



Round 15 Sample Details

BACKGROUND

This report covers Round 15 of the Asbestos in Soils Scheme (AISS). Round 15 was open to laboratories worldwide. Laboratory participation was as follows: 34 UK, 22 Rest of Europe and 3 RoW.

SAMPLES

Two samples were circulated as follows:

Sample S029 – This sample contained 0.05% actinolite asbestos (loose fibre) by weight in top soil containing cement, sepiolite and organic fibres.

Sample S030 – This sample contained chrysotile asbestos (contained within an asbestos cement material) at 0.25% by weight of the dried sample*. Each sample was individually made by mixing known weights of the asbestos containing material in a top soil, plaster, sepiolite, sand, cement and breeze block 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 despatched were validated by 3 independent laboratories.

INFORMATION SUBMITTED BY LABORATORIES

57 laboratories submitted results for AISS Round 15. Laboratories used the HSL web-based PT 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 029

Fifty-six laboratories correctly reported actinolite asbestos.
One laboratory reported no asbestos.
Two laboratories did not submit results.

Sample 030

Forty-eight laboratories correctly reported chrysotile asbestos.
Eight laboratories reported no asbestos.
One laboratory reported actinolite.
Two laboratories did not submit results.

AISS QUANTITATIVE RESULTS

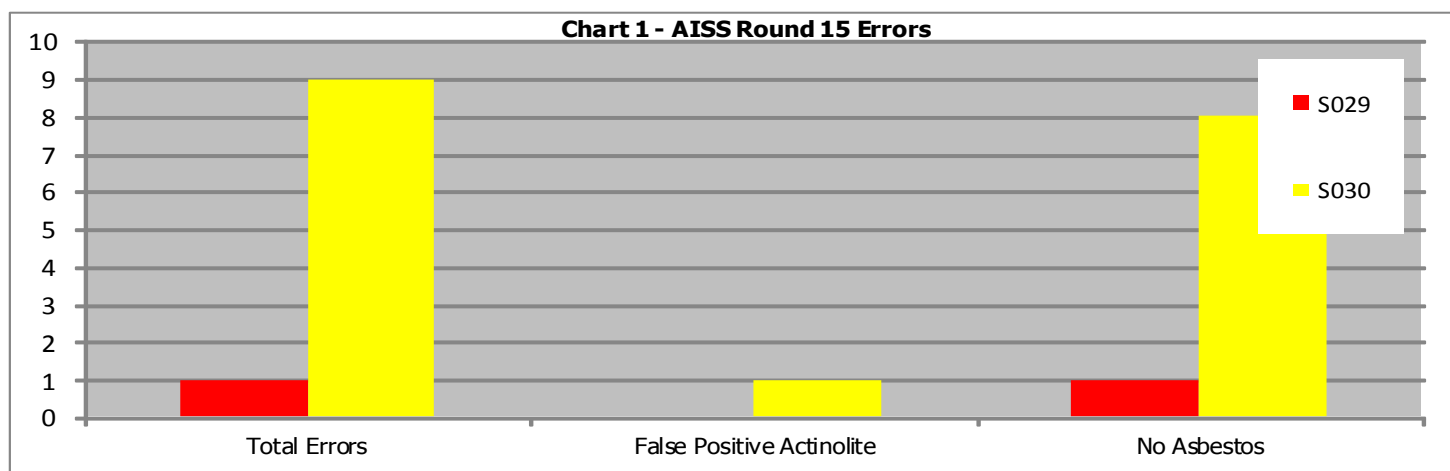
The median of quantitative results submitted was 0.126. For the purposes of the z score we are using 40% of the median - 0.05. Forty-three laboratories submitted quantitative results for S030;

- 16 (37%) laboratories achieved a z-score of $< \pm 2$, Satisfactory
- 9 (21%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, Questionable
- 18 (42%) laboratories achieved a z-score of $> \pm 3$, Unsatisfactory

* Using the SCA Blue Book Method, Appendix 4 gives a maximum asbestos content for asbestos cement of 50%. This should be the figure used when calculating the percentage asbestos content of asbestos cement in soil.

1. Type Of Errors Obtained

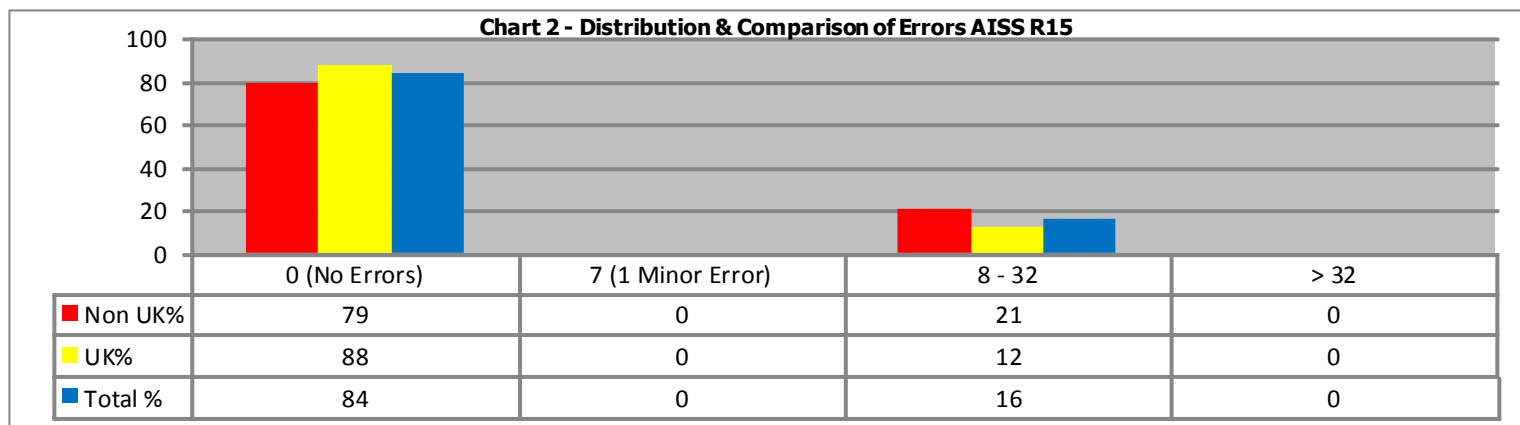
Chart 1 illustrates the errors made by participating laboratories. One error was made by a laboratory on sample S029 reporting no asbestos. Nine errors were reported for sample S030, with one laboratory reporting actinolite and eight reporting no asbestos.



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

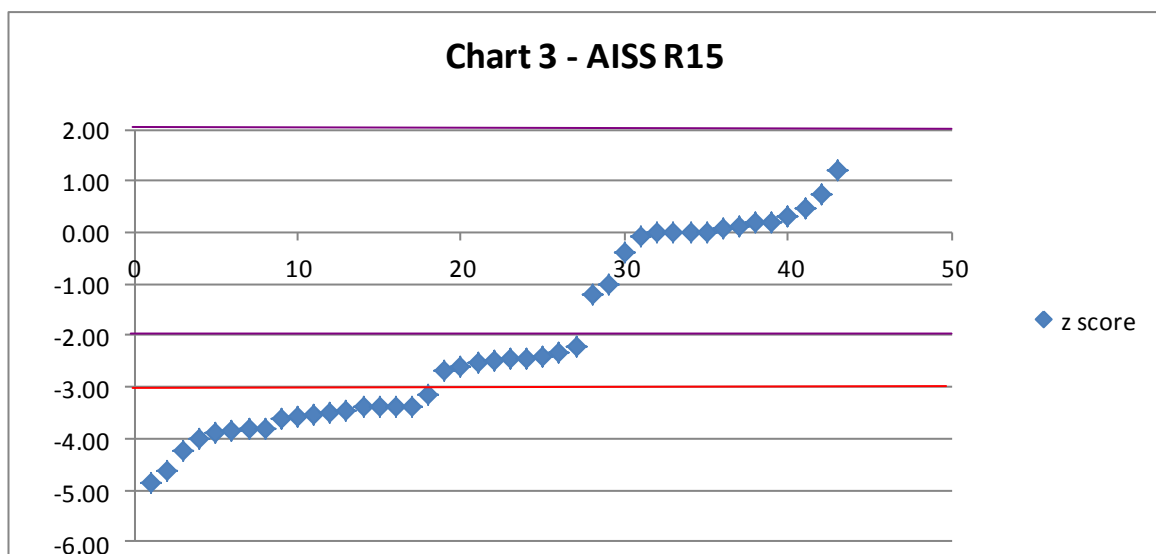
2. Errors for UK & Non-UK Laboratories

Chart 2 illustrates the distribution of scores for all participating laboratories. 48 (84%) 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; 29 (88%) UK laboratories and 19 (79%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

Chart 3 - scatter graph of z scores for the forty-three laboratories who submitted a quantification result for sample S030.



4. Quantitative Results

Chart 4 illustrates the results of the 43 laboratories who submitted a quantification result for sample S030. 16 labs (37%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 9 laboratories (21%) achieved a questionable result with a z score of between ± 2 and ± 3 . 18 laboratories (42%) achieved an unsatisfactory result with a z score of $> \pm 3$.

