



Round 14 Sample Details

BACKGROUND

This report covers Round 14 of the Asbestos in Soils Scheme (AISS). Round 14 was open to laboratories worldwide. Laboratory participation was as follows: 33 UK, 19 EU and 3 RoW.

SAMPLES

Two samples were circulated as follows:

Sample S027 – This sample contained 0.03% amosite asbestos (loose fibre) by weight in top soil containing cement, sepiolite and organic fibres.

Sample S028 – This sample contained crocidolite asbestos (loose fibre) at 0.03% by weight of the dried sample. Each sample was individually made by mixing known weights of asbestos in a top soil, plaster, sepiolite, sand and cement 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

55 laboratories submitted results for AISS Round 14. 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 027

Fifty-three laboratories correctly reported amosite asbestos.
One laboratory reported amosite and chrysotile asbestos.
One laboratory reported amosite and actinolite asbestos.

Sample 028

All 55 labs correctly reported crocidolite asbestos.

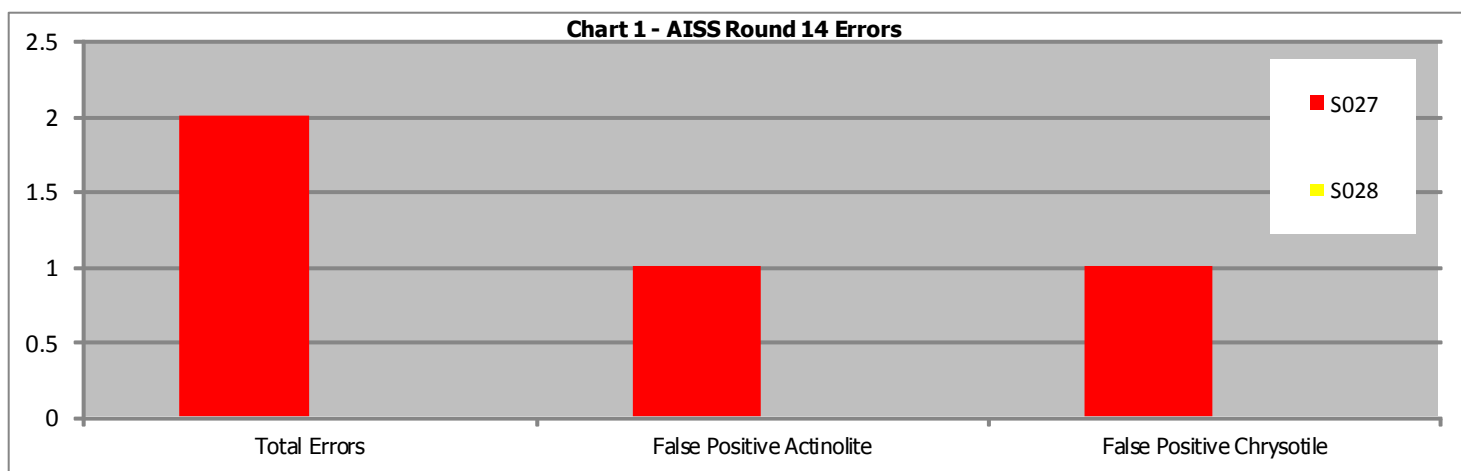
AISS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.039. For the purposes of the z score we are using 40% of the median - 0.016. Forty-five laboratories submitted quantitative results for S028;

- 41 (91%) laboratories achieved a z-score of $< \pm 2$, Satisfactory
- 1 (2%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, Questionable
- 3 (7%) laboratories achieved a z-score of $> \pm 3$, Unsatisfactory

1. Type Of Errors Obtained

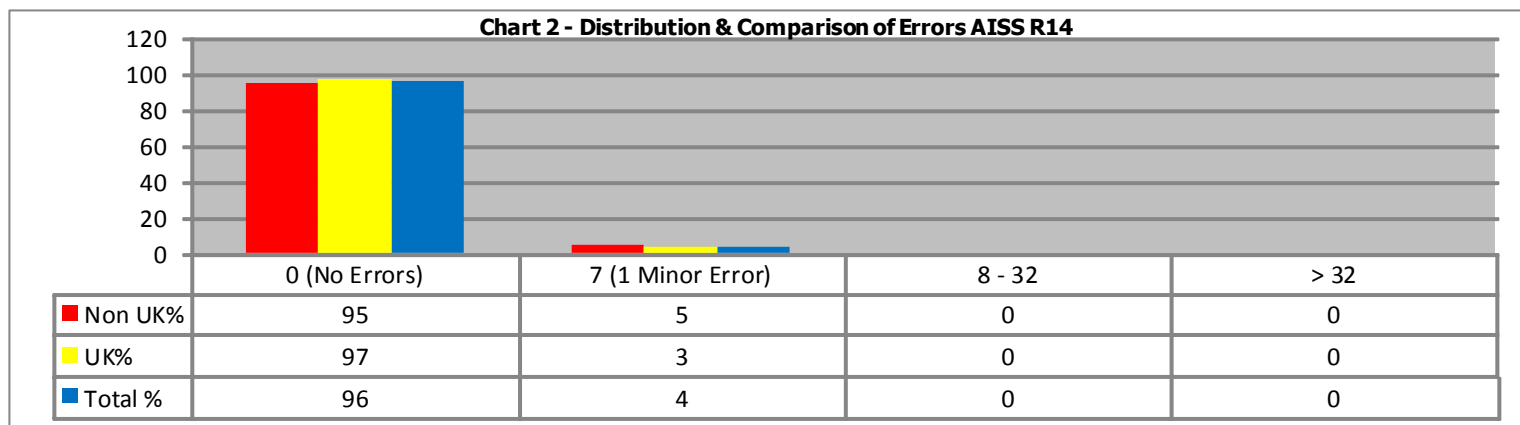
Chart 1 illustrates the errors made by participating laboratories. Two errors were made by laboratories on sample S027 with one laboratory reporting amosite and actinolite and one laboratory reporting amosite and chrysotile. No errors were reported for sample S028.



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

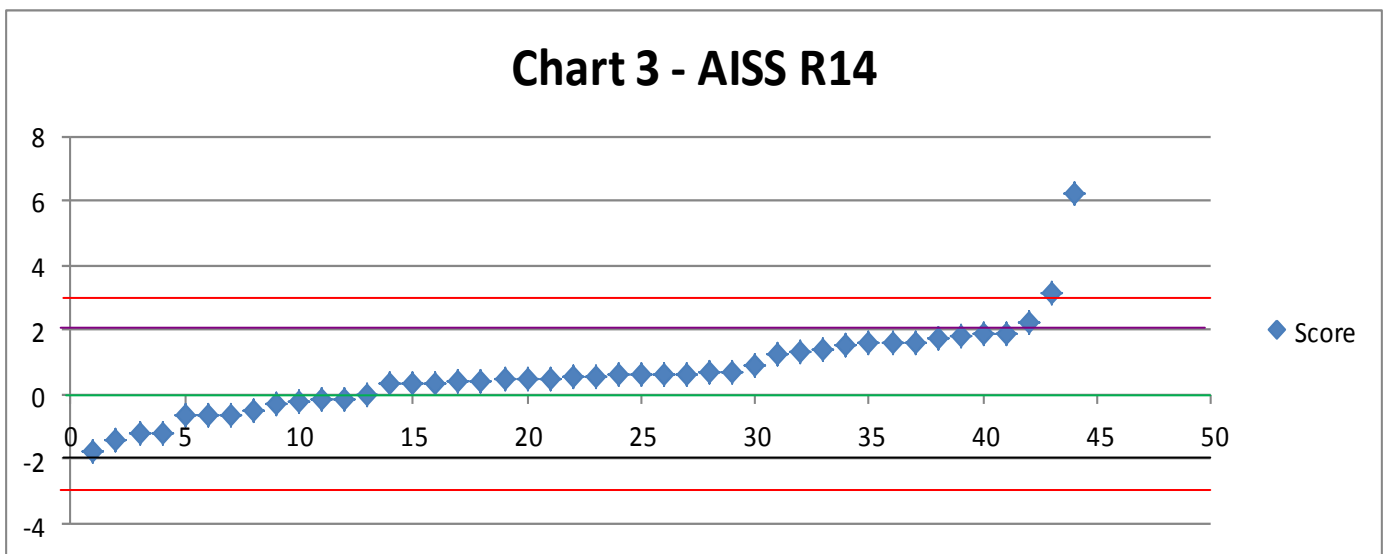
2. Errors for UK & Non-UK Laboratories

Chart 2 illustrates the distribution of scores for all participating laboratories. 53 (96%) 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; 32 (97%) UK laboratories and 21 (95%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

Chart 3 - scatter graph of z scores (one z score of 41.25 removed as outlier) for the 45 laboratories who submitted a quantification result for sample S028.



4. Quantitative Results

Chart 4 illustrates of the 45 laboratories who submitted a quantification result for sample S028, 41 labs (91%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 1 laboratory (2%) achieved a questionable result with a z score of between ± 2 and ± 3 . 3 laboratories (7%) achieved an unsatisfactory result with a z score of $> \pm 3$.

