.63	Satisfactory
38	7.60	0.58	Satisfactory
39	5.60	-0.27	Satisfactory
40	8.60	1.00	Satisfactory
41	6.80	0.24	Satisfactory
42	6.23	0.00	Satisfactory
43	6.80	0.24	Satisfactory
44	5.91	-0.13	Satisfactory
46	6.60	0.16	Satisfactory
47	3.90	-0.99	Satisfactory
49	>3.60		
50	7.20	0.41	Satisfactory
51	7.46	0.52	Satisfactory
53	4.61	-0.69	Satisfactory
54	5.38	-0.36	Satisfactory
55	6.53	0.13	Satisfactory
56	6.70	0.20	Satisfactory

Lab	BE (ng/mg)	Z-score	Result
57	3.24	-1.27	Satisfactory
58	2.90	-1.41	Satisfactory
59	6.60	0.16	Satisfactory
60	7.65	0.60	Satisfactory
61	3.14	-1.31	Satisfactory
62	7.00	0.33	Satisfactory
63	5.16	-0.45	Satisfactory
64	4.84	-0.59	Satisfactory
65	6.21	-0.01	Satisfactory

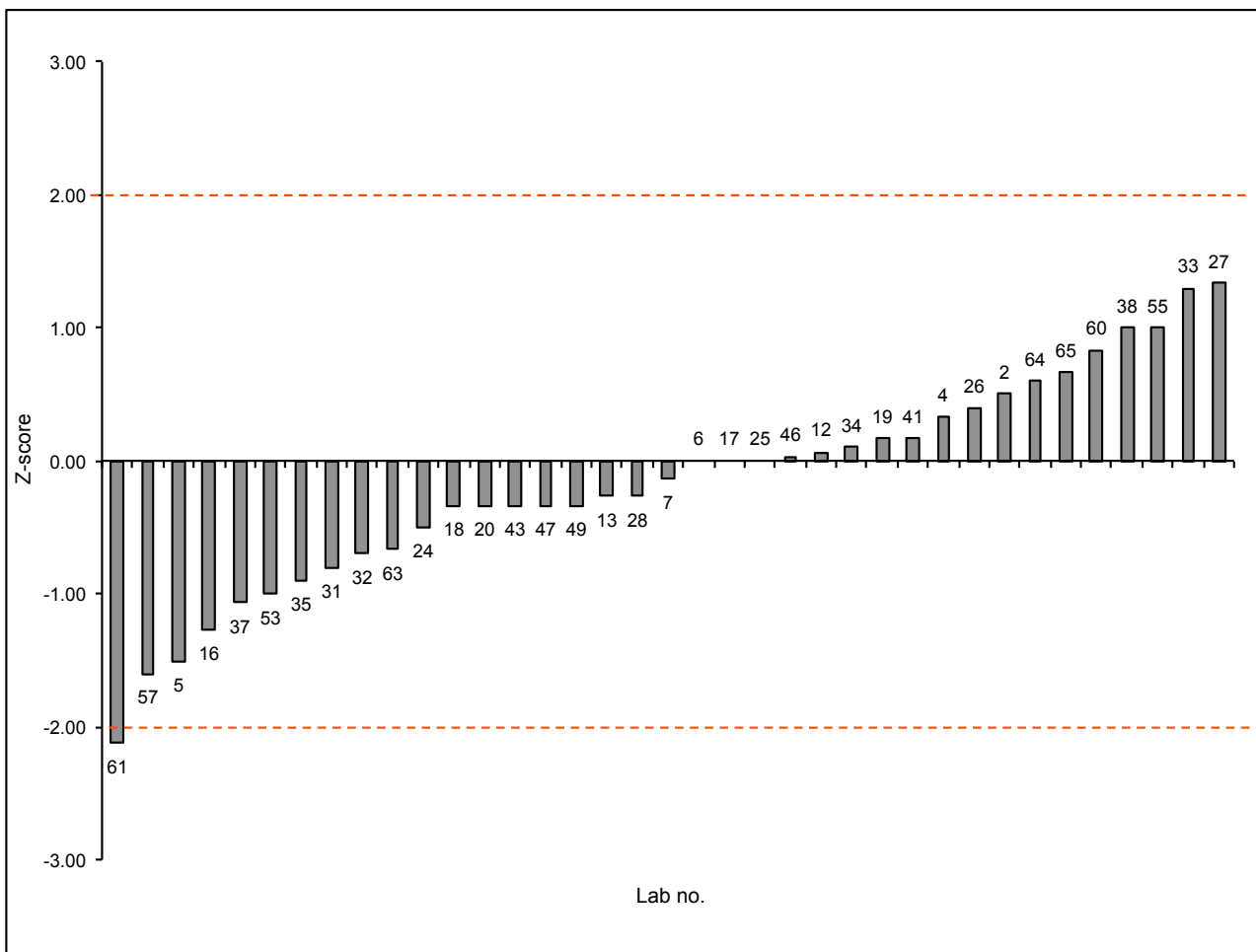
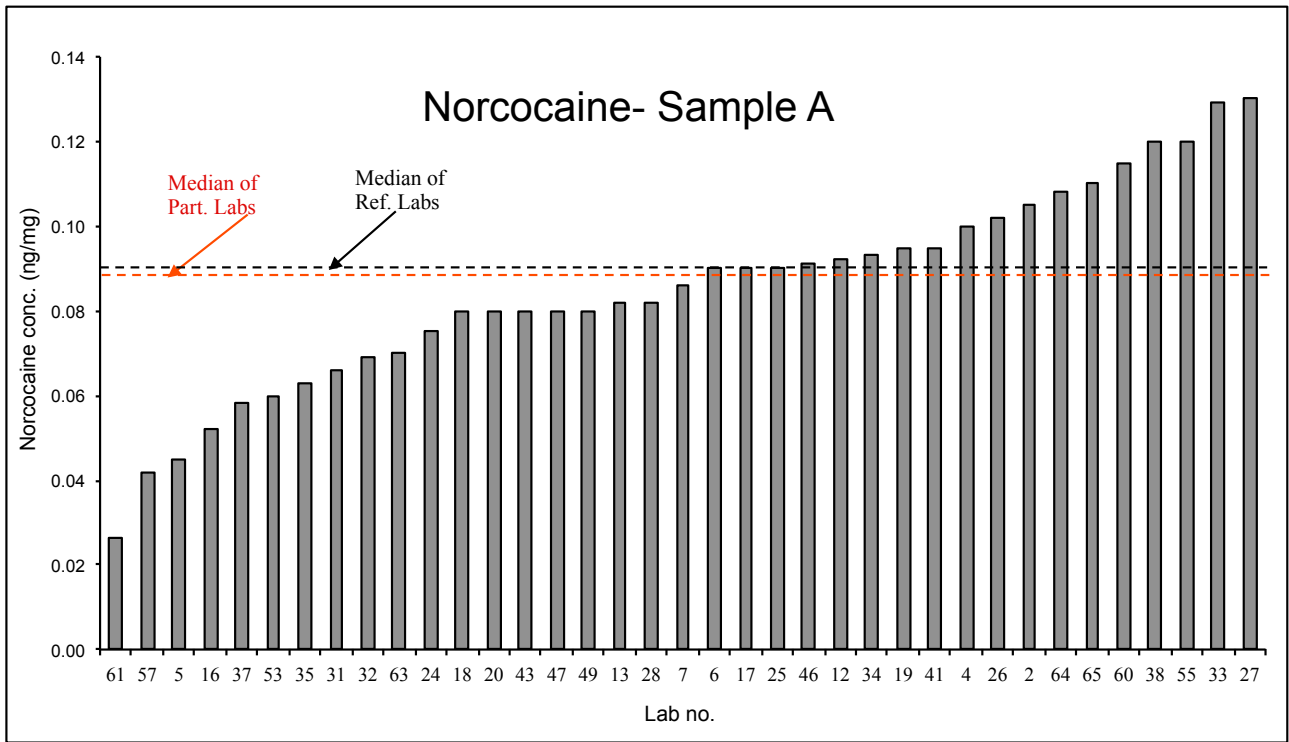
Average	5.98
SD	1.79
CV%	29.89
Median	6.23
Minimum	0.89
Quartile 25	4.80
Quartile 75	7.16
Maximum	9.19
Iqr	2.36



NORCOCAINE (norCOC)

Lab	norCOC (ng/mg)	Z-score	Result
2	0.11	0.50	Satisfactory
3	P		
4	0.10	0.33	Satisfactory
5	0.04	-1.51	Satisfactory
6	0.09	0.00	Satisfactory
7	0.09	-0.13	Satisfactory
12	0.09	0.07	Satisfactory
13	0.08	-0.27	Satisfactory
16	0.05	-1.27	Satisfactory
17	0.09	0.00	Satisfactory
18	0.08	-0.33	Satisfactory
19	0.10	0.17	Satisfactory
20	0.08	-0.33	Satisfactory
21	N		
24	0.08	-0.50	Satisfactory
25	0.09	0.00	Satisfactory
26	0.10	0.40	Satisfactory
27	0.13	1.33	Satisfactory
28	0.08	-0.27	Satisfactory
31	0.07	-0.80	Satisfactory
32	0.07	-0.70	Satisfactory
33	0.13	1.30	Satisfactory
34	0.09	0.10	Satisfactory
35	0.06	-0.90	Satisfactory
37	0.06	-1.07	Satisfactory
38	0.12	1.00	Satisfactory
41	0.10	0.17	Satisfactory
43	0.08	-0.33	Satisfactory
46	0.09	0.03	Satisfactory
47	0.08	-0.33	Satisfactory
49	0.08	-0.33	Satisfactory
50	N		
51	N		
53	0.06	-1.00	Satisfactory
54	N		
55	0.12	1.00	Satisfactory
57	0.04	-1.60	Satisfactory
58	N		
59	P		
60	0.12	0.83	Satisfactory
61	0.03	-2.12	Questionable
63	0.07	-0.67	Satisfactory
64	0.11	0.60	Satisfactory
65	0.11	0.67	Satisfactory

Average	0.09
SD	0.02
CV%	27.80
Median	0.09
Minimum	0.03
Quartile 25	0.07
Quartile 75	0.10
Maximum	0.13
Iqr	0.03



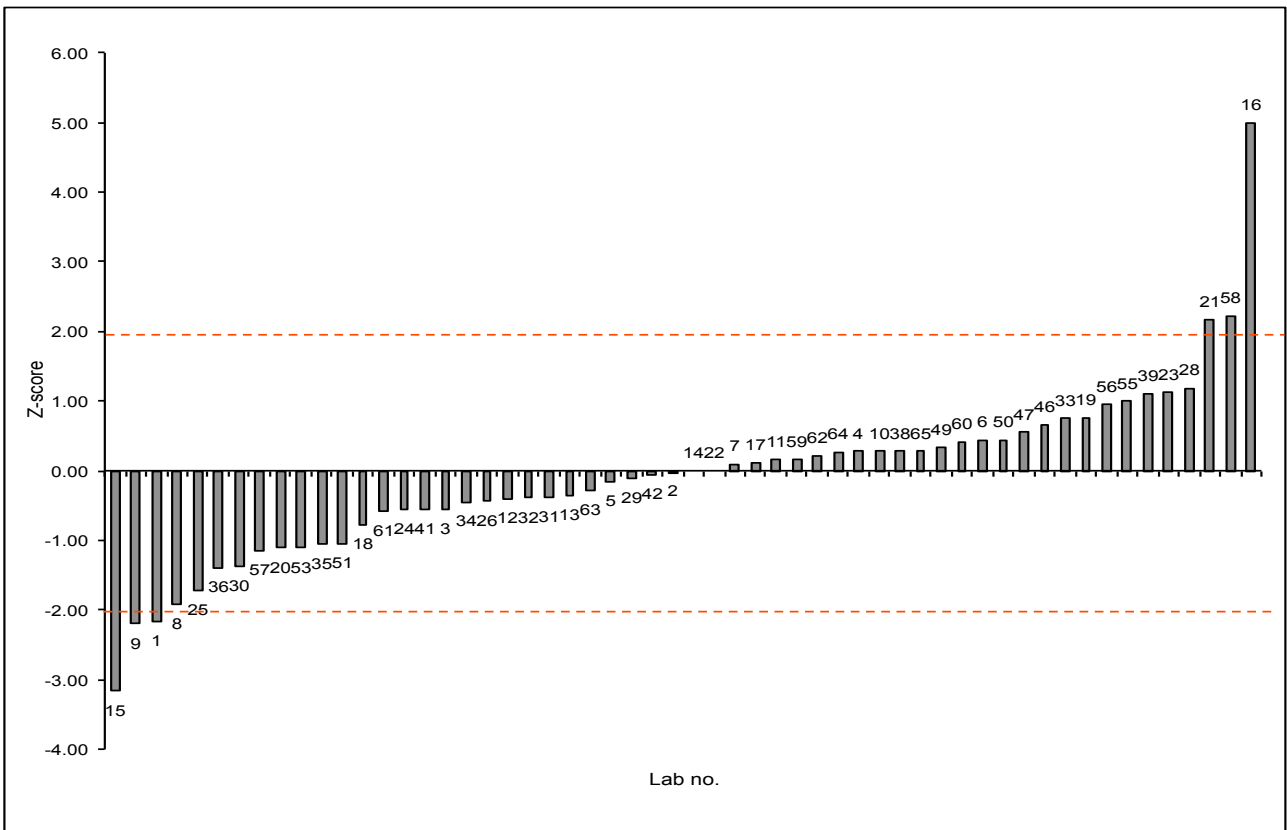
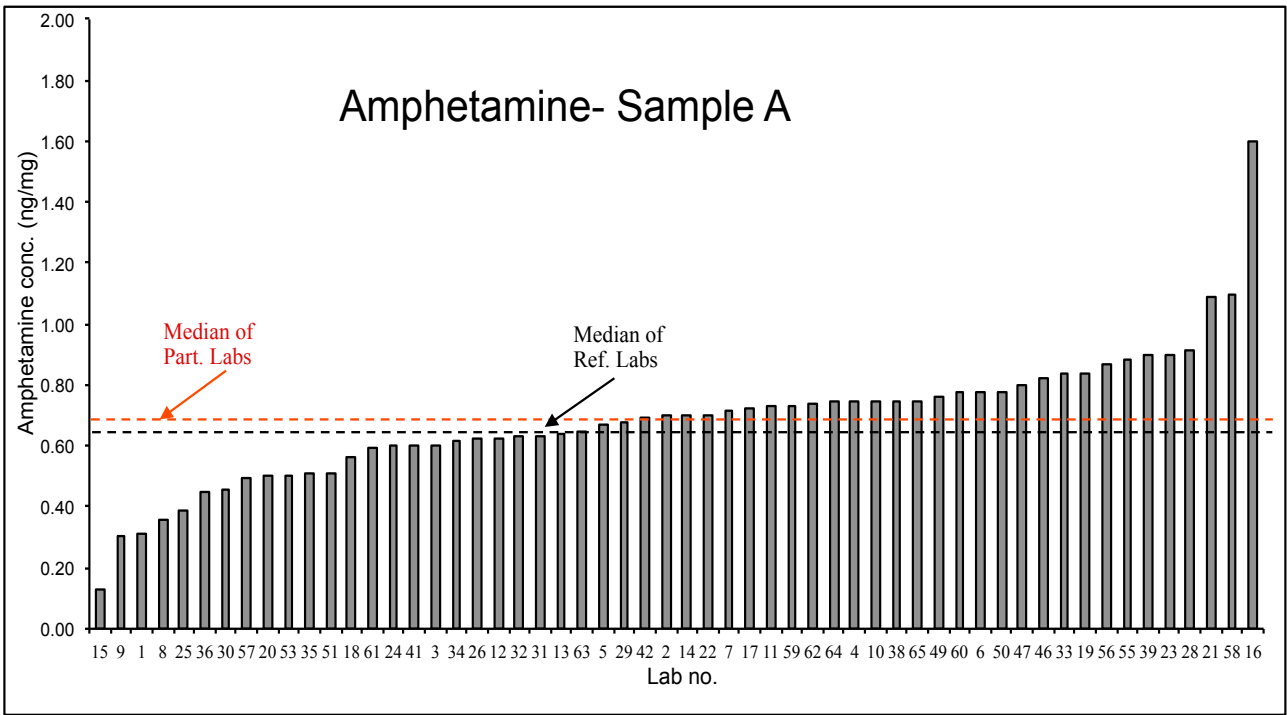
AMPHETAMINE

Lab	Amphetamine (ng/mg)	Z-score	Result
1	0.31	-2.17	Questionable
2	0.70	-0.02	Satisfactory
3	0.60	-0.55	Satisfactory
4	0.75	0.28	Satisfactory
5	0.67	-0.15	Satisfactory
6	0.78	0.44	Satisfactory
7	0.72	0.10	Satisfactory
8	0.35	-1.92	Satisfactory
9	0.30	-2.20	Questionable
10	0.75	0.28	Satisfactory
11	0.73	0.17	Satisfactory
12	0.63	-0.40	Satisfactory
13	0.64	-0.36	Satisfactory
14	0.70	0.00	Satisfactory
15	0.13	-3.17	Unsatisfactory
16	1.60	5.00	Unsatisfactory
17	0.72	0.11	Satisfactory
18	0.56	-0.78	Satisfactory
19	0.84	0.76	Satisfactory
20	0.50	-1.11	Satisfactory
21	1.09	2.17	Questionable
22	0.70	0.00	Satisfactory
23	0.90	1.12	Satisfactory
24	0.60	-0.56	Satisfactory
25	0.39	-1.72	Satisfactory
26	0.62	-0.44	Satisfactory
28	0.91	1.19	Satisfactory
29	0.68	-0.11	Satisfactory
30	0.45	-1.37	Satisfactory
31	0.63	-0.39	Satisfactory
32	0.63	-0.39	Satisfactory
33	0.84	0.76	Satisfactory
34	0.62	-0.44	Satisfactory
35	0.51	-1.06	Satisfactory
36	0.45	-1.39	Satisfactory
37	N		
38	0.75	0.28	Satisfactory
39	0.90	1.11	Satisfactory
40	P		
41	0.60	-0.56	Satisfactory
42	0.69	-0.05	Satisfactory
43	N		
44	10.28	Outlier*	
46	0.82	0.67	Satisfactory
47	0.80	0.56	Satisfactory
49	0.76	0.33	Satisfactory
50	0.78	0.44	Satisfactory
51	0.51	-1.05	Satisfactory
53	0.50	-1.11	Satisfactory
54	N		
55	0.88	1.00	Satisfactory
56	0.87	0.94	Satisfactory

Lab	Amphetamine (ng/mg)	Z-score	Result
57	0.49	-1.14	Satisfactory
58	1.10	2.22	Questionable
59	0.73	0.17	Satisfactory
60	0.78	0.42	Satisfactory
61	0.60	-0.58	Satisfactory
62	0.74	0.22	Satisfactory
63	0.65	-0.28	Satisfactory
64	0.75	0.27	Satisfactory
65	0.75	0.28	Satisfactory

*Lab 44 has not been included in the statistical study

Average	0.69
SD	0.22
CV%	31.77
Median	0.70
Minimum	0.13
Quartile 25	0.60
Quartile 75	0.78
Maximum	1.60
Iqr	0.18



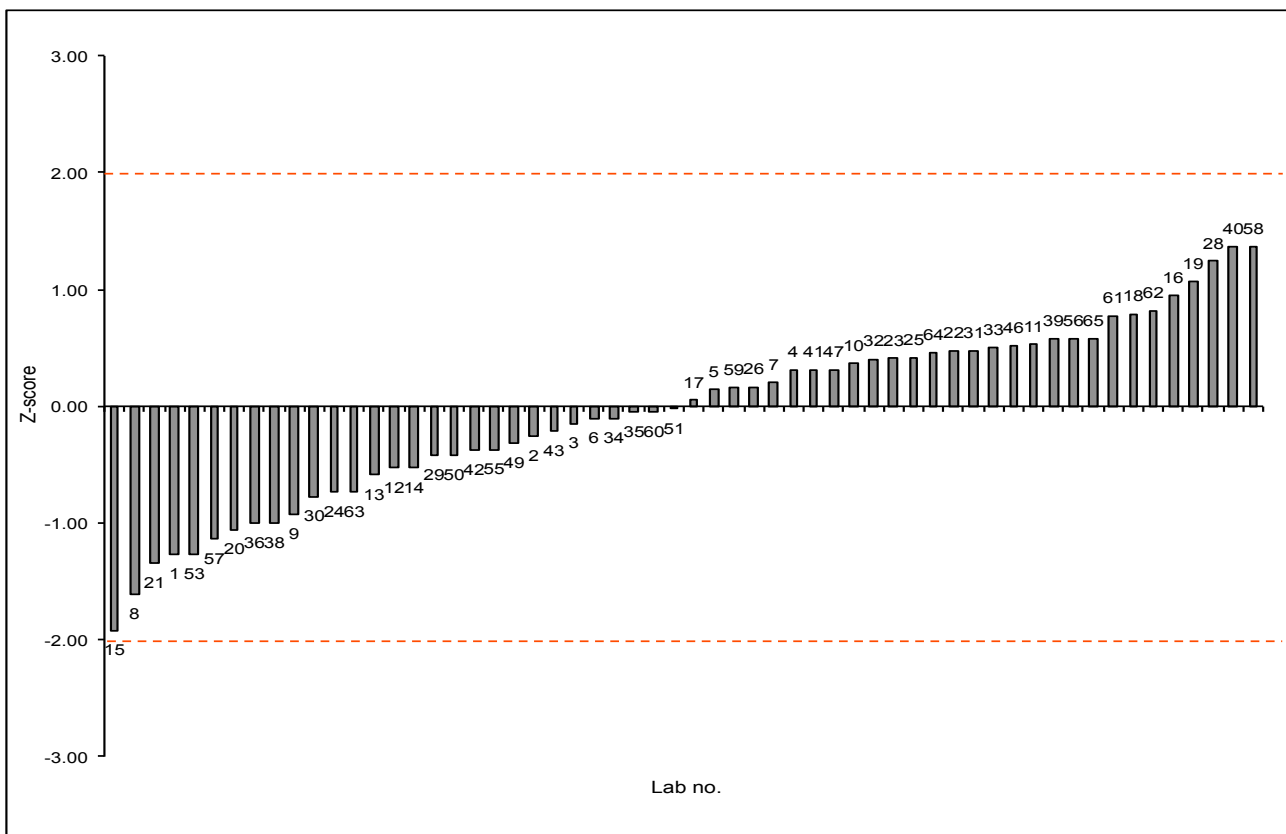
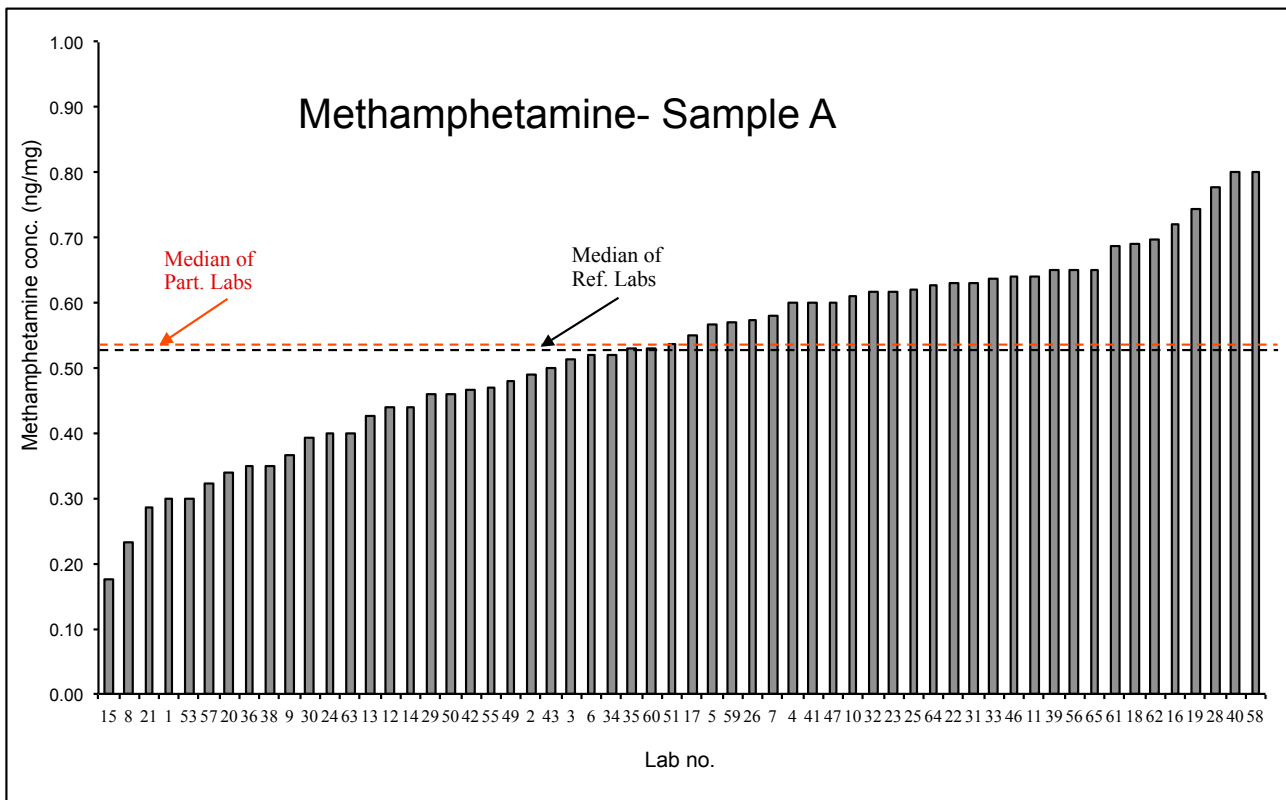
METHAMPHETAMINE

Lab	Methamphetamine (ng/mg)	Z-score	Result
1	0.30	-1.26	Satisfactory
2	0.49	-0.26	Satisfactory
3	0.51	-0.14	Satisfactory
4	0.60	0.32	Satisfactory
5	0.57	0.14	Satisfactory
6	0.52	-0.11	Satisfactory
7	0.58	0.21	Satisfactory
8	0.23	-1.61	Satisfactory
9	0.37	-0.92	Satisfactory
10	0.61	0.37	Satisfactory
11	0.64	0.53	Satisfactory
12	0.44	-0.53	Satisfactory
13	0.43	-0.59	Satisfactory
14	0.44	-0.53	Satisfactory
15	0.18	-1.92	Satisfactory
16	0.72	0.95	Satisfactory
17	0.55	0.05	Satisfactory
18	0.69	0.79	Satisfactory
19	0.74	1.07	Satisfactory
20	0.34	-1.05	Satisfactory
21	0.29	-1.34	Satisfactory
22	0.63	0.47	Satisfactory
23	0.62	0.41	Satisfactory
24	0.40	-0.74	Satisfactory
25	0.62	0.42	Satisfactory
26	0.57	0.17	Satisfactory
28	0.78	1.24	Satisfactory
29	0.46	-0.42	Satisfactory
30	0.39	-0.77	Satisfactory
31	0.63	0.47	Satisfactory
32	0.62	0.41	Satisfactory
33	0.64	0.51	Satisfactory
34	0.52	-0.11	Satisfactory
35	0.53	-0.05	Satisfactory
36	0.35	-1.00	Satisfactory
37	N		
38	0.35	-1.00	Satisfactory
39	0.65	0.58	Satisfactory
40	0.80	1.37	Satisfactory
41	0.60	0.32	Satisfactory
42	0.47	-0.38	Satisfactory
43	0.50	-0.22	Satisfactory
44	4.64	Outlier*	
46	0.64	0.52	Satisfactory
47	0.60	0.32	Satisfactory
49	0.48	-0.32	Satisfactory
50	0.46	-0.42	Satisfactory
51	0.54	-0.02	Satisfactory
53	0.30	-1.26	Satisfactory
54	N		
55	0.47	-0.37	Satisfactory
56	0.65	0.58	Satisfactory

Lab	Methamphetamine (ng/mg)	Z-score	Result
57	0.32	-1.14	Satisfactory
58	0.80	1.37	Satisfactory
59	0.57	0.16	Satisfactory
60	0.53	-0.05	Satisfactory
61	0.69	0.77	Satisfactory
62	0.70	0.82	Satisfactory
63	0.40	-0.74	Satisfactory
64	0.63	0.46	Satisfactory
65	0.65	0.58	Satisfactory

*Lab 44 has not been included in the statistical study

Average	0.53
SD	0.14
CV%	26.85
Median	0.54
Minimum	0.18
Quartile 25	0.44
Quartile 75	0.63
Maximum	0.80
Iqr	0.19

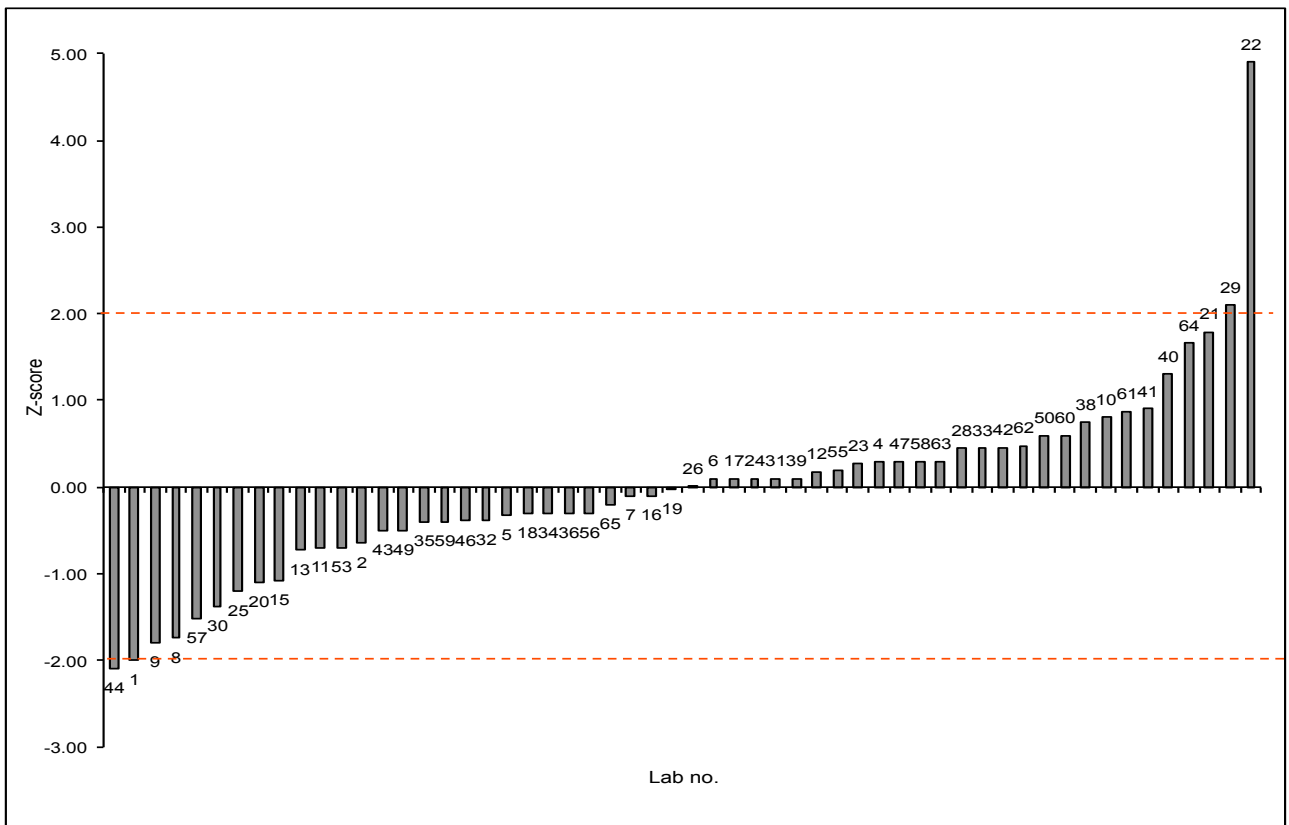
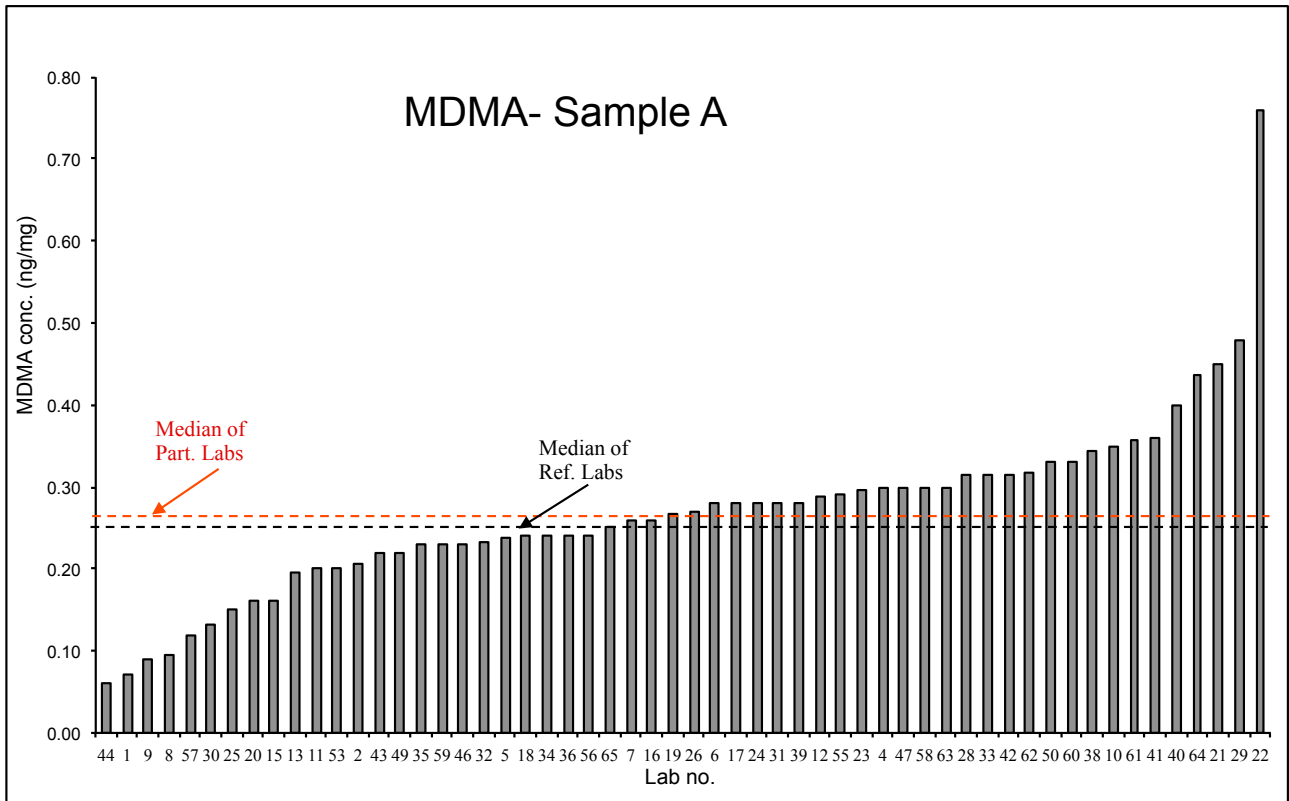


3,4-METHYLENEDIOXIMETHAMPHETAMINE (MDMA)

Lab	MDMA (ng/mg)	Z-score	Result
1	0.07	-2.00	Questionable
2	0.21	-0.65	Satisfactory
3	N		
4	0.30	0.30	Satisfactory
5	0.24	-0.33	Satisfactory
6	0.28	0.10	Satisfactory
7	0.26	-0.10	Satisfactory
8	0.10	-1.74	Satisfactory
9	0.09	-1.79	Satisfactory
10	0.35	0.80	Satisfactory
11	0.20	-0.70	Satisfactory
12	0.29	0.18	Satisfactory
13	0.20	-0.73	Satisfactory
14	N		
15	0.16	-1.08	Satisfactory
16	0.26	-0.10	Satisfactory
17	0.28	0.10	Satisfactory
18	0.24	-0.30	Satisfactory
19	0.27	-0.03	Satisfactory
20	0.16	-1.10	Satisfactory
21	0.45	1.79	Satisfactory
22	0.76	4.90	Unsatisfactory
23	0.30	0.27	Satisfactory
24	0.28	0.10	Satisfactory
25	0.15	-1.20	Satisfactory
26	0.27	0.01	Satisfactory
28	0.32	0.45	Satisfactory
29	0.48	2.10	Questionable
30	0.13	-1.38	Satisfactory
31	0.28	0.10	Satisfactory
32	0.23	-0.38	Satisfactory
33	0.32	0.45	Satisfactory
34	0.24	-0.30	Satisfactory
35	0.23	-0.40	Satisfactory
36	0.24	-0.30	Satisfactory
37	N		
38	0.35	0.75	Satisfactory
39	0.28	0.10	Satisfactory
40	0.40	1.30	Satisfactory
41	0.36	0.90	Satisfactory
42	0.32	0.46	Satisfactory
43	0.22	-0.50	Satisfactory
44	0.06	-2.09	Questionable
46	0.23	-0.39	Satisfactory
47	0.30	0.30	Satisfactory
49	0.22	-0.50	Satisfactory
50	0.33	0.60	Satisfactory
51	<0.20		
53	0.20	-0.70	Satisfactory
54	N		
55	0.29	0.20	Satisfactory
56	0.24	-0.30	Satisfactory

Lab	MDMA (ng/mg)	Z-score	Result
57	0.12	-1.51	Satisfactory
58	0.30	0.30	Satisfactory
59	0.23	-0.40	Satisfactory
60	0.33	0.60	Satisfactory
61	0.36	0.87	Satisfactory
62	0.32	0.48	Satisfactory
63	0.30	0.30	Satisfactory
64	0.44	1.66	Satisfactory
65	0.25	-0.20	Satisfactory

Average	0.27
SD	0.11
CV%	40.75
Median	0.27
Minimum	0.06
Quartile 25	0.22
Quartile 75	0.32
Maximum	0.76
Iqr	0.10

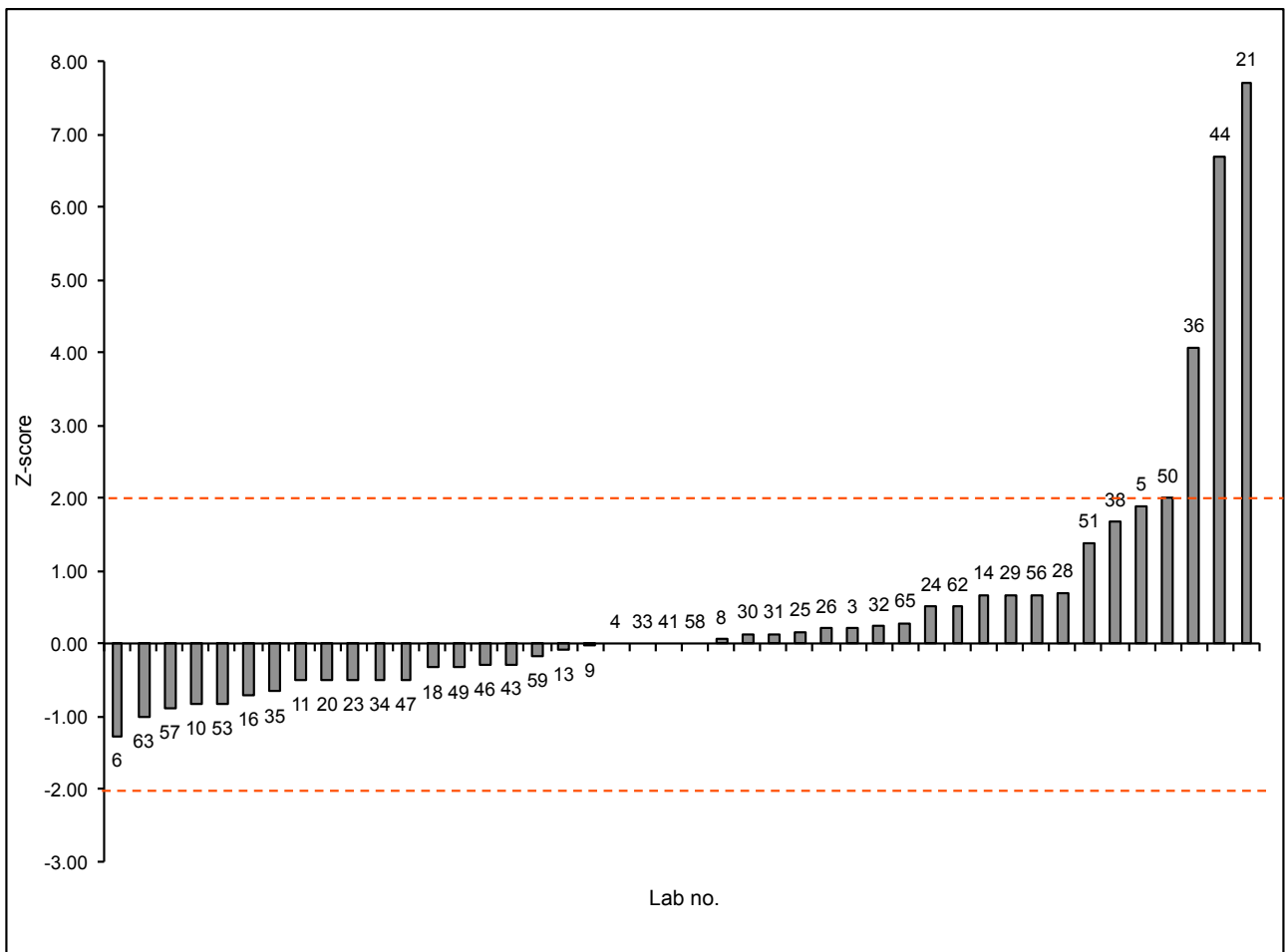
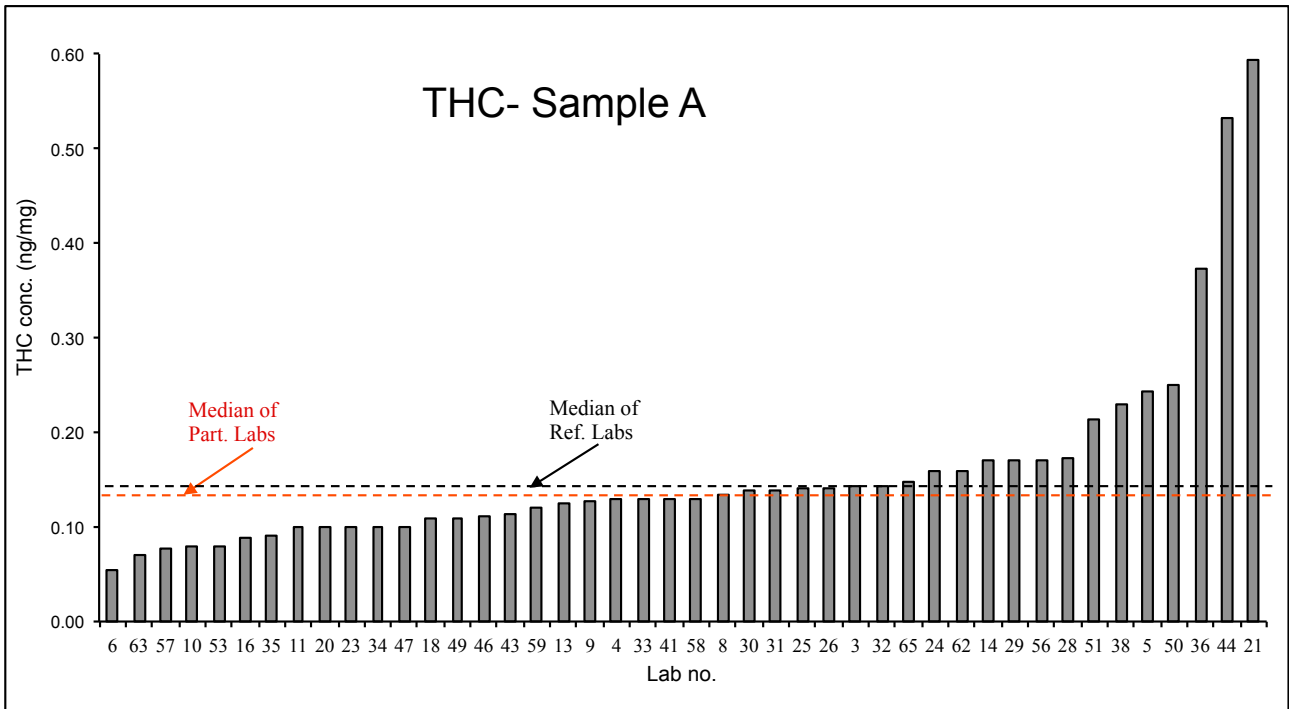


Δ^9 -TETRAHYDROCANNABINOL (THC)

Lab	THC (ng/mg)	Z-score	Result
3	0.14	0.20	Satisfactory
4	0.13	0.00	Satisfactory
5	0.24	1.88	Satisfactory
6	0.05	-1.27	Satisfactory
8	0.13	0.05	Satisfactory
9	0.13	-0.03	Satisfactory
10	0.08	-0.83	Satisfactory
11	0.10	-0.50	Satisfactory
13	0.13	-0.08	Satisfactory
14	0.17	0.67	Satisfactory
16	0.09	-0.70	Satisfactory
18	0.11	-0.33	Satisfactory
20	0.10	-0.50	Satisfactory
21	0.59	7.72	Unsatisfactory
23	0.10	-0.50	Satisfactory
24	0.16	0.50	Satisfactory
25	0.14	0.17	Satisfactory
26	0.14	0.20	Satisfactory
28	0.17	0.70	Satisfactory
29	0.17	0.67	Satisfactory
30	0.14	0.13	Satisfactory
31	0.14	0.13	Satisfactory
32	0.14	0.23	Satisfactory
33	0.13	0.00	Satisfactory
34	0.10	-0.50	Satisfactory
35	0.09	-0.67	Satisfactory
36	0.37	4.07	Unsatisfactory
38	0.23	1.67	Satisfactory
39	0.90	Outlier*	
41	0.13	0.00	Satisfactory
43	0.11	-0.28	Satisfactory
44	0.53	6.70	Unsatisfactory
46	0.11	-0.30	Satisfactory
47	0.10	-0.50	Satisfactory
49	0.11	-0.33	Satisfactory
50	0.25	2.00	Satisfactory
51	0.21	1.38	Satisfactory
53	0.08	-0.83	Satisfactory
54	N		
56	0.17	0.67	Satisfactory
57	0.08	-0.88	Satisfactory
58	0.13	0.00	Satisfactory
59	0.12	-0.17	Satisfactory
62	0.16	0.50	Satisfactory
63	0.07	-1.00	Satisfactory
64	P		
65	0.15	0.28	Satisfactory

Average	0.16
SD	0.10
CV%	66.36
Median	0.13
Minimum	0.05
Quartile 25	0.10
Quartile 75	0.16
Maximum	0.59
Iqr	0.06

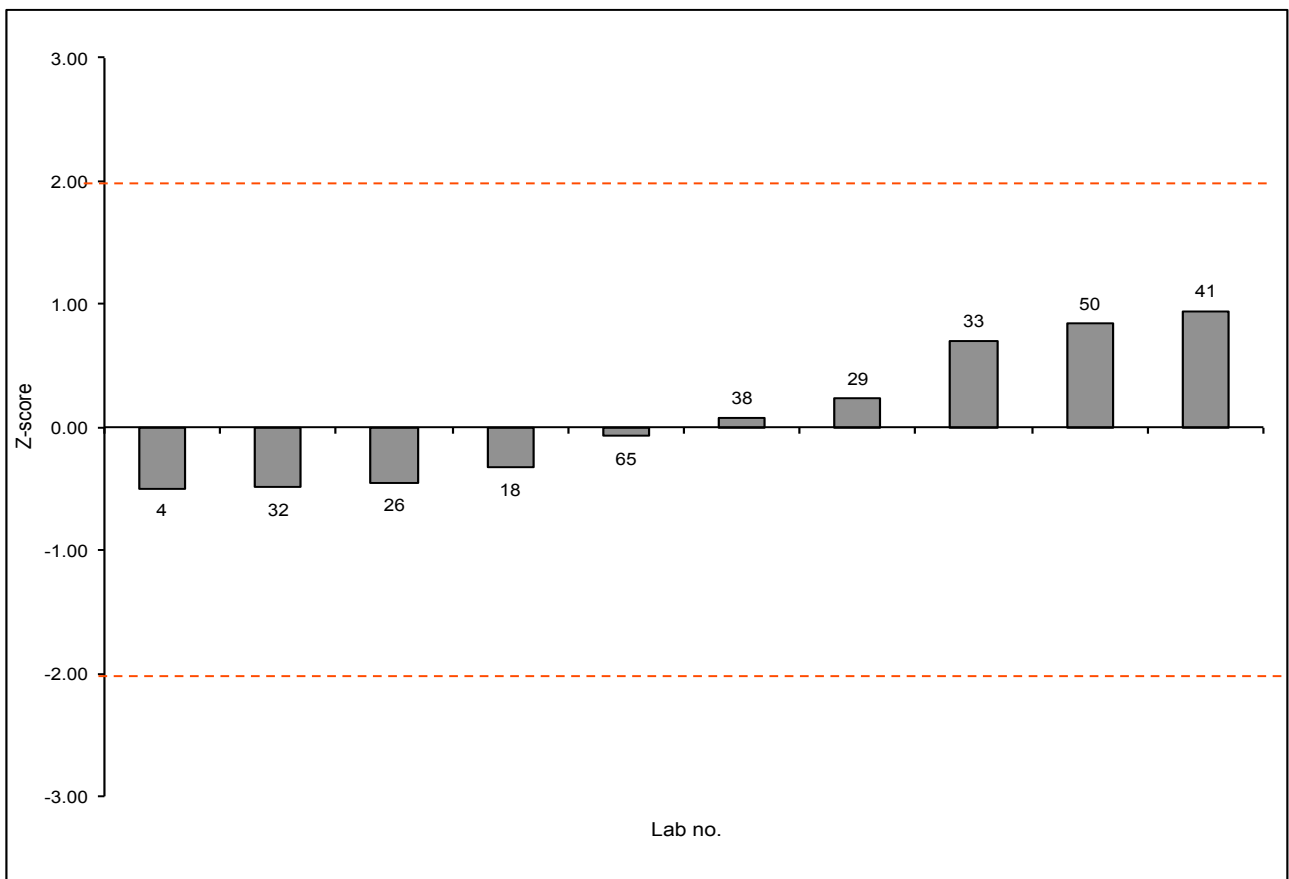
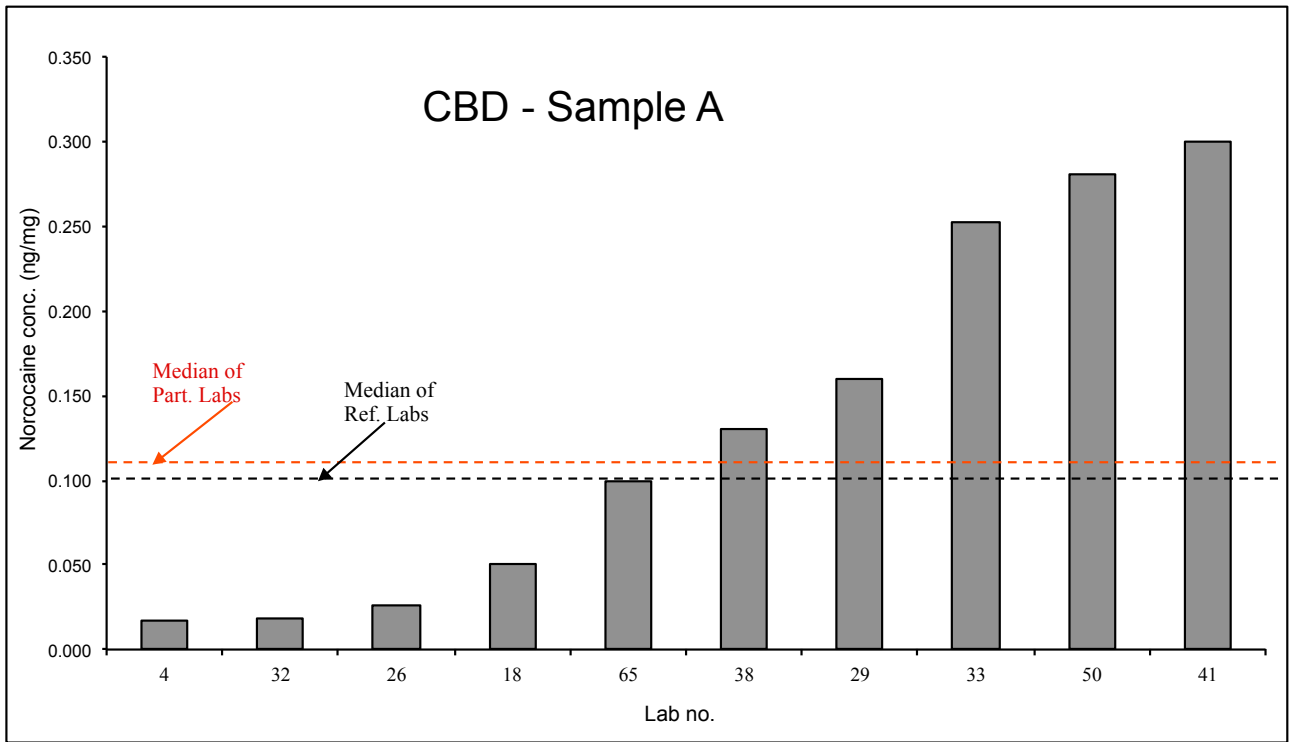
*Lab 39 has not been included in the statistical study



CANNABIDIOL (CBD)

Lab	CBD (pg/mg)	Z-score	Result
4	0.017	-0.50	Satisfactory
18	0.050	-0.33	Satisfactory
21	P		
26	0.026	-0.45	Satisfactory
29	0.160	0.23	Satisfactory
32	0.018	-0.49	Satisfactory
33	0.252	0.70	Satisfactory
38	0.130	0.08	Satisfactory
39	<0.05		
41	0.300	0.94	Satisfactory
46	N		
50	0.280	0.84	Satisfactory
65	0.100	-0.08	Satisfactory

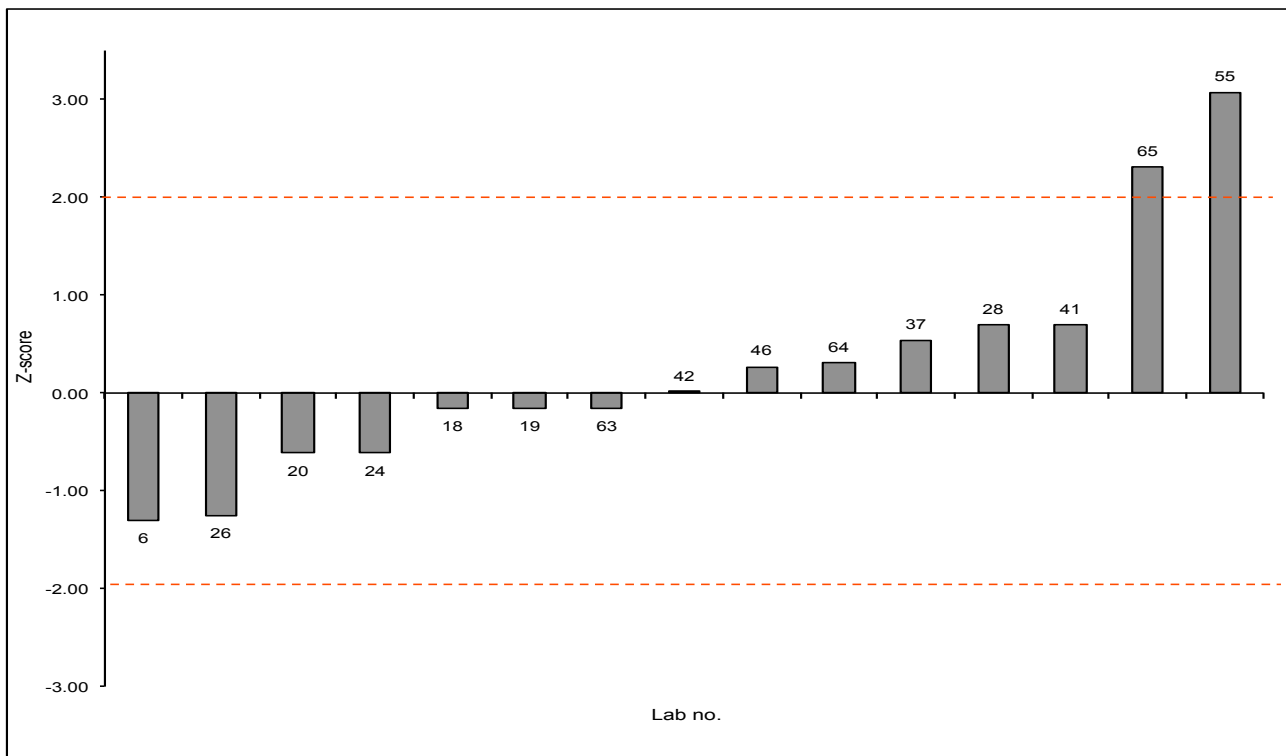
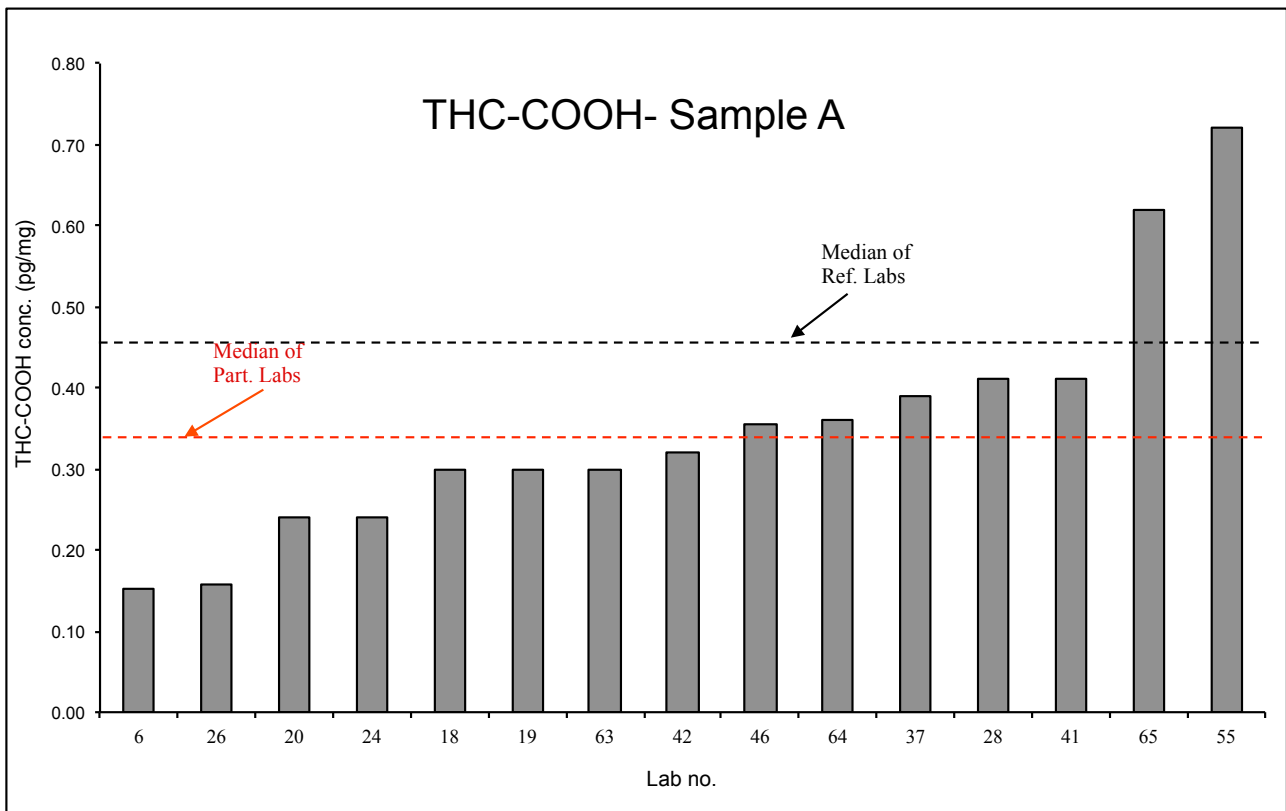
Average	0.133
SD	0.105
CV%	78.860
Median	0.115
Minimum	0.017
Quartile 25	0.032
Quartile 75	0.229
Maximum	0.300
Iqr	0.197



11-nor- Δ^9 -Tetrahydrocannabinol-9-Carboxylic Acid (THC-COOH)

Lab	THC-COOH (pg/mg)	Z-score	Result
6	0.15	-1.30	Satisfactory
11	<2.00		
18	0.30	-0.15	Satisfactory
19	0.30	-0.15	Satisfactory
20	0.24	-0.62	Satisfactory
21	U		
23	N		
24	0.24	-0.62	Satisfactory
26	0.16	-1.25	Satisfactory
28	0.41	0.69	Satisfactory
31	N		
35	N		
37	0.39	0.54	Satisfactory
41	0.41	0.69	Satisfactory
42	0.32	0.01	Satisfactory
44	N		
46	0.36	0.27	Satisfactory
47	N		
53	N		
54	N		
55	0.72	3.08	Unsatisfactory
63	0.30	-0.15	Satisfactory
64	0.36	0.31	Satisfactory
65	0.62	2.31	Questionable

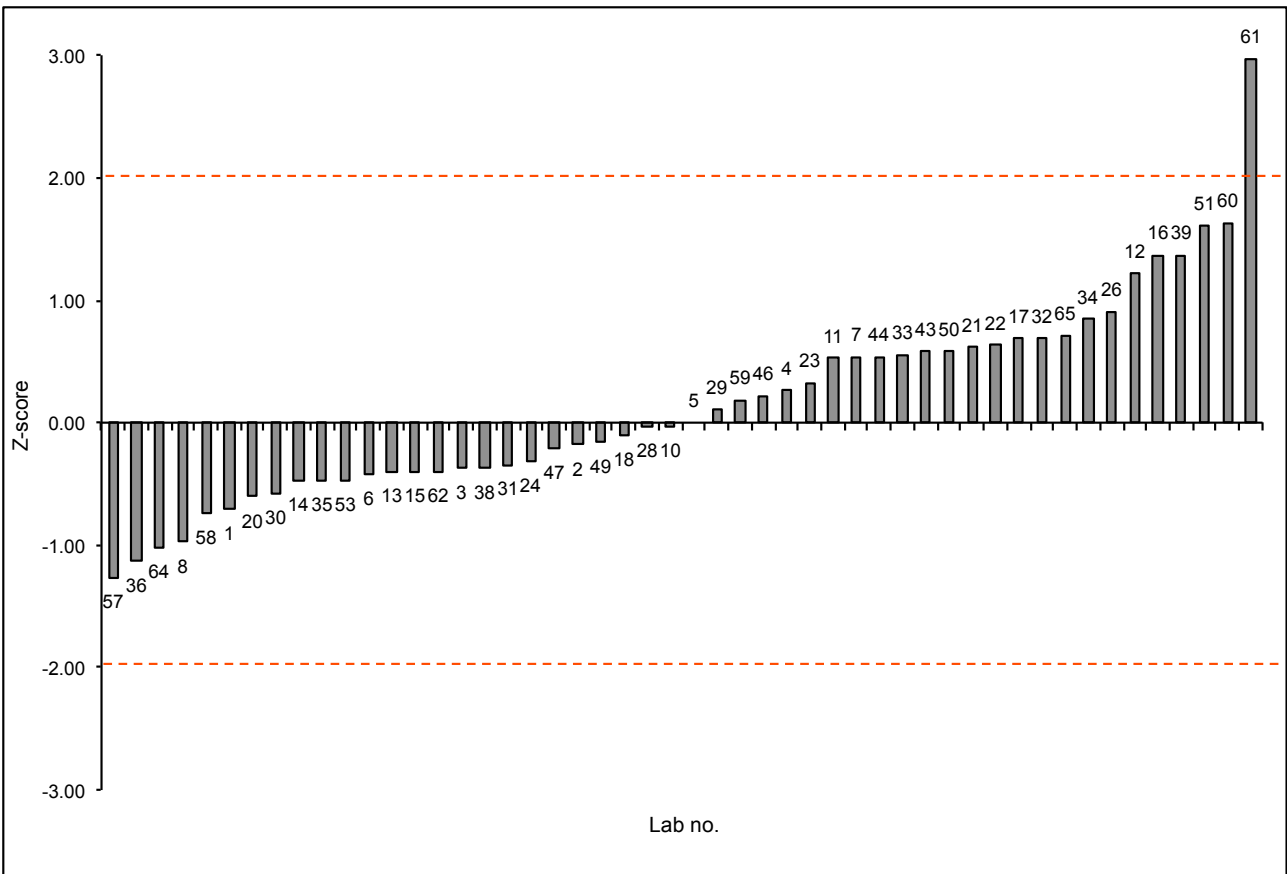
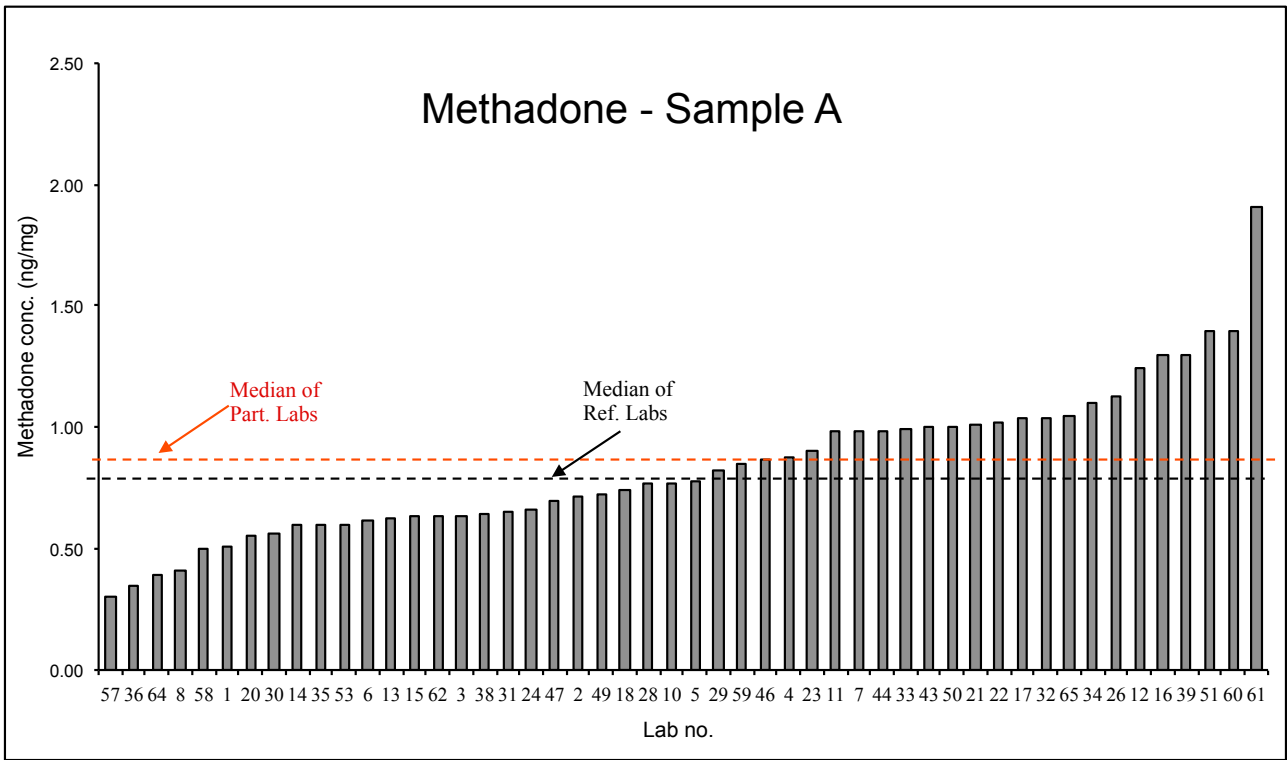
Average	0.35
SD	0.15
CV%	42.06
Median	0.32
Minimum	0.15
Quartile 25	0.27
Quartile 75	0.40
Maximum	0.72
Iqr	0.13



METHADONE

Lab	Methadone (ng/mg)	Z-score	Result
1	0.51	-0.71	Satisfactory
2	0.71	-0.18	Satisfactory
3	0.64	-0.37	Satisfactory
4	0.88	0.26	Satisfactory
5	0.78	0.00	Satisfactory
6	0.62	-0.42	Satisfactory
7	0.98	0.54	Satisfactory
8	0.41	-0.97	Satisfactory
10	0.77	-0.03	Satisfactory
11	0.98	0.53	Satisfactory
12	1.24	1.22	Satisfactory
13	0.63	-0.40	Satisfactory
14	0.60	-0.47	Satisfactory
15	0.63	-0.39	Satisfactory
16	1.30	1.37	Satisfactory
17	1.04	0.68	Satisfactory
18	0.74	-0.11	Satisfactory
20	0.55	-0.61	Satisfactory
21	1.01	0.62	Satisfactory
22	1.02	0.63	Satisfactory
23	0.90	0.33	Satisfactory
24	0.66	-0.32	Satisfactory
26	1.12	0.91	Satisfactory
28	0.77	-0.03	Satisfactory
29	0.82	0.11	Satisfactory
30	0.56	-0.58	Satisfactory
31	0.65	-0.34	Satisfactory
32	1.04	0.68	Satisfactory
33	0.99	0.55	Satisfactory
34	1.10	0.84	Satisfactory
35	0.60	-0.47	Satisfactory
36	0.35	-1.13	Satisfactory
38	0.64	-0.37	Satisfactory
39	1.30	1.37	Satisfactory
40	P		
43	1.00	0.58	Satisfactory
44	0.99	0.54	Satisfactory
46	0.86	0.22	Satisfactory
47	0.70	-0.21	Satisfactory
49	0.72	-0.16	Satisfactory
50	1.00	0.58	Satisfactory
51	1.39	1.61	Satisfactory
53	0.60	-0.47	Satisfactory
57	0.30	-1.26	Satisfactory
58	0.50	-0.74	Satisfactory
59	0.85	0.18	Satisfactory
60	1.40	1.63	Satisfactory
61	1.91	2.97	Questionable
62	0.63	-0.39	Satisfactory
64	0.39	-1.02	Satisfactory
65	1.05	0.71	Satisfactory

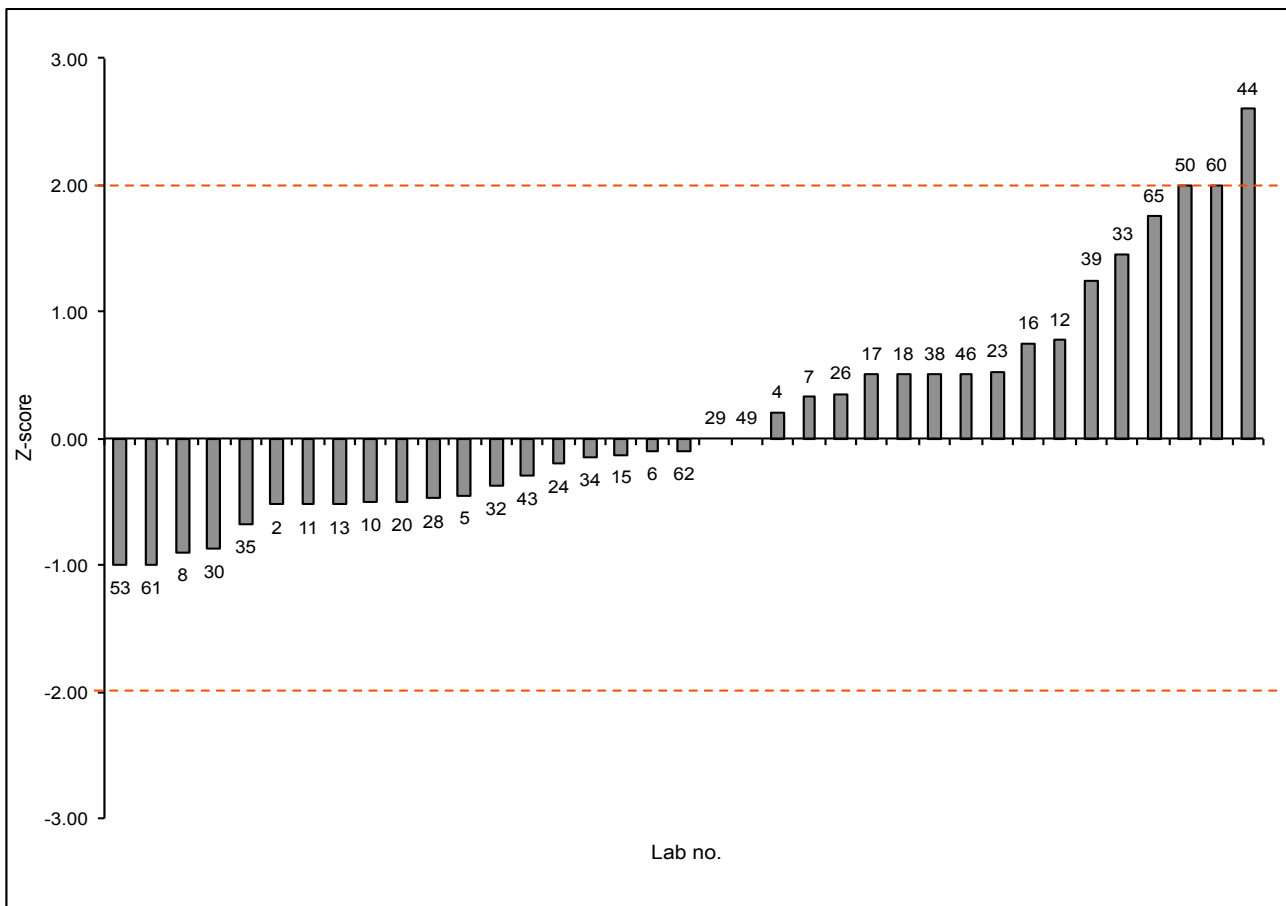
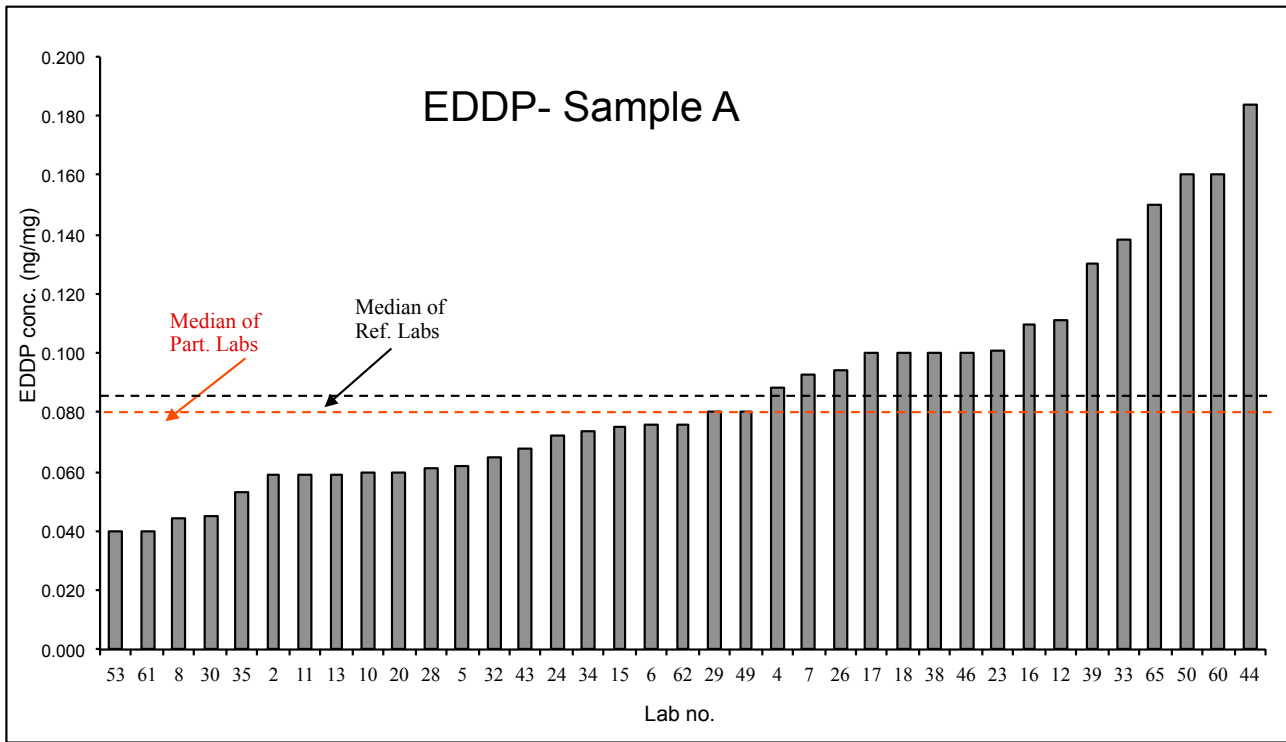
Average	0.84
SD	0.31
CV%	36.64
Median	0.78
Minimum	0.30
Quartile 25	0.63
Quartile 75	1.01
Maximum	1.91
Iqr	0.38



EDDP

Lab	EDDP (ng/mg)	Z-score	Result
1	N		
2	0.059	-0.53	Satisfactory
3	P		
4	0.088	0.20	Satisfactory
5	0.062	-0.45	Satisfactory
6	0.076	-0.10	Satisfactory
7	0.093	0.33	Satisfactory
8	0.044	-0.90	Satisfactory
9	U		
10	0.060	-0.50	Satisfactory
11	0.059	-0.53	Satisfactory
12	0.111	0.78	Satisfactory
13	0.059	-0.53	Satisfactory
15	0.075	-0.13	Satisfactory
16	0.110	0.75	Satisfactory
17	0.100	0.50	Satisfactory
18	0.100	0.50	Satisfactory
20	0.060	-0.50	Satisfactory
21	P		
23	0.101	0.53	Satisfactory
24	0.072	-0.20	Satisfactory
26	0.094	0.35	Satisfactory
28	0.061	-0.48	Satisfactory
29	0.080	0.00	Satisfactory
30	0.045	-0.88	Satisfactory
31	N		
32	0.065	-0.38	Satisfactory
33	0.138	1.45	Satisfactory
34	0.074	-0.15	Satisfactory
35	0.053	-0.68	Satisfactory
38	0.100	0.50	Satisfactory
39	0.130	1.25	Satisfactory
43	0.068	-0.30	Satisfactory
44	0.184	2.60	Questionable
46	0.100	0.50	Satisfactory
47	N		
49	0.080	0.00	Satisfactory
50	0.160	2.00	Questionable
53	0.040	-1.00	Satisfactory
58	N		
59	P		
60	0.160	2.00	Questionable
61	0.040	-1.00	Satisfactory
62	0.076	-0.10	Satisfactory
64	N		
65	0.150	1.75	Satisfactory

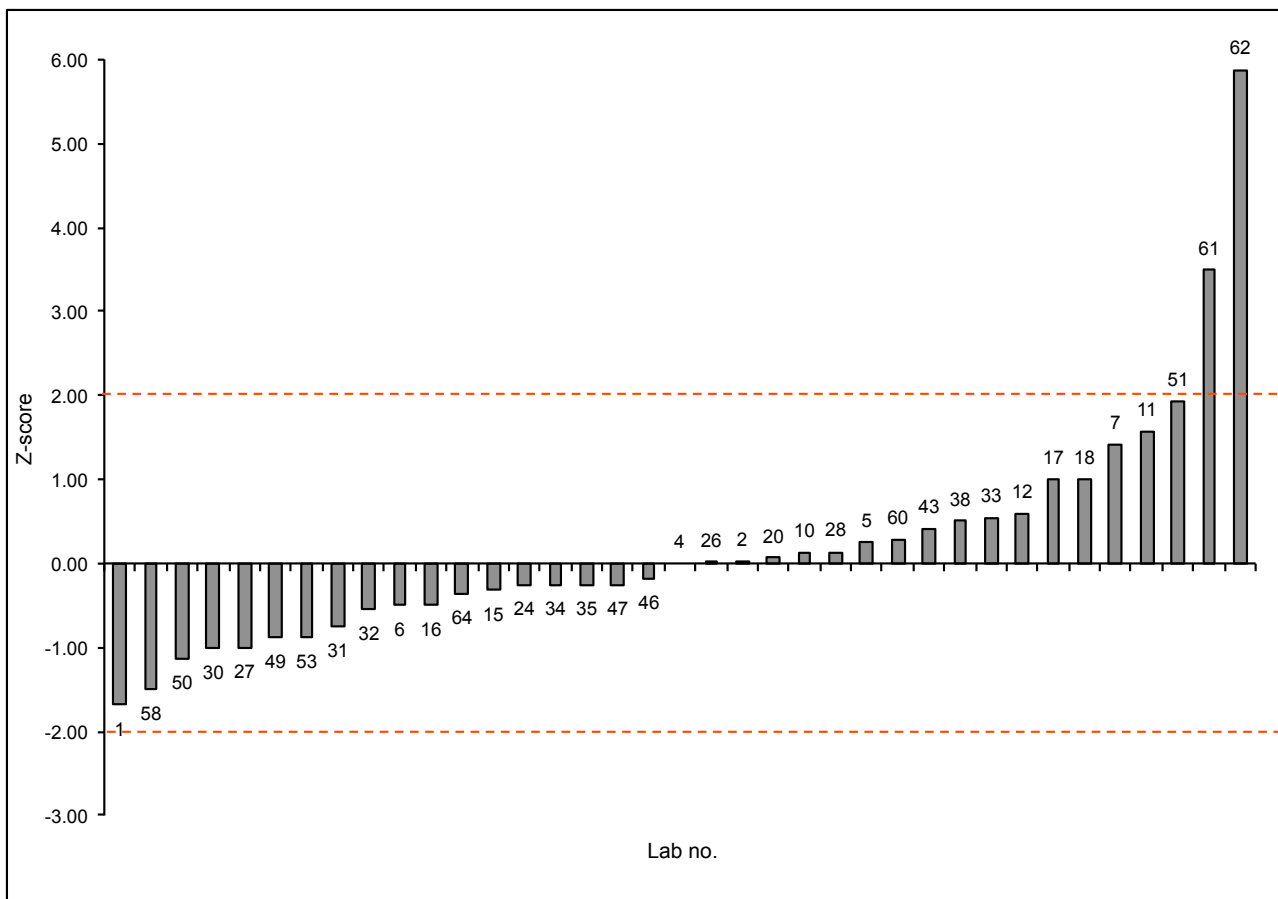
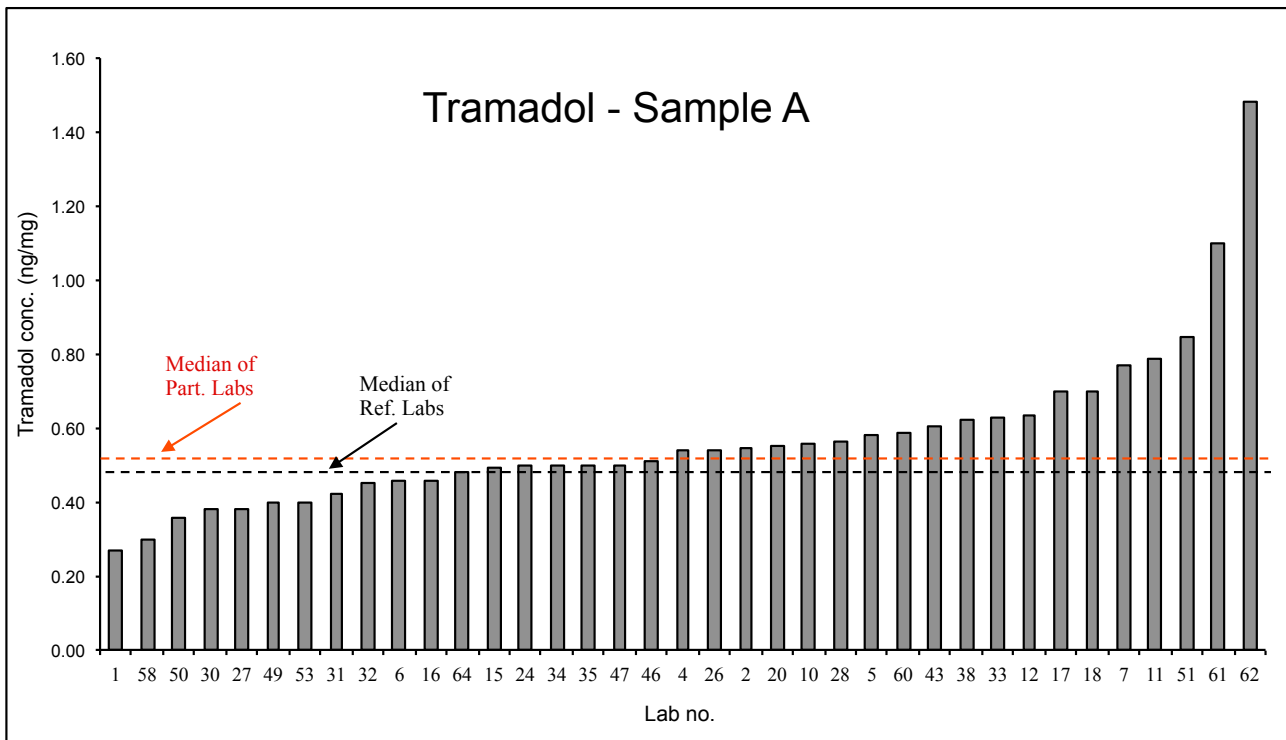
Average	0.087
SD	0.035
CV%	40.677
Median	0.076
Minimum	0.040
Quartile 25	0.060
Quartile 75	0.100
Maximum	0.184
Iqr	0.040



TRAMADOL

Lab	Tramadol (ng/mg)	Z-score	Result
1	0.27	-1.69	Satisfactory
2	0.54	0.03	Satisfactory
4	0.54	0.00	Satisfactory
5	0.58	0.25	Satisfactory
6	0.46	-0.50	Satisfactory
7	0.77	1.42	Satisfactory
10	0.56	0.13	Satisfactory
11	0.79	1.56	Satisfactory
12	0.63	0.59	Satisfactory
15	0.49	-0.31	Satisfactory
16	0.46	-0.50	Satisfactory
17	0.70	1.00	Satisfactory
18	0.70	1.00	Satisfactory
20	0.55	0.06	Satisfactory
21	P		
24	0.50	-0.25	Satisfactory
26	0.54	0.01	Satisfactory
27	0.38	-1.00	Satisfactory
28	0.56	0.14	Satisfactory
30	0.38	-1.01	Satisfactory
31	0.42	-0.75	Satisfactory
32	0.45	-0.55	Satisfactory
33	0.63	0.55	Satisfactory
34	0.50	-0.25	Satisfactory
35	0.50	-0.25	Satisfactory
38	0.62	0.50	Satisfactory
40	P		
43	0.61	0.42	Satisfactory
46	0.51	-0.18	Satisfactory
47	0.50	-0.25	Satisfactory
49	0.40	-0.88	Satisfactory
50	0.36	-1.13	Satisfactory
51	0.85	1.93	Satisfactory
53	0.40	-0.88	Satisfactory
58	0.30	-1.50	Satisfactory
60	0.59	0.28	Satisfactory
61	1.10	3.49	Unsatisfactory
62	1.48	5.88	Unsatisfactory
64	0.48	-0.36	Satisfactory

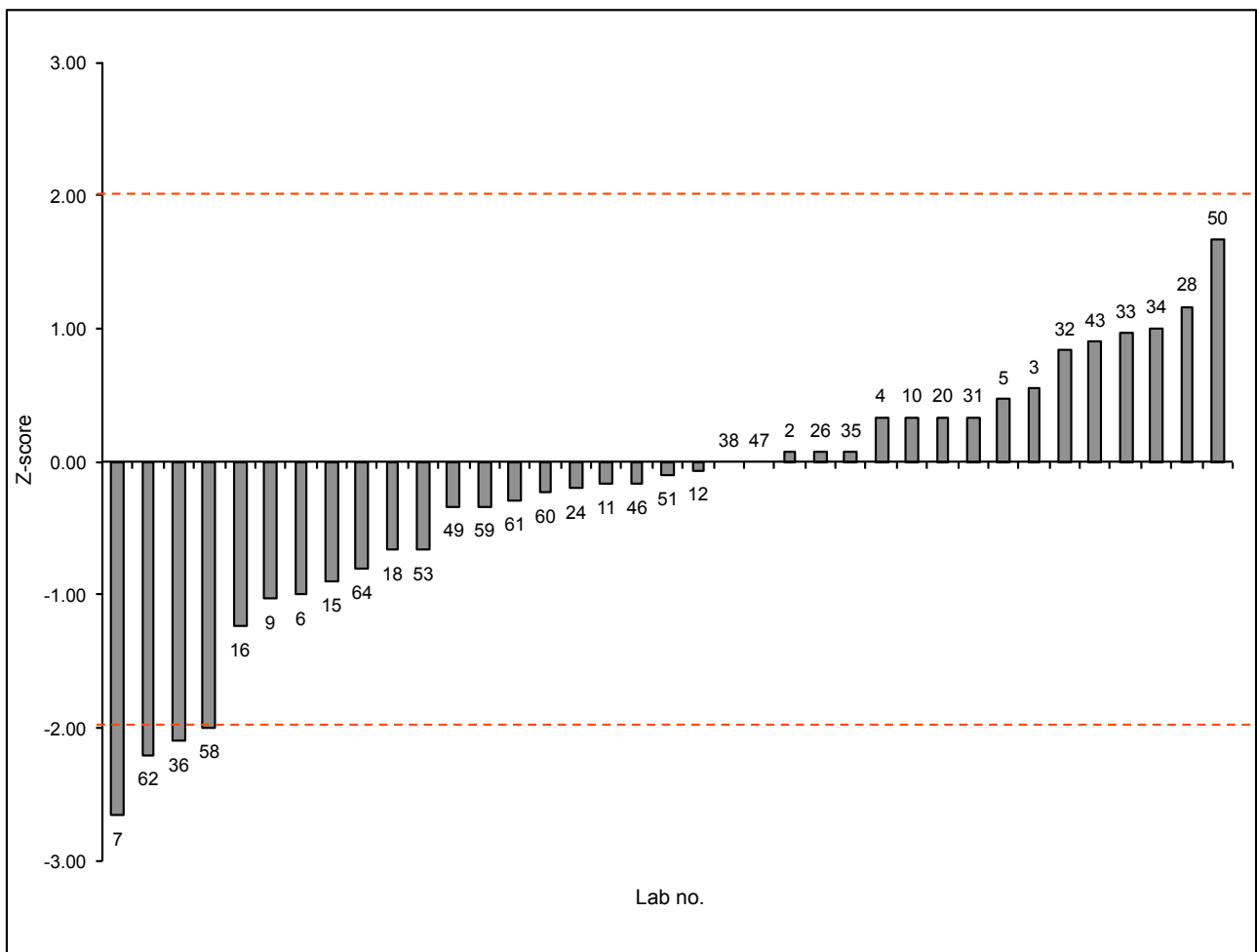
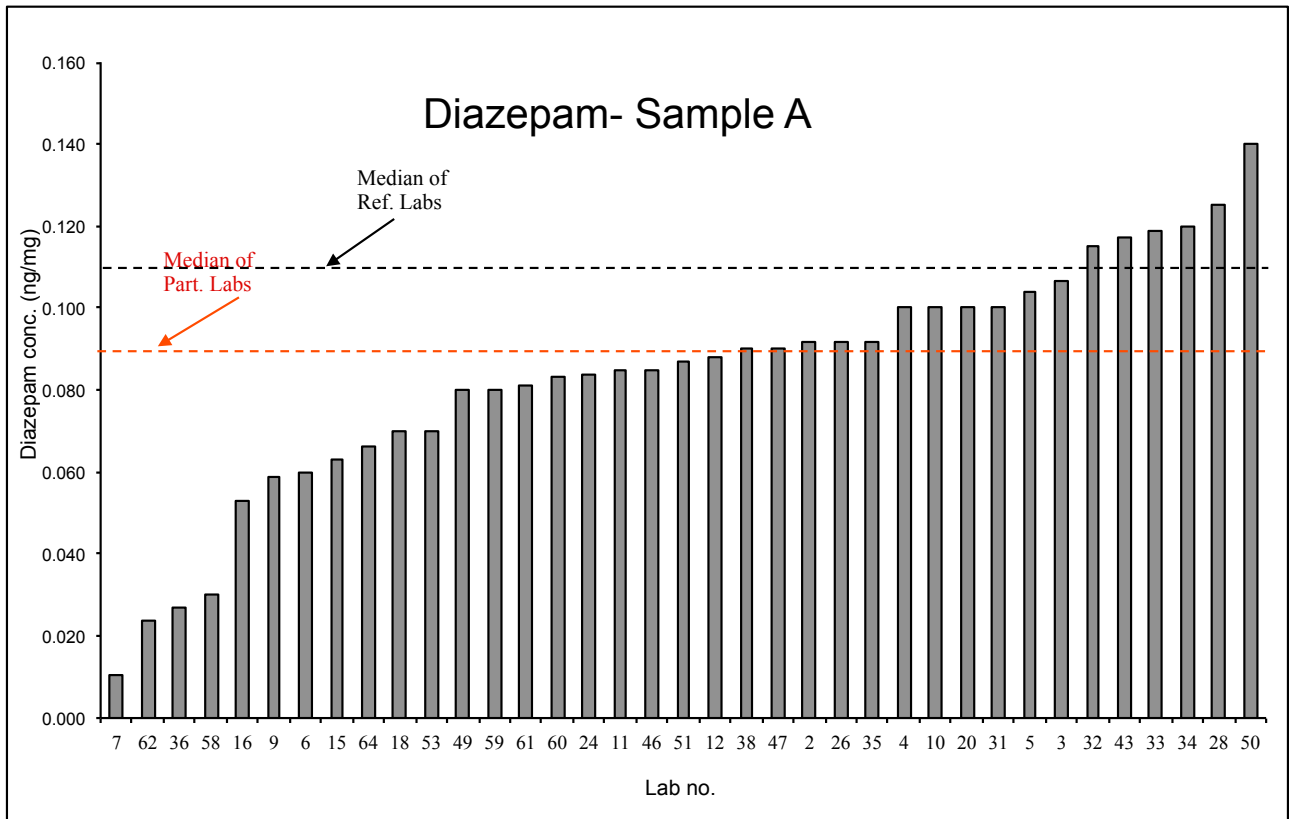
Average	0.57
SD	0.22
CV%	38.19
Median	0.54
Minimum	0.27
Quartile 25	0.46
Quartile 75	0.62
Maximum	1.48
Iqr	0.16



DIAZEPAM

Lab	Diazepam (ng/mg)	Z-score	Result
2	0.092	0.07	Satisfactory
3	0.106	0.55	Satisfactory
4	0.100	0.33	Satisfactory
5	0.104	0.47	Satisfactory
6	0.060	-1.00	Satisfactory
7	0.010	-2.65	Questionable
8	N		
9	0.059	-1.03	Satisfactory
10	0.100	0.33	Satisfactory
11	0.085	-0.17	Satisfactory
12	0.088	-0.07	Satisfactory
13	N		
15	0.063	-0.90	Satisfactory
16	0.053	-1.23	Satisfactory
17	N		
18	0.070	-0.67	Satisfactory
20	0.100	0.33	Satisfactory
21	P		
24	0.084	-0.20	Satisfactory
26	0.092	0.07	Satisfactory
28	0.125	1.17	Satisfactory
30	<0.125		
31	0.100	0.33	Satisfactory
32	0.115	0.83	Satisfactory
33	0.119	0.97	Satisfactory
34	0.120	1.00	Satisfactory
35	0.092	0.07	Satisfactory
36	0.027	-2.10	Questionable
37	N		
38	0.090	0.00	Satisfactory
40	N		
43	0.117	0.90	Satisfactory
46	0.085	-0.17	Satisfactory
47	0.090	0.00	Satisfactory
49	0.080	-0.33	Satisfactory
50	0.140	1.67	Satisfactory
51	0.087	-0.10	Satisfactory
53	0.070	-0.67	Satisfactory
58	0.030	-2.00	Questionable
59	0.080	-0.33	Satisfactory
60	0.083	-0.23	Satisfactory
61	0.081	-0.29	Satisfactory
62	0.024	-2.20	Questionable
64	0.066	-0.80	Satisfactory

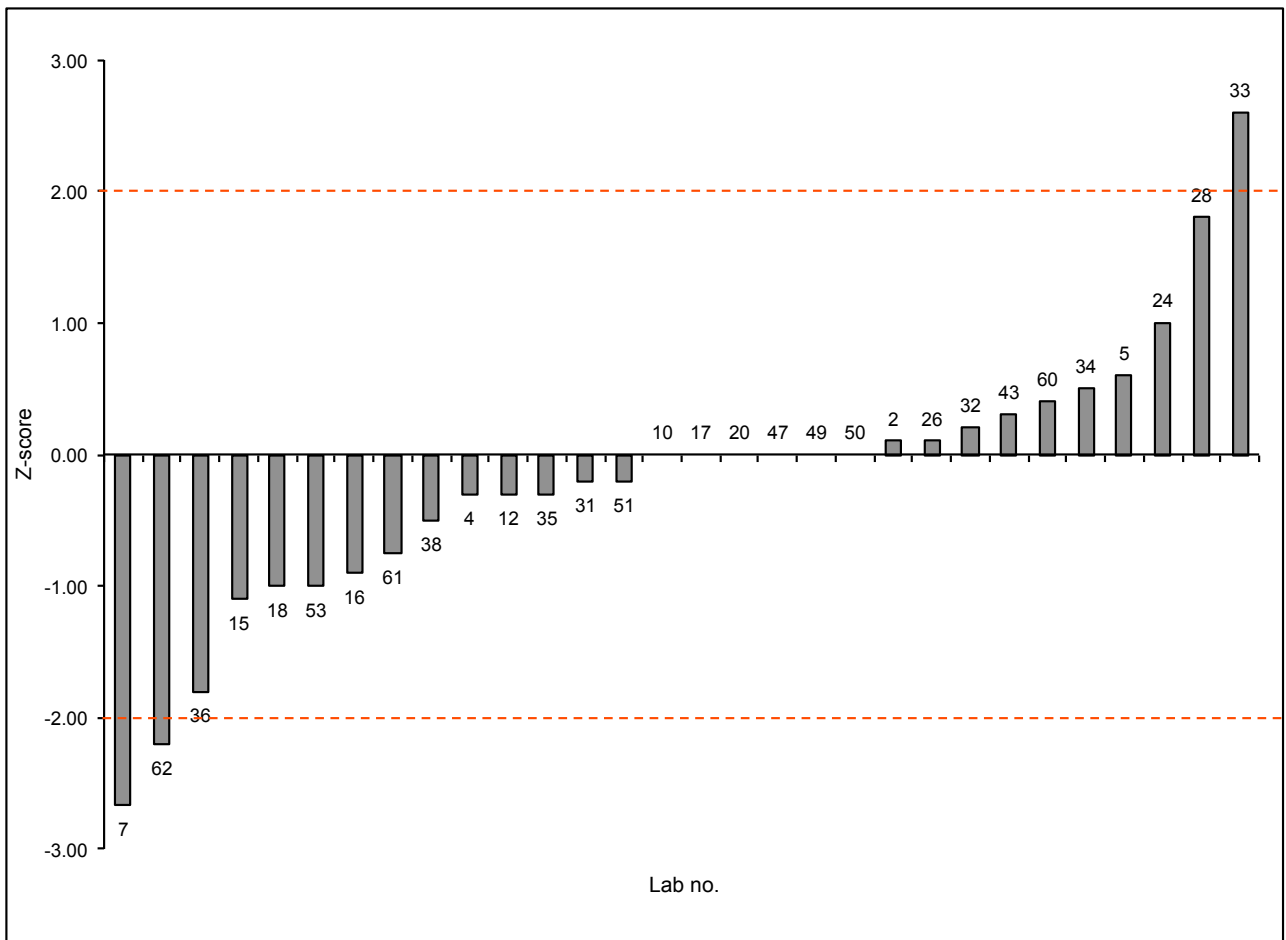
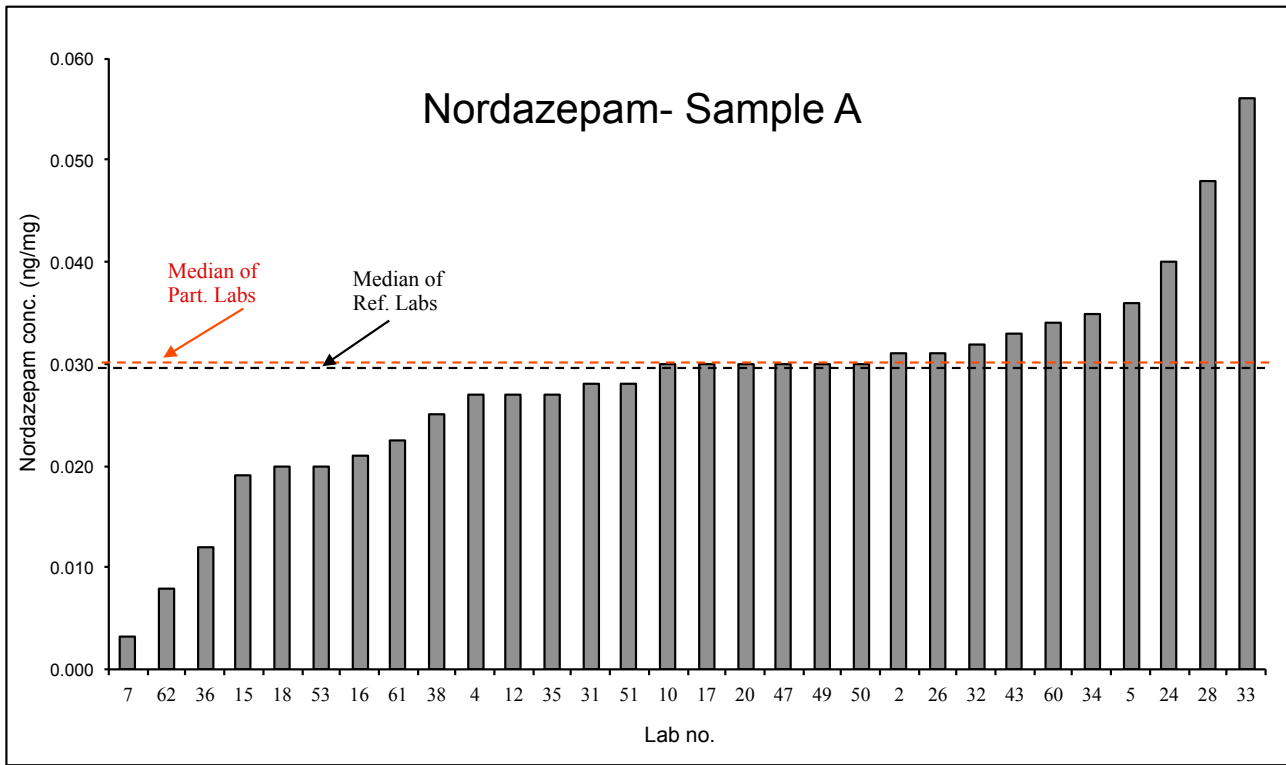
Average	0.083
SD	0.029
CV%	34.194
Median	0.087
Minimum	0.010
Quartile 25	0.070
Quartile 75	0.100
Maximum	0.140
Iqr	0.030



NORDAZEPAM

Lab	Nordazepam (ng/mg)	Z-score	Result
2	0.031	0.10	Satisfactory
3	N		
4	0.027	-0.30	Satisfactory
5	0.036	0.60	Satisfactory
6	N		
7	0.003	-2.67	Questionable
8	N		
9	N		
10	0.030	0.00	Satisfactory
11	<0.05		
12	0.027	-0.30	Satisfactory
13	N		
15	0.019	-1.10	Satisfactory
16	0.021	-0.90	Satisfactory
17	0.030	0.00	Satisfactory
18	0.020	-1.00	Satisfactory
20	0.030	0.00	Satisfactory
21	P		
24	0.040	1.00	Satisfactory
26	0.031	0.10	Satisfactory
28	0.048	1.80	Satisfactory
30	<0.125		
31	0.028	-0.20	Satisfactory
32	0.032	0.20	Satisfactory
33	0.056	2.60	Questionable
34	0.035	0.50	Satisfactory
35	0.027	-0.30	Satisfactory
36	0.012	-1.80	Satisfactory
37	N		
38	0.025	-0.50	Satisfactory
40	N		
43	0.033	0.30	Satisfactory
46	N		
47	0.030	0.00	Satisfactory
49	0.030	0.00	Satisfactory
50	0.030	0.00	Satisfactory
51	0.028	-0.20	Satisfactory
53	0.020	-1.00	Satisfactory
58	N		
59	N		
60	0.034	0.40	Satisfactory
61	0.023	-0.75	Satisfactory
62	0.008	-2.20	Questionable
64	N		

Average	0.028
SD	0.010
CV%	36.292
Median	0.030
Minimum	0.003
Quartile 25	0.023
Quartile 75	0.032
Maximum	0.056
Iqr	0.009



SAMPLE B

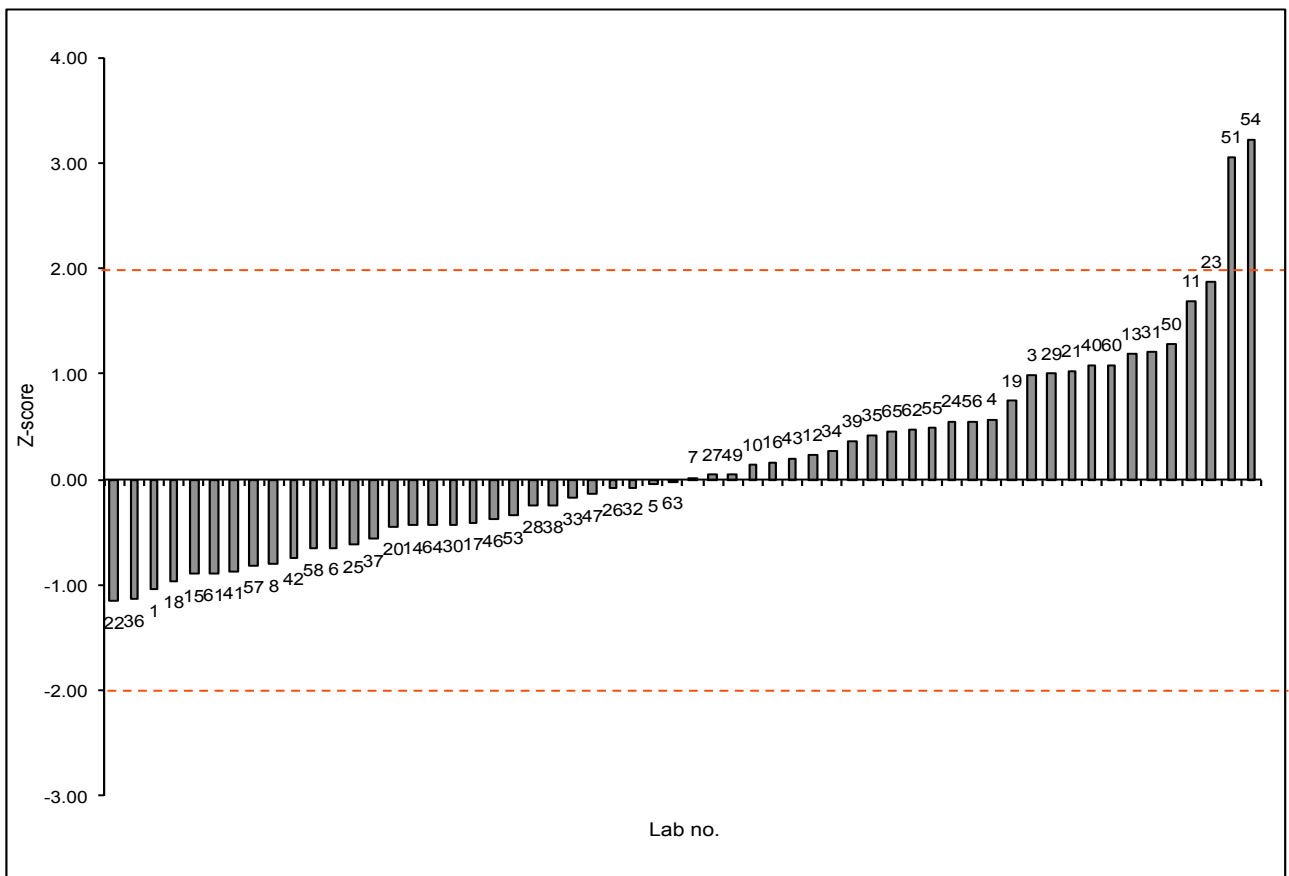
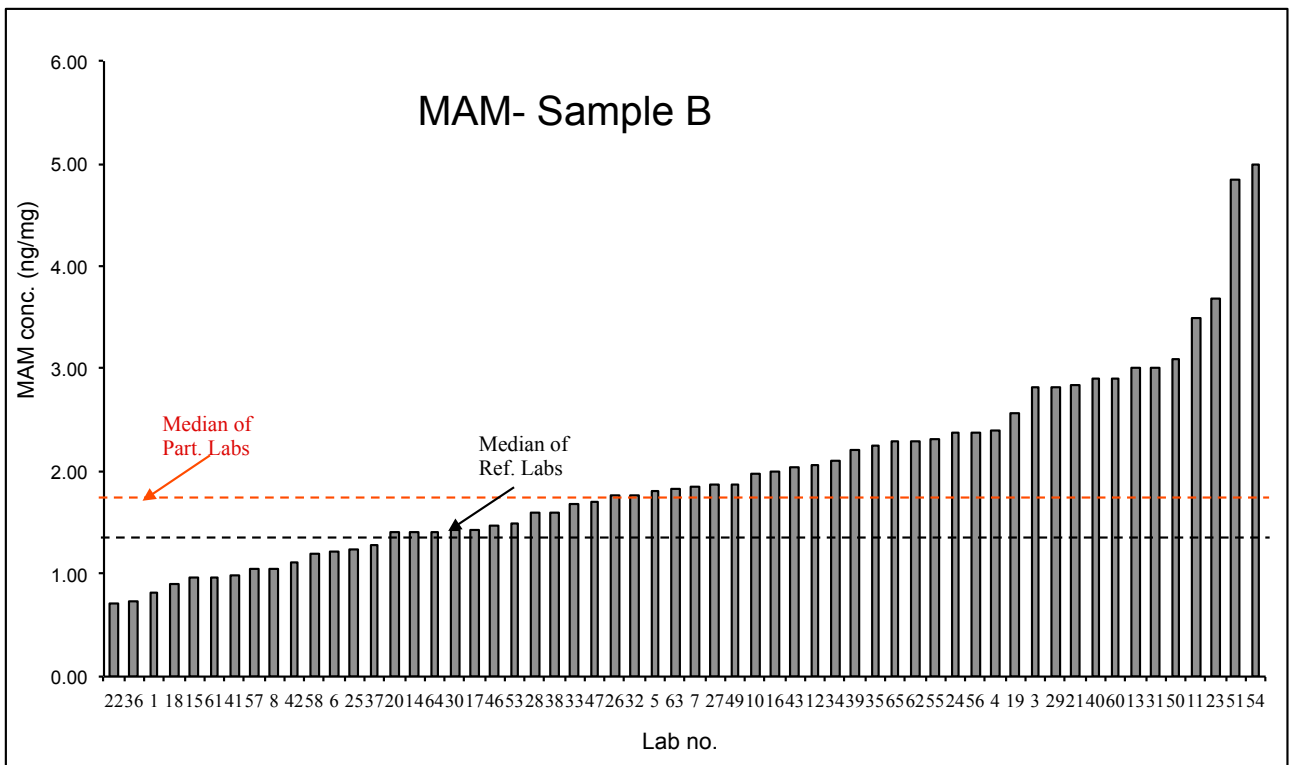
6-MONOACETILMORPHINE (MAM)

Lab	MAM (ng/mg)	Z-score	Result
1	0.82	-1.04	Satisfactory
2	>10.00		
3	2.81	0.99	Satisfactory
4	2.40	0.57	Satisfactory
5	1.80	-0.04	Satisfactory
6	1.21	-0.64	Satisfactory
7	1.86	0.02	Satisfactory
8	1.05	-0.81	Satisfactory
10	1.97	0.13	Satisfactory
11	3.50	1.69	Satisfactory
12	2.06	0.23	Satisfactory
13	3.01	1.19	Satisfactory
14	1.41	-0.44	Satisfactory
15	0.96	-0.90	Satisfactory
16	2.00	0.16	Satisfactory
17	1.44	-0.41	Satisfactory
18	0.90	-0.96	Satisfactory
19	2.57	0.74	Satisfactory
20	1.40	-0.45	Satisfactory
21	2.85	1.03	Satisfactory
22	0.71	-1.15	Satisfactory
23	3.68	1.88	Satisfactory
24	2.38	0.55	Satisfactory
25	1.23	-0.62	Satisfactory
26	1.76	-0.08	Satisfactory
27	1.88	0.04	Satisfactory
28	1.60	-0.25	Satisfactory
29	2.82	1.00	Satisfactory
30	1.42	-0.43	Satisfactory
31	3.02	1.20	Satisfactory
32	1.77	-0.07	Satisfactory
33	1.68	-0.16	Satisfactory
34	2.10	0.27	Satisfactory
35	2.25	0.42	Satisfactory
36	0.73	-1.13	Satisfactory
37	1.28	-0.57	Satisfactory
38	1.60	-0.24	Satisfactory
39	2.20	0.37	Satisfactory
40	2.90	1.08	Satisfactory
41	0.99	-0.87	Satisfactory
42	1.11	-0.74	Satisfactory
43	2.04	0.20	Satisfactory
44	8.70	Outlier*	
46	1.48	-0.37	Satisfactory
47	1.70	-0.14	Satisfactory
49	1.88	0.04	Satisfactory
50	3.10	1.29	Satisfactory
51	4.84	3.06	Unsatisfactory
53	1.50	-0.35	Satisfactory
54	5.00	3.22	Unsatisfactory
55	2.32	0.49	Satisfactory
56	2.38	0.55	Satisfactory

Lab	MAM (ng/mg)	Z-score	Result
57	1.04	-0.82	Satisfactory
58	1.20	-0.65	Satisfactory
59	P		
60	2.90	1.08	Satisfactory
61	0.97	-0.89	Satisfactory
62	2.30	0.47	Satisfactory
63	1.82	-0.02	Satisfactory
64	1.42	-0.43	Satisfactory
65	2.29	0.46	Satisfactory

* Lab 44 was not included in the statistical study

Average	1.99
SD	0.90
CV%	45.38
Median	1.84
Minimum	0.71
Quartile 25	1.40
Quartile 75	2.38
Maximum	5.00
Iqr	0.98



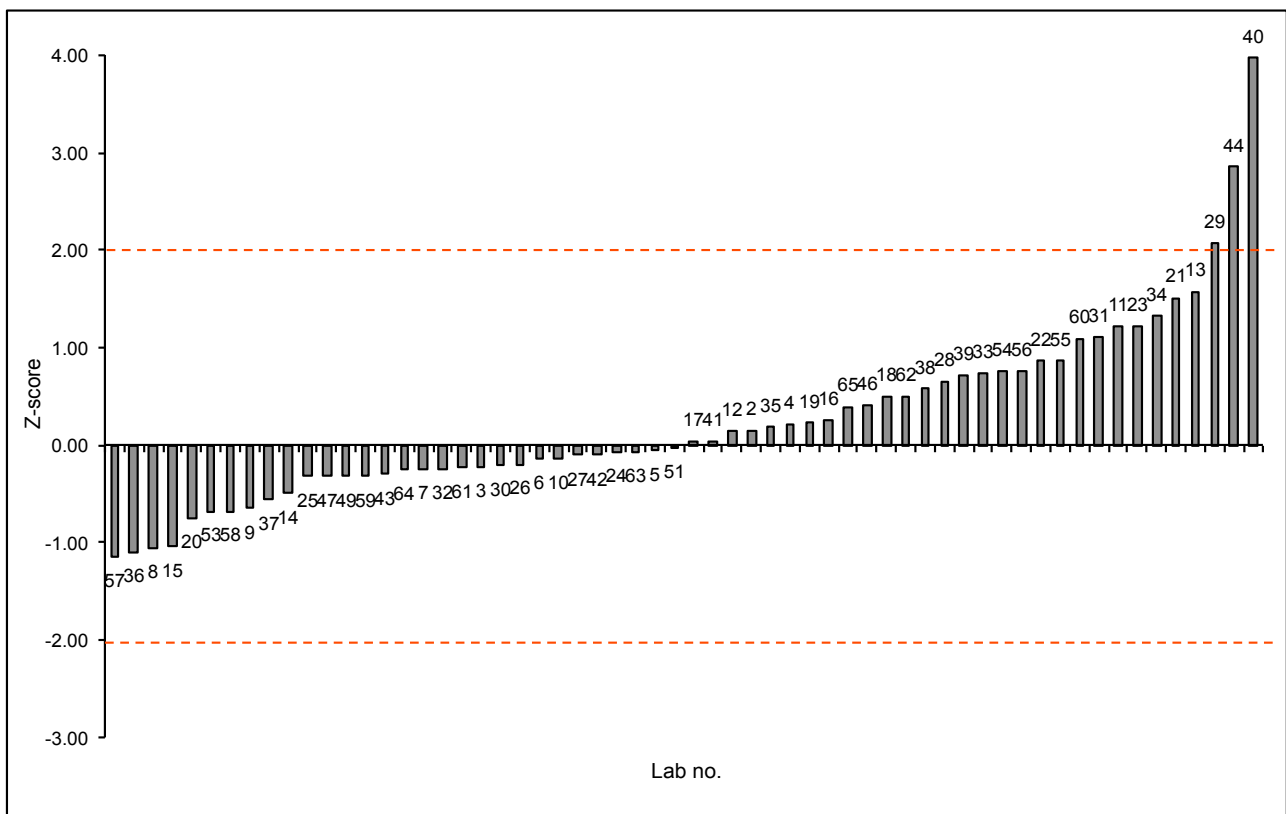
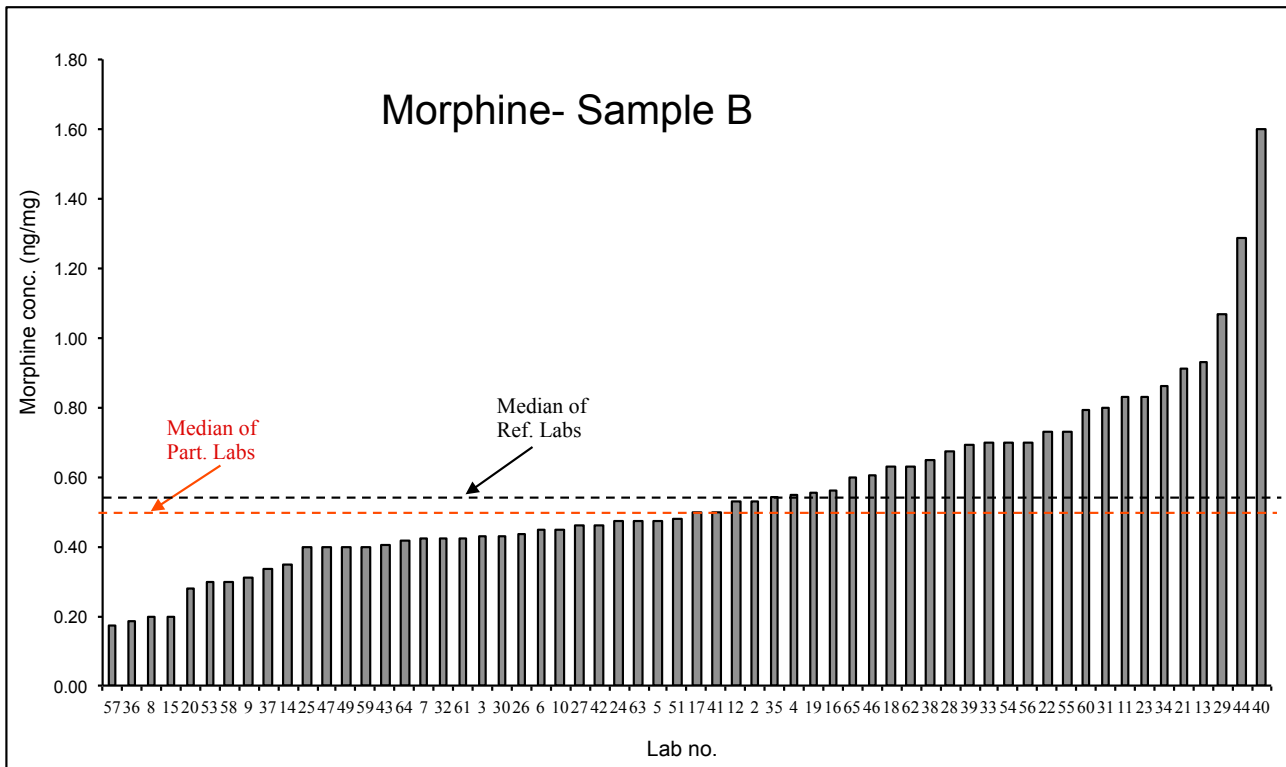
MORPHINE

Lab	Morphine (ng/mg)	Z-score	Result
1	N		
2	0.53	0.15	Satisfactory
3	0.43	-0.22	Satisfactory
4	0.55	0.21	Satisfactory
5	0.47	-0.06	Satisfactory
6	0.45	-0.14	Satisfactory
7	0.42	-0.24	Satisfactory
8	0.20	-1.05	Satisfactory
9	0.31	-0.65	Satisfactory
10	0.45	-0.14	Satisfactory
11	0.83	1.21	Satisfactory
12	0.53	0.14	Satisfactory
13	0.93	1.57	Satisfactory
14	0.35	-0.50	Satisfactory
15	0.20	-1.04	Satisfactory
16	0.56	0.25	Satisfactory
17	0.50	0.04	Satisfactory
18	0.63	0.50	Satisfactory
19	0.55	0.23	Satisfactory
20	0.28	-0.75	Satisfactory
21	0.91	1.51	Satisfactory
22	0.73	0.86	Satisfactory
23	0.83	1.22	Satisfactory
24	0.47	-0.07	Satisfactory
25	0.40	-0.32	Satisfactory
26	0.44	-0.20	Satisfactory
27	0.46	-0.11	Satisfactory
28	0.67	0.65	Satisfactory
29	1.07	2.07	Questionable
30	0.43	-0.21	Satisfactory
31	0.80	1.11	Satisfactory
32	0.42	-0.24	Satisfactory
33	0.70	0.74	Satisfactory
34	0.86	1.32	Satisfactory
35	0.54	0.18	Satisfactory
36	0.18	-1.09	Satisfactory
37	0.33	-0.56	Satisfactory
38	0.65	0.57	Satisfactory
39	0.69	0.71	Satisfactory
40	1.60	3.96	Unsatisfactory
41	0.50	0.04	Satisfactory
42	0.46	-0.11	Satisfactory
43	0.41	-0.30	Satisfactory
44	1.29	2.85	Questionable
46	0.60	0.41	Satisfactory
47	0.40	-0.32	Satisfactory
49	0.40	-0.32	Satisfactory
50	3.00	Outlier*	
51	0.48	-0.03	Satisfactory
53	0.30	-0.68	Satisfactory
54	0.70	0.75	Satisfactory
55	0.73	0.86	Satisfactory

Lab	Morphine (ng/mg)	Z-score	Result
56	0.70	0.75	Satisfactory
57	0.17	-1.14	Satisfactory
58	0.30	-0.68	Satisfactory
59	0.40	-0.32	Satisfactory
60	0.80	1.09	Satisfactory
61	0.43	-0.23	Satisfactory
62	0.63	0.50	Satisfactory
63	0.47	-0.07	Satisfactory
64	0.42	-0.25	Satisfactory
65	0.60	0.39	Satisfactory

* Lab 50 was not included in the statistical study

Average	0.56
SD	0.26
CV%	45.70
Median	0.49
Minimum	0.17
Quartile 25	0.42
Quartile 75	0.69
Maximum	1.60
Iqr	0.28



CODEINE

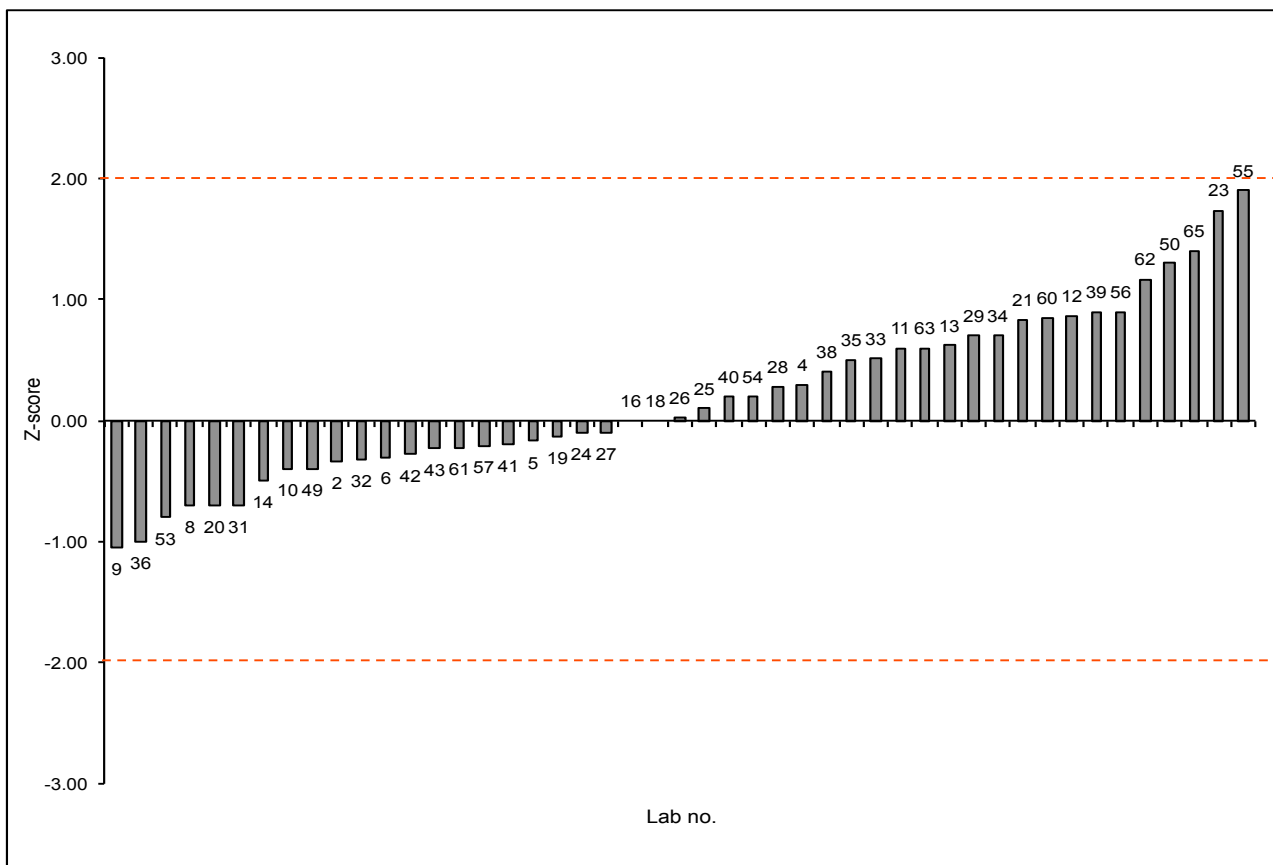
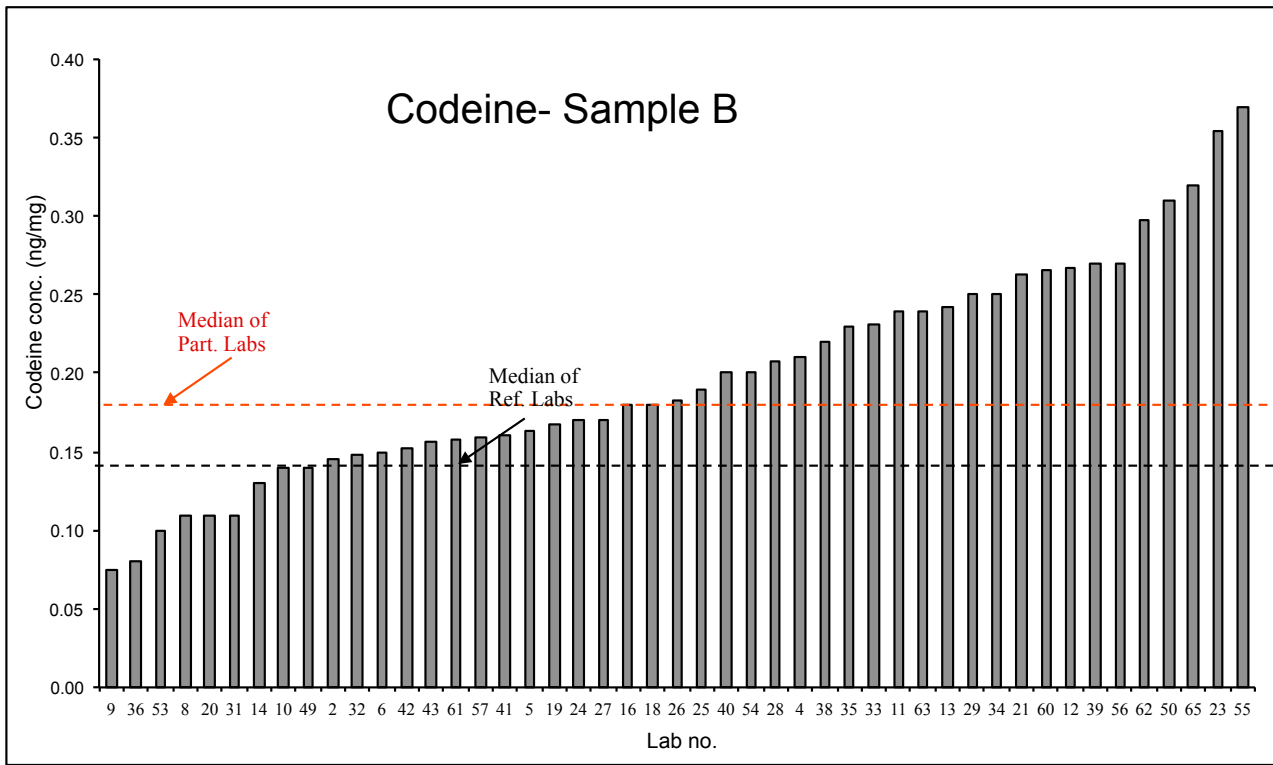
Lab	Codeine (ng/mg)	Z-score	Result
1	N		
2	0.15	-0.34	Satisfactory
3	N		
4	0.21	0.30	Satisfactory
5	0.16	-0.17	Satisfactory
6	0.15	-0.30	Satisfactory
7	N		
8	0.11	-0.70	Satisfactory
9	0.08	-1.05	Satisfactory
10	0.14	-0.40	Satisfactory
11	0.24	0.60	Satisfactory
12	0.27	0.87	Satisfactory
13	0.24	0.62	Satisfactory
14	0.13	-0.50	Satisfactory
15	N		
16	0.18	0.00	Satisfactory
17	N		
18	0.18	0.00	Satisfactory
19	0.17	-0.13	Satisfactory
20	0.11	-0.70	Satisfactory
21	0.26	0.83	Satisfactory
22	N		
23	0.35	1.74	Satisfactory
24	0.17	-0.10	Satisfactory
25	0.19	0.10	Satisfactory
26	0.18	0.02	Satisfactory
27	0.17	-0.10	Satisfactory
28	0.21	0.28	Satisfactory
29	0.25	0.70	Satisfactory
30	<0.2		
31	0.11	-0.70	Satisfactory
32	0.15	-0.32	Satisfactory
33	0.23	0.51	Satisfactory
34	0.25	0.70	Satisfactory
35	0.23	0.50	Satisfactory
36	0.08	-1.00	Satisfactory
37	N		
38	0.22	0.40	Satisfactory
39	0.27	0.90	Satisfactory
40	0.20	0.20	Satisfactory
41	0.16	-0.20	Satisfactory
42	0.15	-0.28	Satisfactory
43	0.16	-0.23	Satisfactory
44	1.69	Outlier*	
46	N		
47	N		
49	0.14	-0.40	Satisfactory
50	0.31	1.30	Satisfactory
51	N		
53	0.10	-0.80	Satisfactory
54	0.20	0.20	Satisfactory
55	0.37	1.90	Satisfactory

Lab	Codeine (ng/mg)	Z-score	Result
56	0.27	0.90	Satisfactory
57	0.16	-0.21	Satisfactory
58	N		
59	N		
60	0.27	0.85	Satisfactory
61	0.16	-0.22	Satisfactory
62	0.30	1.17	Satisfactory
63	0.24	0.60	Satisfactory
64	N		
65	0.32	1.40	Satisfactory

* Lab 44 has not been included in the statistical study

Average	0.20
SD	0.07
CV%	34.65
Median	0.18
Minimum	0.08
Quartile 25	0.15
Quartile 75	0.25
Maximum	0.37
Iqr	0.10

Codeine median concentration is below the cut-off proposed by SoHT (0.2 ng/mg).



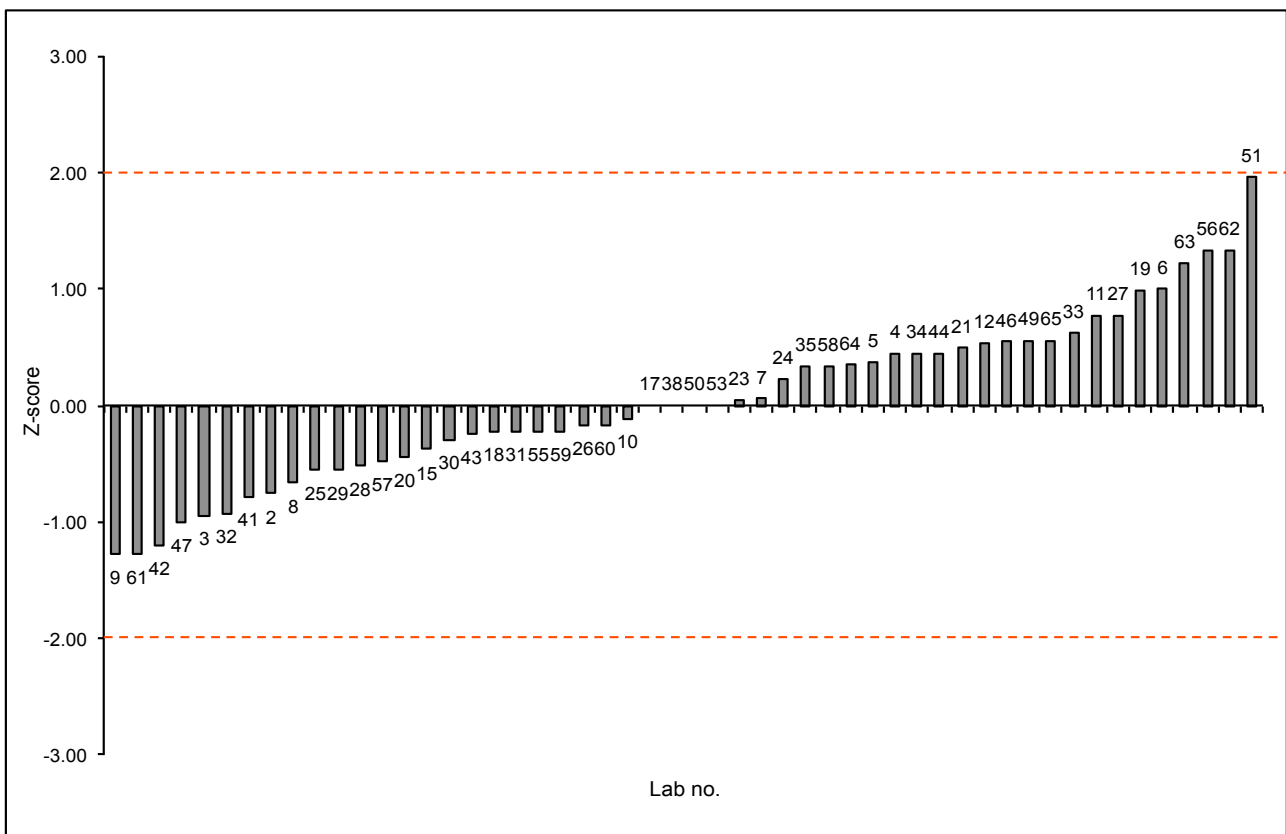
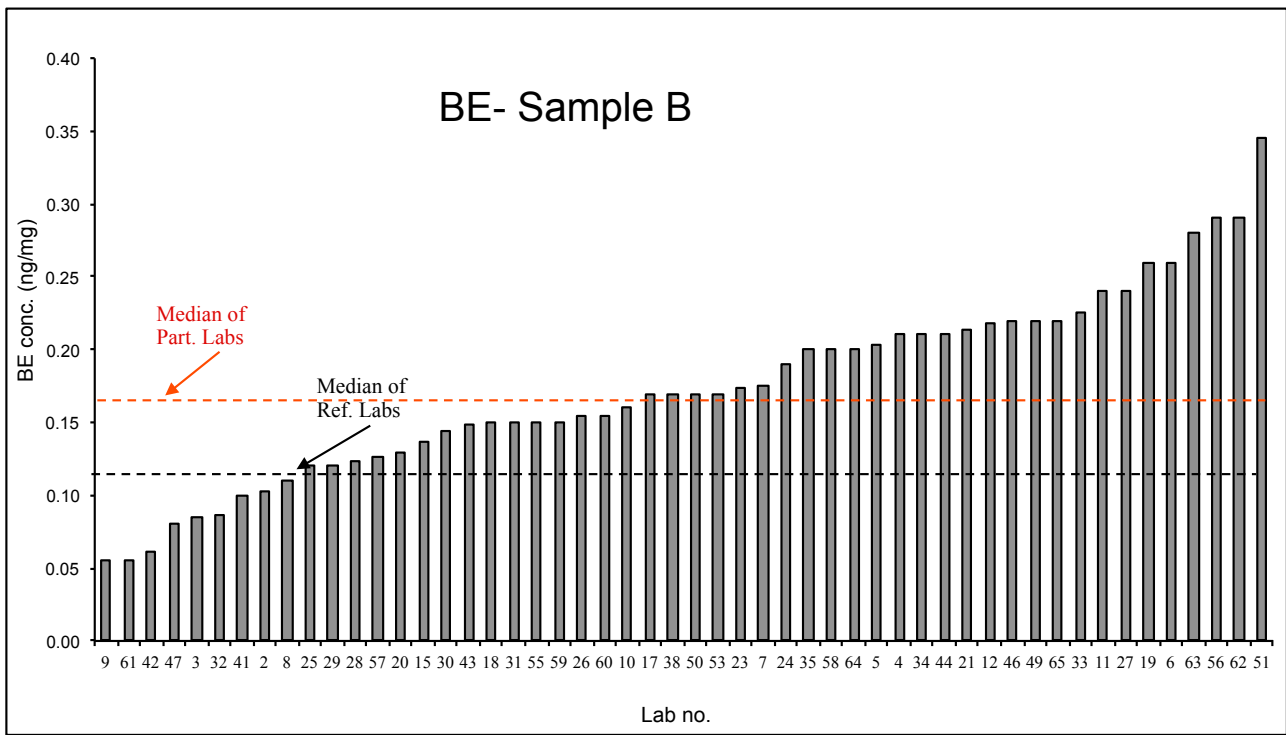
BENZOYLECGONINE (BE)

Lab	BE (ng/mg)	Z-score	Result
2	0.10	-0.76	Satisfactory
3	0.09	-0.94	Satisfactory
4	0.21	0.44	Satisfactory
5	0.20	0.37	Satisfactory
6	0.26	1.00	Satisfactory
7	0.18	0.06	Satisfactory
8	0.11	-0.67	Satisfactory
9	0.06	-1.28	Satisfactory
10	0.16	-0.11	Satisfactory
11	0.24	0.78	Satisfactory
12	0.22	0.53	Satisfactory
13	N		
15	0.14	-0.38	Satisfactory
16	N		
17	0.17	0.00	Satisfactory
18	0.15	-0.22	Satisfactory
19	0.26	0.99	Satisfactory
20	0.13	-0.44	Satisfactory
21	0.21	0.49	Satisfactory
23	0.17	0.04	Satisfactory
24	0.19	0.22	Satisfactory
25	0.12	-0.56	Satisfactory
26	0.16	-0.17	Satisfactory
27	0.24	0.78	Satisfactory
28	0.12	-0.52	Satisfactory
29	0.12	-0.56	Satisfactory
30	0.14	-0.29	Satisfactory
31	0.15	-0.22	Satisfactory
32	0.09	-0.92	Satisfactory
33	0.23	0.62	Satisfactory
34	0.21	0.44	Satisfactory
35	0.20	0.33	Satisfactory
36	N		
37	N		
38	0.17	0.00	Satisfactory
39	N		
40	N		
41	0.10	-0.78	Satisfactory
42	0.06	-1.20	Satisfactory
43	0.15	-0.24	Satisfactory
44	0.21	0.44	Satisfactory
46	0.22	0.54	Satisfactory
47	0.08	-1.00	Satisfactory
49	0.22	0.56	Satisfactory
50	0.17	0.00	Satisfactory
51	0.35	1.96	Satisfactory
53	0.17	0.00	Satisfactory
54	3.09	Outlier*	
55	0.15	-0.22	Satisfactory
56	0.29	1.33	Satisfactory
57	0.13	-0.48	Satisfactory
58	0.20	0.33	Satisfactory

Lab	BE (ng/mg)	Z-score	Result
59	0.15	-0.22	Satisfactory
60	0.16	-0.17	Satisfactory
61	0.06	-1.28	Satisfactory
62	0.29	1.33	Satisfactory
63	0.28	1.22	Satisfactory
64	0.20	0.34	Satisfactory
65	0.22	0.56	Satisfactory

*Lab 54 has not been included in the statistical study

Average	0.17
SD	0.06
CV%	36.55
Median	0.17
Minimum	0.06
Quartile 25	0.13
Quartile 75	0.22
Maximum	0.35
Iqr	0.09

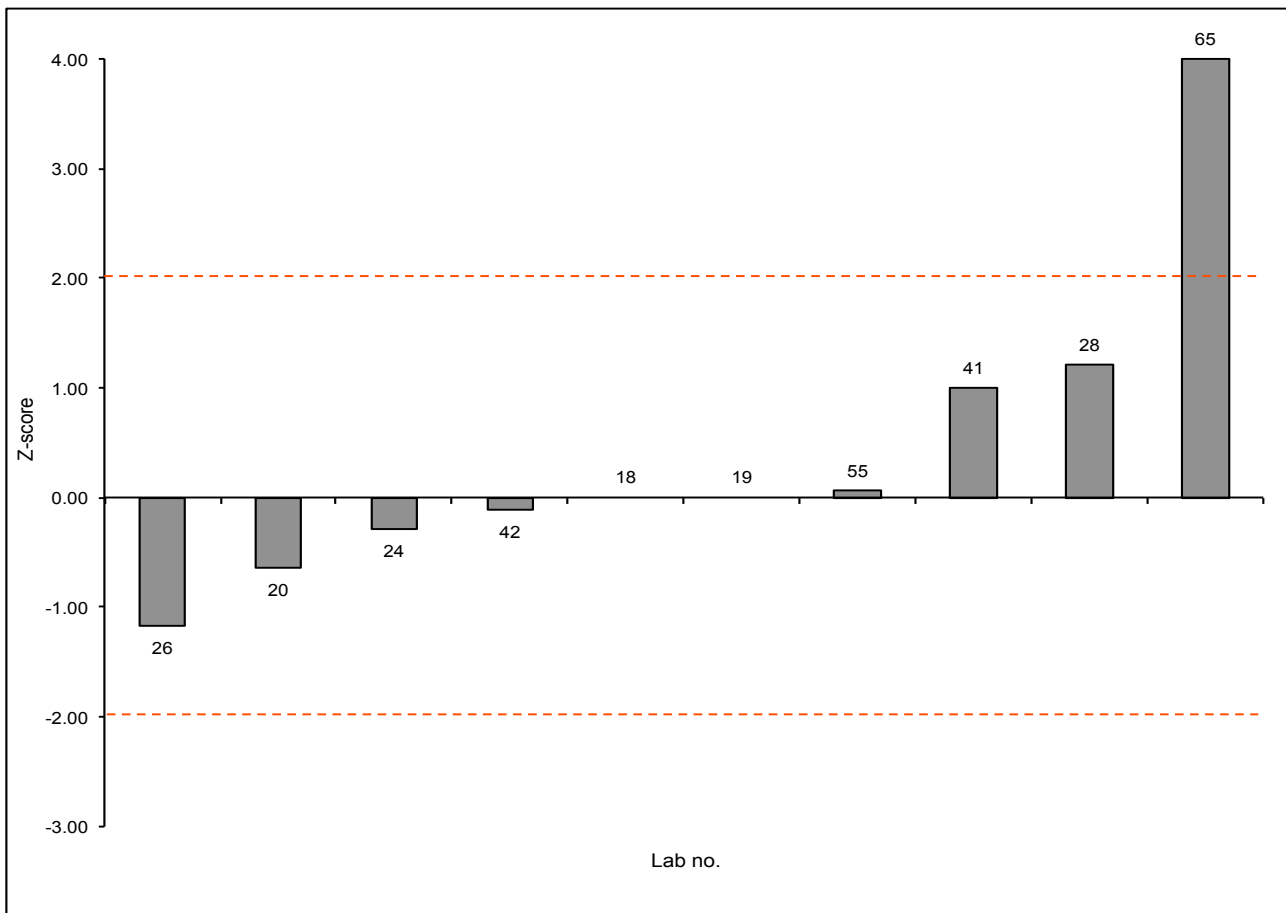
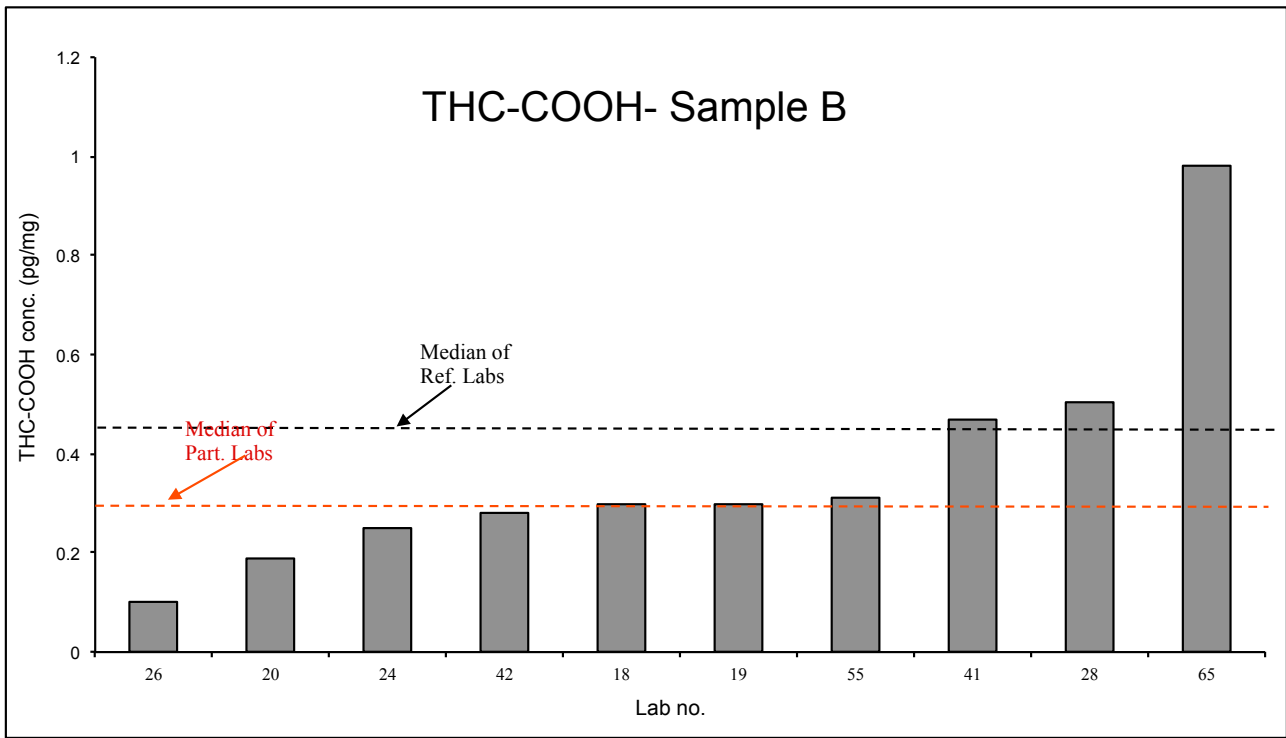


11-nor- Δ^9 -TETRAHYDROCANNABINOL-9-CARBOXYLIC ACID (THC-COOH)

Lab	THC-COOH (pg/mg)	Z-score	Result
6	N		
11	<2.00		
13	N		
18	0.30	0.00	Satisfactory
19	0.30	0.00	Satisfactory
20	0.19	-0.65	Satisfactory
21	N		
23	N		
24	0.25	-0.29	Satisfactory
26	0.1	-1.18	Satisfactory
28	0.51	1.21	Satisfactory
31	N		
35	N		
37	N		
41	0.47	1.00	Satisfactory
42	0.28	-0.12	Satisfactory
44	2.07	Outlier*	
47	N		
53	N		
54	N		
55	0.31	0.06	Satisfactory
63	N		
65	0.98	4.00	Unsatisfactory

Average	0.37
SD	0.23
CV%	63.15
Median	0.30
Minimum	0.10
Quartile 25	0.26
Quartile 75	0.43
Maximum	0.98
Iqr	0.17

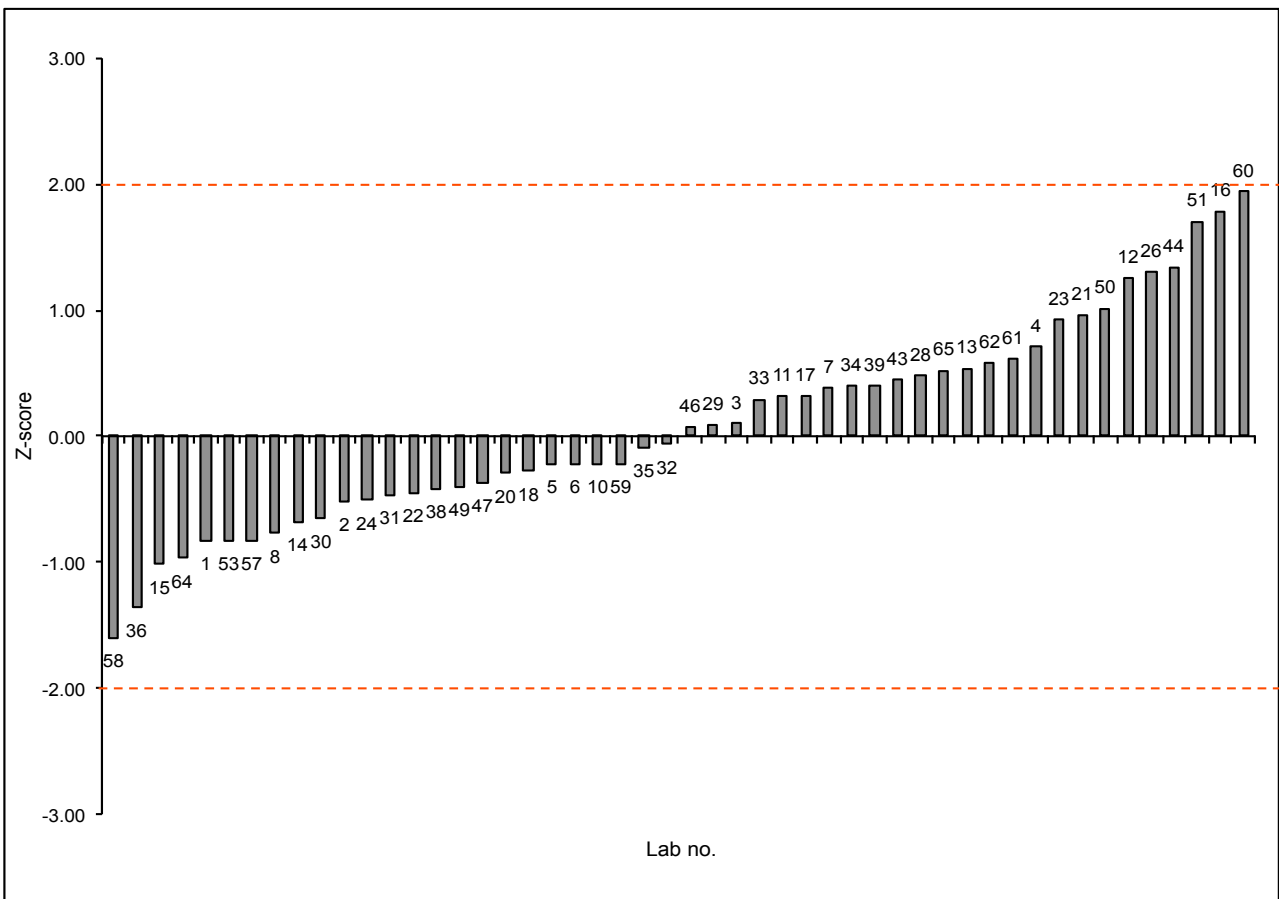
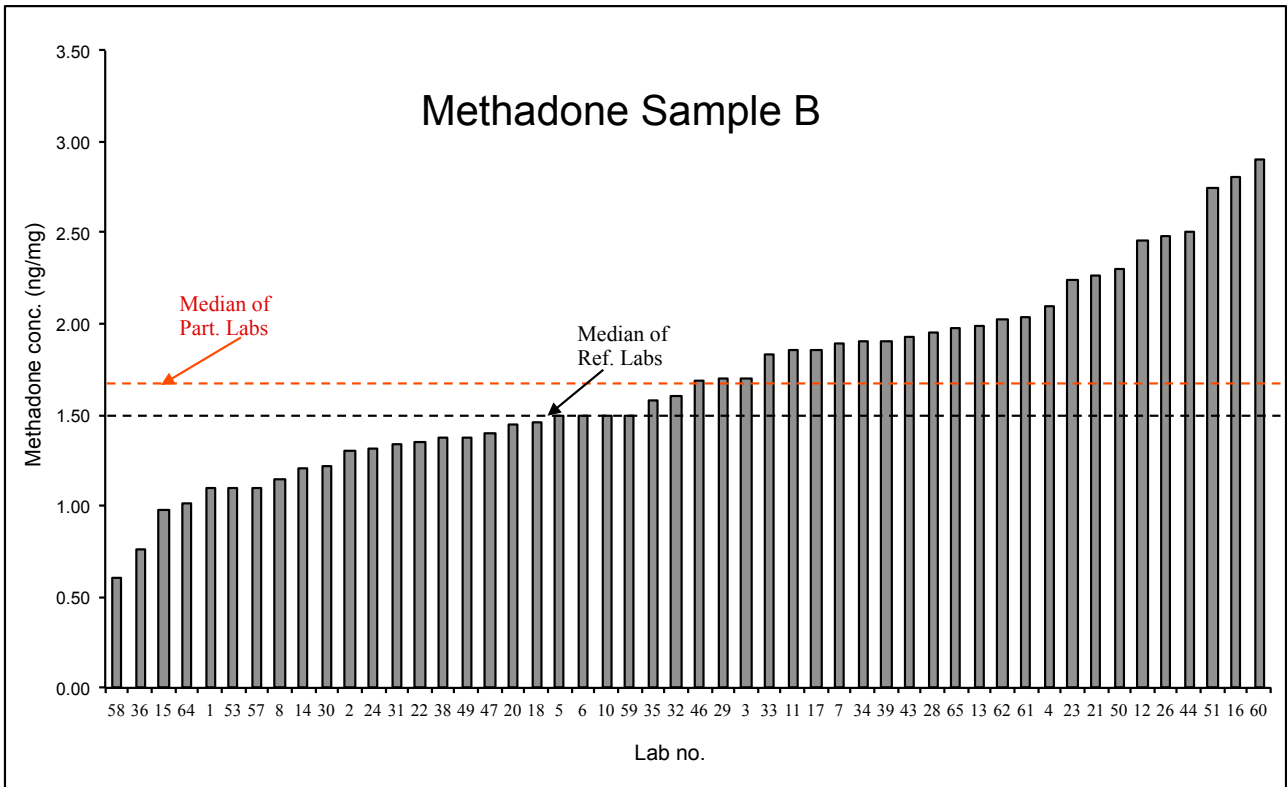
* Lab 44 has not been included in the statistical study



METHADONE

Lab	Methadone (ng/mg)	Z-score	Result
1	1.10	-0.83	Satisfactory
2	1.30	-0.52	Satisfactory
3	1.70	0.10	Satisfactory
4	2.10	0.71	Satisfactory
5	1.50	-0.22	Satisfactory
6	1.50	-0.22	Satisfactory
7	1.89	0.38	Satisfactory
8	1.14	-0.77	Satisfactory
10	1.50	-0.22	Satisfactory
11	1.85	0.32	Satisfactory
12	2.46	1.25	Satisfactory
13	1.99	0.54	Satisfactory
14	1.20	-0.68	Satisfactory
15	0.98	-1.02	Satisfactory
16	2.80	1.78	Satisfactory
17	1.85	0.32	Satisfactory
18	1.46	-0.28	Satisfactory
20	1.45	-0.29	Satisfactory
21	2.27	0.97	Satisfactory
22	1.35	-0.45	Satisfactory
23	2.24	0.92	Satisfactory
24	1.31	-0.51	Satisfactory
26	2.49	1.30	Satisfactory
28	1.95	0.48	Satisfactory
29	1.70	0.09	Satisfactory
30	1.22	-0.65	Satisfactory
31	1.34	-0.46	Satisfactory
32	1.60	-0.06	Satisfactory
33	1.83	0.29	Satisfactory
34	1.90	0.40	Satisfactory
35	1.58	-0.09	Satisfactory
36	0.76	-1.36	Satisfactory
38	1.37	-0.42	Satisfactory
39	1.90	0.40	Satisfactory
40	P		
43	1.93	0.45	Satisfactory
44	2.51	1.34	Satisfactory
46	1.69	0.07	Satisfactory
47	1.40	-0.37	Satisfactory
49	1.38	-0.40	Satisfactory
50	2.30	1.02	Satisfactory
51	2.75	1.70	Satisfactory
53	1.10	-0.83	Satisfactory
57	1.10	-0.83	Satisfactory
58	0.60	-1.60	Satisfactory
59	1.50	-0.22	Satisfactory
60	2.90	1.94	Satisfactory
61	2.04	0.62	Satisfactory
62	2.02	0.58	Satisfactory
64	1.01	-0.97	Satisfactory
65	1.98	0.52	Satisfactory

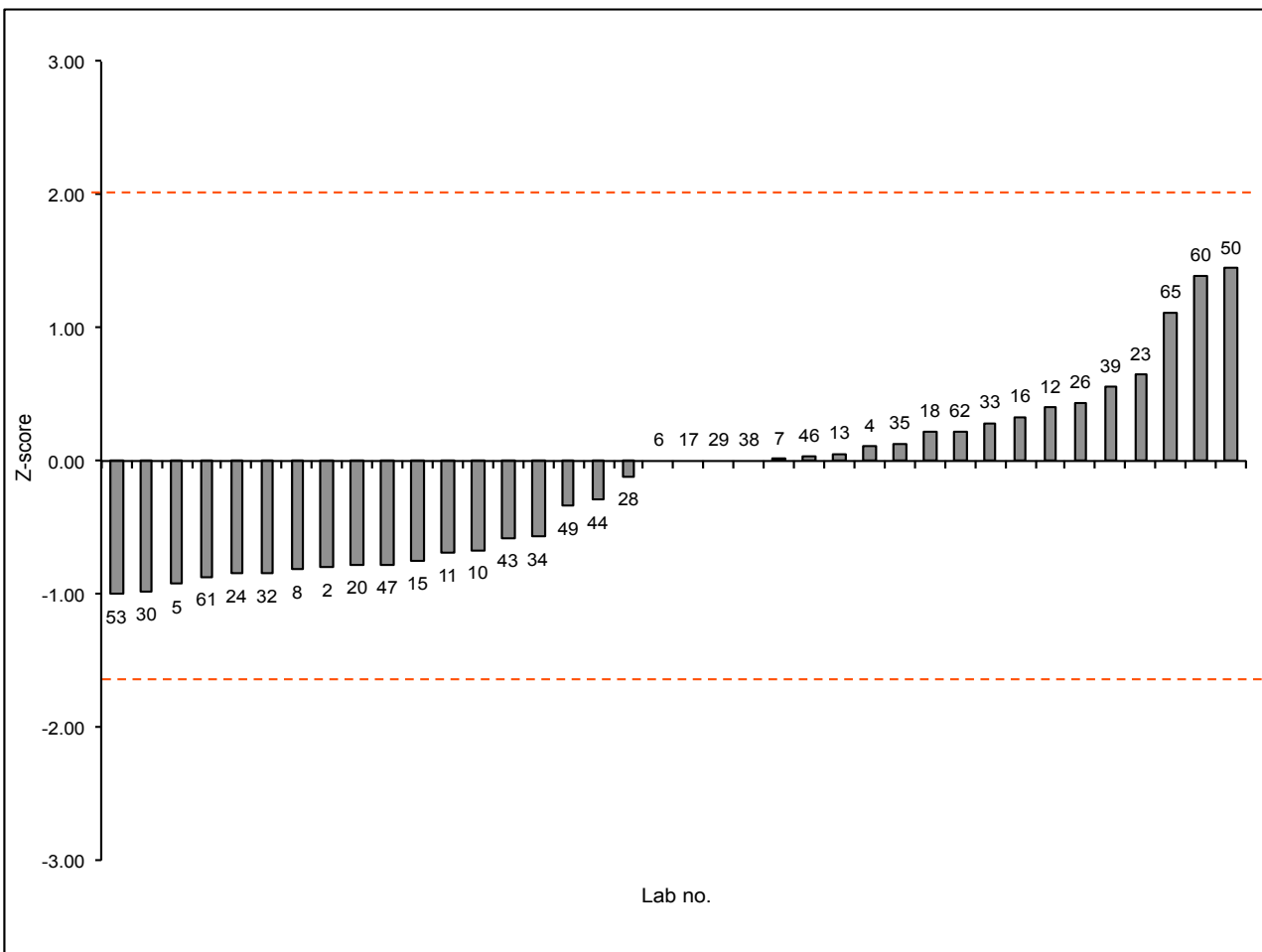
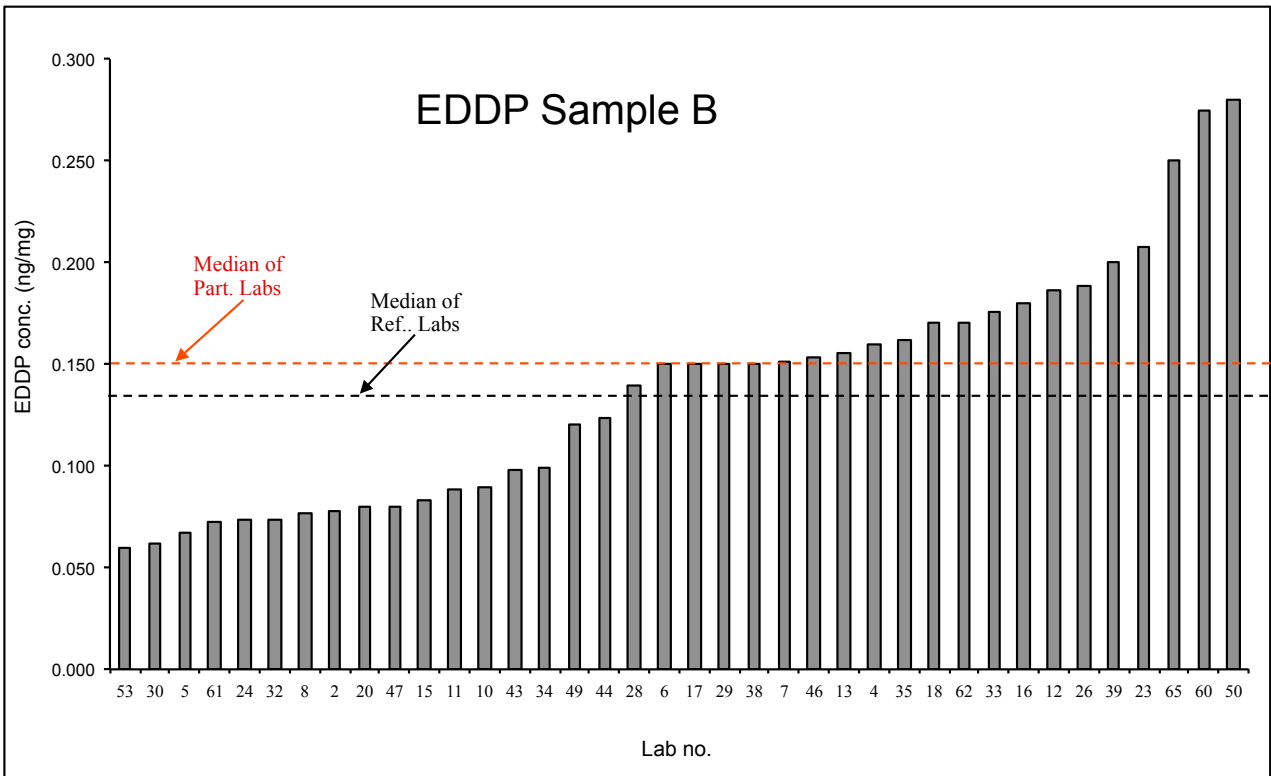
Average	1.70
SD	0.52
CV%	30.69
Median	1.64
Minimum	0.60
Quartile 25	1.34
Quartile 75	1.99
Maximum	2.90
Iqr	0.65



EDDP

Lab	EDDP (ng/mg)	Z-score	Result
1	N		
2	0.078	-0.80	Satisfactory
3	P		
4	0.160	0.11	Satisfactory
5	0.067	-0.92	Satisfactory
6	0.150	0.00	Satisfactory
7	0.151	0.01	Satisfactory
8	0.077	-0.81	Satisfactory
9	U		
10	0.090	-0.67	Satisfactory
11	0.088	-0.69	Satisfactory
12	0.186	0.40	Satisfactory
13	0.155	0.06	Satisfactory
15	0.083	-0.74	Satisfactory
16	0.180	0.33	Satisfactory
17	0.150	0.00	Satisfactory
18	0.170	0.22	Satisfactory
20	0.080	-0.78	Satisfactory
21	P		
23	0.208	0.64	Satisfactory
24	0.074	-0.84	Satisfactory
26	0.189	0.43	Satisfactory
28	0.140	-0.11	Satisfactory
29	0.150	0.00	Satisfactory
30	0.062	-0.98	Satisfactory
31	N		
32	0.074	-0.84	Satisfactory
33	0.176	0.29	Satisfactory
34	0.099	-0.57	Satisfactory
35	0.162	0.13	Satisfactory
38	0.150	0.00	Satisfactory
39	0.200	0.56	Satisfactory
43	0.098	-0.58	Satisfactory
44	0.124	-0.29	Satisfactory
46	0.153	0.03	Satisfactory
47	0.080	-0.78	Satisfactory
49	0.120	-0.33	Satisfactory
50	0.280	1.44	Satisfactory
53	0.060	-1.00	Satisfactory
58	N		
59	P		
60	0.275	1.39	Satisfactory
61	0.072	-0.87	Satisfactory
62	0.170	0.22	Satisfactory
64	N		
65	0.250	1.11	Satisfactory

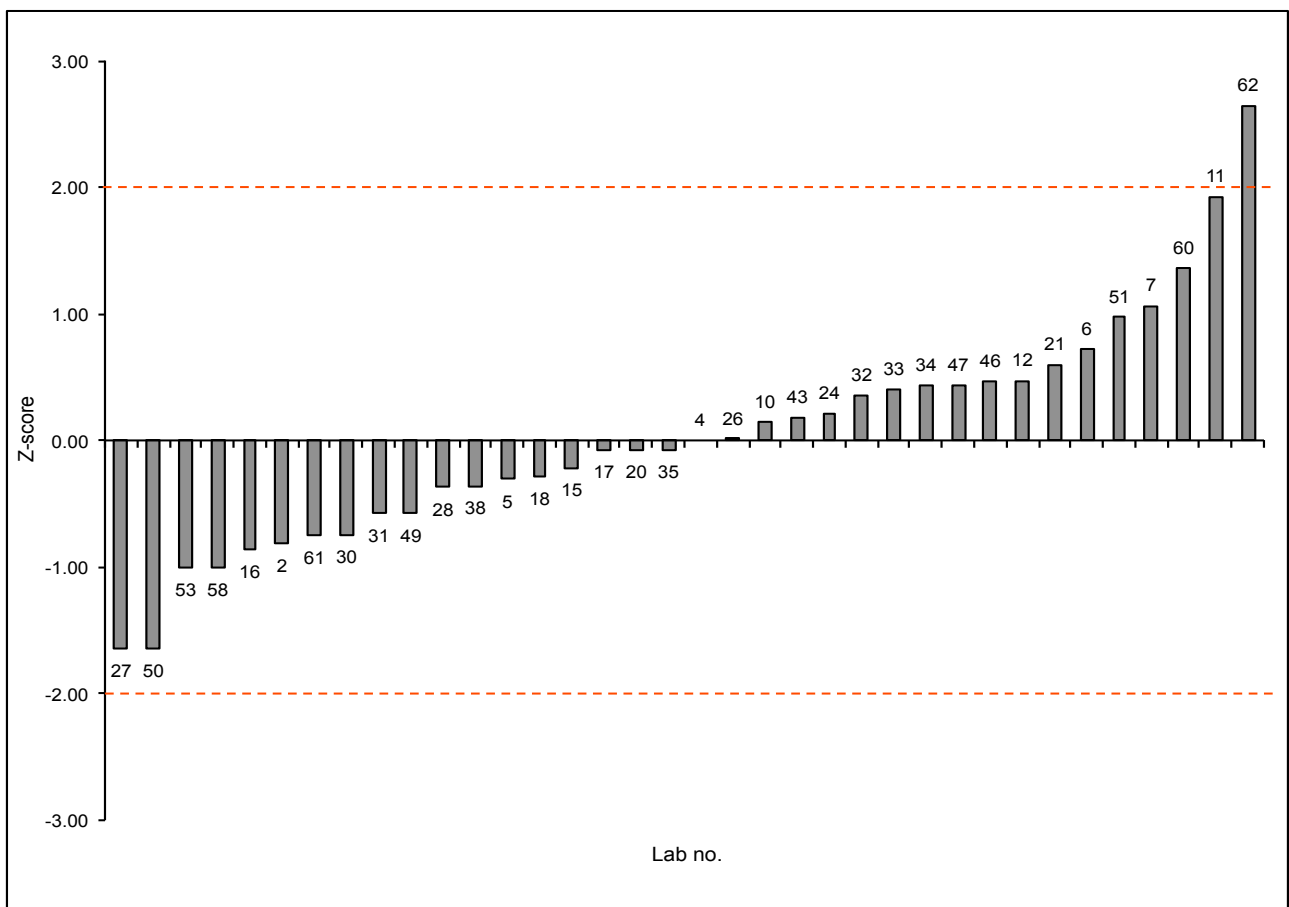
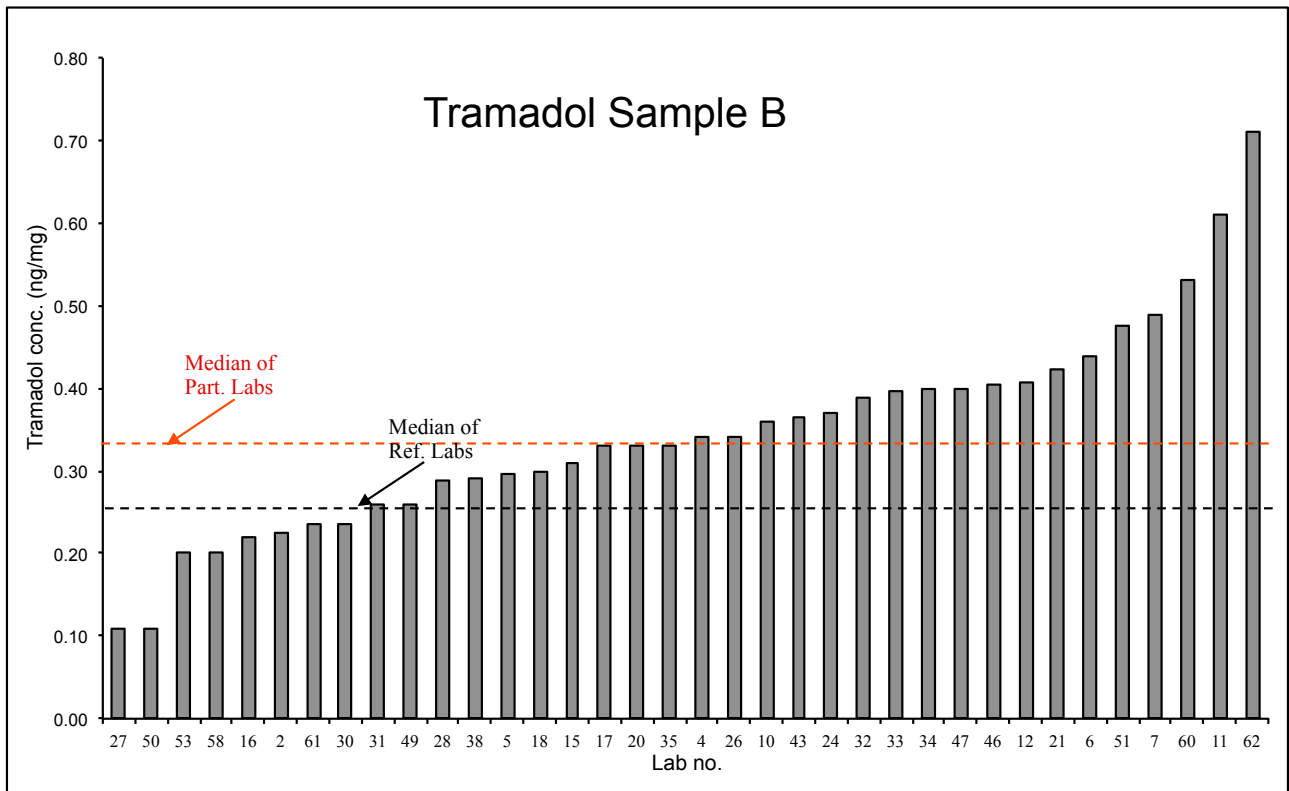
Average	0.138
SD	0.058
CV%	42.106
Median	0.150
Minimum	0.060
Quartile 25	0.081
Quartile 75	0.170
Maximum	0.280
Iqr	0.089



TRAMADOL

Lab	Tramadol (ng/mg)	Z-score	Result
1	N		
2	0.23	-0.81	Satisfactory
4	0.34	0.00	Satisfactory
5	0.30	-0.31	Satisfactory
6	0.44	0.71	Satisfactory
7	0.49	1.06	Satisfactory
10	0.36	0.14	Satisfactory
11	0.61	1.93	Satisfactory
12	0.41	0.47	Satisfactory
13	N		
15	0.31	-0.21	Satisfactory
16	0.22	-0.86	Satisfactory
17	0.33	-0.07	Satisfactory
18	0.30	-0.29	Satisfactory
20	0.33	-0.07	Satisfactory
21	0.42	0.60	Satisfactory
24	0.37	0.21	Satisfactory
26	0.34	0.01	Satisfactory
27	0.11	-1.64	Satisfactory
28	0.29	-0.37	Satisfactory
30	0.24	-0.74	Satisfactory
31	0.26	-0.57	Satisfactory
32	0.39	0.36	Satisfactory
33	0.40	0.40	Satisfactory
34	0.40	0.43	Satisfactory
35	0.33	-0.07	Satisfactory
38	0.29	-0.36	Satisfactory
40	P		
43	0.37	0.18	Satisfactory
46	0.41	0.46	Satisfactory
47	0.40	0.43	Satisfactory
49	0.26	-0.57	Satisfactory
50	0.11	-1.64	Satisfactory
51	0.48	0.97	Satisfactory
53	0.20	-1.00	Satisfactory
58	0.20	-1.00	Satisfactory
60	0.53	1.36	Satisfactory
61	0.24	-0.75	Satisfactory
62	0.71	2.64	Questionable
64	N		

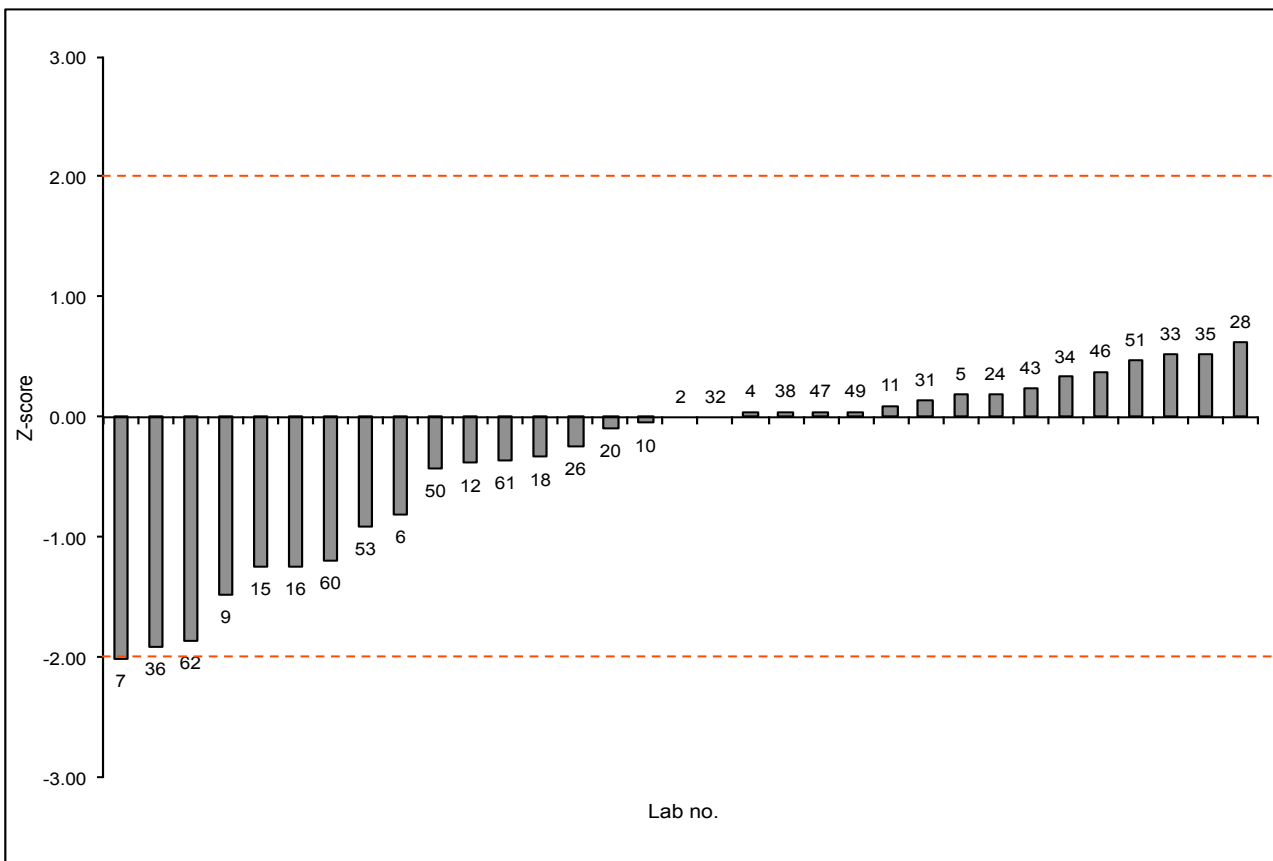
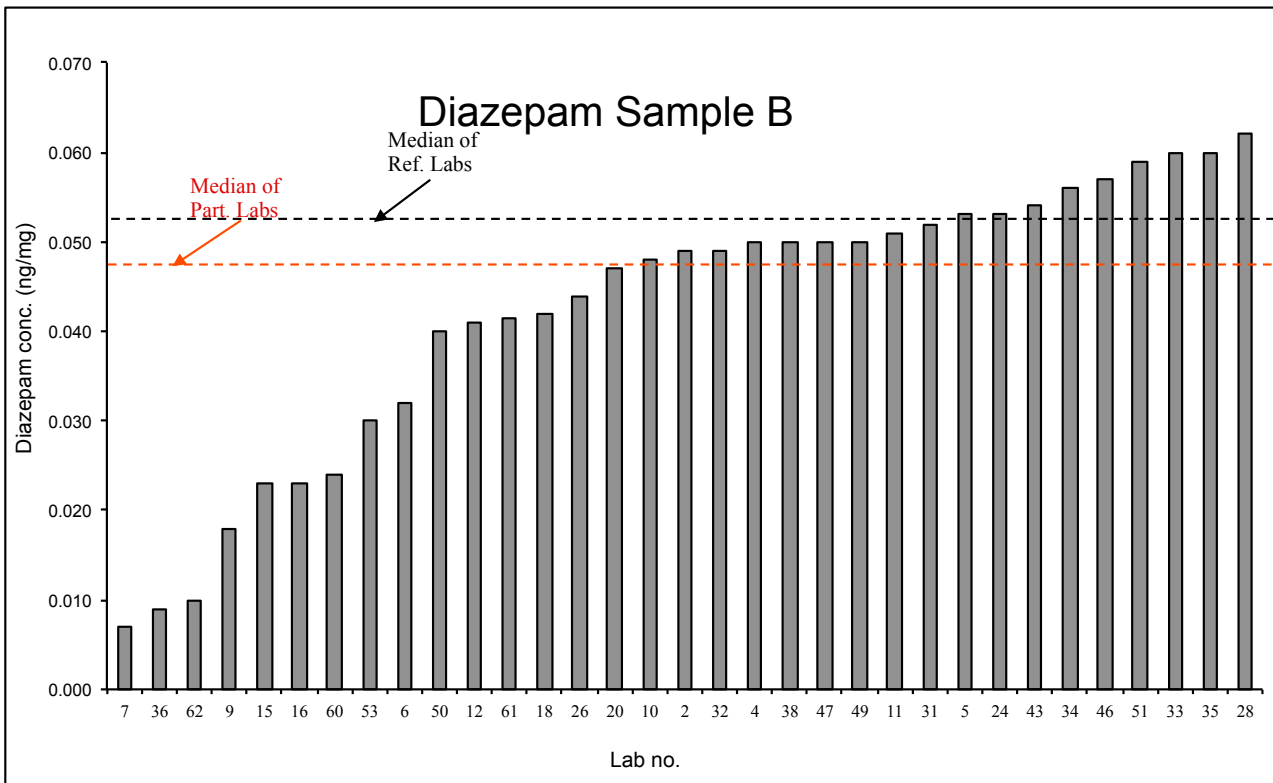
Average	0.34
SD	0.12
CV%	35.71
Median	0.34
Minimum	0.11
Quartile 25	0.26
Quartile 75	0.40
Maximum	0.71
Iqr	0.14



DIAZEPAM

Lab	Diazepam (ng/mg)	Z-score	Result
2	0.049	0.00	Satisfactory
3	N		
4	0.050	0.05	Satisfactory
5	0.053	0.19	Satisfactory
6	0.032	-0.81	Satisfactory
7	0.007	-2.00	Questionable
8	N		
9	0.018	-1.48	Satisfactory
10	0.048	-0.05	Satisfactory
11	0.051	0.10	Satisfactory
12	0.041	-0.38	Satisfactory
13	N		
15	0.023	-1.24	Satisfactory
16	0.023	-1.24	Satisfactory
17	N		
18	0.042	-0.33	Satisfactory
20	0.047	-0.10	Satisfactory
21	P		
24	0.053	0.19	Satisfactory
26	0.044	-0.24	Satisfactory
28	0.062	0.62	Satisfactory
30	<0.125		
31	0.052	0.14	Satisfactory
32	0.049	0.00	Satisfactory
33	0.060	0.52	Satisfactory
34	0.056	0.33	Satisfactory
35	0.060	0.52	Satisfactory
36	0.009	-1.90	Satisfactory
37	N		
38	0.050	0.05	Satisfactory
40	N		
43	0.054	0.24	Satisfactory
46	0.057	0.38	Satisfactory
47	0.050	0.05	Satisfactory
49	0.050	0.05	Satisfactory
50	0.040	-0.43	Satisfactory
51	0.059	0.48	Satisfactory
53	0.030	-0.90	Satisfactory
58	N		
59	N		
60	0.024	-1.19	Satisfactory
61	0.041	-0.36	Satisfactory
62	0.010	-1.86	Satisfactory
64	N		

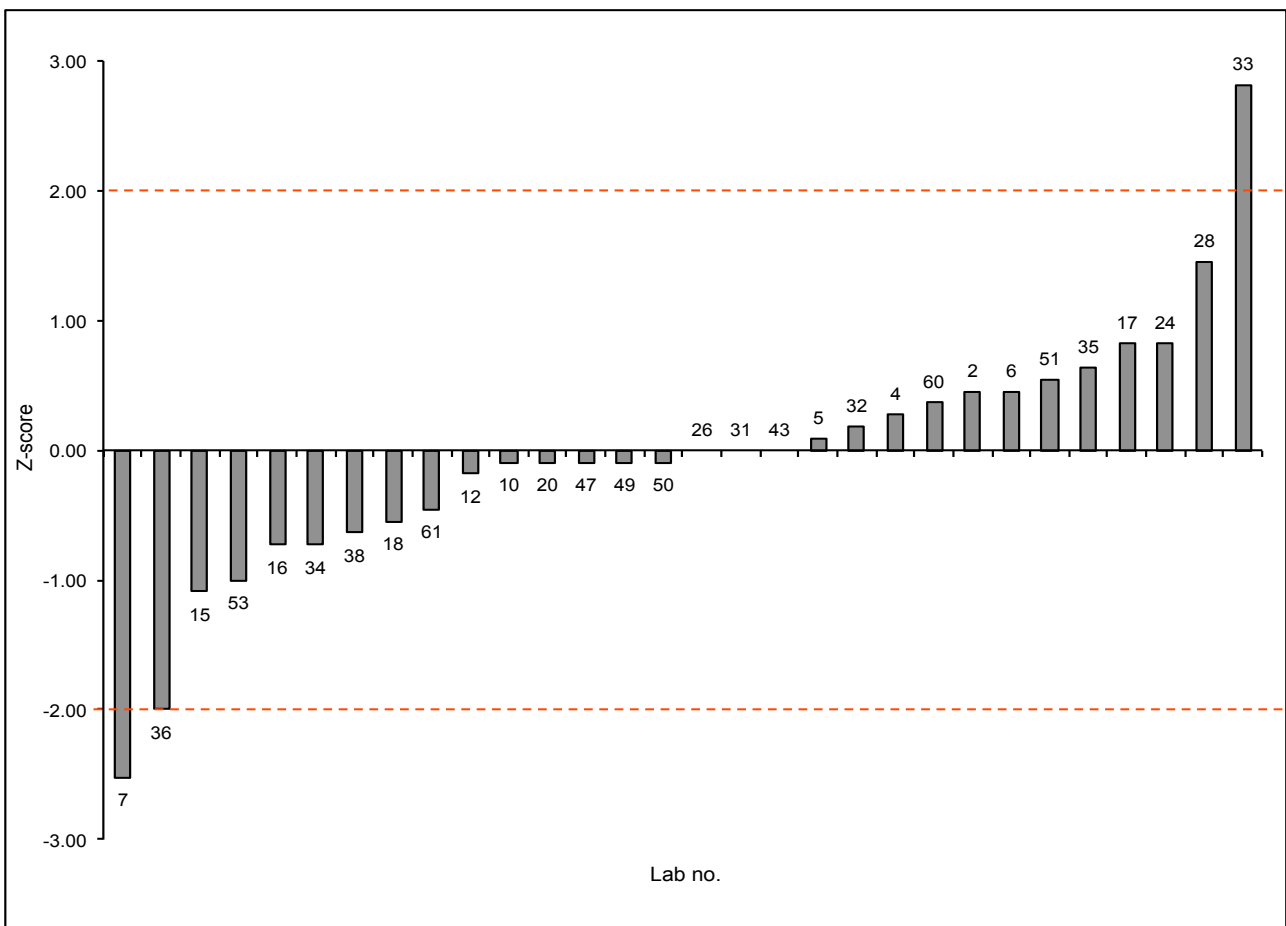
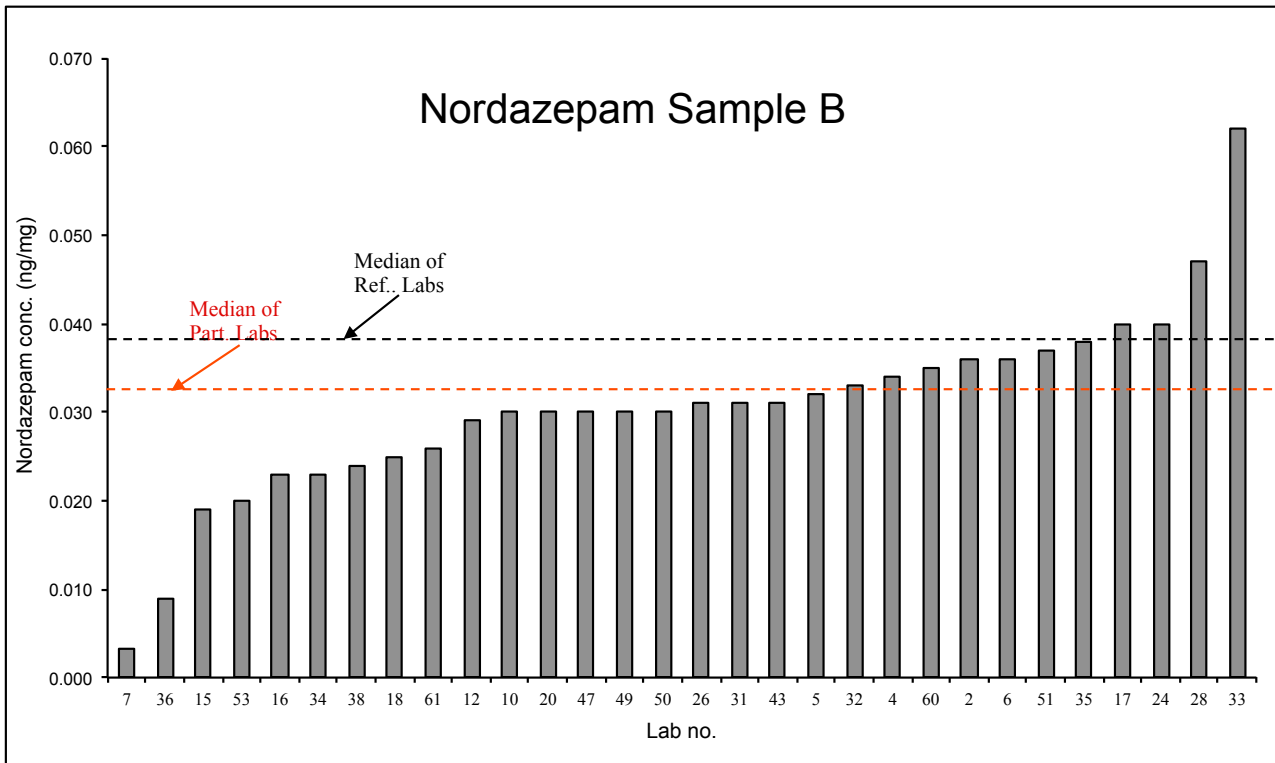
Average	0.042
SD	0.016
CV%	36.754
Median	0.049
Minimum	0.007
Quartile 25	0.032
Quartile 75	0.053
Maximum	0.062
Iqr	0.021



NORDAZEPAM

Lab	Nordazepam (ng/mg)	Z-score	Result
2	0.036	0.45	Satisfactory
3	N		
4	0.034	0.27	Satisfactory
5	0.032	0.09	Satisfactory
6	0.036	0.45	Satisfactory
7	0.003	-2.52	Questionable
8	N		
9	N		
10	0.030	-0.09	Satisfactory
11	<0.05		
12	0.029	-0.18	Satisfactory
13	N		
15	0.019	-1.09	Satisfactory
16	0.023	-0.73	Satisfactory
17	0.040	0.82	Satisfactory
18	0.025	-0.55	Satisfactory
20	0.030	-0.09	Satisfactory
21	P		
24	0.040	0.82	Satisfactory
26	0.031	0.00	Satisfactory
28	0.047	1.45	Satisfactory
30	<0.125		
31	0.031	0.00	Satisfactory
32	0.033	0.18	Satisfactory
33	0.062	2.82	Questionable
34	0.023	-0.73	Satisfactory
35	0.038	0.64	Satisfactory
36	0.009	-2.00	Questionable
37	N		
38	0.024	-0.64	Satisfactory
40	N		
43	0.031	0.00	Satisfactory
46	N		
47	0.030	-0.09	Satisfactory
49	0.030	-0.09	Satisfactory
50	0.030	-0.09	Satisfactory
51	0.037	0.55	Satisfactory
53	0.020	-1.00	Satisfactory
58	N		
59	N		
60	0.035	0.36	Satisfactory
61	0.026	-0.45	Satisfactory
62	N		
64	N		

Average	0.030
SD	0.010
CV%	34.409
Median	0.031
Minimum	0.003
Quartile 25	0.025
Quartile 75	0.036
Maximum	0.062
Iqr	0.011



SAMPLE C

Sample C contents were as follows:

- Opiate compounds: 6-MAM, morphine and codeine
- Cocaine compounds: cocaine, BE and norcocaine
- Methadone and EDDP
- Tramadol
- Diazepam and Nordazepam

It also contained low concentrations of cocaethylene (0.022 ng/mg median conc.)

Other compounds reported by more than one participating laboratory were:

Compound	N*	Average	SD	CV%	Median	Minimum	Quartile 25	Quartile 75	Maximum	Iqr
DHC	19	0,59	0,32	54,56	0,47	0,20	0,34	0,79	1,25	0,45
Fentanyl	18	0,06	0,03	55,46	0,05	0,01	0,04	0,07	0,15	0,03
AEME	11	0,71	0,18	24,94	0,72	0,37	0,68	0,82	1,01	0,14
Buprenorphine	10	0,01	0,00	29,73	0,01	0,01	0,01	0,01	0,02	0,00
Hydromorphone	10	0,07	0,04	55,60	0,07	0,01	0,05	0,10	0,13	0,05
Acod	9	0,56	0,10	17,94	0,57	0,40	0,47	0,64	0,74	0,17
Heroin	8	0,21	0,15	69,42	0,18	0,10	0,15	0,19	0,60	0,05
Hydrocodone	8	0,04	0,02	52,55	0,05	0,01	0,03	0,06	0,07	0,04
Diphenhydramine	7	0,02	0,01	33,12	0,02	0,01	0,02	0,02	0,03	0,01
EME	6	0,15	0,20	137,65	0,06	0,04	0,05	0,08	0,60	0,03
Temazepam	6	0,02	0,00	15,69	0,02	0,02	0,02	0,02	0,03	0,00
Tilidine	6	0,03	0,01	28,45	0,03	0,02	0,02	0,03	0,04	0,01
Norbuprenorphine	4	0,02	0,01	39,09	0,02	0,02	0,02	0,03	0,04	0,01
Nortilidine	4	0,09	0,05	51,20	0,11	0,02	0,07	0,14	0,14	0,07
o-Desmethyltramadol	3	0,02	0,01	65,03	0,01	0,01	0,01	0,03	0,04	0,01
Zolpidem	2	0,00	0,00	77,78	0,00	0,00	0,00	0,01	0,01	0,00
Amitriptyline	2	0,08	0,00	0,00	0,08	0,08	0,08	0,08	0,08	0,00
Citalopram	2	0,07	0,00	0,00	0,07	0,07	0,07	0,07	0,07	0,00
Doxepine	2	0,05	0,00	0,00	0,05	0,05	0,05	0,05	0,05	0,00
Doxylamine	2	0,02	0,01	37,50	0,02	0,01	0,01	0,02	0,02	0,01
Hydroxyzine	2	0,03	0,01	31,03	0,03	0,02	0,02	0,03	0,04	0,01
m-hydroxycocaine	2	2,51	2,49	99,44	2,51	0,01	1,26	3,75	5,00	2,49
Mirtazapine	2	0,03	0,00	0,00	0,03	0,03	0,03	0,03	0,03	0,00
Norfentanyl	2	0,00	0,00	11,11	0,00	0,00	0,00	0,00	0,01	0,00
Nortramadol	2	0,05	0,00	4,44	0,05	0,04	0,04	0,05	0,05	0,00
Nortriptyline	2	0,07	0,00	0,00	0,07	0,07	0,07	0,07	0,07	0,00
p-hydroxycocaine	2	3,66	3,64	99,56	3,66	0,02	1,84	5,48	7,30	3,64

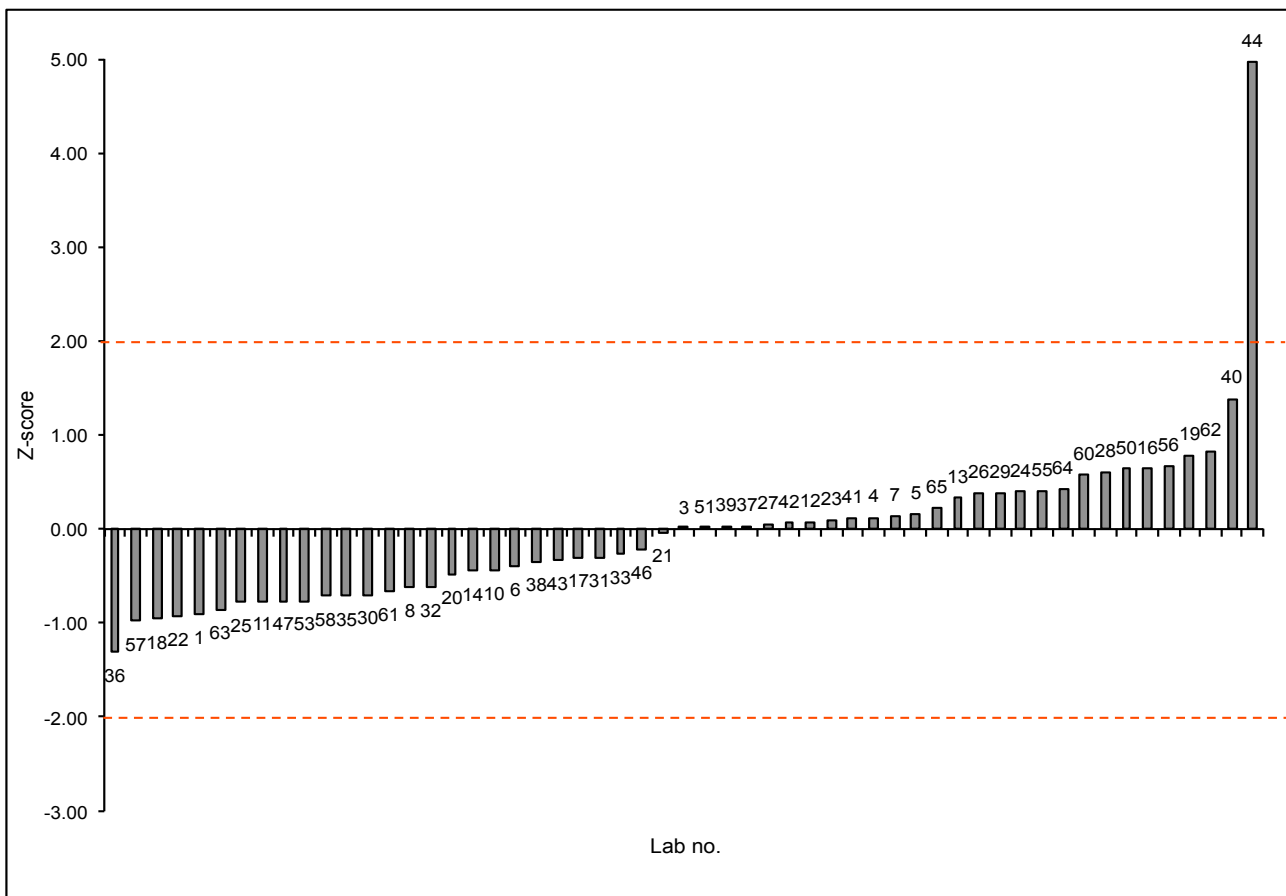
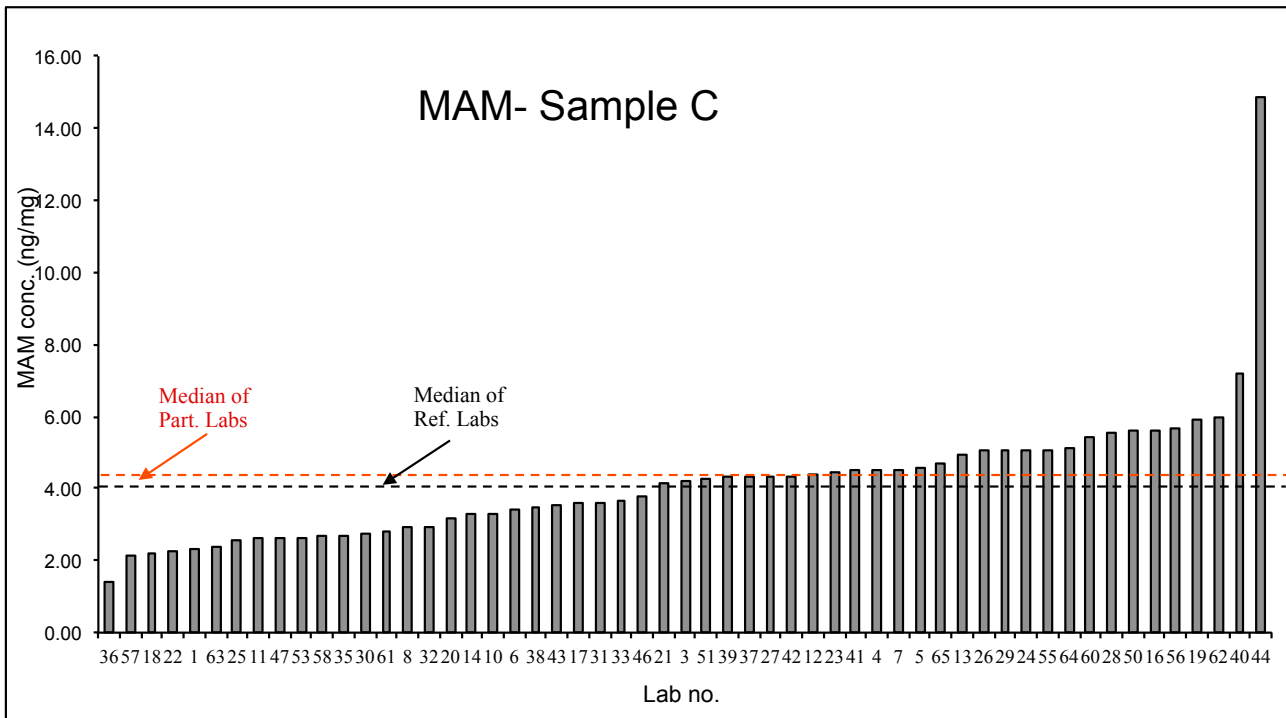
6-MONOACETYLMORPHINE (MAM)

Lab	MAM (ng/mg)	Z-score	Result
1	2.30	-0.90	Satisfactory
2	>10.00		
3	4.23	0.00	Satisfactory
4	4.50	0.13	Satisfactory
5	4.57	0.16	Satisfactory
6	3.39	-0.39	Satisfactory
7	4.52	0.14	Satisfactory
8	2.90	-0.62	Satisfactory
10	3.30	-0.43	Satisfactory
11	2.60	-0.76	Satisfactory
12	4.39	0.07	Satisfactory
13	4.94	0.33	Satisfactory
14	3.27	-0.45	Satisfactory
15	>3.00		
16	5.6	0.64	Satisfactory
17	3.58	-0.30	Satisfactory
18	2.18	-0.96	Satisfactory
19	5.92	0.79	Satisfactory
20	3.20	-0.48	Satisfactory
21	4.16	-0.03	Satisfactory
22	2.24	-0.93	Satisfactory
23	4.45	0.10	Satisfactory
24	5.07	0.39	Satisfactory
25	2.56	-0.78	Satisfactory
26	5.05	0.38	Satisfactory
27	4.35	0.06	Satisfactory
28	5.53	0.61	Satisfactory
29	5.06	0.39	Satisfactory
30	2.74	-0.69	Satisfactory
31	3.58	-0.30	Satisfactory
32	2.90	-0.62	Satisfactory
33	3.65	-0.27	Satisfactory
34	>5.00		
35	2.71	-0.71	Satisfactory
36	1.43	-1.31	Satisfactory
37	4.30	0.03	Satisfactory
38	3.50	-0.34	Satisfactory
39	4.30	0.03	Satisfactory
40	7.20	1.39	Satisfactory
41	4.49	0.12	Satisfactory
42	4.36	0.06	Satisfactory
43	3.51	-0.34	Satisfactory
44	14.86	4.97	Unsatisfactory
46	3.76	-0.22	Satisfactory
47	2.60	-0.76	Satisfactory
49	>1.80		
50	5.60	0.64	Satisfactory
51	4.24	0.01	Satisfactory
53	2.60	-0.76	Satisfactory
54	17.90	Outlier*	
55	5.09	0.40	Satisfactory
56	5.67	0.67	Satisfactory

Lab	MAM (ng/mg)	Z-score	Result
57	2.13	-0.98	Satisfactory
58	2.70	-0.71	Satisfactory
59	P		
60	5.45	0.57	Satisfactory
61	2.81	-0.66	Satisfactory
62	6.00	0.83	Satisfactory
63	2.41	-0.85	Satisfactory
64	5.14	0.42	Satisfactory
65	4.71	0.22	Satisfactory

* Lab 54 has not been included in the statistical study

4.15	4.15
1.90	1.90
45.70	45.70
4.23	4.23
1.43	1.43
2.86	2.86
4.99	4.99
14.86	14.86
2.14	2.14

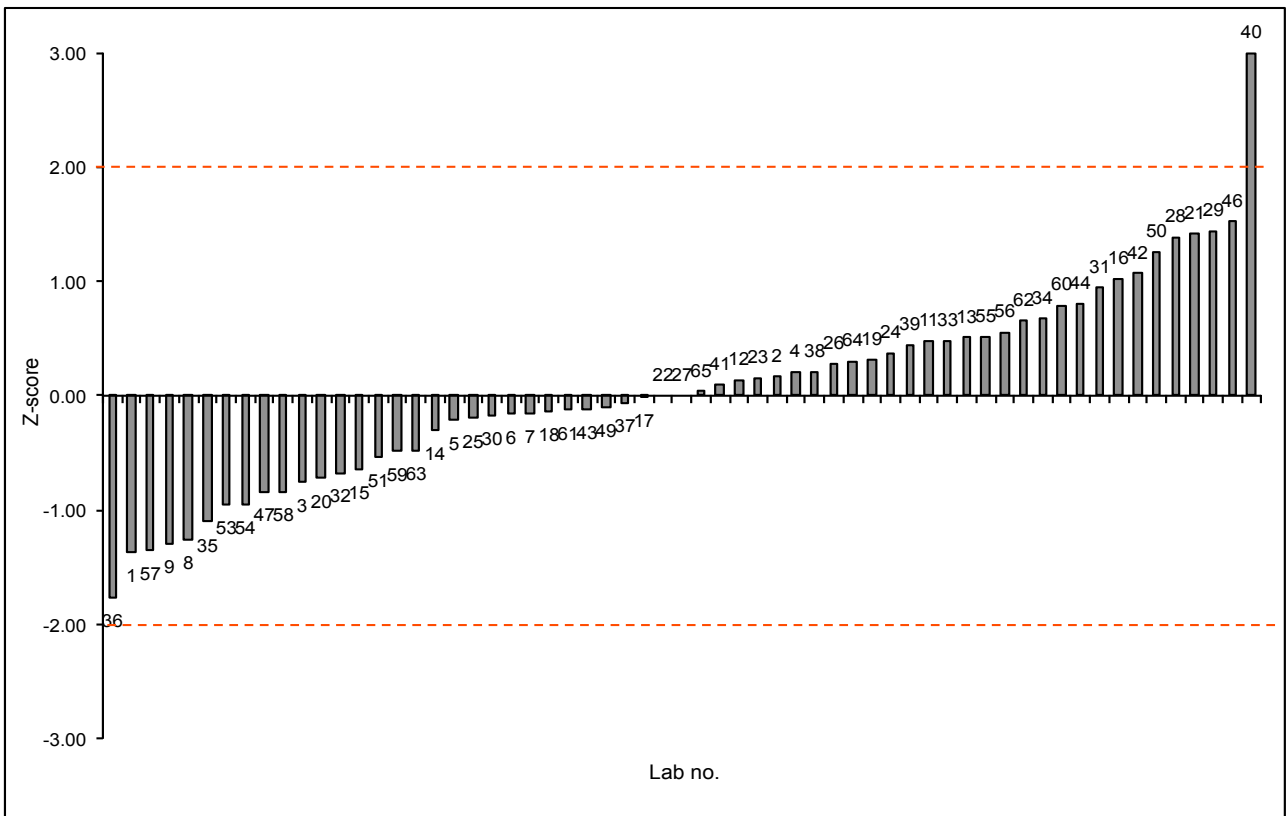
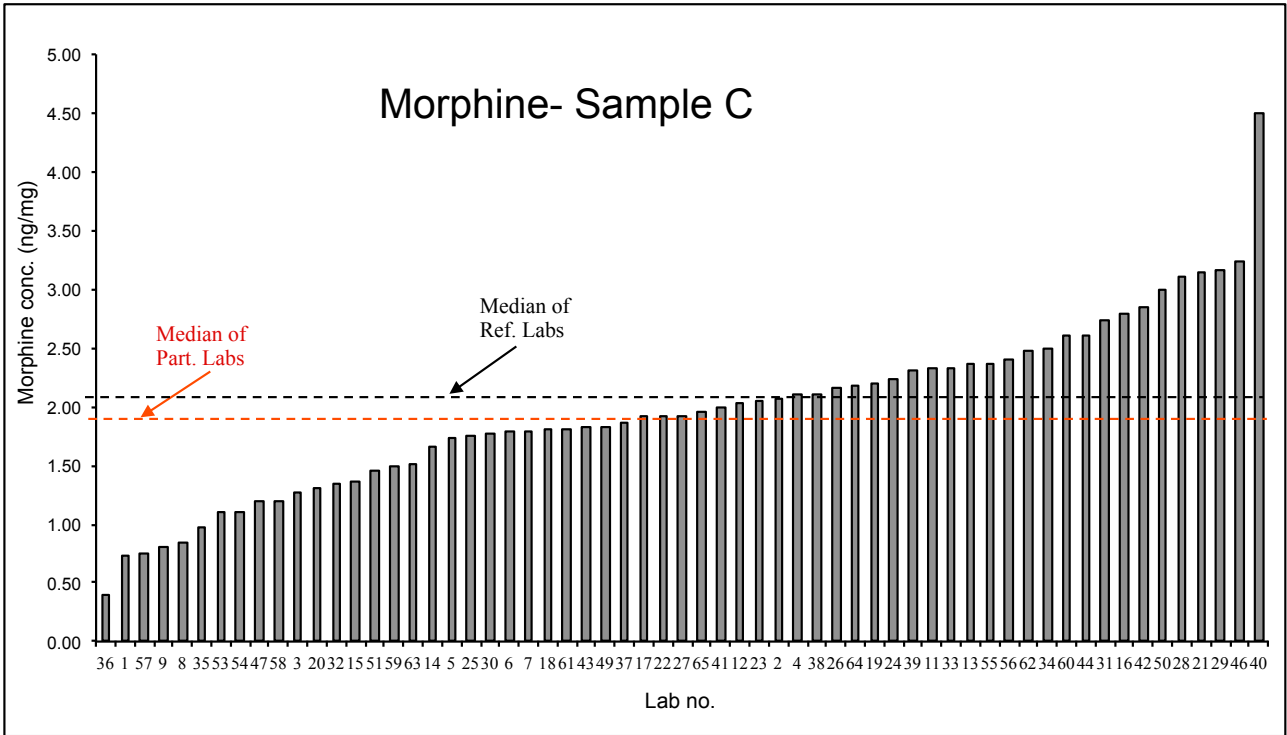


MORPHINE

Lab	Morphine (ng/mg)	Z-score	Result
1	0.74	-1.37	Satisfactory
2	2.06	0.16	Satisfactory
3	1.27	-0.76	Satisfactory
4	2.10	0.21	Satisfactory
5	1.73	-0.22	Satisfactory
6	1.78	-0.16	Satisfactory
7	1.79	-0.15	Satisfactory
8	0.84	-1.25	Satisfactory
9	0.81	-1.29	Satisfactory
10	>1.00		
11	2.33	0.48	Satisfactory
12	2.04	0.14	Satisfactory
13	2.36	0.51	Satisfactory
14	1.66	-0.30	Satisfactory
15	1.36	-0.65	Satisfactory
16	2.80	1.02	Satisfactory
17	1.91	-0.01	Satisfactory
18	1.80	-0.14	Satisfactory
19	2.19	0.31	Satisfactory
20	1.30	-0.72	Satisfactory
21	3.14	1.42	Satisfactory
22	1.92	0.00	Satisfactory
23	2.05	0.15	Satisfactory
24	2.24	0.37	Satisfactory
25	1.75	-0.20	Satisfactory
26	2.16	0.27	Satisfactory
27	1.92	0.00	Satisfactory
28	3.11	1.38	Satisfactory
29	3.16	1.44	Satisfactory
30	1.77	-0.17	Satisfactory
31	2.73	0.94	Satisfactory
32	1.34	-0.67	Satisfactory
33	2.33	0.48	Satisfactory
34	2.50	0.67	Satisfactory
35	0.97	-1.10	Satisfactory
36	0.40	-1.77	Satisfactory
37	1.87	-0.06	Satisfactory
38	2.10	0.21	Satisfactory
39	2.30	0.44	Satisfactory
40	4.50	3.00	Unsatisfactory
41	2.00	0.09	Satisfactory
42	2.84	1.07	Satisfactory
43	1.82	-0.12	Satisfactory
44	2.61	0.80	Satisfactory
46	3.23	1.52	Satisfactory
47	1.20	-0.84	Satisfactory
49	1.83	-0.10	Satisfactory
50	3.00	1.26	Satisfactory
51	1.45	-0.54	Satisfactory
53	1.10	-0.95	Satisfactory
54	1.10	-0.95	Satisfactory
55	2.36	0.51	Satisfactory

Lab	Morphine (ng/mg)	Z-score	Result
56	2.40	0.56	Satisfactory
57	0.75	-1.36	Satisfactory
58	1.20	-0.84	Satisfactory
59	1.50	-0.49	Satisfactory
60	2.60	0.79	Satisfactory
61	1.81	-0.13	Satisfactory
62	2.48	0.65	Satisfactory
63	1.51	-0.48	Satisfactory
64	2.18	0.30	Satisfactory
65	1.95	0.03	Satisfactory

Average	1.97
SD	0.73
CV%	36.93
Median	1.92
Minimum	0.40
Quartile 25	1.50
Quartile 75	2.36
Maximum	4.50
Iqr	0.86

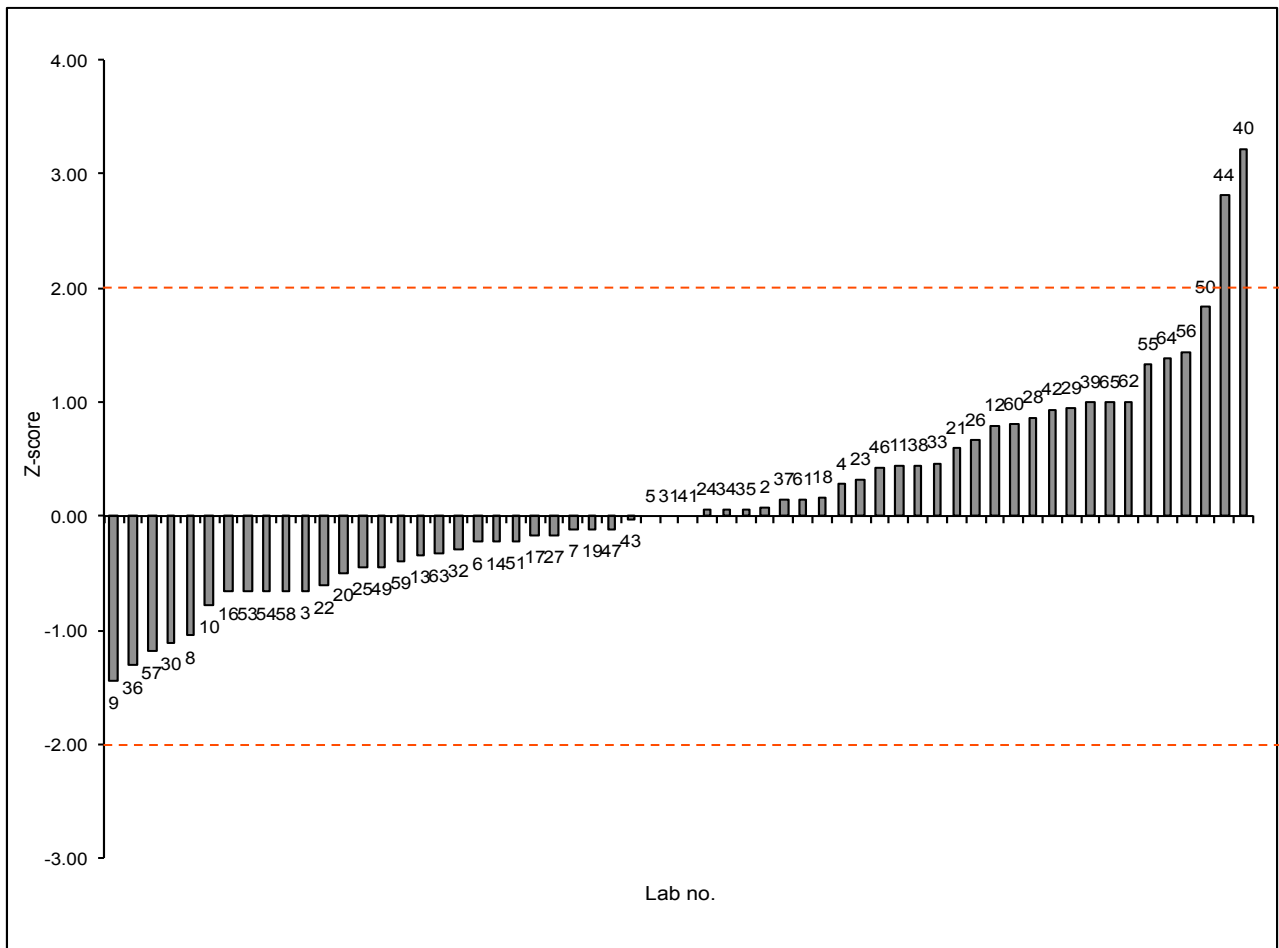
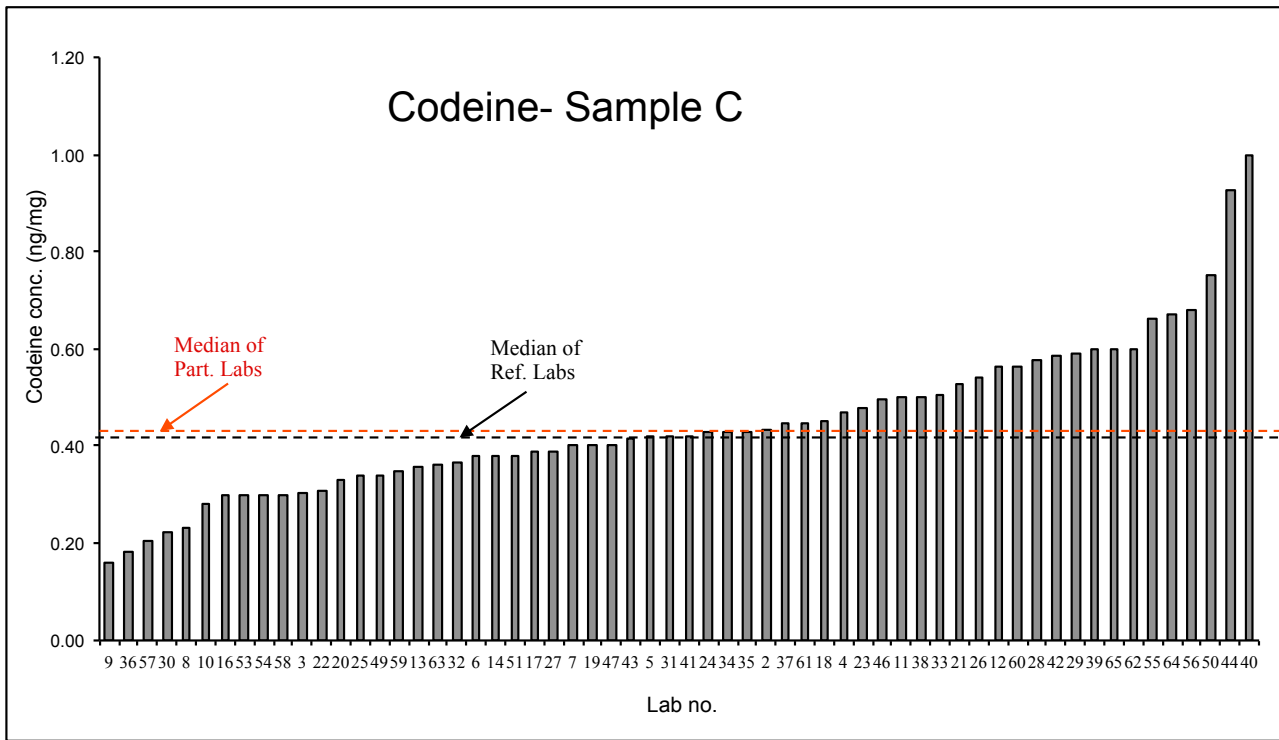


CODEINE

Lab	Codeine (ng/mg)	Z-score	Result
1	N		
2	0.43	0.07	Satisfactory
3	0.30	-0.65	Satisfactory
4	0.47	0.28	Satisfactory
5	0.42	0.00	Satisfactory
6	0.38	-0.22	Satisfactory
7	0.40	-0.11	Satisfactory
8	0.23	-1.05	Satisfactory
9	0.16	-1.44	Satisfactory
10	0.28	-0.78	Satisfactory
11	0.50	0.44	Satisfactory
12	0.56	0.79	Satisfactory
13	0.36	-0.34	Satisfactory
14	0.38	-0.22	Satisfactory
15	N		
16	0.30	-0.67	Satisfactory
17	0.39	-0.17	Satisfactory
18	0.45	0.17	Satisfactory
19	0.40	-0.11	Satisfactory
20	0.33	-0.50	Satisfactory
21	0.53	0.59	Satisfactory
22	0.31	-0.61	Satisfactory
23	0.48	0.32	Satisfactory
24	0.43	0.06	Satisfactory
25	0.34	-0.44	Satisfactory
26	0.54	0.67	Satisfactory
27	0.39	-0.17	Satisfactory
28	0.58	0.87	Satisfactory
29	0.59	0.94	Satisfactory
30	0.22	-1.11	Satisfactory
31	0.42	0.00	Satisfactory
32	0.37	-0.29	Satisfactory
33	0.50	0.47	Satisfactory
34	0.43	0.06	Satisfactory
35	0.43	0.06	Satisfactory
36	0.18	-1.31	Satisfactory
37	0.45	0.15	Satisfactory
38	0.50	0.44	Satisfactory
39	0.60	1.00	Satisfactory
40	1.00	3.22	Unsatisfactory
41	0.42	0.00	Satisfactory
42	0.59	0.93	Satisfactory
43	0.42	-0.02	Satisfactory
44	0.93	2.81	Questionable
46	0.50	0.43	Satisfactory
47	0.40	-0.11	Satisfactory
49	0.34	-0.44	Satisfactory
50	0.75	1.83	Satisfactory
51	0.38	-0.22	Satisfactory
53	0.30	-0.67	Satisfactory
54	0.30	-0.67	Satisfactory
55	0.66	1.33	Satisfactory

Lab	Codeine (ng/mg)	Z-score	Result
56	0.68	1.44	Satisfactory
57	0.21	-1.18	Satisfactory
58	0.30	-0.67	Satisfactory
59	0.35	-0.39	Satisfactory
60	0.57	0.81	Satisfactory
61	0.45	0.15	Satisfactory
62	0.60	1.01	Satisfactory
63	0.36	-0.33	Satisfactory
64	0.67	1.38	Satisfactory
65	0.60	1.00	Satisfactory

Average	0.45
SD	0.16
CV%	35.62
Median	0.42
Minimum	0.16
Quartile 25	0.35
Quartile 75	0.53
Maximum	1.00
Iqr	0.18

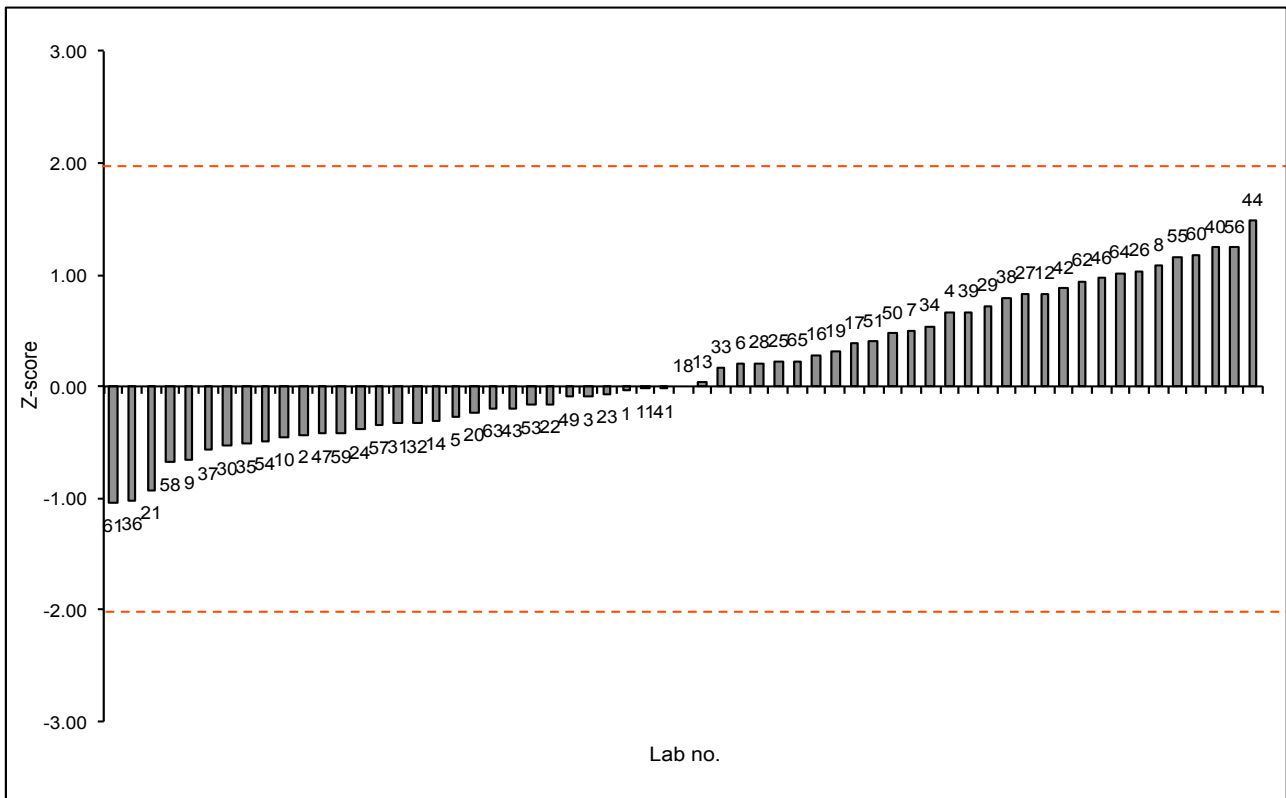
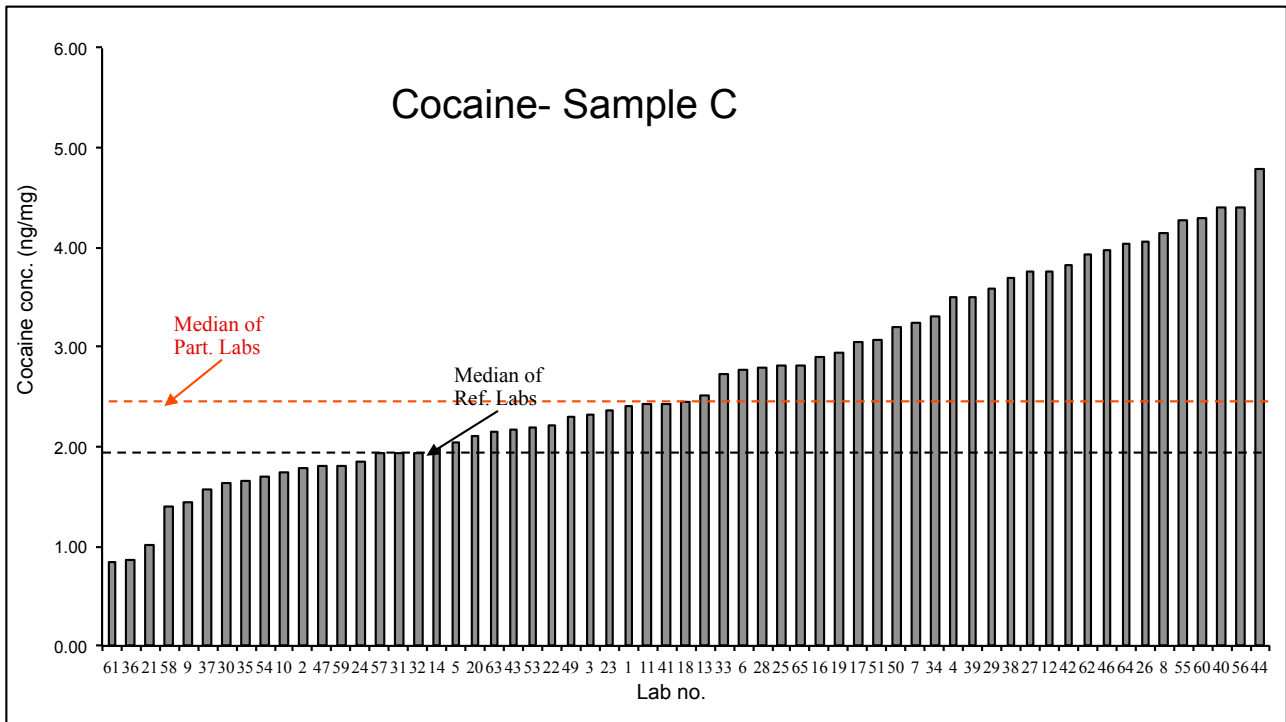


COCAINE

Lab	Cocaine (ng/mg)	Z-score	Result
1	2.40	-0.04	Satisfactory
2	1.79	-0.43	Satisfactory
3	2.31	-0.09	Satisfactory
4	3.50	0.67	Satisfactory
5	2.03	-0.27	Satisfactory
6	2.78	0.21	Satisfactory
7	3.24	0.50	Satisfactory
8	4.14	1.08	Satisfactory
9	1.44	-0.65	Satisfactory
10	1.75	-0.46	Satisfactory
11	2.43	-0.02	Satisfactory
12	3.76	0.83	Satisfactory
13	2.52	0.04	Satisfactory
14	1.98	-0.31	Satisfactory
15	>3.0		
16	2.90	0.28	Satisfactory
17	3.06	0.38	Satisfactory
18	2.46	0.00	Satisfactory
19	2.94	0.31	Satisfactory
20	2.10	-0.23	Satisfactory
21	1.01	-0.93	Satisfactory
22	2.21	-0.16	Satisfactory
23	2.36	-0.06	Satisfactory
24	1.85	-0.39	Satisfactory
25	2.81	0.22	Satisfactory
26	4.07	1.03	Satisfactory
27	3.75	0.83	Satisfactory
28	2.79	0.21	Satisfactory
29	3.59	0.72	Satisfactory
30	1.64	-0.53	Satisfactory
31	1.94	-0.33	Satisfactory
32	1.94	-0.33	Satisfactory
33	2.72	0.17	Satisfactory
34	3.30	0.54	Satisfactory
35	1.66	-0.51	Satisfactory
36	0.86	-1.03	Satisfactory
37	1.57	-0.57	Satisfactory
38	3.70	0.79	Satisfactory
39	3.50	0.67	Satisfactory
40	4.40	1.24	Satisfactory
41	2.43	-0.02	Satisfactory
42	3.83	0.88	Satisfactory
43	2.16	-0.19	Satisfactory
44	4.78	1.49	Satisfactory
46	3.97	0.97	Satisfactory
47	1.80	-0.42	Satisfactory
49	2.31	-0.10	Satisfactory
50	3.20	0.47	Satisfactory
51	3.08	0.40	Satisfactory
53	2.20	-0.17	Satisfactory
54	1.70	-0.49	Satisfactory
55	4.27	1.16	Satisfactory

Lab	Cocaine (ng/mg)	Z-score	Result
56	4.40	1.24	Satisfactory
57	1.93	-0.34	Satisfactory
58	1.40	-0.68	Satisfactory
59	1.80	-0.42	Satisfactory
60	4.30	1.18	Satisfactory
61	0.84	-1.04	Satisfactory
62	3.93	0.94	Satisfactory
63	2.16	-0.19	Satisfactory
64	4.04	1.01	Satisfactory
65	2.82	0.23	Satisfactory

Average	2.70
SD	0.98
CV%	36.25
Median	2.46
Minimum	0.84
Quartile 25	1.94
Quartile 75	3.50
Maximum	4.78
Iqr	1.56

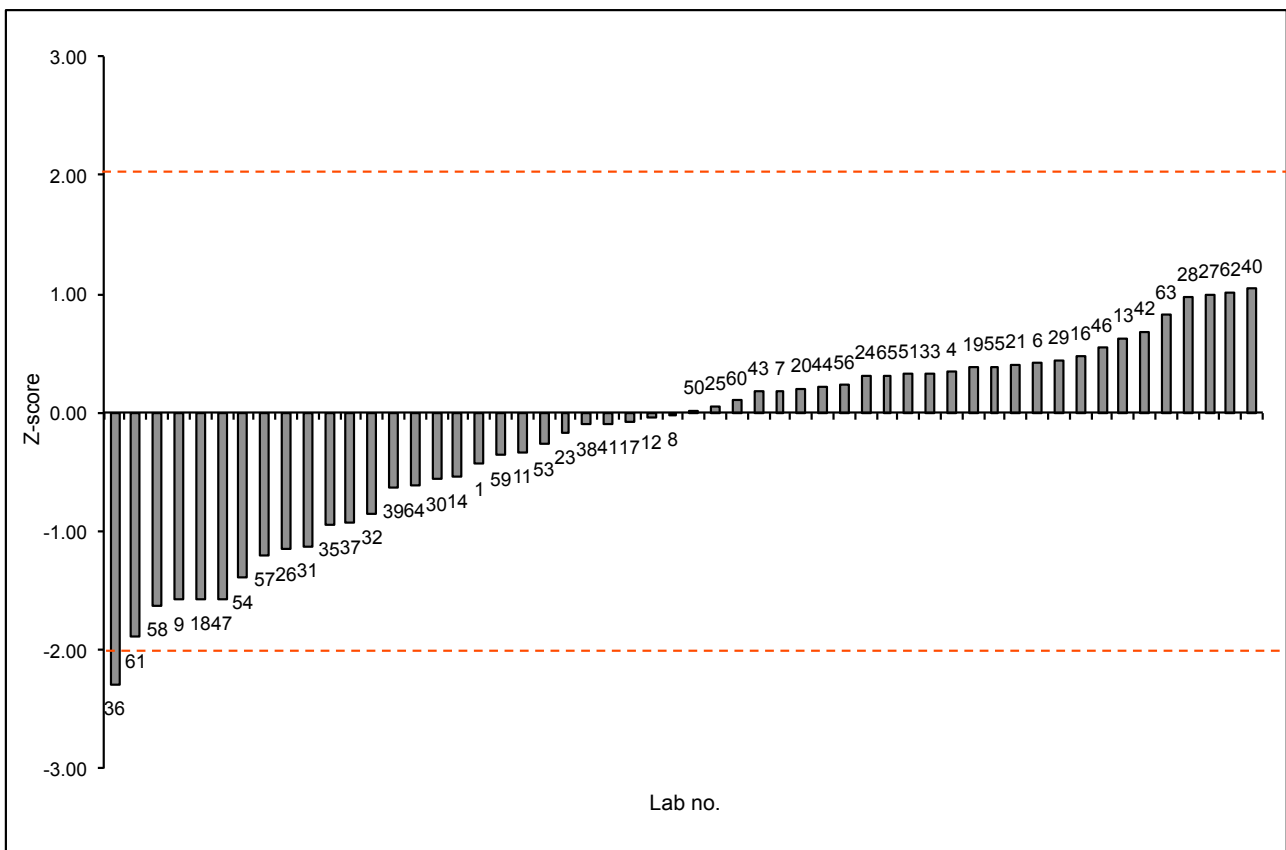
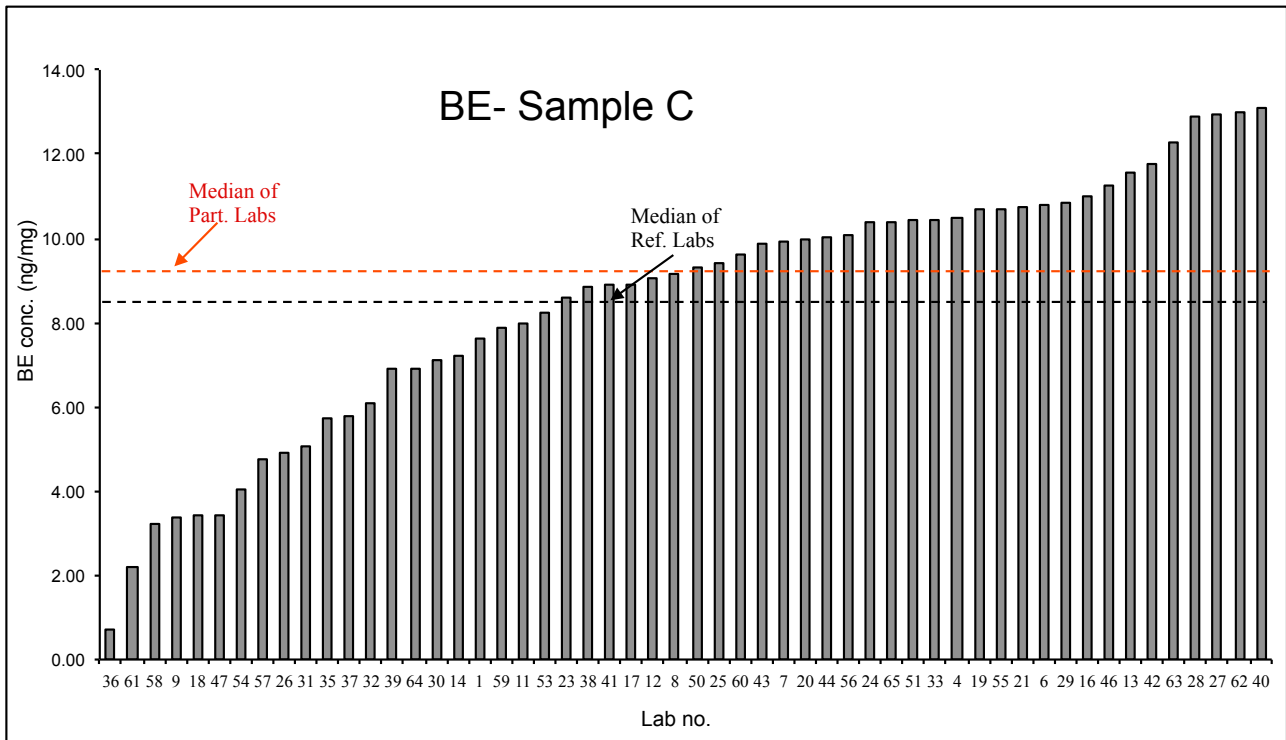


BENZOYLECGONINE (BE)

Lab	BE (ng/mg)	Z-score	Result
1	7.60	-0.44	Satisfactory
2	N		
3	>1.00		
4	10.50	0.34	Satisfactory
5	>5.00		
6	10.80	0.42	Satisfactory
7	9.92	0.19	Satisfactory
8	9.16	-0.02	Satisfactory
9	3.37	-1.58	Satisfactory
10	>1.00		
11	8.00	-0.33	Satisfactory
12	9.07	-0.04	Satisfactory
13	11.57	0.63	Satisfactory
14	7.21	-0.54	Satisfactory
15	>3.00		
16	11.00	0.48	Satisfactory
17	8.92	-0.08	Satisfactory
18	3.40	-1.57	Satisfactory
19	10.67	0.39	Satisfactory
20	10.00	0.21	Satisfactory
21	10.75	0.41	Satisfactory
23	8.58	-0.17	Satisfactory
24	10.40	0.31	Satisfactory
25	9.43	0.05	Satisfactory
26	4.92	-1.16	Satisfactory
27	12.95	1.00	Satisfactory
28	12.87	0.98	Satisfactory
29	10.87	0.44	Satisfactory
30	7.12	-0.57	Satisfactory
31	5.04	-1.13	Satisfactory
32	6.08	-0.85	Satisfactory
33	10.43	0.32	Satisfactory
34	>0.50		
35	5.72	-0.94	Satisfactory
36	0.73	-2.29	Questionable
37	5.79	-0.93	Satisfactory
38	8.86	-0.10	Satisfactory
39	6.90	-0.63	Satisfactory
40	13.10	1.04	Satisfactory
41	8.90	-0.09	Satisfactory
42	11.78	0.69	Satisfactory
43	9.90	0.18	Satisfactory
44	10.04	0.22	Satisfactory
46	11.24	0.54	Satisfactory
47	3.40	-1.57	Satisfactory
49	>4.90		
50	9.30	0.02	Satisfactory
51	10.43	0.32	Satisfactory
53	8.23	-0.27	Satisfactory
54	4.05	-1.39	Satisfactory
55	10.68	0.39	Satisfactory
56	10.10	0.23	Satisfactory

Lab	BE (ng/mg)	Z-score	Result
57	4.78	-1.20	Satisfactory
58	3.20	-1.62	Satisfactory
59	7.90	-0.36	Satisfactory
60	9.60	0.10	Satisfactory
61	2.21	-1.89	Satisfactory
62	13.00	1.01	Satisfactory
63	12.30	0.83	Satisfactory
64	6.93	-0.62	Satisfactory
65	10.40	0.31	Satisfactory

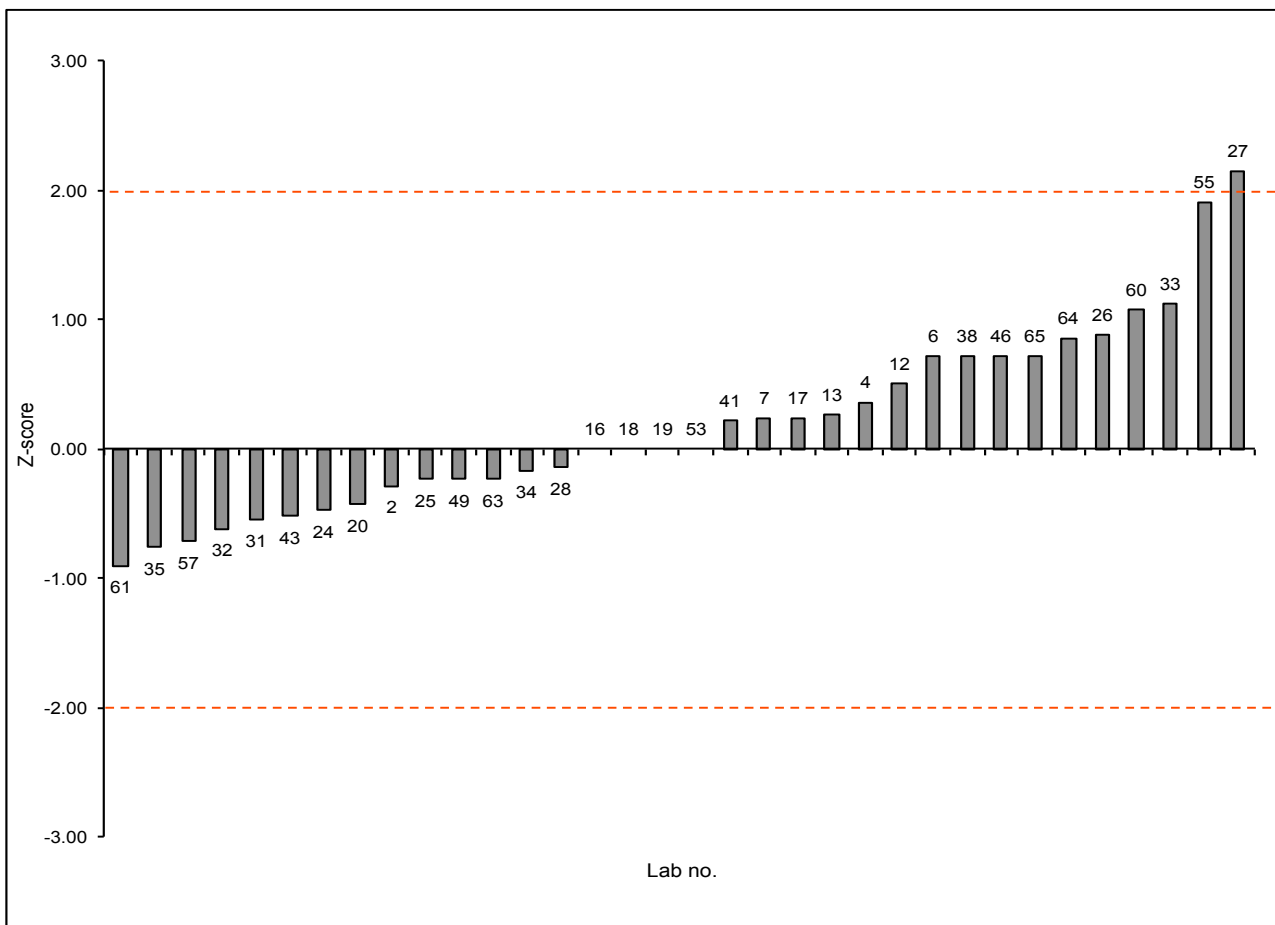
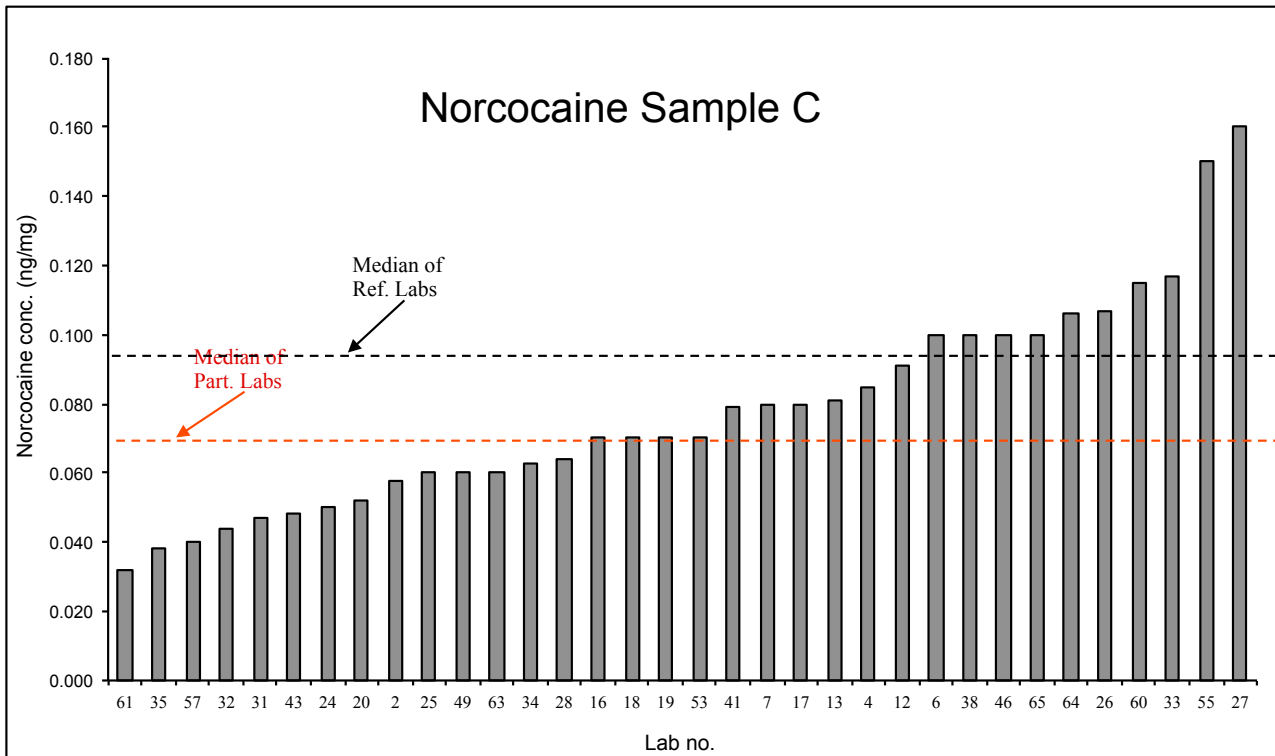
Average	8.52
SD	2.99
CV%	35.13
Median	9.23
Minimum	0.73
Quartile 25	6.91
Quartile 75	10.63
Maximum	13.10
Iqr	3.72



NORCOCAINE

Lab	Norcocaine (ng/mg)	Z-score	Result
2	0.058	-0.29	Satisfactory
3	P		
4	0.085	0.36	Satisfactory
5	N		
6	0.100	0.71	Satisfactory
7	0.080	0.24	Satisfactory
12	0.091	0.50	Satisfactory
13	0.081	0.26	Satisfactory
16	0.070	0.00	Satisfactory
17	0.080	0.24	Satisfactory
18	0.070	0.00	Satisfactory
19	0.070	0.00	Satisfactory
20	0.052	-0.43	Satisfactory
21	N		
24	0.050	-0.48	Satisfactory
25	0.060	-0.24	Satisfactory
26	0.107	0.88	Satisfactory
27	0.160	2.14	Questionable
28	0.064	-0.14	Satisfactory
31	0.047	-0.55	Satisfactory
32	0.044	-0.62	Satisfactory
33	0.117	1.12	Satisfactory
34	0.063	-0.17	Satisfactory
35	0.038	-0.76	Satisfactory
37	N		
38	0.100	0.71	Satisfactory
41	0.079	0.21	Satisfactory
43	0.048	-0.52	Satisfactory
46	0.100	0.71	Satisfactory
47	N		
49	0.060	-0.24	Satisfactory
50	N		
51	N		
53	0.070	0.00	Satisfactory
54	N		
55	0.150	1.90	Satisfactory
57	0.040	-0.71	Satisfactory
58	N		
59	P		
60	0.115	1.07	Satisfactory
61	0.032	-0.90	Satisfactory
63	0.060	-0.24	Satisfactory
64	0.106	0.86	Satisfactory
65	0.100	0.71	Satisfactory

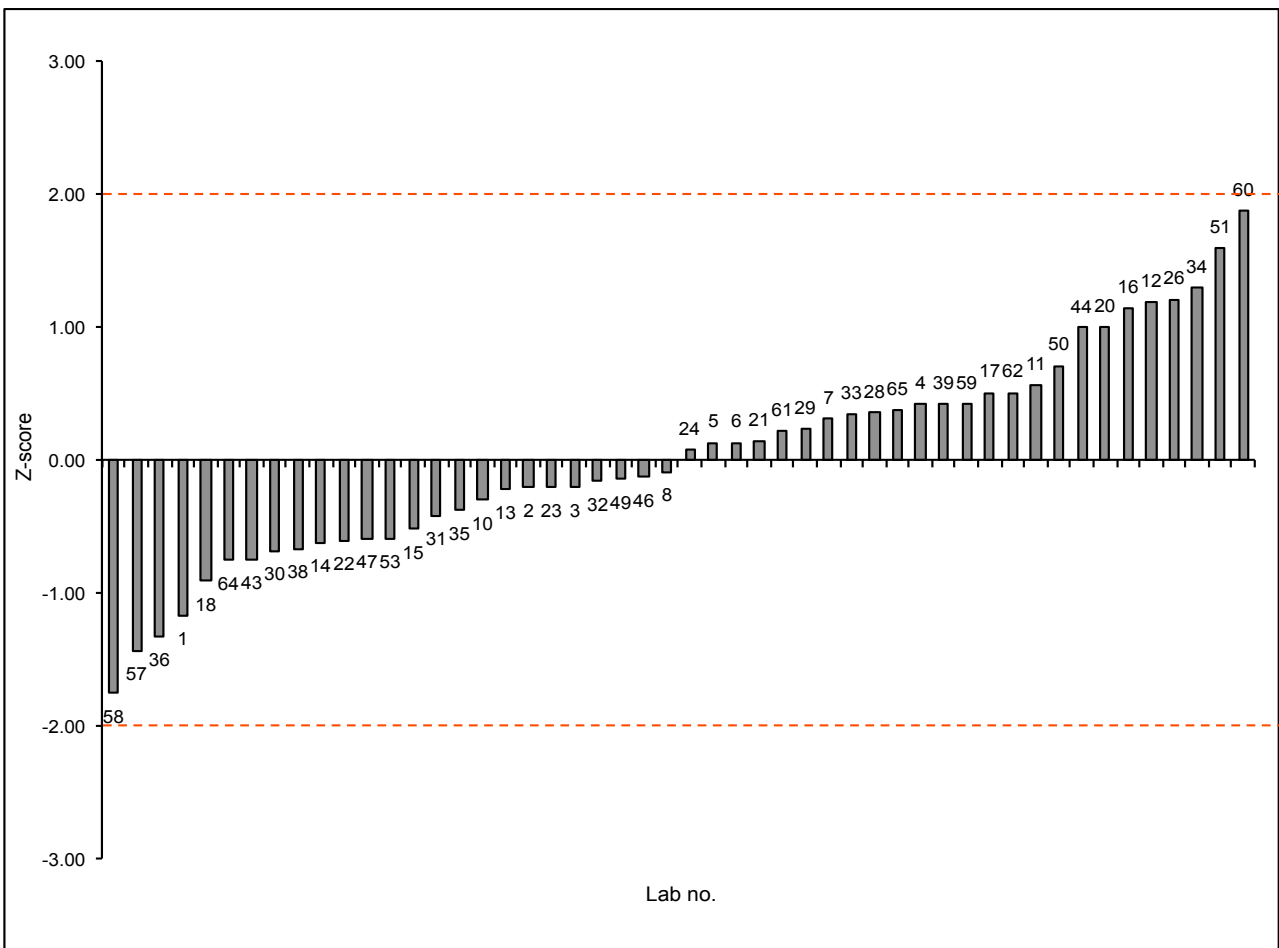
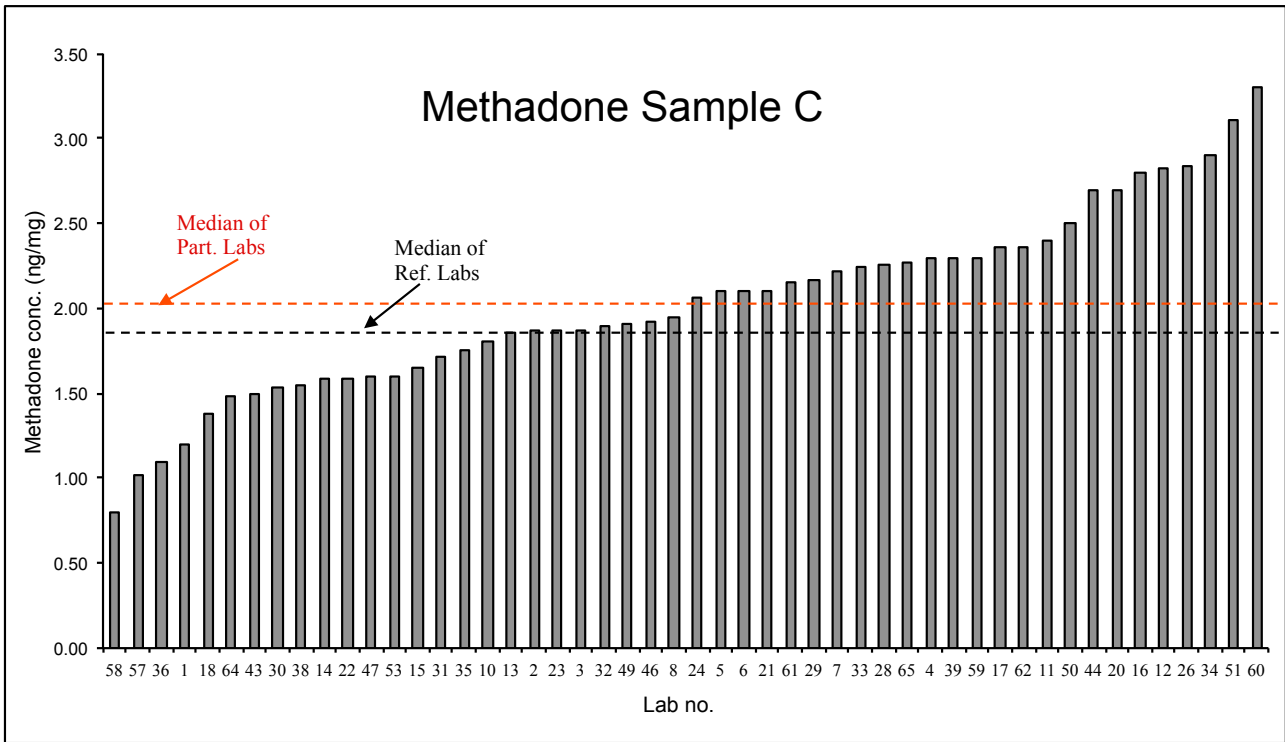
Average	0.078
SD	0.030
CV%	38.332
Median	0.070
Minimum	0.032
Quartile 25	0.059
Quartile 75	0.100
Maximum	0.160
Iqr	0.042



METHADONE

Lab	Methadone (ng/mg)	Z-score	Result
1	1.20	-1.17	Satisfactory
2	1.87	-0.21	Satisfactory
3	1.87	-0.21	Satisfactory
4	2.30	0.42	Satisfactory
5	2.10	0.13	Satisfactory
6	2.10	0.13	Satisfactory
7	2.22	0.30	Satisfactory
8	1.95	-0.09	Satisfactory
10	1.80	-0.30	Satisfactory
11	2.40	0.57	Satisfactory
12	2.83	1.19	Satisfactory
13	1.86	-0.22	Satisfactory
14	1.58	-0.62	Satisfactory
15	1.65	-0.52	Satisfactory
16	2.80	1.14	Satisfactory
17	2.36	0.51	Satisfactory
18	1.38	-0.91	Satisfactory
20	2.70	1.00	Satisfactory
21	2.11	0.14	Satisfactory
22	1.59	-0.61	Satisfactory
23	1.87	-0.21	Satisfactory
24	2.06	0.07	Satisfactory
26	2.84	1.21	Satisfactory
28	2.25	0.35	Satisfactory
29	2.17	0.23	Satisfactory
30	1.54	-0.68	Satisfactory
31	1.72	-0.42	Satisfactory
32	1.90	-0.16	Satisfactory
33	2.25	0.35	Satisfactory
34	2.90	1.29	Satisfactory
35	1.75	-0.38	Satisfactory
36	1.09	-1.33	Satisfactory
38	1.55	-0.67	Satisfactory
39	2.30	0.42	Satisfactory
40	P		
43	1.49	-0.75	Satisfactory
44	2.70	0.99	Satisfactory
46	1.92	-0.13	Satisfactory
47	1.60	-0.59	Satisfactory
49	1.91	-0.14	Satisfactory
50	2.50	0.71	Satisfactory
51	3.11	1.60	Satisfactory
53	1.60	-0.59	Satisfactory
57	1.02	-1.43	Satisfactory
58	0.80	-1.75	Satisfactory
59	2.30	0.42	Satisfactory
60	3.30	1.87	Satisfactory
61	2.16	0.22	Satisfactory
62	2.36	0.51	Satisfactory
64	1.49	-0.76	Satisfactory
65	2.27	0.38	Satisfactory

Average	2.03
SD	0.53
CV%	26.32
Median	2.01
Minimum	0.80
Quartile 25	1.61
Quartile 75	2.30
Maximum	3.30
Iqr	0.69

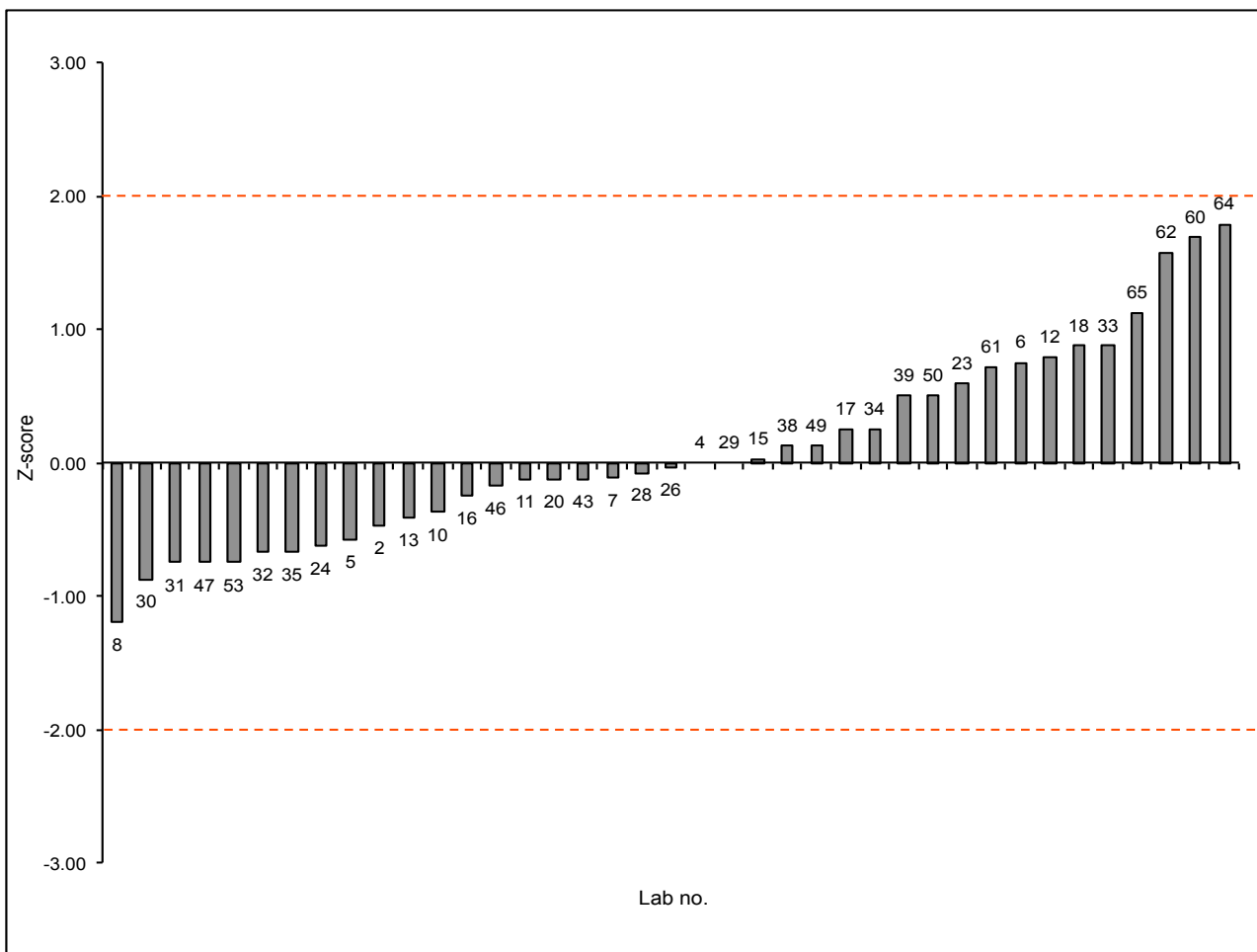
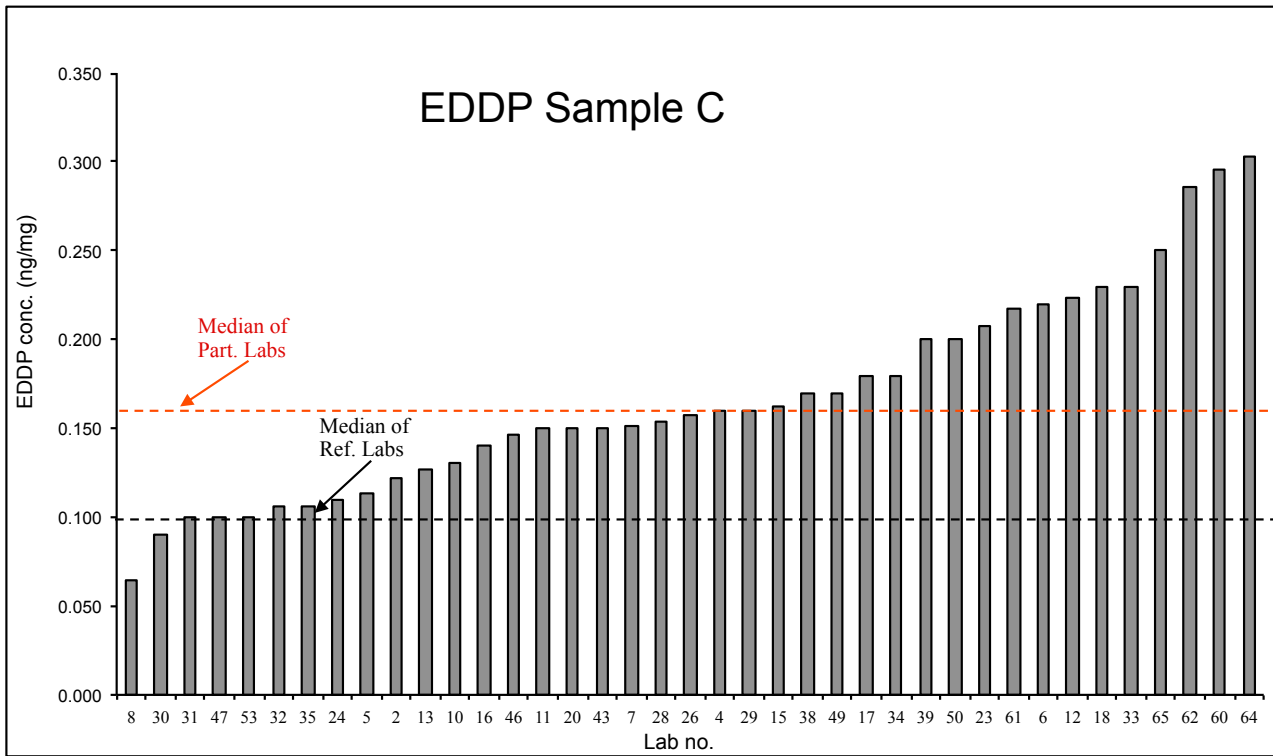


EDDP

Lab	EDDP (ng/mg)	Z-score	Result
2	0.122	-0.48	Satisfactory
3	P		
4	0.160	0.00	Satisfactory
5	0.114	-0.58	Satisfactory
6	0.220	0.75	Satisfactory
7	0.151	-0.11	Satisfactory
8	0.064	-1.20	Satisfactory
9	U		
10	0.130	-0.38	Satisfactory
11	0.150	-0.13	Satisfactory
12	0.223	0.79	Satisfactory
13	0.127	-0.41	Satisfactory
15	0.162	0.03	Satisfactory
16	0.140	-0.25	Satisfactory
17	0.180	0.25	Satisfactory
18	0.230	0.88	Satisfactory
20	0.150	-0.13	Satisfactory
21	P		
23	0.207	0.59	Satisfactory
24	0.110	-0.63	Satisfactory
26	0.157	-0.04	Satisfactory
28	0.154	-0.08	Satisfactory
29	0.160	0.00	Satisfactory
30	0.090	-0.88	Satisfactory
31	0.100	-0.75	Satisfactory
32	0.106	-0.68	Satisfactory
33	0.230	0.88	Satisfactory
34	0.180	0.25	Satisfactory
35	0.106	-0.68	Satisfactory
38	0.170	0.13	Satisfactory
39	0.200	0.50	Satisfactory
43	0.150	-0.13	Satisfactory
44	0.636	Outlier*	
46	0.146	-0.18	Satisfactory
47	0.100	-0.75	Satisfactory
49	0.170	0.13	Satisfactory
50	0.200	0.50	Satisfactory
53	0.100	-0.75	Satisfactory
59	P		
60	0.295	1.69	Satisfactory
61	0.217	0.71	Satisfactory
62	0.286	1.58	Satisfactory
64	0.303	1.79	Satisfactory
65	0.250	1.13	Satisfactory

Average	0.167
SD	0.057
CV%	34.271
Median	0.157
Minimum	0.064
Quartile 25	0.125
Quartile 75	0.204
Maximum	0.303
Iqr	0.079

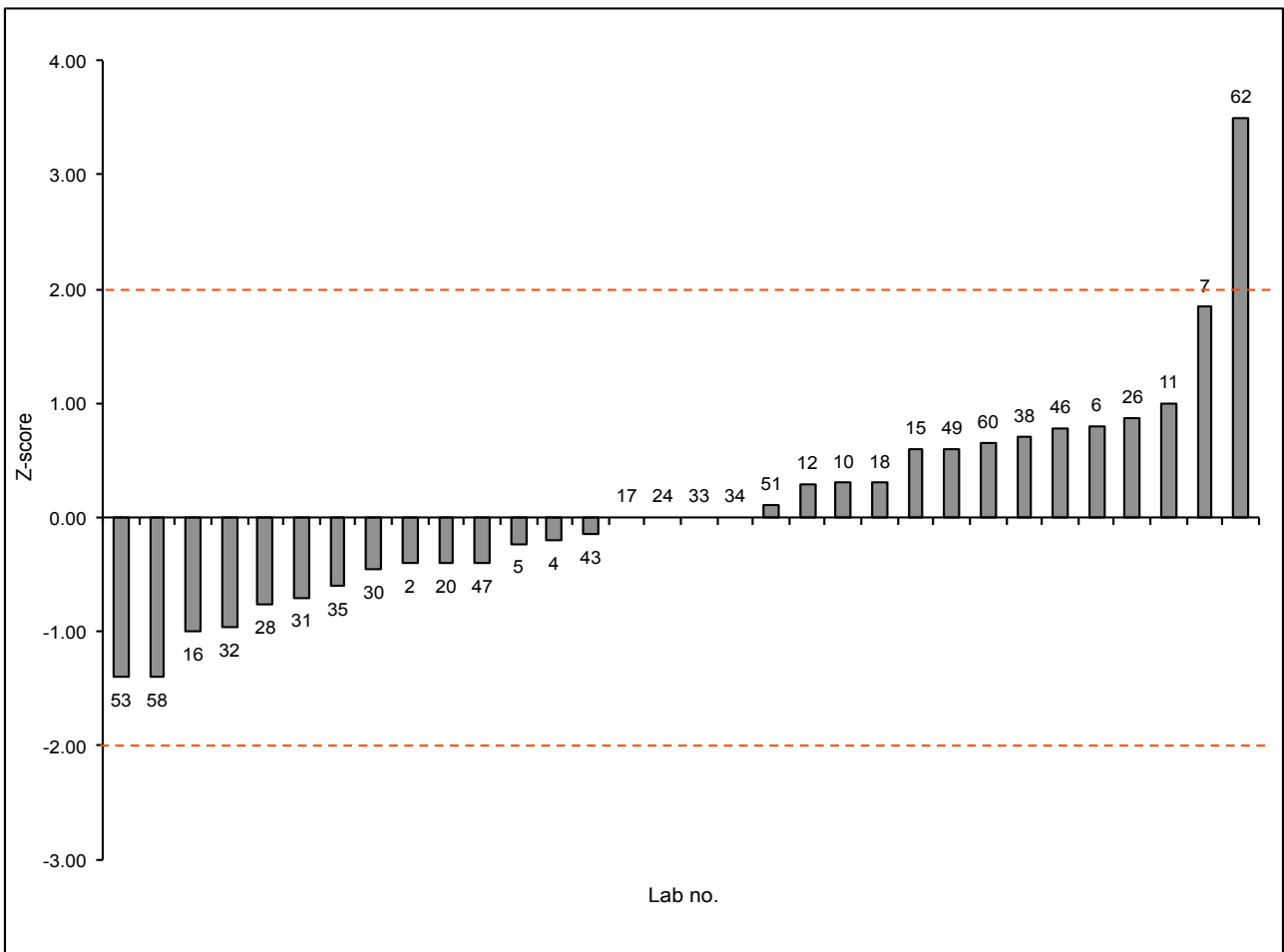
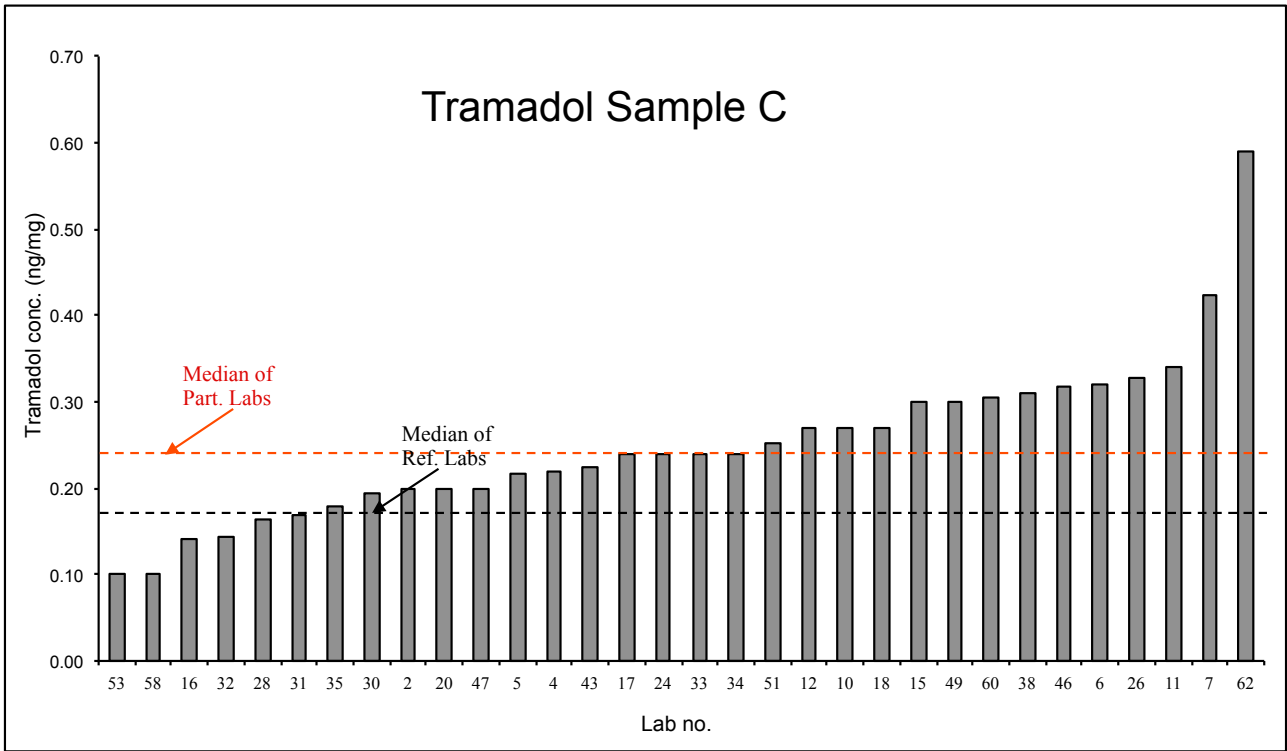
* Lab 44 has not been included in the statistical study



TRAMADOL

Lab	Tramadol (ng/mg)	Z-score	Result
1	N		
2	0.20	-0.40	Satisfactory
4	0.22	-0.20	Satisfactory
5	0.22	-0.23	Satisfactory
6	0.32	0.80	Satisfactory
7	0.42	1.84	Satisfactory
10	0.27	0.30	Satisfactory
11	0.34	1.00	Satisfactory
12	0.27	0.29	Satisfactory
13	N		
15	0.30	0.60	Satisfactory
16	0.14	-1.00	Satisfactory
17	0.24	0.00	Satisfactory
18	0.27	0.30	Satisfactory
20	0.20	-0.40	Satisfactory
21	P		
24	0.24	0.00	Satisfactory
26	0.33	0.87	Satisfactory
27	N		
28	0.16	-0.76	Satisfactory
30	0.20	-0.45	Satisfactory
31	0.17	-0.70	Satisfactory
32	0.14	-0.96	Satisfactory
33	0.24	0.00	Satisfactory
34	0.24	0.00	Satisfactory
35	0.18	-0.60	Satisfactory
38	0.31	0.70	Satisfactory
40	P		
43	0.23	-0.15	Satisfactory
46	0.32	0.78	Satisfactory
47	0.20	-0.40	Satisfactory
49	0.30	0.60	Satisfactory
50	N		
51	0.25	0.11	Satisfactory
53	0.10	-1.40	Satisfactory
58	0.10	-1.40	Satisfactory
60	0.31	0.65	Satisfactory
62	0.59	3.50	Unsatisfactory
64	N		

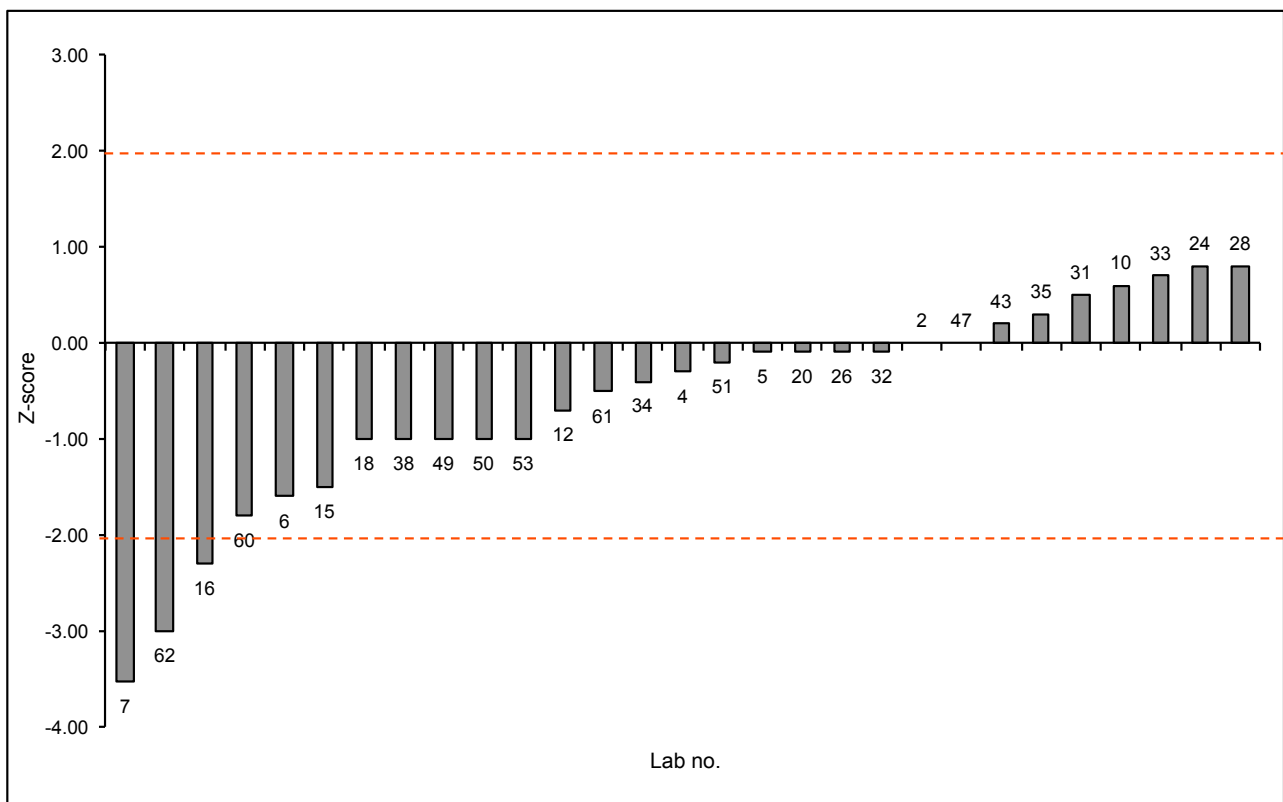
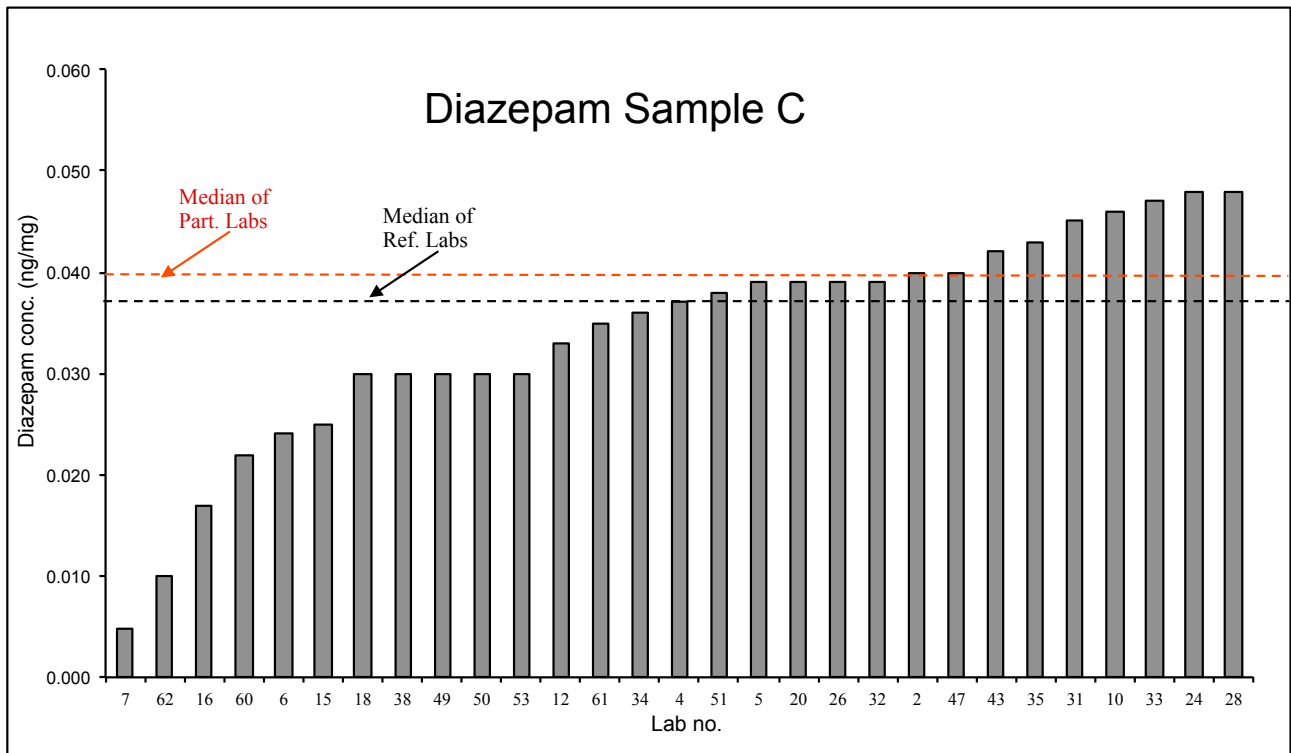
Average	0.25
SD	0.09
CV%	37.56
Median	0.24
Minimum	0.10
Quartile 25	0.20
Quartile 75	0.30
Maximum	0.59
Iqr	0.10



DIAZEPAM

Lab	Diazepam (ng/mg)	Z-score	Result
2	0.040	0.00	Satisfactory
3	N		
4	0.037	-0.30	Satisfactory
5	0.039	-0.10	Satisfactory
6	0.024	-1.60	Satisfactory
7	0.005	-3.53	Unsatisfactory
8	N		
9	N		
10	0.046	0.60	Satisfactory
11	<0.05		
12	0.033	-0.70	Satisfactory
13	N		
15	0.025	-1.50	Satisfactory
16	0.017	-2.30	Questionable
17	N		
18	0.030	-1.00	Satisfactory
20	0.039	-0.10	Satisfactory
21	P		
24	0.048	0.80	Satisfactory
26	0.039	-0.10	Satisfactory
28	0.048	0.80	Satisfactory
30	<0.125		
31	0.045	0.50	Satisfactory
32	0.039	-0.10	Satisfactory
33	0.047	0.70	Satisfactory
34	0.036	-0.40	Satisfactory
35	0.043	0.30	Satisfactory
36	N		
37	N		
38	0.030	-1.00	Satisfactory
40	N		
43	0.042	0.20	Satisfactory
46	N		
47	0.040	0.00	Satisfactory
49	0.030	-1.00	Satisfactory
50	0.030	-1.00	Satisfactory
51	0.038	-0.20	Satisfactory
53	0.030	-1.00	Satisfactory
58	N		
59	N		
60	0.022	-1.80	Satisfactory
61	0.035	-0.51	Satisfactory
62	0.010	-3.00	Unsatisfactory
64	N		

Average	0.034
SD	0.011
CV%	31.366
Median	0.037
Minimum	0.005
Quartile 25	0.030
Quartile 75	0.040
Maximum	0.048
Iqr	0.010



NORDAZEPAM

Lab	Nordazepam (ng/mg)	Z-score	Result
2	0.024	0.40	Satisfactory
3	N		
4	0.022	0.20	Satisfactory
5	0.022	0.20	Satisfactory
6	N		
7	N		
8	N		
9	N		
10	0.030	1.00	Satisfactory
11	<0.05		
12	<0.02		
13	N		
15	0.011	-0.90	Satisfactory
16	0.018	-0.20	Satisfactory
17	0.030	1.00	Satisfactory
18	0.008	-1.20	Satisfactory
20	0.028	0.80	Satisfactory
21	P		
24	0.040	2.00	Questionable
26	0.027	0.70	Satisfactory
28	0.032	1.20	Satisfactory
30	<0.125		
31	0.025	0.50	Satisfactory
32	0.020	0.00	Satisfactory
33	0.048	2.80	Questionable
35	0.023	0.30	Satisfactory
36	N		
37	N		
38	0.020	0.00	Satisfactory
40	N		
43	0.021	0.10	Satisfactory
46	N		
47	0.020	0.00	Satisfactory
49	0.020	0.00	Satisfactory
50	0.030	1.00	Satisfactory
51	N		
53	0.010	-1.00	Satisfactory
58	N		
59	N		
60	0.023	0.30	Satisfactory
61	0.023	0.31	Satisfactory
62	0.010	-1.00	Satisfactory
64	N		

Average	0.023
SD	0.009
CV%	37.813
Median	0.023
Minimum	0.008
Quartile 25	0.020
Quartile 75	0.028
Maximum	0.048
Iqr	0.008

