



Low Asbestos Content Scheme Individual Results : Round 002 LACS Round 2

For Laboratory Number : 1640 CRB Analyse Service GmbH

From : 04/09/2017 To : 30/10/2017

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Sample	Your Result	Assigned Result	Score
1	No Asbestos, Total Asbestos = 0%	No Asbestos, Total Asbestos = 0%	0 Z : 0

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Round 2 Sample Details

BACKGROUND

This report covers Round 2 of the Low Asbestos Content Scheme (LACS). Round 2 was open to laboratories worldwide. Laboratory participation was as follows: 4 UK, 86 EU and 1 RoW. 91 laboratories subscribed to this round, with 88 submitting results.

SAMPLES

One sample was circulated as follows:

Sample LACS002 – This sample was talc containing wollastonite.

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.

MAJORITY OF ERRORS

Sixteen laboratories recorded errors for sample LACS002.

The majority of errors in this sample were where the lab reported anthophyllite. This was a non-asbestos sample of talc containing acicular wollastonite. The wollastonite itself is not fibrous but elongated crystals are present. When analysed by electron microscopy and energy dispersive X-ray analysis, these elongated crystals may have a similar elemental composition to anthophyllite (both are magnesium silicates). There may also have been an elemental contribution originating from talc particles, which is also a magnesium silicate mineral.

LACS QUALITATIVE RESULTS

Sample 1

Seventy-two laboratories correctly reported no asbestos

One laboratory reported crocidolite & chrysotile

Two laboratories reported chrysotile

One laboratory reported tremolite

Twelve laboratory reported anthophyllite

Three laboratories did not submit a result.

These results are presented graphically in Charts 1 and 2.

LACS QUANTITATIVE RESULTS

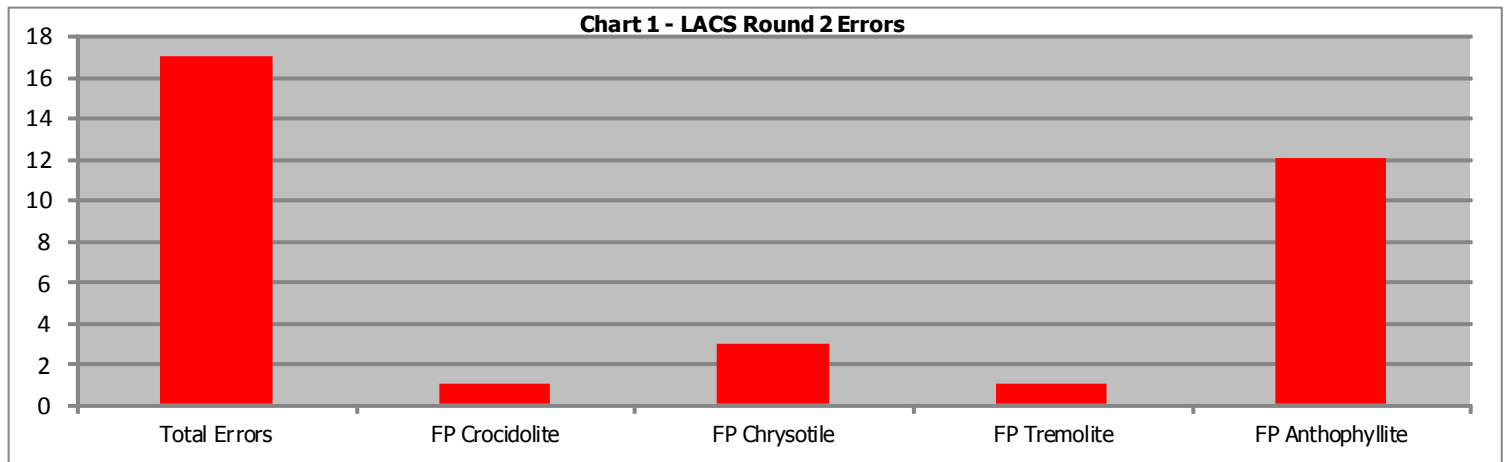
Due to the assigned result being 0%, the standard deviation of results submitted has been used to calculate the z-score, for the purpose of this round - 0.018. Thirty-seven laboratories submitted quantitative results;

- 35 (94%) laboratories achieved a z-score of $\leq \pm 2$, this is normally considered to represent "Satisfactory" performance
- 1 (3%) laboratory achieved a z-score of between $\pm 2 - \pm 3$, this is normally considered to represent "Questionable" performance
- 1 (3%) laboratory 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

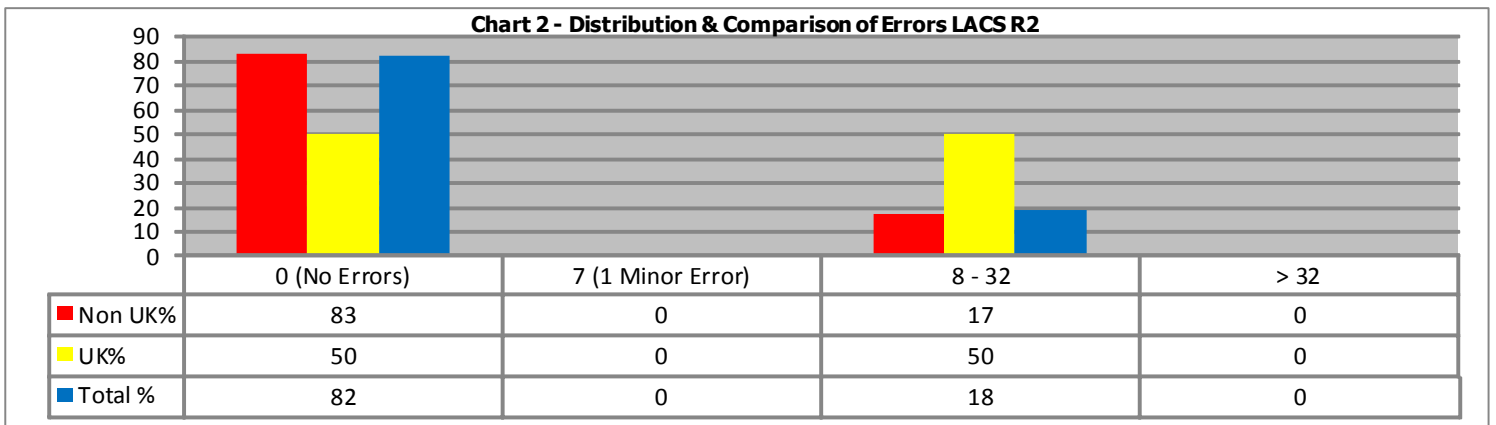
Chart 1 illustrates the errors made by participating laboratories. 17 errors were made by laboratories on sample LACS002. Being a non-asbestos round all 17 errors made were falsely identifying asbestos present. 1 crocidolite and chrysotile; 2 chrysotile; 1 tremolite and 12 anthophyllite.



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

2. Errors for UK & Non-UK Laboratories

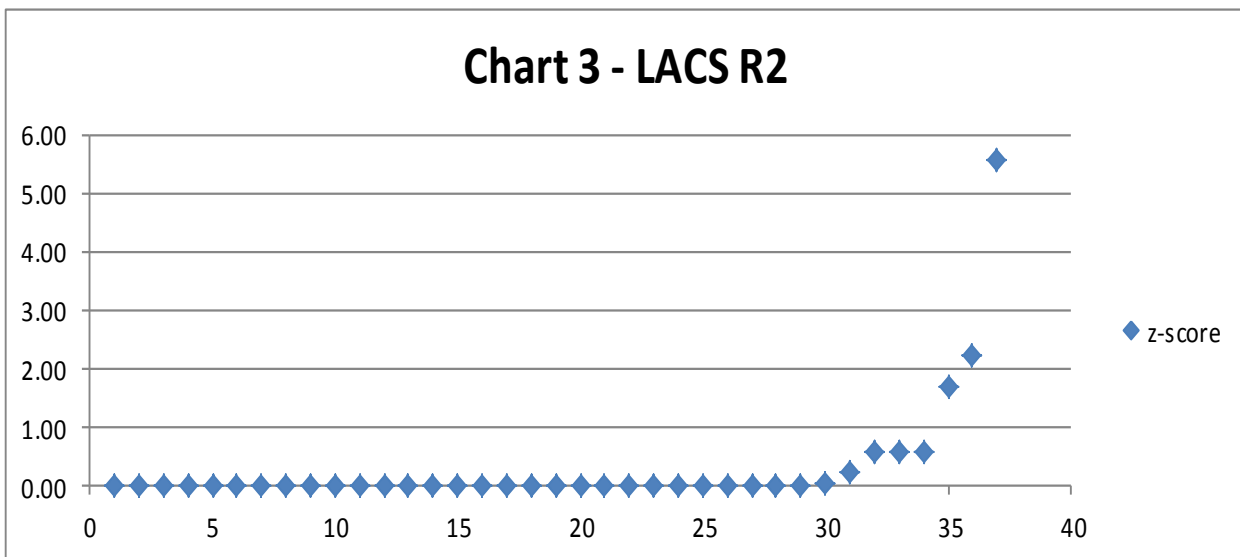
Chart 2 illustrates the distribution of scores for all participating laboratories. 72 (82%) laboratories obtained a score of zero in this round, indicating that these laboratories had not made any errors. The distribution of scores obtained by UK (United Kingdom) and Non-UK laboratories is also compared; 2 (50%) UK laboratories and 70 (83%) Non-UK laboratories obtained a score of zero for the round.



3. Quantitative Results - z scores

Chart 3

Scatter graph of z scores for the 37 laboratories who submitted a quantification result.



4. Quantitative Results

Chart 4 illustrates of the 37 laboratories who submitted a quantification result, 35 laboratories (94%) achieved a satisfactory result i.e. a z score of $< \pm 2$. 1 laboratory (3%) achieved a questionable result with a z score of between ± 2 and ± 3 . 1 laboratory (3%) achieved an unsatisfactory result with a z score of $> \pm 3$.

