



Group Report
Round 68
June 2019



Asbestos In Materials Scheme

Asbestos In Materials (AIMS) Scheme

This report is available to view on our website: <https://www.hsl.gov.uk/proficiency-testing-schemes/group-reports>

Round 68 Sample Details

386 labs were assigned to Round 68 with 381 labs submitting complete results. All samples were prepared for circulation following our normal internal screening process and were scanned using stereo-zoom microscopy to assess homogeneity and suitability. Approximately 10% of all samples prepared were validated by 19 independent laboratories using either PLM or SEM analytical techniques. All validation labs identified all asbestos components present in the samples and no additional asbestos components were identified.

The round consisted of three manufactured samples and one commercial sample of materials that may contain asbestos and would typically be submitted for analysis at an asbestos testing laboratory. Sample 1 was a cement sample containing amosite asbestos; Sample 2 was a non-asbestos sample consisting of a floor tile with a bitumen backing containing polypropylene fibres; Sample 3 was a painted board sample containing crocidolite asbestos within the paint layer and Sample 4 was a commercial cement sample (house soffits) containing chrysotile asbestos.

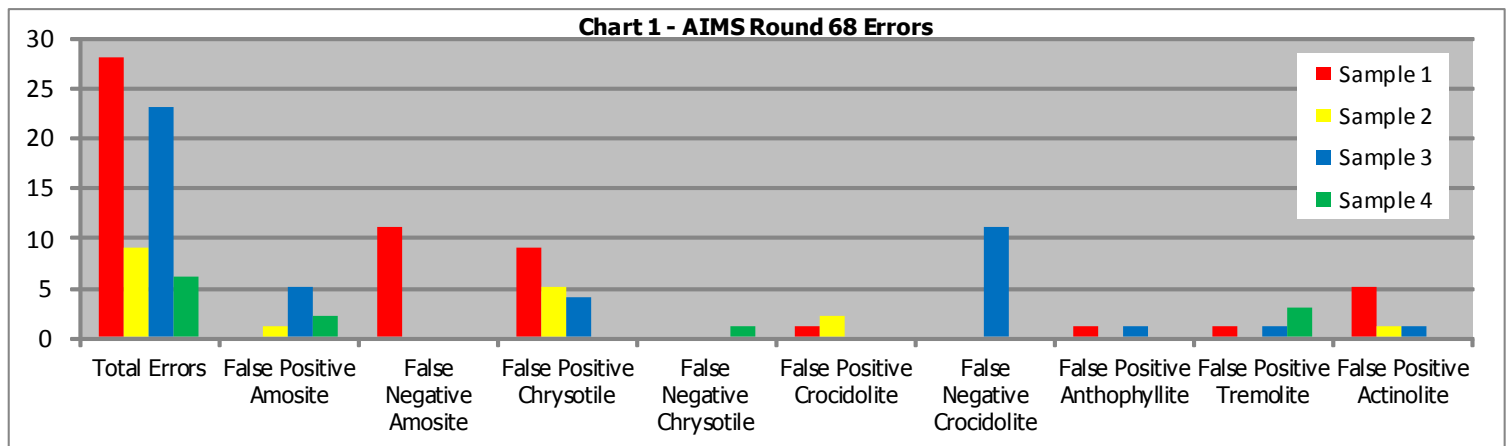
The majority of errors in this round involved samples 1 and 3 and mainly involved the failure to identify asbestos or mis-identifying the asbestos type present in each sample. Sample 1 was a manufactured cement sample with 0.1% by weight amosite asbestos. Analysts should be thorough during analysis of samples, analysing the whole sample, extracting fibres and if using optical microscopy ensuring all optical properties are observed before deciding on an identification. Sample 3 was a non-asbestos board material with a black painted layer containing crocidolite asbestos within the paint layer only. To ensure all component parts of the sample are analysed and to avoid missing any asbestos fibres it's often easier to analyse layered samples one layer at a time. Observation of the sample using the stereozoom microscope before any analysis can identify layers. Simply looking at the paint layer using the stereozoom microscope will show the outline of fibres which can then be extracted and analysed before progressing onto the rest of the sample.

Sample	Validation Number	Product Type	Target Component	Asbestos Present (%)
1	291	Cement (Manufactured)	Amosite	0.1%
2	292	Floor Tile (Manufactured)	No Asbestos	N/A
3	293	Board (Manufactured)	Crocidolite	0.5%
4	294	Cement (Commercial)	Chrysotile	UNKNOWN



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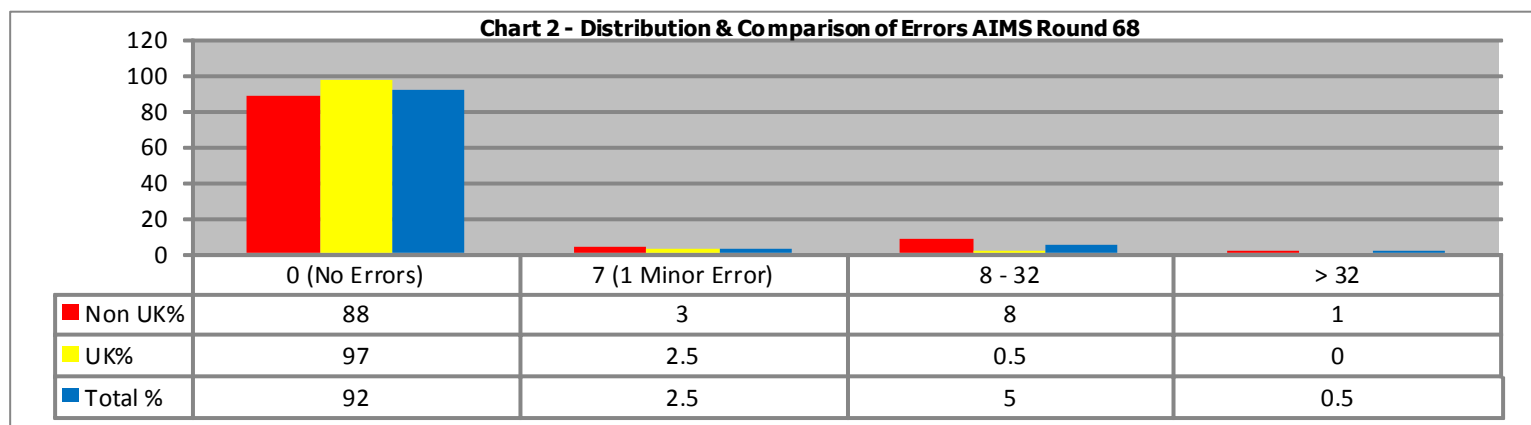
1. Type Of Errors Obtained



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

2. Round Scores

Chart 2 illustrates the distribution of scores for all participating laboratories. 351 (92%) 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; 174 (97%) UK laboratories and 177 (88%) Non-UK laboratories obtained a score of zero for the round.





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Chart 3 shows the percentage distribution of cumulative three round scores for all UK and Non-UK laboratories. 24 laboratories (6%) in total had not yet completed 3 rounds and therefore did not accumulate a score. Following this round, 304 laboratories (79%) obtained a good cumulative score (0 – 7 penalty points cumulatively). 47 laboratories (12%) obtained an acceptable cumulative score (8 – 32 penalty points cumulatively) and 11 laboratories (3%) obtained an unsatisfactory cumulative score (33 or more penalty points cumulatively).

Chart 3 - Distribution & Comparison of Cumulative Scores Following AIMS Round 68

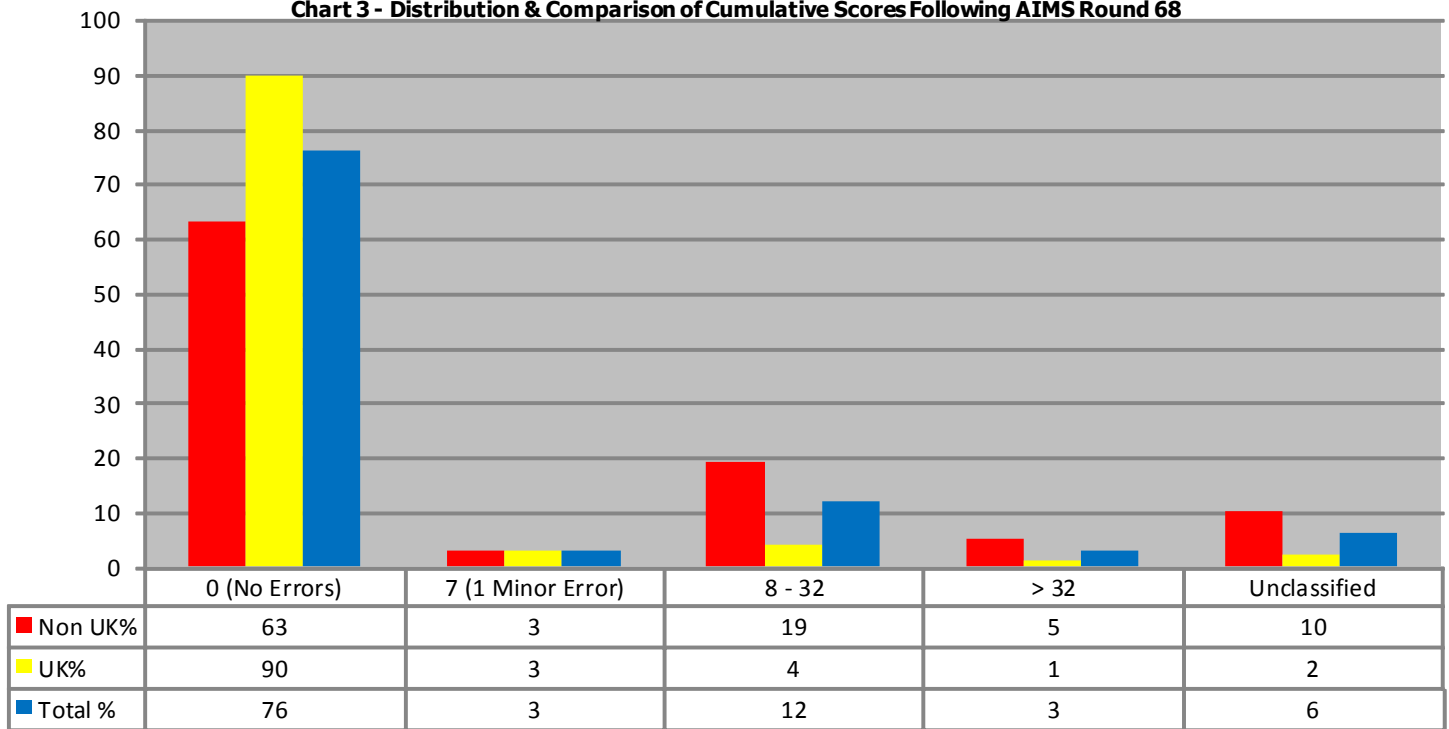
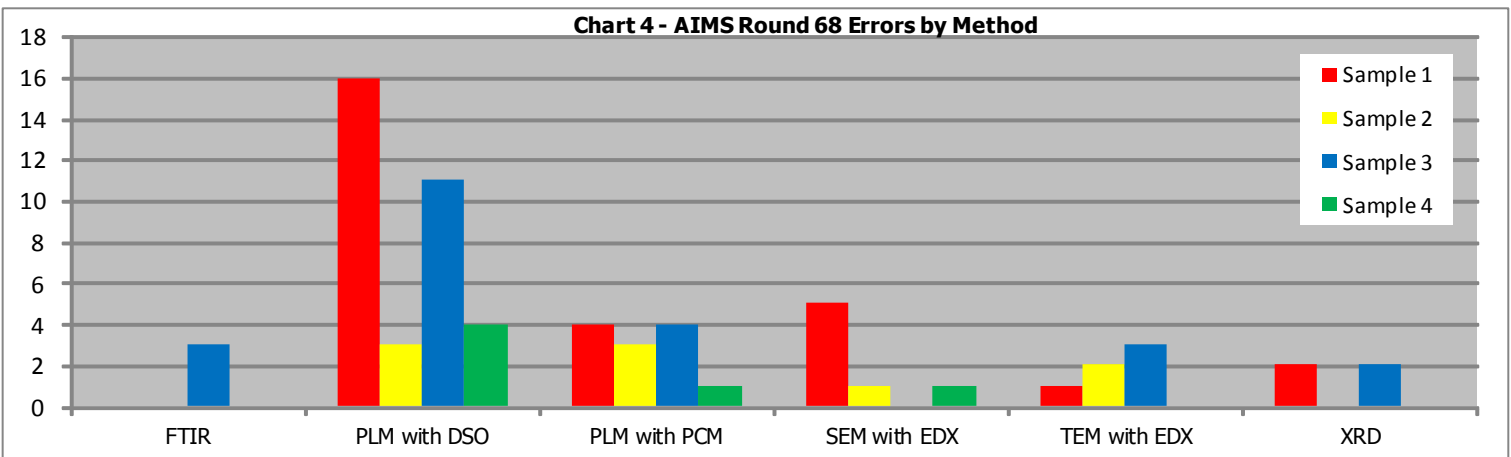


Chart 4 shows the number of errors made on each sample for all UK and Non-UK laboratories.

PLM - polarised light microscopy. DSO - dispersion staining objective. SEM - scanning electron microscopy. EDX - energy dispersive X-ray. TEM - transmission electron microscopy. FTIR - Fourier transform infra-red.

Chart 4 - AIMS Round 68 Errors by Method





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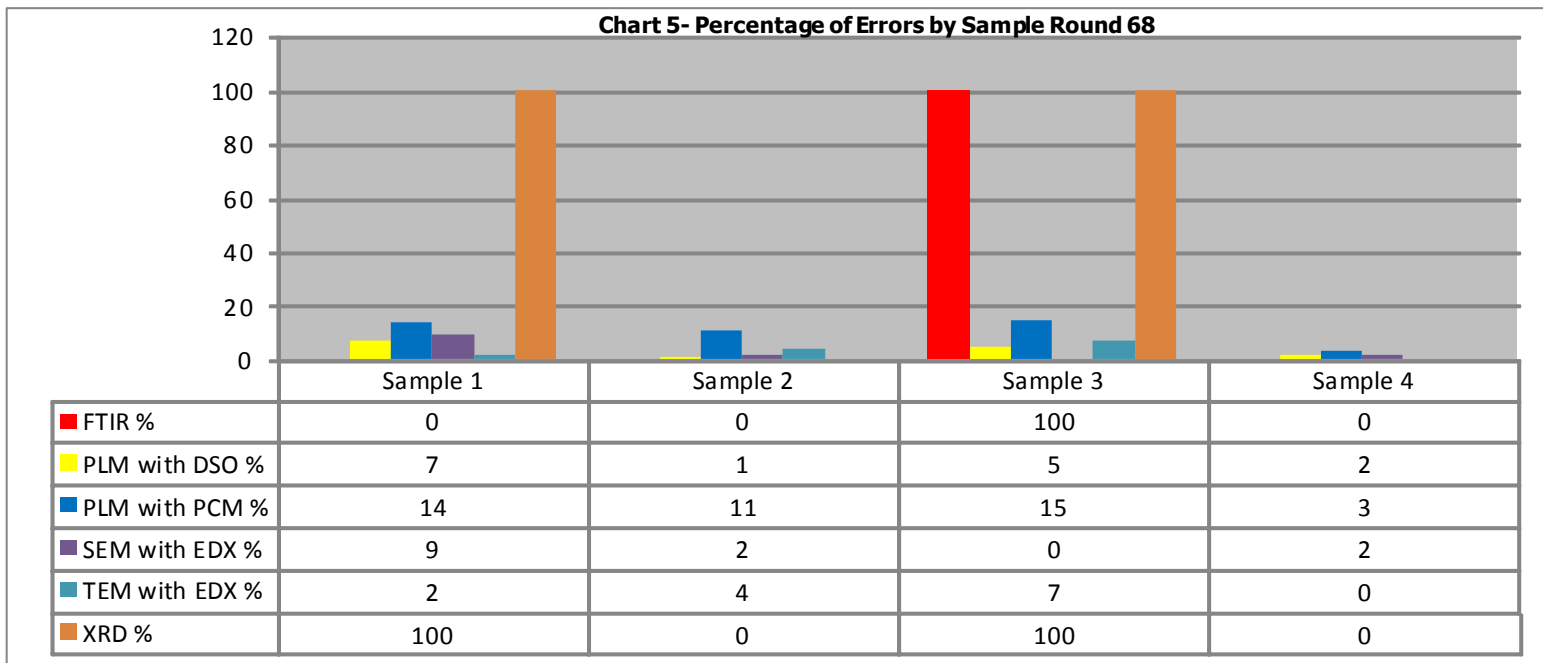


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Chart 5 shows the percentage of sample errors by method.

Of the 381 participating labs in R68 the method used in terms of the number of labs was as follows : FTIR, 2 labs; PLM with DSO, 215 labs; PLM with PCM, 28 labs; SEM with EDX, 55 labs; TEM with EDX, 46 labs; PLM with DSO & TEM with EDX, 18 labs; PLM with PCM & FTIR, 1 lab; PLM with PCM & SEM with EDX, 11 labs; Other, 4 labs and XRD, 1 lab. (Note: 100% has been entered for samples 1 and 3 with XRD as only one lab use this method but made two errors on both those samples and 100% on sample 3 for FTIR as 3 errors were made but only 2 labs use that method).



3. For Your Information - AIMS NEWS !!

Following R67 there were no sample investigations.

If you are unable to view your individual report it may be that the scheme payment is outstanding. This is a polite reminder that reports and future samples will not be despatched until full payment has been received.

AIMS QC - For new laboratories requiring additional rounds for accreditation purposes we have PT038A. Participants are able to purchase up to two additional rounds to help them gain accreditation sooner.

For laboratories who wish to replace the last round of AIMS, we have PT038R. Participants are able to replace one in three rounds of AIMS. If you wish to purchase any of our AIMS QC samples, please contact the PT Team for further information.

The next round of AIMS will be despatched week commencing 2nd September 2019.

Please note: with immediate effect our email address has changed to proficiency.testing@hse.gov.uk

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 AIMS Scheme Co-ordinator



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