NATIONAL PETROLEUM COUNCIL

REPORT OF THE COMMITTEE ON PETROLEUM STORAGE CAPACITY (1952)

December 9, 1952

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December 9, 1952

Members of the
National Petroleum Council

Gentlemen:

This report is being made in response to the action taken by the Council at its April meeting, after recommendation of the Agenda Committee in connection with a communication dated March 11th from Mr. Bruce K. Brown then Deputy Administrator, Petroleum Administration for Defense. In accord with this action Chairman Hallanan re-activated your committee on Petroleum Storage Capacity, requesting it to bring up-to-date its report of October 31, 1950, but in addition to the information gathered at that time to break up the figures to be developed for the East Coast, Indiana-Illinois-Kentucky and the Pacific Coast Bureau of Mines districts into smaller subdivisions thereof.

As in previous reports your committee again found it desirable to relate the current analysis to some previously reported inventory situation and chose March 31, 1952 as the reporting date, since such information was the latest available when the questionnaires were distributed, and also because of the desirability of determining principal product inventory and storage relationships at the end of the most recent winter season.

The committee therefore proceeded as in its previous reports - with the exception that the East Coast area was divided into three subdivisions; the Indiana-Illinois-Kentucky district into four;

and the Pacific Coast Territory into two. Figures for these subdivisions, which were made in accordance with the detailed recommendation of the Agenda Committee, concurred in by the Staff of the PAD, are included in this survey, and reflect some very interesting and very informative relationships heretofore unavailable.

A total of 369 questionnaires were distributed to refiners and other holders of crude oil and principal product inventories and storage facilities. Based on the inventories reported in comparison with those previously developed by the Bureau of Mines, the crude oil section of this report represents 99 per cent of the refinery, pipe line and tank farm stocks of crude, and the crude oil in transit; the clean products group (gasoline, kerosine and distillate fuel oils) about 97 1/2 per cent; and the residual fuel oil portion nearly one hundred per cent of all of the inventories in these various categories that were reported to the Bureau of Mines for the United States as a whole as of March 31st last.

Your committee appreciates this extremely gratifying response, and takes this opportunity to thank the industry for it and for so promptly returning the information requested.

Returns were not received from a few relatively small companies. It is believed, however, that most of these are crude producers who carry lease stock only, an item for which no analysis was requested. Your committee retained the opinion expressed in its previous reports that such inventories in practically all circumstances represent working inventories required on producing properties.

The significant facts which may be noted from this survey are:

CRUDE OIL

(1) That the total capacity for storage of crude oil in tanks above ground in the country as a whole amounted to 429,400,000 barrels on March 31st last. This includes 13,900,000 barrels of reservoir storage in California.

(2) That total crude oil in tanks and all other facilities including pipe lines, tankers, etc. was 238,400,000 barrels.

(3) That the amount in tanks alone was 192,700,000 - thus indicating above ground storage to have been 44.9 per cent full. In this connection it should be borne in mind that much of the reported tankage is in areas where it is not currently available for use, and some of it even so not susceptible to relocation elsewhere because of its condition. Still other portions are available only for limited use.

(4) That approximately 19.2 per cent of all reported crude, or 45,700,000 barrels are constantly required as main trunk and tank farm pipe line fill, as well as average required fill for tankers, barges, tank cars and trucks hauling crude.

(5) That over 105,200,000 barrels are required to assure continuous operation of pipe lines and refineries and the handling and blending of the many grades of crude oil produced in the United States and processed in its refineries.

(6) That the combined total of all unavailable stocks of crude, which is the combination of number (4) and number (5) above, amounted to about 63.3 per cent of all of the crude oil in storage

as of March 31st last.

Table I, which follows, shows consolidated crude oil comparisons by general supply and demand districts of the country. The attached reproductions of the questionnaire forms used in the survey show, in consolidated form, all of the details of the figures collected as well as the requested break down of the East Coast, Indiana-Illinois-Kentucky and Pacific Coast refining districts.

TABLE I

ANALYSIS OF ACTUAL AND UNAVAILABLE CRUDE OIL INVENTORIES AND STORAGE CAPACITY
MARCH 31, 1952 - (Barrels 42 Gallons)

District	Actual B. of M. March 31, 1952 (1)	Questionnaires Returned Total (2)	% (3)	Unavailable in Column 2 Total (4)	% (5)	Storage March 31, 1952 Capacity Reported (6)	Storage March 31, 1952 Amount in Tanks (7)	Estimated Storage Capacity December 31, 1952 Total (8)
Inventories at Refineries, in Pipe Line and Tank Farm and in Transit Thereto								
	17,469,000	18,239,000	104.4	12,903,000	70.7	30,490,000	14,285,000	30,901,000
I	80,510,000	80,305,000	99.7	46,689,000	58.1	117,625,000	59,882,000	114,069,000
II	106,064,000	103,819,000	97.9	69,756,000	67.2	192,463,000	86,120,000	189,719,000
V	11,224,000	11,063,000	98.6	4,397,000	39.7	18,448,000	9,604,000	17,969,000
	25,767,000	24,986,000	97.0	17,161,000	68.7	*70,325,000	22,796,000	*70,327,000
OTAL U.S.	241,034,000	238,412,000	98.9	150,906,000	63.3	429,351,000	192,687,000	422,985,000
Producers' Lease Stocks - No Analysis Requested - Considered Operating Stocks (Shown as reported by U.S. Bureau of Mines								
OTAL U.S.	18,092,000	18,092,000	100.0	18,092,000	100.0	Not Available	18,092,000	Not Available
Total all Crude Oil Stocks - B. of M.								
NITED STATES	259,126,000	256,504,000	99.0	168,998,000	65.9	Not Available	210,779,000	Not Available

Includes 13,912,000 barrels of reservoir storage assigned to heavy crude oil on March 31st last.

CLEAN PRODUCTS

The companies which submitted figures to this survey had in their manufacturing, storage and distribution systems about 220,300,000 barrels of clean products including gasoline, kerosine and distillate fuel oil on March 31st of this year. As an indication of the coverage of this survey, the figure shown in 97.4 per cent of all of the clean products all companies reported to the Bureau of Mines as in storage country-wide as of that date.

Further details shown by the returns reveal:

(1) That the total storage capacity assigned to Clean Products as of March 31st last amounted to 425,500,000 barrels and that there were 203,800,000 barrels of products, stored therein, thus indicating assigned capacity to have been approximately 47.9 per cent full on the date indicated.

(2) That of the 220,300,000 barrels of these products reported as in storage, 87,000,000 barrels or about 39.5 per cent of reported inventories are unavailable for shipment. Included in this figure are 8,200,000 barrels required for pipe line fill and 8,300,000 barrels average unavailable in transit by tanker, barge, tank car and truck. The balance of the total indicated unavailable is included as a part of the amount reported as in tank storage, the details of which are shown in the consolidated questionnaire forms.

(3) That the 425,500,000 barrels clean products storage capacity reported for March 31, 1952, is expected to increase to 443,100,000 barrels by December 31st next.

Consolidated clean product figures are shown in Table II, which follows, by Bureau of Mines refining districts. Consult attached fully completed questionnaire forms for further details of reported totals, and for additional district break down including New England, North Central areas and the Pacific Northwest.

TABLE II - ANALYSIS OF ACTUAL AND UNAVAILABLE CLEAN PRODUCT INVENTORIES AND STORAGE CAPACITY
MARCH 31, 1952 - INCLUDES GASOLINE, KEROSENE, AND DISTILLATE FUEL OILS
(Barrels 42 Gallons)

B. of M. Refining Districts	Actual B. of M. March 31, 1952 (1)	Questionnaires Returned Total (2)	% (3)	Unavailable in Column 2 Total (4)	% (5)	Storage March 31, 1952 Capacity Reported (6)	Amount in Tanks (7)	Estimated Storage Capacity December 31, 1952 Total (8)
Includes Inventories at Refineries, Terminals, Pipe Lines and In Transit Thereto								
East Coast	54,358,000	52,794,000	97.1	27,226,000	51.6	120,179,000	45,538,000	123,708,000
Appalachian:								
District I	5,174,000	4,921,000	95.1	1,691,000	34.4	8,908,000	4,456,000	9,391,000
District II	2,720,000	2,710,000	99.6	827,000	30.5	5,471,000	2,560,000	6,252,000
Ind. Ill. Ky.	47,739,000	47,469,000	99.4	14,790,000	31.2	85,114,000	45,094,000	89,100,000
Okla. Kans. Mo.	26,358,000	25,248,000	95.8	8,098,000	32.1	38,474,000	22,511,000	40,465,000
Texas Inland	8,330,000	7,983,000	95.8	2,310,000	28.9	12,253,000	7,427,000	12,651,000
Texas Gulf	33,825,000	33,182,000	98.1	10,984,000	33.1	61,458,000	32,908,000	63,205,000
Louisiana Gulf	11,956,000	11,237,000	94.0	3,254,000	29.0	20,574,000	10,818,000	22,891,000
North La.-Ark.	4,890,000	4,510,000	92.2	1,999,000	44.3	8,127,000	3,479,000	8,546,000
New Mexico	181,000	130,000	71.8	29,000	22.3	308,000	130,000	282,000
Other Rocky Mountain	7,959,000	7,525,000	94.5	2,066,000	27.5	11,373,000	7,326,000	12,024,000
Total East of California	203,490,000	197,709,000	97.2	73,274,000	37.1	372,239,000	182,247,000	388,515,000
California	22,766,000	22,574,000	99.2	13,717,000	60.8	53,221,000	21,568,000	54,597,000
TOTAL U. S.	226,256,000	220,283,000	97.4	86,991,000	39.5	425,460,000	203,815,000	443,112,000

RESIDUAL FUEL OIL

The companies which replied under this section of the survey held all (99.7 per cent) of the residual fuel oil reported to the Bureau of Mines on last March 31st.

They also reported:

(1) That they had a combined residual fuel oil storage capacity of 103,600,000 barrels, including 31,400,000 barrels of reservoir storage in California as of that date.

(2) That the above storage held 36,900,000 barrels of product and was therefore 35.6 per cent full.

(3) That of total reported inventories, about 15,800,000 barrels were unavailable for shipment to market because they had always to be retained in order that residual operating facilities could continue to function.

(4) That storage capacity assigned to residual as of December 31 next would total 106,200,000 barrels, an increase of 2,600,000 barrels over the assigned capacity as of March 31st of this year.

Consolidated details of the returned questionnaires are included for this product also in the tabulations attached hereto.

TABLE III - ANALYSIS OF ACTUAL & UNAVAILABLE RESIDUAL FUEL OIL INVENTORIES AND STORAGE CAPACITY
MARCH 31, 1952 (Barrels 42 Gallons)

B. of M. Refining Districts	Actual B. of M. March 31, 1952 (1)	Questionnaires Returned Total (2)	Questionnaires Returned % (3)	Unavailable in Column 2 Total (4)	Unavailable in Column 2 % (5)	Storage March 31, 1952 Capacity Reported (6)	Storage March 31, 1952 Amount in Tanks (7)	Estimated Storage Capacity December 31, 1952 Total (8)
Includes Inventories at Refineries, Terminals, Pipe Lines and In Transit Thereto								
East Coast	9,325,000	9,720,000	104.2	4,510,000	46.4	20,471,000	9,244,000	22,107,000
Appalachian:								
District I	402,000	401,000	99.8	142,000	35.4	933,000	388,000	1,379,000
District II	241,000	214,000	88.8	66,000	30.8	635,000	214,000	732,000
Ind. Ill. Ky.	5,158,000	5,312,000	103.0	1,007,000	19.0	9,536,000	5,270,000	10,652,000
Okla. Kans. Mo.	1,360,000	1,146,000	84.3	280,000	24.4	3,267,000	1,145,000	3,469,000
Texas Inland	676,000	461,000	68.2	169,000	36.7	1,868,000	459,000	1,932,000
Texas Gulf	7,154,000	7,016,000	98.1	1,195,000	17.0	11,675,000	7,014,000	11,056,000
Louisiana Gulf	1,883,000	1,935,000	102.8	373,000	19.3	3,208,000	1,878,000	2,696,000
North La. - Ark.	138,000	139,000	100.7	28,000	20.1	340,000	139,000	561,000
New Mexico	36,000	23,000	63.9	7,000	30.4	95,000	23,000	94,000
Other Rocky Mountain	1,088,000	1,009,000	92.7	215,000	21.3	2,057,000	1,009,000	2,261,000
Total East of California	27,461,000	27,376,000	99.7	7,992,000	29.2	54,085,000	26,784,000	56,939,000
California	10,510,000	10,480,000	99.7	7,845,000	74.9	*49,522,000	10,088,000	*49,221,000
TOTAL U. S.	37,971,000	37,856,000	99.7	15,837,000	41.8	103,607,000	36,872,000	106,160,000

*Includes 31,447,000 barrels of reservoir storage. Reservoir storage figure for 1950 revised to 34,751,000 barrels.

COMPARISON OF STORAGE CAPACITY REPORTED IN THIS AND EARLIER SURVEYS

The industry's capacity to store and handle crude oil and refined products has increased greatly in the last four years, particularly in the clean products group for which large additional growth is reported during the last three quarters of this year also.

Comparative storage capacity figures follow:

	Survey: 1948	1950	1952	
	March 31	June 30	March 31	December 31
	(Millions of Barrels)			
Crude Oil	416.7	432.3	429.4	423.0
Clean Products	319.8	348.1	425.5	443.1
Residual Fuel Oil	123.4	106.1	103.6	106.2
Total Above Services	859.9	886.5	958.5	972.3

The above figures are shown in district detail in Table IV, which follows, and in part in Tables I, II and III. Further break down for New England and other sections of the East Coast, Indiana-Illinois-Kentucky and Pacific Coast areas are also attached in consolidated questionnaire form.

TABLE IV - COMPARISON OF STORAGE CAPACITY REPORTED MARCH 31, 1948, JUNE 30, 1950 AND MARCH 31, 1952

(Figures in Thousands of Barrels)

Note: The 1952 relationship with prior years is somewhat overstated in Clean Products and to a lesser extent in Residual Fuel because of the broadened definition of a bulk terminal which became effective January 1, 1951.

	CRUDE OIL (Includes all Crude categories except Producers' Storage)			CLEAN PRODUCTS (Gasoline, Kerosine and Distillate Fuels)			RESIDUAL FUEL (Residual Fuel Oils Only)		
District	1948	1950	1952	1948	1950	1952	1948	1950	1952
East Coast	21,587	23,194	24,491	74,364	85,001	120,179	14,575	17,602	20,471
Appalachian:									
District I	5,277	7,002	5,999	5,060	5,336	8,908	455	378	933
District II	3,121	2,628	1,955	3,148	3,971	5,471	383	372	635
Ind.-Ill.-Ky.	37,356	44,322	46,045	60,275	69,118	85,114	8,814	8,611	9,536
Okla.-Kans.-Mo.	80,142	75,683	69,625	24,501	28,526	38,474	4,034	3,831	3,267
Texas Inland	82,393	82,344	80,541	7,387	8,604	12,253	1,705	1,969	1,868
Texas Gulf	79,787	83,922	83,526	54,285	56,797	61,458	10,715	10,317	11,675
Louisiana Gulf	16,196	15,937	16,012	16,673	17,811	20,574	3,726	3,457	3,208
North La. & Ark.	10,581	11,288	9,620	5,685	5,005	8,127	431	308	340
New Mexico	2,167	2,604	2,764	197	333	308	62	99	95
Other Rocky Mountain	18,525	18,482	18,448	7,669	11,036	11,373	1,888	1,942	2,057
Total East of California	357,132	367,406	359,026	259,244	291,538	372,239	46,788	48,886	54,085
California	(a)59,595	(a) 64,912	(a)70,325	60,515	56,526	53,221	(b)76,592	(b) 57,172	(b)49,522
TOTAL U. S.	416,727	432,318	429,351	319,759	348,064	425,460	123,380	106,058	103,607
(a) Includes reservoir storage assigned to heavy crude oil as follows:	2,525	11,733	13,912						
(b) Includes residual reservoir storage as follows: - - - - - - - - - - - -							41,574	(c)34,751	31,447
(c) Revised to correct previous error in reporting.									

COMPARISON OF UNAVAILABLE INVENTORIES REPORTED IN THIS AND EARLIER SURVEYS

Unavailable inventories, or amount of crude oil and refined products which, in a sense, have to be locked up in the industry's far flung operating system before normal operating levels can be achieved, have also increased over the last four year period.

United States unavailable totals for the four year period follow:

	Survey: 1948 March 31	1950 June 30	1952 March 31
		(Millions of Barrels)	
Crude Oil	132.9	142.4	150.9
Clean Products	75.2	74.0	87.0
Residual Fuel Oil	20.8	16.2	15.8
Total Above Services	228.9	232.6	253.7

The above figures are shown in district detail in Table V. They may be said to reflect just another item in the cost of doing business in an industry which has been so rapidly expanding as petroleum.

TABLE V - COMPARISON OF UNAVAILABLE INVENTORIES MARCH 31, 1948, JUNE 30, 1950 AND MARCH 31, 1952
(Figures in Thousands of Barrels)

Note: The 1952 relationship with prior years is somewhat overstated in Clean Products and to a lesser extent in Residual Fuel because of the broadened definition of a bulk terminal which became effective January 1, 1951.

	CRUDE OIL (Includes all Crude categories except Producers' Storage)			CLEAN PRODUCTS Gasoline, Kerosine and Distillate Fuels)			RESIDUAL FUEL (Residual Fuel Oils Only)		
District	1948	1950	1952	1948	1950	1952	1948	1950	1952
East Coast	9,975	10,220	11,055	20,289	21,465	27,226	4,351	4,737	4,510
Appalachian:									
District I	1,159	2,006	1,848	954	1,030	1,691	72	83	142
District II	1,246	971	1,161	545	665	827	67	53	66
Ind.-Ill.-Ky.	15,662	18,783	22,129	12,483	13,434	14,790	1,240	1,131	1,007
Okla.-Kans.-Mo.	21,467	21,490	23,399	6,165	5,141	9,098	520	526	280
Texas Inland	25,663	32,009	31,950	2,049	2,239	2,310	314	245	169
Texas Gulf	29,301	27,152	29,595	10,329	10,764	10,984	1,808	1,398	1,195
Louisiana Gulf	3,104	4,240	4,579	3,399	3,307	3,254	349	413	373
North La. & Ark.	2,791	3,580	2,593	1,452	739	1,999	35	20	28
New Mexico	1,037	1,067	1,039	21	81	29	5	17	7
Other Rocky Mountain	3,520	3,697	4,397	1,201	1,670	2,066	204	236	215
Total East of California	114,925	125,215	133,745	58,887	60,535	73,274	8,965	8,859	7,992
California	18,000	17,224	17,161	16,346	13,417	13,717	11,838	7,373	7,845
TOTAL U. S.	132,925	142,439	150,906	75,233	73,952	86,991	20,803	16,232	15,837

As in both of the previous surveys by this committee, one of the most interesting findings is again the very large petroleum storage capacity indicated as necessary to maintain normal flexibility of industry operations over and above that occupied by the crude oil and refined products actually held in storage by the industry.

The first survey which was as of March 31, 1948, showed that at that time there was an average of 100 barrels of storage capacity to every 41 barrels of inventories. The second survey as of October 31, 1950 showed an average of 100 barrels of capacity to every 45 barrels of inventory. The current study confirms the latter figure almost exactly.

The committee wishes to again point out to those not familiar with oil industry operating problems that in no sense can the difference between inventories and capacities herein shown, be taken as an indication of available storage space. The industry must enjoy complete flexibility at all times if normal operation of its far flung transportation, manufacturing and distribution systems is to prevail, and if supplies to consumers are to be delivered efficiently and on schedule.

These three surveys, the only ones of their kind developed for the industry as a whole, may be said to have definitely confirmed what individual long term operating experience has indicated,- that relatively low ratios of actual inventories to total storage capacity in service is essential if difficulties in processing, handling and distribution are to be avoided, and if the industry is to operate efficiently and well. The committee therefore again

stresses as proof of the foregoing reflections the operating relationships once more derived as a result of this latest survey.

None of the figures in this report include stocks or storage capacity, if any, in the hands of the military.

SECONDARY INVENTORIES AND SECONDARY CAPACITY

It may be recalled that the request of the Secretary of the Interior which related to the 1950 survey of this committee, asked that information also be developed on Secondary Inventories and Secondary Capacities. Your Committee carefully considered the question and possible methods of securing the data but reluctantly reported that it could not find any means of developing figures on either the storage capacity or the inventories held by secondary suppliers. It was also reported at that time that the Statistical Advisory Committee of the American Petroleum Institute was continuing to study the problem and was attempting to finalize a method whereby information on this important segment of inventories and storage capacity would become available.

Your survey Committee is happy to find itself now in a position to state that those efforts have been successful and that current and comparative year ago information on secondary inventories is currently available at the end of each month through cooperation of the American Petroleum Institute and the Bureau of the Census.

The details are shown separately for Gasoline, Kerosine including #1 Range Oil, Distillate Fuel Oil which includes Home Heating Fuel Oil, and for Residual Fuel Oil by the General Supply and Demand Areas of the country, - the old PAW Districts I to V

which the Institute's Statistical Advisory Committee is trying to establish as general supply and demand areas of the United States, as well as storage capacity figures for each product currently at the end of each quarter.

Anyone desiring to have a copy of these monthly reports may regularly receive them merely by making such request to the Bureau of the Census, Department of Commerce, Washington 25, D. C.

Respectfully submitted,

The Committee on Petroleum Storage Capacity

L. S. Wescoat, Chairman
Paul G. Blazer
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B. A. Hardey
Harry B. Hilts
Charles S. Jones
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W. W. Vandeveer
W. J. Arnold, Secretary

QUESTIONNAIRE FORM #1 - TOTAL FIXED UNAVAILABLE STOCKS OF CRUDE OIL, CLEAN PRODUCTS AND RESIDUAL FUEL OIL AS OF MARCH 31, 1952, BY BUREAU OF MINES REFINING DISTRICTS

Note: Figures should be shown in Barrels of 42 U. S. Gallons by location in Bureau of Mines refining districts and should include only those categories of stocks regularly reported to the Bureau. Include foreign oil actually in storage but not crude or products in transit from foreign sources.

	East Coast (1)	Appalachian District I (2)	Appalachian District II (3)	Indiana Illinois Kentucky (4)	Oklahoma Kansas Missouri (5)	Texas Inland (6)	Texas Gulf (7)	Louisiana Gulf (8)	Arkansas-Louisiana Inland (9)	New Mexico (10)	Other Rocky Mountain (11)	California (12)	Total United States (13)
CRUDE OIL - Barrels													
1. Fill in here amount of crude oil stocks you reported to B.of M. as of March 31, 1952 as at refineries or in transit thereto from domestic sources - Section 1 Form 6-1311	14,056,892	601,691	127,296	9,341,377	4,899,934	1,665,047	16,732,537	3,768,703	862,421	95,978	2,074,277	9,641,035	63,857,188
(a) Of the above quantity, how much was unavailable, - such as oil content of tank bottoms, in refinery pipe lines, and the minimum quantity required to assure continuous processing, handling and blending various grades of crude.	7,421,382	451,831	51,000	5,925,947	1,901,703	789,303	14,468,316	1,161,173	520,028	19,504	1,006,304	5,647,849	39,364,340
(b) As In Transit to refineries by truck, tank car, barge or tanker from Domestic Sources.	3,096,459	-	-	424,731	-	-	453,896	286,155	-	-	190,381	246,795	4,698,417
Total Unavailable Refinery - In Transit Crude Oil. (Sum of (a) and (b) above).	10,517,841	451,831	51,000	6,350,678	1,901,703	789,303	14,922,212	1,447,328	520,028	19,504	1,196,685	5,894,644	44,062,757
2. Fill in here amount you reported to B.of M. as Pipe Line and Tank Farm Stocks of Crude. Section 2, Form 6-1311, as of March 31, 1952.	1,560,142	2,020,743	1,741,716	25,279,135	38,916,153	43,836,311	26,207,242	5,795,101	3,466,679	1,398,506	8,988,472	15,345,204	174,555,404
(a) Of the above quantity, how much was unavailable as pipe line fill.	175,913	682,355	523,141	8,350,062	11,125,506	12,063,550	2,539,694	702,348	1,341,489	311,538	1,268,663	1,943,200	41,027,459
(b) As minimum required in tankage to assure continuous operation of pipe lines, and oil content of bottoms of tank farm tanks.	361,131	713,445	587,000	7,428,083	10,372,225	19,097,509	12,133,454	2,428,914	730,916	708,340	1,932,030	9,322,597	65,815,644
Total Unavailable Pipe Line-Tank Farm Crude Oil. (Sum of (a) and (b) above).	537,044	1,396,800	1,110,141	15,778,145	21,497,731	31,161,059	14,673,148	3,131,262	2,072,405	1,019,878	3,200,693	11,265,797	106,843,103

Note: For the purpose of this survey Producers' Lease Stocks, Section 3 Form 6-1311 will be considered as completely unavailable.

CLEAN PRODUCTS - Barrels

(Include only gasoline, kerosine and distillate fuel oils and deal with only those inventories regularly reported to the Bureau of Mines on Form 6-1300; 6-1302 and 6-1303.)

1. Fill in here amount you reported to B.of M. as at Refineries, at Terminals, or in Pipe Lines or In Transit thereto as of March 31, 1952 on Forms 6-1300; 6-1302; 6-1303.	52,793,465	4,920,969	2,710,209	47,469,279	25,248,125	7,982,779	33,181,754	11,237,042	4,510,472	129,693	7,524,890	22,574,010	220,282,687
2. Memo: Total Capacity all tankage in Clean Product Service (Copy from Questionnaire #2).	120,179,526	8,907,798	5,471,005	85,114,069	38,474,241	12,252,550	61,458,001	20,574,313	8,126,867	308,303	11,372,383	53,220,533	425,459,589
3. Analysis of Unavailable Stocks included in Item 1 above:													
(a) Tank bottom credit actual or maximum of 7% of Item 2 above.	7,652,343	543,737	369,824	4,409,088	2,239,124	762,357	4,061,138	1,185,917	528,033	21,831	713,632	3,650,483	26,127,507
(b) Unavailable Unfinished at Refineries	1,746,671	190,522	160,473	2,106,356	897,598	568,736	4,174,401	171,044	275,706	-	289,693	157,350	10,738,550
(c) In Refinery Lines and Refinery Operating Equipment	167,643	13,258	737	153,986	145,859	40,252	173,738	61,566	9,787	1,200	69,480	930,217	1,767,723
(d) One-Half of Average Size Water Cargo Receipt. (Total of each individual grade calculated separately.)	8,700,963	315,726	57,136	1,913,166	166,328	-	69,123	272,722	109,480	-	-	1,478,531	13,083,175
(e) Other Unavailable Stocks. (Include Filter House Naphtha and Unavailable Unblended Finished.	874,113	159,838	10,939	1,868,136	1,447,590	381,963	1,612,684	1,143,531	500	6,000	702,796	6,439,705	14,647,795
(f) Pipe Line Fill.	1,158,100	298,263	84,120	1,534,188	2,717,362	549,747	262,209	155,160	964,939	50	198,829	279,393	8,202,360
(g) Pipe Line Operating Requirements.	829,000	2,000	78,000	1,964,799	463,993	11,000	619,208	-	43,964	-	91,540	55,000	4,158,504
(h) Unavailable in Transit by truck, tank car, barge or tanker from Domestic Sources (if reported to Bureau only.)	6,097,371	167,214	65,733	840,750	20,000	5,770	11,447	263,656	66,690	-	-	726,311	8,264,942
Total Unavailable Clean Products. (Sum of (a) to (h) above).	27,226,204	1,690,558	826,962	14,790,469	8,097,854	2,309,825	10,983,948	3,253,596	1,999,099	29,081	2,065,970	13,716,990	86,990,556

RESIDUAL FUEL OIL - Barrels

(Deal only with those inventories regularly reported on B.of M. Forms 6-1300; 6-1302 and 6-1303)

1. Fill in here amount you reported to B.of M. as at Refineries, at Terminals, or in Pipe Lines or In Transit thereto as of March 31, 1952 on Forms 6-1300; 6-1302; 6-1303.	9,720,042	400,922	214,000	5,311,661	1,146,188	461,091	7,015,689	1,934,935	139,048	22,884	1,008,968	10,480,566	37,855,994
2. Memo: Total Capacity all tankage in Residual Fuel Service (Copy from Questionnaire #2).	20,471,107	933,363	635,464	9,535,776	3,266,499	1,868,079	11,674,478	3,207,842	340,318	95,209	2,057,134	49,521,597	103,606,866
3. Analysis of Unavailable Stocks included in Item 1 above:													
(a) Tank bottom credit actual or maximum of 7% of Item 2 above.	1,427,369	65,024	44,508	462,095	158,490	120,888	801,403	215,732	21,973	6,125	163,409	2,227,734	5,714,750
(b) Unavailable Unfinished at Refineries	182,248	5,824	-	161,186	15,595	6,117	104,875	5,050	3,875	-	20,689	1,009,400	1,514,859
(c) In Refinery Lines and Refinery Operating Equipment	37,580	15,137	20	79,703	19,806	5,529	36,405	10,600	1,706	700	9,802	385,971	603,019
(d) One-Half of Average Size Water Cargo Receipt. (Total of each individual grade calculated separately.)	2,056,064	5,964	-	11,000	-	-	15,851	67,753	-	-	-	718,655	2,875,287
(e) Other Unavailable Stocks	331,532	37,317	1,750	231,607	84,745	34,685	233,128	17,128	200	-	21,397	2,583,932	3,577,421
(f) Pipe Line Fill	208	141	-	-	-	-	2,000	1,787	100	5	-	103,838	108,079
(g) Pipe Line Operating Requirements	-	-	20,000	20,000	-	-	1,500	-	100	-	-	527,000	568,600
(h) Unavailable in Transit by truck, tank car, barge or tanker from Domestic Sources (if reported to Bureau only).	475,389	12,330	-	41,288	1,362	1,655	-	55,000	-	-	-	288,245	875,269
Total Unavailable Residual Fuel Oil. (Sum of (a) to (h) above).	4,510,390	141,737	66,338	1,006,879	279,998	168,874	1,195,162	373,050	27,954	6,830	215,297	7,844,775	15,837,284

QUESTIONNAIRE FORM #1 (a) - TOTAL FIXED UNAVAILABLE STOCKS OF CRUDE OIL, CLEAN PRODUCTS AND RESIDUAL FUEL OIL AS OF MARCH 31, 1952, COVERING EAST COAST AND INDIANA, ILLINOIS, KENTUCKY AND CALIFORNIA BREAK-UP

Note: Figures should be shown in Barrels of 42 U. S. Gallons by location in Bureau of Mines refining districts and should include only those categories of stocks regularly reported to the Bureau. Include foreign oil actually in storage but not crude or products in transit from foreign sources.

	(a) EAST COAST	NEW ENGLAND	(c) NORTH ATLANTIC	(d) SOUTH ATLANTIC	(b) IND., ILL., KENTUCKY, ETC.	KENTUCKY-TENNESSEE	(e) PORTION OF OHIO IN DISTRICT AND MICHIGAN	ILL., IND., WISCONSIN	BALANCE (MINNESOTA)	TOTAL IN 5 PACIFIC COAST STATES	WASHINGTON AND OREGON ONLY	ARIZONA CALIFORNIA NEVADA
	Col. 1 (Col.2+3+4)	Col. 2	Col. 3	Col 4	Col. 5 (Cols. 6+7+8+9)	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10 (Col. 11+12)	Col. 11	Col. 12
CRUDE OIL - BARRELS												
1. Fill in here amount of crude oil stocks you reported to B.of M. as of March 31, 1952, as at refineries or in transit thereto from domestic sources - Section 1 Form 6-1311.	14,056,892	714,034	12,953,858	389,000	9,341,377	1,454,120	1,362,917	6,491,799	32,541	9,641,035	112,284	9,528,751
(a) Of the above quantity, how much was unavailable, - such as oil content of tank bottoms, in refinery pipe lines, and the minimum quantity required to assure continuous processing, handling and blending various grades of crude.	7,421,382	451,170	6,857,212	113,000	5,925,947	760,094	1,026,656	4,129,497	9,700	5,647,849	62,000	5,585,849
(b) As In Transit to refineries by truck, tank car, barge or tanker from Domestic Sources.	3,096,459	121,000	2,975,459	-	424,731	419,078	621	5,032	-	246,795	-	246,795
Total Unavailable Refinery - In Transit Crude Oil. (Sum of (a) and (b) above)	10,517,841	572,170	9,832,671	113,000	6,350,678	1,179,172	1,027,277	4,134,529	9,700	5,894,644	62,000	5,832,644
2. Fill in here amount you reported to B.of M. as Pipe Line and Tank Farm Stocks of Crude, Section 2, Form 6-1311, as of March 31, 1952	1,560,142	-	1,482,377	77,765	25,279,135	1,015,000	4,570,398	19,693,737	-	15,345,204	-	15,345,204
(a) Of the above quantity, how much was unavailable as pipe line fill.	175,913	-	174,870	1,043	8,350,062	49,668	952,737	7,347,657	-	1,943,200	-	1,943,200
(b) As minimum required in tankage to assure continuous operation of pipe lines, and oil content of bottoms of tank farm tanks.	361,131	-	347,100	14,031	7,428,083	226,560	1,319,522	5,882,001	-	9,322,597	-	9,322,597
Total Unavailable Pipe Line-Tank Farm Crude Oil. (Sum of (a) and (b) above)	537,044	-	521,970	15,074	15,778,145	276,228	2,272,259	13,229,658	-	11,265,797	-	11,265,797

Note: For the purpose of this survey Producers' Lease Stocks, Section 3 Form 6-1311 will be considered as completely unavailable.

(a) Figures entered here should check those reported for East Coast on Form #1; (b) should also be same as on Form #1; (c) For this survey North Atlantic states are the portions of New York and Pennsylvania that are in the East Coast Refinery District, New Jersey, Delaware, Maryland and District of Columbia; (d) South Atlantic are Virginia, North and South Carolina, Georgia and Florida. (e) Only a portion of the State of Ohio is in the Indiana, Illinois, Kentucky refining district.

CLEAN PRODUCTS - BARRELS

(Include only gasoline, kerosine and distillate fuel oils and deal with only those inventories regularly reported to the Bureau of Mines on Forms 6-1300; 6-1302 and 6-1303.)

1. Fill in here amount you reported to B.of M. as at Refineries, at Terminals, or in Pipe Lines or In Transit thereto as of March 31, 1952 on Forms 6-1300; 6-1302; 6-1303	52,793,465	9,776,498	29,160,554	13,856,413	47,469,279	3,799,444	10,957,848	29,069,707	3,642,280	22,574,010	4,237,371	18,336,639
2. Memo: Total Capacity all tankage in Clean Product Service (copy from Questionnaire #2(a)	120,179,526	23,314,339	73,307,058	23,558,129	85,114,069	6,149,534	23,953,085	44,724,032	10,287,418	53,220,533	7,982,457	45,238,076
3. Analysis of Unavailable Stocks included in Item 1 above:												
(a) Tank Bottom credit actual or maximum of 7% of Item 2 above.	7,652,743	1,515,817	4,731,268	1,405,658	4,409,088	393,468	1,215,751	2,412,912	386,957	3,650,483	558,887	3,091,596
(b) Unavailable Unfinished at Refineries	1,746,671	76,089	1,664,582	6,000	2,106,356	85,134	581,164	1,440,058	-	157,350	10,000	147,350
(c) In Refinery Lines and Refinery Operating Equipment	167,643	11,337	153,549	2,757	153,986	2,012	21,292	129,882	800	930,217	-	930,217
(d) One-Half of Average Size Water Cargo Receipt. (Total of each individual grade calculated separately.)	8,700,963	2,453,138	3,417,078	2,830,747	1,913,166	482,672	486,813	807,961	135,720	1,478,531	768,144	710,387
(e) Other Unavailable Stocks. (Include Filter House Naphtha and Unavailable Unblended Finished.	874,113	302	857,811	16,000	1,868,136	50,515	129,282	1,686,938	1,401	6,439,705	837,000	5,602,705
(f) Pipe Line Fill	1,158,100	20,106	480,303	657,691	1,534,188	40,820	221,514	877,006	394,848	279,393	219,768	59,625
(g) Pipe Line Operating Requirements	829,000	51,500	504,900	272,600	1,964,799	168,000	572,300	1,224,499	-	55,000	-	55,000
(h) Unavailable in Transit by truck, tank car, barge or tanker from Domestic Sources (if reported to Bureau only)	6,097,371	2,144,610	2,850,558	1,102,203	840,750	408,208	133,211	145,335	153,996	726,311	630,311	96,000
Total Unavailable Clean Products. (Sum of (a) to (h) above).	27,226,204	6,272,899	14,660,049	6,293,256	14,790,469	1,630,829	3,361,327	8,724,591	1,073,722	13,716,990	3,024,110	10,692,880

RESIDUAL FUEL OIL - BARRELS

(Deal only with those inventories regularly reported on B.of M. Forms 6-1300; 6-1302 and 6-1303)

1. Fill in here amount you reported to B.of M. as at Refineries, at Terminals, or in Pipe Lines or In Transit thereto as of March 31, 1952 on Forms 6-1300; 6-1302; 6-1303	9,720,042	1,595,682	6,461,057	1,663,303	5,311,661	216,869	1,427,412	3,511,865	155,515	12,475,566	1,393,190	11,082,376
2. Memo: Total Capacity all tankage in Residual Fuel Service (Copy from Questionnaire #2(a)	20,471,107	2,896,838	14,385,343	3,188,926	9,535,776	459,118	2,540,119	6,311,089	225,450	49,521,597	3,741,519	46,180,078
3. Analysis of Unavailable Stocks included in Item 1 above:												
(a) Tank bottom credit actual or maximum of 7% of Item 2 above.	1,427,369	205,515	1,080,939	190,915	462,095	30,209	136,168	285,368	10,350	2,227,734	231,966	1,995,768
(b) Unavailable Unfinished at Refineries	182,248	8,782	173,466	-	161,186	-	58,200	102,986	-	1,009,400	1,400	1,008,000
(c) In Refinery Lines and Refinery Operating Equipment	37,580	2,917	32,706	1,957	79,703	-	3,182	75,917	604	385,971	2,000	383,971
(d) One-Half of Average Size Water Cargo Receipt. (Total of each individual grade calculated separately.)	2,056,064	542,277	773,446	740,341	11,000	-	-	11,000	-	718,655	449,853	268,802
(e) Other Unavailable Stocks.	331,532	3,592	320,386	7,554	231,607	1,009	5,750	224,148	700	2,583,932	185,000	2,398,932
(f) Pipe Line Fill.	208	-	-	208	-	-	-	-	-	103,838	-	103,838
(g) Pipe Line Operating Requirements	-	-	-	-	20,000	-	-	20,000	-	527,000	-	527,000
(h) Unavailable in Transit by truck, tank car, barge or tanker from Domestic Sources (if reported to Bureau only)	475,389	37,284	215,103	223,002	41,288	-	13,288	28,000	-	288,245	180,245	108,000
Total Unavailable Residual Fuel Oil. (Sum of (a) to (h) above).	4,510,390	800,367	2,546,046	1,163,977	1,006,879	31,218	216,588	747,419	11,654	7,844,775	1,050,464	6,794,311

QUESTIONNAIRE FORM #2 - CAPACITY OF CRUDE OIL, CLEAN PRODUCT AND RESIDUAL FUEL OIL TANKAGE AS OF MARCH 31, 1952, BY BUREAU OF MINES REFINING DISTRICTS

Note: Express figures in Barrels of 42 U. S. Gallons by Bureau of Mines refining districts and report all tankage available for storing Crude Oil, Clear Products and Residual Fuel Oil, as shown below, but deal only with the tankage that is located at the points (Refineries, Pipe Lines, Tank Farms and Terminals) included in the stock figures you regularly report to the Bureau of Mines on Forms 6-1311 Crude (except Producers' Lease Stocks), and Product Forms 6-1300; 6-1302 and 6-1303. Do not include tankage at bulk plants, service stations, etc. the inventories in which you do not report to the Bureau.

	East Coast (1)	Appalachian District I (2)	Appalachian District II (3)	Indiana Illinois Kentucky (4)	Oklahoma Kansas Missouri (5)	Texas Inland (6)	Texas Gulf (7)	Louisiana Gulf (8)	Arkansas-Louisiana Inland (9)	New Mexico (10)	Other Rocky Mountain (11)	California (12)	Total United States (13)
CRUDE OIL TANKAGE - Barrels													
1. Capacity of Tankage at Refineries - Section 1 Form 6-1311 - March 31, 1952	21,663,881	1,102,513	97,039	14,183,706	8,308,400	3,017,153	24,902,595	5,811,300	1,248,342	185,000	3,841,881	16,320,549	100,682,359
2. Capacity of Tankage along Pipe Lines and on Tank Farms - Section 2 Form 6-1311	2,826,500	4,896,790	1,857,550	31,861,025	61,316,914	77,524,274	58,623,242	10,201,153	8,371,160	2,578,746	14,606,588	53,579,788	328,343,730
3. Capacity of Tankage at Bulk Terminals - (not Bulk Plants)	-	-	-	-	-	-	-	-	-	-	-	425,131	425,131
4. Total Crude Oil Tankage Capacity - (1), (2) and (3) above	24,490,381	5,999,303	1,954,589	46,044,731	69,625,314	80,541,427	83,525,837	16,012,453	9,619,502	2,763,746	18,448,469	(a) 70,325,468	(a) 429,351,220

Note: Tankage involved in Producers' (Lease) Stocks not included

(a) Includes 13,912,000 barrels of reservoir storage in California.

CLEAN PRODUCTS TANKAGE - Barrels

(Include only Gasoline, Kerosine and Distillate Fuel Oil and deal only with the tankage at the locations of inventories you regularly report to the Bureau of Mines)

1. Capacity of Tankage at Refineries - Form 6-1300 - March 31, 1952	32,972,723	3,924,525	1,638,372	45,414,193	22,014,673	7,063,488	55,198,348	13,925,533	3,894,845	308,303	9,895,919	35,110,580	231,361,502
2. Capacity of Tankage along Pipe Lines and on Tank Farms (if any) - Form 6-1303	6,053,529	50,200	1,418,517	9,254,568	5,256,328	2,514,319	1,052,900	1,877,000	2,373,100	-	312,500	5,702,749	35,865,710
3. Capacity of Tankage at Bulk Terminals - Form 6-1302	81,153,274	4,933,073	2,414,116	30,445,308	11,203,240	2,674,743	5,206,753	4,771,780	1,858,922	-	1,163,964	12,407,204	158,232,377
4. Total Clean Product Tankage Capacity - (1), (2) and (3) above	120,179,526	8,907,798	5,471,005	85,114,069	38,474,241	12,252,550	61,458,001	20,574,313	8,126,867	308,303	11,372,383	53,220,533	425,459,589

RESIDUAL FUEL OIL TANKAGE - Barrels

(Deal only with the tankage at the locations of inventories you regularly report to the Bureau of Mines)

1. Capacity of Tankage at Refineries - Form 6-1300 - March 31, 1952	10,308,026	727,960	470,164	9,080,344	3,266,499	1,772,729	11,078,940	2,609,385	334,818	95,209	2,057,134	28,242,919	70,044,127
2. Capacity of Tankage along Pipe Lines and on Tank Farms (if any) - Form 6-1303	208,000	-	-	-	-	95,350	1,450	-	5,500	-	-	16,340,984	16,651,284
3. Capacity of Tankage at Bulk Terminals - Form 6-1302	9,955,081	205,403	165,300	455,432	-	-	594,088	598,457	-	-	-	4,937,694	16,911,455
4. Total Residual Fuel Oil Tankage Capacity - (1), (2) and (3) above	20,471,107	933,363	635,464	9,535,776	3,266,499	1,868,079	11,674,478	3,207,842	340,318	95,209	2,057,134	(b) 49,521,597	(b) 103,606,866

(b) Includes 31,446,586 barrels of reservoir storage in California.

STEEL STORAGE CAPACITY DECEMBER 31, 1951 (ACTUAL) AND DECEMBER 31, 1952 (ESTIMATED)

CRUDE OIL TANKAGE

1. Actual December 31, 1951	23,794,462	6,045,503	1,954,589	45,610,293	63,698,123	77,943,943	82,280,366	16,099,322	9,644,502	2,537,375	17,538,346	(a) 69,520,968	(a) 416,667,792
2. Estimated December 31, 1952	24,826,191	6,074,853	2,015,550	46,240,512	65,812,911	77,623,611	83,431,839	16,560,753	9,553,132	2,549,844	17,969,272	(a) 70,326,718	(a) 422,985,186

(a) Includes 13,912,000 barrels of reservoir storage in California.

CLEAN PRODUCTS TANKAGE

1. Actual December 31, 1951	119,946,679	8,526,232	5,403,488	83,371,480	38,049,563	12,125,840	60,708,821	21,661,873	7,927,867	282,303	11,370,052	54,246,763	423,620,961
2. Estimated December 31, 1952	123,707,592	9,391,519	6,252,329	89,099,750	40,465,031	12,650,910	63,205,141	22,890,648	8,545,780	282,303	12,024,205	54,597,263	443,112,471

RESIDUAL FUEL OIL TANKAGE

1. Actual December 31, 1951	21,933,248	944,363	635,464	10,198,880	3,272,288	1,747,060	11,107,337	3,052,087	380,318	94,209	2,242,703	(b) 49,126,097	(b) 104,734,054
2. Estimated December 31, 1952	22,106,910	1,379,269	732,271	10,651,472	3,469,406	1,932,048	11,055,444	2,695,758	561,183	94,209	2,261,232	(b) 49,221,097	(b) 106,160,299

(b) Includes 31,44[illegible]586 barrels of reservoir storage in California.

QUESTIONNAIRE FORM #2 (a) - CAPACITY OF CRUDE OIL, CLEAN PRODUCT AND RESIDUAL FUEL OIL TANKAGE AS OF MARCH 31, 1952, COVERING EAST COAST, INDIANA, ILLINOIS, KENTUCKY AND CALIFORNIA BREAK-UP

Note: Express figures in Barrels of 42 U. S. Gallons by Bureau of Mines refining districts and report all tankage available for storing Crude Oil, Clean Products and Residual Fuel Oil, as shown below, but deal only with the tankage that is located at the points (Refineries, Pipe Lines, Tank Farms and Terminals) included in the stock figures you regularly report to the Bureau of Mines on Forms 6-1311 Crude (except Producers' Lease Stocks), and Product Forms 6-1300; 6-1302 and 6-1303. Do not include tankage at bulk plants, service stations, etc. the inventories in which you do not report to the Bureau.

	(a) EAST COAST	NEW ENGLAND	(c) NORTH ATLANTIC	(d) SOUTH ATLANTIC	(b) IND., ILL., KENTUCKY, ETC.	KENTUCKY-TENNESSEE	(e) PORTION OF OHIO IN DISTRICT AND MICHIGAN	ILL., IND., WISCONSIN	BALANCE (MINNESOTA)	TOTAL IN 5 PACIFIC COAST STATES	WASHINGTON AND OREGON ONLY	ARIZONA CALIFORNIA NEVADA
	Col. 1 (Col.2+3+4)	Col. 2	Col. 3	Col. 4	Col. 5 (Cols. 6+7+8+9)	Col. 6	Col. 7	Col. 8	Col. 9	Col. 10 (Col. 11+12)	Col. 11	Col. 12
CRUDE OIL TANKAGE - Barrels												
1. Capacity of Tankage at Refineries - Section 1 Form 6-1311 - March 31, 1952	21,663,881	1,175,467	19,917,414	571,000	14,183,706	1,313,663	2,645,433	9,994,610	230,000	16,320,549	243,000	16,077,549
2. Capacity of Tankage along Pipe Lines and on Tank Farms - Section 2 Form 6-1311	2,826,500	-	2,706,500	120,000	31,861,025	1,423,368	8,757,023	21,680,634	-	53,579,788	-	53,579,788
3. Capacity of Tankage at Bulk Terminals - (not Bulk Plants)	-	-	-	-	-	-	-	-	-	425,131	-	425,131
4. Total Crude Oil Tankage Capacity - (1), (2) and (3) above	24,490,381	1,175,467	22,623,914	691,000	46,044,731	2,737,031	11,402,456	31,675,244	230,000	(f) 70,325,468	243,000	(f) 70,082,468

Note: Tankage involved in Producers' (Lease) Stocks not included.

(a) Figures entered here should check those reported for East Coast on Form #2; (b) should also be same as on Form #2; (c) For this survey North Atlantic states are the portions of New York and Pennsylvania that are in the East Coast Refining District, New Jersey, Delaware, Maryland and District of Columbia; (d) South Atlantic are Virginia, North and South Carolina, Georgia and Florida. (e) Only a portion of the State of Ohio is in the Indiana, Illinois, Kentucky refining district. (f) Includes 13,912,000 barrels of reservoir storage in California.

CLEAN PRODUCTS TANKAGE - Barrels

(Include only Gasoline, Kerosine and Distillate Fuel Oil and deal only with the tankage at the locations of inventories you regularly report to the Bureau of Mines)

1. Capacity of Tankage at Refineries - Form 6-1300 - March 31, 1952	32,972,723	1,148,071	31,520,652	304,000	45,414,193	1,851,678	12,664,041	28,862,974	2,035,500	35,110,580	182,000	34,928,580
2. Capacity of Tankage along Pipe Lines and on Tank Farms (if any) - Form 6-1303	6,053,529	248,000	3,613,029	2,192,500	9,254,568	334,800	1,943,760	5,618,064	1,357,944	5,702,749	1,500	5,701,249
3. Capacity of Tankage at Bulk Terminals - Form 6-1302	81,153,274	21,918,268	38,173,377	21,061,629	30,445,308	3,963,056	9,345,284	10,242,994	6,893,974	12,407,204	7,798,957	4,608,247
4. Total Clean Product Tankage Capacity - (1), (2) and (3) above	120,179,526	23,314,339	73,307,058	23,558,129	85,114,069	6,149,534	23,953,085	44,724,032	10,287,418	53,220,533	7,982,457	45,238,076

RESIDUAL FUEL OIL TANKAGE - Barrels

(Deal only with the tankage at the locations of inventories you regularly report to the Bureau of Mines)

1. Capacity of Tankage at Refineries - Form 6-1300 - March 31, 1952	10,308,026	411,905	9,794,121	102,000	9,080,344	404,118	2,650,772	5,694,204	331,250	28,242,919	34,000	28,208,919
2. Capacity of tankage along Pipe Lines and on Tank Farms (if any) - Form 6-1303	208,000	-	208,000	-	-	-	-	-	-	16,340,984	-	16,340,984
3. Capacity of Tankage at Bulk Terminals - Form 6-1302	9,955,081	2,497,933	4,370,222	3,086,926	455,432	55,000	18,432	382,000	-	4,937,694	3,307,519	1,630,175
4. Total Residual Fuel Oil Tankage Capacity - (1), (2) and (3) above	20,471,107	2,909,838	14,372,343	3,188,926	9,535,776	459,118	2,669,204	6,076,204	331,250	(a) 49,521,597	3,341,519	(a) 46,180,078

(a) Includes 31,446,586 barrels of reservoir storage in California.

STEEL STORAGE CAPACITY DECEMBER 31, 1951 (ACTUAL) AND DECEMBER 31, 1952 (ESTIMATED)

CRUDE OIL TANKAGE

1. Actual December 31, 1951	23,794,462	1,294,548	21,808,914	691,000	45,610,293	2,737,031	11,398,456	31,244,806	230,000	(a) 69,520,968	243,000	(a) 69,277,968
2. Estimated December 31, 1952	24,826,191	994,277	23,140,914	691,000	46,240,512	2,747,031	11,533,956	31,729,525	230,000	(a) 70,326,718	243,000	(a) 70,083,718

(a) Includes 13,912,000 barrels of reservoir storage in California.

CLEAN PRODUCTS TANKAGE

1. Actual December 31, 1951	119,946,679	23,079,582	73,457,087	23,410,010	83,371,480	6,154,534	23,443,211	43,486,317	10,287,418	54,246,763	7,989,457	46,257,306
2. Estimated December 31, 1952	123,707,592	24,928,226	73,860,935	24,918,431	89,099,750	6,590,804	25,369,621	46,851,907	10,287,418	54,597,263	8,369,457	46,227,806

RESIDUAL FUEL OIL TANKAGE

1. Actual December 31, 1951	21,923,248	3,010,813	15,652,297	3,270,138	10,198,880	535,018	2,653,999	6,678,613	331,250	(b) 49,126,097	3,319,519	(b) 45,806,578
2. Estimated December 31, 1952	22,106,910	3,059,838	15,747,546	3,299,526	10,651,472	645,018	2,793,303	6,881,901	331,250	(b) 49,221,097	3,319,519	(b) 45,901,578

(b) Includes 31,446,586 barrels of reservoir storage in California.

UNITED STATES
DEPARTMENT OF THE INTERIOR

COPY

Petroleum Administration for Defense
Washington 25, D. C.

March 11, 1952

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

Dear Mr. Hallanan:

The National Petroleum Council submitted in 1948, and again in 1950, reports on the capacity of petroleum tankage and related inventories at installation whose stocks are covered monthly by the Bureau of Mines. These reports have been of great value in appraising the industry's position during the period of mobilization for defense.

A need for timely, comparable, information is emphasized by the continuing problems of mobilization. Hence it is requested that the report of October 31, 1950, be brought up to date to provide a third point of reference from which to view recent tankage changes, and probable future needs.

Periods of local or regional scarcity of supply of one or more petroleum products have been experienced in the past and the possibility of recurrence in serious degree under emergency conditions must be kept in mind in present circumstances. In order to increase the value of information to cope with such problems, I urge that the Council in its new report segregate the totals of tankage capacity into geographic areas of lesser extent than the Bureau of Mines districts formerly used.

I have particularly in mind, for example, subdivision of the East Coast district into three parts: New England, Middle Atlantic, and South Atlantic. The advantages of data in this form as compared to the former district segregation are obvious. It would be particularly useful to divide also the Indiana-Illinois, Kentucky, and Pacific Coast districts into smaller units that would better conform to operating practices.

I sincerely hope that the Council will give early and favorable consideration to this request for its further assistance in the public interest.

Very truly yours,

/s/ Bruce K. Brown

Deputy Administrator