

REPORT OF THE
NATIONAL PETROLEUM COUNCIL'S
COMMITTEE ON QUEBRACHO REQUIREMENTS
OF THE PETROLEUM INDUSTRY (1951)

October 31, 1951

JOHN R. SUMAN, CHAIRMAN

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REPORT OF THE NATIONAL PETROLEUM COUNCIL'S COMMITTEE
ON QUEBRACHO REQUIREMENTS OF THE PETROLEUM INDUSTRY (1951)

September 20, 1951

Mr. Walter S. Hallanan, Chairman
National Petroleum Council
Suite 601, 1625 K Street, N. W.
Washington 6, D. C.

Dear Mr. Hallanan:

Submitted herewith is a Report of the Committee on Quebracho Requirements of the Petroleum Industry. The report is based on an analysis of returns to the Committee's questionnaire which was sent out to the suppliers in the recent past and an appraisal of industry utilization of various substitutes. The salient features of the report may be summarized as follows:

1. Whereas the April 1949 report related to what the industry should do should imports of quebracho be denied to this country in an emergency, the present report relates to the conduct of oil drilling operations under the circumstances that exist at the present time when it appears that quebracho is over-all in adequate supply.
2. The Committee and many in the industry question the necessity for restriction of the use of quebracho by the oil industry at this time.
3. The oil industry has in the past two years done an outstanding job in increasing its utilization of substitutes for quebracho, having increased them from 960 tons per year in 1948 to a rate of 10,800 tons per year in 1951. This is an increase of 1100 percent. In spite of this increase in the use of substitutes, demand for quebracho has increased 120 percent of the 1948 level, being in 1951 30,000 tons per year, prior to Order M-57
4. In view of increased requirements of drilling operations over the past two years and the potential high demand for the future, no reduction in the use of quebracho by the oil industry should be made, particularly in view of the fact that there are presently inadequate facilities for production of substitutes. Plant facilities for production of substitutes cannot be increased before the middle of 1952. Moreover, as the industry is being called upon to increase its producing potential, the use of quebracho should not be restricted as long as the material is available in adequate supply in the world market and can be transported to our shores.

We should appreciate your advice, after your consideration of this report, as to whether there is any need for further study of this question by the Committee.

Respectfully submitted,

/s/ John R. Suman

John R. Suman, Chairman

Attachment

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ON QUEBRACHO REQUIREMENTS OF THE PETROLEUM INDUSTRY (1951)

We submit the following data relative to the utilization of quebracho and quebracho substitutes. This material has been prepared to supplement the information submitted by the Committee's report of April 1949. In this connection, it is of importance to direct attention to the premise upon which the April 1949 report was based. The question that was submitted to the Committee at that time related to what the industry would do should imports of quebracho be denied to this country in an emergency since this material is wholly imported from Argentina and Paraguay. The report expressed confidence that in spite of difficulties, they could in some way carry on, and a number of potential substitutes were suggested which would be of assistance in meeting our problems under these conditions. Some of the substitutes mentioned in the first report are either denied to the oil industry or are in short supply. Examples are native tannins and salts of phosphoric acid. This current report relates to the conduct of oil drilling operations under the circumstances that exist at the present time when it appears that quebracho is over-all in adequate supply. The data to follow are based on an analysis of returns to the Committee's questionnaire which was sent out to the suppliers in the recent past, and an appraisal of industry utilization of various substitutes. Certain statistics relating to oil industry drilling operations, and statistics relating to plant capacity available or potentially available to produce substitutes for quebracho are presented.

Particular attention should be directed to the change in the role played by substitutes for quebracho in 1951 as against that in 1948, the year's data used in the original report of the Committee which was

submitted in April 1949. In 1948 quebracho usage in the oil industry was at the rate of 25,000 tons per year and quebracho substitutes were being used at the rate of 960 tons per year. In 1951, prior to the issuance of National Production Authority Order M-57, quebracho utilization was at the rate of 30,000 tons per year and substitutes were being utilized at the rate of 10,800 tons per year. In other words, since the original report was written, the use of tannin substitutes has increased by more than 1100 percent. However, in spite of this increase in the load being carried by substitutes, demand for quebracho increased to 120 percent of the 1948 level. Had it not been for the utilization of tannin substitutes, the demand for quebracho would have increased to approximately 170 percent of 1948 usage.

With regard to the drilling operations of the oil industry, the following statistics are of particular interest and importance. In 1948 the oil industry completed 39,477 wells with the footage drilled being 136,709,153 feet. In 1950 the industry drilled 43,204 wells with a total footage of 159,383,977 feet. The target for 1951 is estimated at 44,945 wells, which will exceed 1948's total by approximately fourteen percent. These wells are estimated to have a total footage of 170,556,000 feet, which will be more than twenty-four percent above 1948's mark. All indications are that drilling requirements will be even greater in 1952. In connection with this drilling, it is important to note that the depths of the wells drilled are continually increasing and that the need for quebracho is greater in the deeper wells. While in some cases, it is technically possible to drill these deeper wells with lesser amounts of quebracho or even without any, this can only be done by running intermediate strings of pipe for protection which thus increases the demand for steel which is already in

critically short supply. Further, while as noted, many of these wells could be drilled with lesser amounts of quebracho a greater amount of time would be consumed in the drilling and, accordingly, less production would ultimately result from the drilling activity. While workover jobs cannot be measured in footage figures, their number is increasing. Quebracho plays an important role in these operations which are very essential in maintaining the industry's production potential. The total plant capacity at present available to produce substitutes for quebracho is estimated at 16,000 tons annually. Of this 16,000 tons, 10,800 tons are currently being used by the industry. This leaves but 5,200 tons to cover the reduction of 12,000 tons in the use of quebracho required by Order M-57. It is quite possible that in due course, this 5,200 tons of substitutes would be drawn into industry use in the normal course of events. As noted above, the usage of substitutes has been increased over the past two years from 960 tons per year to 10,800 tons per year. It can be seen that since the time of the first Committee report, the industry has made rapid progress in the utilization of substitutes for quebracho. This has been accomplished as rapidly as the industry could develop the technical know-how for the effective utilization of such substitutes. Further, attention is particularly directed to the fact that none of these substitutes is a universal substitute that can be used in all cases, nor can they all be used on a pound for pound basis as substitutes. It is to be noted further that this 5,200 tons of substitute material capacity is all that we have at present available to cover the reduction of 12,000 tons in the use of quebracho required by Order M-57. This capacity can be expanded by approximately 14,000 tons annually, but such expansion cannot be completed before the

middle of 1952. In this connection, it is important to bear in mind that in order to accomplish this expansion, the industries supplying acceptable substitute products will require certain critical materials such as stainless steel for equipment and piping, and sulfuric acid. The development and utilization of quebracho equivalents for all industries requiring this type of material should be encouraged with the view of increasing the country's self-sufficiency in the event of war.

During the course of the Committee's study of this problem the Committee was confronted on many occasions by questions throughout the oil industry as to why it is necessary that quebracho be on allocation. Inasmuch as the industry went throughout the whole of World War II without the necessity for allocation of quebracho, and since a number of suppliers have stated that they have available an abundance of this material which cannot be used by the industry because of restrictions, it seemed pertinent to ask why it should be necessary for the oil industry's use of this material to be restricted. Throughout the industry, again and again, everyone stressed his desire to do his part in furthering the national defense effort, but it would be very helpful to know the reasons involved in any action affecting the oil industry which will cause an increased cost and decreased efficiency. In this particular instance, the reason for the allocation of quebracho has not been made clear to the industry, particularly in view of the fact that the oil industry is the only one whose use of this particular material has been restricted.

Over-all, it can readily be seen that the oil industry will face a sufficiently difficult problem in operating with the purchase of supplies now permitted under Order M-57 without any further reduction

in the amount of this material allowed to the industry. This fact is amply demonstrated by the estimates and statistics cited above. Moreover, as the industry is being called upon to increase its producing potential, the problem will become even more serious, and the use of quebracho by the oil industry should not be restricted as long as the material is available in adequate supply in the world market and can be transported to our shores. It is imperative that no action be taken which could endanger the ability of industry to readily meet the demand for petroleum and petroleum products required for the national defense effort and the national economy.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OIL AND GAS DIVISION
Washington 25, D. C.

May 8, 1951

Mr. Walter S. Hallanan, Chairman
National Petroleum Council
1625 K Street, N. W.
Washington, D. C.

Dear Mr. Hallanan:

On January 4, 1949, the Secretary of the Interior requested that the National Petroleum Council appoint a committee to study and report on the requirements of the petroleum industry for quebracho and the possible development, utilization and availability of substitutes, and to make recommendations as to ways and means of assuring self-sufficiency of the United States in the event of an emergency. The request was initiated because of the Munitions Board concern as to possible interruptions or deficiencies in the supply of quebracho.

A Council Committee on Quebracho Requirements for the Petroleum Industry prepared a report, dated April 27, 1949, which was unanimously adopted by the Council. The report stated that the oil industry is in no way dependent on quebracho for the maintenance of the efficiency of its operations and that other natural products or chemicals are available or could be made available with a minimum of development to meet the needs of the oil industry for this type of mud treating compound.

In view of the continued concern of the Munitions Board, you were requested on December 13, 1949, to investigate the matter further. In reply to this request, Mr. John R. Suman, who served as Chairman of the Committee on Quebracho Requirements of the Petroleum Industry, advised by letter of July 11, 1950, to Mr. James V. Brown, Secretary-Treasurer of the National Petroleum Council, that there seemed to be no reason for concern over the supply of quebracho and that, if a shortage or interruption should occur in the supply of quebracho, there were available other materials which would be adequate.

The National Production Authority, by Order M-57 (copy attached) has restricted the use of certain "vegetable tanning material," which includes quebracho. Although NPA considered prohibiting entirely the use of quebracho in drilling muds, representations made by the Petroleum Administration for Defense were effective so that the actual order contained the following provision:

"No processor shall use in the calendar quarter commencing April 1, 1951, or in any calendar quarter thereafter, in the drilling of oil or gas wells, quebracho in excess of 60 percent by weight of his average quarterly use of quebracho in such drilling during the 6-month period ending June 30, 1950: PROVIDED HOWEVER, That this paragraph shall not restrict the use, in the drilling of oil and gas wells, of any quebracho held by him as inventory on the effective date of this order, or which is in transit to him pursuant to any purchase order for quebracho placed by him prior to the effective date of this order."

There may be further restrictions in the future. With the exemption of quebracho in inventory or in transit against orders placed prior to April 16, the industry should have sufficient supplies for several months, during which period the industry may be able to work out and adopt the use of satisfactory substitutes.

In carrying out the oil and gas industry's well drilling program necessary to supply the military and civilian demands for petroleum and gas, it is essential that there be available an adequate supply of suitable mud treating additives. The National Petroleum Council is requested to appoint a committee to make a comprehensive study of chemicals or other additives which may be used as a substitute for quebracho in drilling mud and a determination of the availability of such substitute material. The results of this study, together with such recommendations as may be deemed appropriate, should be submitted at the earliest possible date.

Sincerely yours,

/s/ H. A. Stewart

H. A. Stewart
Acting Director

Attachment