GROUP REPORT
Round 31

October 2023

ASBESTOS IN SOILS SCHEME

Round 31 Sample Details

BACKGROUND

This report covers Round 31 of the Asbestos in Soils Scheme (AISS). Round 31 was open to laboratories worldwide. Laboratory participation was as follows: 24 UK & 53 NON UK

SAMPLES

Two samples were circulated as follows:

Sample S061 – This sample contained tremolite and chrysotile free fibre (0.03% each), in a topsoil, compost, aggregate, sand, wood flour and polypropylene fibre matrix.
Sample S062 – This sample contained chrysotile asbestos cement fragments (0.4% AC by weight and as per the Information Book using an AC asbestos content of 25% gives an overall result of 0.1%) in a topsoil, compost, aggregate, sand, saran fibre and polypropylene fibre matrix.

SCREENING & VALIDATOR INFORMATION

Both samples were prepared for circulation following our normal internal screening process of samples with representative sub-samples scanned using stereo-zoom microscopy to assess homogeneity and suitability. Approximately 10% of the total number of samples were validated by 3 independent laboratories.

INFORMATION SUBMITTED BY LABORATORIES

Seventy-five laboratories submitted results for AISS Round 31. Laboratories used the PT online data entry system to submit their results for this round. Results were submitted as asbestos type(s) present and for the Quantitative option, the % asbestos in ACM's, as loose fibres and the total % asbestos.

AISS QUALITATIVE RESULTS

Sample 1 (S061)
Fifty-two laboratories correctly reported chrysotile and tremolite/anthophyllite
Thirteen laboratories reported chrysotile only
Seven laboratories reported tremolite only
One laboratory reported chrysotile, tremolite and actinolite
Two laboratories reported no asbestos

Sample 2 (S062)
Fifty-seven laboratories correctly reported chrysotile
One laboratory reported chrysotile & tremolite
One laboratory reported tremolite only
Sixteen laboratories reported no asbestos

AISS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.12. For the purposes of the z score we are using 40% of the median - 0.048.

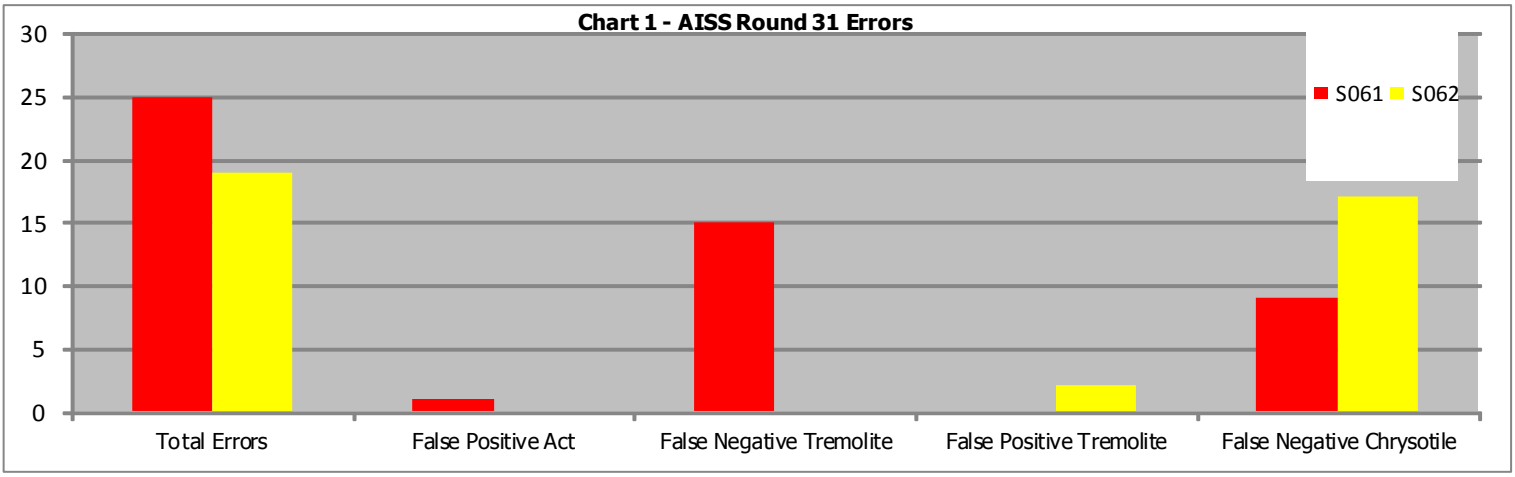
Forty-one laboratories submitted quantitative results for S062;

- 38 (93%) laboratories achieved a z-score of < ± 2, Satisfactory
- 1 (2%) laboratories achieved a z-score of between ± 2 - ± 3, Questionable
- 2 (5%) laboratories achieved a z-score of > ± 3, Unsatisfactory

1. Type Of Errors Obtained

Chart 1 illustrates the errors made by participating laboratories. Twenty five errors were made on sample S061 (chrysotile and tremolite) with fifteen labs failing to report tremolite, one lab falsely reporting actinolite and nine labs failing to report chrysotile.

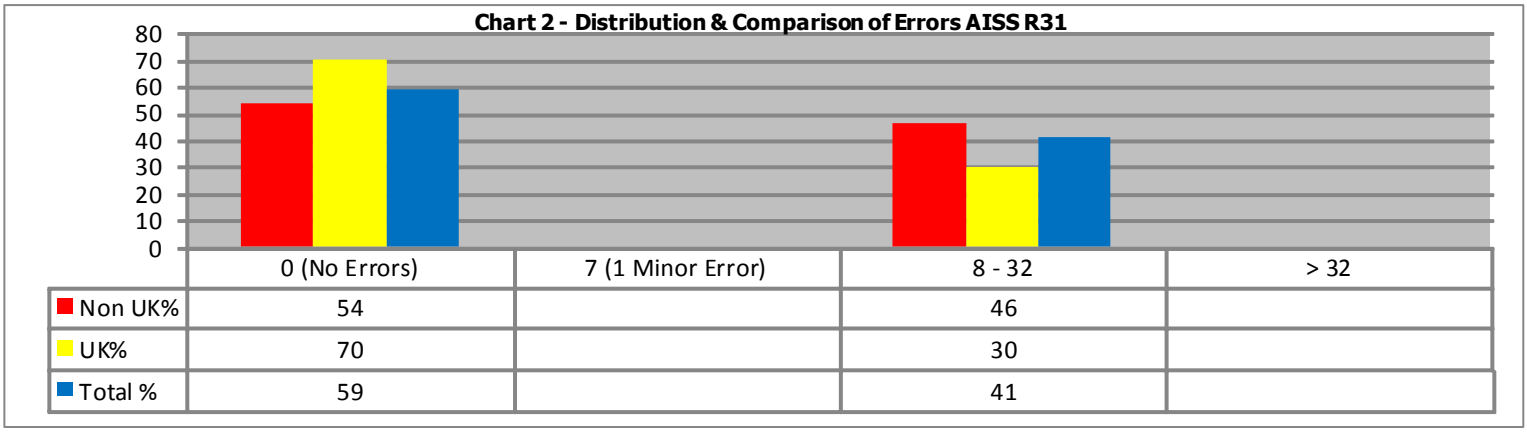
Nineteen errors were made on sample S062 (chrysotile) with seventeen labs failing to report chrysotile and two labs falsely reporting tremolite.



False Negative = Component has been missed. False Positive = Component has been incorrectly identified as present.

2. Errors for UK & Non-UK Laboratories

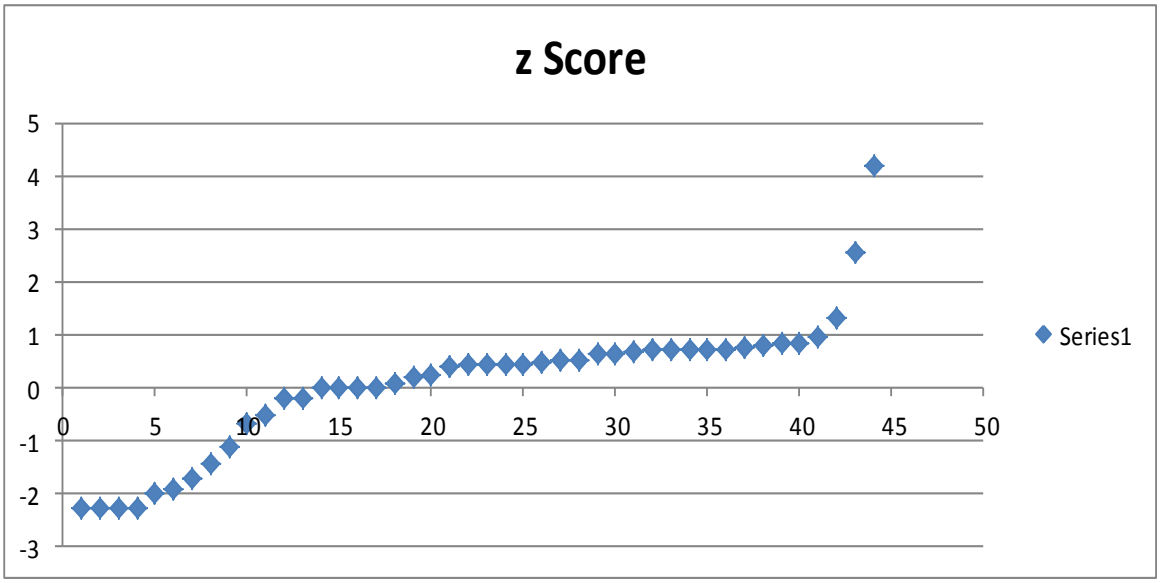
Chart 2 illustrates the distribution of scores for all participating laboratories. 44 (59%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 16 (70%) UK laboratories and 28 (54%) Non-UK laboratories obtained a score of zero for the round.



	0 (No Errors)	7 (1 Minor Error)	8 - 32	> 32
Non UK%	54		46	
UK%	70		30	
Total %	59		41	

3. Quantitative Results - z scores

Chart 3 - scatter graph of z scores (one z score of 15.6 removed as outlier) for the 41 labs who submitted a quantification result for sample S062.



4. Quantitative Results

Chart 4 illustrates of the 45 labs who submitted a quantification result for sample S062, 38 labs (93%) achieved a satisfactory result i.e. a z score of < ± 2. 1 lab (2%) achieved a questionable result with a z score of between ± 2 and ± 3. 2 labs (5%) achieved an unsatisfactory result with a z score of > ± 3.