SECTION 32 – SOIL TESTS AND SOIL SAMPLES

0705. Soil tests are of three kinds:

a. Field identification tests, which will give an indication of the stability of the soil. There tests are described in RESPB No. 5_D (WO Code. 8679), Chapter 4 and should be carried out by the reconnaissance party.

b. Sieve analysis, to determine particle size distribution. This may be carried out either in the field, using the field soil test kit, or in a laboratory. The procedure is described in RESPB No. 5_D, Chapter 5.

c. Laboratory analysis, carried out by mobile laboratories, Tests are described in RESPB No. 5_D, sections 13, 14, 20 and 34. After analyzing the tests the laboratory should make recommendation regarding the appropriate method of construction, the type of base, and the thickness of pavement required.

0706. Soil samples. Soil samples must be taken, preferably by the reconnaissance party, to enable laboratory tests to be carried out. They must be truly representative and br properly packed and clearly identifiable.

For the full range of tests samples should weight not less than 10 lb (preferably 20 lb in the case of gravels). Much larger samples up to 200 1b in weight may be needed for soil stabilization tests.

The number and location of test holes must be judged by the reconnoitering officer, who should ensure:-

a. That sample are representative of the whole area to which the test results will be applied.

b. That natural drainage lines are tested.

c. That samples are taken where a charge of vegetation may indicate a change of soil.

0707. Taking samples. Remove the topsoil, which usually contains a high percentage of organic matter. By means of an earth auger or by digging test pits, take specimens to a depth of not less than 3 ft (preferably 4 ft). Take specimens at every foot of depth or where the composition of the soil appears to change.

0708. Packing and labeling sample. It is most important that none of the fine material in the sample should be lost in transit. The sample should be packed either in a canvas bag (supplied by the laboratory) or in a tin. If the soils moisture content is to be determined put the sample in an airtight tin seal it with insulating tape and deliver to the laboratory without delay.

Two labels should be used one inside the container and the other firmly attached to the outside. Labels state:

a. Job number.
b. Date sample taken.
c. Test hole identification letter or number as recorded on the site plan.
d. Sample number and depth from which taken.

A typical label is shown is Figure7.1.

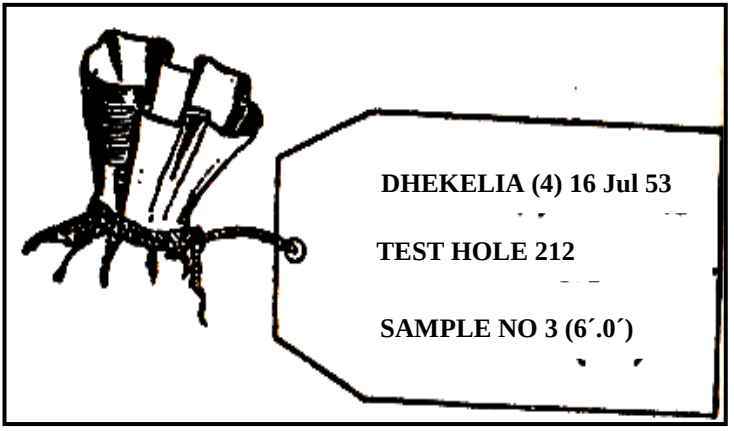

Figure7.1: Label for Soil Sample