



GROUP REPORT
Round 21



March 2020

ASBESTOS IN SOILS SCHEME

Round 21 Sample Details

BACKGROUND

This report covers Round 21 of the Asbestos in Soils Scheme (AISS). Round 21 was open to laboratories worldwide. Laboratory participation was as follows: 33 UK, 35 Rest of Europe and 3 Rest of the World.

SAMPLES

Two samples were circulated as follows:

Sample S041 – This sample contained amosite free fibre asbestos fibres along with polypropylene fibres in a soil and stone matrix.

Sample S042 – This sample contained crocidolite free fibre (0.03% by weight) in a matrix containing top soil, sand, cement and vegetation.

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 despatched were validated by 4 independent laboratories.

INFORMATION SUBMITTED BY LABORATORIES

67 laboratories submitted results for AISS Round 21. 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 (S041)

Sixty-four laboratories correctly reported amosite
One laboratory reported amosite and actinolite
One laboratory reported crocidolite
One laboratory reported no asbestos

Sample 2 (S042)

Sixty-six laboratories correctly reported crocidolite
One laboratory reported crocidolite and amosite

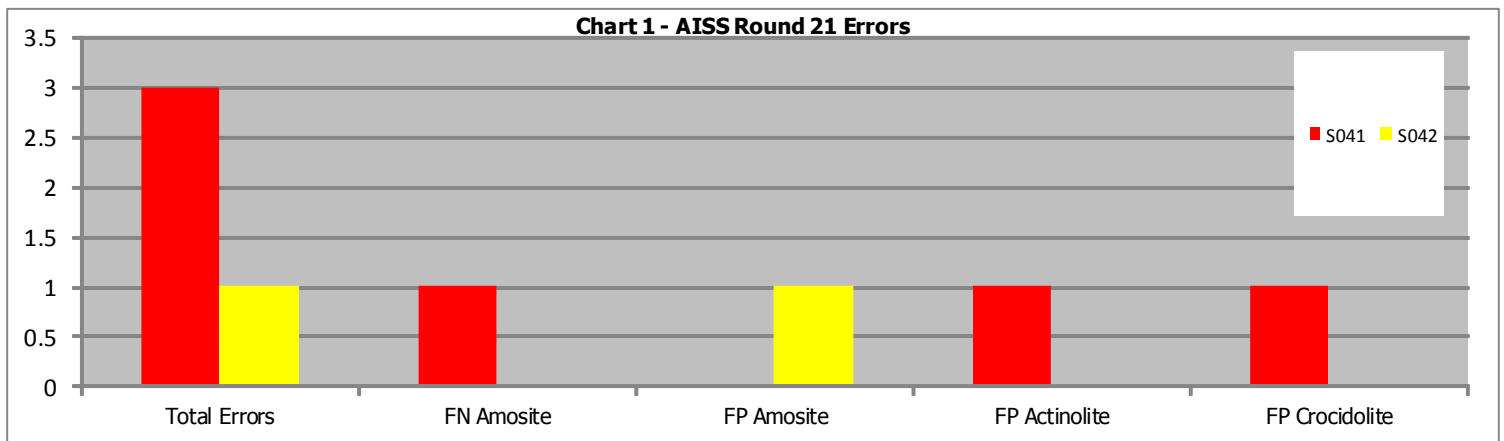
AISS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.03. For the purposes of the z score we are using 40% of the median - 0.012. Fifty-six laboratories submitted quantitative results for S042;

- 46 (82%) laboratories achieved a z-score of $< \pm 2$, Satisfactory
- 3 (5%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, Questionable
- 7 (13%) laboratories achieved a z-score of $> \pm 3$, Unsatisfactory

1. Type Of Errors Obtained

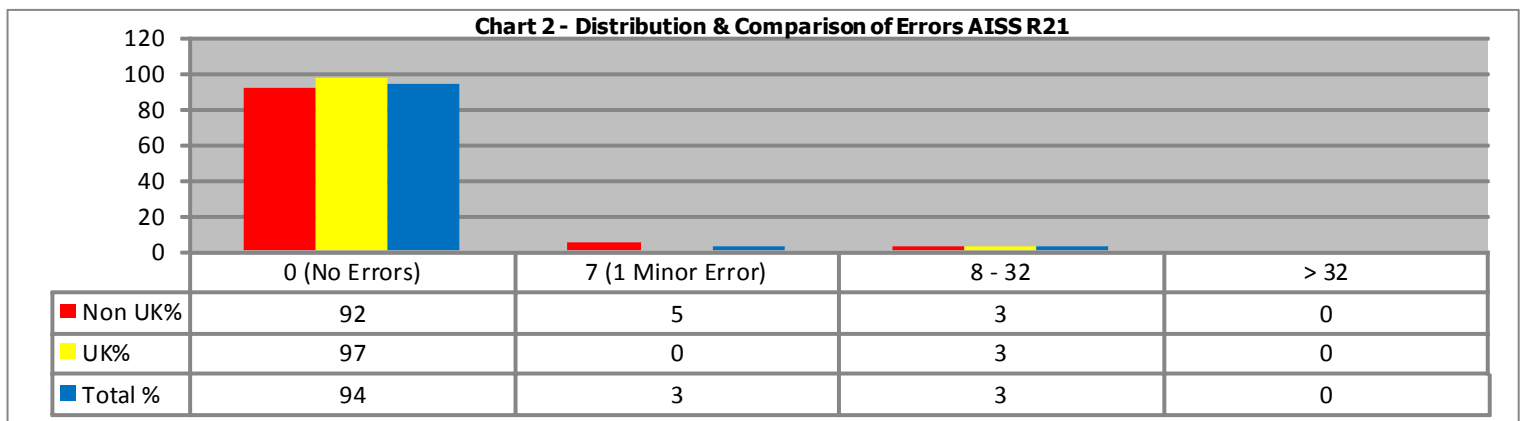
Chart 1 illustrates the errors made by participating laboratories. Three errors were made by laboratories on sample S041 with one lab identifying actinolite along with amosite, one identifying crocidolite and another reporting no asbestos. One error was made on sample S042 with a laboratory reporting amosite along with crocidolite.



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

2. Errors for UK & Non-UK Laboratories

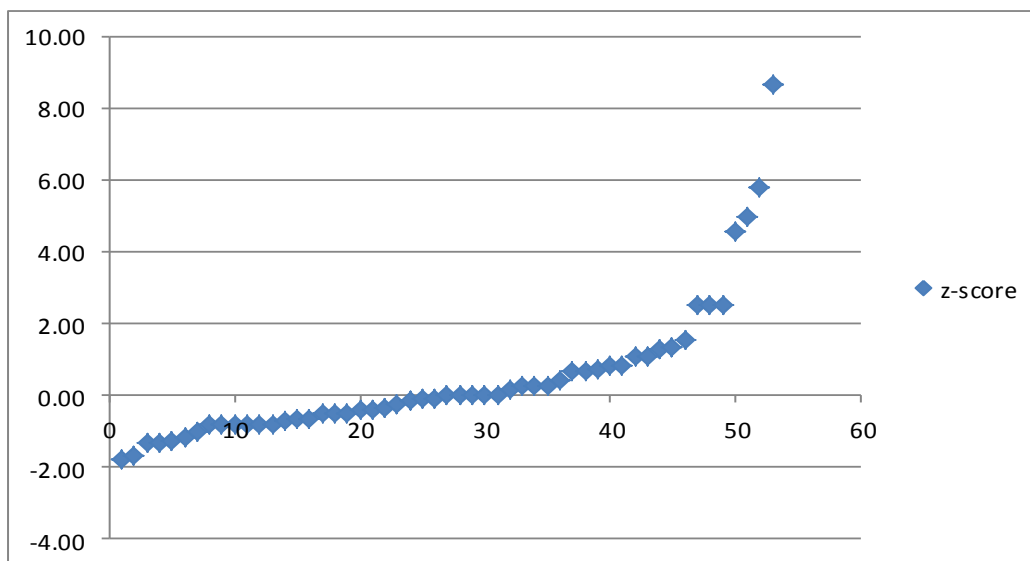
Chart 2 illustrates the distribution of scores for all participating laboratories. 67 (94%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 31 (97%) UK laboratories and 33 (92%) Non-UK laboratories obtained a score of zero for the round.





3. Quantitative Results - z scores

Chart 3 - scatter graph of z scores (two z scores of 30.83 & one of 80.83 removed as outliers) for the fifty six labs who submitted a quantification result for sample S042.



4. Quantitative Results

Chart 4 illustrates the results of the fifty-six labs who submitted a quantification result for sample S042. 46 labs (82%) achieved a satisfactory result i.e. a z score of $\leq \pm 2$. 3 labs (5%) achieved a questionable result with a z score of between ± 2 and ± 3 . 7 labs (13%) achieved an unsatisfactory result with a z score of $> \pm 3$.

