



Group Report



Round 9

March 2020

LOW ASBESTOS CONTENT SCHEME

Round 9 Sample Details

BACKGROUND

This report covers Round 9 of the Low Asbestos Content Scheme (LACS). Round 9 was open to laboratories worldwide. Laboratory participation was as follows: 5 UK and 134 Non UK.

139 laboratories subscribed to this round, with 135 submitting results.

SAMPLES

One sample was circulated as follows: Sample LACS009 – This sample was grout containing 0.06% amosite.

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 135 laboratories who submitted results one reported amosite and crocidolite, one reported tremolite and one reported actinolite for sample LACS009.

LACS QUALITATIVE RESULTS

Sample LACS009

One hundred and thirty-two laboratories correctly reported amosite
One laboratory reported amosite and crocidolite.
One laboratory reported tremolite.
One laboratory reported actinolite.

These results are presented graphically in Charts 1 and 2.

LACS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.06%. For the purposes of the z score we are using 40% of the median - 0.02%. Seventy-five laboratories submitted quantitative results;

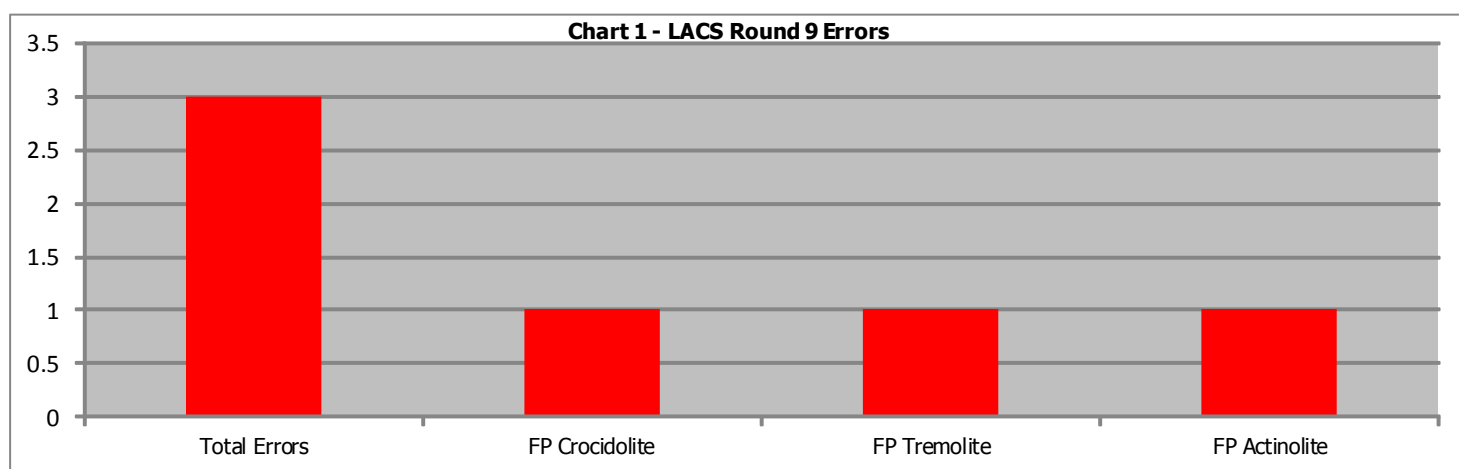
- 50 (67%) laboratories achieved a z-score of $< \pm 2$, this is normally considered to represent “Satisfactory” performance
- 19 (25%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, this is normally considered to represent “Questionable” performance
- 6 (8%) laboratories achieved a z-score 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

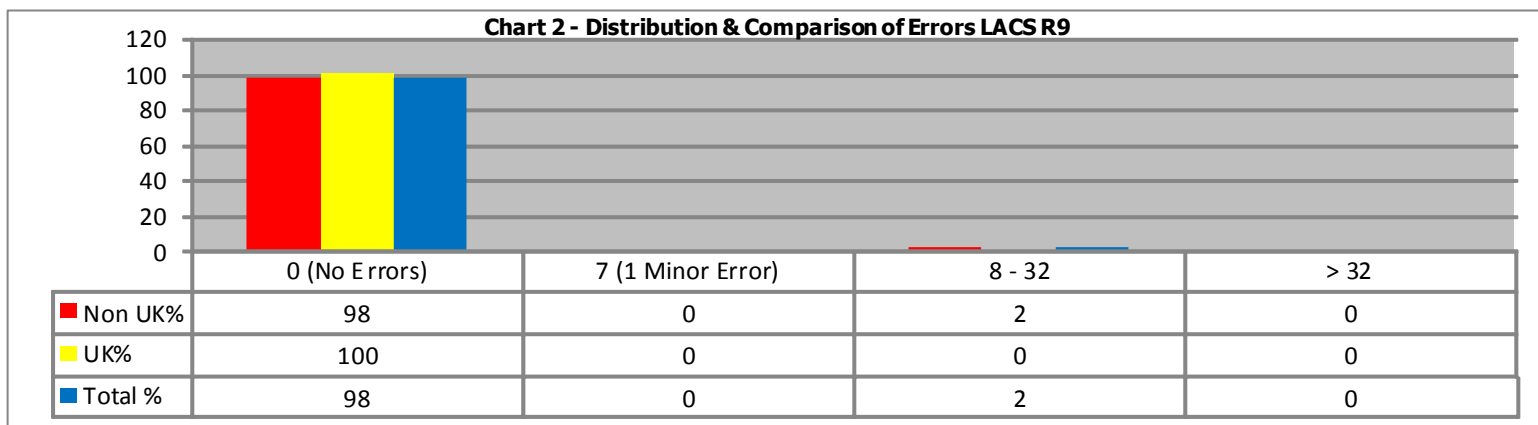
Chart 1 illustrates the errors made by participating laboratories. Three errors were made by laboratories on sample LACS009. One laboratory reported crocidolite as well as amosite, one reported tremolite only and one reported actinolite only.



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

2. Errors for UK & Non-UK Laboratories

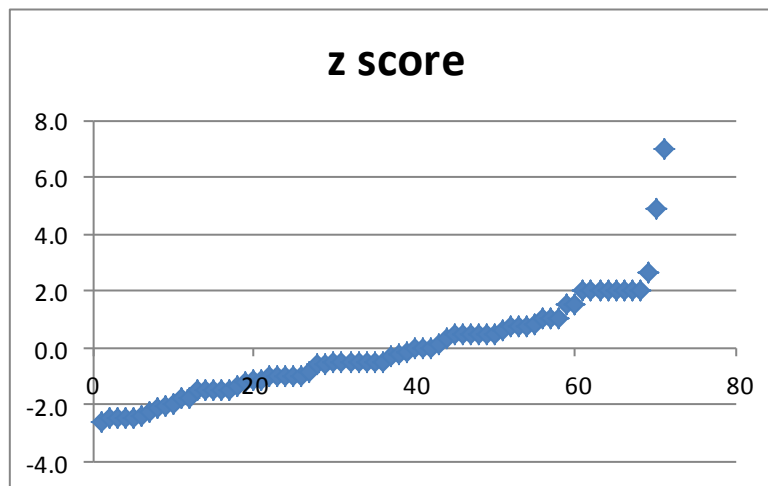
Chart 2 illustrates the distribution of scores for all participating laboratories. 132 (98%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 5 (100%) UK laboratories and 127 (98%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

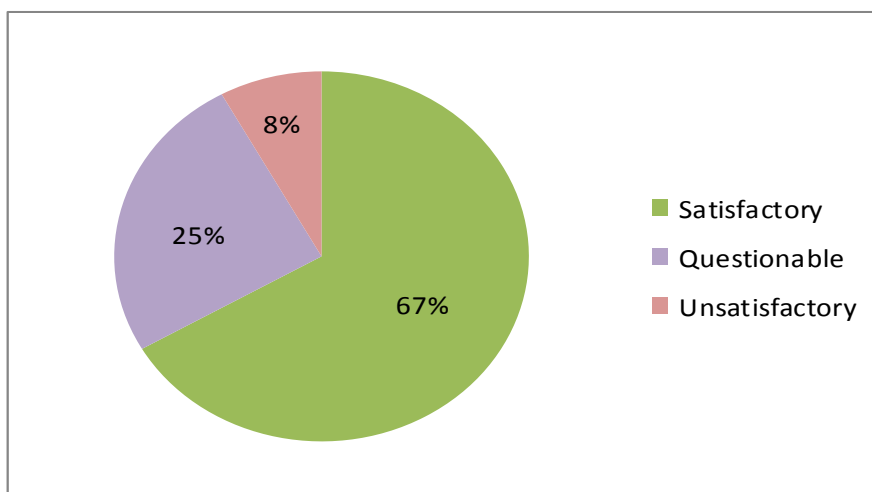
Chart 3

Scatter graph of z scores (one z score of 13 and three z scores results of 47 removed as outliers) for the 75 laboratories who submitted a quantification result.



4. Quantitative Results

Chart 4 illustrates of the 75 laboratories who submitted a quantification result, 50 laboratories (67%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 19 laboratories (25%) achieved a questionable result with a z score of between ± 2 and ± 3 . 6 laboratories (8%) 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 75 laboratories who submitted a quantification result. The number of labs using each method were as follows: 41 labs used SEM/EDX; 30 labs used TEM/EDX/ED and 4 labs used PLM/PCM.

