

### Round 3 Sample Details

#### BACKGROUND

This report covers Round 3 of the Low Asbestos Content Scheme (LACS). Round 3 was open to laboratories worldwide. Laboratory participation was as follows: 4 UK, 98 Rest of Europe and 1 RoW.

103 laboratories subscribed to this round, with 100 submitting results.

#### SAMPLES

One sample was circulated as follows: Sample LACS003 – This sample was a marble powder containing UICC 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 4 independent laboratories.

#### INFORMATION SUBMITTED BY LABORATORIES

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 element, the total % asbestos.

#### ERRORS

Only four laboratories of the 100 who submitted results recorded errors for sample LACS003. One laboratory identified amosite and actinolite and three laboratories identified actinolite.

#### LACS QUALITATIVE RESULTS

##### Sample LACS003

Ninety-six laboratories correctly reported amosite.

One laboratory reported amosite and actinolite.

Three laboratories reported actinolite.

Three laboratories did not submit a result.

These results are presented graphically in Charts 1 and 2.

#### LACS QUANTITATIVE RESULTS

The median of quantitative results submitted was 0.09%. For the purposes of the z score we are using 40% of the median - 0.04%. Forty-two laboratories submitted quantitative results;

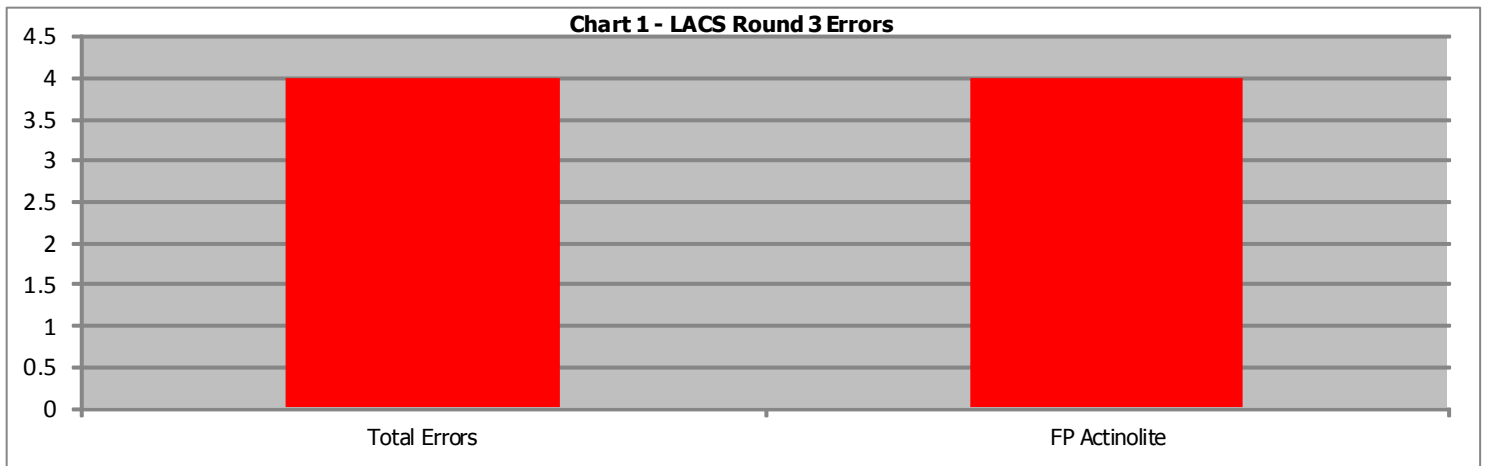
- 31 (74%) laboratories achieved a z-score of  $< \pm 2$ , this is normally considered to represent “Satisfactory” performance
- 0 (0%) laboratory achieved a z-score of between  $\pm 2 - \pm 3$ , this is normally considered to represent “Questionable” performance
- 11 (26%) laboratories achieved a z-score of  $> \pm 3$ , this is normally considered to represent “Unsatisfactory” performance.

These results are presented graphically in Charts 3 and 4.



1. Type Of Errors Obtained

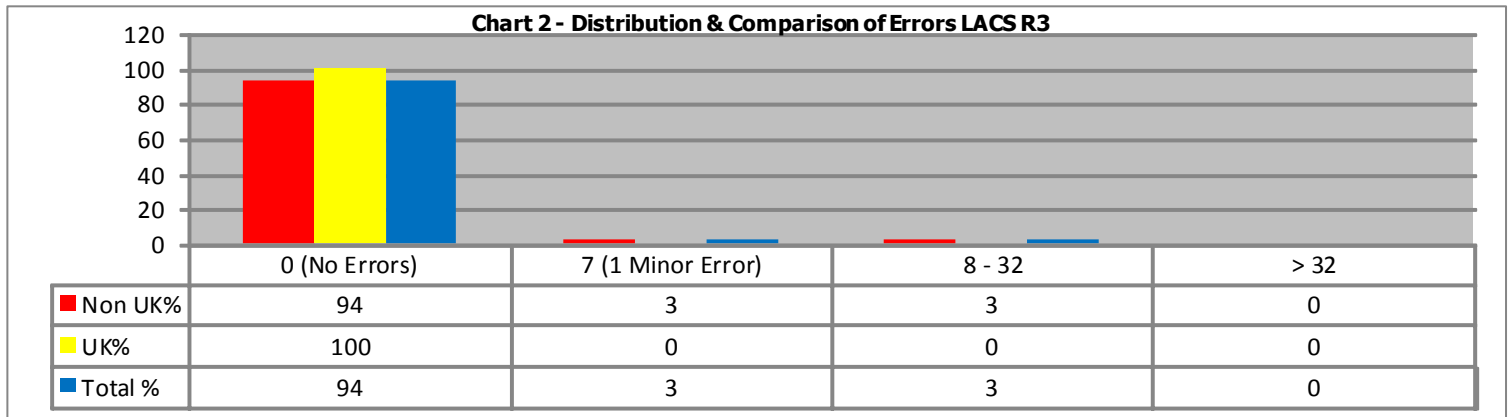
Chart 1 illustrates the errors made by participating laboratories. Four errors were made by laboratories on sample LACS003. All 4 errors were made by laboratories falsely identifying actinolite asbestos present. 1 lab identified amosite and actinolite with 3 labs identifying actinolite only.



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

2. Errors for UK & Non-UK Laboratories

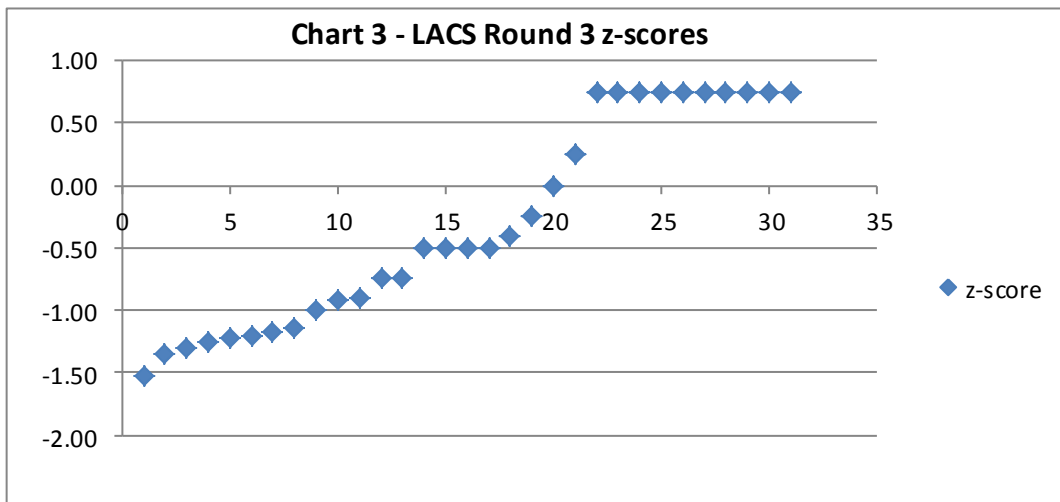
Chart 2 illustrates the distribution of scores for all participating laboratories. 94 (94%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 4 (100%) UK laboratories and 90 (94%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

Chart 3

Scatter graph of z scores (eleven z scores ranging from 3.25 to 173.25 removed as outliers) for the forty-two laboratories who submitted a quantification result.



4. Quantitative Results

Chart 4 illustrates of the 42 laboratories who submitted a quantification result, 31 laboratories (74%) achieved a satisfactory result i.e. a z score of  $< \pm 2$ . 0 laboratories (0%) achieved a questionable result with a z score of between  $\pm 2$  and  $\pm 3$ . 11 laboratories (26%) achieved an unsatisfactory result with a z score of  $> \pm 3$ .

