



Group Report
Round 80
October 2023



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 80 Sample Details

380 labs were assigned to Round 80 with 371 laboratories submitting complete results. All samples were prepared for circulation following our normal internal screening process and were scanned using stereozoom microscopy to assess homogeneity and suitability. Approximately 10% of all samples prepared were validated by 18 independent laboratories using either PLM or SEM analytical techniques.

The round consisted of four manufactured samples of materials that may contain asbestos and would typically be submitted for analysis at an asbestos testing laboratory. Sample 1 was a manufactured textured paint on plasterboard sample with the paint layer containing amosite asbestos; Sample 2 was a manufactured mixed debris sample containing 0.2% crocidolite asbestos in a concrete powder, sand, aggregate, cat litter, wood flour and paper matrix; Sample 3 was a manufactured non-asbestos talc sample containing cotton mop head fibres and Sample 4 was a manufactured plaster sample containing 0.3% chrysotile asbestos.

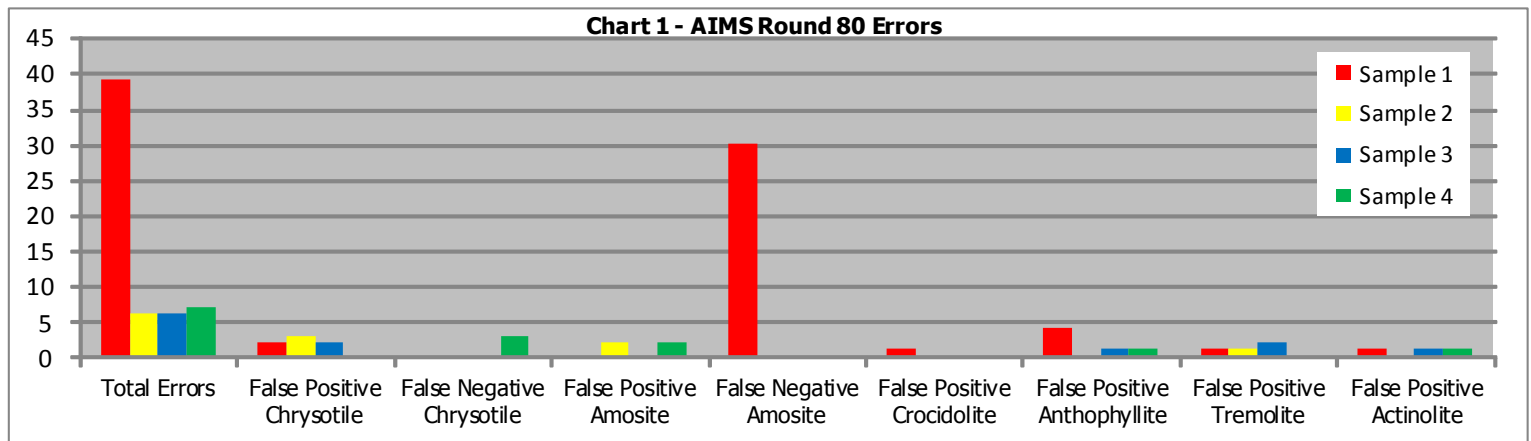
The majority of errors occurred on Sample 1 where a number of labs either missed or misidentified the amosite asbestos within the sample. All samples should be checked thoroughly with layered samples being checked layer by layer. Where obvious layers are present in a sample e.g. paint, plasterboard etc, then analysing each layer separately and carefully is recommended as this avoids contamination from other layers and can make the whole analytical process more straightforward. The amosite asbestos within the paint layer was very well spread throughout and consequently made this a more challenging sample at the stereozoom stage of analysis due to the absence of the thicker fibre bundle outlines typically seen in this type of sample. However, a detailed analysis of the paint layer by carefully scraping thin layers using tweezers should reveal individual fibres/thinner fibre bundles within the textured paint.

Sample	Validation Number	Product Type	Target Component	Asbestos Present (%)	Other Added Fibres Present
1	341	Textured Coating (Manufactured)	Amosite	0.7%	None
2	342	Mixed Debris (Manufactured)	Crocidolite	0.2%	Wood flour and paper
3	343	Talc (Manufactured)	No Asbestos	N/A	Cotton (mop head)
4	344	Plaster (Manufactured)	Chrysotile	0.3%	None



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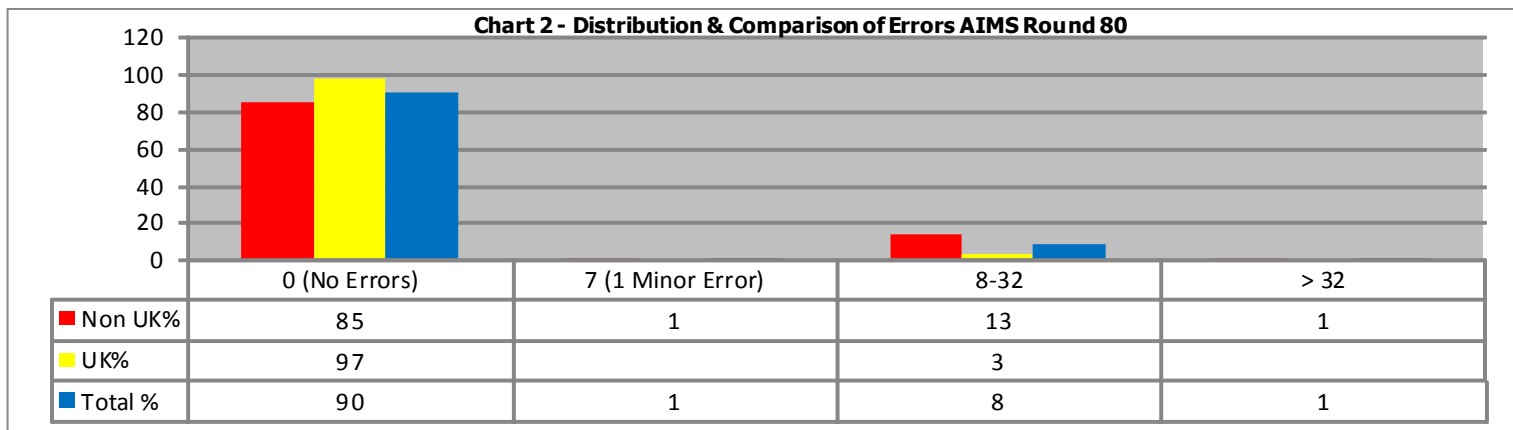
1. Type Of Errors Obtained



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. 334 (90%) 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; 154 (97%) UK laboratories and 180 (85%) 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. 35 laboratories (9%) in total had not yet completed 3 rounds and therefore did not accumulate a score. Following this round, 247 laboratories (65%) obtained a good cumulative score (0 – 7 penalty points cumulatively). 78 laboratories (21%) obtained an acceptable cumulative score (8 – 32 penalty points cumulatively) and 20 laboratories (5%) obtained an unsatisfactory cumulative score (33 or more penalty points cumulatively).

Chart 3 - Distribution & Comparison of Cumulative Scores Following AIMS Round 80

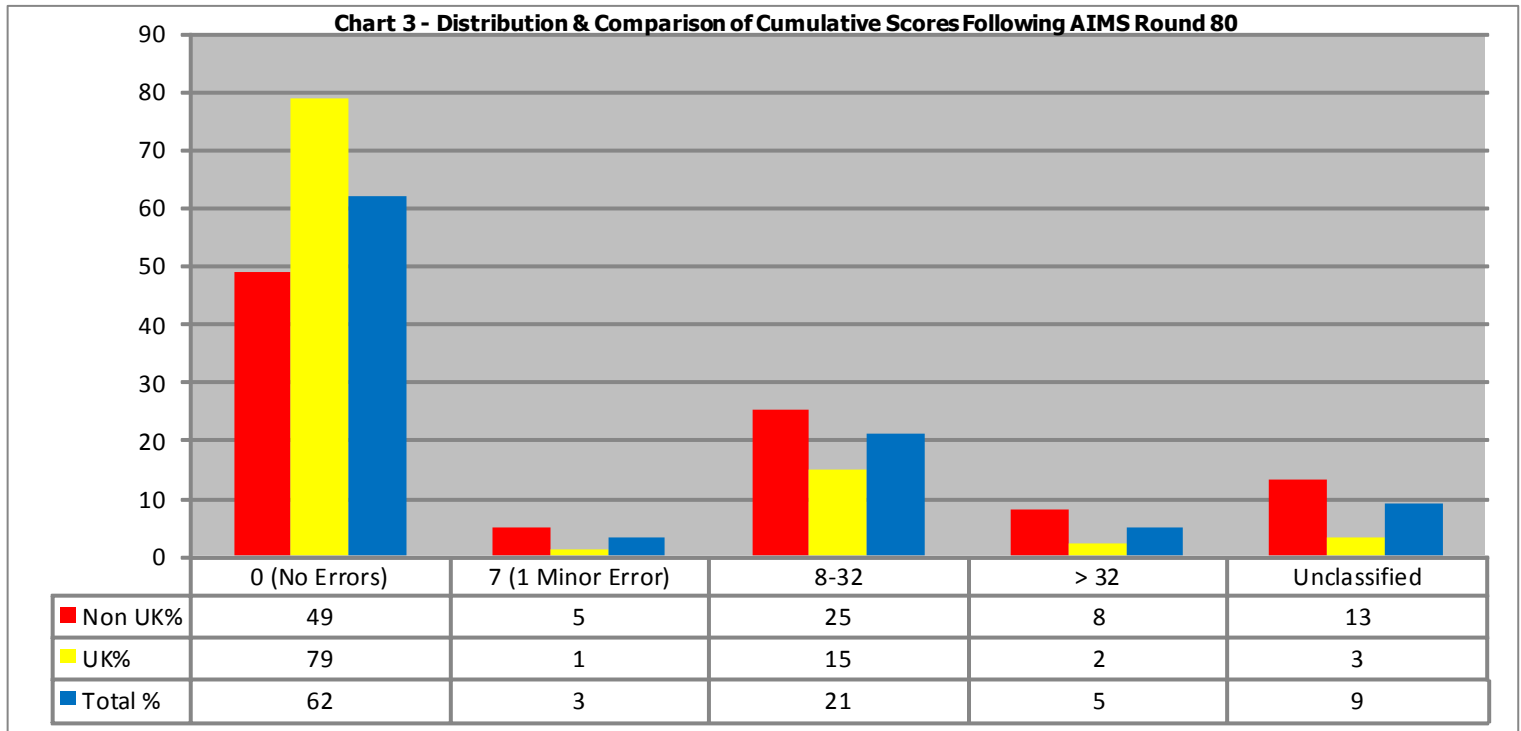
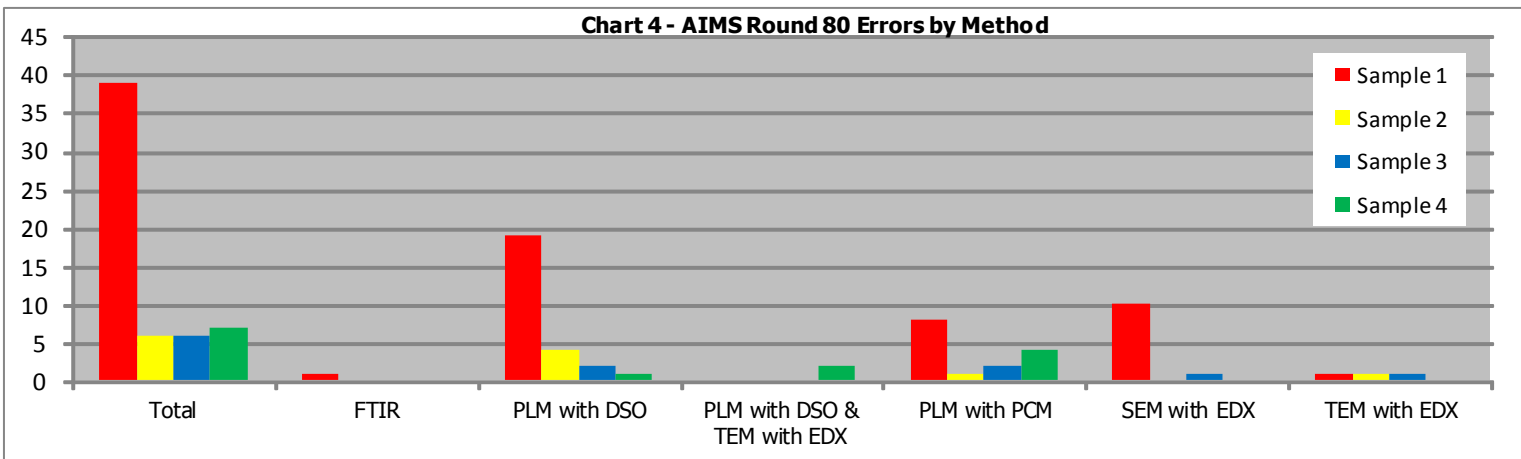


Chart 4 shows the number of errors made on each sample for all UK and Non-UK laboratories.

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

Chart 4 - AIMS Round 80 Errors by Method

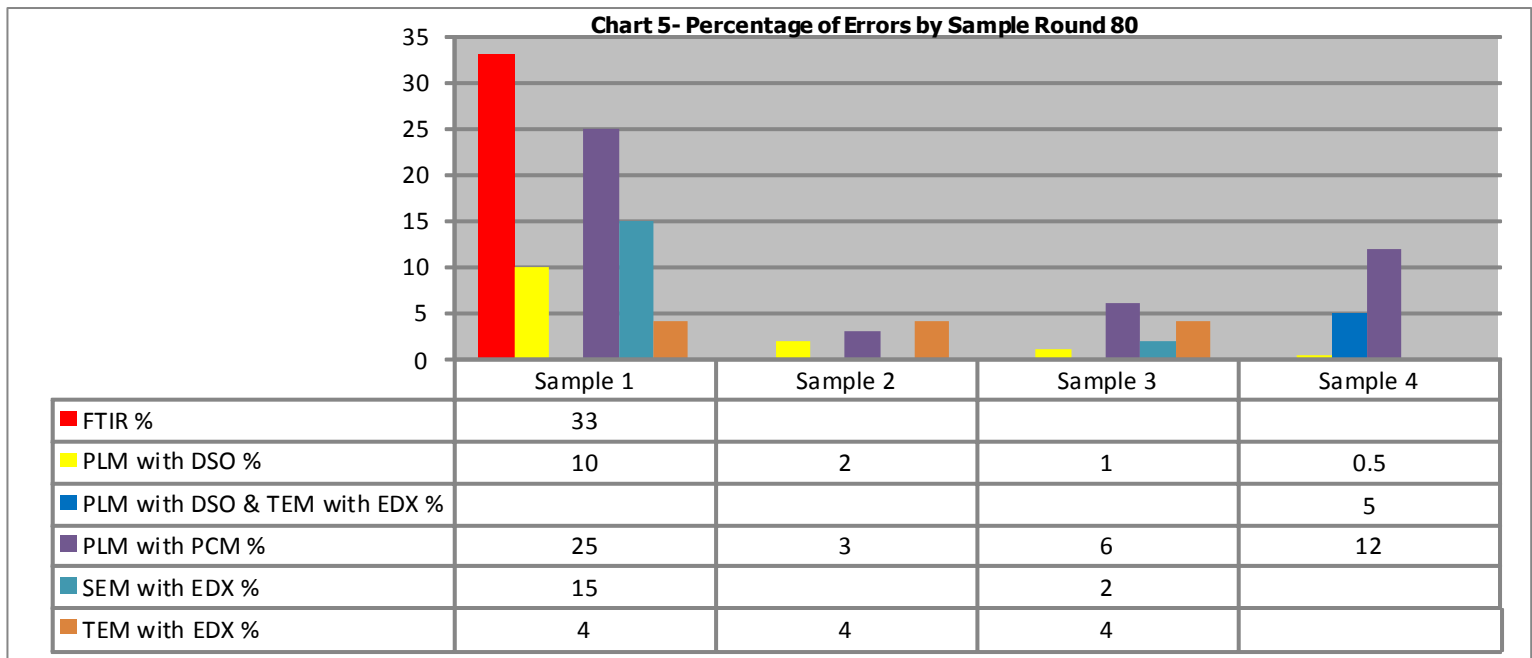




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Chart 5 shows the percentage of sample errors by method.

Of the 371 participating labs in R80 the method used in terms of the number of labs was as follows : FTIR, 3 labs; PLM with DSO, 193 labs; PLM with PCM, 32 labs; PLM with PCM and FTIR, 1 lab; SEM with EDX, 64 labs; TEM with EDX, 26 labs; PLM with DSO & TEM with EDX, 29 labs; PLM with PCM & SEM with EDX, 11 labs; PLM with PCM & TEM with EDX, 11 labs and Other, 1 lab.



3. For Your Information - AIMS NEWS !!

The PT Team will be packing the next round of AIMS (R81) during December - please ensure your contact details are up to date. If you need to make any changes, please email the PT Team to request a change of details form.

Following R79 there were no sample investigation requests. If you require a sample to be investigated by HSE please contact the team within 10 working days of the report being issued. Further details regarding sample investigations can be found in our Information Book for Participants, available in the Useful Links Section of our website page: <https://www.hsl.gov.uk/proficiency-testing-schemes/aims>

We have a wide range of quality control samples available to purchase, including additional rounds (PT038A) to help gain accreditation sooner, replacement rounds (PT038R) to replace the latest round of AIMS and past AIMS samples (PT040) for internal QC/ training: <https://www.hsl.gov.uk/proficiency-testing-schemes/pt-quality-control-samples>

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