

REPORT OF
THE
COMMITTEE ON PETROLEUM PRODUCTION AND CRUDE AVAILABILITY
OF THE
NATIONAL PETROLEUM COUNCIL

Washington, D. C.
July 10, 1947

(As adopted)

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In order to determine the present status of petroleum production and availability in the United States, subcommittees were appointed to survey the problem by areas. It was decided that the most practical basis to use would be the five regions designated during the war period as P. A. W. districts 1, 2, 3, 4 and 5.

Reports have been received from each of the subcommittees covering current production and availability within these areas. This report represents an analysis and summary of the findings of these groups.

Before discussing the detailed figures for the various areas, the Committee believes it desirable to comment on certain underlying factors which have an important bearing on the overall question of both present and future availability of petroleum and its products.

During 1941, the year prior to the entry of the United States into the war, production of crude petroleum in the United States averaged 3,842,000 barrels per day. At that time the petroleum industry in this country had a reserve capacity to produce under sound conservation methods equal to approximately 1,000,000 barrels per day over and above the requirements of that year. This reserve capacity had been built up by a continued and expanding program of exploration and development.

During the war period the activities of the industry were severely curtailed by restrictions on manpower, materials and funds. As a result of these restrictions it was impossible to carry on the drilling program required by the constantly increasing demands to maintain the same excess reserve capacity that existed at the beginning of the war. It has been estimated that approximately 67,000 wells were not drilled during the past five years that should have been drilled to keep pace with the rising demands. At the present time, exploration and development activity is still handicapped by a shortage of materials, particularly steel tubular goods. If casing and line pipe were obtainable it is the opinion of the Committee that substantial quantities of oil would have been available. The Producing branch of the industry has had to search for pipe with as much vigor as it normally uses in looking for new oil pools.

Present production of crude petroleum in the United States averages about 5,100,000 barrels daily, almost 1,300,000 barrels or 33 percent higher than in 1941. This large increase in output combined with the above mentioned restrictions over the past five years are important factors that must be recognized in any survey of the current production and availability position. We call attention to the fact that despite all difficulties the industry is now producing more oil than it ever has.

The Committee also wishes to emphasize, in connection with this problem, the fact that serious technical difficulties are involved in any attempt to accurately measure productive capacity. In addition, productive capacity in the petroleum industry is never a static condition but instead may and does change to a marked degree from month

to month. It must be kept in mind, therefore, in considering the following data that these figures, although representing the best estimates possible, within the limited time, are subject to some variation and will not be applicable to the position in the future.

The following paragraphs summarize the situation in each district as reported by the various subcommittees:

P. A. W. DISTRICT 1:

The Subcommittee for District 1 reported that there was no known curtailed production due to transportation difficulties or other causes. The availability of crude petroleum from this area therefore, may be considered as the equal to the current rate of production of approximately 56,100 barrels daily.

P. A. W. DISTRICT 2:

The Subcommittee for this District reported that present output from all states within the area approximates the maximum efficient rate although the completion of unitization of two fields may make possible some increase in the efficient rate within the next few months. However, for purposes of present availability, the current output within the district of 960,200 barrels daily may be considered as representative.

P. A. W. DISTRICT 3:

The Subcommittee for District 3 reported a total maximum efficient rate of production of crude oil within the area at the present time equal to 3,108,750 barrels per day. Actual production within the area at the present time averages 2,980,000 barrels daily. This would indicate an excess productive capacity of 128,750 barrels daily over and above current withdrawals. This additional crude is

unavailable due to lack of transportation, either by rail or pipeline. As soon as the tubular steel becomes available, pipeline capacity will be built as definite projects are authorized, and are only held up by the shortage of steel.

P. A. W. DISTRICT 4:

The Subcommittee reported that the present daily average production in District 4 equals 190,085 barrels per day and that there is now 36,285 barrels daily of shut-in production, practically all of which is in Wyoming and Colorado. Of this excess productive capacity, about 20,000 barrels daily is shut-in in the Rangely field in Colorado because of a lack of sufficient pipeline capacity. An additional 10,000 barrels daily represents shut-in production in the Elk Basin field in Wyoming.

P. A. W. DISTRICT 5

According to the report from the Subcommittee in District 5, there is at present no excess capacity over and above the current rate of production and, therefore, the present output of approximately 920,000 barrels daily may be considered as the current availability of crude petroleum in that area.

SUMMARY OF ALL DISTRICTS:

Summarizing the above data submitted by the various Subcommittees the present situation as to crude production and availability appears in the following tabulation:

AVAILABILITY AND PRODUCTION OF CRUDE PETROLEUM

BY P.A.W. DISTRICTS AS OF JUNE 10, 1947

(Barrels per Day)

	<u>Total Available</u>	<u>Actual Production</u>	<u>Excess Productive Capacity</u>
District #1	56,100	56,100	-----
District #2	960,200	960,200	-----
District #3	3,108,750	2,980,000	128,750
District #4	226,370	190,085	36,285
District #5	<u>920,000</u>	<u>920,000</u>	<u> </u>
TOTAL	5,271,420	5,106,385	165,035

The above figures cover crude petroleum only. With regard to the production and availability of other petroleum liquids such as natural gasoline and allied products, the figures on current production of these products represent the best measure obtainable by this Committee of present availability. The shortage of materials is also delaying construction and completion of many projects that add to the supply of these products. These production figures are as follows:

AVAILABILITY OF NATURAL GASOLINE AND ALLIED PRODUCTS

BASED ON CURRENT PRODUCTION BY P.A.W. DISTRICTS

	<u>Production in Barrels Daily</u>
District #1	10,300
District #2	48,780
District #3	264,700
District #4	3,200
District #5	<u>67,200</u>
TOTAL	394,180

In conclusion, the Committee wishes to emphasize again the fact that the above figures must be limited to the situation as it exists today and in no sense represent future productive capacity or availability which is dependent upon the extent and results of exploration and development work now in progress or not yet drilled. Due to steel shortage many proven locations must be postponed until the supply is available. It is considered opinion of this Committee that the productive capacity of both crude petroleum and other liquid hydrocarbons can be increased by a substantial volume if the necessary supplies of steel products, particularly tubular goods, can be made available to the industry so that additional wells can be drilled in producing areas and other necessary facilities can be constructed. The Oil producers, both large and small, are doing a magnificent job in the face of these difficulties, but production availability inevitably suffered as a result of these shortages.

While the above information reflects the considered opinion of the Committee and those in the industry who cooperated, we wish to acknowledge the fine cooperation of the various state regulatory bodies and the Interstate Oil Compact Commission in making data available.

Respectfully Submitted,
For the Committee

Major B. A. Hardey,
Chairman