METHODS OF SAMPLING AND TESTING
MT 303-14
SAMPLING BITUMINOUS PAVING MIXTURES
(*Modified* AASHTO R 97)

1 Scope

1.1 These methods cover sampling of bituminous paving mixtures at points of manufacturer, storage, delivery, or in place.

2 Referenced Documents

AASHTO
R 47 Reducing Samples of Hot Mix Asphalt (HMA) to Testing Size
R 97 Sampling Asphalt Mixtures

ASTM
D979 Sampling Bituminous Paving Mixtures

MT Materials Manual
MT 601 Materials Sampling, Testing and Acceptance Guide

Alberta Transportation ATT Test Procedures
ATT 37 Sampling, Mixes

3 Inspection

3.1 Inspect the material to determine discernible variations. Ensure the contractor provides equipment needed for safe and appropriate inspection and sampling.

4 Sampling Procedure

4.1 *Importance of proper sampling* – Sampling is equally as important as testing. Take every precaution to obtain samples that show the true nature and condition of the materials they represent. Test results are valuable only when the tests are performed on representative samples. Take samples in accordance with the following procedures, so there will be no question as to validity. This is very important in case of a test failure, which may be the basis for rejection of the material.

4.2 *Sampling from Truck Transports* – Select the units to be sampled from the production of materials delivered. Obtain a minimum of three approximately equal increments as shown in Figure 1 and combine to form a field sample. Obtain the sample by collecting the increments with a scoop or shovel. Avoid sampling the extreme top surface.

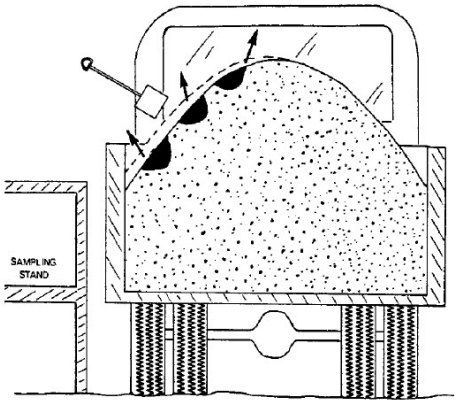


Figure 1. Sampling from Truck Transports

4.3 *Sampling from a Paver Auger* – Obtain samples from the end of the auger using a square head shovel. Place the shovel in front of the auger extension, with the blade flat upon the surface to be paved over. Allow the front face of the auger stream to cover the shovel, and remove the shovel before the auger reaches the shovel by lifting it upward as vertically as possible. Obtain sample from a minimum of three equal increments of material.

4.4 *Sampling from a Windrow* – Obtain a representative sample from the windrow of one transport unit. Combine a minimum of three approximately equal increments as shown in Figure 2.

1. Use the shovel to flatten a sufficient length of the windrow, discarding the material to either side.

2. Dig into the windrow's top at three or more equally distributed points along its flattened portion. Do not include material from the subgrade or base. The sample is the total mix from three or more holes.

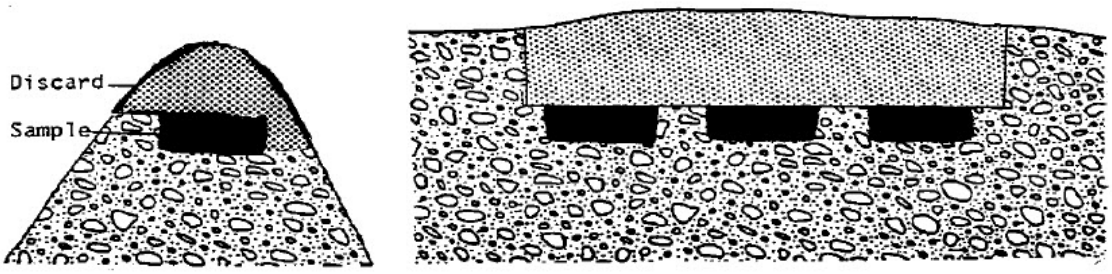


Figure 2. Sampling from a Windrow

4.5 *Sampling from Bituminous Cold Mix or Recycled Asphalt Pavement (RAP) Stockpiles* – Cold mixes that are in a stockpile for some time may develop a crust on the surface of the pile. Remove this crust to a depth of 4 inches, over an area of one square yard, to expose the un-weathered mix as shown in Figure 3. Stir the exposed stockpile and obtain three approximately equal samples selected at random, and combine to form a field sample.

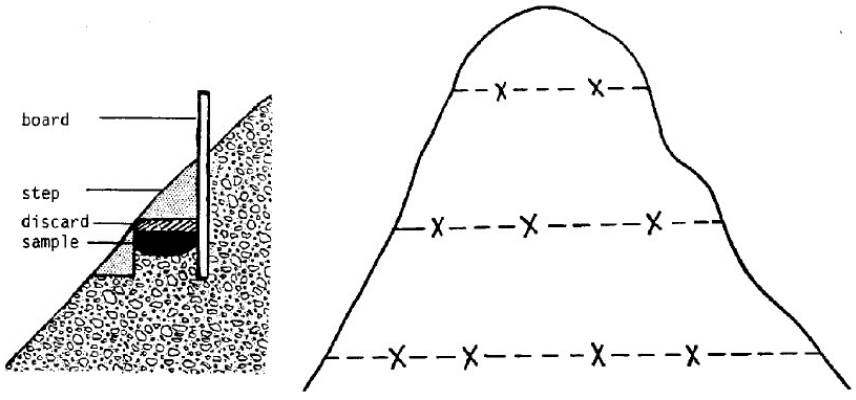


Figure 3. Sampling from a Stockpile

5 Number and Quantities of Field Samples

5.1 Designate each unit from which a field sample is to be obtained prior to sampling.

5.2 Refer to MT 601 for sample size. The quantities depend on the type and number of tests to which the material is to be subjected. Obtain sufficient material to provide for the proper execution of standard control and acceptance tests.

6 Securing or Submitting Samples

6.1 Transport samples in containers constructed to minimize heat loss, contamination, or damage to the sample from mishandling during shipment.

6.2 Record pertinent information in the Quality Assurance Suite (QA Suite) Plant Mix section.

6.3 Attach identification to each Hamburg sample sent to a district or headquarter lab.

6.4 Create an AASHTOWare Sample Record and attach to any plant mix sample sent to a district or headquarter lab.

6.5 Use tamper resistant container(s) when sample(s) leave Department custody.

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