

A sample of the record in the book, selected at random, is given in tables 5 and 6.

Samples were collected on all parallel entries approximately opposite one another; peripheral samples were taken, hence the same analyses for bottom, roof, and ribs in each sample.

The report on barriers shows the condition of each to be good. The State law allows substitution of rock-dusting for barriers, and at present virtually all barriers have been abandoned in favor of rock-dusting in the trackless entries.

Data are not available on the application of rock dust on a basis of pounds per linear foot; however, during the calendar year 1938, 444 tons of limestone dust was applied, the equivalent of 1.36 pounds of dust per ton of coal mined. The total cost for labor and materials was less than 1 cent per ton for rock-dusting during 1938.

COST OF ROCK-DUSTING

To a large extent, the cost of rock-dusting depends on the quantity of dust used per linear foot of entry or per ton of coal mined. For comparative purposes, the cost of rock-dusting per ton of coal mined probably is the most equitable basis.

The cost of rock-dusting in 27 widely scattered mines is shown in table 7. Most of these are large mines and their rock-dusting program is more consistent than that of the average rock-dusted mine. Therefore, these cost figures do not represent the cost of rock-dusting in the average mine in the United States, but represent the cost in mines that are more concerned with safety than is the average mine.

The cost of rock-dusting ranges from \$0.0019 to \$0.0184 (an average of \$0.0089) per ton of coal mined. The cost per linear foot of entry ranges from \$0.0110 to \$0.0417 (an average of \$0.0229 per foot).

Not a great many data are available concerning cost of hand dusting. However, cost data from one mine on the hand dusting of 1,015 feet of 6- by 10-foot entry show that the cost of applying 8.1 pounds of dust per linear foot of entry was \$0.0467. At another mine the cost of applying by hand 4.1 pounds of dust per linear foot was \$0.0326.

The cost per linear foot of applying 3.4 pounds of rock dust in trackless entries with a high-pressure dust distributor through a 4-inch hose is reported by another company as \$0.0326.