



Group Report



Round 7
June 2019

LOW ASBESTOS CONTENT SCHEME

Round 7 Sample Details

BACKGROUND

This report covers Round 7 of the Low Asbestos Content Scheme (LACS). Round 7 was open to laboratories worldwide. Laboratory participation was as follows: 3 UK and 113 Rest of Europe.

116 laboratories subscribed to this round, with 113 submitting results.

SAMPLES

One sample was circulated as follows: Sample LACS007 – This sample was chalk containing 0.05% UICC anthophyllite.

SCREENING & VALIDATOR INFORMATION

The sample was prepared for circulation following our normal internal screening process of samples with representative sub-samples scanned using stereo-zoom and polarised light microscopy to assess homogeneity and suitability. Approximately 10% of the total number of samples despatched were validated by 7 independent laboratories.

INFORMATION SUBMITTED BY LABORATORIES

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 element, the total % asbestos.

ERRORS

Of the 113 laboratories who submitted results one reported actinolite and one reported no asbestos for sample LACS007.

LACS QUALITATIVE RESULTS

Sample LACS007

One hundred and seven laboratories correctly reported anthophyllite.

One laboratory reported anthophyllite and tremolite. (No score)

Three laboratories reported tremolite. (No score)

One laboratory reported actinolite.

One laboratory reported no asbestos.

These results are presented graphically in Charts 1 and 2.

LACS QUANTITATIVE RESULTS

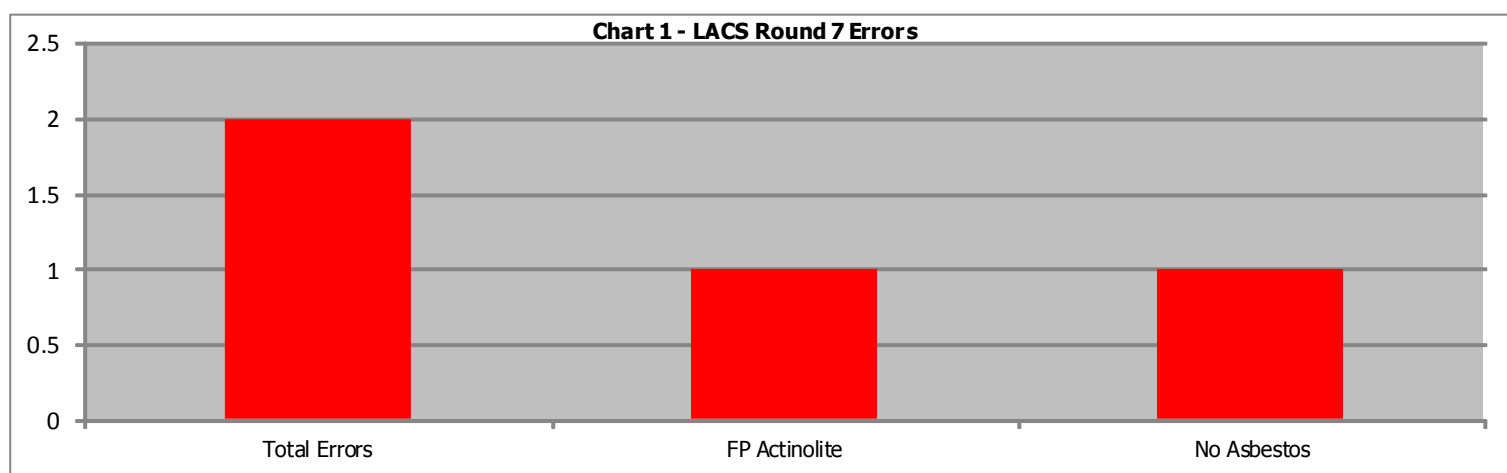
The median of quantitative results submitted was 0.05%. For the purposes of the z score we are using 40% of the median - 0.02%. Fifty-five laboratories submitted quantitative results;

- 34 (62%) laboratories achieved a z-score of $\leq \pm 2$, this is normally considered to represent “Satisfactory” performance
- 17 (31%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, this is normally considered to represent “Questionable” performance
- 4 (7%) laboratories achieved a z-score of $> \pm 3$, this is normally considered to represent “Unsatisfactory” performance.

These results are presented graphically in Charts 3-5.

1. Type Of Errors Obtained

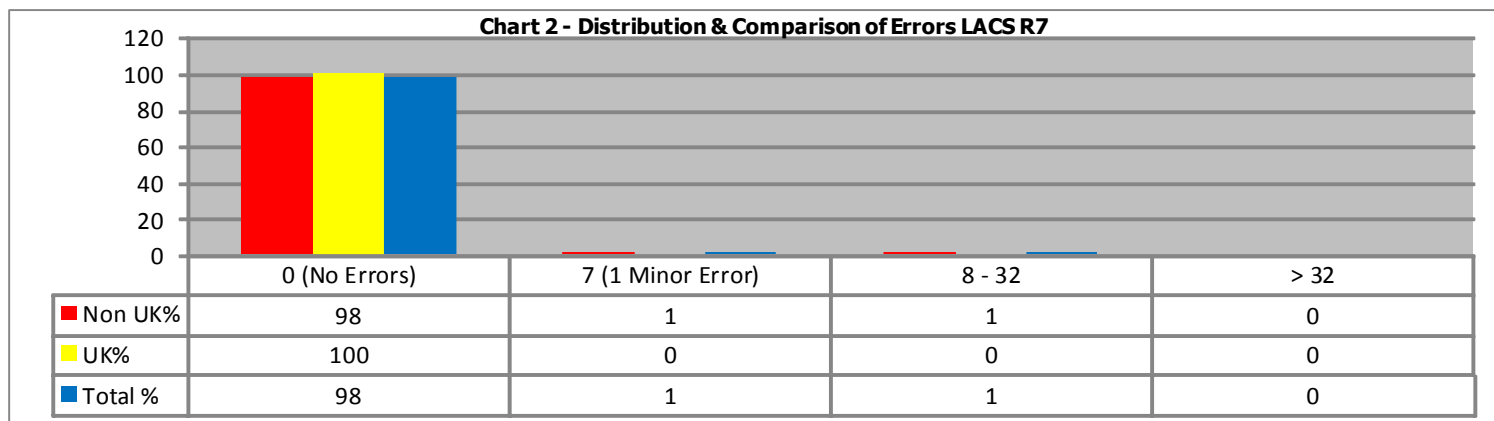
Chart 1 illustrates the errors made by participating laboratories. Two errors were made by laboratories on sample LACS007. One lab reported actinolite asbestos and one lab reported no asbestos present.



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

2. Errors for UK & Non-UK Laboratories

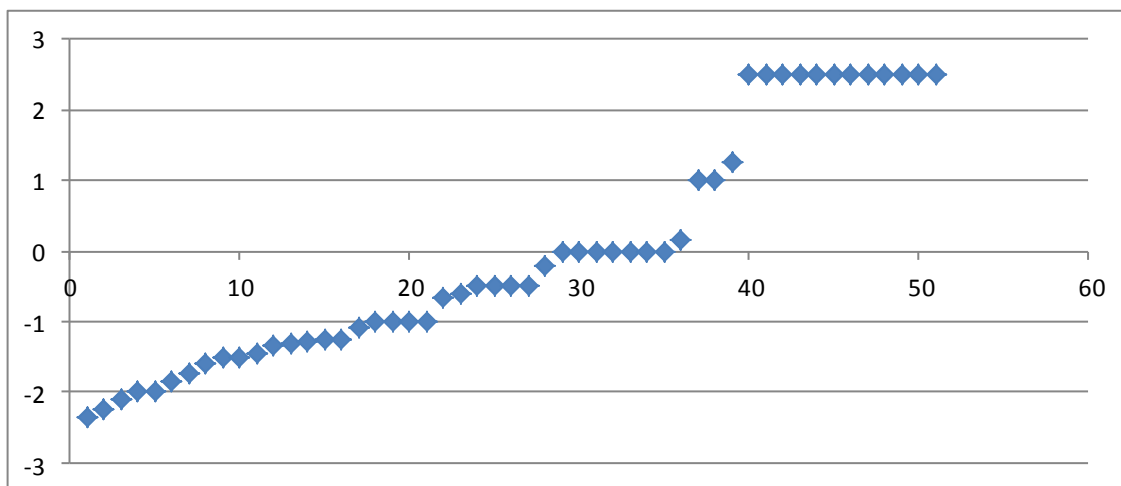
Chart 2 illustrates the distribution of scores for all participating laboratories. 111 (98%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 3 (100%) UK laboratories and 108 (98%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

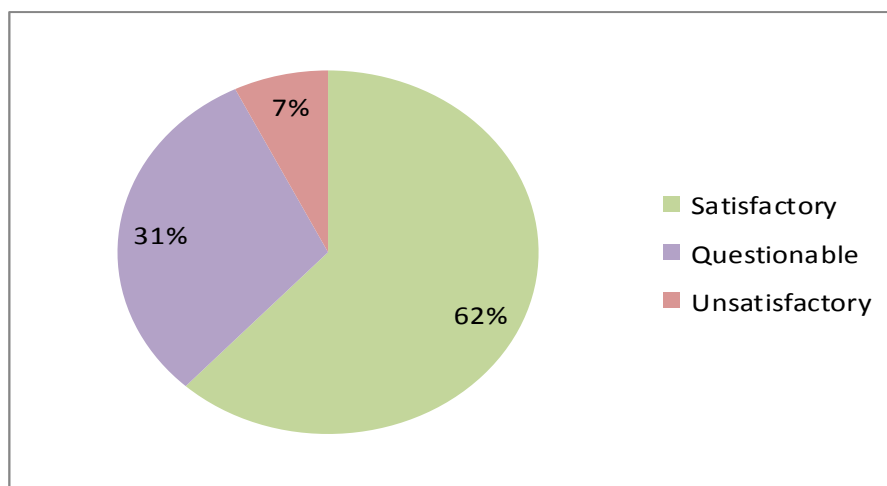
Chart 3

Scatter graph of z scores (four z scores of 6.8, 17.5, 23 and 47.5 removed as outliers) for the 55 laboratories who submitted a quantification result.



4. Quantitative Results

Chart 4 illustrates of the 55 laboratories who submitted a quantification result, 34 laboratories (62%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 17 laboratories (31%) achieved a questionable result with a z score of between ± 2 and ± 3 . 4 laboratories (7%) achieved an unsatisfactory result with a z score of $> \pm 3$.



5 Quantitative Results by analytical method

The following charts illustrate the z-score results by method of the 55 laboratories who submitted a quantification result. The number of labs using each method were as follows: 25 labs used SEM/EDX; 27 labs used TEM/EDX/ED and 3 labs used PLM/PCM.

