

Appendix to the Annual Report 2022

Individual results of the stack emission proficiency tests
for substance ranges P, G and O at the emission simulation
apparatus in 2022

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1. About this Document

This report is a translation of „Anhang zum Jahresbericht 2022 – Einzelergebnisse der Emissionsringversuche der Stoffbereiche P, G und O an der Emissionssimulationsanlage im Jahr 2022“ and was prepared with best care and attention. Nevertheless, the German version of this report shall be taken as authoritative. No guarantee can be given with respect to the English translation.

In order to improve the readability of the annual report on the HLNUG proficiency tests, the individual measurement results of the participants are not presented in the report itself. Instead, these data are listed in this appendix to the annual report.

Unfortunately, HLNUG cannot provide a breakdown of the results according to proficiency test rounds. The participants in a proficiency test round know the identity of the other participants. Consequently, if a list of ID codes of a proficiency test round were to be published, participants could, with a certain amount of effort, learn the ID code of another participant without their knowledge or consent. In order to prevent this, the German accreditation body DAkkS has asked HLNUG to avoid any connection between results, ID codes and proficiency test rounds in public reports.

2. Results – List of Achieved z-Scores

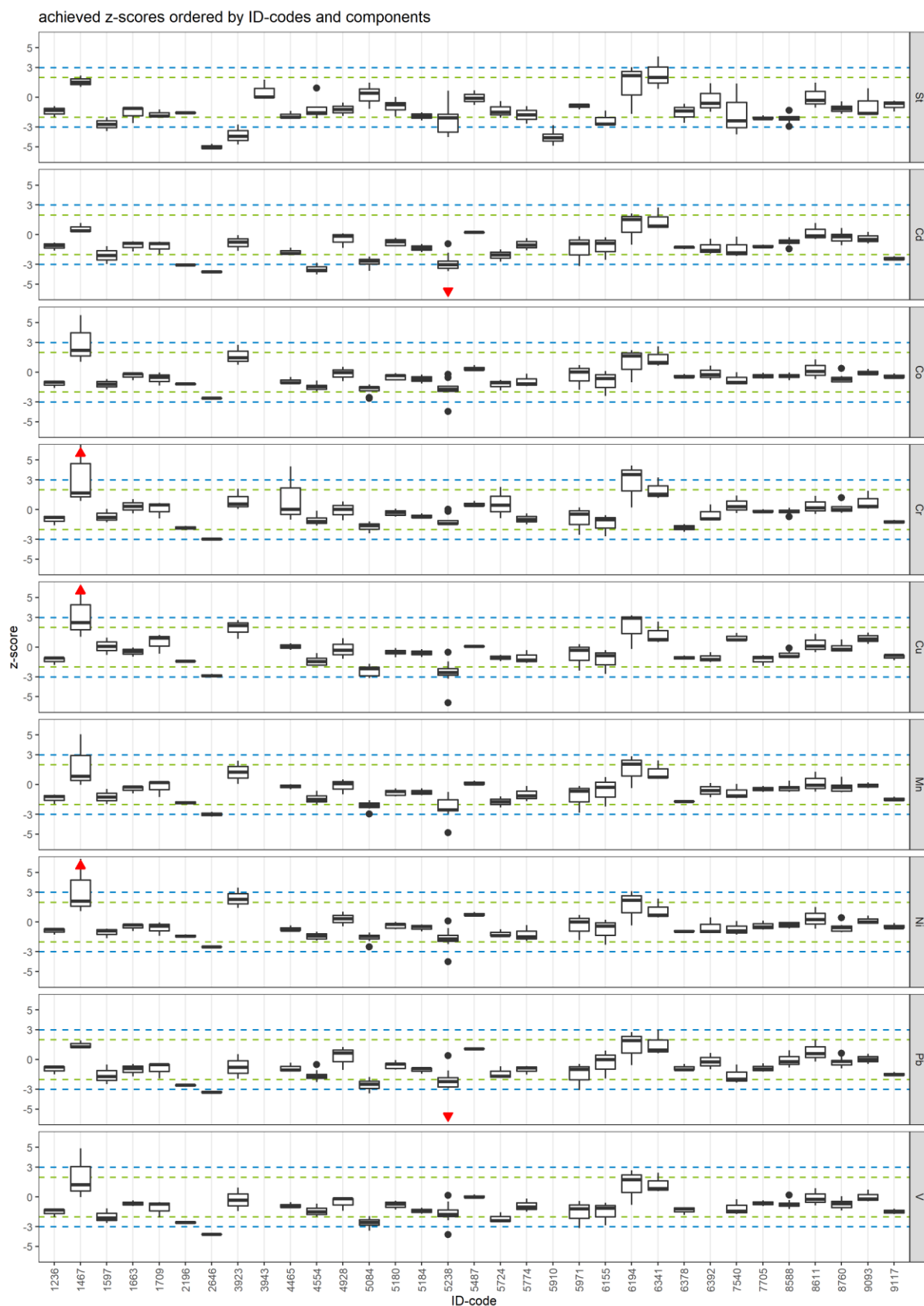
The following tables show the z-scores achieved by the participants. The values are sorted by component and ID code. The measurement ID (column 2) is an alphanumeric identifier that can be clearly assigned to each measurement and consists of the component description, measurement number and the participant ID code.

If a participant did not submit a value for one or more measurements, this is indicated by a "-/-".

A compact overview of the z-scores achieved by the participants can be found in the following box whisker plots. The rectangle indicates values between the 25th and 75th percentile (interquartile distance), the bold line inside the rectangle indicates the median of the values. The "antennas" reach from the upper edge of the rectangle to the highest and from the lower edge to the lowest value, which is still within 1.5 times the interquartile distance. Values outside this range are displayed separately in the diagram, points outside the diagram range are indicated by red arrows.

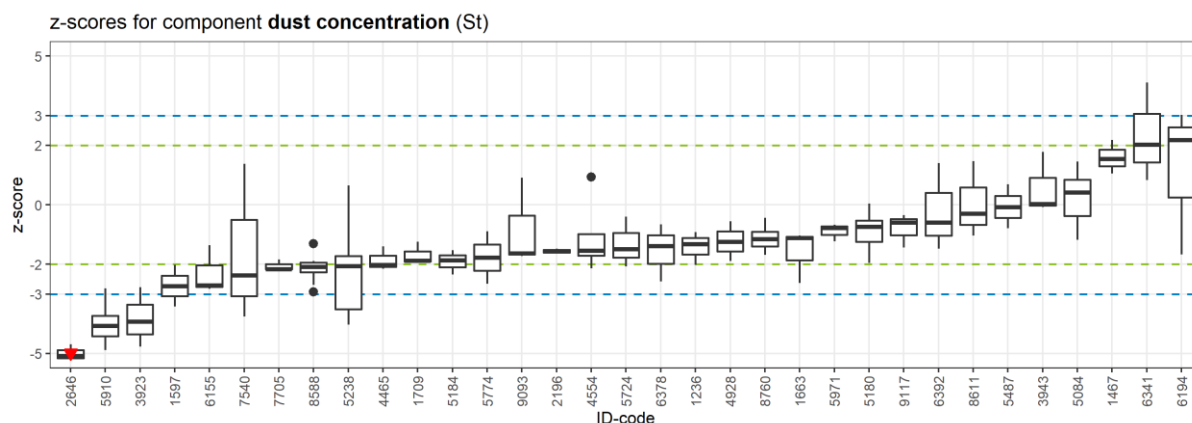
In order to be able to assess the performance of individual participants across all components and to get an impression of the quality of measurements for individual components, the diagrams are available in two different sorts; on the one hand as an overview on one page, on the other hand sorted according to the respective median of the achieved z-scores.

2.1 Dust Proficiency Test (Substance Range P)



Scheme 1: z-scores for the substance range P

2.1.1 Dust Concentration



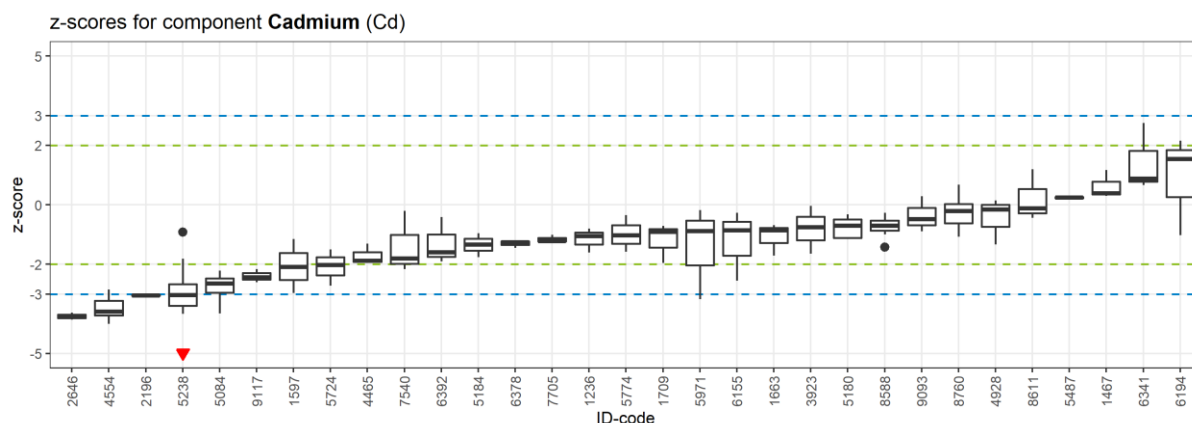
No.	Measurement ID	z-Score
1	St-1-1236	-0,91
2	St-2-1236	-1,32
3	St-3-1236	-2,02
4	St-1-1467	2,18
5	St-2-1467	1,05
6	St-3-1467	1,54
7	St-1-1597	-2,73
8	St-2-1597	-2,02
9	St-3-1597	-3,42
10	St-1-1663	-2,63
11	St-2-1663	-1,11
12	St-3-1663	-1,04
13	St-1-1709	-1,24
14	St-2-1709	-1,88
15	St-3-1709	-1,94
16	St-1-2196	-1,64
17	St-2-2196	-1,48
18	St-3-2196	-/-
19	St-1-2646	-5,09
20	St-2-2646	-4,70
21	St-3-2646	-5,23
22	St-1-3923	-3,93
23	St-2-3923	-4,78
24	St-3-3923	-2,77
25	St-1-3943	1,78
26	St-2-3943	-0,07
27	St-3-3943	0,02
28	St-1-4465	-2,02
29	St-2-4465	-2,15
30	St-3-4465	-1,39
31	St-2-4554	-1,79
32	St-3-4554	-0,98

No.	Measurement ID	z-Score
33	St-4-4554	-1,55
34	St-5-4554	0,94
35	St-6-4554	-1,71
36	St-7-4554	-1,45
37	St-8-4554	-0,96
38	St-9-4554	-2,13
39	St-10-4554	-1,67
40	St-1-4928	-1,90
41	St-2-4928	-1,24
42	St-3-4928	-0,55
43	St-2-5084	1,01
44	St-3-5084	0,76
45	St-4-5084	-1,18
46	St-5-5084	0,84
47	St-6-5084	0,42
48	St-7-5084	1,46
49	St-8-5084	-0,38
50	St-9-5084	-0,43
51	St-10-5084	0,33
52	St-2-5180	-0,79
53	St-3-5180	-0,53
54	St-4-5180	-0,74
55	St-5-5180	0,04
56	St-6-5180	-0,51
57	St-7-5180	-1,96
58	St-8-5180	-0,74
59	St-9-5180	-1,51
60	St-10-5180	-1,25
61	St-1-5184	-2,35
62	St-2-5184	-1,86
63	St-3-5184	-1,53
64	St-2-5238	-4,03

No.	Measurement ID	z-Score
65	St-3-5238	-3,81
66	St-4-5238	-1,95
67	St-5-5238	-1,72
68	St-6-5238	-0,04
69	St-7-5238	-3,51
70	St-8-5238	0,66
71	St-9-5238	-2,19
72	St-10-5238	-2,06
73	St-1-5487	0,68
74	St-2-5487	-0,08
75	St-3-5487	-0,79
76	St-1-5724	-1,49
77	St-2-5724	-2,07
78	St-3-5724	-0,41
79	St-1-5774	-2,66
80	St-2-5774	-0,90
81	St-3-5774	-1,77
82	St-2-5910	-4,07
83	St-3-5910	-4,53
84	St-4-5910	-3,69
85	St-5-5910	-3,96
86	St-6-5910	-3,73
87	St-7-5910	-4,89
88	St-8-5910	-2,81
89	St-9-5910	-4,42
90	St-10-5910	-4,40
91	St-1-5971	-1,23
92	St-2-5971	-0,78
93	St-3-5971	-0,68
94	St-1-6155	-2,70
95	St-2-6155	-1,36
96	St-3-6155	-2,83
97	St-1-6194	3,03
98	St-2-6194	2,17
99	St-3-6194	-1,67
100	St-1-6341	2,02
101	St-2-6341	4,11
102	St-3-6341	0,84
103	St-1-6378	-1,38

No.	Measurement ID	z-Score
104	St-2-6378	-2,58
105	St-3-6378	-0,66
106	St-1-6392	-1,48
107	St-2-6392	1,40
108	St-3-6392	-0,60
109	St-1-7540	-3,76
110	St-2-7540	-2,38
111	St-3-7540	1,38
112	St-1-7705	-2,17
113	St-2-7705	-2,16
114	St-3-7705	-1,83
115	St-2-8588	-2,17
116	St-3-8588	-1,94
117	St-4-8588	-1,89
118	St-5-8588	-2,27
119	St-6-8588	-2,04
120	St-7-8588	-2,08
121	St-8-8588	-2,93
122	St-9-8588	-2,70
123	St-10-8588	-1,31
124	St-1-8611	1,46
125	St-2-8611	-0,30
126	St-3-8611	-1,04
127	St-2-8760	-1,15
128	St-3-8760	-1,17
129	St-4-8760	-0,90
130	St-5-8760	-1,68
131	St-6-8760	-0,73
132	St-7-8760	-1,67
133	St-8-8760	-0,44
134	St-9-8760	-1,40
135	St-10-8760	-1,07
136	St-1-9093	-1,72
137	St-2-9093	0,91
138	St-3-9093	-1,63
139	St-1-9117	-0,35
140	St-2-9117	-0,60
141	St-3-9117	-1,44

2.1.2 Cadmium



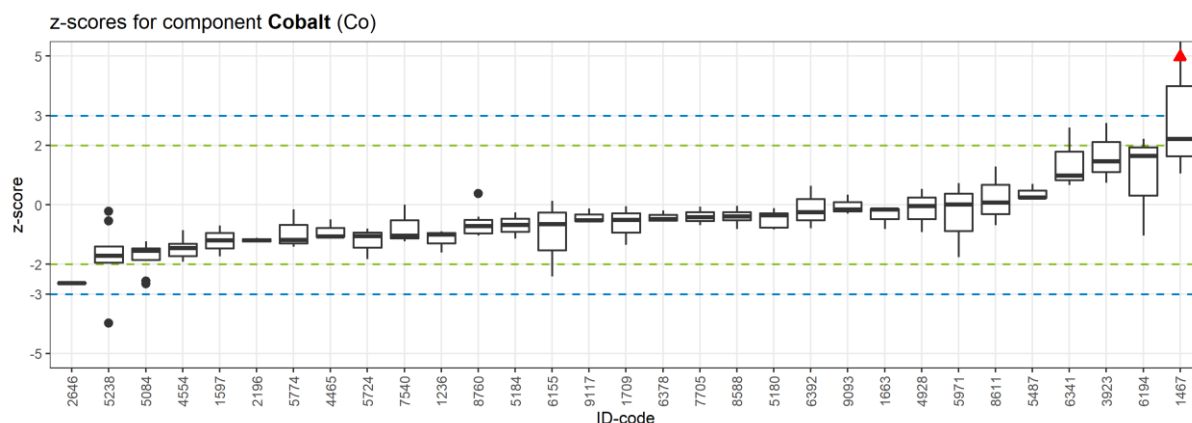
No.	Measurement ID	z-Score
1	Cd-1-1236	-1,05
2	Cd-2-1236	-0,80
3	Cd-3-1236	-1,61
4	Cd-1-1467	1,17
5	Cd-2-1467	0,30
6	Cd-3-1467	0,39
7	Cd-1-1597	-1,15
8	Cd-2-1597	-2,08
9	Cd-3-1597	-2,97
10	Cd-1-1663	-1,71
11	Cd-2-1663	-0,69
12	Cd-3-1663	-0,86
13	Cd-1-1709	-0,90
14	Cd-2-1709	-1,96
15	Cd-3-1709	-0,71
16	Cd-1-2196	-3,03
17	Cd-2-2196	-3,07
18	Cd-3-2196	-/-
19	Cd-1-2646	-/-
20	Cd-2-2646	-3,63
21	Cd-3-2646	-3,86
22	Cd-1-3923	-0,75
23	Cd-2-3923	-1,64
24	Cd-3-3923	-0,04
25	Cd-1-3943	-/-
26	Cd-2-3943	-/-
27	Cd-3-3943	-/-
28	Cd-1-4465	-1,95
29	Cd-2-4465	-1,88
30	Cd-3-4465	-1,31
31	Cd-2-4554	-3,17
32	Cd-3-4554	-3,29

No.	Measurement ID	z-Score
33	Cd-4-4554	-4,01
34	Cd-5-4554	-3,23
35	Cd-6-4554	-3,65
36	Cd-7-4554	-3,93
37	Cd-8-4554	-2,85
38	Cd-9-4554	-3,59
39	Cd-10-4554	-3,72
40	Cd-1-4928	-1,34
41	Cd-2-4928	0,14
42	Cd-3-4928	-0,15
43	Cd-2-5084	-2,47
44	Cd-3-5084	-2,53
45	Cd-4-5084	-3,66
46	Cd-5-5084	-2,31
47	Cd-6-5084	-2,65
48	Cd-7-5084	-2,21
49	Cd-8-5084	-2,95
50	Cd-9-5084	-3,07
51	Cd-10-5084	-2,66
52	Cd-2-5180	-1,13
53	Cd-3-5180	-0,73
54	Cd-4-5180	-0,49
55	Cd-5-5180	-0,32
56	Cd-6-5180	-0,43
57	Cd-7-5180	-1,11
58	Cd-8-5180	-0,65
59	Cd-9-5180	-1,11
60	Cd-10-5180	-0,71
61	Cd-1-5184	-1,76
62	Cd-2-5184	-1,33
63	Cd-3-5184	-0,95
64	Cd-2-5238	-3,31

No.	Measurement ID	z-Score
65	Cd-3-5238	-8,32
66	Cd-4-5238	-3,01
67	Cd-5-5238	-3,03
68	Cd-6-5238	-0,91
69	Cd-7-5238	-3,39
70	Cd-8-5238	-1,81
71	Cd-9-5238	-2,67
72	Cd-10-5238	-3,67
73	Cd-1-5487	0,25
74	Cd-2-5487	0,28
75	Cd-3-5487	0,19
76	Cd-1-5724	-2,02
77	Cd-2-5724	-2,72
78	Cd-3-5724	-1,50
79	Cd-1-5774	-1,58
80	Cd-2-5774	-0,35
81	Cd-3-5774	-1,03
82	Cd-2-5910	-/-
83	Cd-3-5910	-/-
84	Cd-4-5910	-/-
85	Cd-5-5910	-/-
86	Cd-6-5910	-/-
87	Cd-7-5910	-/-
88	Cd-8-5910	-/-
89	Cd-9-5910	-/-
90	Cd-10-5910	-/-
91	Cd-1-5971	-3,18
92	Cd-2-5971	-0,89
93	Cd-3-5971	-0,18
94	Cd-1-6155	-0,86
95	Cd-2-6155	-0,27
96	Cd-3-6155	-2,55
97	Cd-1-6194	2,15
98	Cd-2-6194	1,54
99	Cd-3-6194	-1,02
100	Cd-1-6341	0,67
101	Cd-2-6341	2,75
102	Cd-3-6341	0,88
103	Cd-1-6378	-1,45

No.	Measurement ID	z-Score
104	Cd-2-6378	-1,25
105	Cd-3-6378	-1,21
106	Cd-1-6392	-1,90
107	Cd-2-6392	-0,41
108	Cd-3-6392	-1,59
109	Cd-1-7540	-1,81
110	Cd-2-7540	-2,16
111	Cd-3-7540	-0,21
112	Cd-1-7705	-1,26
113	Cd-2-7705	-1,21
114	Cd-3-7705	-1,00
115	Cd-2-8588	-0,60
116	Cd-3-8588	-1,43
117	Cd-4-8588	-0,87
118	Cd-5-8588	-0,53
119	Cd-6-8588	-0,27
120	Cd-7-8588	-1,00
121	Cd-8-8588	-0,70
122	Cd-9-8588	-0,84
123	Cd-10-8588	-0,31
124	Cd-1-8611	1,19
125	Cd-2-8611	-0,12
126	Cd-3-8611	-0,44
127	Cd-2-8760	-0,43
128	Cd-3-8760	0,03
129	Cd-4-8760	-0,03
130	Cd-5-8760	-1,08
131	Cd-6-8760	-0,63
132	Cd-7-8760	-0,62
133	Cd-8-8760	0,67
134	Cd-9-8760	-0,21
135	Cd-10-8760	0,53
136	Cd-1-9093	-0,90
137	Cd-2-9093	0,29
138	Cd-3-9093	-0,48
139	Cd-1-9117	-2,60
140	Cd-2-9117	-2,16
141	Cd-3-9117	-2,43

2.1.3 Cobalt



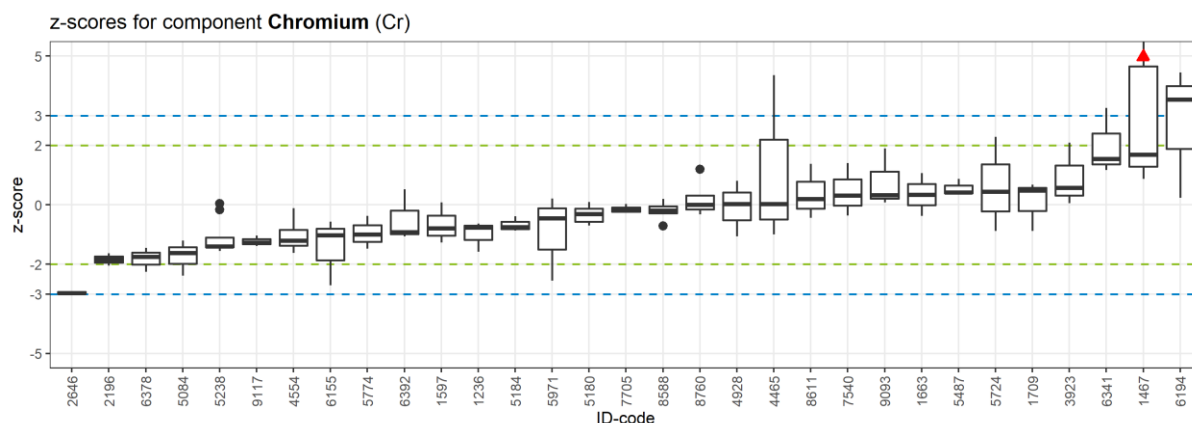
No.	Measurement ID	z-Score
1	Co-1-1236	-0,89
2	Co-2-1236	-1,00
3	Co-3-1236	-1,60
4	Co-1-1467	2,22
5	Co-2-1467	1,06
6	Co-3-1467	5,76
7	Co-1-1597	-0,70
8	Co-2-1597	-1,19
9	Co-3-1597	-1,74
10	Co-1-1663	-0,82
11	Co-2-1663	-0,14
12	Co-3-1663	-0,15
13	Co-1-1709	-0,51
14	Co-2-1709	-1,35
15	Co-3-1709	-0,05
16	Co-1-2196	-1,27
17	Co-2-2196	-1,11
18	Co-3-2196	-/-
19	Co-1-2646	-/-
20	Co-2-2646	-2,60
21	Co-3-2646	-2,65
22	Co-1-3923	1,47
23	Co-2-3923	0,74
24	Co-3-3923	2,75
25	Co-1-3943	-/-
26	Co-2-3943	-/-
27	Co-3-3943	-/-
28	Co-1-4465	-1,09
29	Co-2-4465	-1,06
30	Co-3-4465	-0,49
31	Co-2-4554	-1,45
32	Co-3-4554	-1,31

No.	Measurement ID	z-Score
33	Co-4-4554	-1,82
34	Co-5-4554	-1,11
35	Co-6-4554	-1,41
36	Co-7-4554	-1,92
37	Co-8-4554	-0,86
38	Co-9-4554	-1,49
39	Co-10-4554	-1,73
40	Co-1-4928	-0,92
41	Co-2-4928	0,53
42	Co-3-4928	-0,04
43	Co-2-5084	-1,29
44	Co-3-5084	-1,51
45	Co-4-5084	-2,66
46	Co-5-5084	-1,46
47	Co-6-5084	-1,55
48	Co-7-5084	-1,24
49	Co-8-5084	-1,85
50	Co-9-5084	-2,56
51	Co-10-5084	-1,58
52	Co-2-5180	-0,83
53	Co-3-5180	-0,43
54	Co-4-5180	-0,35
55	Co-5-5180	-0,11
56	Co-6-5180	-0,31
57	Co-7-5180	-0,83
58	Co-8-5180	-0,29
59	Co-9-5180	-0,77
60	Co-10-5180	-0,15
61	Co-1-5184	-1,14
62	Co-2-5184	-0,68
63	Co-3-5184	-0,26
64	Co-2-5238	-1,94

No.	Measurement ID	z-Score
65	Co-3-5238	-3,98
66	Co-4-5238	-1,71
67	Co-5-5238	-1,60
68	Co-6-5238	-0,21
69	Co-7-5238	-1,94
70	Co-8-5238	-0,54
71	Co-9-5238	-1,40
72	Co-10-5238	-1,83
73	Co-1-5487	0,71
74	Co-2-5487	0,25
75	Co-3-5487	0,21
76	Co-1-5724	-1,05
77	Co-2-5724	-1,83
78	Co-3-5724	-0,80
79	Co-1-5774	-1,41
80	Co-2-5774	-0,16
81	Co-3-5774	-1,17
82	Co-2-5910	-/-
83	Co-3-5910	-/-
84	Co-4-5910	-/-
85	Co-5-5910	-/-
86	Co-6-5910	-/-
87	Co-7-5910	-/-
88	Co-8-5910	-/-
89	Co-9-5910	-/-
90	Co-10-5910	-/-
91	Co-1-5971	-1,77
92	Co-2-5971	0,02
93	Co-3-5971	0,72
94	Co-1-6155	-0,65
95	Co-2-6155	0,13
96	Co-3-6155	-2,41
97	Co-1-6194	2,22
98	Co-2-6194	1,65
99	Co-3-6194	-1,04
100	Co-1-6341	0,67
101	Co-2-6341	2,59
102	Co-3-6341	0,98
103	Co-1-6378	-0,19

No.	Measurement ID	z-Score
104	Co-2-6378	-0,57
105	Co-3-6378	-0,48
106	Co-1-6392	-0,80
107	Co-2-6392	0,64
108	Co-3-6392	-0,24
109	Co-1-7540	-1,03
110	Co-2-7540	-1,23
111	Co-3-7540	0,00
112	Co-1-7705	-0,68
113	Co-2-7705	-0,07
114	Co-3-7705	-0,41
115	Co-2-8588	-0,30
116	Co-3-8588	-0,81
117	Co-4-8588	-0,48
118	Co-5-8588	-0,24
119	Co-6-8588	-0,08
120	Co-7-8588	-0,65
121	Co-8-8588	-0,39
122	Co-9-8588	-0,52
123	Co-10-8588	-0,03
124	Co-1-8611	1,28
125	Co-2-8611	0,08
126	Co-3-8611	-0,69
127	Co-2-8760	-0,71
128	Co-3-8760	-0,51
129	Co-4-8760	-1,01
130	Co-5-8760	-0,82
131	Co-6-8760	-0,96
132	Co-7-8760	-1,03
133	Co-8-8760	0,37
134	Co-9-8760	-0,64
135	Co-10-8760	-0,41
136	Co-1-9093	-0,30
137	Co-2-9093	0,34
138	Co-3-9093	-0,15
139	Co-1-9117	-0,52
140	Co-2-9117	-0,13
141	Co-3-9117	-0,56

2.1.4 Chromium



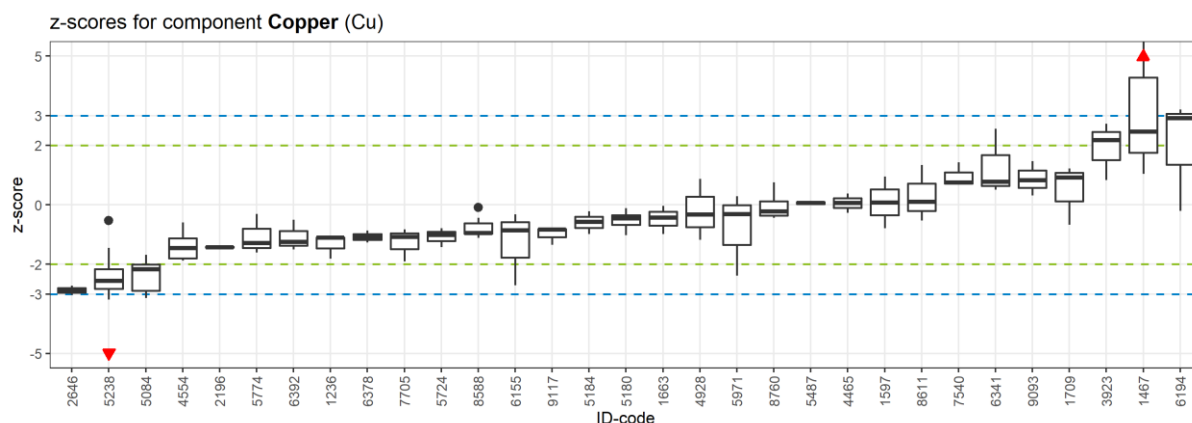
No.	Measurement ID	z-Score
1	Cr-1-1236	-0,63
2	Cr-2-1236	-0,76
3	Cr-3-1236	-1,58
4	Cr-1-1467	1,69
5	Cr-2-1467	0,87
6	Cr-3-1467	7,62
7	Cr-1-1597	0,08
8	Cr-2-1597	-0,79
9	Cr-3-1597	-1,27
10	Cr-1-1663	-0,37
11	Cr-2-1663	1,06
12	Cr-3-1663	0,34
13	Cr-1-1709	0,48
14	Cr-2-1709	-0,89
15	Cr-3-1709	0,67
16	Cr-1-2196	-1,63
17	Cr-2-2196	-2,05
18	Cr-3-2196	-/-
19	Cr-1-2646	-/-
20	Cr-2-2646	-3,02
21	Cr-3-2646	-2,90
22	Cr-1-3923	0,57
23	Cr-2-3923	0,05
24	Cr-3-3923	2,09
25	Cr-1-3943	-/-
26	Cr-2-3943	-/-
27	Cr-3-3943	-/-
28	Cr-1-4465	0,03
29	Cr-2-4465	-1,00
30	Cr-3-4465	4,35
31	Cr-2-4554	-1,28
32	Cr-3-4554	-0,86

No.	Measurement ID	z-Score
33	Cr-4-4554	-1,60
34	Cr-5-4554	-0,55
35	Cr-6-4554	-0,84
36	Cr-7-4554	-1,62
37	Cr-8-4554	-0,12
38	Cr-9-4554	-1,20
39	Cr-10-4554	-1,37
40	Cr-1-4928	-1,06
41	Cr-2-4928	0,80
42	Cr-3-4928	0,02
43	Cr-2-5084	-1,38
44	Cr-3-5084	-1,42
45	Cr-4-5084	-2,39
46	Cr-5-5084	-1,47
47	Cr-6-5084	-1,62
48	Cr-7-5084	-1,20
49	Cr-8-5084	-1,98
50	Cr-9-5084	-1,98
51	Cr-10-5084	-1,98
52	Cr-2-5180	-0,65
53	Cr-3-5180	-0,31
54	Cr-4-5180	-0,21
55	Cr-5-5180	0,09
56	Cr-6-5180	-0,09
57	Cr-7-5180	-0,70
58	Cr-8-5180	-0,12
59	Cr-9-5180	-0,57
60	Cr-10-5180	-0,37
61	Cr-1-5184	-0,87
62	Cr-2-5184	-0,75
63	Cr-3-5184	-0,39
64	Cr-2-5238	-1,55

No.	Measurement ID	z-Score
65	Cr-3-5238	-1,54
66	Cr-4-5238	-1,40
67	Cr-5-5238	-1,23
68	Cr-6-5238	0,04
69	Cr-7-5238	-1,43
70	Cr-8-5238	-0,17
71	Cr-9-5238	-1,10
72	Cr-10-5238	-1,41
73	Cr-1-5487	0,87
74	Cr-2-5487	0,42
75	Cr-3-5487	0,36
76	Cr-1-5724	-0,88
77	Cr-2-5724	2,29
78	Cr-3-5724	0,44
79	Cr-1-5774	-1,48
80	Cr-2-5774	-0,37
81	Cr-3-5774	-1,00
82	Cr-2-5910	-/-
83	Cr-3-5910	-/-
84	Cr-4-5910	-/-
85	Cr-5-5910	-/-
86	Cr-6-5910	-/-
87	Cr-7-5910	-/-
88	Cr-8-5910	-/-
89	Cr-9-5910	-/-
90	Cr-10-5910	-/-
91	Cr-1-5971	-2,55
92	Cr-2-5971	-0,45
93	Cr-3-5971	0,21
94	Cr-1-6155	-1,03
95	Cr-2-6155	-0,58
96	Cr-3-6155	-2,71
97	Cr-1-6194	4,44
98	Cr-2-6194	3,54
99	Cr-3-6194	0,23
100	Cr-1-6341	1,55
101	Cr-2-6341	3,25
102	Cr-3-6341	1,17
103	Cr-1-6378	-1,46

No.	Measurement ID	z-Score
104	Cr-2-6378	-2,26
105	Cr-3-6378	-1,75
106	Cr-1-6392	-1,06
107	Cr-2-6392	0,53
108	Cr-3-6392	-0,92
109	Cr-1-7540	0,31
110	Cr-2-7540	-0,36
111	Cr-3-7540	1,41
112	Cr-1-7705	-0,26
113	Cr-2-7705	-0,20
114	Cr-3-7705	0,03
115	Cr-2-8588	-0,05
116	Cr-3-8588	-0,71
117	Cr-4-8588	-0,19
118	Cr-5-8588	-0,07
119	Cr-6-8588	0,15
120	Cr-7-8588	-0,33
121	Cr-8-8588	-0,23
122	Cr-9-8588	-0,29
123	Cr-10-8588	0,19
124	Cr-1-8611	1,37
125	Cr-2-8611	0,19
126	Cr-3-8611	-0,44
127	Cr-2-8760	0,00
128	Cr-3-8760	0,31
129	Cr-4-8760	-0,30
130	Cr-5-8760	-0,08
131	Cr-6-8760	-0,15
132	Cr-7-8760	-0,32
133	Cr-8-8760	1,20
134	Cr-9-8760	0,33
135	Cr-10-8760	0,14
136	Cr-1-9093	0,08
137	Cr-2-9093	1,90
138	Cr-3-9093	0,33
139	Cr-1-9117	-1,27
140	Cr-2-9117	-1,03
141	Cr-3-9117	-1,38

2.1.5 Copper



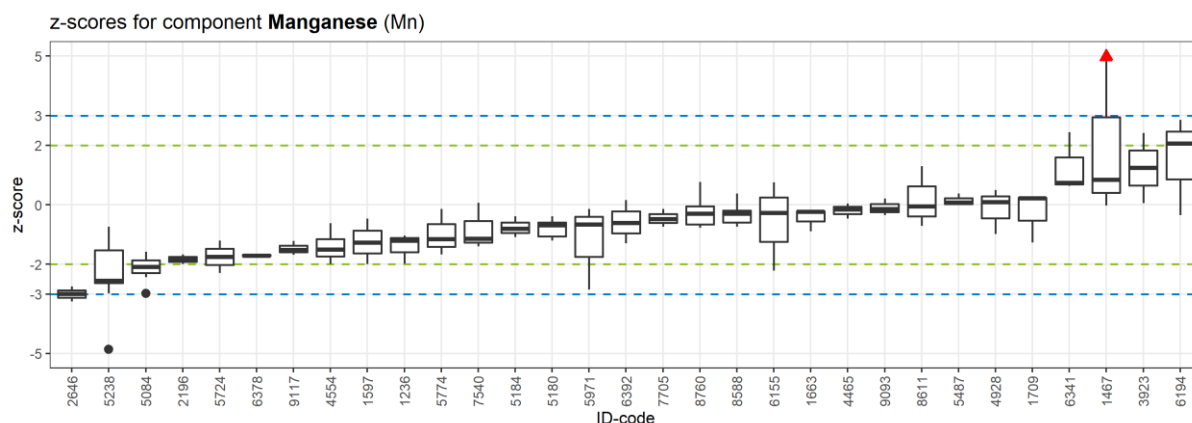
No.	Measurement ID	z-Score
1	Cu-1-1236	-1,11
2	Cu-2-1236	-1,10
3	Cu-3-1236	-1,82
4	Cu-1-1467	2,47
5	Cu-2-1467	1,04
6	Cu-3-1467	6,10
7	Cu-1-1597	0,95
8	Cu-2-1597	-0,79
9	Cu-3-1597	-/-
10	Cu-1-1663	-0,99
11	Cu-2-1663	-0,04
12	Cu-3-1663	-0,42
13	Cu-1-1709	1,23
14	Cu-2-1709	-0,67
15	Cu-3-1709	0,92
16	Cu-1-2196	-1,44
17	Cu-2-2196	-1,41
18	Cu-3-2196	-/-
19	Cu-1-2646	-/-
20	Cu-2-2646	-2,73
21	Cu-3-2646	-3,03
22	Cu-1-3923	2,18
23	Cu-2-3923	0,83
24	Cu-3-3923	2,73
25	Cu-1-3943	-/-
26	Cu-2-3943	-/-
27	Cu-3-3943	-/-
28	Cu-1-4465	0,07
29	Cu-2-4465	-0,27
30	Cu-3-4465	0,38
31	Cu-2-4554	-1,17
32	Cu-3-4554	-1,04

No.	Measurement ID	z-Score
33	Cu-4-4554	-1,88
34	Cu-5-4554	-1,13
35	Cu-6-4554	-1,45
36	Cu-7-4554	-1,87
37	Cu-8-4554	-0,60
38	Cu-9-4554	-1,51
39	Cu-10-4554	-1,81
40	Cu-1-4928	-1,18
41	Cu-2-4928	0,88
42	Cu-3-4928	-0,32
43	Cu-2-5084	-2,16
44	Cu-3-5084	-2,01
45	Cu-4-5084	-3,05
46	Cu-5-5084	-1,93
47	Cu-6-5084	-3,14
48	Cu-7-5084	-1,68
49	Cu-8-5084	-2,89
50	Cu-9-5084	-2,57
51	Cu-10-5084	-2,12
52	Cu-2-5180	-0,65
53	Cu-3-5180	-0,45
54	Cu-4-5180	-0,30
55	Cu-5-5180	-0,11
56	Cu-6-5180	-0,35
57	Cu-7-5180	-1,02
58	Cu-8-5180	-0,39
59	Cu-9-5180	-1,02
60	Cu-10-5180	-0,68
61	Cu-1-5184	-0,99
62	Cu-2-5184	-0,57
63	Cu-3-5184	-0,22
64	Cu-2-5238	-2,55

No.	Measurement ID	z-Score
65	Cu-3-5238	-5,63
66	Cu-4-5238	-2,53
67	Cu-5-5238	-2,59
68	Cu-6-5238	-0,54
69	Cu-7-5238	-2,82
70	Cu-8-5238	-1,45
71	Cu-9-5238	-2,16
72	Cu-10-5238	-3,19
73	Cu-1-5487	0,13
74	Cu-2-5487	0,00
75	Cu-3-5487	0,07
76	Cu-1-5724	-1,43
77	Cu-2-5724	-0,79
78	Cu-3-5724	-1,01
79	Cu-1-5774	-1,61
80	Cu-2-5774	-0,31
81	Cu-3-5774	-1,29
82	Cu-2-5910	-/-
83	Cu-3-5910	-/-
84	Cu-4-5910	-/-
85	Cu-5-5910	-/-
86	Cu-6-5910	-/-
87	Cu-7-5910	-/-
88	Cu-8-5910	-/-
89	Cu-9-5910	-/-
90	Cu-10-5910	-/-
91	Cu-1-5971	-2,38
92	Cu-2-5971	-0,31
93	Cu-3-5971	0,28
94	Cu-1-6155	-0,85
95	Cu-2-6155	-0,32
96	Cu-3-6155	-2,71
97	Cu-1-6194	3,20
98	Cu-2-6194	2,91
99	Cu-3-6194	-0,21
100	Cu-1-6341	0,50
101	Cu-2-6341	2,56
102	Cu-3-6341	0,78
103	Cu-1-6378	-1,27

No.	Measurement ID	z-Score
104	Cu-2-6378	-0,87
105	Cu-3-6378	-1,09
106	Cu-1-6392	-1,50
107	Cu-2-6392	-0,51
108	Cu-3-6392	-1,24
109	Cu-1-7540	0,75
110	Cu-2-7540	0,68
111	Cu-3-7540	1,43
112	Cu-1-7705	-1,07
113	Cu-2-7705	-1,91
114	Cu-3-7705	-0,83
115	Cu-2-8588	-0,62
116	Cu-3-8588	-0,97
117	Cu-4-8588	-0,72
118	Cu-5-8588	-0,94
119	Cu-6-8588	-0,09
120	Cu-7-8588	-1,11
121	Cu-8-8588	-0,96
122	Cu-9-8588	-1,05
123	Cu-10-8588	-0,45
124	Cu-1-8611	1,33
125	Cu-2-8611	0,11
126	Cu-3-8611	-0,53
127	Cu-2-8760	0,12
128	Cu-3-8760	0,36
129	Cu-4-8760	-0,22
130	Cu-5-8760	-0,37
131	Cu-6-8760	-0,43
132	Cu-7-8760	-0,44
133	Cu-8-8760	0,76
134	Cu-9-8760	-0,07
135	Cu-10-8760	-0,24
136	Cu-1-9093	0,84
137	Cu-2-9093	1,47
138	Cu-3-9093	0,32
139	Cu-1-9117	-0,79
140	Cu-2-9117	-0,83
141	Cu-3-9117	-1,34

2.1.6 Manganese



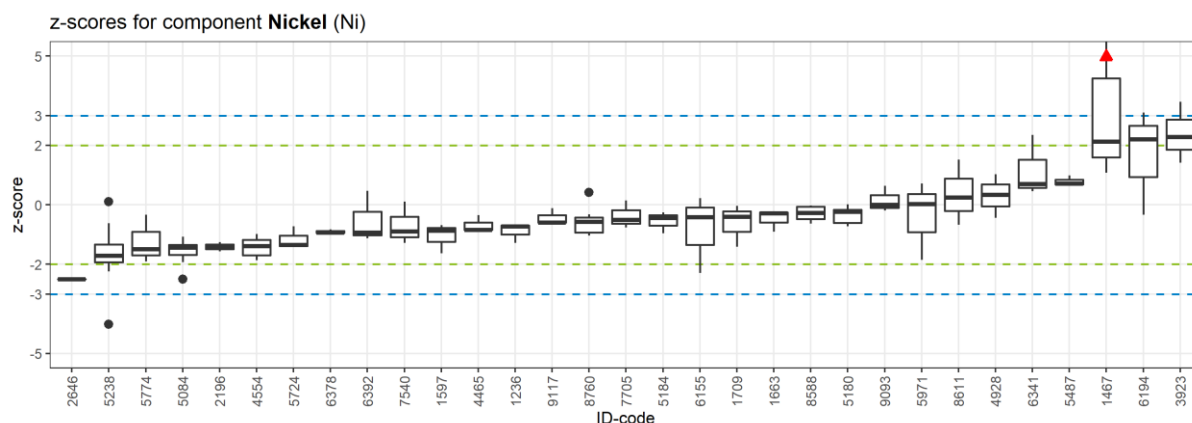
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1	Mn-1-1236	-1,03
2	Mn-2-1236	-1,20
3	Mn-3-1236	-1,98
4	Mn-1-1467	0,84
5	Mn-2-1467	-0,02
6	Mn-3-1467	5,06
7	Mn-1-1597	-0,46
8	Mn-2-1597	-1,27
9	Mn-3-1597	-1,99
10	Mn-1-1663	-0,89
11	Mn-2-1663	-0,20
12	Mn-3-1663	-0,23
13	Mn-1-1709	0,24
14	Mn-2-1709	-1,27
15	Mn-3-1709	0,22
16	Mn-1-2196	-2,00
17	Mn-2-2196	-1,67
18	Mn-3-2196	-/-
19	Mn-1-2646	-/-
20	Mn-2-2646	-2,75
21	Mn-3-2646	-3,25
22	Mn-1-3923	1,25
23	Mn-2-3923	0,05
24	Mn-3-3923	2,41
25	Mn-1-3943	-/-
26	Mn-2-3943	-/-
27	Mn-3-3943	-/-
28	Mn-1-4465	-0,15
29	Mn-2-4465	-0,47
30	Mn-3-4465	0,04
31	Mn-2-4554	-1,40
32	Mn-3-4554	-1,15

No.	Measurement ID	z-Score
33	Mn-4-4554	-2,00
34	Mn-5-4554	-1,05
35	Mn-6-4554	-1,56
36	Mn-7-4554	-1,89
37	Mn-8-4554	-0,62
38	Mn-9-4554	-1,51
39	Mn-10-4554	-1,73
40	Mn-1-4928	-0,99
41	Mn-2-4928	0,50
42	Mn-3-4928	0,09
43	Mn-2-5084	-1,58
44	Mn-3-5084	-1,93
45	Mn-4-5084	-2,98
46	Mn-5-5084	-1,87
47	Mn-6-5084	-2,08
48	Mn-7-5084	-1,65
49	Mn-8-5084	-2,30
50	Mn-9-5084	-2,44
51	Mn-10-5084	-2,18
52	Mn-2-5180	-1,07
53	Mn-3-5180	-0,68
54	Mn-4-5180	-0,60
55	Mn-5-5180	-0,39
56	Mn-6-5180	-0,57
57	Mn-7-5180	-1,20
58	Mn-8-5180	-0,63
59	Mn-9-5180	-1,18
60	Mn-10-5180	-0,77
61	Mn-1-5184	-1,09
62	Mn-2-5184	-0,80
63	Mn-3-5184	-0,38
64	Mn-2-5238	-2,61

No.	Measurement ID	z-Score
65	Mn-3-5238	-4,86
66	Mn-4-5238	-2,55
67	Mn-5-5238	-1,52
68	Mn-6-5238	-0,74
69	Mn-7-5238	-2,63
70	Mn-8-5238	-1,25
71	Mn-9-5238	-2,01
72	Mn-10-5238	-2,98
73	Mn-1-5487	0,38
74	Mn-2-5487	0,07
75	Mn-3-5487	-0,01
76	Mn-1-5724	-2,30
77	Mn-2-5724	-1,74
78	Mn-3-5724	-1,21
79	Mn-1-5774	-1,68
80	Mn-2-5774	-0,14
81	Mn-3-5774	-1,15
82	Mn-2-5910	-/-
83	Mn-3-5910	-/-
84	Mn-4-5910	-/-
85	Mn-5-5910	-/-
86	Mn-6-5910	-/-
87	Mn-7-5910	-/-
88	Mn-8-5910	-/-
89	Mn-9-5910	-/-
90	Mn-10-5910	-/-
91	Mn-1-5971	-2,85
92	Mn-2-5971	-0,65
93	Mn-3-5971	-0,14
94	Mn-1-6155	-0,27
95	Mn-2-6155	0,76
96	Mn-3-6155	-2,22
97	Mn-1-6194	2,85
98	Mn-2-6194	2,07
99	Mn-3-6194	-0,35
100	Mn-1-6341	0,64
101	Mn-2-6341	2,44
102	Mn-3-6341	0,74
103	Mn-1-6378	-1,72

No.	Measurement ID	z-Score
104	Mn-2-6378	-1,65
105	Mn-3-6378	-1,72
106	Mn-1-6392	-1,30
107	Mn-2-6392	0,16
108	Mn-3-6392	-0,61
109	Mn-1-7540	-1,14
110	Mn-2-7540	-1,39
111	Mn-3-7540	0,07
112	Mn-1-7705	-0,74
113	Mn-2-7705	-0,14
114	Mn-3-7705	-0,48
115	Mn-2-8588	-0,30
116	Mn-3-8588	-0,68
117	Mn-4-8588	-0,20
118	Mn-5-8588	-0,20
119	Mn-6-8588	0,38
120	Mn-7-8588	-0,74
121	Mn-8-8588	-0,30
122	Mn-9-8588	-0,60
123	Mn-10-8588	-0,22
124	Mn-1-8611	1,29
125	Mn-2-8611	-0,05
126	Mn-3-8611	-0,71
127	Mn-2-8760	-0,28
128	Mn-3-8760	-0,01
129	Mn-4-8760	-0,45
130	Mn-5-8760	-0,70
131	Mn-6-8760	-0,78
132	Mn-7-8760	-0,67
133	Mn-8-8760	0,77
134	Mn-9-8760	-0,30
135	Mn-10-8760	-0,06
136	Mn-1-9093	-0,14
137	Mn-2-9093	0,21
138	Mn-3-9093	-0,35
139	Mn-1-9117	-1,52
140	Mn-2-9117	-1,22
141	Mn-3-9117	-1,68

2.1.7 Nickel



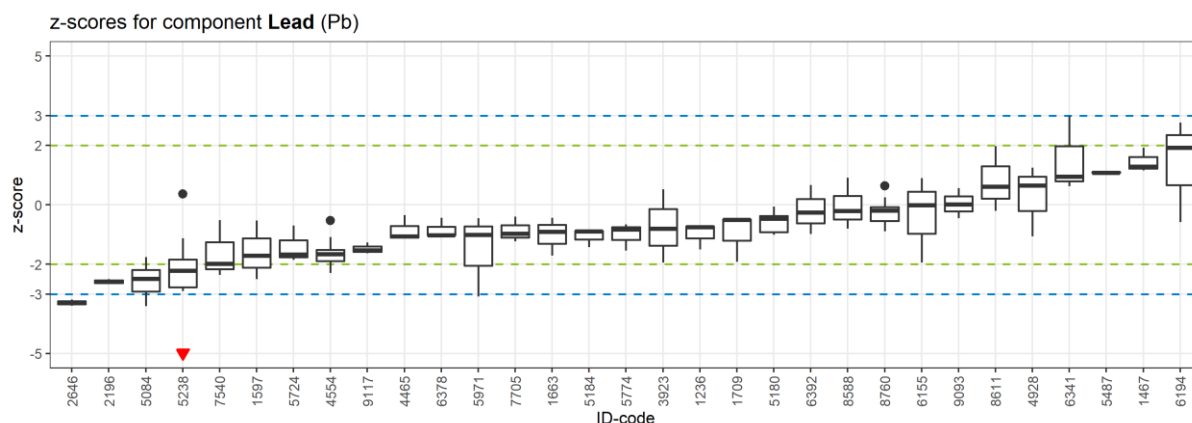
No.	Measurement ID	z-Score
1	Ni-1-1236	-0,68
2	Ni-2-1236	-0,73
3	Ni-3-1236	-1,28
4	Ni-1-1467	2,12
5	Ni-2-1467	1,08
6	Ni-3-1467	6,38
7	Ni-1-1597	-0,68
8	Ni-2-1597	-0,87
9	Ni-3-1597	-1,63
10	Ni-1-1663	-0,91
11	Ni-2-1663	-0,28
12	Ni-3-1663	-0,24
13	Ni-1-1709	-0,40
14	Ni-2-1709	-1,41
15	Ni-3-1709	-0,04
16	Ni-1-2196	-1,26
17	Ni-2-2196	-1,56
18	Ni-3-2196	-/-
19	Ni-1-2646	-/-
20	Ni-2-2646	-2,49
21	Ni-3-2646	-2,51
22	Ni-1-3923	2,28
23	Ni-2-3923	1,42
24	Ni-3-3923	3,46
25	Ni-1-3943	-/-
26	Ni-2-3943	-/-
27	Ni-3-3943	-/-
28	Ni-1-4465	-0,85
29	Ni-2-4465	-0,84
30	Ni-3-4465	-0,35
31	Ni-2-4554	-1,28
32	Ni-3-4554	-1,18

No.	Measurement ID	z-Score
33	Ni-4-4554	-1,85
34	Ni-5-4554	-1,14
35	Ni-6-4554	-1,39
36	Ni-7-4554	-1,87
37	Ni-8-4554	-0,98
38	Ni-9-4554	-1,70
39	Ni-10-4554	-1,65
40	Ni-1-4928	-0,44
41	Ni-2-4928	1,03
42	Ni-3-4928	0,34
43	Ni-2-5084	-1,11
44	Ni-3-5084	-1,35
45	Ni-4-5084	-2,50
46	Ni-5-5084	-1,42
47	Ni-6-5084	-1,44
48	Ni-7-5084	-1,07
49	Ni-8-5084	-1,94
50	Ni-9-5084	-1,68
51	Ni-10-5084	-1,65
52	Ni-2-5180	-0,61
53	Ni-3-5180	-0,23
54	Ni-4-5180	-0,18
55	Ni-5-5180	0,01
56	Ni-6-5180	-0,15
57	Ni-7-5180	-0,73
58	Ni-8-5180	-0,17
59	Ni-9-5180	-0,71
60	Ni-10-5180	-0,49
61	Ni-1-5184	-0,95
62	Ni-2-5184	-0,44
63	Ni-3-5184	-0,25
64	Ni-2-5238	-1,78

No.	Measurement ID	z-Score
65	Ni-3-5238	-4,02
66	Ni-4-5238	-1,60
67	Ni-5-5238	-1,71
68	Ni-6-5238	0,11
69	Ni-7-5238	-1,93
70	Ni-8-5238	-0,62
71	Ni-9-5238	-1,33
72	Ni-10-5238	-2,24
73	Ni-1-5487	0,99
74	Ni-2-5487	0,71
75	Ni-3-5487	0,65
76	Ni-1-5724	-1,35
77	Ni-2-5724	-1,41
78	Ni-3-5724	-0,73
79	Ni-1-5774	-1,90
80	Ni-2-5774	-0,33
81	Ni-3-5774	-1,49
82	Ni-2-5910	-/-
83	Ni-3-5910	-/-
84	Ni-4-5910	-/-
85	Ni-5-5910	-/-
86	Ni-6-5910	-/-
87	Ni-7-5910	-/-
88	Ni-8-5910	-/-
89	Ni-9-5910	-/-
90	Ni-10-5910	-/-
91	Ni-1-5971	-1,85
92	Ni-2-5971	0,02
93	Ni-3-5971	0,71
94	Ni-1-6155	-0,41
95	Ni-2-6155	0,22
96	Ni-3-6155	-2,29
97	Ni-1-6194	3,11
98	Ni-2-6194	2,21
99	Ni-3-6194	-0,34
100	Ni-1-6341	0,45
101	Ni-2-6341	2,34
102	Ni-3-6341	0,70
103	Ni-1-6378	-0,83

No.	Measurement ID	z-Score
104	Ni-2-6378	-0,95
105	Ni-3-6378	-0,94
106	Ni-1-6392	-1,12
107	Ni-2-6392	0,47
108	Ni-3-6392	-0,94
109	Ni-1-7540	-0,89
110	Ni-2-7540	-1,28
111	Ni-3-7540	0,10
112	Ni-1-7705	-0,77
113	Ni-2-7705	0,14
114	Ni-3-7705	-0,50
115	Ni-2-8588	-0,11
116	Ni-3-8588	-0,64
117	Ni-4-8588	-0,27
118	Ni-5-8588	-0,06
119	Ni-6-8588	-0,03
120	Ni-7-8588	-0,59
121	Ni-8-8588	-0,39
122	Ni-9-8588	-0,48
123	Ni-10-8588	-0,02
124	Ni-1-8611	1,52
125	Ni-2-8611	0,25
126	Ni-3-8611	-0,67
127	Ni-2-8760	-0,57
128	Ni-3-8760	-0,32
129	Ni-4-8760	-0,93
130	Ni-5-8760	-0,91
131	Ni-6-8760	-1,03
132	Ni-7-8760	-0,94
133	Ni-8-8760	0,42
134	Ni-9-8760	-0,57
135	Ni-10-8760	-0,42
136	Ni-1-9093	-0,20
137	Ni-2-9093	0,64
138	Ni-3-9093	0,01
139	Ni-1-9117	-0,59
140	Ni-2-9117	-0,11
141	Ni-3-9117	-0,59

2.1.8 Lead



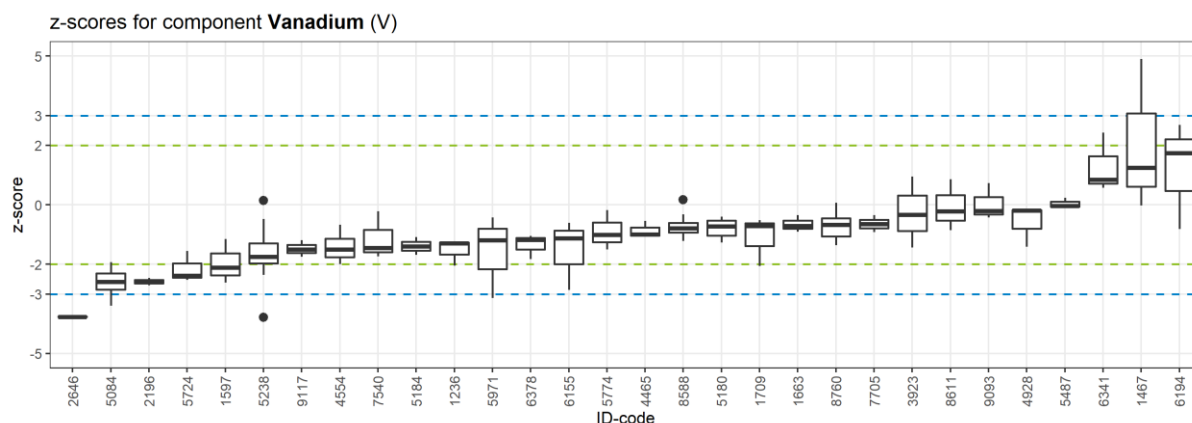
No.	Measurement ID	z-Score
1	Pb-1-1236	-0,76
2	Pb-2-1236	-0,70
3	Pb-3-1236	-1,51
4	Pb-1-1467	1,92
5	Pb-2-1467	1,16
6	Pb-3-1467	1,28
7	Pb-1-1597	-0,53
8	Pb-2-1597	-1,72
9	Pb-3-1597	-2,51
10	Pb-1-1663	-1,71
11	Pb-2-1663	-0,44
12	Pb-3-1663	-0,91
13	Pb-1-1709	-0,48
14	Pb-2-1709	-1,91
15	Pb-3-1709	-0,51
16	Pb-1-2196	-2,50
17	Pb-2-2196	-2,67
18	Pb-3-2196	-/-
19	Pb-1-2646	-/-
20	Pb-2-2646	-3,40
21	Pb-3-2646	-3,18
22	Pb-1-3923	-0,80
23	Pb-2-3923	-1,95
24	Pb-3-3923	0,52
25	Pb-1-3943	-/-
26	Pb-2-3943	-/-
27	Pb-3-3943	-/-
28	Pb-1-4465	-1,14
29	Pb-2-4465	-1,07
30	Pb-3-4465	-0,34
31	Pb-2-4554	-1,52
32	Pb-3-4554	-1,51

No.	Measurement ID	z-Score
33	Pb-4-4554	-2,30
34	Pb-5-4554	-1,09
35	Pb-6-4554	-1,89
36	Pb-7-4554	-2,14
37	Pb-8-4554	-0,53
38	Pb-9-4554	-1,66
39	Pb-10-4554	-1,77
40	Pb-1-4928	-1,06
41	Pb-2-4928	1,24
42	Pb-3-4928	0,64
43	Pb-2-5084	-2,49
44	Pb-3-5084	-2,14
45	Pb-4-5084	-3,09
46	Pb-5-5084	-2,19
47	Pb-6-5084	-2,92
48	Pb-7-5084	-1,77
49	Pb-8-5084	-3,41
50	Pb-9-5084	-2,51
51	Pb-10-5084	-2,32
52	Pb-2-5180	-1,00
53	Pb-3-5180	-0,47
54	Pb-4-5180	-0,26
55	Pb-5-5180	-0,06
56	Pb-6-5180	-0,38
57	Pb-7-5180	-0,92
58	Pb-8-5180	-0,39
59	Pb-9-5180	-1,01
60	Pb-10-5180	-0,47
61	Pb-1-5184	-1,43
62	Pb-2-5184	-0,90
63	Pb-3-5184	-0,85
64	Pb-2-5238	-2,56

No.	Measurement ID	z-Score
65	Pb-3-5238	-7,81
66	Pb-4-5238	-2,10
67	Pb-5-5238	-2,21
68	Pb-6-5238	0,37
69	Pb-7-5238	-2,77
70	Pb-8-5238	-1,12
71	Pb-9-5238	-1,85
72	Pb-10-5238	-2,91
73	Pb-1-5487	1,13
74	Pb-2-5487	1,08
75	Pb-3-5487	1,07
76	Pb-1-5724	-1,67
77	Pb-2-5724	-1,86
78	Pb-3-5724	-0,71
79	Pb-1-5774	-1,54
80	Pb-2-5774	-0,66
81	Pb-3-5774	-0,83
82	Pb-2-5910	-/-
83	Pb-3-5910	-/-
84	Pb-4-5910	-/-
85	Pb-5-5910	-/-
86	Pb-6-5910	-/-
87	Pb-7-5910	-/-
88	Pb-8-5910	-/-
89	Pb-9-5910	-/-
90	Pb-10-5910	-/-
91	Pb-1-5971	-3,09
92	Pb-2-5971	-1,00
93	Pb-3-5971	-0,46
94	Pb-1-6155	-0,01
95	Pb-2-6155	0,90
96	Pb-3-6155	-1,94
97	Pb-1-6194	2,76
98	Pb-2-6194	1,92
99	Pb-3-6194	-0,59
100	Pb-1-6341	0,62
101	Pb-2-6341	2,98
102	Pb-3-6341	0,95
103	Pb-1-6378	-0,44

No.	Measurement ID	z-Score
104	Pb-2-6378	-1,02
105	Pb-3-6378	-1,02
106	Pb-1-6392	-0,98
107	Pb-2-6392	0,66
108	Pb-3-6392	-0,26
109	Pb-1-7540	-1,98
110	Pb-2-7540	-2,36
111	Pb-3-7540	-0,52
112	Pb-1-7705	-1,23
113	Pb-2-7705	-0,41
114	Pb-3-7705	-0,98
115	Pb-2-8588	-0,20
116	Pb-3-8588	-0,81
117	Pb-4-8588	-0,27
118	Pb-5-8588	0,76
119	Pb-6-8588	0,91
120	Pb-7-8588	-0,70
121	Pb-8-8588	0,31
122	Pb-9-8588	-0,50
123	Pb-10-8588	0,00
124	Pb-1-8611	1,98
125	Pb-2-8611	0,61
126	Pb-3-8611	-0,20
127	Pb-2-8760	-0,54
128	Pb-3-8760	-0,14
129	Pb-4-8760	-0,08
130	Pb-5-8760	-0,89
131	Pb-6-8760	-0,40
132	Pb-7-8760	-0,82
133	Pb-8-8760	0,64
134	Pb-9-8760	-0,20
135	Pb-10-8760	0,25
136	Pb-1-9093	-0,45
137	Pb-2-9093	0,56
138	Pb-3-9093	0,02
139	Pb-1-9117	-1,53
140	Pb-2-9117	-1,27
141	Pb-3-9117	-1,63

2.1.9 Vanadium



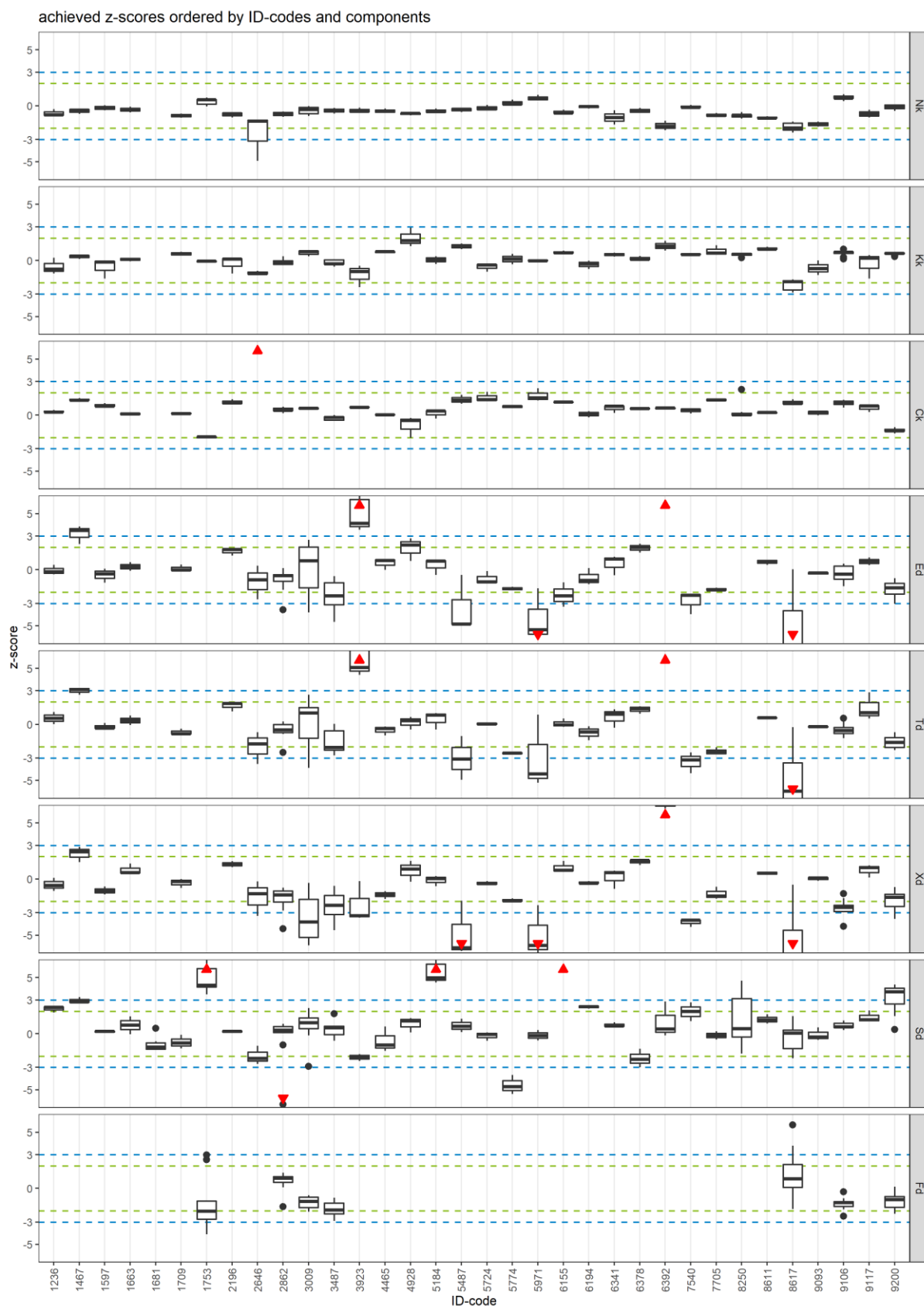
No.	Measurement ID	z-Score
1	V-1-1236	-1,25
2	V-2-1236	-1,30
3	V-3-1236	-2,05
4	V-1-1467	1,24
5	V-2-1467	-0,02
6	V-3-1467	4,91
7	V-1-1597	-1,15
8	V-2-1597	-2,11
9	V-3-1597	-2,62
10	V-1-1663	-0,91
11	V-2-1663	-0,35
12	V-3-1663	-0,71
13	V-1-1709	-0,71
14	V-2-1709	-2,07
15	V-3-1709	-0,52
16	V-1-2196	-2,70
17	V-2-2196	-2,46
18	V-3-2196	-/-
19	V-1-2646	-/-
20	V-2-2646	-3,78
21	V-3-2646	-3,75
22	V-1-3923	-0,33
23	V-2-3923	-1,43
24	V-3-3923	0,95
25	V-1-3943	-/-
26	V-2-3943	-/-
27	V-3-3943	-/-
28	V-1-4465	-1,07
29	V-2-4465	-1,00
30	V-3-4465	-0,54
31	V-2-4554	-1,19
32	V-3-4554	-1,03

No.	Measurement ID	z-Score
33	V-4-4554	-2,00
34	V-5-4554	-1,14
35	V-6-4554	-1,50
36	V-7-4554	-1,87
37	V-8-4554	-0,67
38	V-9-4554	-1,57
39	V-10-4554	-1,76
40	V-1-4928	-1,41
41	V-2-4928	-0,17
42	V-3-4928	-0,19
43	V-2-5084	-2,43
44	V-3-5084	-2,31
45	V-4-5084	-3,40
46	V-5-5084	-2,31
47	V-6-5084	-2,76
48	V-7-5084	-1,93
49	V-8-5084	-2,85
50	V-9-5084	-2,97
51	V-10-5084	-2,59
52	V-2-5180	-1,04
53	V-3-5180	-0,66
54	V-4-5180	-0,52
55	V-5-5180	-0,39
56	V-6-5180	-0,53
57	V-7-5180	-1,27
58	V-8-5180	-0,72
59	V-9-5180	-1,19
60	V-10-5180	-0,86
61	V-1-5184	-1,69
62	V-2-5184	-1,39
63	V-3-5184	-1,09
64	V-2-5238	-1,75

No.	Measurement ID	z-Score
65	V-3-5238	-3,79
66	V-4-5238	-1,83
67	V-5-5238	-1,69
68	V-6-5238	0,15
69	V-7-5238	-1,97
70	V-8-5238	-0,48
71	V-9-5238	-1,30
72	V-10-5238	-2,36
73	V-1-5487	0,23
74	V-2-5487	-0,08
75	V-3-5487	-0,03
76	V-1-5724	-2,38
77	V-2-5724	-2,52
78	V-3-5724	-1,55
79	V-1-5774	-1,50
80	V-2-5774	-0,17
81	V-3-5774	-1,01
82	V-2-5910	-/-
83	V-3-5910	-/-
84	V-4-5910	-/-
85	V-5-5910	-/-
86	V-6-5910	-/-
87	V-7-5910	-/-
88	V-8-5910	-/-
89	V-9-5910	-/-
90	V-10-5910	-/-
91	V-1-5971	-3,14
92	V-2-5971	-1,19
93	V-3-5971	-0,43
94	V-1-6155	-1,13
95	V-2-6155	-0,60
96	V-3-6155	-2,87
97	V-1-6194	2,68
98	V-2-6194	1,74
99	V-3-6194	-0,81
100	V-1-6341	0,57
101	V-2-6341	2,42
102	V-3-6341	0,85
103	V-1-6378	-1,83

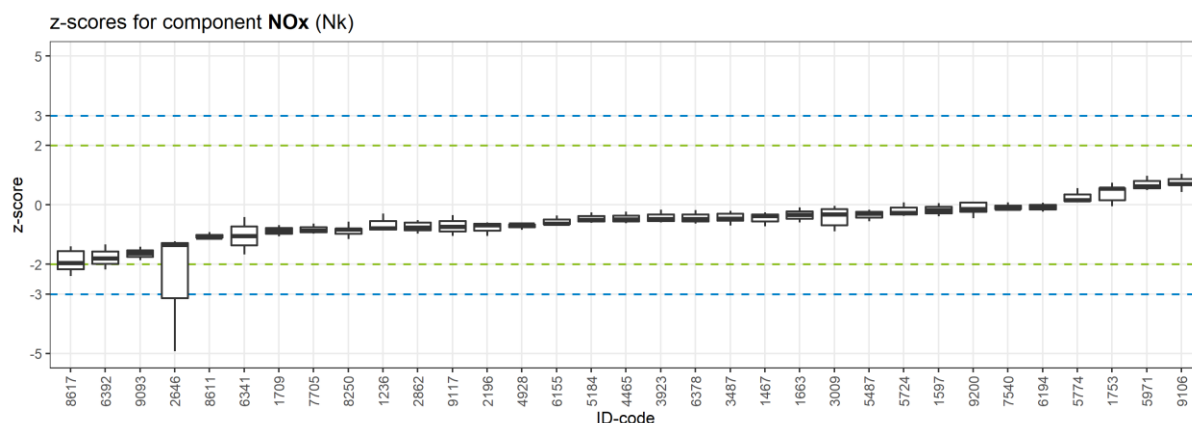
No.	Measurement ID	z-Score
104	V-2-6378	-1,18
105	V-3-6378	-1,05
106	V-1-6392	-/-
107	V-2-6392	-/-
108	V-3-6392	-/-
109	V-1-7540	-1,45
110	V-2-7540	-1,73
111	V-3-7540	-0,23
112	V-1-7705	-0,92
113	V-2-7705	-0,35
114	V-3-7705	-0,65
115	V-2-8588	-0,61
116	V-3-8588	-1,21
117	V-4-8588	-0,80
118	V-5-8588	-0,66
119	V-6-8588	-0,32
120	V-7-8588	-1,16
121	V-8-8588	-0,88
122	V-9-8588	-0,93
123	V-10-8588	0,17
124	V-1-8611	0,86
125	V-2-8611	-0,22
126	V-3-8611	-0,85
127	V-2-8760	-0,67
128	V-3-8760	-0,46
129	V-4-8760	-0,85
130	V-5-8760	-1,36
131	V-6-8760	-1,31
132	V-7-8760	-1,06
133	V-8-8760	0,07
134	V-9-8760	-0,66
135	V-10-8760	-0,33
136	V-1-9093	-0,21
137	V-2-9093	0,72
138	V-3-9093	-0,43
139	V-1-9117	-1,50
140	V-2-9117	-1,20
141	V-3-9117	-1,74

2.2 Gas Proficiency Test (Substance Range G)



Scheme 2: z-scores for the substance range G

2.2.1 Nitrogen Oxides



No.	Measurement ID	z-Score
1	Nk-2-1681	-/-
2	Nk-3-1681	-/-
3	Nk-4-1681	-/-
4	Nk-5-1681	-/-
5	Nk-6-1681	-/-
6	Nk-7-1681	-/-
7	Nk-8-1681	-/-
8	Nk-9-1681	-/-
9	Nk-10-1681	-/-
10	Nk-2-1753	-0,06
11	Nk-3-1753	0,37
12	Nk-4-1753	0,74
13	Nk-5-1753	0,72
14	Nk-6-1753	0,56
15	Nk-7-1753	0,56
16	Nk-8-1753	0,16
17	Nk-9-1753	0,09
18	Nk-10-1753	0,55
19	Nk-2-2862	-0,51
20	Nk-3-2862	-0,64
21	Nk-4-2862	-0,97
22	Nk-5-2862	-0,76
23	Nk-6-2862	-0,85
24	Nk-7-2862	-0,93
25	Nk-8-2862	-0,57
26	Nk-9-2862	-0,60
27	Nk-10-2862	-0,84
28	Nk-2-3009	-0,90
29	Nk-3-3009	-0,48
30	Nk-4-3009	-0,04
31	Nk-5-3009	-0,04
32	Nk-6-3009	-0,32

No.	Measurement ID	z-Score
33	Nk-7-3009	-0,23
34	Nk-8-3009	-0,68
35	Nk-9-3009	-0,75
36	Nk-10-3009	-0,15
37	Nk-2-3487	-0,20
38	Nk-3-3487	-0,36
39	Nk-4-3487	-0,63
40	Nk-5-3487	-0,47
41	Nk-6-3487	-0,53
42	Nk-7-3487	-0,69
43	Nk-8-3487	-0,26
44	Nk-9-3487	-0,29
45	Nk-10-3487	-0,52
46	Nk-2-8250	-0,80
47	Nk-3-8250	-0,83
48	Nk-4-8250	-1,15
49	Nk-5-8250	-0,98
50	Nk-6-8250	-1,03
51	Nk-7-8250	-0,93
52	Nk-8-8250	-0,59
53	Nk-9-8250	-0,57
54	Nk-10-8250	-0,81
55	Nk-2-8617	-1,67
56	Nk-3-8617	-1,55
57	Nk-4-8617	-1,40
58	Nk-5-8617	-1,43
59	Nk-6-8617	-1,96
60	Nk-7-8617	-2,08
61	Nk-8-8617	-2,16
62	Nk-9-8617	-2,27
63	Nk-10-8617	-2,40
64	Nk-2-9106	0,87

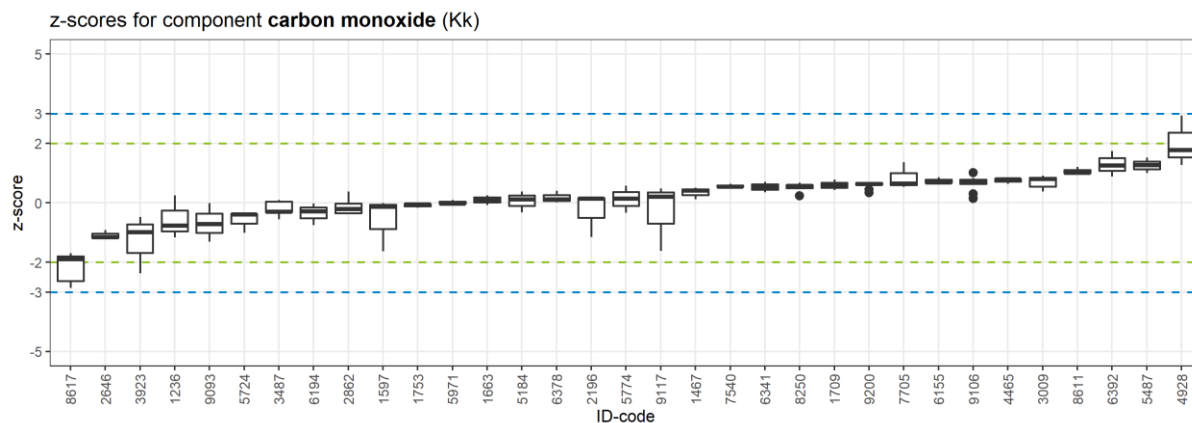
No.	Measurement ID	z-Score
65	Nk-3-9106	0,80
66	Nk-4-9106	0,43
67	Nk-5-9106	0,68
68	Nk-6-9106	0,68
69	Nk-7-9106	0,49
70	Nk-8-9106	1,04
71	Nk-9-9106	1,01
72	Nk-10-9106	0,70
73	Nk-2-9200	0,08
74	Nk-3-9200	-0,01
75	Nk-4-9200	-0,46
76	Nk-5-9200	-0,14
77	Nk-6-9200	-0,23
78	Nk-7-9200	-0,39
79	Nk-8-9200	0,10
80	Nk-9-9200	0,08
81	Nk-10-9200	-0,19
82	Nk-1-1236	-0,30
83	Nk-2-1236	-0,87
84	Nk-3-1236	-0,80
85	Nk-1-1467	-0,73
86	Nk-2-1467	-0,37
87	Nk-3-1467	-0,26
88	Nk-1-1597	-0,39
89	Nk-2-1597	-0,18
90	Nk-3-1597	0,05
91	Nk-1-1663	-0,59
92	Nk-2-1663	-0,09
93	Nk-3-1663	-0,34
94	Nk-1-1709	-1,06
95	Nk-2-1709	-0,68
96	Nk-3-1709	-0,87
97	Nk-1-2196	-1,05
98	Nk-2-2196	-0,69
99	Nk-3-2196	-0,59
100	Nk-1-2646	-1,35
101	Nk-2-2646	-4,92
102	Nk-3-2646	-1,22
103	Nk-1-3923	-0,48
104	Nk-2-3923	-0,16
105	Nk-3-3923	-0,60
106	Nk-1-4465	-0,62
107	Nk-2-4465	-0,24
108	Nk-3-4465	-0,49
109	Nk-1-4928	-0,65

No.	Measurement ID	z-Score
110	Nk-2-4928	-0,85
111	Nk-3-4928	-0,66
112	Nk-1-5184	-0,25
113	Nk-2-5184	-0,61
114	Nk-3-5184	-0,50
115	Nk-1-5487	-0,17
116	Nk-2-5487	-0,56
117	Nk-3-5487	-0,30
118	Nk-1-5724	-0,38
119	Nk-2-5724	0,08
120	Nk-3-5724	-0,27
121	Nk-1-5774	0,55
122	Nk-2-5774	0,16
123	Nk-3-5774	0,11
124	Nk-1-5971	0,49
125	Nk-2-5971	0,98
126	Nk-3-5971	0,62
127	Nk-1-6155	-0,63
128	Nk-2-6155	-0,36
129	Nk-3-6155	-0,66
130	Nk-1-6194	-0,23
131	Nk-2-6194	0,07
132	Nk-3-6194	-0,07
133	Nk-1-6341	-1,67
134	Nk-2-6341	-1,05
135	Nk-3-6341	-0,41
136	Nk-1-6378	-0,18
137	Nk-2-6378	-0,48
138	Nk-3-6378	-0,63
139	Nk-1-6392	-2,17
140	Nk-2-6392	-1,80
141	Nk-3-6392	-1,33
142	Nk-1-7540	-0,15
143	Nk-2-7540	-0,13
144	Nk-3-7540	0,08
145	Nk-1-7705	-0,64
146	Nk-2-7705	-0,97
147	Nk-3-7705	-0,86
148	Nk-1-8611	-0,92
149	Nk-2-8611	-1,10
150	Nk-3-8611	-1,11
151	Nk-1-9093	-1,42
152	Nk-2-9093	-1,87
153	Nk-3-9093	-1,64
154	Nk-1-9117	-0,35

No.	Measurement ID	z-Score
155	Nk-2-9117	-1,05

No.	Measurement ID	z-Score
156	Nk-3-9117	-0,74

2.2.2 Carbon Monoxide



No.	Measurement ID	z-Score
1	Kk-2-1681	-/-
2	Kk-3-1681	-/-
3	Kk-4-1681	-/-
4	Kk-5-1681	-/-
5	Kk-6-1681	-/-
6	Kk-7-1681	-/-
7	Kk-8-1681	-/-
8	Kk-9-1681	-/-
9	Kk-10-1681	-/-
10	Kk-2-1753	-0,04
11	Kk-3-1753	-0,05
12	Kk-4-1753	-0,11
13	Kk-5-1753	-0,09
14	Kk-6-1753	-0,04
15	Kk-7-1753	-0,03
16	Kk-8-1753	-0,15
17	Kk-9-1753	-0,17
18	Kk-10-1753	-0,02
19	Kk-2-2862	-0,21
20	Kk-3-2862	-0,39
21	Kk-4-2862	-0,35
22	Kk-5-2862	-0,35
23	Kk-6-2862	-0,38
24	Kk-7-2862	0,38
25	Kk-8-2862	-0,18
26	Kk-9-2862	-0,03

No.	Measurement ID	z-Score
27	Kk-10-2862	0,06
28	Kk-2-3009	0,91
29	Kk-3-3009	0,57
30	Kk-4-3009	0,37
31	Kk-5-3009	0,49
32	Kk-6-3009	0,55
33	Kk-7-3009	0,84
34	Kk-8-3009	0,89
35	Kk-9-3009	0,80
36	Kk-10-3009	0,85
37	Kk-2-3487	-0,29
38	Kk-3-3487	0,08
39	Kk-4-3487	-0,55
40	Kk-5-3487	0,09
41	Kk-6-3487	-0,52
42	Kk-7-3487	-0,25
43	Kk-8-3487	0,04
44	Kk-9-3487	-0,30
45	Kk-10-3487	-0,31
46	Kk-2-8250	0,56
47	Kk-3-8250	0,57
48	Kk-4-8250	0,49
49	Kk-5-8250	0,64
50	Kk-6-8250	0,46
51	Kk-7-8250	0,23
52	Kk-8-8250	0,68

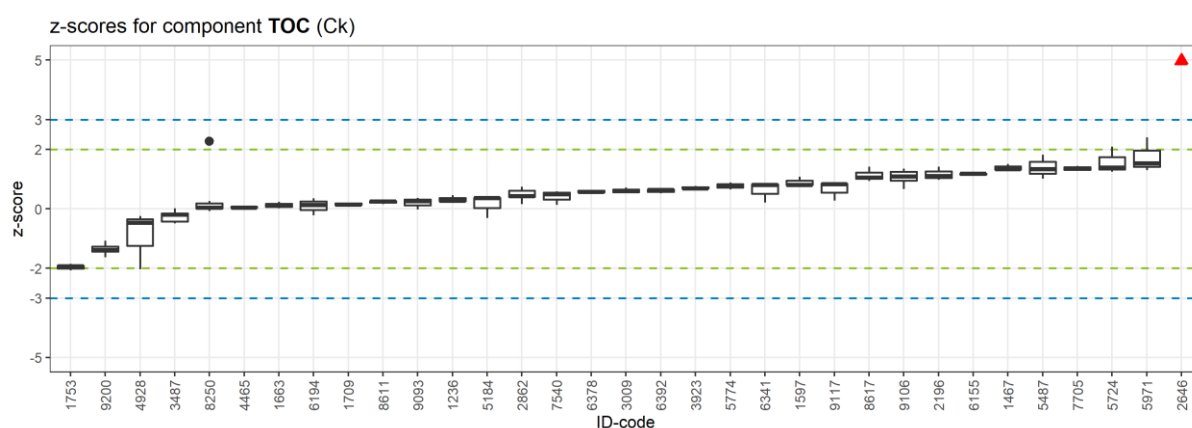
No.	Measurement ID	z-Score
53	Kk-9-8250	0,60
54	Kk-10-8250	0,51
55	Kk-2-8617	-2,63
56	Kk-3-8617	-1,86
57	Kk-4-8617	-1,80
58	Kk-5-8617	-1,80
59	Kk-6-8617	-1,69
60	Kk-7-8617	-2,11
61	Kk-8-8617	-2,82
62	Kk-9-8617	-1,89
63	Kk-10-8617	-2,87
64	Kk-2-9106	1,01
65	Kk-3-9106	0,77
66	Kk-4-9106	0,84
67	Kk-5-9106	0,74
68	Kk-6-9106	0,29
69	Kk-7-9106	0,15
70	Kk-8-9106	0,63
71	Kk-9-9106	0,77
72	Kk-10-9106	0,70
73	Kk-2-9200	0,62
74	Kk-3-9200	0,66
75	Kk-4-9200	0,62
76	Kk-5-9200	0,69
77	Kk-6-9200	0,44
78	Kk-7-9200	0,33
79	Kk-8-9200	0,65
80	Kk-9-9200	0,64
81	Kk-10-9200	0,66
82	Kk-1-1236	0,24
83	Kk-2-1236	-1,16
84	Kk-3-1236	-0,76
85	Kk-1-1467	0,12
86	Kk-2-1467	0,51
87	Kk-3-1467	0,41
88	Kk-1-1597	-1,63
89	Kk-2-1597	-0,01
90	Kk-3-1597	-0,13
91	Kk-1-1663	-0,08
92	Kk-2-1663	0,25
93	Kk-3-1663	0,11
94	Kk-1-1709	0,58
95	Kk-2-1709	0,43
96	Kk-3-1709	0,78
97	Kk-1-2196	-1,15

No.	Measurement ID	z-Score
98	Kk-2-2196	0,16
99	Kk-3-2196	0,14
100	Kk-1-2646	-1,21
101	Kk-2-2646	-1,16
102	Kk-3-2646	-0,92
103	Kk-1-3923	-0,98
104	Kk-2-3923	-0,47
105	Kk-3-3923	-2,38
106	Kk-1-4465	0,64
107	Kk-2-4465	0,80
108	Kk-3-4465	0,81
109	Kk-1-4928	1,78
110	Kk-2-4928	1,27
111	Kk-3-4928	2,93
112	Kk-1-5184	0,12
113	Kk-2-5184	-0,32
114	Kk-3-5184	0,38
115	Kk-1-5487	1,27
116	Kk-2-5487	1,00
117	Kk-3-5487	1,52
118	Kk-1-5724	-0,39
119	Kk-2-5724	-0,36
120	Kk-3-5724	-1,01
121	Kk-1-5774	0,14
122	Kk-2-5774	0,57
123	Kk-3-5774	-0,34
124	Kk-1-5971	-0,04
125	Kk-2-5971	0,09
126	Kk-3-5971	-0,02
127	Kk-1-6155	0,66
128	Kk-2-6155	0,69
129	Kk-3-6155	0,86
130	Kk-1-6194	-0,76
131	Kk-2-6194	-0,03
132	Kk-3-6194	-0,28
133	Kk-1-6341	0,70
134	Kk-2-6341	0,35
135	Kk-3-6341	0,54
136	Kk-1-6378	0,12
137	Kk-2-6378	0,02
138	Kk-3-6378	0,40
139	Kk-1-6392	1,26
140	Kk-2-6392	0,89
141	Kk-3-6392	1,74
142	Kk-1-7540	0,51

No.	Measurement ID	z-Score
143	Kk-2-7540	0,54
144	Kk-3-7540	0,63
145	Kk-1-7705	0,53
146	Kk-2-7705	1,36
147	Kk-3-7705	0,65
148	Kk-1-8611	1,21
149	Kk-2-8611	1,01

No.	Measurement ID	z-Score
150	Kk-3-8611	0,99
151	Kk-1-9093	-1,31
152	Kk-2-9093	-0,71
153	Kk-3-9093	-0,01
154	Kk-1-9117	0,48
155	Kk-2-9117	-1,62
156	Kk-3-9117	0,21

2.2.3 TOC



No.	Measurement ID	z-Score
1	Ck-2-1681	-/-
2	Ck-3-1681	-/-
3	Ck-4-1681	-/-
4	Ck-5-1681	-/-
5	Ck-6-1681	-/-
6	Ck-7-1681	-/-
7	Ck-8-1681	-/-
8	Ck-9-1681	-/-
9	Ck-10-1681	-/-
10	Ck-2-1753	-1,92
11	Ck-3-1753	-1,93
12	Ck-4-1753	-2,02
13	Ck-5-1753	-1,98
14	Ck-6-1753	-2,08
15	Ck-7-1753	-1,94
16	Ck-8-1753	-2,01
17	Ck-9-1753	-1,91
18	Ck-10-1753	-1,86
19	Ck-2-2862	0,53
20	Ck-3-2862	0,43

No.	Measurement ID	z-Score
21	Ck-4-2862	0,74
22	Ck-5-2862	0,43
23	Ck-6-2862	0,16
24	Ck-7-2862	0,19
25	Ck-8-2862	0,61
26	Ck-9-2862	0,61
27	Ck-10-2862	0,41
28	Ck-2-3009	0,61
29	Ck-3-3009	0,65
30	Ck-4-3009	0,56
31	Ck-5-3009	0,57
32	Ck-6-3009	0,53
33	Ck-7-3009	0,55
34	Ck-8-3009	0,62
35	Ck-9-3009	0,71
36	Ck-10-3009	0,70
37	Ck-2-3487	-0,43
38	Ck-3-3487	-0,49
39	Ck-4-3487	-0,09
40	Ck-5-3487	-0,19

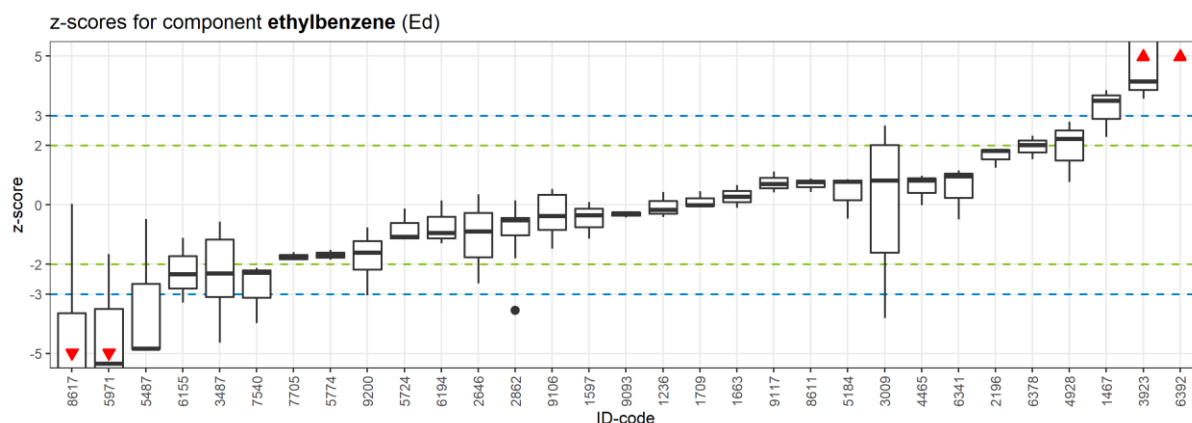
No.	Measurement ID	z-Score
41	Ck-6-3487	-0,39
42	Ck-7-3487	-0,44
43	Ck-8-3487	-0,16
44	Ck-9-3487	0,01
45	Ck-10-3487	-0,15
46	Ck-2-8250	-0,01
47	Ck-3-8250	0,01
48	Ck-4-8250	0,03
49	Ck-5-8250	-0,08
50	Ck-6-8250	0,04
51	Ck-7-8250	0,01
52	Ck-8-8250	0,18
53	Ck-9-8250	0,27
54	Ck-10-8250	2,27
55	Ck-2-8617	1,03
56	Ck-3-8617	1,01
57	Ck-4-8617	0,94
58	Ck-5-8617	0,98
59	Ck-6-8617	1,05
60	Ck-7-8617	1,09
61	Ck-8-8617	1,22
62	Ck-9-8617	1,41
63	Ck-10-8617	1,33
64	Ck-2-9106	0,95
65	Ck-3-9106	1,27
66	Ck-4-9106	1,13
67	Ck-5-9106	0,67
68	Ck-6-9106	0,79
69	Ck-7-9106	0,96
70	Ck-8-9106	1,35
71	Ck-9-9106	1,09
72	Ck-10-9106	1,24
73	Ck-2-9200	-1,07
74	Ck-3-9200	-1,19
75	Ck-4-9200	-1,28
76	Ck-5-9200	-1,39
77	Ck-6-9200	-1,29
78	Ck-7-9200	-1,46
79	Ck-8-9200	-1,64
80	Ck-9-9200	-1,39
81	Ck-10-9200	-1,43
82	Ck-1-1236	0,27
83	Ck-2-1236	0,45
84	Ck-3-1236	0,25
85	Ck-1-1467	1,33

No.	Measurement ID	z-Score
86	Ck-2-1467	1,32
87	Ck-3-1467	1,51
88	Ck-1-1597	0,81
89	Ck-2-1597	0,80
90	Ck-3-1597	1,08
91	Ck-1-1663	0,01
92	Ck-2-1663	0,23
93	Ck-3-1663	0,11
94	Ck-1-1709	0,15
95	Ck-2-1709	0,21
96	Ck-3-1709	0,11
97	Ck-1-2196	1,41
98	Ck-2-2196	1,10
99	Ck-3-2196	0,97
100	Ck-1-2646	17,11
101	Ck-2-2646	18,16
102	Ck-3-2646	16,88
103	Ck-1-3923	0,76
104	Ck-2-3923	0,69
105	Ck-3-3923	0,68
106	Ck-1-4465	0,08
107	Ck-2-4465	0,04
108	Ck-3-4465	0,05
109	Ck-1-4928	-0,25
110	Ck-2-4928	-2,03
111	Ck-3-4928	-0,46
112	Ck-1-5184	-0,31
113	Ck-2-5184	0,37
114	Ck-3-5184	0,37
115	Ck-1-5487	1,82
116	Ck-2-5487	1,34
117	Ck-3-5487	1,01
118	Ck-1-5724	2,08
119	Ck-2-5724	1,39
120	Ck-3-5724	1,25
121	Ck-1-5774	0,77
122	Ck-2-5774	0,88
123	Ck-3-5774	0,65
124	Ck-1-5971	2,39
125	Ck-2-5971	1,53
126	Ck-3-5971	1,29
127	Ck-1-6155	1,18
128	Ck-2-6155	1,12
129	Ck-3-6155	1,18
130	Ck-1-6194	0,13

No.	Measurement ID	z-Score
131	Ck-2-6194	0,35
132	Ck-3-6194	-0,22
133	Ck-1-6341	0,20
134	Ck-2-6341	0,80
135	Ck-3-6341	0,83
136	Ck-1-6378	0,64
137	Ck-2-6378	0,53
138	Ck-3-6378	0,58
139	Ck-1-6392	0,52
140	Ck-2-6392	0,63
141	Ck-3-6392	0,68
142	Ck-1-7540	0,59
143	Ck-2-7540	0,49

No.	Measurement ID	z-Score
144	Ck-3-7540	0,13
145	Ck-1-7705	1,36
146	Ck-2-7705	1,44
147	Ck-3-7705	1,27
148	Ck-1-8611	0,26
149	Ck-2-8611	0,25
150	Ck-3-8611	0,16
151	Ck-1-9093	0,27
152	Ck-2-9093	-0,03
153	Ck-3-9093	0,36
154	Ck-1-9117	0,27
155	Ck-2-9117	0,87
156	Ck-3-9117	0,82

2.2.4 Ethylbenzene



No.	Measurement ID	z-Score
1	Ed-2-1681	-/-
2	Ed-3-1681	-/-
3	Ed-4-1681	-/-
4	Ed-5-1681	-/-
5	Ed-6-1681	-/-
6	Ed-7-1681	-/-
7	Ed-8-1681	-/-
8	Ed-9-1681	-/-
9	Ed-10-1681	-/-
10	Ed-2-1753	-/-
11	Ed-3-1753	-/-
12	Ed-4-1753	-/-
13	Ed-5-1753	-/-
14	Ed-6-1753	-/-

No.	Measurement ID	z-Score
15	Ed-7-1753	-/-
16	Ed-8-1753	-/-
17	Ed-9-1753	-/-
18	Ed-10-1753	-/-
19	Ed-2-2862	-1,03
20	Ed-3-2862	-1,80
21	Ed-4-2862	-3,55
22	Ed-5-2862	-0,52
23	Ed-6-2862	-0,44
24	Ed-7-2862	-0,53
25	Ed-8-2862	0,15
26	Ed-9-2862	-0,47
27	Ed-10-2862	-0,01
28	Ed-2-3009	2,25

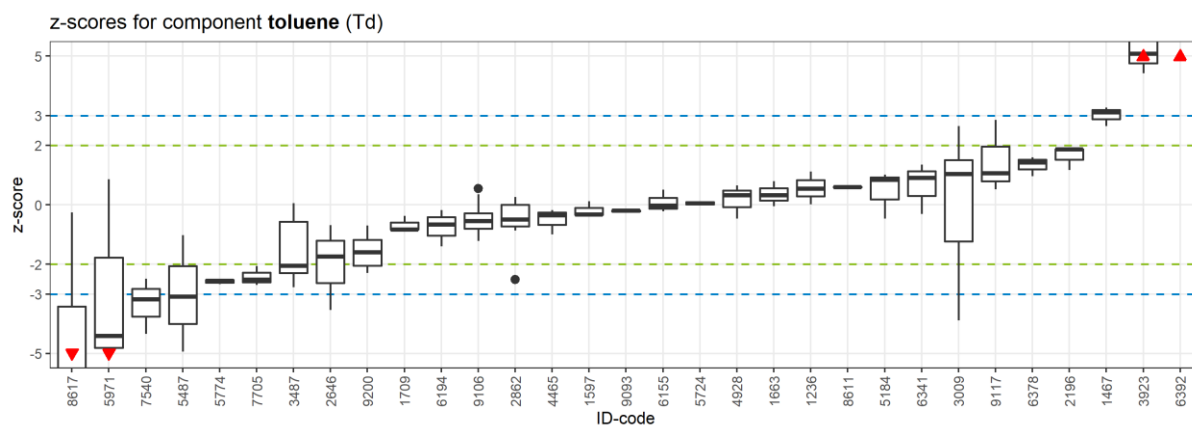
No.	Measurement ID	z-Score
29	Ed-3-3009	0,81
30	Ed-4-3009	-1,61
31	Ed-5-3009	-1,42
32	Ed-6-3009	-3,82
33	Ed-7-3009	0,81
34	Ed-8-3009	-3,15
35	Ed-9-3009	2,66
36	Ed-10-3009	2,01
37	Ed-2-3487	-2,22
38	Ed-3-3487	-0,56
39	Ed-4-3487	-4,64
40	Ed-5-3487	-2,31
41	Ed-6-3487	-3,10
42	Ed-7-3487	-2,74
43	Ed-8-3487	-1,16
44	Ed-9-3487	-1,09
45	Ed-10-3487	-4,19
46	Ed-2-8250	-/-
47	Ed-3-8250	-/-
48	Ed-4-8250	-/-
49	Ed-5-8250	-/-
50	Ed-6-8250	-/-
51	Ed-7-8250	-/-
52	Ed-8-8250	-/-
53	Ed-9-8250	-/-
54	Ed-10-8250	-/-
55	Ed-2-8617	-6,68
56	Ed-3-8617	-6,91
57	Ed-4-8617	-11,57
58	Ed-5-8617	-3,64
59	Ed-6-8617	-5,95
60	Ed-7-8617	-12,33
61	Ed-8-8617	-8,33
62	Ed-9-8617	-0,03
63	Ed-10-8617	0,03
64	Ed-2-9106	0,53
65	Ed-3-9106	-0,54
66	Ed-4-9106	-1,09
67	Ed-5-9106	-0,84
68	Ed-6-9106	-0,38
69	Ed-7-9106	0,33
70	Ed-8-9106	-1,48
71	Ed-9-9106	0,43
72	Ed-10-9106	-0,11
73	Ed-2-9200	-2,39

No.	Measurement ID	z-Score
74	Ed-3-9200	-3,04
75	Ed-4-9200	-2,17
76	Ed-5-9200	-1,19
77	Ed-6-9200	-1,60
78	Ed-7-9200	-0,77
79	Ed-8-9200	-1,22
80	Ed-9-9200	-1,62
81	Ed-10-9200	-1,54
82	Ed-1-1236	-0,42
83	Ed-2-1236	0,43
84	Ed-3-1236	-0,17
85	Ed-1-1467	2,28
86	Ed-2-1467	3,50
87	Ed-3-1467	3,86
88	Ed-1-1597	-0,35
89	Ed-2-1597	0,10
90	Ed-3-1597	-1,14
91	Ed-1-1663	0,67
92	Ed-2-1663	0,28
93	Ed-3-1663	-0,10
94	Ed-1-1709	-0,02
95	Ed-2-1709	-0,06
96	Ed-3-1709	0,46
97	Ed-1-2196	1,82
98	Ed-2-2196	1,87
99	Ed-3-2196	1,25
100	Ed-1-2646	0,35
101	Ed-2-2646	-2,64
102	Ed-3-2646	-0,89
103	Ed-1-3923	3,57
104	Ed-2-3923	4,15
105	Ed-3-3923	8,41
106	Ed-1-4465	0,82
107	Ed-2-4465	0,97
108	Ed-3-4465	-0,01
109	Ed-1-4928	2,79
110	Ed-2-4928	0,77
111	Ed-3-4928	2,22
112	Ed-1-5184	0,85
113	Ed-2-5184	0,78
114	Ed-3-5184	-0,47
115	Ed-1-5487	-0,48
116	Ed-2-5487	-4,85
117	Ed-3-5487	-4,83
118	Ed-1-5724	-1,17

No.	Measurement ID	z-Score
119	Ed-2-5724	-1,08
120	Ed-3-5724	-0,13
121	Ed-1-5774	-1,70
122	Ed-2-5774	-1,52
123	Ed-3-5774	-1,85
124	Ed-1-5971	-6,13
125	Ed-2-5971	-5,34
126	Ed-3-5971	-1,66
127	Ed-1-6155	-3,29
128	Ed-2-6155	-1,11
129	Ed-3-6155	-2,33
130	Ed-1-6194	-0,95
131	Ed-2-6194	0,15
132	Ed-3-6194	-1,30
133	Ed-1-6341	0,96
134	Ed-2-6341	1,15
135	Ed-3-6341	-0,50
136	Ed-1-6378	1,53
137	Ed-2-6378	2,32

No.	Measurement ID	z-Score
138	Ed-3-6378	2,01
139	Ed-1-6392	9,95
140	Ed-2-6392	9,46
141	Ed-3-6392	9,02
142	Ed-1-7540	-2,12
143	Ed-2-7540	-2,28
144	Ed-3-7540	-3,97
145	Ed-1-7705	-1,59
146	Ed-2-7705	-1,78
147	Ed-3-7705	-1,86
148	Ed-1-8611	0,43
149	Ed-2-8611	0,76
150	Ed-3-8611	0,88
151	Ed-1-9093	-0,43
152	Ed-2-9093	-0,29
153	Ed-3-9093	-0,22
154	Ed-1-9117	0,42
155	Ed-2-9117	1,11
156	Ed-3-9117	0,70

2.2.5 Toluene



No.	Measurement ID	z-Score
1	Td-2-1681	-/-
2	Td-3-1681	-/-
3	Td-4-1681	-/-
4	Td-5-1681	-/-
5	Td-6-1681	-/-
6	Td-7-1681	-/-
7	Td-8-1681	-/-
8	Td-9-1681	-/-

No.	Measurement ID	z-Score
9	Td-10-1681	-/-
10	Td-2-1753	-/-
11	Td-3-1753	-/-
12	Td-4-1753	-/-
13	Td-5-1753	-/-
14	Td-6-1753	-/-
15	Td-7-1753	-/-
16	Td-8-1753	-/-

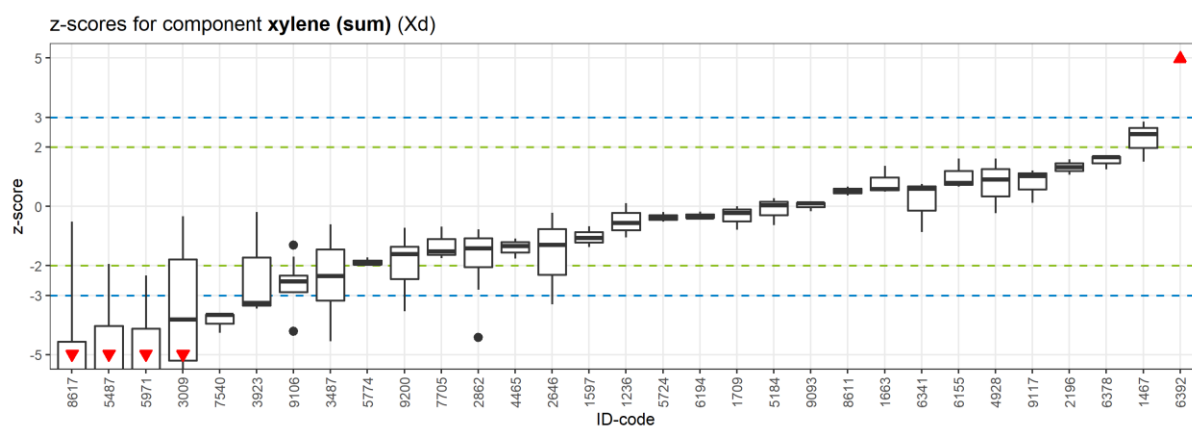
No.	Measurement ID	z-Score
17	Td-9-1753	-/-
18	Td-10-1753	-/-
19	Td-2-2862	-0,07
20	Td-3-2862	-0,59
21	Td-4-2862	-2,51
22	Td-5-2862	0,00
23	Td-6-2862	-0,72
24	Td-7-2862	-0,86
25	Td-8-2862	0,26
26	Td-9-2862	-0,49
27	Td-10-2862	0,09
28	Td-2-3009	2,64
29	Td-3-3009	1,04
30	Td-4-3009	-0,75
31	Td-5-3009	-1,41
32	Td-6-3009	-3,89
33	Td-7-3009	1,51
34	Td-8-3009	-1,23
35	Td-9-3009	1,46
36	Td-10-3009	2,63
37	Td-2-3487	-1,24
38	Td-3-3487	0,05
39	Td-4-3487	-2,78
40	Td-5-3487	-2,30
41	Td-6-3487	-2,24
42	Td-7-3487	-2,04
43	Td-8-3487	-0,57
44	Td-9-3487	-0,40
45	Td-10-3487	-2,65
46	Td-2-8250	-/-
47	Td-3-8250	-/-
48	Td-4-8250	-/-
49	Td-5-8250	-/-
50	Td-6-8250	-/-
51	Td-7-8250	-/-
52	Td-8-8250	-/-
53	Td-9-8250	-/-
54	Td-10-8250	-/-
55	Td-2-8617	-6,22
56	Td-3-8617	-5,94
57	Td-4-8617	-10,99
58	Td-5-8617	-3,42
59	Td-6-8617	-5,72
60	Td-7-8617	-10,44
61	Td-8-8617	-8,52

No.	Measurement ID	z-Score
62	Td-9-8617	-0,26
63	Td-10-8617	-0,36
64	Td-2-9106	0,55
65	Td-3-9106	0,35
66	Td-4-9106	-1,22
67	Td-5-9106	-0,80
68	Td-6-9106	-0,72
69	Td-7-9106	-0,35
70	Td-8-9106	-1,21
71	Td-9-9106	-0,28
72	Td-10-9106	-0,54
73	Td-2-9200	-2,30
74	Td-3-9200	-2,05
75	Td-4-9200	-2,15
76	Td-5-9200	-0,70
77	Td-6-9200	-1,75
78	Td-7-9200	-1,18
79	Td-8-9200	-0,92
80	Td-9-9200	-1,59
81	Td-10-9200	-1,54
82	Td-1-1236	0,55
83	Td-2-1236	1,11
84	Td-3-1236	0,01
85	Td-1-1467	2,65
86	Td-2-1467	3,11
87	Td-3-1467	3,26
88	Td-1-1597	-0,32
89	Td-2-1597	0,11
90	Td-3-1597	-0,35
91	Td-1-1663	0,79
92	Td-2-1663	0,33
93	Td-3-1663	-0,05
94	Td-1-1709	-0,82
95	Td-2-1709	-0,84
96	Td-3-1709	-0,37
97	Td-1-2196	1,88
98	Td-2-2196	1,87
99	Td-3-2196	1,17
100	Td-1-2646	-0,69
101	Td-2-2646	-3,53
102	Td-3-2646	-1,73
103	Td-1-3923	4,42
104	Td-2-3923	5,09
105	Td-3-3923	9,69
106	Td-1-4465	-0,18

No.	Measurement ID	z-Score
107	Td-2-4465	-0,34
108	Td-3-4465	-0,99
109	Td-1-4928	0,65
110	Td-2-4928	0,32
111	Td-3-4928	-0,47
112	Td-1-5184	1,01
113	Td-2-5184	0,84
114	Td-3-5184	-0,47
115	Td-1-5487	-1,03
116	Td-2-5487	-3,08
117	Td-3-5487	-4,94
118	Td-1-5724	0,12
119	Td-2-5724	0,05
120	Td-3-5724	-0,01
121	Td-1-5774	-2,67
122	Td-2-5774	-2,50
123	Td-3-5774	-2,56
124	Td-1-5971	-5,21
125	Td-2-5971	-4,40
126	Td-3-5971	0,86
127	Td-1-6155	-0,03
128	Td-2-6155	0,51
129	Td-3-6155	-0,22
130	Td-1-6194	-1,41
131	Td-2-6194	-0,18

No.	Measurement ID	z-Score
132	Td-3-6194	-0,66
133	Td-1-6341	0,91
134	Td-2-6341	1,35
135	Td-3-6341	-0,31
136	Td-1-6378	0,96
137	Td-2-6378	1,60
138	Td-3-6378	1,43
139	Td-1-6392	8,29
140	Td-2-6392	7,77
141	Td-3-6392	7,26
142	Td-1-7540	-2,49
143	Td-2-7540	-3,17
144	Td-3-7540	-4,34
145	Td-1-7705	-2,06
146	Td-2-7705	-2,51
147	Td-3-7705	-2,69
148	Td-1-8611	0,57
149	Td-2-8611	0,60
150	Td-3-8611	0,62
151	Td-1-9093	-0,25
152	Td-2-9093	-0,19
153	Td-3-9093	-0,20
154	Td-1-9117	1,06
155	Td-2-9117	2,86
156	Td-3-9117	0,52

2.2.6 Sum of Xylenes



No.	Measurement ID	z-Score
1	Xd-2-1681	-/-
2	Xd-3-1681	-/-

No.	Measurement ID	z-Score
3	Xd-4-1681	-/-
4	Xd-5-1681	-/-

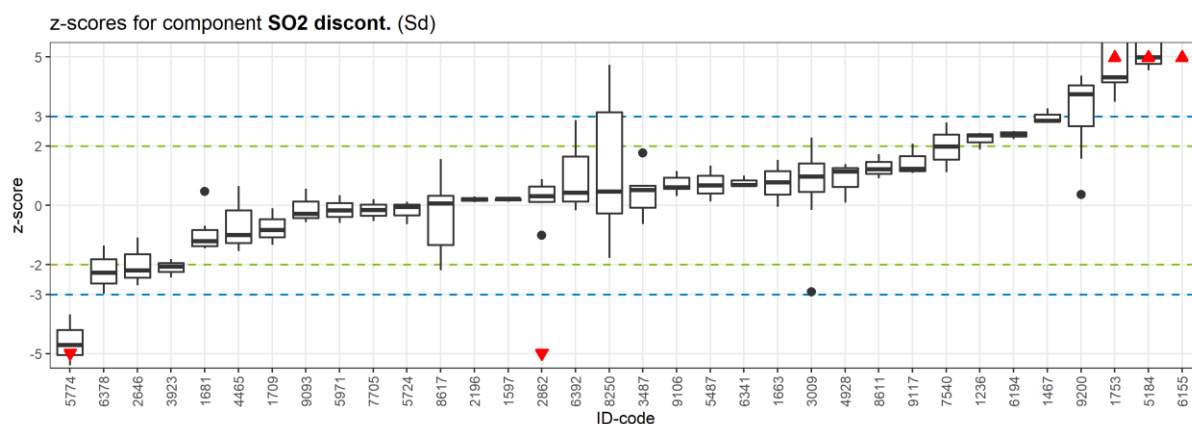
No.	Measurement ID	z-Score
5	Xd-6-1681	-/-
6	Xd-7-1681	-/-
7	Xd-8-1681	-/-
8	Xd-9-1681	-/-
9	Xd-10-1681	-/-
10	Xd-2-1753	-/-
11	Xd-3-1753	-/-
12	Xd-4-1753	-/-
13	Xd-5-1753	-/-
14	Xd-6-1753	-/-
15	Xd-7-1753	-/-
16	Xd-8-1753	-/-
17	Xd-9-1753	-/-
18	Xd-10-1753	-/-
19	Xd-2-2862	-1,08
20	Xd-3-2862	-1,69
21	Xd-4-2862	-4,42
22	Xd-5-2862	-1,41
23	Xd-6-2862	-0,78
24	Xd-7-2862	-0,79
25	Xd-8-2862	-1,26
26	Xd-9-2862	-2,81
27	Xd-10-2862	-2,04
28	Xd-2-3009	-2,65
29	Xd-3-3009	-4,65
30	Xd-4-3009	-5,20
31	Xd-5-3009	-3,82
32	Xd-6-3009	-5,92
33	Xd-7-3009	-1,79
34	Xd-8-3009	-5,37
35	Xd-9-3009	-0,34
36	Xd-10-3009	-1,01
37	Xd-2-3487	-2,35
38	Xd-3-3487	-0,60
39	Xd-4-3487	-4,38
40	Xd-5-3487	-2,42
41	Xd-6-3487	-3,17
42	Xd-7-3487	-1,45
43	Xd-8-3487	-0,64
44	Xd-9-3487	-1,61
45	Xd-10-3487	-4,55
46	Xd-2-8250	-/-
47	Xd-3-8250	-/-
48	Xd-4-8250	-/-
49	Xd-5-8250	-/-

No.	Measurement ID	z-Score
50	Xd-6-8250	-/-
51	Xd-7-8250	-/-
52	Xd-8-8250	-/-
53	Xd-9-8250	-/-
54	Xd-10-8250	-/-
55	Xd-2-8617	-7,43
56	Xd-3-8617	-7,42
57	Xd-4-8617	-11,65
58	Xd-5-8617	-4,56
59	Xd-6-8617	-6,04
60	Xd-7-8617	-12,70
61	Xd-8-8617	-8,63
62	Xd-9-8617	-0,64
63	Xd-10-8617	-0,52
64	Xd-2-9106	-1,30
65	Xd-3-9106	-2,34
66	Xd-4-9106	-2,74
67	Xd-5-9106	-2,89
68	Xd-6-9106	-2,53
69	Xd-7-9106	-1,70
70	Xd-8-9106	-4,21
71	Xd-9-9106	-2,35
72	Xd-10-9106	-2,90
73	Xd-2-9200	-2,45
74	Xd-3-9200	-2,93
75	Xd-4-9200	-1,99
76	Xd-5-9200	-1,21
77	Xd-6-9200	-1,55
78	Xd-7-9200	-0,73
79	Xd-8-9200	-3,54
80	Xd-9-9200	-1,61
81	Xd-10-9200	-1,36
82	Xd-1-1236	-1,06
83	Xd-2-1236	0,11
84	Xd-3-1236	-0,56
85	Xd-1-1467	1,51
86	Xd-2-1467	2,43
87	Xd-3-1467	2,85
88	Xd-1-1597	-1,06
89	Xd-2-1597	-0,67
90	Xd-3-1597	-1,37
91	Xd-1-1663	1,36
92	Xd-2-1663	0,59
93	Xd-3-1663	0,50
94	Xd-1-1709	-0,79

No.	Measurement ID	z-Score
95	Xd-2-1709	-0,22
96	Xd-3-1709	0,00
97	Xd-1-2196	1,33
98	Xd-2-2196	1,58
99	Xd-3-2196	1,06
100	Xd-1-2646	-0,23
101	Xd-2-2646	-3,30
102	Xd-3-2646	-1,30
103	Xd-1-3923	-3,44
104	Xd-2-3923	-3,25
105	Xd-3-3923	-0,20
106	Xd-1-4465	-1,09
107	Xd-2-4465	-1,33
108	Xd-3-4465	-1,77
109	Xd-1-4928	1,60
110	Xd-2-4928	-0,23
111	Xd-3-4928	0,91
112	Xd-1-5184	0,04
113	Xd-2-5184	0,28
114	Xd-3-5184	-0,64
115	Xd-1-5487	-1,94
116	Xd-2-5487	-6,42
117	Xd-3-5487	-6,13
118	Xd-1-5724	-0,39
119	Xd-2-5724	-0,52
120	Xd-3-5724	-0,20
121	Xd-1-5774	-1,94
122	Xd-2-5774	-1,73
123	Xd-3-5774	-1,97
124	Xd-1-5971	-6,68
125	Xd-2-5971	-5,91

No.	Measurement ID	z-Score
126	Xd-3-5971	-2,34
127	Xd-1-6155	0,67
128	Xd-2-6155	1,60
129	Xd-3-6155	0,79
130	Xd-1-6194	-0,37
131	Xd-2-6194	-0,18
132	Xd-3-6194	-0,39
133	Xd-1-6341	0,59
134	Xd-2-6341	0,75
135	Xd-3-6341	-0,87
136	Xd-1-6378	1,25
137	Xd-2-6378	1,70
138	Xd-3-6378	1,66
139	Xd-1-6392	7,27
140	Xd-2-6392	6,76
141	Xd-3-6392	6,28
142	Xd-1-7540	-3,65
143	Xd-2-7540	-3,65
144	Xd-3-7540	-4,26
145	Xd-1-7705	-1,51
146	Xd-2-7705	-1,75
147	Xd-3-7705	-0,69
148	Xd-1-8611	0,66
149	Xd-2-8611	0,53
150	Xd-3-8611	0,36
151	Xd-1-9093	-0,16
152	Xd-2-9093	0,13
153	Xd-3-9093	0,11
154	Xd-1-9117	0,12
155	Xd-2-9117	1,20
156	Xd-3-9117	1,02

2.2.7 Sulphur Dioxide



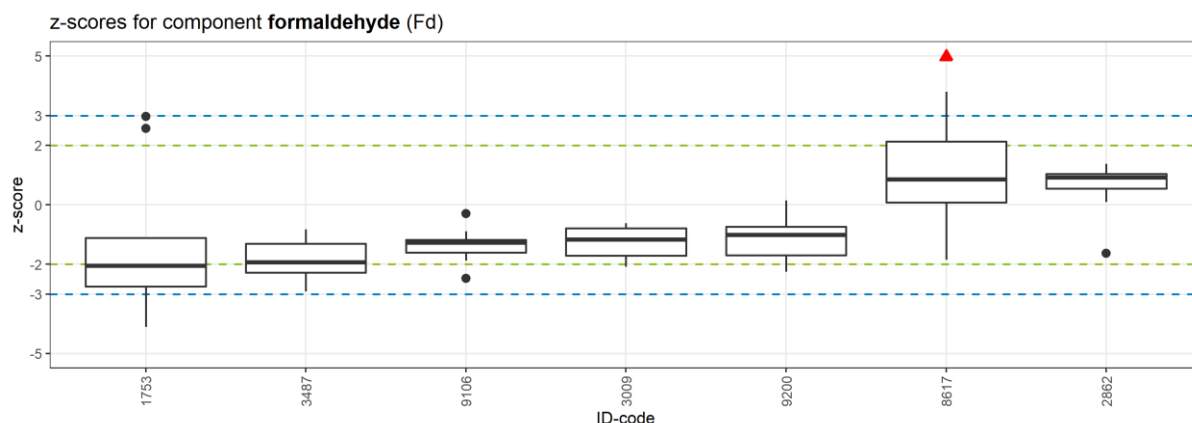
No.	Measurement ID	z-Score
1	Sd-2-1681	-1,37
2	Sd-3-1681	-1,45
3	Sd-4-1681	-1,20
4	Sd-5-1681	-1,40
5	Sd-6-1681	-0,68
6	Sd-7-1681	-1,36
7	Sd-8-1681	0,47
8	Sd-9-1681	-0,99
9	Sd-10-1681	-0,83
10	Sd-2-1753	5,80
11	Sd-3-1753	3,49
12	Sd-4-1753	7,19
13	Sd-5-1753	3,63
14	Sd-6-1753	4,32
15	Sd-7-1753	7,23
16	Sd-8-1753	4,15
17	Sd-9-1753	5,04
18	Sd-10-1753	4,32
19	Sd-2-2862	-6,31
20	Sd-3-2862	-1,02
21	Sd-4-2862	0,63
22	Sd-5-2862	0,12
23	Sd-6-2862	0,66
24	Sd-7-2862	0,88
25	Sd-8-2862	0,32
26	Sd-9-2862	0,58
27	Sd-10-2862	0,24
28	Sd-2-3009	1,41
29	Sd-3-3009	-2,92
30	Sd-4-3009	1,20
31	Sd-5-3009	-0,16
32	Sd-6-3009	2,28
33	Sd-7-3009	1,95
34	Sd-8-3009	0,98
35	Sd-9-3009	0,53
36	Sd-10-3009	0,46
37	Sd-2-3487	0,52
38	Sd-3-3487	-0,63
39	Sd-4-3487	0,02
40	Sd-5-3487	1,77
41	Sd-6-3487	-0,44
42	Sd-7-3487	0,69
43	Sd-8-3487	-0,07
44	Sd-9-3487	0,66

No.	Measurement ID	z-Score
45	Sd-10-3487	0,61
46	Sd-2-8250	0,46
47	Sd-3-8250	-0,04
48	Sd-4-8250	-1,77
49	Sd-5-8250	1,20
50	Sd-6-8250	-0,28
51	Sd-7-8250	-1,10
52	Sd-8-8250	4,73
53	Sd-9-8250	3,13
54	Sd-10-8250	3,84
55	Sd-2-8617	-2,18
56	Sd-3-8617	0,33
57	Sd-4-8617	-1,77
58	Sd-5-8617	1,14
59	Sd-6-8617	0,06
60	Sd-7-8617	-1,33
61	Sd-8-8617	1,56
62	Sd-9-8617	-1,19
63	Sd-10-8617	0,23
64	Sd-2-9106	0,56
65	Sd-3-9106	0,88
66	Sd-4-9106	0,31
67	Sd-5-9106	0,94
68	Sd-6-9106	0,61
69	Sd-7-9106	0,52
70	Sd-8-9106	0,57
71	Sd-9-9106	0,93
72	Sd-10-9106	1,16
73	Sd-2-9200	2,67
74	Sd-3-9200	3,75
75	Sd-4-9200	4,07
76	Sd-5-9200	1,57
77	Sd-6-9200	3,50
78	Sd-7-9200	4,05
79	Sd-8-9200	4,37
80	Sd-9-9200	0,36
81	Sd-10-9200	3,92
82	Sd-1-1236	1,88
83	Sd-2-1236	2,36
84	Sd-3-1236	2,44
85	Sd-1-1467	2,85
86	Sd-2-1467	3,27
87	Sd-3-1467	2,79
88	Sd-1-1597	0,23

No.	Measurement ID	z-Score
89	Sd-2-1597	0,12
90	Sd-3-1597	0,23
91	Sd-1-1663	-0,05
92	Sd-2-1663	0,78
93	Sd-3-1663	1,53
94	Sd-1-1709	-0,82
95	Sd-2-1709	-0,10
96	Sd-3-1709	-1,33
97	Sd-1-2196	0,30
98	Sd-2-2196	0,11
99	Sd-3-2196	0,21
100	Sd-1-2646	-2,69
101	Sd-2-2646	-1,09
102	Sd-3-2646	-2,19
103	Sd-1-3923	-2,06
104	Sd-2-3923	-1,82
105	Sd-3-3923	-2,44
106	Sd-1-4465	-0,99
107	Sd-2-4465	-1,54
108	Sd-3-4465	0,65
109	Sd-1-4928	0,10
110	Sd-2-4928	1,39
111	Sd-3-4928	1,14
112	Sd-1-5184	4,56
113	Sd-2-5184	4,99
114	Sd-3-5184	7,45
115	Sd-1-5487	0,13
116	Sd-2-5487	1,33
117	Sd-3-5487	0,67
118	Sd-1-5724	-0,63
119	Sd-2-5724	0,11
120	Sd-3-5724	-0,05
121	Sd-1-5774	-5,39
122	Sd-2-5774	-4,71

No.	Measurement ID	z-Score
123	Sd-3-5774	-3,68
124	Sd-1-5971	0,33
125	Sd-2-5971	-0,17
126	Sd-3-5971	-0,60
127	Sd-1-6155	-/-
128	Sd-2-6155	12,79
129	Sd-3-6155	13,64
130	Sd-1-6194	2,23
131	Sd-2-6194	2,51
132	Sd-3-6194	2,41
133	Sd-1-6341	0,69
134	Sd-2-6341	1,00
135	Sd-3-6341	0,63
136	Sd-1-6378	-2,27
137	Sd-2-6378	-2,98
138	Sd-3-6378	-1,36
139	Sd-1-6392	-0,17
140	Sd-2-6392	2,86
141	Sd-3-6392	0,43
142	Sd-1-7540	1,11
143	Sd-2-7540	1,99
144	Sd-3-7540	2,79
145	Sd-1-7705	-0,53
146	Sd-2-7705	-0,16
147	Sd-3-7705	0,21
148	Sd-1-8611	0,91
149	Sd-2-8611	1,22
150	Sd-3-8611	1,72
151	Sd-1-9093	0,56
152	Sd-2-9093	-0,57
153	Sd-3-9093	-0,28
154	Sd-1-9117	1,09
155	Sd-2-9117	1,24
156	Sd-3-9117	2,08

2.2.8 Formaldehyde



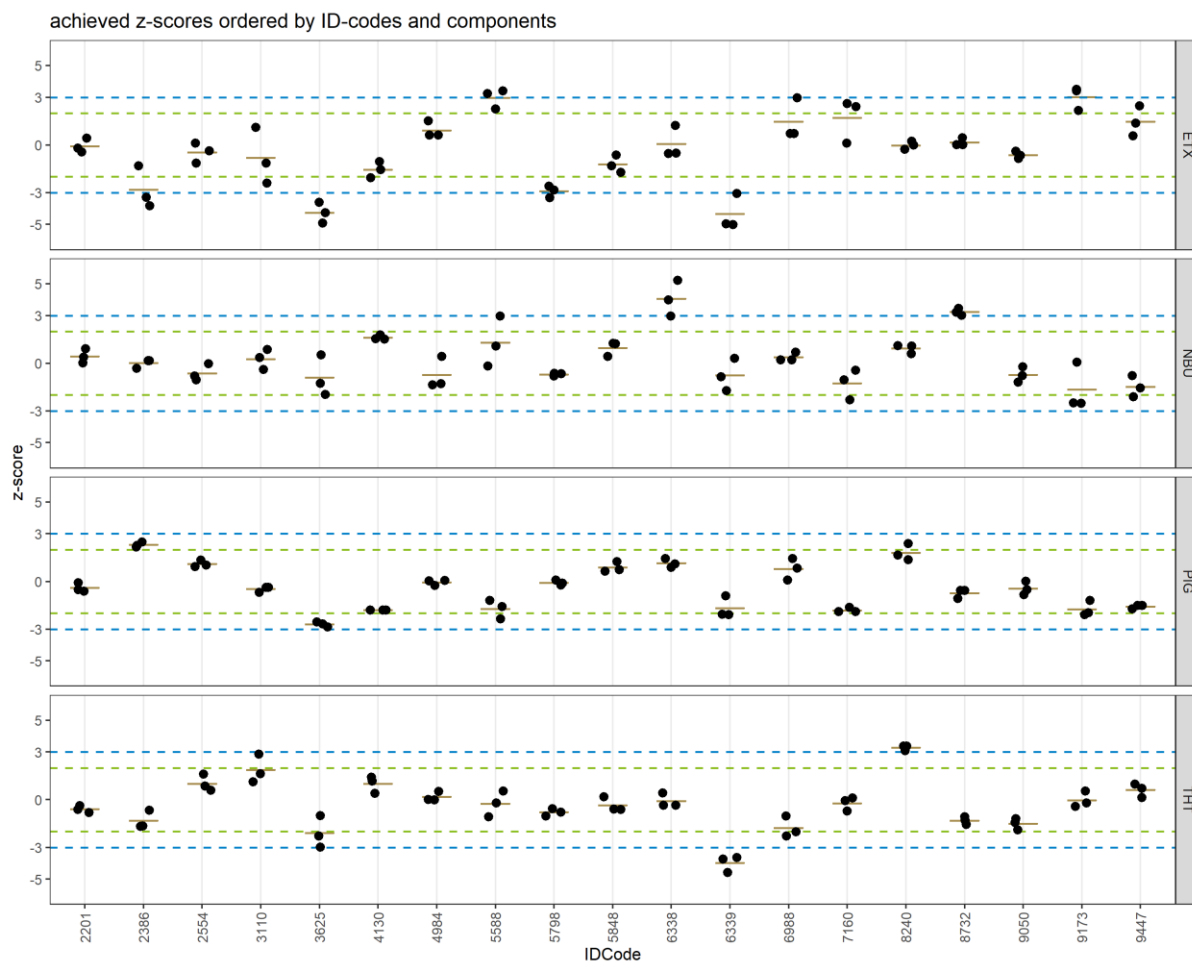
No.	Measurement ID	z-Score
1	Fd-2-1681	-/-
2	Fd-3-1681	-/-
3	Fd-4-1681	-/-
4	Fd-5-1681	-/-
5	Fd-6-1681	-/-
6	Fd-7-1681	-/-
7	Fd-8-1681	-/-
8	Fd-9-1681	-/-
9	Fd-10-1681	-/-
10	Fd-2-1753	-3,30
11	Fd-3-1753	-1,61
12	Fd-4-1753	-4,11
13	Fd-5-1753	2,97
14	Fd-6-1753	-1,12
15	Fd-7-1753	-2,04
16	Fd-8-1753	-2,19
17	Fd-9-1753	2,56
18	Fd-10-1753	-2,75
19	Fd-2-2862	-1,63
20	Fd-3-2862	0,92
21	Fd-4-2862	0,09
22	Fd-5-2862	0,55
23	Fd-6-2862	0,83
24	Fd-7-2862	1,04
25	Fd-8-2862	1,00
26	Fd-9-2862	1,29
27	Fd-10-2862	1,38
28	Fd-2-3009	-0,70
29	Fd-3-3009	-1,16
30	Fd-4-3009	-2,08
31	Fd-5-3009	-0,81
32	Fd-6-3009	-0,79

No.	Measurement ID	z-Score
33	Fd-7-3009	-1,19
34	Fd-8-3009	-2,05
35	Fd-9-3009	-0,62
36	Fd-10-3009	-1,71
37	Fd-2-3487	-2,36
38	Fd-3-3487	-1,29
39	Fd-4-3487	-2,92
40	Fd-5-3487	-1,31
41	Fd-6-3487	-0,83
42	Fd-7-3487	-1,68
43	Fd-8-3487	-2,12
44	Fd-9-3487	-2,28
45	Fd-10-3487	-1,93
46	Fd-2-8250	-/-
47	Fd-3-8250	-/-
48	Fd-4-8250	-/-
49	Fd-5-8250	-/-
50	Fd-6-8250	-/-
51	Fd-7-8250	-/-
52	Fd-8-8250	-/-
53	Fd-9-8250	-/-
54	Fd-10-8250	-/-
55	Fd-2-8617	-1,86
56	Fd-3-8617	0,40
57	Fd-4-8617	-0,57
58	Fd-5-8617	5,66
59	Fd-6-8617	2,11
60	Fd-7-8617	2,13
61	Fd-8-8617	0,85
62	Fd-9-8617	3,79
63	Fd-10-8617	0,08
64	Fd-2-9106	-2,48

No.	Measurement ID	z-Score
65	Fd-3-9106	-1,38
66	Fd-4-9106	-1,88
67	Fd-5-9106	-0,89
68	Fd-6-9106	-1,27
69	Fd-7-9106	-1,60
70	Fd-8-9106	-1,27
71	Fd-9-9106	-1,17
72	Fd-10-9106	-0,30
73	Fd-2-9200	-1,69

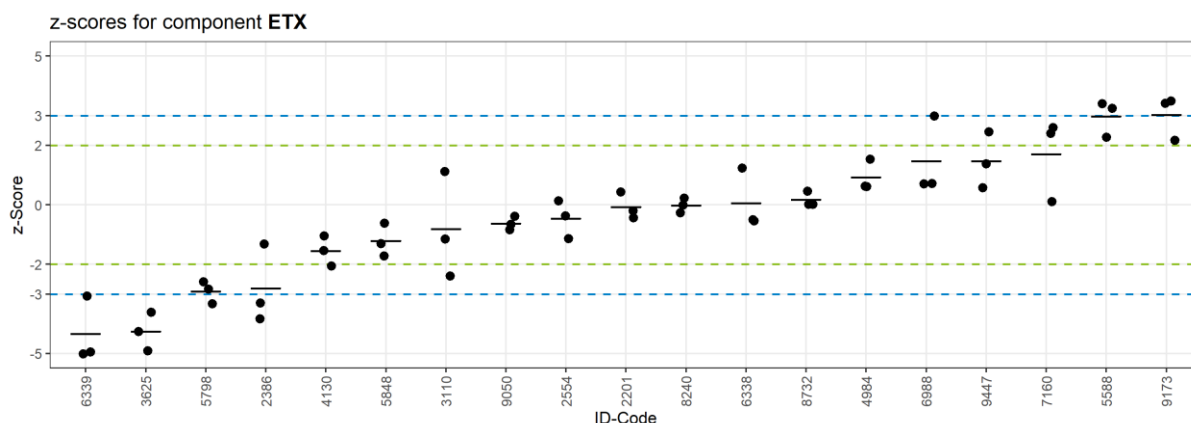
No.	Measurement ID	z-Score
74	Fd-3-9200	-1,96
75	Fd-4-9200	-2,26
76	Fd-5-9200	-0,62
77	Fd-6-9200	-1,07
78	Fd-7-9200	-1,01
79	Fd-8-9200	-0,74
80	Fd-9-9200	0,14
81	Fd-10-9200	-0,94

2.3 Odour Proficiency Test (Substance Range 0)



Scheme 3: z-scores for the substance range 0 (only z-scores in the range -5 ... 5 are displayed)

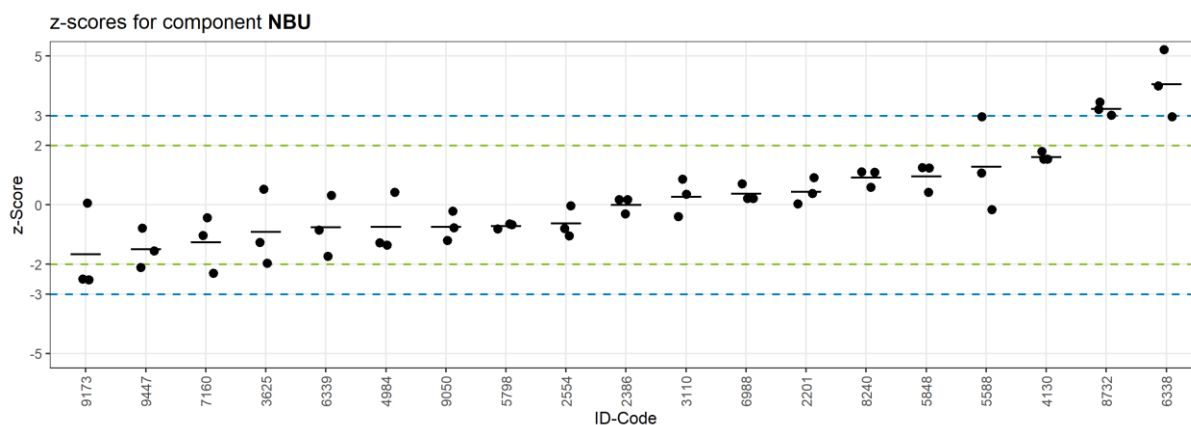
2.3.1 Solvent Mixture (ETX)



No.	Measurement ID	z-Score
1	ETX-1-2201	0,43
2	ETX-2-2201	-0,44
3	ETX-3-2201	-0,21
4	ETX-1-2386	-1,31
5	ETX-2-2386	-3,83
6	ETX-3-2386	-3,30
7	ETX-1-2554	-0,37
8	ETX-2-2554	-1,14
9	ETX-3-2554	0,12
10	ETX-1-3110	1,12
11	ETX-2-3110	-1,15
12	ETX-3-3110	-2,40
13	ETX-1-3625	-3,61
14	ETX-2-3625	-4,27
15	ETX-3-3625	-4,91
16	ETX-1-4130	-1,55
17	ETX-2-4130	-2,05
18	ETX-3-4130	-1,05
19	ETX-1-4984	1,52
20	ETX-2-4984	0,63
21	ETX-3-4984	0,61
22	ETX-1-5588	2,27
23	ETX-2-5588	3,24
24	ETX-3-5588	3,40
25	ETX-1-5798	-2,84
26	ETX-2-5798	-2,59
27	ETX-3-5798	-3,33
28	ETX-1-5848	-0,63
29	ETX-2-5848	-1,31

No.	Measurement ID	z-Score
30	ETX-3-5848	-1,72
31	ETX-1-6338	1,23
32	ETX-2-6338	-0,51
33	ETX-3-6338	-0,55
34	ETX-1-6339	-3,07
35	ETX-2-6339	-4,95
36	ETX-3-6339	-5,02
37	ETX-1-6988	2,98
38	ETX-2-6988	0,71
39	ETX-3-6988	0,71
40	ETX-1-7160	2,60
41	ETX-2-7160	2,40
42	ETX-3-7160	0,11
43	ETX-1-8240	0,23
44	ETX-2-8240	-0,28
45	ETX-3-8240	-0,02
46	ETX-1-8732	0,45
47	ETX-2-8732	0,02
48	ETX-3-8732	0,02
49	ETX-1-9050	-0,84
50	ETX-2-9050	-0,66
51	ETX-3-9050	-0,39
52	ETX-1-9173	3,49
53	ETX-2-9173	2,17
54	ETX-3-9173	3,41
55	ETX-1-9447	2,45
56	ETX-2-9447	1,38
57	ETX-3-9447	0,57

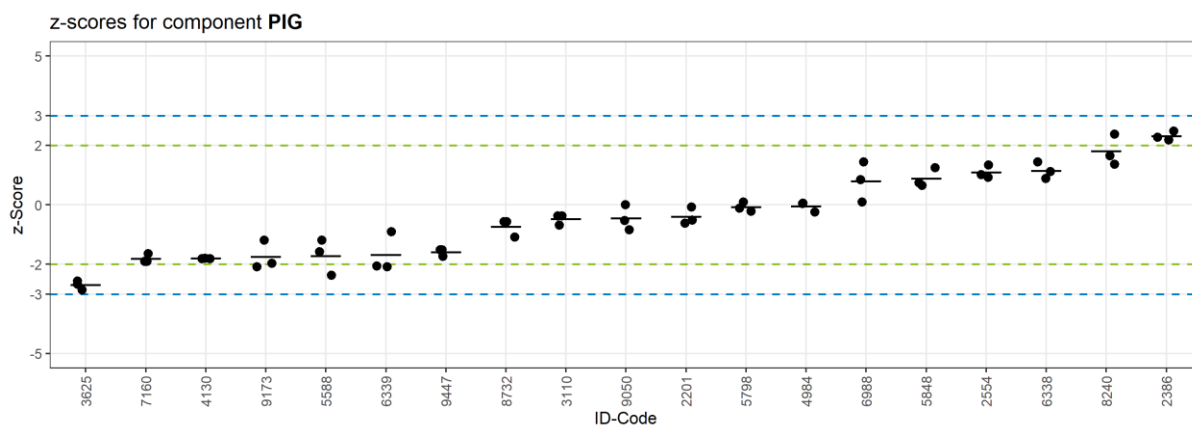
2.3.2 n-Butanol



No.	Measurement ID	z-Score
1	NBU-1-2201	0,37
2	NBU-2-2201	0,91
3	NBU-3-2201	0,02
4	NBU-1-2386	0,16
5	NBU-2-2386	0,16
6	NBU-3-2386	-0,31
7	NBU-1-2554	-0,80
8	NBU-2-2554	-0,03
9	NBU-3-2554	-1,05
10	NBU-1-3110	0,85
11	NBU-2-3110	0,36
12	NBU-3-3110	-0,41
13	NBU-1-3625	0,52
14	NBU-2-3625	-1,27
15	NBU-3-3625	-1,98
16	NBU-1-4130	1,53
17	NBU-2-4130	1,78
18	NBU-3-4130	1,53
19	NBU-1-4984	0,41
20	NBU-2-4984	-1,36
21	NBU-3-4984	-1,28
22	NBU-1-5588	-0,17
23	NBU-2-5588	2,96
24	NBU-3-5588	1,07
25	NBU-1-5798	-0,81
26	NBU-2-5798	-0,65
27	NBU-3-5798	-0,67
28	NBU-1-5848	1,23
29	NBU-2-5848	1,24

No.	Measurement ID	z-Score
30	NBU-3-5848	0,42
31	NBU-1-6338	3,99
32	NBU-2-6338	5,22
33	NBU-3-6338	2,96
34	NBU-1-6339	0,31
35	NBU-2-6339	-1,73
36	NBU-3-6339	-0,85
37	NBU-1-6988	0,20
38	NBU-2-6988	0,21
39	NBU-3-6988	0,70
40	NBU-1-7160	-2,31
41	NBU-2-7160	-1,04
42	NBU-3-7160	-0,44
43	NBU-1-8240	1,09
44	NBU-2-8240	1,10
45	NBU-3-8240	0,59
46	NBU-1-8732	3,21
47	NBU-2-8732	3,45
48	NBU-3-8732	3,01
49	NBU-1-9050	-1,21
50	NBU-2-9050	-0,22
51	NBU-3-9050	-0,78
52	NBU-1-9173	0,06
53	NBU-2-9173	-2,53
54	NBU-3-9173	-2,50
55	NBU-1-9447	-2,11
56	NBU-2-9447	-0,79
57	NBU-3-9447	-1,56

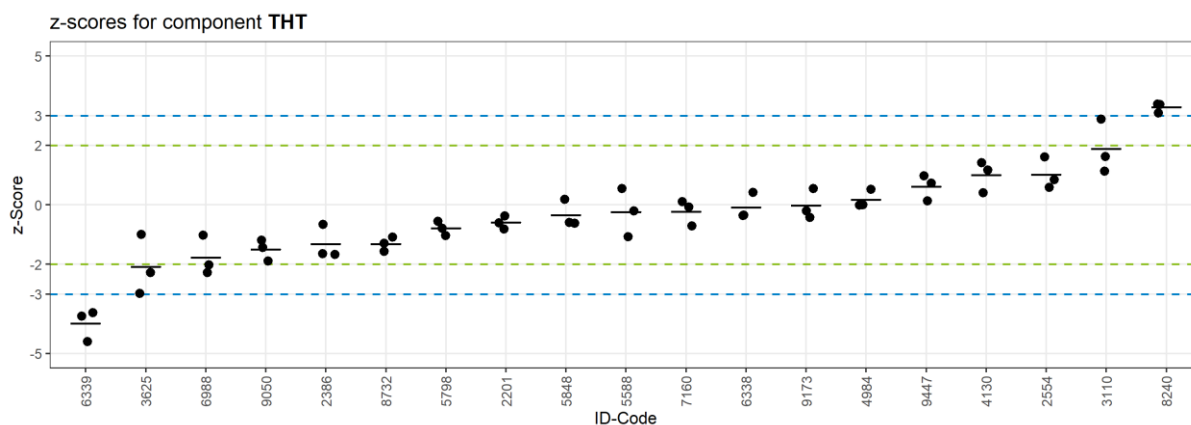
2.3.3 Artificial Pigsty



No.	Measurement ID	z-Score
1	PIG-1-2201	-0,07
2	PIG-2-2201	-0,63
3	PIG-3-2201	-0,51
4	PIG-1-2386	2,48
5	PIG-2-2386	2,17
6	PIG-3-2386	2,27
7	PIG-1-2554	1,33
8	PIG-2-2554	1,02
9	PIG-3-2554	0,92
10	PIG-1-3110	-0,38
11	PIG-2-3110	-0,69
12	PIG-3-3110	-0,38
13	PIG-1-3625	-2,67
14	PIG-2-3625	-2,86
15	PIG-3-3625	-2,56
16	PIG-1-4130	-1,81
17	PIG-2-4130	-1,81
18	PIG-3-4130	-1,80
19	PIG-1-4984	-0,25
20	PIG-2-4984	0,06
21	PIG-3-4984	0,04
22	PIG-1-5588	-2,37
23	PIG-2-5588	-1,20
24	PIG-3-5588	-1,59
25	PIG-1-5798	0,09
26	PIG-2-5798	-0,12
27	PIG-3-5798	-0,22
28	PIG-1-5848	1,24
29	PIG-2-5848	0,65

No.	Measurement ID	z-Score
30	PIG-3-5848	0,74
31	PIG-1-6338	1,44
32	PIG-2-6338	1,11
33	PIG-3-6338	0,88
34	PIG-1-6339	-2,06
35	PIG-2-6339	-0,91
36	PIG-3-6339	-2,08
37	PIG-1-6988	1,45
38	PIG-2-6988	0,09
39	PIG-3-6988	0,84
40	PIG-1-7160	-1,91
41	PIG-2-7160	-1,64
42	PIG-3-7160	-1,91
43	PIG-1-8240	1,36
44	PIG-2-8240	1,65
45	PIG-3-8240	2,37
46	PIG-1-8732	-0,57
47	PIG-2-8732	-0,57
48	PIG-3-8732	-1,09
49	PIG-1-9050	0,01
50	PIG-2-9050	-0,84
51	PIG-3-9050	-0,53
52	PIG-1-9173	-1,19
53	PIG-2-9173	-2,08
54	PIG-3-9173	-1,96
55	PIG-1-9447	-1,52
56	PIG-2-9447	-1,51
57	PIG-3-9447	-1,74

2.3.4 Tetrahydrothiophene



No.	Measurement ID	z-Score
1	THT-1-2201	-0,38
2	THT-2-2201	-0,61
3	THT-3-2201	-0,81
4	THT-1-2386	-0,66
5	THT-2-2386	-1,67
6	THT-3-2386	-1,65
7	THT-1-2554	0,58
8	THT-2-2554	0,85
9	THT-3-2554	1,61
10	THT-1-3110	2,87
11	THT-2-3110	1,62
12	THT-3-3110	1,13
13	THT-1-3625	-0,99
14	THT-2-3625	-2,98
15	THT-3-3625	-2,28
16	THT-1-4130	0,41
17	THT-2-4130	1,42
18	THT-3-4130	1,17
19	THT-1-4984	0,52
20	THT-2-4984	-0,01
21	THT-3-4984	0,01
22	THT-1-5588	0,55
23	THT-2-5588	-0,21
24	THT-3-5588	-1,08
25	THT-1-5798	-0,79
26	THT-2-5798	-0,56
27	THT-3-5798	-1,03
28	THT-1-5848	0,18
29	THT-2-5848	-0,60

No.	Measurement ID	z-Score
30	THT-3-5848	-0,62
31	THT-1-6338	0,42
32	THT-2-6338	-0,36
33	THT-3-6338	-0,34
34	THT-1-6339	-3,74
35	THT-2-6339	-4,60
36	THT-3-6339	-3,63
37	THT-1-6988	-2,28
38	THT-2-6988	-1,02
39	THT-3-6988	-2,02
40	THT-1-7160	-0,71
41	THT-2-7160	-0,07
42	THT-3-7160	0,11
43	THT-1-8240	3,09
44	THT-2-8240	3,38
45	THT-3-8240	3,37
46	THT-1-8732	-1,57
47	THT-2-8732	-1,09
48	THT-3-8732	-1,30
49	THT-1-9050	-1,19
50	THT-2-9050	-1,44
51	THT-3-9050	-1,89
52	THT-1-9173	-0,43
53	THT-2-9173	0,55
54	THT-3-9173	-0,21
55	THT-1-9447	0,72
56	THT-2-9447	0,14
57	THT-3-9447	0,97

2.4 Gas Flow Conditions

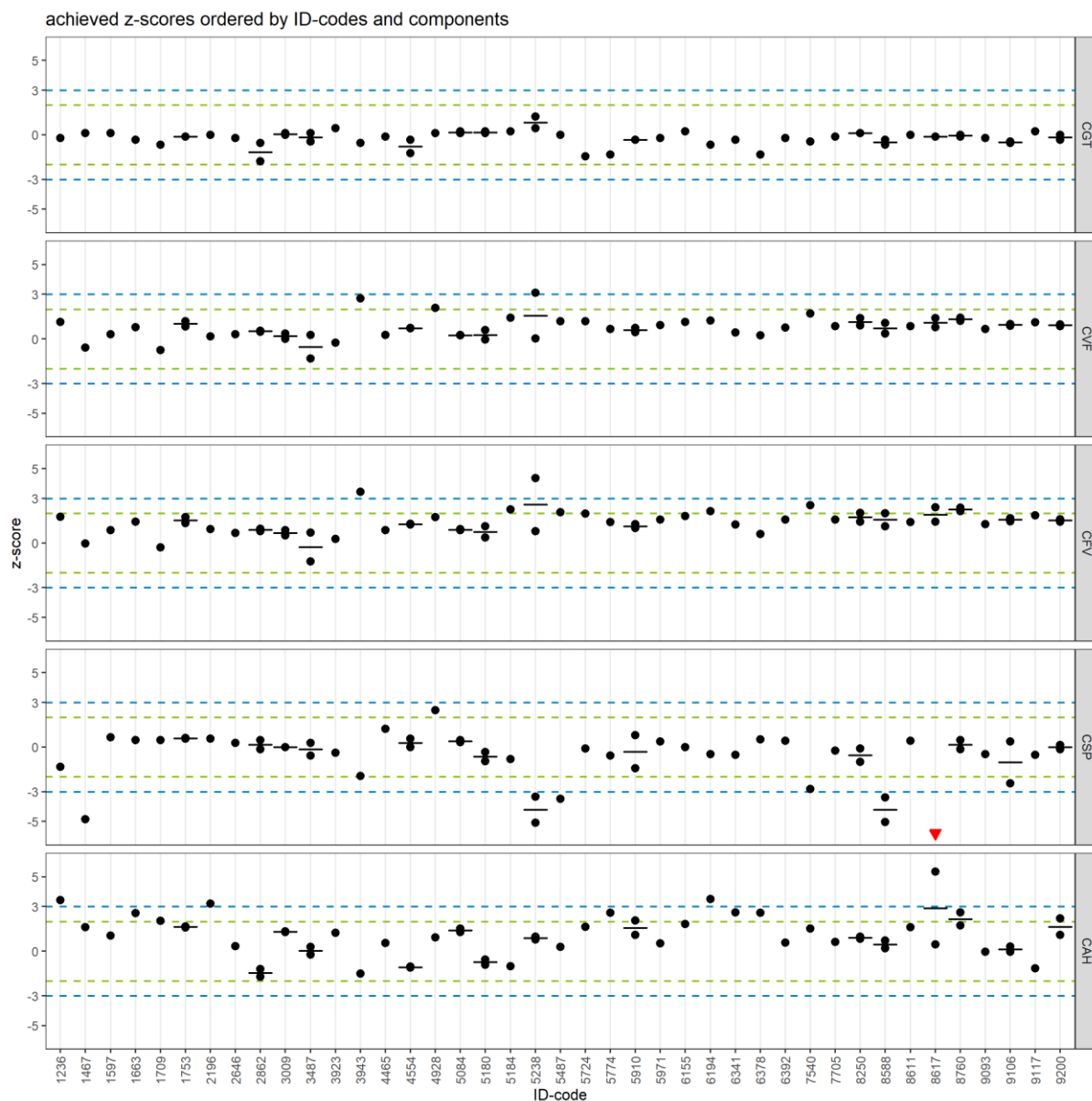
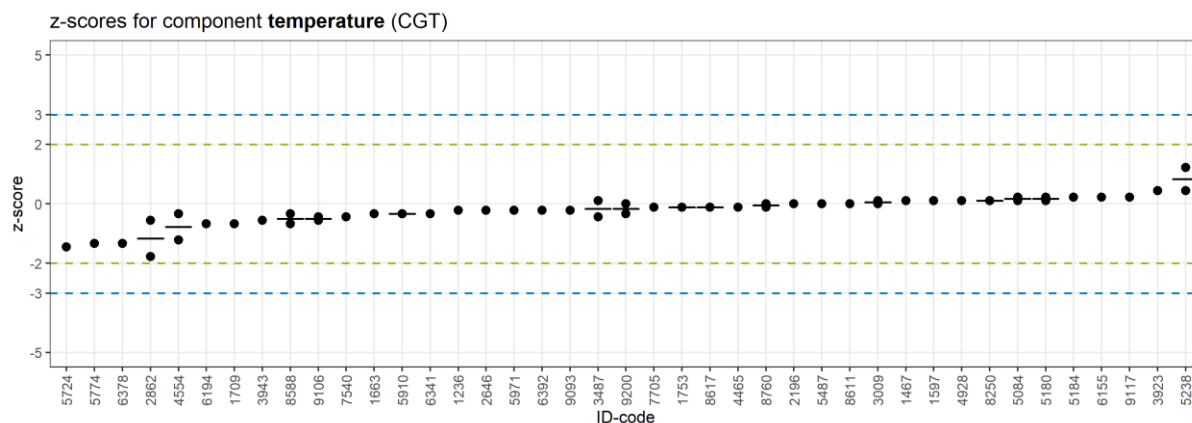


Abbildung 4: z-scores (or quotients from participant deviation and typical deviation) for gas flow conditions

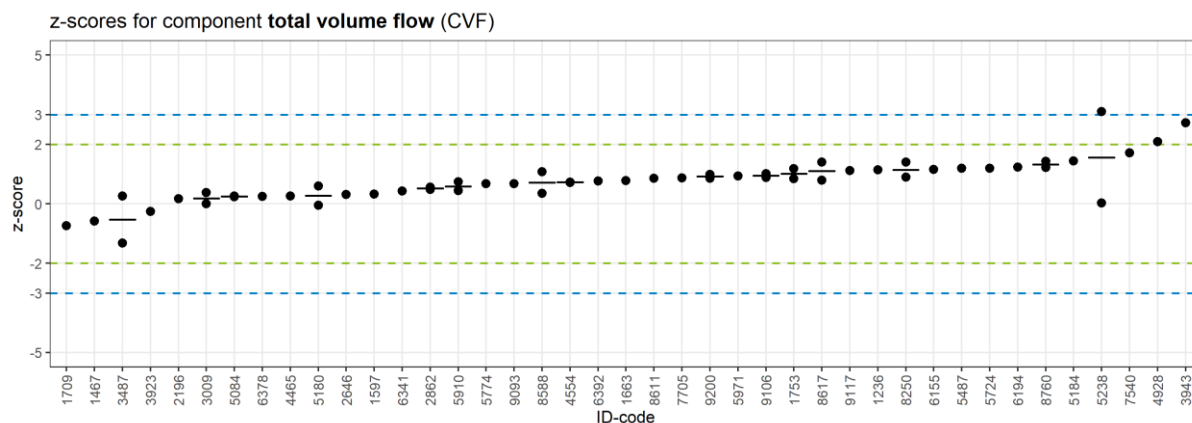
2.4.1 Temperature



No.	Measurement ID	z-Score
1	CGT-1-1236	-0,22
2	CGT-1-1467	0,11
3	CGT-1-1597	0,11
4	CGT-1-1663	-0,33
5	CGT-1-1681	-/-
6	CGT-2-1681	-/-
7	CGT-1-1709	-0,67
8	CGT-1-1753	-0,11
9	CGT-2-1753	-0,11
10	CGT-1-2196	0,00
11	CGT-1-2646	-0,22
12	CGT-1-2862	-1,78
13	CGT-2-2862	-0,56
14	CGT-1-3009	0,00
15	CGT-2-3009	0,11
16	CGT-1-3487	0,11
17	CGT-2-3487	-0,44
18	CGT-1-3923	0,44
19	CGT-1-3943	-0,56
20	CGT-1-4465	-0,11
21	CGT-1-4554	-1,22
22	CGT-2-4554	-0,33
23	CGT-1-4928	0,11
24	CGT-1-5084	0,22
25	CGT-2-5084	0,11
26	CGT-1-5180	0,11
27	CGT-2-5180	0,22
28	CGT-1-5184	0,22
29	CGT-1-5238	1,22

No.	Measurement ID	z-Score
30	CGT-2-5238	0,44
31	CGT-1-5487	0,00
32	CGT-1-5724	-1,44
33	CGT-1-5774	-1,33
34	CGT-1-5910	-0,33
35	CGT-2-5910	-0,33
36	CGT-1-5971	-0,22
37	CGT-1-6155	0,22
38	CGT-1-6194	-0,67
39	CGT-1-6341	-0,33
40	CGT-1-6378	-1,33
41	CGT-1-6392	-0,22
42	CGT-1-7540	-0,44
43	CGT-1-7705	-0,11
44	CGT-1-8250	0,11
45	CGT-2-8250	0,11
46	CGT-1-8588	-0,33
47	CGT-2-8588	-0,67
48	CGT-1-8611	0,00
49	CGT-1-8617	-0,11
50	CGT-2-8617	-0,11
51	CGT-1-8760	0,00
52	CGT-2-8760	-0,11
53	CGT-1-9093	-0,22
54	CGT-1-9106	-0,56
55	CGT-2-9106	-0,44
56	CGT-1-9117	0,22
57	CGT-1-9200	-0,33
58	CGT-2-9200	0,00

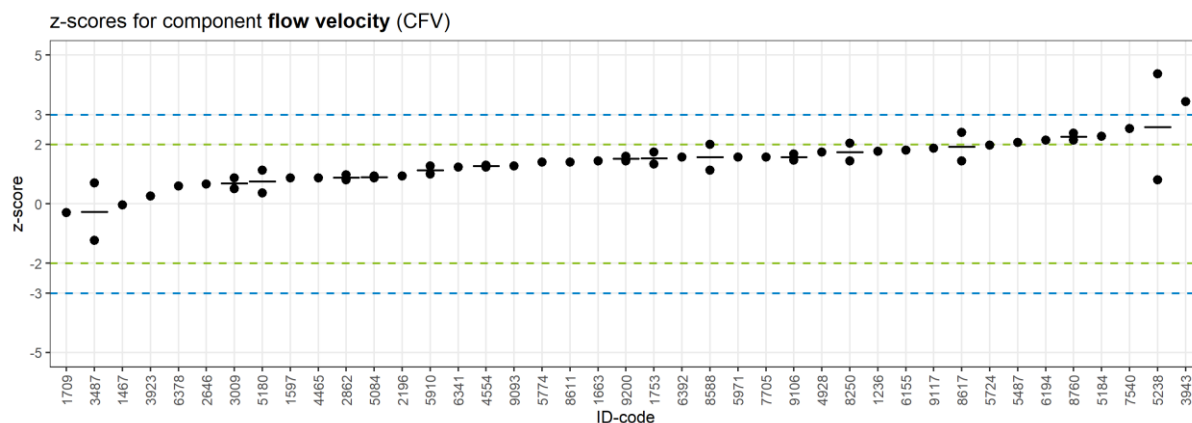
2.4.2 Volume Flow



No.	Measurement ID	z-Score
1	CVF-1-1236	1,14
2	CVF-1-1467	-0,59
3	CVF-1-1597	0,32
4	CVF-1-1663	0,78
5	CVF-1-1681	-/-
6	CVF-2-1681	-/-
7	CVF-1-1709	-0,74
8	CVF-1-1753	1,19
9	CVF-2-1753	0,84
10	CVF-1-2196	0,17
11	CVF-1-2646	0,31
12	CVF-1-2862	0,48
13	CVF-2-2862	0,56
14	CVF-1-3009	0,00
15	CVF-2-3009	0,37
16	CVF-1-3487	0,26
17	CVF-2-3487	-1,32
18	CVF-1-3923	-0,26
19	CVF-1-3943	2,72
20	CVF-1-4465	0,26
21	CVF-1-4554	0,71
22	CVF-2-4554	0,73
23	CVF-1-4928	2,09
24	CVF-1-5084	0,24
25	CVF-2-5084	0,26
26	CVF-1-5180	-0,05
27	CVF-2-5180	0,59
28	CVF-1-5184	1,44
29	CVF-1-5238	3,09

No.	Measurement ID	z-Score
30	CVF-2-5238	0,02
31	CVF-1-5487	1,19
32	CVF-1-5724	1,19
33	CVF-1-5774	0,67
34	CVF-1-5910	0,74
35	CVF-2-5910	0,44
36	CVF-1-5971	0,93
37	CVF-1-6155	1,15
38	CVF-1-6194	1,23
39	CVF-1-6341	0,43
40	CVF-1-6378	0,25
41	CVF-1-6392	0,77
42	CVF-1-7540	1,71
43	CVF-1-7705	0,86
44	CVF-1-8250	1,40
45	CVF-2-8250	0,89
46	CVF-1-8588	1,07
47	CVF-2-8588	0,35
48	CVF-1-8611	0,85
49	CVF-1-8617	1,41
50	CVF-2-8617	0,79
51	CVF-1-8760	1,21
52	CVF-2-8760	1,43
53	CVF-1-9093	0,68
54	CVF-1-9106	1,01
55	CVF-2-9106	0,89
56	CVF-1-9117	1,12
57	CVF-1-9200	0,99
58	CVF-2-9200	0,86

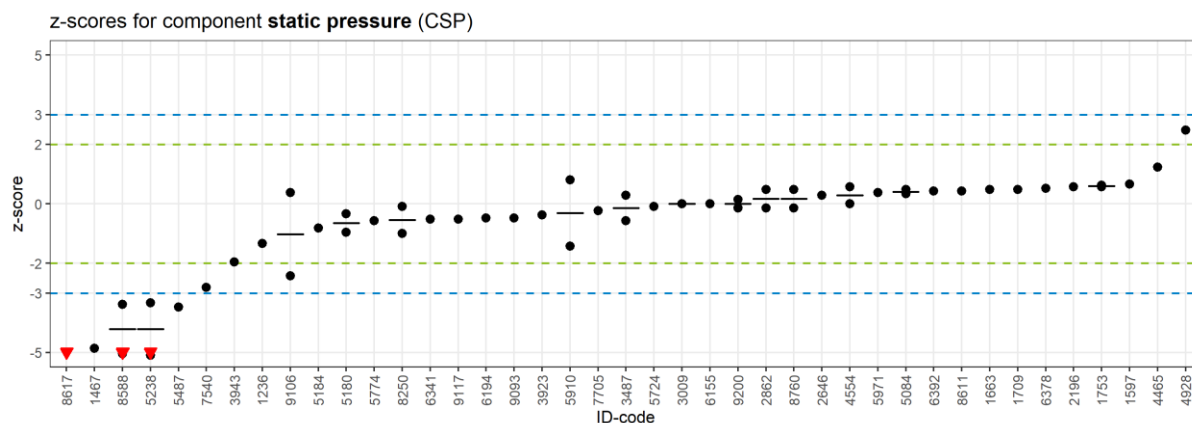
2.4.3 Mean Flow Velocity



No.	Measurement ID	z-Score
1	CFV-1-1236	1,77
2	CFV-1-1467	-0,03
3	CFV-1-1597	0,87
4	CFV-1-1663	1,43
5	CFV-1-1681	-/-
6	CFV-2-1681	-/-
7	CFV-1-1709	-0,30
8	CFV-1-1753	1,73
9	CFV-2-1753	1,33
10	CFV-1-2196	0,93
11	CFV-1-2646	0,67
12	CFV-1-2862	0,80
13	CFV-2-2862	0,97
14	CFV-1-3009	0,50
15	CFV-2-3009	0,87
16	CFV-1-3487	0,70
17	CFV-2-3487	-1,23
18	CFV-1-3923	0,27
19	CFV-1-3943	3,43
20	CFV-1-4465	0,87
21	CFV-1-4554	1,23
22	CFV-2-4554	1,30
23	CFV-1-4928	1,73
24	CFV-1-5084	0,87
25	CFV-2-5084	0,93
26	CFV-1-5180	0,37
27	CFV-2-5180	1,13
28	CFV-1-5184	2,27
29	CFV-1-5238	4,37

No.	Measurement ID	z-Score
30	CFV-2-5238	0,80
31	CFV-1-5487	2,07
32	CFV-1-5724	1,97
33	CFV-1-5774	1,40
34	CFV-1-5910	1,27
35	CFV-2-5910	1,00
36	CFV-1-5971	1,57
37	CFV-1-6155	1,80
38	CFV-1-6194	2,13
39	CFV-1-6341	1,23
40	CFV-1-6378	0,60
41	CFV-1-6392	1,57
42	CFV-1-7540	2,53
43	CFV-1-7705	1,57
44	CFV-1-8250	2,03
45	CFV-2-8250	1,43
46	CFV-1-8588	2,00
47	CFV-2-8588	1,13
48	CFV-1-8611	1,40
49	CFV-1-8617	2,40
50	CFV-2-8617	1,43
51	CFV-1-8760	2,13
52	CFV-2-8760	2,37
53	CFV-1-9093	1,27
54	CFV-1-9106	1,67
55	CFV-2-9106	1,47
56	CFV-1-9117	1,87
57	CFV-1-9200	1,60
58	CFV-2-9200	1,43

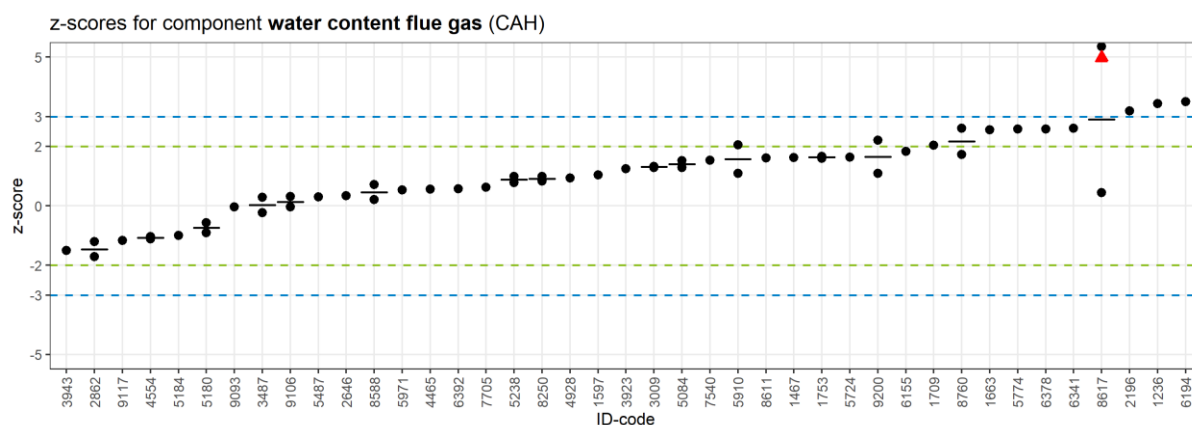
2.4.4 Static Pressure



No.	Measurement ID	z-Score
1	CSP-1-1236	-1,33
2	CSP-1-1467	-4,86
3	CSP-1-1597	0,67
4	CSP-1-1663	0,48
5	CSP-1-1681	-/-
6	CSP-2-1681	-/-
7	CSP-1-1709	0,48
8	CSP-1-1753	0,62
9	CSP-2-1753	0,57
10	CSP-1-2196	0,57
11	CSP-1-2646	0,29
12	CSP-1-2862	-0,14
13	CSP-2-2862	0,48
14	CSP-1-3009	0,00
15	CSP-2-3009	0,00
16	CSP-1-3487	-0,57
17	CSP-2-3487	0,29
18	CSP-1-3923	-0,38
19	CSP-1-3943	-1,95
20	CSP-1-4465	1,24
21	CSP-1-4554	0,00
22	CSP-2-4554	0,57
23	CSP-1-4928	2,48
24	CSP-1-5084	0,48
25	CSP-2-5084	0,33
26	CSP-1-5180	-0,95
27	CSP-2-5180	-0,33
28	CSP-1-5184	-0,81
29	CSP-1-5238	-3,33

No.	Measurement ID	z-Score
30	CSP-2-5238	-5,10
31	CSP-1-5487	-3,48
32	CSP-1-5724	-0,10
33	CSP-1-5774	-0,57
34	CSP-1-5910	-1,43
35	CSP-2-5910	0,81
36	CSP-1-5971	0,38
37	CSP-1-6155	0,00
38	CSP-1-6194	-0,48
39	CSP-1-6341	-0,52
40	CSP-1-6378	0,52
41	CSP-1-6392	0,43
42	CSP-1-7540	-2,81
43	CSP-1-7705	-0,24
44	CSP-1-8250	-0,10
45	CSP-2-8250	-1,00
46	CSP-1-8588	-3,38
47	CSP-2-8588	-5,05
48	CSP-1-8611	0,43
49	CSP-1-8617	-10,81
50	CSP-2-8617	-/-
51	CSP-1-8760	-0,14
52	CSP-2-8760	0,48
53	CSP-1-9093	-0,48
54	CSP-1-9106	-2,43
55	CSP-2-9106	0,38
56	CSP-1-9117	-0,52
57	CSP-1-9200	-0,14
58	CSP-2-9200	0,14

2.4.5 Water Vapour Concentration



No.	Measurement ID	z-Score
1	CAH-1-1236	3,43
2	CAH-1-1467	1,62
3	CAH-1-1597	1,04
4	CAH-1-1663	2,55
5	CAH-1-1681	-/-
6	CAH-2-1681	-/-
7	CAH-1-1709	2,04
8	CAH-1-1753	1,59
9	CAH-2-1753	1,66
10	CAH-1-2196	3,19
11	CAH-1-2646	0,34
12	CAH-1-2862	-1,72
13	CAH-2-2862	-1,20
14	CAH-1-3009	1,28
15	CAH-2-3009	1,32
16	CAH-1-3487	-0,23
17	CAH-2-3487	0,28
18	CAH-1-3923	1,24
19	CAH-1-3943	-1,50
20	CAH-1-4465	0,55
21	CAH-1-4554	-1,04
22	CAH-2-4554	-1,11
23	CAH-1-4928	0,93
24	CAH-1-5084	1,51
25	CAH-2-5084	1,28
26	CAH-1-5180	-0,91
27	CAH-2-5180	-0,57
28	CAH-1-5184	-1,00
29	CAH-1-5238	0,99

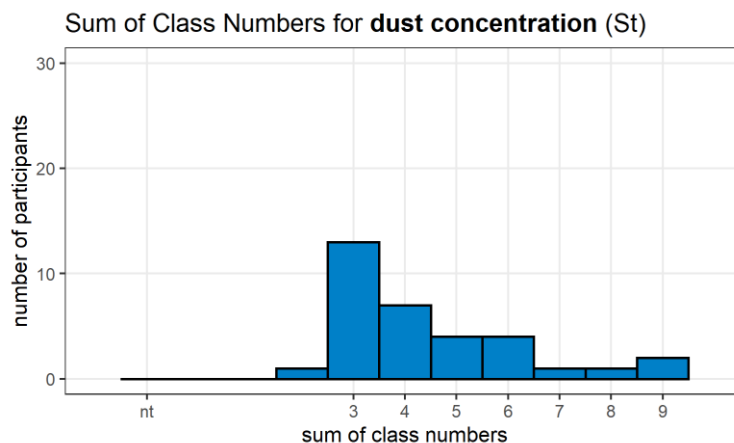
No.	Measurement ID	z-Score
30	CAH-2-5238	0,78
31	CAH-1-5487	0,30
32	CAH-1-5724	1,64
33	CAH-1-5774	2,58
34	CAH-1-5910	2,05
35	CAH-2-5910	1,09
36	CAH-1-5971	0,53
37	CAH-1-6155	1,82
38	CAH-1-6194	3,50
39	CAH-1-6341	2,61
40	CAH-1-6378	2,58
41	CAH-1-6392	0,57
42	CAH-1-7540	1,53
43	CAH-1-7705	0,62
44	CAH-1-8250	0,99
45	CAH-2-8250	0,82
46	CAH-1-8588	0,72
47	CAH-2-8588	0,20
48	CAH-1-8611	1,61
49	CAH-1-8617	5,35
50	CAH-2-8617	0,45
51	CAH-1-8760	2,61
52	CAH-2-8760	1,73
53	CAH-1-9093	-0,04
54	CAH-1-9106	0,31
55	CAH-2-9106	-0,04
56	CAH-1-9117	-1,16
57	CAH-1-9200	2,20
58	CAH-2-9200	1,09

3. Achieved Sums of Class Numbers

The following schemes show the sum of class numbers that the participants achieved for the different components in form of histogram charts. For the interpretation of the sums of class numbers, please refer to the annual report (main document). Participants that did not hand in results for a component are listed as “nt”.

3.1 Dust Proficiency Test (Substance Range P)

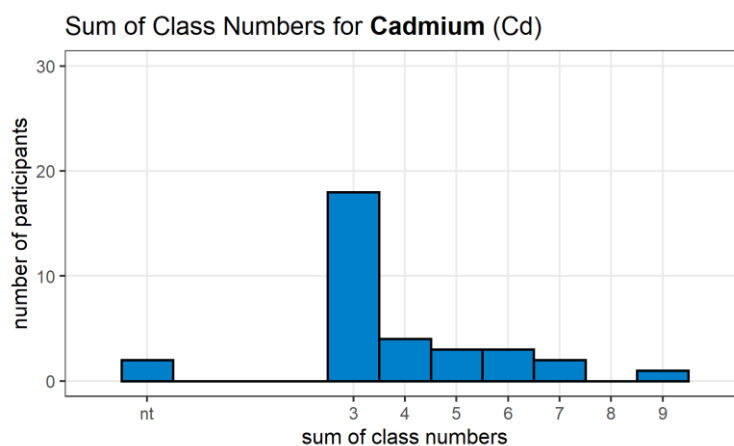
3.1.1 Dust Concentration



ID	component	result
1236	dust concentration	4
1467	dust concentration	4
1597	dust concentration	7
1663	dust concentration	4
1709	dust concentration	3
2196	dust concentration	2
2646	dust concentration	9
3923	dust concentration	8
3943	dust concentration	3
4465	dust concentration	5
4554	dust concentration	3
4928	dust concentration	3
5084	dust concentration	3
5180	dust concentration	3
5184	dust concentration	4
5238	dust concentration	6
5487	dust concentration	3

ID	component	result
5724	dust concentration	4
5774	dust concentration	4
5910	dust concentration	9
5971	dust concentration	3
6155	dust concentration	5
6194	dust concentration	6
6341	dust concentration	6
6378	dust concentration	4
6392	dust concentration	3
7540	dust concentration	6
7705	dust concentration	5
8588	dust concentration	5
8611	dust concentration	3
8760	dust concentration	3
9093	dust concentration	3
9117	dust concentration	3

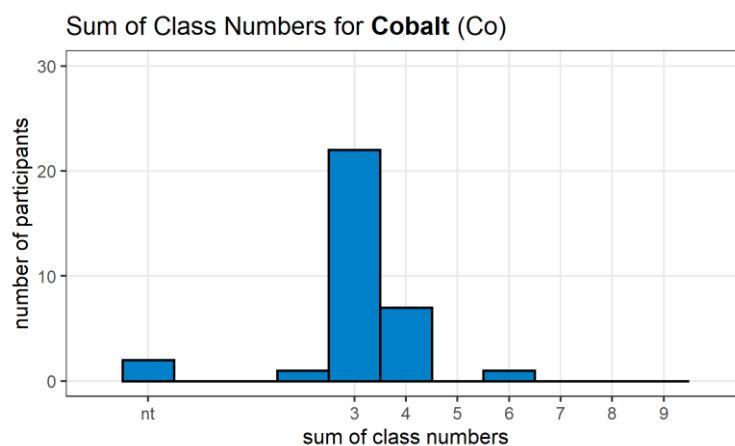
3.1.2 Cadmium



ID	component	result
1236	Cadmium	3
1467	Cadmium	3
1597	Cadmium	5
1663	Cadmium	3
1709	Cadmium	3
2196	Cadmium	6
2646	Cadmium	6
3923	Cadmium	3
3943	Cadmium	nt
4465	Cadmium	3
4554	Cadmium	9
4928	Cadmium	3
5084	Cadmium	7
5180	Cadmium	3
5184	Cadmium	3
5238	Cadmium	7
5487	Cadmium	3

ID	component	result
5724	Cadmium	5
5774	Cadmium	3
5910	Cadmium	nt
5971	Cadmium	5
6155	Cadmium	4
6194	Cadmium	4
6341	Cadmium	4
6378	Cadmium	3
6392	Cadmium	3
7540	Cadmium	4
7705	Cadmium	3
8588	Cadmium	3
8611	Cadmium	3
8760	Cadmium	3
9093	Cadmium	3
9117	Cadmium	6

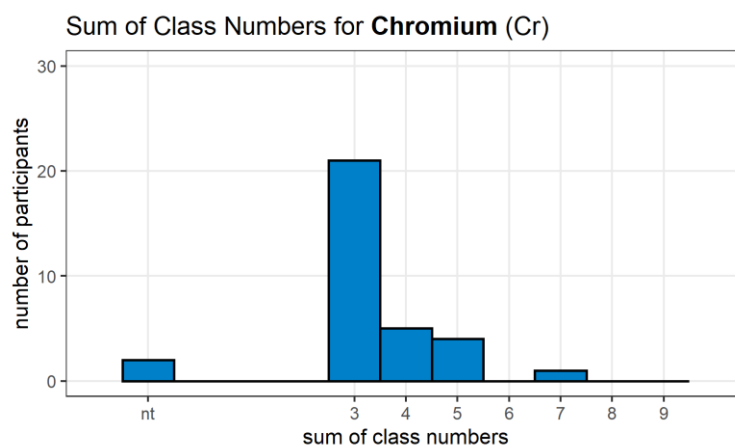
3.1.3 Cobalt



ID	component	result
1236	Cobalt	3
1467	Cobalt	6
1597	Cobalt	3
1663	Cobalt	3
1709	Cobalt	3
2196	Cobalt	2
2646	Cobalt	4
3923	Cobalt	4
3943	Cobalt	nt
4465	Cobalt	3
4554	Cobalt	3
4928	Cobalt	3
5084	Cobalt	4
5180	Cobalt	3
5184	Cobalt	3
5238	Cobalt	4
5487	Cobalt	3

ID	component	result
5724	Cobalt	3
5774	Cobalt	3
5910	Cobalt	nt
5971	Cobalt	3
6155	Cobalt	4
6194	Cobalt	4
6341	Cobalt	4
6378	Cobalt	3
6392	Cobalt	3
7540	Cobalt	3
7705	Cobalt	3
8588	Cobalt	3
8611	Cobalt	3
8760	Cobalt	3
9093	Cobalt	3
9117	Cobalt	3

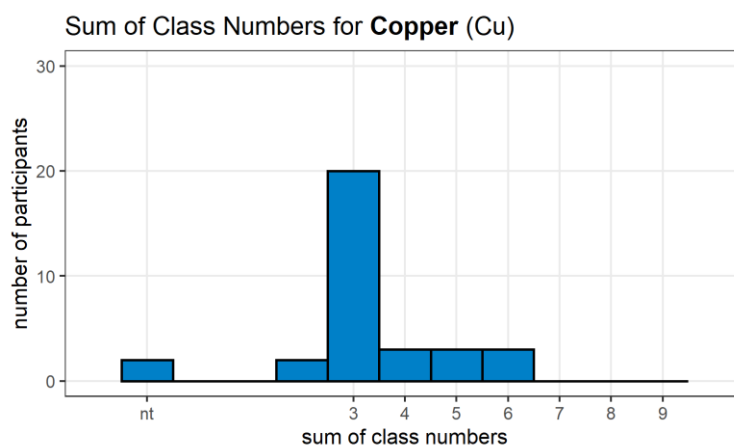
3.1.4 Chromium



ID	component	result
1236	Chromium	3
1467	Chromium	5
1597	Chromium	3
1663	Chromium	3
1709	Chromium	3
2196	Chromium	3
2646	Chromium	5
3923	Chromium	4
3943	Chromium	nt
4465	Chromium	5
4554	Chromium	3
4928	Chromium	3
5084	Chromium	3
5180	Chromium	3
5184	Chromium	3
5238	Chromium	3
5487	Chromium	3

ID	component	result
5724	Chromium	4
5774	Chromium	3
5910	Chromium	nt
5971	Chromium	4
6155	Chromium	4
6194	Chromium	7
6341	Chromium	5
6378	Chromium	4
6392	Chromium	3
7540	Chromium	3
7705	Chromium	3
8588	Chromium	3
8611	Chromium	3
8760	Chromium	3
9093	Chromium	3
9117	Chromium	3

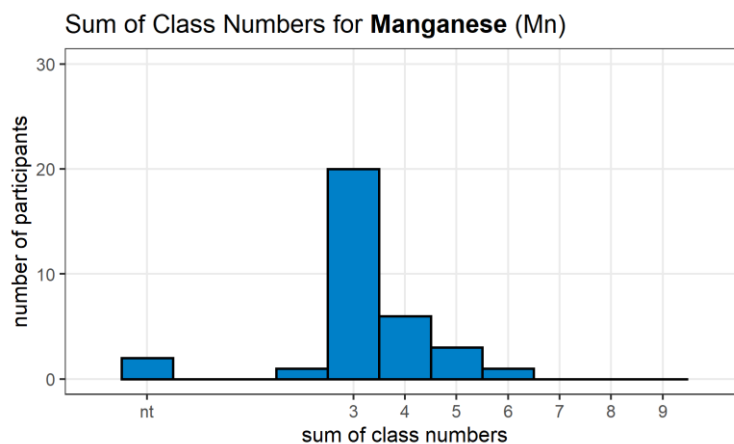
3.1.5 Copper



ID	component	result
1236	Copper	3
1467	Copper	6
1597	Copper	2
1663	Copper	3
1709	Copper	3
2196	Copper	2
2646	Copper	5
3923	Copper	5
3943	Copper	nt
4465	Copper	3
4554	Copper	3
4928	Copper	3
5084	Copper	5
5180	Copper	3
5184	Copper	3
5238	Copper	6
5487	Copper	3

ID	component	result
5724	Copper	3
5774	Copper	3
5910	Copper	nt
5971	Copper	4
6155	Copper	4
6194	Copper	6
6341	Copper	4
6378	Copper	3
6392	Copper	3
7540	Copper	3
7705	Copper	3
8588	Copper	3
8611	Copper	3
8760	Copper	3
9093	Copper	3
9117	Copper	3

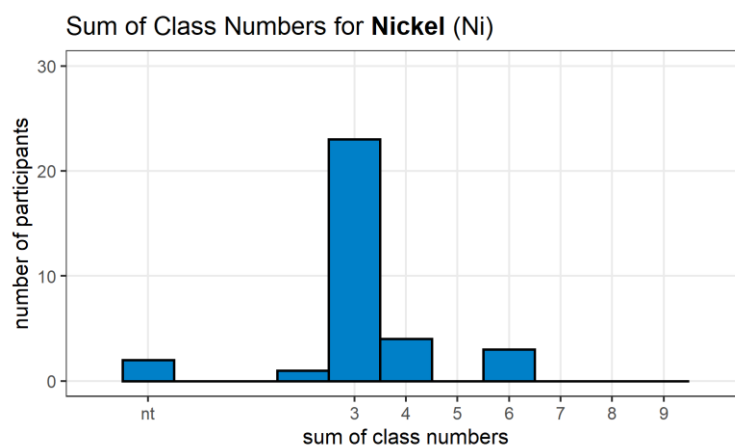
3.1.6 Manganese



ID	component	result
1236	Manganese	3
1467	Manganese	5
1597	Manganese	3
1663	Manganese	3
1709	Manganese	3
2196	Manganese	2
2646	Manganese	5
3923	Manganese	4
3943	Manganese	nt
4465	Manganese	3
4554	Manganese	3
4928	Manganese	3
5084	Manganese	4
5180	Manganese	3
5184	Manganese	3
5238	Manganese	6
5487	Manganese	3

ID	component	result
5724	Manganese	4
5774	Manganese	3
5910	Manganese	nt
5971	Manganese	4
6155	Manganese	4
6194	Manganese	5
6341	Manganese	4
6378	Manganese	3
6392	Manganese	3
7540	Manganese	3
7705	Manganese	3
8588	Manganese	3
8611	Manganese	3
8760	Manganese	3
9093	Manganese	3
9117	Manganese	3

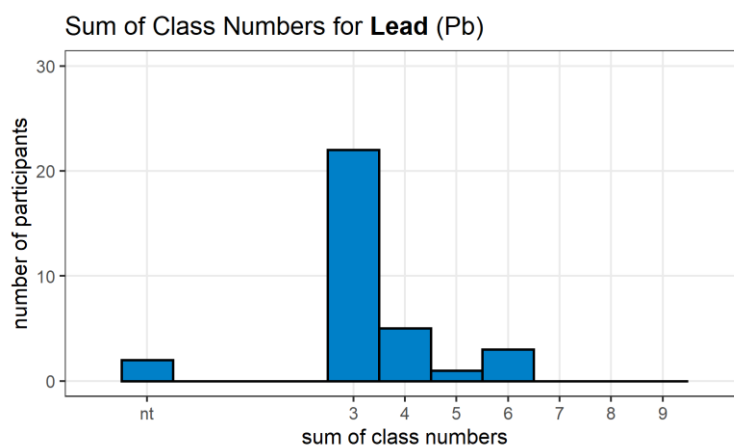
3.1.7 Nickel



ID	component	result
1236	Nickel	3
1467	Nickel	6
1597	Nickel	3
1663	Nickel	3
1709	Nickel	3
2196	Nickel	2
2646	Nickel	4
3923	Nickel	6
3943	Nickel	nt
4465	Nickel	3
4554	Nickel	3
4928	Nickel	3
5084	Nickel	3
5180	Nickel	3
5184	Nickel	3
5238	Nickel	4
5487	Nickel	3

ID	component	result
5724	Nickel	3
5774	Nickel	3
5910	Nickel	nt
5971	Nickel	3
6155	Nickel	4
6194	Nickel	6
6341	Nickel	4
6378	Nickel	3
6392	Nickel	3
7540	Nickel	3
7705	Nickel	3
8588	Nickel	3
8611	Nickel	3
8760	Nickel	3
9093	Nickel	3
9117	Nickel	3

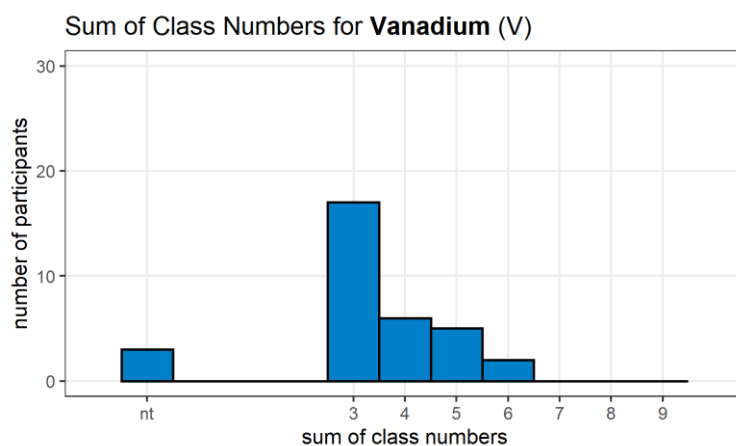
3.1.8 Lead



ID	component	result
1236	Lead	3
1467	Lead	3
1597	Lead	4
1663	Lead	3
1709	Lead	3
2196	Lead	4
2646	Lead	6
3923	Lead	3
3943	Lead	nt
4465	Lead	3
4554	Lead	3
4928	Lead	3
5084	Lead	6
5180	Lead	3
5184	Lead	3
5238	Lead	6
5487	Lead	3

ID	component	result
5724	Lead	3
5774	Lead	3
5910	Lead	nt
5971	Lead	5
6155	Lead	3
6194	Lead	4
6341	Lead	4
6378	Lead	3
6392	Lead	3
7540	Lead	4
7705	Lead	3
8588	Lead	3
8611	Lead	3
8760	Lead	3
9093	Lead	3
9117	Lead	3

3.1.9 Vanadium

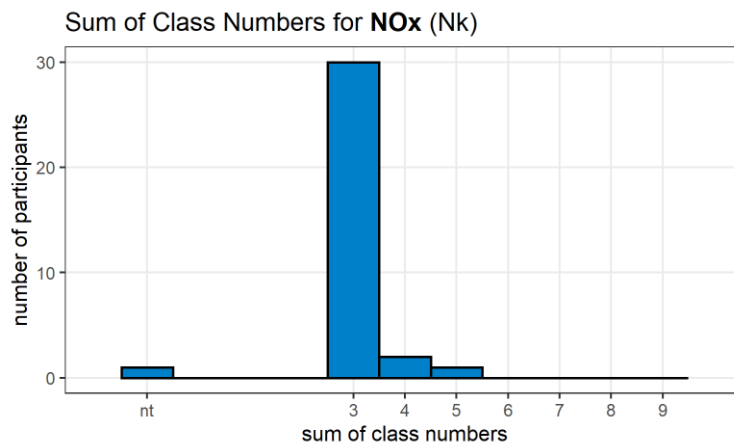


ID	component	result
1236	Vanadium	4
1467	Vanadium	5
1597	Vanadium	5
1663	Vanadium	3
1709	Vanadium	4
2196	Vanadium	4
2646	Vanadium	6
3923	Vanadium	3
3943	Vanadium	nt
4465	Vanadium	3
4554	Vanadium	3
4928	Vanadium	3
5084	Vanadium	6
5180	Vanadium	3
5184	Vanadium	3
5238	Vanadium	5
5487	Vanadium	3

ID	component	result
5724	Vanadium	5
5774	Vanadium	3
5910	Vanadium	nt
5971	Vanadium	5
6155	Vanadium	4
6194	Vanadium	4
6341	Vanadium	4
6378	Vanadium	3
6392	Vanadium	nt
7540	Vanadium	3
7705	Vanadium	3
8588	Vanadium	3
8611	Vanadium	3
8760	Vanadium	3
9093	Vanadium	3
9117	Vanadium	3

3.2 Gas (Substance Range G)

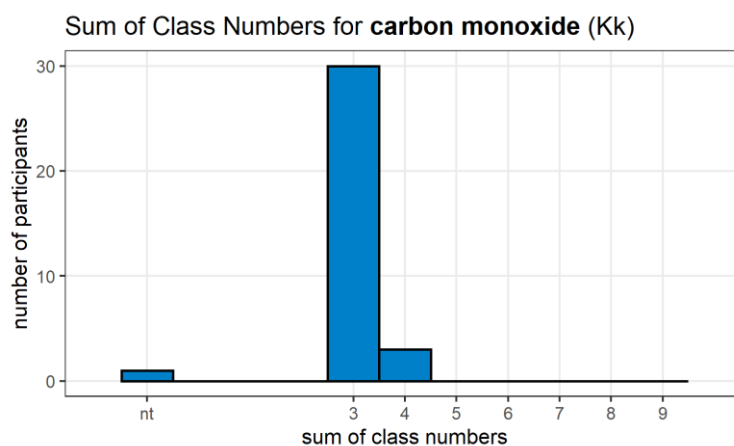
3.2.1 Nitrogen Oxides



ID	component	result
1236	NO _x	3
1467	NO _x	3
1597	NO _x	3
1663	NO _x	3
1681	NO _x	nt
1709	NO _x	3
1753	NO _x	3
2196	NO _x	3
2646	NO _x	5
2862	NO _x	3
3009	NO _x	3
3487	NO _x	3
3923	NO _x	3
4465	NO _x	3
4928	NO _x	3
5184	NO _x	3
5487	NO _x	3

ID	component	result
5724	NO _x	3
5774	NO _x	3
5971	NO _x	3
6155	NO _x	3
6194	NO _x	3
6341	NO _x	3
6378	NO _x	3
6392	NO _x	4
7540	NO _x	3
7705	NO _x	3
8250	NO _x	3
8611	NO _x	3
8617	NO _x	4
9093	NO _x	3
9106	NO _x	3
9117	NO _x	3
9200	NO _x	3

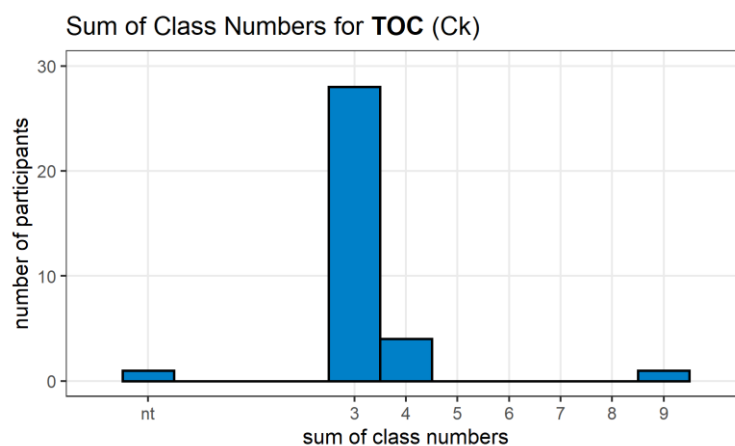
3.2.2 Carbon Monoxide



ID	component	result
1236	carbon monoxide	3
1467	carbon monoxide	3
1597	carbon monoxide	3
1663	carbon monoxide	3
1681	carbon monoxide	nt
1709	carbon monoxide	3
1753	carbon monoxide	3
2196	carbon monoxide	3
2646	carbon monoxide	3
2862	carbon monoxide	3
3009	carbon monoxide	3
3487	carbon monoxide	3
3923	carbon monoxide	4
4465	carbon monoxide	3
4928	carbon monoxide	4
5184	carbon monoxide	3
5487	carbon monoxide	3

ID	component	result
5724	carbon monoxide	3
5774	carbon monoxide	3
5971	carbon monoxide	3
6155	carbon monoxide	3
6194	carbon monoxide	3
6341	carbon monoxide	3
6378	carbon monoxide	3
6392	carbon monoxide	3
7540	carbon monoxide	3
7705	carbon monoxide	3
8250	carbon monoxide	3
8611	carbon monoxide	3
8617	carbon monoxide	4
9093	carbon monoxide	3
9106	carbon monoxide	3
9117	carbon monoxide	3
9200	carbon monoxide	3

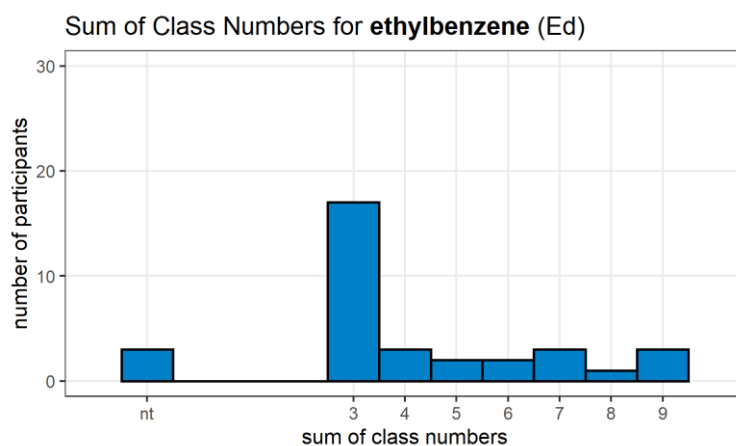
3.2.3 TOC



ID	component	result
1236	TOC	3
1467	TOC	3
1597	TOC	3
1663	TOC	3
1681	TOC	nt
1709	TOC	3
1753	TOC	4
2196	TOC	3
2646	TOC	9
2862	TOC	3
3009	TOC	3
3487	TOC	3
3923	TOC	3
4465	TOC	3
4928	TOC	4
5184	TOC	3
5487	TOC	3

ID	component	result
5724	TOC	4
5774	TOC	3
5971	TOC	4
6155	TOC	3
6194	TOC	3
6341	TOC	3
6378	TOC	3
6392	TOC	3
7540	TOC	3
7705	TOC	3
8250	TOC	3
8611	TOC	3
8617	TOC	3
9093	TOC	3
9106	TOC	3
9117	TOC	3
9200	TOC	3

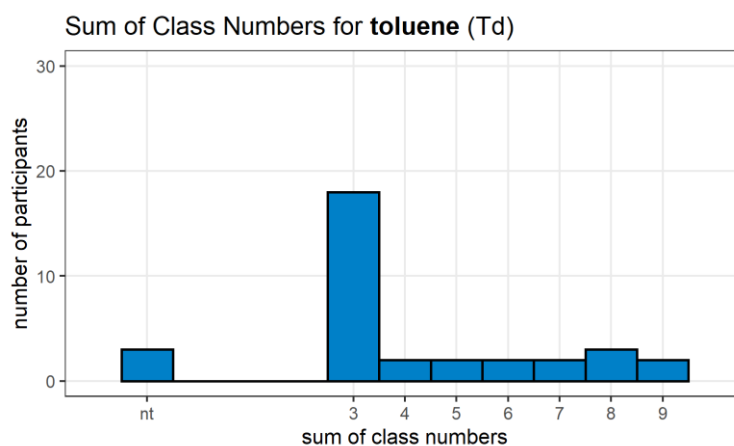
3.2.4 Ethylbenzene



ID	component	result
1236	ethylbenzene	3
1467	ethylbenzene	8
1597	ethylbenzene	3
1663	ethylbenzene	3
1681	ethylbenzene	nt
1709	ethylbenzene	3
1753	ethylbenzene	nt
2196	ethylbenzene	3
2646	ethylbenzene	4
2862	ethylbenzene	3
3009	ethylbenzene	4
3487	ethylbenzene	6
3923	ethylbenzene	9
4465	ethylbenzene	3
4928	ethylbenzene	5
5184	ethylbenzene	3
5487	ethylbenzene	7

ID	component	result
5724	ethylbenzene	3
5774	ethylbenzene	3
5971	ethylbenzene	7
6155	ethylbenzene	6
6194	ethylbenzene	3
6341	ethylbenzene	3
6378	ethylbenzene	5
6392	ethylbenzene	9
7540	ethylbenzene	7
7705	ethylbenzene	3
8250	ethylbenzene	nt
8611	ethylbenzene	3
8617	ethylbenzene	9
9093	ethylbenzene	3
9106	ethylbenzene	3
9117	ethylbenzene	3
9200	ethylbenzene	4

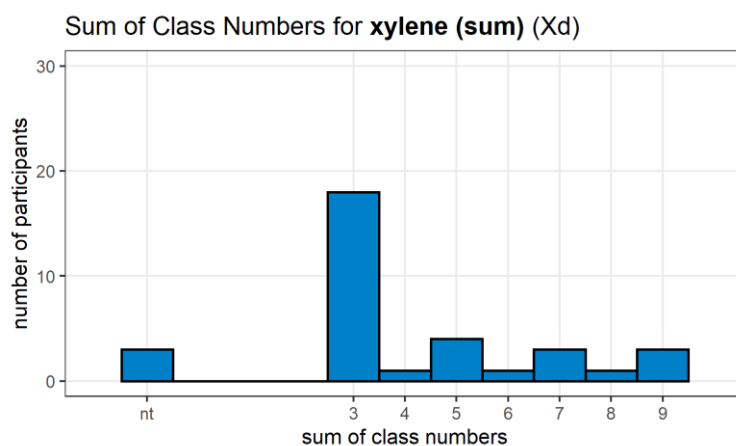
3.2.5 Toluene



ID	component	result
1236	toluene	3
1467	toluene	8
1597	toluene	3
1663	toluene	3
1681	toluene	nt
1709	toluene	3
1753	toluene	nt
2196	toluene	3
2646	toluene	5
2862	toluene	3
3009	toluene	5
3487	toluene	4
3923	toluene	9
4465	toluene	3
4928	toluene	3
5184	toluene	3
5487	toluene	7

ID	component	result
5724	toluene	3
5774	toluene	6
5971	toluene	7
6155	toluene	3
6194	toluene	3
6341	toluene	3
6378	toluene	3
6392	toluene	9
7540	toluene	8
7705	toluene	6
8250	toluene	nt
8611	toluene	3
8617	toluene	8
9093	toluene	3
9106	toluene	3
9117	toluene	4
9200	toluene	3

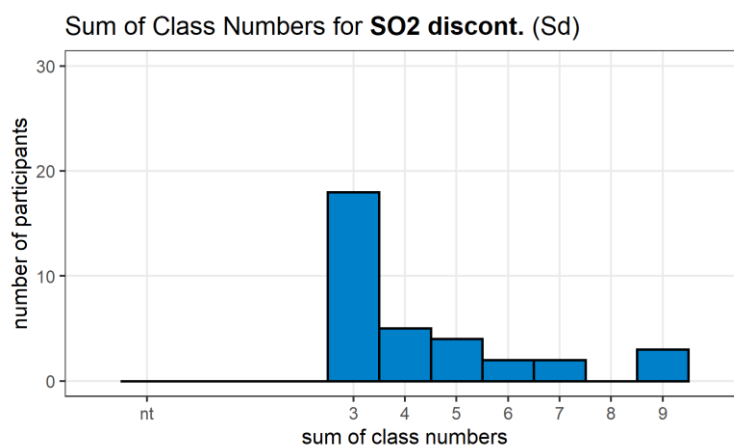
3.2.6 Sum of Xylenes



ID	component	result
1236	xylene (sum)	3
1467	xylene (sum)	5
1597	xylene (sum)	3
1663	xylene (sum)	3
1681	xylene (sum)	nt
1709	xylene (sum)	3
1753	xylene (sum)	nt
2196	xylene (sum)	3
2646	xylene (sum)	5
2862	xylene (sum)	5
3009	xylene (sum)	7
3487	xylene (sum)	5
3923	xylene (sum)	7
4465	xylene (sum)	3
4928	xylene (sum)	3
5184	xylene (sum)	3
5487	xylene (sum)	7

ID	component	result
5724	xylene (sum)	3
5774	xylene (sum)	3
5971	xylene (sum)	8
6155	xylene (sum)	3
6194	xylene (sum)	3
6341	xylene (sum)	3
6378	xylene (sum)	3
6392	xylene (sum)	9
7540	xylene (sum)	9
7705	xylene (sum)	3
8250	xylene (sum)	nt
8611	xylene (sum)	3
8617	xylene (sum)	9
9093	xylene (sum)	3
9106	xylene (sum)	6
9117	xylene (sum)	3
9200	xylene (sum)	4

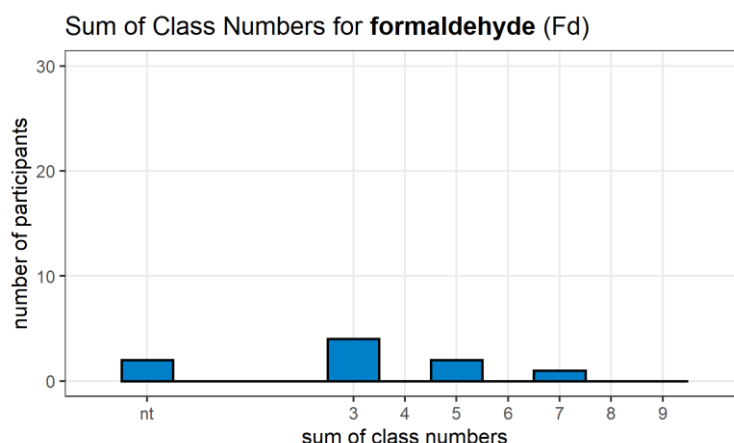
3.2.7 Sulphur Dioxide



ID	component	result
1236	SO2 discont.	5
1467	SO2 discont.	7
1597	SO2 discont.	3
1663	SO2 discont.	3
1681	SO2 discont.	3
1709	SO2 discont.	3
1753	SO2 discont.	9
2196	SO2 discont.	3
2646	SO2 discont.	5
2862	SO2 discont.	4
3009	SO2 discont.	3
3487	SO2 discont.	3
3923	SO2 discont.	5
4465	SO2 discont.	3
4928	SO2 discont.	3
5184	SO2 discont.	9
5487	SO2 discont.	3

ID	component	result
5724	SO2 discont.	3
5774	SO2 discont.	9
5971	SO2 discont.	3
6155	SO2 discont.	6
6194	SO2 discont.	6
6341	SO2 discont.	3
6378	SO2 discont.	5
6392	SO2 discont.	4
7540	SO2 discont.	4
7705	SO2 discont.	3
8250	SO2 discont.	4
8611	SO2 discont.	3
8617	SO2 discont.	3
9093	SO2 discont.	3
9106	SO2 discont.	3
9117	SO2 discont.	4
9200	SO2 discont.	7

3.2.8 Formaldehyde



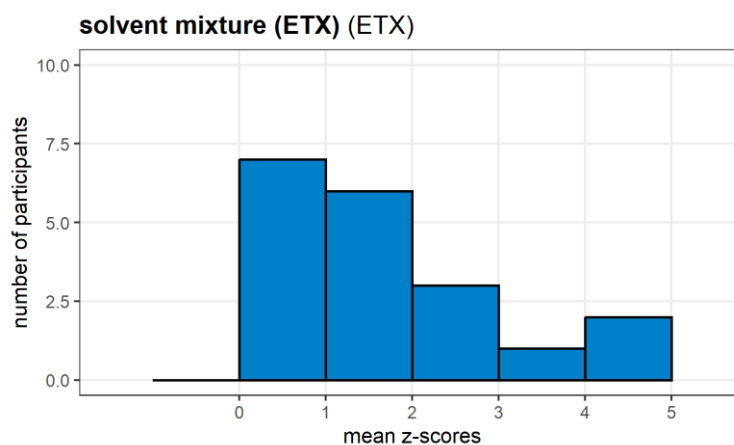
ID	component	result
1681	formaldehyde	nt
1753	formaldehyde	7
2862	formaldehyde	3
3009	formaldehyde	3
3487	formaldehyde	5

ID	component	result
8250	formaldehyde	nt
8617	formaldehyde	5
9106	formaldehyde	3
9200	formaldehyde	3

3.3 Odour Proficiency Test (Substance range 0)

In odour emission proficiency tests, instead of sums of class numbers a mean value of z scores is calculated. In the following histograms, the participants are allocated to a group by rounding down their mean z-score to the next lower integer.

3.3.1 Solvent Mixture (ETX)



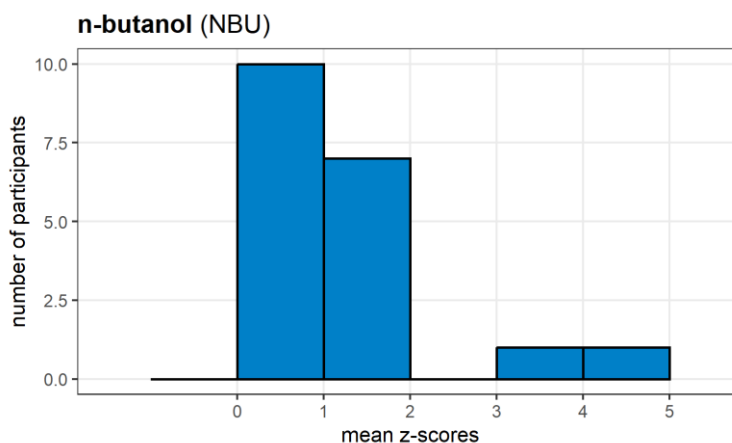
ID	component	result
2201	solvent mixture (ETX)	0

ID	component	result
2386	solvent mixture (ETX)	2

ID	component	result
2554	solvent mixture (ETX)	0
3110	solvent mixture (ETX)	1
3625	solvent mixture (ETX)	4
4130	solvent mixture (ETX)	1
4984	solvent mixture (ETX)	0
5588	solvent mixture (ETX)	2
5798	solvent mixture (ETX)	2
5848	solvent mixture (ETX)	1
6338	solvent mixture (ETX)	0

ID	component	result
6339	solvent mixture (ETX)	4
6988	solvent mixture (ETX)	1
7160	solvent mixture (ETX)	1
8240	solvent mixture (ETX)	0
8732	solvent mixture (ETX)	0
9050	solvent mixture (ETX)	0
9173	solvent mixture (ETX)	3
9447	solvent mixture (ETX)	1

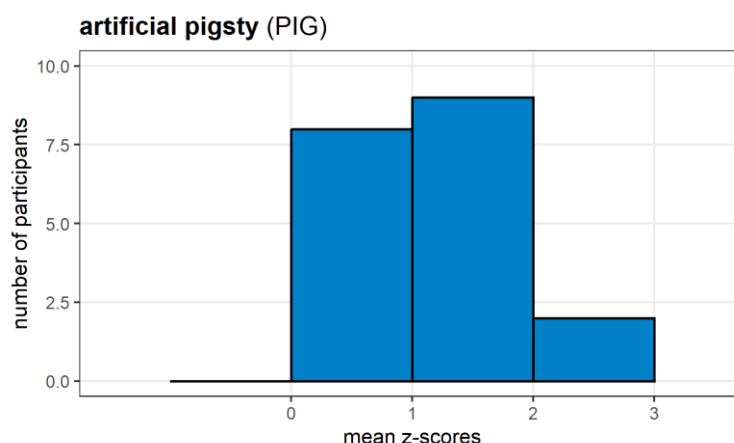
3.3.2 n-Butanol



ID	component	result
2201	n-butanol	0
2386	n-butanol	0
2554	n-butanol	0
3110	n-butanol	0
3625	n-butanol	1
4130	n-butanol	1
4984	n-butanol	1
5588	n-butanol	1
5798	n-butanol	0
5848	n-butanol	0

ID	component	result
6338	n-butanol	4
6339	n-butanol	0
6988	n-butanol	0
7160	n-butanol	1
8240	n-butanol	0
8732	n-butanol	3
9050	n-butanol	0
9173	n-butanol	1
9447	n-butanol	1

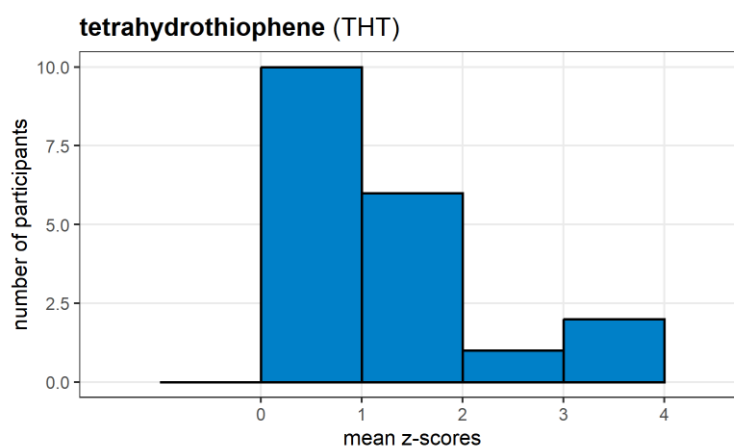
3.3.3 Artificial Pigsty



ID	component	result
2201	artificial pigsty	0
2386	artificial pigsty	2
2554	artificial pigsty	1
3110	artificial pigsty	0
3625	artificial pigsty	2
4130	artificial pigsty	1
4984	artificial pigsty	0
5588	artificial pigsty	1
5798	artificial pigsty	0
5848	artificial pigsty	0

ID	component	result
6338	artificial pigsty	1
6339	artificial pigsty	1
6988	artificial pigsty	0
7160	artificial pigsty	1
8240	artificial pigsty	1
8732	artificial pigsty	0
9050	artificial pigsty	0
9173	artificial pigsty	1
9447	artificial pigsty	1

3.3.4 Tetrahydrothiophene



ID	component	result
2201	tetrahydrothiophene	0
2386	tetrahydrothiophene	1
2554	tetrahydrothiophene	1

ID	component	result
3110	tetrahydrothiophene	1
3625	tetrahydrothiophene	2
4130	tetrahydrothiophene	0

ID	component	result
4984	tetrahydrothiophene	0
5588	tetrahydrothiophene	0
5798	tetrahydrothiophene	0
5848	tetrahydrothiophene	0
6338	tetrahydrothiophene	0
6339	tetrahydrothiophene	3
6988	tetrahydrothiophene	1

ID	component	result
7160	tetrahydrothiophene	0
8240	tetrahydrothiophene	3
8732	tetrahydrothiophene	1
9050	tetrahydrothiophene	1
9173	tetrahydrothiophene	0
9447	tetrahydrothiophene	0

4. Overall Results

The overall results for the different stack emission proficiency test schemes and sub-areas of these schemes are listed below.

4.1 Dust Proficiency Test (Substance Range P)

ID	proficiency test	result
1236	dust	not evaluated
1467	dust	not evaluated
1597	dust	not evaluated
1663	dust	not evaluated
1709	dust	not evaluated
2196	dust	not evaluated
2646	dust	not evaluated
3923	dust	not evaluated
3943	dust	not evaluated
4465	dust	not evaluated
4554	dust	failed
4928	dust	not evaluated
5084	dust	failed
5180	dust	passed
5184	dust	not evaluated
5238	dust	failed
5487	dust	not evaluated

ID	proficiency test	result
5724	dust	not evaluated
5774	dust	not evaluated
5910	dust	failed
5971	dust	not evaluated
6155	dust	not evaluated
6194	dust	not evaluated
6341	dust	not evaluated
6378	dust	not evaluated
6392	dust	not evaluated
7540	dust	not evaluated
7705	dust	not evaluated
8588	dust	passed
8611	dust	not evaluated
8760	dust	passed
9093	dust	not evaluated
9117	dust	not evaluated

4.2 Gas Proficiency Test (Substance Range G)

ID	proficiency test	result
1236	gas	not evaluated
1467	gas	not evaluated
1597	gas	not evaluated
1663	gas	not evaluated

ID	proficiency test	result
1681	gas	failed (incomplete participation)
1709	gas	not evaluated

ID	proficiency test	result
1753	gas	failed
2196	gas	not evaluated
2646	gas	not evaluated
2862	gas	passed
3009	gas	failed
3487	gas	passed
3923	gas	not evaluated
4465	gas	not evaluated
4928	gas	not evaluated
5184	gas	not evaluated
5487	gas	not evaluated
5724	gas	not evaluated
5774	gas	not evaluated
5971	gas	not evaluated
6155	gas	not evaluated

ID	proficiency test	result
6194	gas	not evaluated
6341	gas	not evaluated
6378	gas	not evaluated
6392	gas	not evaluated
7540	gas	not evaluated
7705	gas	not evaluated
8250	gas	failed (incomplete participation)
8611	gas	not evaluated
8617	gas	failed
9093	gas	not evaluated
9106	gas	passed
9117	gas	not evaluated
9200	gas	failed

4.3 Odour Proficiency Test (Substance Range 0)

ID	proficiency test	result
2201	odour	passed
2386	odour	passed
2554	odour	passed
3110	odour	passed
3625	odour	failed
4130	odour	passed
4984	odour	passed
5588	odour	failed (incomplete participation)
5798	odour	passed

ID	proficiency test	result
5848	odour	passed
6338	odour	failed
6339	odour	failed
6988	odour	passed
7160	odour	passed
8240	odour	failed
8732	odour	failed
9050	odour	passed
9173	odour	failed
9447	odour	passed

4.4 Gas Flow Conditions

ID	proficiency test	result
1236	gas flow conditions	not evaluated
1467	gas flow conditions	not evaluated
1597	gas flow conditions	not evaluated
1663	gas flow conditions	not evaluated
1681	gas flow conditions	no participation
1709	gas flow conditions	not evaluated
1753	gas flow conditions	passed

ID	proficiency test	result
2196	gas flow conditions	not evaluated
2646	gas flow conditions	not evaluated
2862	gas flow conditions	passed
3009	gas flow conditions	passed
3487	gas flow conditions	passed
3923	gas flow conditions	not evaluated
3943	gas flow conditions	passed

ID	proficiency test	result
4465	gas flow conditions	not evaluated
4554	gas flow conditions	passed
4928	gas flow conditions	not evaluated
5084	gas flow conditions	passed
5180	gas flow conditions	passed
5184	gas flow conditions	not evaluated
5238	gas flow conditions	passed
5487	gas flow conditions	not evaluated
5724	gas flow conditions	not evaluated
5774	gas flow conditions	not evaluated
5910	gas flow conditions	passed
5971	gas flow conditions	not evaluated
6155	gas flow conditions	not evaluated
6194	gas flow conditions	not evaluated

ID	proficiency test	result
6341	gas flow conditions	not evaluated
6378	gas flow conditions	not evaluated
6392	gas flow conditions	not evaluated
7540	gas flow conditions	not evaluated
7705	gas flow conditions	not evaluated
8250	gas flow conditions	passed
8588	gas flow conditions	passed
8611	gas flow conditions	not evaluated
8617	gas flow conditions	passed
8760	gas flow conditions	passed
9093	gas flow conditions	not evaluated
9106	gas flow conditions	passed
9117	gas flow conditions	not evaluated
9200	gas flow conditions	passed

5. Release

Kassel, 9th February 2023

gez. J. Cordes

Dr. Jens Cordes

Technical Supervisor
Proficiency Testing

(Fachlich Verantwortlicher
Ringversuche)

gez. E. Antonsson

Dr. Egill Antonsson

Deputy Technical Supervisor
Proficiency Testing

(Stellvertretender Fachlich
Verantwortlicher Ringversuche)

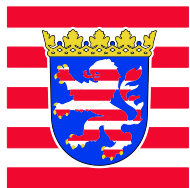
gez. D. Wildanger

Dr. Dominik Wildanger

Head of Department

(Dezernatsleiter)

HESSEN



Hessisches Landesamt für Naturschutz, Umwelt und Geologie
Hessian Agency for Nature Conservation, Environment and Geology

Dezernat I3 – Luftreinhaltung: Emissionen
Department I3 – Air Pollution Control: Emissions

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