

CHAPTER IV

CRUDE PETROLEUM PRODUCTION, CONSUMPTION, STOCKS, AND PRICES

Section 1. Methods of marketing crude petroleum.

Running crude into gathering lines.—As already pointed out, crude petroleum in all the oil fields of this country is collected or gathered from the thousands of oil wells by a system of pipe lines called gathering lines. When crude petroleum is brought from the oil pool to the surface of the earth through the tubing of an oil well, either by pumping or by gas pressure, there is mixed with it varying percentages of water, sand, and other sediment. In order to separate the water and sediment from the crude it is run into tanks called settling tanks where the water and other sediment is allowed to settle to the bottom of the tank before the crude is run into the gathering lines.

The crude run into the gathering lines also carries more or less sediment. Usually the purchasing company makes a deduction of 3 per cent from the total quantity to cover any water or sediment remaining in the crude run from the producer's tanks. Particularly for purchases of large quantities and where the crude is known to contain a large proportion of water and sediment, additional deductions are based on centrifugal tests. As crude petroleum expands upon being heated, adjustments are made to cover changes in quantity due to difference in temperature.

When a producer first sells crude petroleum, or when new wells are brought in, the pipe-line company gathering the crude connects the producer's tanks with its gathering lines. The cost to a pipe-line company of making a "connection" with a new producer or with a new lease varies widely from a few hundred dollars to \$2,000, or even more. In some cases in a given oil pool a producer may have his tanks connected with two or more pipe-line systems, but in practice many small producers are limited to but one purchaser because only one pipe-line system is available. As a rule a producer is free to have his property disconnected from one pipe-line system and connected with another, and this may occur if the quantity he has to sell is sufficiently large to make it attractive for a rival pipe-line company to make a connection. In some cases, where the expense of making a connection is very large, the pipe-line company making it insists upon a contract guaranteeing to it the output of the well or lease for a specified time.

When a producer has a tank full of crude petroleum ready to deliver to the pipe-line company he notifies the company's gauger, who, after gauging the contents of the tank, opens a valve that permits the crude to flow or to be pumped from the tank into the gathering lines. Later, after the tank has been emptied to a certain point,