



Asbestos Testing under NEPM Guidelines and the Australian Standard

Identification by AS4964 compared with Quantitation per NEPM 2013

ALS is NATA accredited for the Qualitative Identification of Asbestos in bulk materials, including soils under the Australian Standard AS4964-2004. This procedure involves analysis and identification of extracted fibres by Polarised Light Microscopy including dispersion staining.

The ALS procedure for Asbestos Classification and Quantitation per NEPM 2013 with Confirmation of Identification by AS 4964 – 2004 involves extraction, identification and gravimetric determination of Asbestos Containing Material, Asbestos Fines and Friable Asbestos (FA+AF) and sample weight. Percentage concentrations are calculated according to NEPM protocols and assumption in regard to Asbestos content.

The percentage Asbestos in ACM in Soil is reported on the basis of ACM having a 15% Asbestos Content whilst FA+AF is conservatively taken as 100% Asbestos and reported as the equivalent weight in the sample received after accounting for sub-sampling (where applicable for the <7mm and/or <2mm fractions).

The table below outlines the key difference between the methods, as applied by ALS.

Asbestos in Soil	EA200: AS4964-2004	EA200N: NEPM 2013 (incl. AS4964)
Intent	Qualitative Identification	Qualitative Identification, Classification and Quantitation of each Asbestos form
Sample Size	<100g	500mL to 10L
Stage of Analysis	Process/Determination	
Pre-weighing	Whole sample Weight/Dimensions	Whole sample Weight
Coarse Sieving	10mm Sieve	7mm Sieve Weight of >7mm fraction
Coarse Material Assessment	Fibre Extraction and Identification	Fibre Extraction and Identification Separation of ACM Weight of ACM
Sieving of Intermediate Fraction	2mm Sieve	2mm Sieve Weight of >2mm fraction
Sample reduction for Intermediate Fraction	NA: Entire sample examined	Subsampling if <7mm fraction is >1kg
Intermediate Material (>2mm) Assessment	Fibre Extraction and Identification	Fibre Extraction and Identification Separation of FA+AF >2mm Weight of FA+AF >2mm
Sample reduction for <2mm fraction	Subsampling if <2mm fraction is >60g	Subsampling if <2mm fraction is >60g
Fine Material <2mm Assessment	Fibre Extraction and Identification	Fibre Extraction and Identification Separation of FA+AF <2mm Weight of FA+AF <2mm
Homogenisation	Grinding/homogenisation	Grinding/homogenisation
Trace Analysis	Mount fines on microscope slide Presence/Absence of free fibres	Mount fines on microscope slide Presence/Absence of free fibres

¹ Sub-sampling of the whole sample or coarse material is not recommended by ALS or allowed under NATA accreditation, however this may be carried out with the consent of the client for large samples.

² Sub-sampling of the <2mm fraction is required under the Australian Standard if the <2mm fraction is >60g.

