COAL CONCEPTS

PTS0008

COAL CONCEPTS PROFICIENCY TESTING

GENERAL ANALYSIS SAMPLE

REPORT – ONE HUNDRED AND FORTY-SIX

Revision 00

Final report

DATE ISSUED 31 DECEMBER 2023

PARTICIPANT

LABORATORY CODE: a

R BABOOLAL (SCHEME MANAGER)

Disclaimer: Opinions and interpretations expressed herein are outside the scope of SANAS accreditation
**Moisture in the analysis sample is not included in the SANAS schedule of accreditation as robust statistics cannot be applied.*
Chlorine, Fluorine, Quick ash, ASTM ash and ASTM Volatiles is not included in the scope of accreditation.

THINKING QUALITY, QUALITY THINKING

REGISTRATION NUMBER: 2006/149731/23 (RMB INDUSTRIAL STATIONERS cc t/a)

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EXECUTIVE SUMMARY

1. One hundred and fourteen samples were sent to participants with 108 results submitted timeously.
2. The total number of outliers detected were as follows (dry base):

    - ISO Ash x 2
    - Volatile matter x 5
    - Calorific value x 2
    - Total Sulphur x 2
    - Carbon x 2
    - ASTM Volatile Matter x 1

3. Chlorine, ASTM Ash, ASTM Volatile Matter participants were insufficient to apply robust statistical calculations.
4. Trending for your laboratory is as follows:

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Dear Participant

RE: PROFICIENCY TESTING RESULTS FOR THE MONTH OF DECEMBER 2023

Thank you for your participation in the Coal Concepts proficiency testing scheme.

Your laboratory code is as per the cover page.

All results are totally confidential. Any results in ***Bold, Italics and Underlined*** are outliers. Where applicable, the most extreme outliers have been eliminated from calculations using the Grubbs estimate for outliers. Robust statistics has been applied where possible. Analysis results have been reported on air dry and dry base. The dry base results have been used to calculate the z-scores. The z-scores are calculated by subtracting the average from the participant result then dividing by the standard deviation. Note: All decimals are carried in the z-score calculation and only rounded off at the end of the calculation.

Please take note of the following:

1. Z-scores between -1 and +1 is deemed acceptable

2. Z-scores between -2 and -3 should serve as a warning that the analysis result could get worse

3. Z-scores between +2 and +3 should also serve as a warning that analysis results could get worse.

4. Z- scores lower than -3 and exceeding +3 should warrant an investigation

5. Compare your result to the robust average which will be the assigned value. The measurement of uncertainty (UoM) of the results is also stated.

6. Z-Score calculations can be made available upon request

The Coal Concepts scheme adheres to the requirements of ISO/IEC 17043:2010 – Conformity assessment – General requirements for proficiency testing.

Statistical analysis has been carried out using ISO/IEC 13528:2022-Statistical methods for use in proficiency testing by interlaboratory comparisons.

Please find results attached together with Z-score trends.

Best Regards

R Baboolal

LIST OF PARTICIPANTS

Afisam Dudfield	Jindal Mozambique
Africoal	Jugoinspekt Belgrade AD Serbia
AH Knight	Laboratory for solid fuels-Mining Institute Belgrade
Anglo Coal Goedehoop North Plant	Labrite Lab
Anglo Greenside (Thungela)	Leon Testing Pakistan
Anglo Landau	Mafube Coal
Aqua Specto	Mfulawamanzi
ArcelorMittal VDP	Ministry of Energy and Mineral Resources - Kingdom of Jordan
Best enough - 2 Seam	Mitra SK Richards Bay
Best enough Laboratory -Springs	ML Coal
Bestech Anthra Siding- Ermelo	Moruple
Bestech Madini Mining Witbank	Msobo Coal
Bestech Vlakfontein Mine-Ogies	Nelson Mandela University
Bestech Zomhlaba Resource Mine -Delmas	Noko Analytical laboratories (Witbank)
Botswana Power Corp - B Power Station	Noko NCC
Botswana Power Corporation - A Power Station	Noko Ntshovelo
Bureau Veritas Beira	Noko Piet Retief
Bureau Veritas Inspectorate Laboratories – Alton	Noko Welgemeend
Bureau Veritas Inspectorate Laboratories - Middelburg	Quality Ensure Eastide Lab - Shift A
BV BELFAST	Quality Ensure Eastide Lab - Shift B
BV Matola Laboratory	Richards Bay Minerals
BV Moatize	Ronewa Lab
BV Nacala	Ronewa Lab Vele
BV Tendele	Ronewa Wescoal
BVTISA -PTA	SA Labs Ihtuba – Kangra
Castle Peak Power Station	SA Labs Ihtuba – Khanye
CCIC Richards Bay	SA Labs Ihtuba – Phalandwa
celiklerholding	SA Labs Ihtuba – Ruvuma Coal LTD
Coal Concepts Richards Bay Lab	SA Labs Ihtuba – ZAC
Cotecna Phola	SABS CSIR
Cotecna Lurco	SABS Newcastle (RETAINED SPRINGLAKES LAB CODE)
Cotecna Middelburg	SABS Richards Bay
Cotecna Mimosa	SABS Secunda
Cotecna Nasonti	SABS Uitkomst
Cotecna OLF	Sappi
Cotecna Richards Bay Lab	SB Mining Solutions - Belfast
Cotecna Tselentis	Seriti Kriel Colliery
Cotecna Umbumbene DroogVallei	Seriti New Denmark
Cotecna VDD	Seriti New Vaal
Department of Energy Philippines	Sibonisiwe Clewer
Dicem	Sibonisiwe Elandsfontein
Ensayos técnicos Labmin SRL-Peru	Sibonisiwe Middelburg
Eskom Arnot	Sibonisiwe Ritvlei
Eskom Duvha	Sibonisiwe WCP
Eskom Erid	Sibonisiwe-Arnot OPCO
Eskom Erid TGA	Sibonisiwe-Piet Retief
Eskom Grootvlei	Siboniswe Mzimkhulu
Eskom Hendrina	Siza Arnotopco
Eskom Kendal	Siza Carolina
Eskom Kriel	Siza Coal Services - Botswana
Eskom Lethabo	Siza Coal Services - Kinross
Eskom Majuba	Siza Leeuwpan
Eskom Matimba	Siza Middelburg
Eskom Matla	Siza Minerals Lab - Gaborone
Eskom Medupi	Siza Mooiplaats
Eskom Tutuka	Siza NBC
Exxaro Grootegeluk	Siza Sasol
Exxaro Matla	Siza WestCoal
Fauji Fertilizer Bin Qasim Limited	South 32 Khutala
G & W Minerals	SPT
General Directorate of Coal Enterprises of Turkey	Tata Steel Wales - Europe
Genet Inyanda	Turkey ELI
Genet Klipfontein	UAS
Genet Welgelegen	UAS Main Lab
Geoscience	UAS Overlooked
Glencore Boshoek	UAS Sudor
Glencore Lion	UAS Twistdraai
Glencore Rustenburg	UIS
Glencore Wonderkop	Universal Geominerals Sdn Bhd - Malaysia
Gölbaşı Kimya Laboratuvarı İşletme Müdürlüğü	Vitrovian
HighVeld Lab	Yatagan Termik
Hwange Colliery	Yildiz Labs - Turkey
Idwala Lime	Ykenerji
Imbally (Pty) Ltd	
Jindal Kiepersol	

1. TYPE OF SAMPLE USED

The coal used in this proficiency testing round was bituminous coal.

2. PREPARATION OF SAMPLE

Approximately 1000kg's of coal with an approximate top size of 50mm was sourced. This was crushed to -4mm using a jaw crusher. The -4mm material was reduced to -212um using a cross beat pulveriser. The 212 material was sieved using a 212um screen. Any +212um material was pulverised and sieved until all material passed through the 212-um sieve.

All the -212um material was then mixed in a mixing drum for 4 hours.

3. HOMOGENEITY CHECK

There were 122 participants in this round, 10 portions of sample were randomly extracted. These were packaged in their final form i.e. in 200ml sample bottles. The bottles were labelled 1 to 10. The results were as follows:

SAMPLE NO.	TEST PORTION 1	TEST PORTION 2	sample av (Xt)	range (Wt)	range sqd
1	16.09	16.11	16.10	0.02	0.0004
2	16.11	16.07	16.09	0.04	0.0016
3	16.02	16.05	16.04	0.03	0.0009
4	16.03	16.21	16.12	0.18	0.0324
5	16.13	16.18	16.16	0.05	0.0025
6	16.07	16.13	16.10	0.06	0.0036
7	16.16	16.11	16.14	0.05	0.0025
8	16.16	16.08	16.12	0.08	0.0064
9	16.01	16.07	16.04	0.06	0.0036
10	16.12	16.24	16.18	0.12	0.0144

GENERAL AVERAGE	16.11
STANDARD DEVIATION	0.046
WITHIN SAMPLE STANDARD DEVIATION	0.058
BETWEEN SAMPLE STANDARD DEVIATION	0.020

The between sample standard deviation must be ≤ 0.3 x σ

(σ = std deviation for the proficiency assessment)

σ = 0.483 was used, which is the repeatability for ISO ash (Ash % > 10%)
Hence = 0.483 x 0.3 = 0.145

Since 0.020 < 0.145, the samples are homogenous.

4. STABILITY CHECK

Samples were retained for sales as reference material. Ten of them were randomly chosen for stability testing. In order for the proficiency testing samples to be declared stable the general average from the homogeneity check and that of the stability check the difference in the general average should not differ by more than 0.3 X precision.

This test has been carried out about a month after the samples were received by the participating laboratories.

SAMPLE NO.	TEST PORTION 1	TEST PORTION 2	sample av (Xt)	range (Wt)	range sqd
1	16.26	16.17	16.22	0.09	0.0081
2	16.29	16.18	16.24	0.11	0.0121
3	16.26	16.02	16.14	0.24	0.0576
4	16.17	16.18	16.18	0.01	0.0001
5	16.15	16.22	16.19	0.07	0.0049
6	16.24	16.21	16.23	0.03	0.0009
7	16.18	16.16	16.17	0.02	0.0004
8	16.19	16.22	16.21	0.03	0.0009
9	16.22	16.06	16.14	0.16	0.0256
10	16.26	16.04	16.15	0.22	0.0484

GENERAL AVERAGE	16.18
STANDARD DEVIATION	0.035
WITHIN SAMPLE STANDARD DEVIATION	0.089
BETWEEN SAMPLE STANDARD DEVIATION	0.052

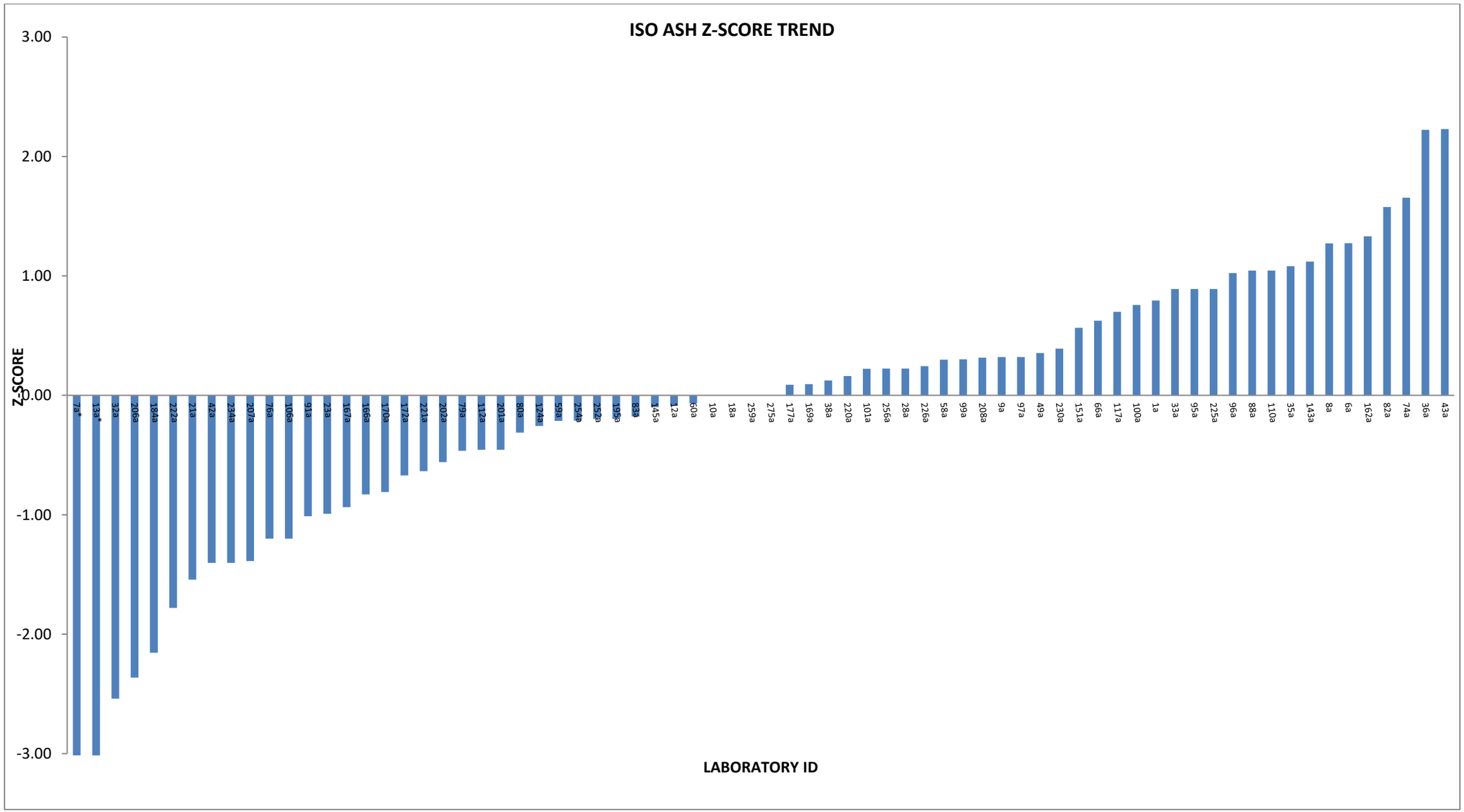
(σ = 0.483 was used)

For this report 0.3 x 0.483 = 0.145

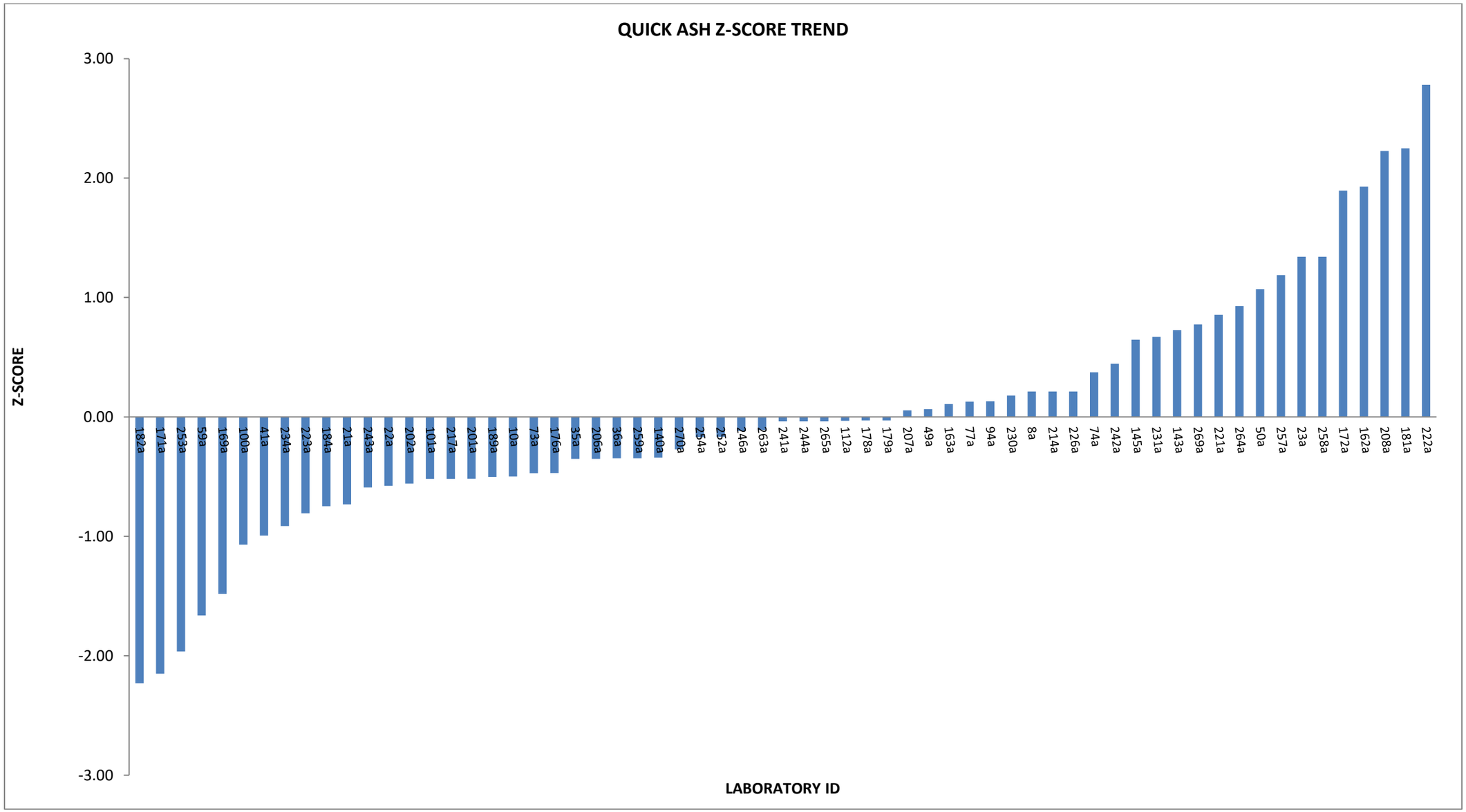
Absolute value of (16.18– 16.11 = 0.070

<u>Since 0.070 < 0.145 the proficiency testing samples were stable</u>

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: ISO ASH (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (%)	DRY BASE (%)	Z-SCORE (DRY BASE)
	1a	2.53	16.22	16.64	0.79
	6a	2.30	16.30	16.68	1.27
	7a*	1.97	***15.65***	***15.96***	***-6.80***
	8a	1.70	16.40	16.68	1.27
	9a	1.80	16.30	16.60	0.32
	10a	1.71	16.29	16.57	0.00
	12a	2.31	16.18	16.56	-0.09
	13a*	1.92	***15.76***	***16.07***	***-5.64***
	18a	1.67	16.29	16.57	0.00
	21a	2.33	16.05	16.43	-1.54
	23a	2.50	16.07	16.48	-0.99
	28a	1.81	16.29	16.59	0.22
	32a	1.80	16.05	16.34	-2.54
	33a	2.10	16.30	16.65	0.89
	35a	2.20	16.30	16.67	1.08
	36a	1.60	16.50	16.77	2.22
	38a	2.30	16.20	16.58	0.12
	42a	2.10	16.10	16.45	-1.40
	43a	2.20	16.40	16.77	2.23
	49a	2.30	16.22	16.60	0.35
	58a	2.03	16.26	16.60	0.30
	59a	1.82	16.25	16.55	-0.21
	60a	2.20	16.20	16.56	-0.07
	66a	1.90	16.31	16.63	0.62
	74a	1.90	16.40	16.72	1.65
	76a	1.60	16.20	16.46	-1.20
	79a	1.93	16.21	16.53	-0.46
	80a	1.95	16.22	16.54	-0.31
	82a	1.74	16.42	16.71	1.58
	83a	1.90	16.24	16.55	-0.18
	88a	2.00	16.33	16.66	1.04
	91a	1.70	16.20	16.48	-1.01
	95a	2.10	16.30	16.65	0.89
	96a	2.05	16.32	16.66	1.02
	97a	1.80	16.30	16.60	0.32
	99a	1.73	16.31	16.60	0.30
	100a	2.27	16.26	16.64	0.76
	101a	1.99	16.26	16.59	0.22
	106a	1.60	16.20	16.46	-1.20
	110a	1.88	16.35	16.66	1.04
	112a	2.60	16.10	16.53	-0.46
	117a	2.00	16.30	16.63	0.70
	124a	2.04	16.21	16.55	-0.26
	143a	1.86	16.36	16.67	1.12
	145a	1.76	16.27	16.56	-0.10
	151a	2.05	16.28	16.62	0.57
	162a	2.45	16.28	16.69	1.33
	166a	2.10	16.15	16.50	-0.83
	167a	1.68	16.21	16.49	-0.94
	169a	1.56	16.32	16.58	0.09
	170a	1.99	16.17	16.50	-0.81
	172a	1.70	16.23	16.51	-0.67
	177a	1.98	16.25	16.58	0.09
	184a	1.70	16.10	16.38	-2.15
	195a	1.95	16.23	16.55	-0.20
	201a	2.60	16.10	16.53	-0.46
	202a	1.88	16.21	16.52	-0.56
	206a	2.20	16.00	16.36	-2.36
	207a	1.50	16.20	16.45	-1.39
	208a	2.40	16.20	16.60	0.31
	220a	2.38	16.19	16.58	0.16
	221a	1.90	16.20	16.51	-0.64
	222a	1.90	16.10	16.41	-1.78
	225a	2.10	16.30	16.65	0.89
	226a	1.70	16.31	16.59	0.24
	230a	2.44	16.20	16.61	0.39
	234a	2.10	16.10	16.45	-1.40
	252a	2.13	16.20	16.55	-0.20
	254a	1.70	16.27	16.55	-0.21
	256a	1.87	16.28	16.59	0.22
	259a	1.60	16.30	16.57	0.00
	275a	2.24	16.20	16.57	0.00
Number of results	-	**72**	**72**	**72**	-
OUTLIERS	-	-	**2**	**2**	-
AVERAGE	-	**1.99**	**16.24**	**16.57**	-
STD DEVIATION	-	-	**0.09**	**0.09**	-
MEDIAN			**16.25**	**16.58**	
%RSD	-	-	**0.58**	**0.54**	
ROBUST AVERAGE	-	-	**16.24**	**16.57**	-
ROBUST STD DEVIATION	-	-	**0.10**	**0.10**	-
UoM			**0.01**	**0.01**	-


ISO ASH Z-SCORE TREND
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
Z-SCORE
7a*
13a*
32a
206a
184a
222a
21a
42a
234a
207a
76a
106a
91a
23a
167a
166a
170a
172a
221a
202a
79a
112a
201a
80a
124a
59a
254a
252a
195a
83a
145a
12a
60a
10a
18a
259a
275a
177a
169a
38a
220a
101a
256a
28a
226a
58a
99a
208a
9a
97a
49a
230a
151a
66a
117a
100a
1a
33a
95a
225a
96a
88a
110a
35a
143a
8a
6a
162a
82a
74a
36a
43a
LABORATORY ID

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: QUICK ASH (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (%)	DRY BASE (%)	Z-SCORE (DRY BASE)
	8a	1.70	16.30	16.58	0.21
	10a	1.71	16.15	16.43	-0.50
	21a	2.33	16.00	16.38	-0.73
	22a	2.16	16.06	16.41	-0.58
	23a	2.50	16.40	16.82	1.34
	35a	2.20	16.10	16.46	-0.35
	36a	1.60	16.20	16.46	-0.35
	41a	2.00	16.00	16.33	-0.99
	49a	2.30	16.17	16.55	0.07
	50a	1.75	16.47	16.76	1.07
	59a	1.82	15.89	16.18	-1.66
	73a	1.44	16.20	16.44	-0.47
	74a	1.90	16.30	16.62	0.37
	77a	2.80	16.10	16.56	0.13
	94a	2.20	16.20	16.56	0.13
	100a	2.27	15.94	16.31	-1.07
	101a	1.99	16.10	16.43	-0.52
	112a	2.60	16.10	16.53	-0.03
	140a	1.97	16.14	16.46	-0.34
	143a	1.86	16.38	16.69	0.73
	145a	1.76	16.38	16.67	0.65
	162a	2.45	16.53	16.95	1.93
	163a	1.99	16.23	16.56	0.11
	169a	1.56	15.97	16.22	-1.48
	171a	1.75	15.80	16.08	-2.15
	172a	1.70	16.65	16.94	1.90
	176a	1.99	16.11	16.44	-0.47
	178a	2.00	16.20	16.53	-0.03
	179a	2.00	16.20	16.53	-0.03
	181a	1.84	16.70	17.01	2.25
	182a	2.58	15.65	16.06	-2.23
	184a	1.70	16.10	16.38	-0.75
	189a	2.01	16.10	16.43	-0.50
	201a	2.60	16.00	16.43	-0.52
	202a	1.88	16.11	16.42	-0.56
	206a	2.20	16.10	16.46	-0.35
	207a	1.50	16.30	16.55	0.05
	208a	2.40	16.60	17.01	2.23
	214a	1.70	16.30	16.58	0.21
	217a	1.99	16.10	16.43	-0.52
	221a	1.90	16.40	16.72	0.85
	222a	1.90	16.80	17.13	2.78
	223a	1.99	16.04	16.37	-0.81
	226a	1.70	16.30	16.58	0.21
	230a	2.44	16.17	16.57	0.18
	231a	1.19	16.48	16.68	0.67
	234a	2.10	16.00	16.34	-0.91
	241a	1.99	16.20	16.53	-0.04
	242a	1.99	16.30	16.63	0.45
	243a	1.90	16.10	16.41	-0.59
	244a	1.99	16.20	16.53	-0.04
	246a	1.95	16.19	16.51	-0.12
	252a	2.13	16.15	16.50	-0.17
	253a	1.99	15.80	16.12	-1.96
	254a	1.70	16.22	16.50	-0.17
	257a	1.24	16.58	16.79	1.19
	258a	2.50	16.40	16.82	1.34
	259a	1.60	16.20	16.46	-0.35
	263a	1.90	16.20	16.51	-0.11
	264a	1.99	16.40	16.73	0.93
	265a	1.99	16.20	16.53	-0.04
	269a	2.40	16.30	16.70	0.78
	270a	2.30	16.10	16.48	-0.27
Number of results	-	**63**	**63**	**63**	-
OUTLIERS	-	-	**0**	**0**	-
AVERAGE	-	**1.99**	**16.21**	**16.54**	-
STD DEVIATION	-	-	**0.21**	**0.21**	-
MEDIAN			**16.20**	**16.53**	
%RSD	-	-	**1.32**	**1.28**	
ROBUST AVERAGE	-	-	**16.21**	**16.53**	
ROBUST STD DEVIATION	-	-	**0.22**	**0.23**	
UoM			**0.04**	**0.04**	


QUICK ASH Z-SCORE TREND
Z-SCORE
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
182a
171a
253a
59a
169a
100a
41a
234a
223a
184a
21a
243a
22a
202a
101a
217a
201a
189a
10a
73a
176a
35a
206a
36a
259a
140a
270a
254a
252a
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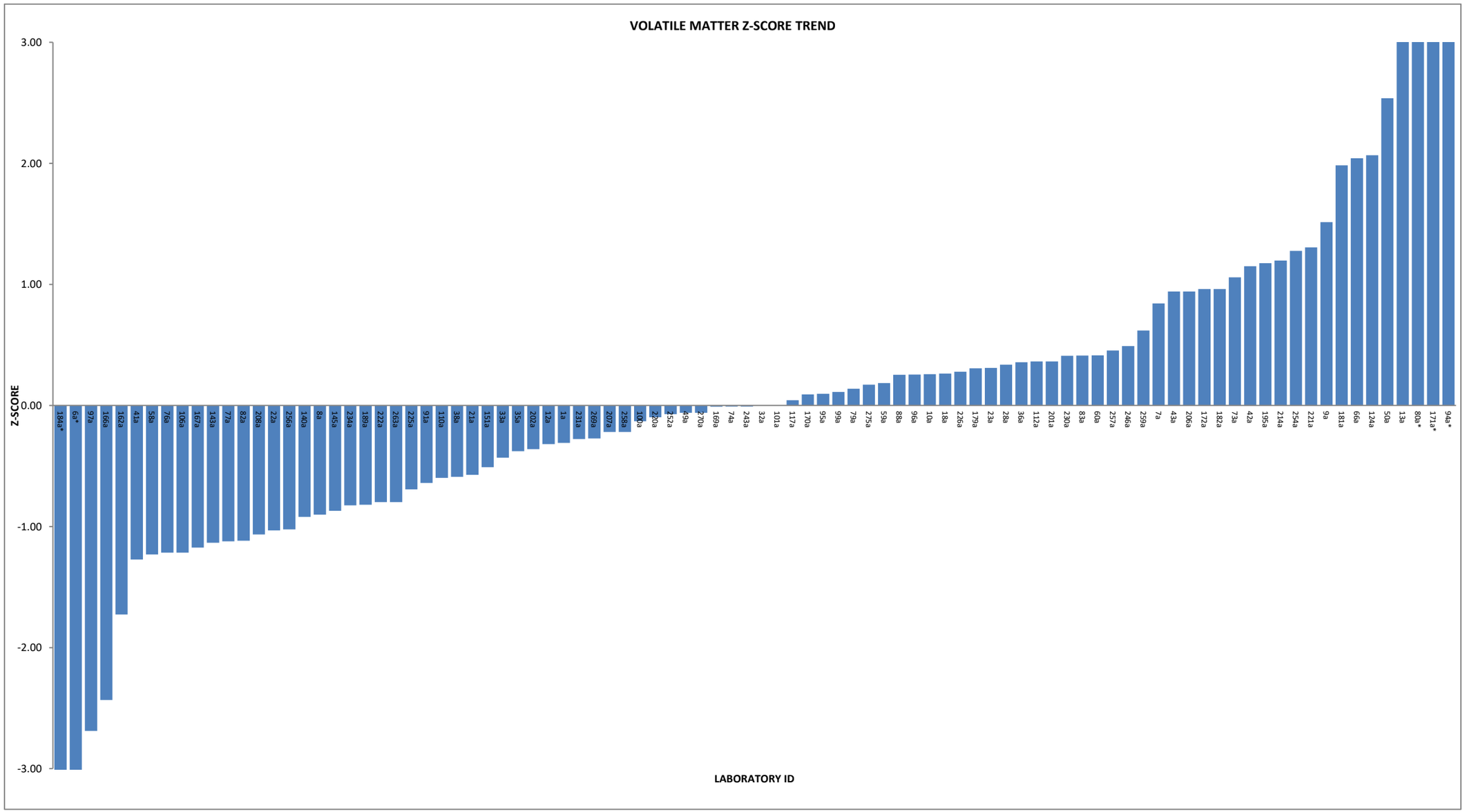
265a
112a
178a
179a
207a
49a
163a
77a
94a
230a
8a
214a
226a
74a
242a
145a
231a
143a
269a
221a
264a
50a
257a
23a
258a
172a
162a
208a
181a
222a
LABORATORY ID

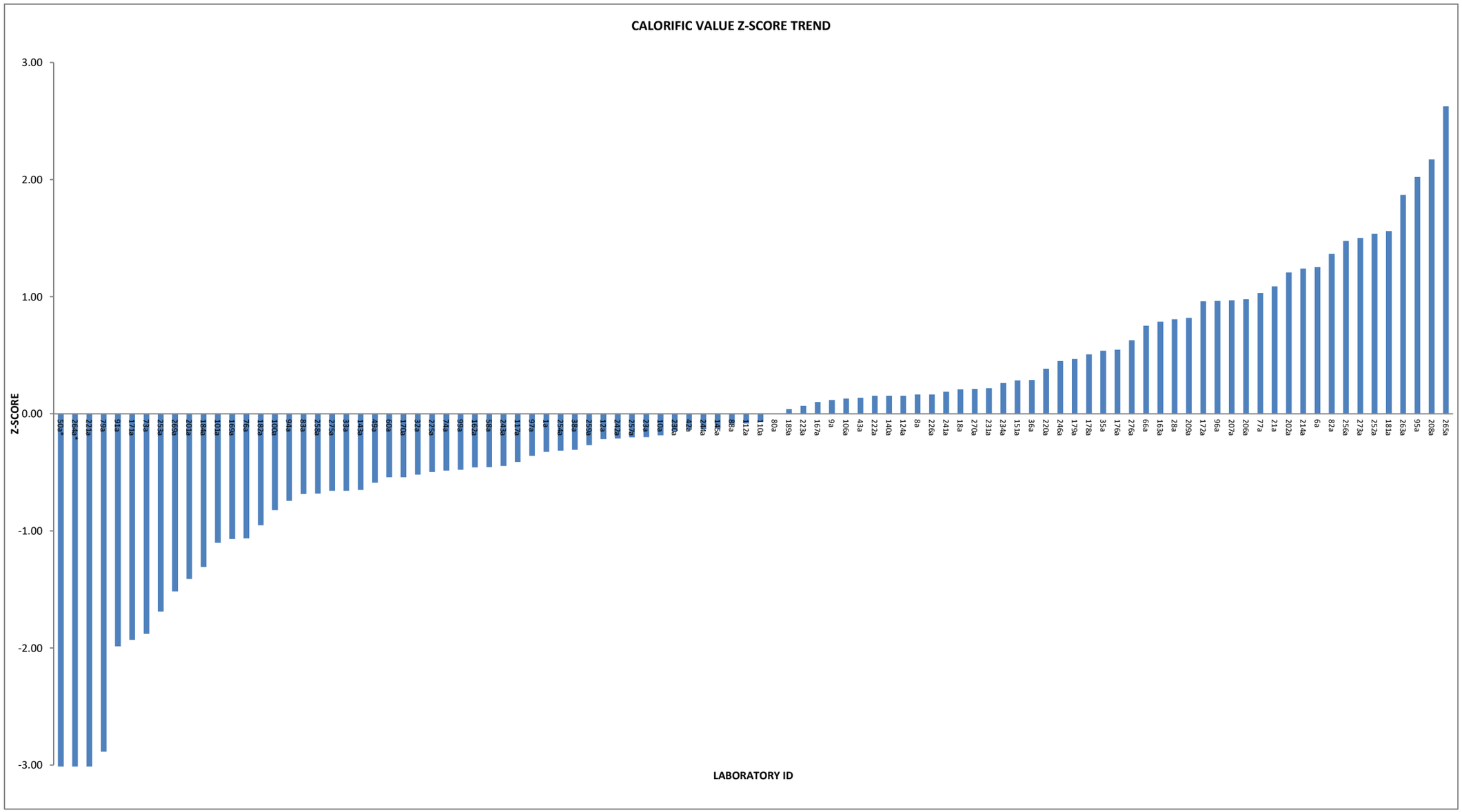
COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: ISO VOLATILE MATTER (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	2.53	19.46	19.97	-0.31
	6a*	2.30	***18.20***	***18.63***	***-3.76***
	7a	1.97	20.01	20.41	0.84
	8a	1.70	19.40	19.74	-0.90
	9a	1.80	20.30	20.67	1.51
	10a	1.71	19.84	20.19	0.26
	12a	2.31	19.50	19.96	-0.32
	13a	1.92	20.94	21.35	3.26
	18a	1.67	19.85	20.19	0.26
	21a	2.33	19.40	19.86	-0.57
	22a	2.16	19.26	19.69	-1.03
	23a	2.50	19.70	20.21	0.31
	28a	1.81	19.85	20.22	0.34
	32a	1.80	19.73	20.09	0.00
	33a	2.10	19.50	19.92	-0.43
	35a	2.20	19.50	19.94	-0.38
	36a	1.60	19.90	20.22	0.36
	38a	2.30	19.40	19.86	-0.59
	41a	2.00	19.20	19.59	-1.27
	42a	2.10	20.10	20.53	1.15
	43a	2.20	20.00	20.45	0.94
	49a	2.30	19.60	20.06	-0.06
	50a	1.75	20.70	21.07	2.54
	58a	2.03	19.21	19.61	-1.23
	59a	1.82	19.79	20.16	0.19
	60a	2.20	19.80	20.25	0.41
	66a	1.90	20.48	20.88	2.04
	73a	1.44	20.20	20.50	1.06
	74a	1.90	19.70	20.08	-0.01
	76a	1.60	19.30	19.61	-1.22
	77a	2.80	19.10	19.65	-1.12
	79a	1.93	19.75	20.14	0.14
	80a*	1.95	***21.30***	***21.72***	***4.23***
	82a	1.74	19.31	19.65	-1.12
	83a	1.90	19.86	20.24	0.41
	88a	2.00	19.78	20.18	0.25
	91a	1.70	19.50	19.84	-0.64
	94a*	2.20	***22.60***	***23.11***	***7.80***
	95a	2.10	19.70	20.12	0.10
	96a	2.05	19.77	20.18	0.25
	97a	1.80	18.70	19.04	-2.69
	99a	1.73	19.78	20.13	0.11
	100a	2.27	19.58	20.03	-0.13
	101a	1.99	19.69	20.09	0.00
	106a	1.60	19.30	19.61	-1.22
	110a	1.88	19.48	19.85	-0.60
	112a	2.60	19.70	20.23	0.36
	117a	2.00	19.70	20.10	0.04
	124a	2.04	20.46	20.89	2.07
	140a	1.97	19.34	19.73	-0.92
	143a	1.86	19.28	19.65	-1.13
	145a	1.76	19.40	19.75	-0.87
	151a	2.05	19.48	19.89	-0.51
	162a	2.45	18.94	19.42	-1.73
	166a	2.10	18.74	19.14	-2.43
	167a	1.68	19.30	19.63	-1.17
	169a	1.56	19.77	20.08	-0.01
	170a	1.99	19.72	20.12	0.09
	171a*	1.75	***21.85***	***22.24***	***5.56***
	172a	1.70	20.11	20.46	0.96
	179a	2.00	19.80	20.20	0.31
	181a	1.84	20.47	20.85	1.98
	182a	2.58	19.93	20.46	0.96
	184a*	1.70	***17.70***	***18.01***	***-5.36***
	189a	2.01	19.37	19.77	-0.82
	195a	1.95	20.14	20.54	1.17
	201a	2.60	19.70	20.23	0.36
	202a	1.88	19.57	19.94	-0.36
	206a	2.20	20.00	20.45	0.94
	207a	1.50	19.70	20.00	-0.22
	208a	2.40	19.20	19.67	-1.07
	214a	1.70	20.20	20.55	1.20
	220a	2.38	19.57	20.05	-0.10
	221a	1.90	20.20	20.59	1.31
	222a	1.90	19.40	19.78	-0.80
	225a	2.10	19.40	19.82	-0.69
	226a	1.70	19.85	20.19	0.28
	230a	2.44	19.75	20.24	0.41
	231a	1.19	19.74	19.98	-0.28
	234a	2.10	19.35	19.77	-0.83
	243a	1.90	19.70	20.08	-0.01
	246a	1.95	19.88	20.28	0.49
	252a	2.13	19.63	20.06	-0.07
	254a	1.70	20.23	20.58	1.28
	256a	1.87	19.32	19.69	-1.02
	257a	1.24	20.01	20.26	0.45
	258a	2.50	19.50	20.00	-0.22
	259a	1.60	20.00	20.33	0.62
	263a	1.90	19.40	19.78	-0.80
	269a	2.40	19.50	19.98	-0.27
	270a	2.30	19.60	20.06	-0.06
	275a	2.24	19.70	20.15	0.17
NUMBER OF RESULTS	-	92	92	92	-
OUTLIERS	-	-	**5**	**5**	-
AVERAGE	-	**1.99**	**19.69**	**20.09**	-
STD DEVIATION	-		**0.39**	**0.39**	-
MEDIAN			**19.70**	**20.08**	
%RSD	-	-	**1.99**	**1.93**	
ROBUST AVERAGE	-	-	**19.68**	**20.08**	-
ROBUST STD DEVIATION	-	-	**0.41**	**0.41**	-
UoM	-	-	**0.06**	**0.05**	-


VOLATILE MATTER Z-SCORE TREND
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
Z-SCORE
184a*
6a*
97a
166a
162a
41a
58a
76a
106a
167a
143a
77a
82a
208a
22a
256a
140a
8a
145a
234a
189a
222a
263a
225a
91a
110a
38a
21a
151a
33a
35a
202a
12a
1a
231a
269a
207a
238a
100a
252a
49a
270a
169a
74a
243a
32a
101a
117a
170a
95a
99a
79a
275a
59a
88a
96a
10a
18a
226a
179a
23a
28a
36a
112a
201a
230a
83a
60a
257a
246a
259a
7a
43a
206a
172a
182a
73a
42a
195a
214a
254a
221a
9a
181a
66a
124a
50a
13a
80a*
171a*
94a*
LABORATORY ID

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023

ANALYTICAL PARAMETER: CALORIFIC VALUE (MJ/kg)

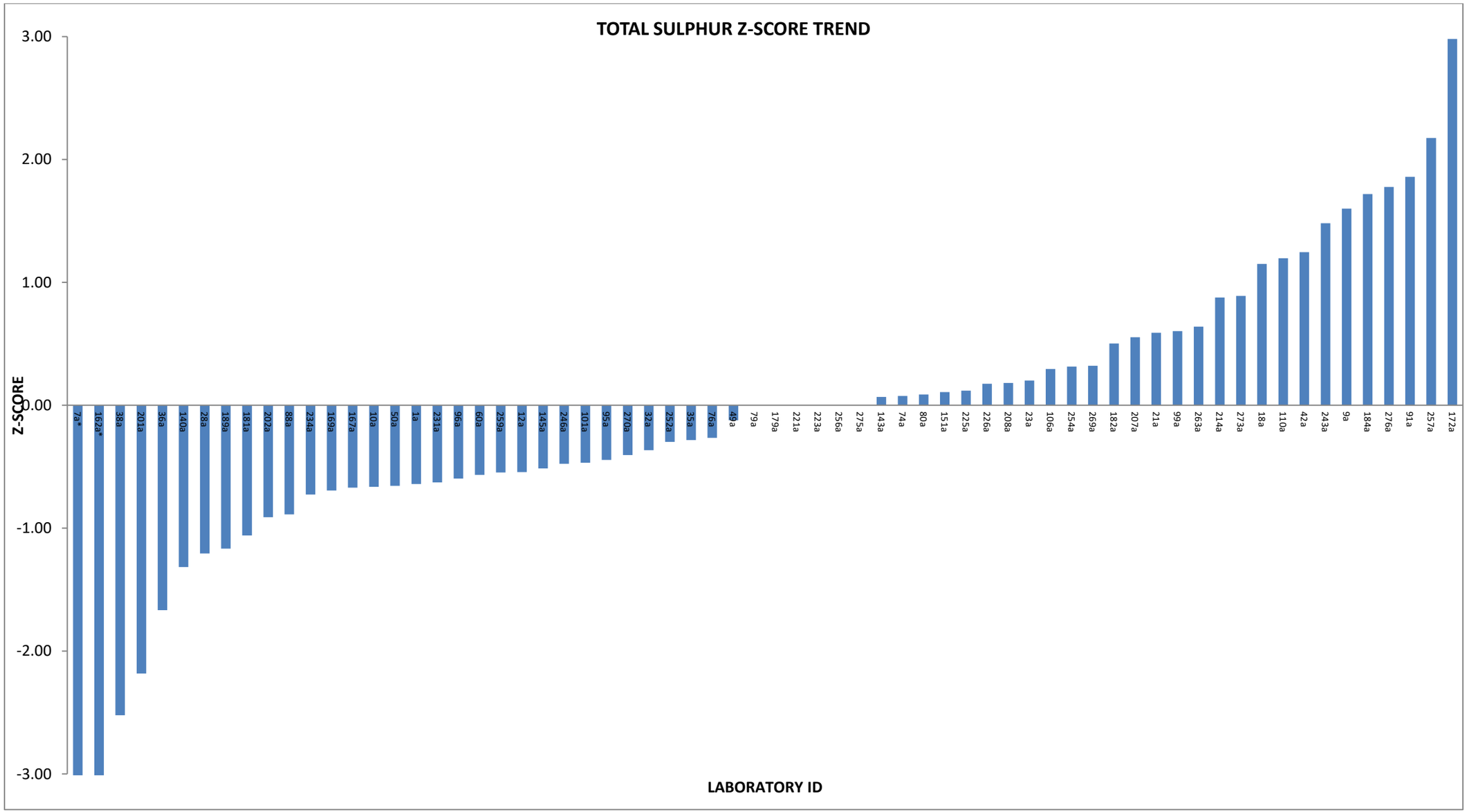
LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (MJ/kg)	DRY BASE (MJ/kg)	Z-SCORE (DRY BASE)
1a	2.53	27.84	28.56	-0.33
6a	2.30	28.30	28.97	1.25
8a	1.70	28.20	28.69	0.16
9a	1.80	28.16	28.68	0.12
10a	1.71	28.11	28.60	-0.18
12a	2.31	27.93	28.59	-0.22
18a	1.67	28.22	28.70	0.21
21a	2.33	28.25	28.92	1.09
23a	2.50	27.88	28.59	-0.20
28a	1.81	28.33	28.85	0.81
32a	1.80	28.00	28.51	-0.52
33a	2.10	27.88	28.48	-0.66
35a	2.20	28.15	28.78	0.54
36a	1.60	28.26	28.72	0.29
38a	2.30	27.91	28.57	-0.31
42a	2.10	28.01	28.61	-0.14
43a	2.20	28.05	28.68	0.14
49a	2.30	27.84	28.50	-0.59
50a*	1.75	***26.96***	***27.44***	***-4.72***
58a	2.03	27.95	28.53	-0.46
60a	2.20	27.88	28.51	-0.54
66a	1.90	28.29	28.84	0.75
73a	1.44	27.76	28.17	-1.88
74a	1.90	27.98	28.52	-0.49
76a	1.60	27.92	28.37	-1.06
77a	2.80	28.10	28.91	1.03
79a	1.93	27.37	27.91	-2.89
80a	1.95	28.09	28.65	0.00
82a	1.74	28.49	28.99	1.36
83a	1.90	27.93	28.47	-0.68
88a	2.00	28.05	28.62	-0.09
91a	1.70	27.66	28.14	-1.99
94a	2.20	27.83	28.46	-0.74
95a	2.10	28.55	29.16	2.02
96a	2.05	28.30	28.89	0.96
97a	1.80	28.04	28.55	-0.36
99a	1.73	28.03	28.52	-0.48
100a	2.27	27.79	28.44	-0.82
101a	1.99	27.80	28.36	-1.10
106a	1.60	28.22	28.68	0.13
110a	1.88	28.09	28.63	-0.07
112a	2.60	27.88	28.62	-0.08
117a	2.00	27.97	28.54	-0.41
124a	2.04	28.10	28.69	0.15
140a	1.97	28.12	28.69	0.15
143a	1.86	27.95	28.48	-0.65
145a	1.76	28.11	28.61	-0.13
151a	2.05	28.13	28.72	0.29
162a	2.45	27.83	28.53	-0.46
163a	2.00	28.27	28.85	0.79
167a	1.68	28.19	28.67	0.10
169a	1.56	27.93	28.37	-1.07
170a	1.99	27.94	28.51	-0.54
171a	1.75	27.66	28.15	-1.93
172a	1.70	28.40	28.89	0.96
176a	2.00	28.21	28.79	0.55
178a	2.00	28.20	28.78	0.51
179a	2.00	28.19	28.77	0.47
181a	1.84	28.51	29.04	1.56
182a	2.58	27.67	28.40	-0.95
184a	1.70	27.83	28.31	-1.31
189a	2.01	28.08	28.66	0.04
201a	2.60	27.55	28.29	-1.41
202a	1.88	28.41	28.95	1.21
206a	2.20	28.26	28.90	0.98
207a	1.50	28.46	28.89	0.97
208a	2.40	28.50	29.20	2.17
209a	2.34	28.18	28.86	0.82
214a	1.70	28.47	28.96	1.24
220a	2.38	28.06	28.74	0.38
221a	1.90	27.33	27.86	-3.08
222a	1.90	28.14	28.69	0.15
223a	2.00	28.09	28.66	0.07
225a	2.10	27.92	28.52	-0.50
226a	1.70	28.20	28.69	0.16
230a	2.44	27.91	28.61	-0.15
231a	1.19	28.36	28.70	0.22
234a	2.10	28.11	28.71	0.26
241a	2.00	28.12	28.69	0.19
242a	2.00	28.02	28.59	-0.21
243a	1.90	27.99	28.53	-0.45
244a	2.00	28.04	28.61	-0.13
246a	1.95	28.20	28.76	0.45
252a	2.13	28.42	29.04	1.54
253a	2.00	27.65	28.21	-1.69
254a	1.70	28.08	28.57	-0.31
256a	1.87	28.48	29.02	1.48
257a	1.24	28.24	28.59	-0.20
258a	2.50	27.76	28.47	-0.68
259a	1.60	28.12	28.58	-0.27
263a	1.90	28.57	29.12	1.87
264a*	2.00	***26.96***	***27.51***	***-4.45***
265a	2.00	28.73	29.32	2.62
269a	2.40	27.58	28.26	-1.52
270a	2.30	28.04	28.70	0.21
273a	2.41	28.33	29.03	1.50
275a	2.24	27.84	28.48	-0.66
276a	2.00	28.23	28.81	0.63
NUMBER OF RESULTS	-	98	98	98	-
OUTLIERS	-	-	**2**	**2**	-
AVERAGE	-	**2.00**	**28.07**	**28.65**	-
STD DEVIATION	-	-	**0.26**	**0.26**	-
MEDIAN			**28.09**	**28.64**	
%RSD	**-**	**-**	**0.92**	**0.89**	
ROBUST AVERAGE	-	-	**28.07**	**28.65**	-
ROBUST STD DEVIATION	-	-	**0.28**	**0.27**	-
UoM	-	-	**0.04**	**0.03**	-


CALORIFIC VALUE Z-SCORE TREND
Z-SCORE
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
LABORATORY ID
50a*
264a*
221a
79a
91a
171a
73a
253a
269a
201a
184a
101a
169a
76a
182a
100a
94a
83a
258a
275a
33a
143a
49a
60a
170a
32a
225a
74a
99a
162a
58a
243a
117a
97a
1a
254a
38a
259a
12a
242a
257a
233a
10a
230a
42a
246a
145a
88a
112a
110a
80a
189a
223a
167a
9a
106a
43a
222a
140a
124a
8a
226a
241a
18a
270a
231a
234a
151a
36a
220a
246a
179a
178a
35a
176a
276a
66a
163a
28a
209a
172a
96a
207a
206a
77a
21a
202a
214a
6a
82a
256a
273a
252a
181a
263a
95a
208a
265a

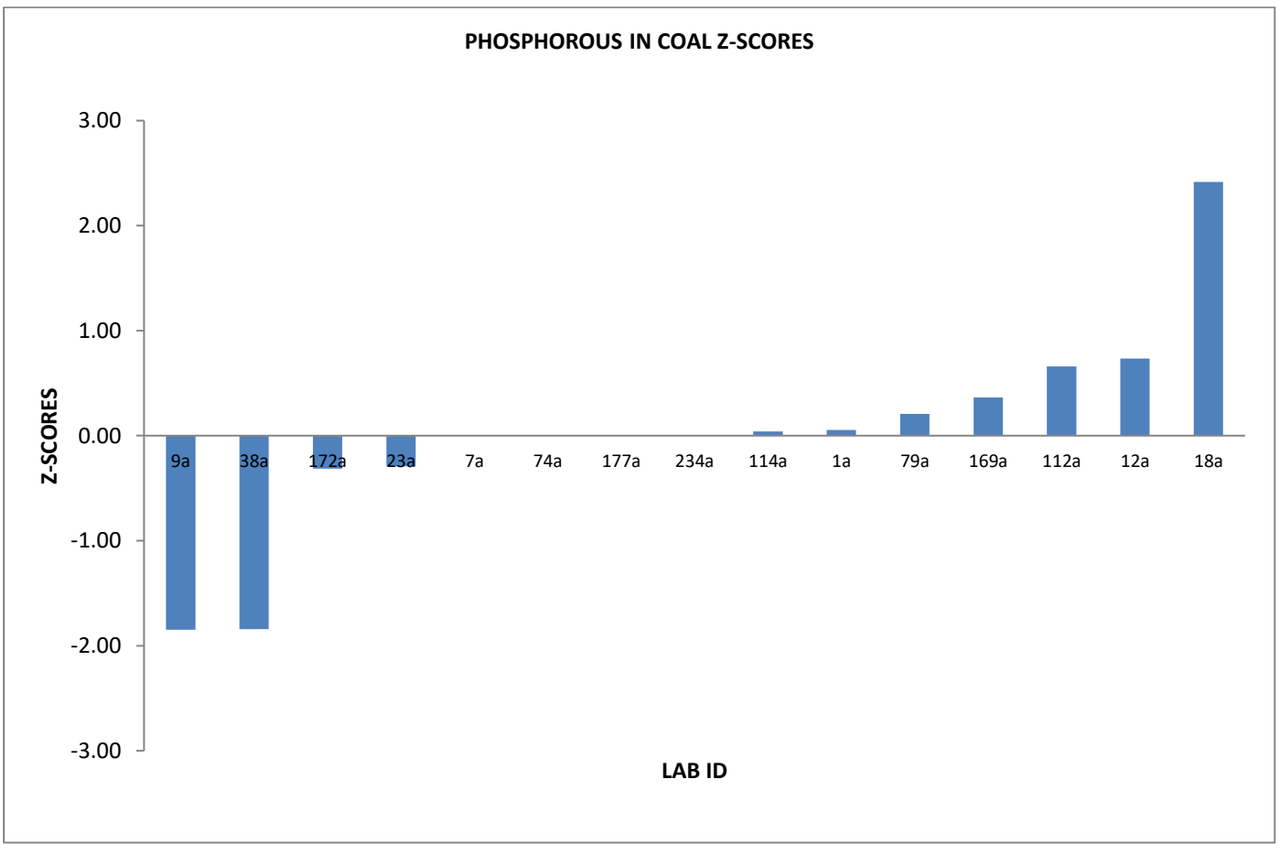
COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023

ANALYTICAL PARAMETER: TOTAL SULPHUR (%)

LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
1a	2.53	1.39	1.43	-0.64
7a*	1.97	***1.03***	***1.05***	***-5.82***
9a	1.80	1.56	1.59	1.60
10a	1.71	1.40	1.42	-0.66
12a	2.31	1.40	1.43	-0.54
18a	1.67	1.53	1.56	1.15
21a	2.33	1.48	1.52	0.59
23a	2.50	1.45	1.49	0.20
28a	1.81	1.36	1.39	-1.21
32a	1.80	1.42	1.45	-0.37
35a	2.20	1.42	1.45	-0.28
36a	1.60	1.33	1.35	-1.67
38a	2.30	1.26	1.29	-2.52
42a	2.10	1.53	1.56	1.24
49a	2.30	1.43	1.46	-0.12
50a	1.75	1.40	1.42	-0.66
60a	2.20	1.40	1.43	-0.57
74a	1.90	1.45	1.48	0.08
76a	1.60	1.43	1.45	-0.27
79a	1.93	1.44	1.47	0.00
80a	1.95	1.45	1.48	0.09
88a	2.00	1.38	1.41	-0.89
91a	1.70	1.58	1.61	1.86
95a	2.10	1.41	1.44	-0.45
96a	2.05	1.40	1.43	-0.60
99a	1.73	1.49	1.52	0.60
101a	1.99	1.41	1.44	-0.47
106a	1.60	1.47	1.49	0.29
110a	1.88	1.53	1.56	1.20
140a	1.97	1.35	1.38	-1.32
143a	1.86	1.45	1.48	0.07
145a	1.76	1.41	1.44	-0.51
151a	2.05	1.45	1.48	0.11
162a*	2.45	***1.14***	***1.17***	***-4.19***
167a	1.68	1.40	1.42	-0.67
169a	1.56	1.40	1.42	-0.69
172a	1.70	1.66	1.69	2.98
179a	2.00	1.44	1.47	0.00
181a	1.84	1.37	1.40	-1.06
182a	2.58	1.47	1.51	0.50
184a	1.70	1.57	1.60	1.72
189a	2.01	1.36	1.39	-1.17
201a	2.60	1.28	1.31	-2.18
202a	1.88	1.38	1.41	-0.91
207a	1.50	1.49	1.51	0.55
208a	2.40	1.45	1.49	0.18
214a	1.70	1.51	1.54	0.88
221a	1.90	1.44	1.47	0.00
223a	1.96	1.44	1.47	0.00
225a	2.10	1.45	1.48	0.12
226a	1.70	1.46	1.49	0.18
231a	1.19	1.41	1.43	-0.63
234a	2.10	1.39	1.42	-0.73
243a	1.90	1.55	1.58	1.48
246a	1.95	1.41	1.44	-0.48
252a	2.13	1.42	1.45	-0.30
254a	1.70	1.47	1.50	0.32
256a	1.87	1.44	1.47	0.00
257a	1.24	1.61	1.63	2.17
259a	1.60	1.41	1.43	-0.55
263a	1.90	1.49	1.52	0.64
269a	2.40	1.46	1.50	0.32
270a	2.30	1.41	1.44	-0.40
273a	2.41	1.50	1.54	0.89
275a	2.24	1.44	1.47	0.00
276a	1.96	1.57	1.60	1.78
NUMBER OF RESULTS		**66**	**66**	**66**	**-**
OUTLIERS	**-**	**-**	**2**	**2**	**-**
AVERAGE	**-**	**1.96**	**1.44**	**1.47**	
MEDIAN		**-**	**1.44**	**1.47**	
STD DEVIATION	**-**	**-**	**0.07**	**0.07**	
%RSD	**-**	**-**	**5.01**	**4.92**	
ROBUST AVERAGE	**-**	**-**	**1.44**	**1.47**	**-**
ROBUST STD DEVIATION	**-**	**-**	**0.08**	**0.07**	**-**
UoM	**-**	**-**	**0.01**	**0.01**	**-**


TOTAL SULPHUR Z-SCORE TREND
3.00
2.00
1.00
0.00
-1.00
-2.00
-3.00
Z-SCORE
7a*
162a*
38a
201a
36a
140a
28a
189a
181a
202a
88a
234a
169a
167a
10a
50a
1a
231a
96a
60a
259a
12a
145a
246a
101a
95a
270a
32a
252a
35a
76a
49a
79a
179a
221a
223a
256a
275a
143a
74a
80a
151a
225a
226a
208a
23a
106a
254a
269a
182a
207a
21a
99a
263a
214a
273a
18a
110a
42a
243a
9a
184a
276a
91a
257a
172a
LABORATORY ID

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: PHOSPHOROUS IN COAL (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	2.53	0.037	0.038	0.05
	7a	1.97	0.036	0.037	0.00
	9a	1.80	0.015	0.015	-1.85
	12a	2.31	0.045	0.046	0.73
	18a	1.67	0.065	0.066	2.42
	23a	2.50	0.033	0.034	-0.29
	38a	2.30	0.015	0.015	-1.84
	74a	1.90	0.036	0.037	0.00
	79a	1.93	0.039	0.040	0.21
	112a	2.60	0.044	0.045	0.66
	114a	2.06	0.037	0.038	0.04
	169a	1.56	0.041	0.042	0.36
	172a	1.70	0.033	0.034	-0.31
	177a	1.98	0.036	0.037	0.00
	234a	2.10	0.036	0.037	0.00
Number of results	-	**15**	**15**	**15**	-
OUTLIERS	-	-	**0**	**0**	-
AVERAGE	-	**2.06**	**0.037**	**0.037**	-
STD DEVIATION	-	-	**0.012**	**0.012**	-
MEDIAN		-	**0.036**	**0.037**	
ROBUST AVERAGE	-	-	**0.036**	**0.037**	
ROBUST STD DEVIATION	-	-	**0.010**	**0.010**	
UoM	-	-	**0.003**	**0.003**	



COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: TOTAL CARBON (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	2.53	69.77	71.58	0.51
	9a	1.80	68.85	70.11	-0.41
	12a	2.31	69.90	71.55	0.49
	18a	1.67	69.78	70.97	0.13
	79a	1.93	69.52	70.89	0.08
	88a*	2.00	***65.41***	***66.74***	***-2.50***
	177a	1.98	70.60	72.03	0.79
	202a	1.88	70.26	71.61	0.52
	234a	2.10	69.90	71.40	0.40
	275a*	2.24	***65.42***	***66.92***	***-2.39***
Number of results	-	10	10	10	-
OUTLIERS	-	-	**2**	**2**	-
AVERAGE	-	**2.04**	**69.33**	**70.76**	-
MEDIAN	-	-	**69.78**	**71.40**	-
STD DEVIATION	-	-	**1.55**	**1.61**	-
%RSD	-	-	**2.23**	**2.27**	
ROBUST AVERAGE	-	-	-	-	
ROBUST STD DEVIATION	-	-	-	-	
UoM	-	-	-	-	

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: HYDROGEN (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	2.53	3.62	3.71	-0.40
	9a	1.80	3.83	3.90	0.87
	12a	2.31	3.68	3.77	0.00
	18a	1.67	3.63	3.69	-0.55
	79a	1.93	3.46	3.53	-1.67
	88a	2.00	3.95	4.03	1.77
	177a	1.98	3.83	3.91	0.92
	202a	1.88	3.63	3.70	-0.50
	234a	2.10	3.53	3.61	-1.14
	275a	2.24	3.78	3.87	0.64
	276a	2.04	3.71	3.79	0.10
Number of results		**11**	**11**	**11**	
OUTLIERS	-	-	**0**	**0**	-
AVERAGE	-	**2.04**	**3.70**	**3.77**	-
MEDIAN		-	**3.68**	**3.77**	-
STD DEVIATION	-	-	**0.14**	**0.15**	-
%RSD	-	-	**3.88**	**3.87**	
ROBUST AVERAGE	-	-	**3.69**	**3.77**	
ROBUST STD DEVIATION	-	-	**0.16**	**0.16**	
UoM	-	-	**0.06**	**0.06**	

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: NITROGEN (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	1a	2.53	1.92	1.97	0.65
	9a	1.80	1.82	1.85	-0.14
	12a	2.31	1.81	1.85	-0.14
	18a	1.67	1.96	1.99	0.80
	79a	1.93	2.05	2.09	1.46
	88a	2.00	1.57	1.60	-1.83
	177a	1.98	1.82	1.86	-0.11
	202a	1.88	1.90	1.94	0.42
	275a	2.24	1.67	1.71	-1.11
Number of results		9	9	9	-
OUTLIERS	-	-	**0**	**0**	-
AVERAGE	-	**2.04**	**1.84**	**1.87**	-
MEDIAN		-	**1.82**	**1.86**	-
STD DEVIATION	-	-	**0.15**	**0.15**	-
%RSD	-	-	**7.98**	**7.93**	-
ROBUST AVERAGE	-	-	-	-	-
ROBUST STD DEVIATION	-	-	-	-	-
UoM	-	-	-	-	-

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023				
ANALYTICAL PARAMETER: ASH FUSION TEMPERATURES (°C)				
LAB ID	**DEFORMATION**	**SOFTENING**	**HEMISPHERE**	**FLOW**
1a	1339	1358	1362	1383
9a	1340	1370	1400	1440
21a	1320	1350	1380	1440
23a	1280	1370	1420	1480
28a	1330	1360	1410	1420
38a	1330	1360	1400	1420
42a	1340	1370	1410	1430
49a	1330	1350	1390	1430
80a	1310	1330	1380	1460
95a	1280	1300	1340	1380
106a	1310	1330	1370	1460
110a	1290	1320	1360	1390
145a	1340	1370	1400	1430
151a	1290	1320	1380	1430
167a	1380	1410	1440	1470
234a	1330	1360	1390	1430
Number of results	**16**	**16**	**16**	**16**
Outliers	**0**	**0**	**0**	**0**
AVERAGE	**1321**	**1352**	**1390**	**1431**
MEDIAN	**1330**	**1359**	**1390**	**1430**
STDEV	**27**	**27**	**25**	**29**

0

Z-SCORES				
LAB ID	**DEFORMATION**	**SOFTENING**	**HEMISPHERE**	**FLOW**
1a	0.67	0.23	-1.10	-1.65
9a	0.70	0.69	0.42	0.32
21a	-0.04	-0.07	-0.38	0.32
23a	-1.54	0.69	1.22	1.70
28a	0.33	0.31	0.82	-0.37
38a	0.33	0.31	0.42	-0.37
42a	0.70	0.69	0.82	-0.03
49a	0.33	-0.07	0.00	-0.03
80a	-0.42	-0.82	-0.38	1.01
95a	-1.54	-1.95	-1.98	-1.75
106a	-0.42	-0.82	-0.78	1.01
110a	-1.17	-1.19	-1.18	-1.41
145a	0.70	0.69	0.42	-0.03
151a	-1.17	-1.19	-0.38	-0.03
167a	2.20	2.19	2.02	1.35
234a	0.33	0.31	0.00	-0.03

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: CHLORINE (ppm)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	12a	2.31	148	151	-
	177a	1.98	342	349	
Number of results	-	**2**	**2**	**2**	-
OUTLIERS	-	-	-	-	-
AVERAGE	-	**2.15**	**245**	**250**	-
STD DEVIATION	-	-	-	-	-
MEDIAN	-	-	-	-	-

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: FLUORINE (ppm)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY	DRY BASE	Z-SCORE (DRY BASE)
	12a	2.31	119	122	-
	169a	1.56	156	158	-
	177a	1.98	123	125	-
Number of results	-	**3**	**3**	**3**	-
OUTLIERS	-	-	-	-	-
AVERAGE	-	**1.95**	**133**	**135**	-
STD DEVIATION	-	-	**na**	**na**	-
MEDIAN	-	-	**na**	**na**	-

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: ASTM ASH (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (%)	DRY BASE (%)	Z-SCORE (DRY BASE)
	1a	2.53	16.21	16.63	-0.05
	12a	2.31	16.31	16.70	0.31
	202a	1.88	16.14	16.45	-1.07
	209a	2.34	16.05	16.43	-1.15
	273a	2.41	16.32	16.72	0.46
	276a	2.29	16.52	16.91	1.49
Number of results		**6**	**6**	**6**	-
OUTLIERS	-	-	**0**	**0**	-
AVERAGE	-	**2.29**	**16.26**	**16.64**	-
STD DEVIATION	-	-	**0.16**	**0.18**	-
MEDIAN	-	-	**16.26**	**16.66**	
%RSD	-	-	**1.01**	**1.08**	-

COAL CONCEPTS - PROFICIENCY TESTING -DECEMBER 2023					
ANALYTICAL PARAMETER: ASTM VOLS (%)					
	LAB ID	MOISTURE IN ANALYSIS SAMPLE (%)	AIR DRY (%)	DRY BASE (%)	Z-SCORE (DRY BASE)
	1a	2.53	20.35	20.88	-0.52
	12a	2.31	20.64	21.13	1.46
	202a	1.88	20.40	20.79	-1.21
	209a	2.34	20.44	20.93	-0.11
	273a*	2.41	***17.96***	***18.40***	***-20.07***
	276a	2.29	20.51	20.99	0.37
Number of results	-	**6**	**6**	**6**	-
OUTLIERS	-	-	**1**	**1**	-
AVERAGE	-	**2.29**	**20.47**	**20.94**	-
STD DEVIATION	-	-	**0.11**	**0.13**	-
MEDIAN	-	-	**20.44**	**20.93**	
%RSD	-	-	**0.55**	**0.60**	-

GENERAL CONCLUSIONS

1. The ISO Ash z-score trend is evenly distributed. The Robust average, Average and Median are the similar. Two outliers were detected.
2. The overall ISO volatile trend is evenly distributed. Five outliers were detected. An RSD of 1.93% indicated a high precision of results received.
3. Calorific value trend is evenly distributed. Two outliers were detected. These seemed to be due to calibration errors. The Average, Median and Robust Average are similar.
4. The sulphur z-score trend is evenly distributed. Two outliers were detected. The Average, Median and Robust Average are the similar. A high precision of results received.
5. Phosphorous analysis: The z-score trend is evenly distributed. No outliers were detected.
6. Generally acceptable results were obtained on Carbon, Hydrogen and Nitrogen. Two outliers were detected on Carbon.
7. Ash fusion: Generally, well done. No outliers were detected.

COAL CONCEPTS: Terms and Conditions

Return of results:
Laboratories participate in proficiency testing programs on the understanding that they will be sharing their results and information **anonymously** with other laboratories performing the same analysis. No return of results compromises the spirit of the programs, and reports will not be sent to laboratories unless they return results. Payment in full is required from all laboratories enrolling whether they return results or not.
Errors in Participant Proficiency Testing Results:
Proficiency testing reports should reflect the level of accuracy that a regular testing client would receive.
If a participant finds an error in their proficiency testing results, they may notify us in writing and change their submission **PRIOR** to the due date for return. Changes after this time will not be accepted.
Coal Concepts' reports results *as submitted* by participants.
On occasion, it seems as though participants have mixed up the samples or not processed the samples according to the instructions. Coal Concepts cannot make assumptions of this nature and change results 'to suit'. We also cannot compromise the integrity of the programs by suggesting to some participants that they should review their results prior to the due date. (This is unfair to other participants) It is the responsibility of the participants to check all aspects of the program, including sample identification, preparation, testing instructions, calculations and reporting of the results prior to results submission.
If samples are not in good condition on arrival to the participant laboratory, Coal Concepts must be notified in writing IMMEDIATELY, as often samples can be replaced in good time. Claims about samples received in bad condition will not be accepted after the report has been issued.
Late Enrolments and Late Results:
Late enrolment requests cannot always be accommodated, as sample manufacture must be scheduled well in advance to the shipping date of the program to allow all necessary quality assurance activities to be carried out.
Shipping of PT materials and evaluating test results from PTPs out of cycle with the mainstream programs is considerably time consuming and therefore costly.
In order not to disadvantage participants able to comply with time frames, Coal Concepts may charge a late fee in the following circumstances:
Requests that Coal concepts staff enters results on behalf of participants.
Requests to record results after the due date.
Requests for PTP participation that is out of cycle with the scheduled dates.
Shipping fees and Customs clearance:
Costs incurred for shipping samples and clearance of same through customs are the responsibility of the participating laboratory unless otherwise indicated.
Non-payment of fees:
Coal Concepts retains the right to withhold reports and/or test materials and services when invoices are outstanding.
Confidentiality of results:
All data and information received by Coal Concepts from its clients are considered confidential unless the client has given express permission to pass on information.
Definitions:
The dictionary definitions of "collusion" and "falsification" are as follows.
· *Collusion:* A secret agreement or cooperation for a fraudulent or
deceitful purpose.
· *Falsification:* Deliberately changing something to be false. In proficiency testing terms, collusion is comparing data (and perhaps changing data) to fit in with a believed "correct" result. This is contrary to the spirit of proficiency testing programs, which are issued with the intention of providing an objective comparison of a laboratory's performance with others. Coal Concepts tries to minimise the occurrence of collusion by being aware that laboratories should be objective when they report their results and should therefore not know the intended results at the time, they are reporting to us.
Answers are not provided to clients until results have been submitted.
To prevent collusion and falsification our advice to clients is:
DON'T confer with others about PT samples or results.
DO accept the fact that everyone makes errors.
DON'T average the results or opinions of every person in the laboratory before selecting the answer to be submitted. Instead, use one of the answers AS SUBMITTED to you and take advantage of the Coal Concepts internal QA services and submit all answers generated by the technicians.
DO have confidence in your own results.
Proficiency Testing (PT) is a compulsory part of laboratory accreditation, but it is also an important tool for giving you confidence in your results. "Enhancing" your PT results with assistance from another participant cannot increase.
confidence in your laboratory's performance.
Coal concepts' testing staff are not told what the expected results are, nor what we are expecting.
We subject ALL results to analysis, even if they are different.
The staff have the right to check that the results we enter on their behalf are correctly transcribed.
Clients are always welcome to contact Coal Concepts to seek advice or information about collusion or falsification of data.
Policy for Participant Appeal of PT Performance Assessment:
If participants disagree with their performance assessment in a proficiency report, they should inform Coal Concepts in writing.
The response will include Coal Concepts interpretation of the outcome of the reassessment and an explanation of that outcome.
(For example, explanation of a calculation, or the rationale for the outcome of the evaluation.)
If a mistake has been made by Coal Concepts, it will be dealt with via Coal Concepts' non-conformance system.
Liability
In no event shall a party's liability to the other party for direct damages exceed an amount equal to the value of the amount for the PT Programme, under that specific month.
End of report