

Australian Standard[®]

Methods of testing soils for engineering purposes

Method 1.4.2: Sampling and preparation of soils—Selection of sampling or test sites—Stratified random number method

1 SCOPE This Standard sets out the method for selecting the location of test or sampling sites where a test site or stockpile is divided into strata from which individual samples or subsamples are to be taken. The method uses random numbers obtained from a random number table (see Table 1) or generated using a suitable electronic calculator or algorithm.

The method is based on ASTM D 3665.

2 REFERENCED DOCUMENTS The following document is referred to in this Standard:

ASTM

D 3665 Standard practice for random sampling of construction materials

3 PROCEDURE

3.1 Selection of a random number A random number shall be selected using either of the following procedures:

- (a) *Using Table 1* The procedure shall be as follows:
 - (i) Obtain a row number (R) corresponding to the first two digits of a number found by blindly pointing to Table 1. Either page of the Table may be used but alternate between successive uses.

NOTE: The digits 0.001 to 0.009 are invalid for choosing a row number. The number 1.000 is used for row number 100.
 - (ii) Obtain a column number (C) corresponding to the first digit of a number found by blindly pointing a second time to the Table.
 - (iii) Obtain a random number (r) corresponding to the intersection of Row (R) and Column (C) in the Table.

Example:

First number selected is 0.548 which gives Row (R) 54

Second number selected is 0.457 which gives Column (C) 4

Row 54 Column 4 gives $r = 0.223$

- (b) *Using a calculator* A random number shall be generated using a suitable calculator or computer by following the manufacturer's instructions. Where a starting (seed) value is required, the value shall be varied between test areas or lots.