

P401 - Identification of Asbestos in Bulk Samples by PLM

Explanation & Candidate Feedback for Practical Examination

Information For Candidate:

	Number	Error Codes
Sample Evaluation Supercritical Errors		
Other Supercritical Errors		
Critical Errors		
Non-Critical Errors		

Marking Schedule

Points are allocated to a candidate for each analytical error made. The magnitude of the score is dependent on the seriousness of the error.

For example, the failure to identify a trace component in a two asbestos component mixture, would not score as high as the failure to identify a major component in a two-component mixture or a trace asbestos component where no other asbestos type is present. Three types of error are considered.

Candidates are assessed as having satisfactory performance if their cumulative score over the six samples is less than or equal to 18. 19 or above will be deemed failure.

Error Classifications

1 Supercritical Errors (Sample Evaluation):

A supercritical error is an error which is analytically unacceptable, and which would have serious consequences if committed in reality. Such an error might be the failure to detect a single asbestos component of significant proportion in a matrix that would not impair detection, scores 20 points.

- SC 1 - Failure to find a significant component in a single component sample
- SC 2 - Failure to find any significant component in a two-component sample
- SC 3 - Failure to find any significant component in a three-component sample

2 Supercritical Errors (Others):

Recording the sample number erroneously, destroying or contaminating a sample or analysing the same sample twice are regarded as analytically unacceptable. They are scored as super critical errors and therefore score 20 points.

- SC 10 - Sample number wrongly recorded
- SC 11 - Same sample analysed twice
- SC 12 - Asbestos types wrongly spelt and ambiguous
- SC 13 - Destruction or contamination of sample

3 Critical Errors:

A critical error is an error, which though analytically unacceptable, might not have significant consequences if committed in reality.

Such an error might be the failure to detect a significant proportion of one asbestos component in the presence of an already detected asbestos or to report asbestos where none exists, scores 12 points.

- C1 - Asbestos found in a non-asbestos containing sample
- C2 - Failure to find a non-significant component in a single component sample
- C3 - Failure to find a significant component in a two-component sample
- C4 - Failure to find a significant component in a three-component sample
- C5 - Failure to find two significant components in a three-component sample (scores as 2 critical errors)
- C6 - Asbestos type wrongly spelt but correctly identified
- C7 - Additional asbestos type found and wrongly spelt

4 Non-Critical Errors:

A non-critical error is an error, which is analytically almost acceptable and would have no significant consequences if committed in reality.

Such an error might be a false positive identification of one or more asbestos in the presence of an already detected amphibole asbestos, or the non-detection of a non-significant proportion of asbestos in the presence of other asbestos species, or the identification of Tremolite or Anthophyllite as Actinolite or vice versa.

The wrong designation of Tremolite or Anthophyllite present in a sample as each other does not score as an error. All others score 7 points.

In addition, use of the term "Fibrous Grunerite" as an alternative to "Amosite" or vice versa does not score as an error.

- NC1 - Additional component found in a non-asbestos containing sample
- NC2 - Additional component found in a single asbestos containing sample
- NC3 - Additional component found in a two-asbestos containing sample
- NC4 - Additional component found in a three-asbestos containing sample
- NC5 - Incorrect identification of the type of asbestos in a sample
- NC6 - Failure to find a non-significant component in a two-component sample
- NC7 - Failure to find a non-significant component in a three-component sample
- NC8 - Failure to find two non-significant components in a three-component sample (scores as 2 non-critical errors)
- NC9 - Failure to find three non-significant components in a three-component sample (scores as 3 non-critical errors)

5 Normal Examination Samples:

* Normally, examination sets are made up as follows:

One sample with more than two components present, usually three, or a sample containing rare type plus another common component.

- Two samples containing two components
- Two samples containing one component. One of which could be a less common type
- One sample without asbestos

Where samples have given problems during the AIMS rounds, they are not selected for examination purposes.

(* When there are sample supply problems then the above may have to be varied.)