



Group Report



Round 8
October 2019

LOW ASBESTOS CONTENT SCHEME

Round 8 Sample Details

BACKGROUND

This report covers Round 8 of the Low Asbestos Content Scheme (LACS). Round 8 was open to laboratories worldwide. Laboratory participation was as follows: 4 UK and 121 Rest of Europe.

125 laboratories subscribed to this round, with 119 submitting results.

SAMPLES

One sample was circulated as follows: Sample LACS008 – This sample was cement containing 0.05% 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 119 laboratories who submitted results one reported crocidolite, one reported anthophyllite, one reported actinolite and one reported no asbestos for sample LACS008.

LACS QUALITATIVE RESULTS

Sample LACS008

One hundred and fifteen laboratories correctly reported amosite
One laboratory reported crocidolite.
One laboratory reported anthophyllite.
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 0.04%. For the purposes of the z score we are using 40% of the median - 0.02%. Sixty-four laboratories submitted quantitative results;

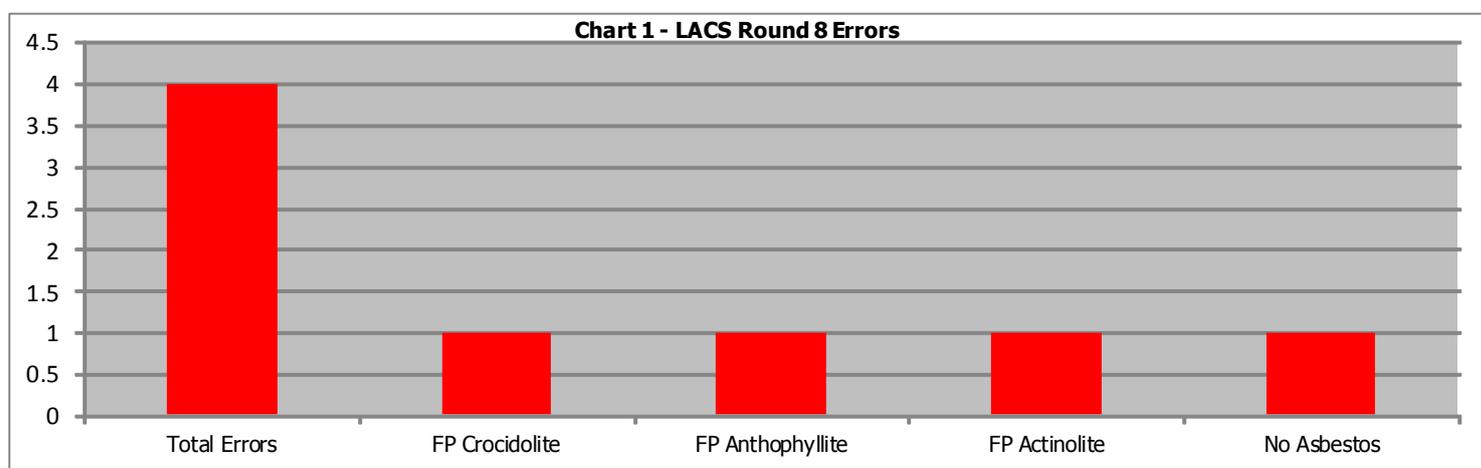
- 41 (64%) laboratories achieved a z-score of $< \pm 2$, this is normally considered to represent “Satisfactory” performance
- 17 (27%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, this is normally considered to represent “Questionable” performance
- 6 (9%) laboratories achieved a z-score 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

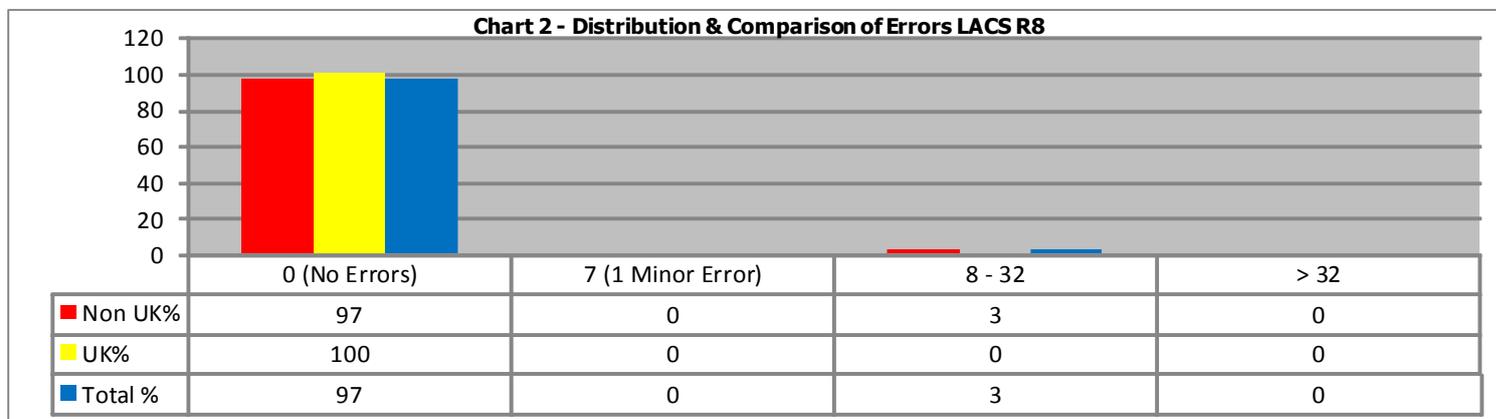
Chart 1 illustrates the errors made by participating laboratories. Four errors were made by laboratories on sample LACS008. One laboratory reported crocidolite, one reported anthophyllite, one reported actinolite and one reported no asbestos



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

2. Errors for UK & Non-UK Laboratories

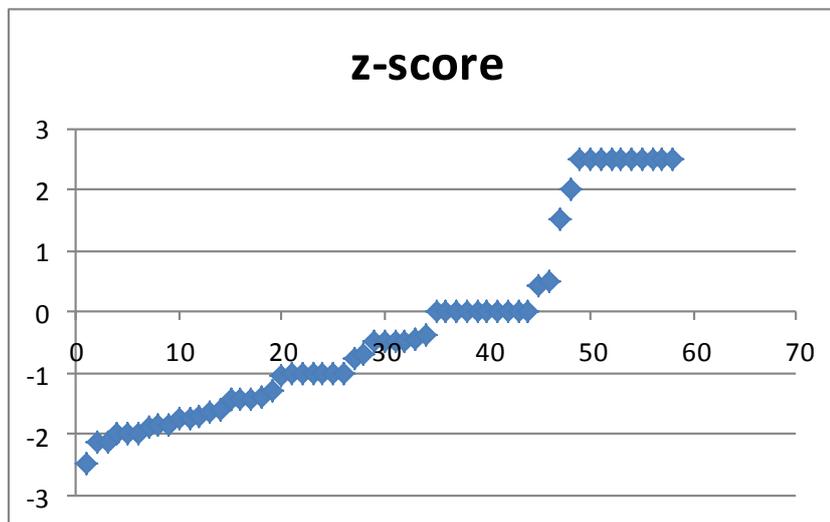
Chart 2 illustrates the distribution of scores for all participating laboratories. 115 (97%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 4 (100%) UK laboratories and 111 (97%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

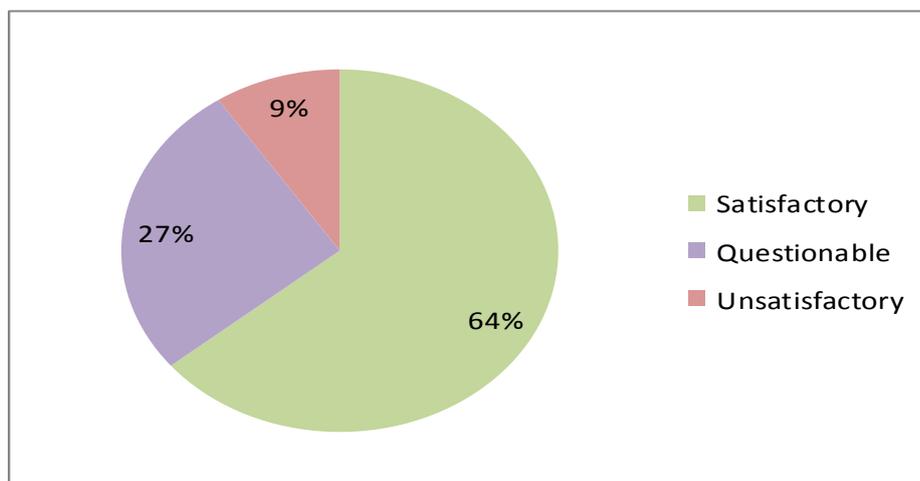
Chart 3

Scatter graph of z scores (six z scores of 7.5, 36.5, 47.5, 47.5, 97.5 & 247.5 removed as outliers) for the 64 laboratories who submitted a quantification result.



4. Quantitative Results

Chart 4 illustrates of the 64 laboratories who submitted a quantification result, 41 laboratories (64%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 17 laboratories (27%) achieved a questionable result with a z score of between ± 2 and ± 3 . 6 laboratories (9%) 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 64 laboratories who submitted a quantification result. The number of labs using each method were as follows: 32 labs used SEM/EDX; 27 labs used TEM/EDX/ED and 5 labs used PLM/PCM.

