

COLONY OF TRINIDAD AND TOBAGO

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Trinidad and Tobago
Petroleum Department
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**ADMINISTRATION REPORT OF THE
PETROLEUM DEPARTMENT
FOR THE YEAR 1952**

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ADMINISTRATION REPORT OF THE PETROLEUM DEPARTMENT, 1952

HONOURABLE COLONIAL SECRETARY,

I have the honour to submit for the information of His Excellency the Governor, the following Report on the Petroleum and Asphalt Industries of the Colony for the year 1952.

The Report is set out in the sections, tables, appendices and maps as detailed below.

THE PETROLEUM INDUSTRY

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THE PETROLEUM INDUSTRY

SUMMARY

An appraisal of the statistics available indicates that there was a slight increase in the overall activity of the oil industry during 1952. The average number of rigs running was one more than last year. The footage drilled, the number of wells completed, the production of local crude and the import of foreign crude, all showed an increase as compared to 1951.

2. Exploratory drilling was continued actively with 7 rigs in operation and, while no cretaceous reservoirs were discovered, the United British Oilfields of Trinidad Limited located a productive patch of Herrera sands at East Balata which may develop into a profitable small field. Trinidad Petroleum Development Company discovered a new area of shallow production in miocene sands near Moruga Bouff.

3. Dominion Oil Limited of Canada, a new comer to the Colony's Oil Industry, became interested in Trinidad early in 1952 and pursued an active leasing policy throughout the year. This company has already conducted extensive seismograph and geological surveys.

4. A more equitable method of assessing royalty on crude oil was put into effect and negotiations for the adjustment of wage rates were successfully concluded.

SECTION I—ACTIVITIES OF THE OIL INDUSTRY

DRILLING

5. An average of twenty-eight (28) drilling rigs were in operation during the year, as compared to an average of twenty-seven (27) during 1951. Two (2) new heavy duty rigs were imported and put into operation during the year; a diesel driven National 130 rig by Apex Trinidad Oilfields and a steam rig by Antilles Petroleum Company of Trinidad, who operate it on behalf of the Texas Company.

6. One hundred and eighty-seven (187) new wells were started during the year as compared to one hundred and forty-four (144) in 1951, an increase of 30 per cent. Completions increased from put into operation during the year; a diesel driven National 130 rig by Apex Trinidad Oilfields and cent., while the total footage drilled rose by 10.8 per cent. from 664,887 to 736,535 feet. This comparatively large increase in footage and in completions was due not only to there being one additional rig in use but also to an increase in the average footage per rig per day and to a decrease of 4.4 per cent. in the average completion depth which fell from 4,481 feet in 1951 to 4,286 feet in 1952.

7. Five (5) wells were abandoned while drilling, one for technical reasons, the other four being dry holes. The depths of these wells total 28,372 feet or less than 4 per cent. of the total annual footage. The corresponding figure for 1951 was 9 per cent.

8. Statistics relative to drilling are given in Table I, items 14-21 inclusive. The total footage drilled, item 18, and the average depth per completed well, item 21, are shown in graph form for a number of years in Appendix C. A monthly analysis of drilling activity is given in Table II.

EXPLORATION

9. In Table IX a list is given of those wells with an objective depth of 8,000 feet or over and of exploratory wells which were being drilled during the year. The location of each is shown on the map at Appendix H of this report. Of these, three wildcats, namely, Trinidad Leaseholds Limited, Marac 1 and Trinidad Petroleum Development Company, Moruga 2 and New Grant 1 were all abandoned as dry holes. All three of these wells gave useful information on stratigraphy and structure, while new reservoir horizons were discovered by Marac 1. United British Oilfields of Trinidad Limited discovered a development of Herrera sands at a shallow depth in their Balata East No. 1, which flowed steadily for the remainder of the year after its completion in May 1952. It is too early yet to appraise the significance of this discovery but there is a good chance that it may result in the development of a new field. Trinidad Petroleum Development Company Limited in their Moruga No. 3 encountered oil sands from close to the surface down to three thousand feet. A small pumping field may develop from this discovery. The Antilles Petroleum Company of Trinidad Limited brought in a well at Point Ligoure close to the shore. This well is on an extension of an existing field and its successful completion improves the prospects for drilling in the shallow water off shore.

10. Marine seismograph surveys were conducted over the greater part of the Gulf of Paria by both Trinidad Northern Areas Limited and by Dominion Oil Limited. Seismic surveys on land were made on behalf of Trinidad Petroleum Development Company Limited and Apex Trinidad Oilfields Limited, while a second party was at work in the northern basin for Trinidad Northern Areas Limited.

11. The post-war expenditure in deep drilling is shown in the following table:

	EXPENDITURE ON DEEP WELLS		
	<i>For the period 1st January, 1945 to 31st December, 1951</i>	<i>For the year 1952</i>	<i>Total at 31st December, 1952</i>
1. Cost of drilling wells including depreciation ...	\$28,449,000	\$9,875,000	\$38,324,000
2. Investment in capital equipment ...	7,461,000	1,762,000	9,223,000
	\$35,910,000	\$11,637,000	\$47,547,000
3. Less depreciation on capital equipment ...	2,662,000	1,071,000	3,733,000
4. Total outlay on deep drilling ...	\$33,248,000	\$10,566,000	\$43,814,000

PRODUCTION OF CRUDE OIL

12. The total production of crude oil for the year 1952 was 21,257,680 barrels, an average of 58,081 barrels per day. This represents an increase of 2 per cent. over the figure for 1951.

13. Statistics relative to crude oil production are shown under Items Nos. 1 and 22-27 inclusive in Table I. Items 1 and 25 are reproduced in graph form in Appendix "A". In Table III a detailed monthly breakdown of production methods is given, the annual production contributed by the principal producing methods being graphed as a percentage of the total production in Appendix "B".

14. The average daily production per producing well (Table I, item 25) again dropped, being 24.1 barrels per day or 4 per cent. lower than the previous year. The percentage of salt water of the total fluid produced increased slightly showing an average of 17.2 per cent. as compared to 16.9 per cent. in 1951. Salt water production is shown in graph form in Appendix "F".

REFINING

15. Five (5) permits to refine oil were issued under the Oil Mining and Refining Ordinance, three of these being for small topping plants operated respectively by Apex Trinidad Oilfields Limited, Brighton Terminal Limited and Trinidad Petroleum Development Company Limited.

16. Trinidad Leaseholds Limited completed the construction of a Catalytic Cracking Plant which was opened by the Acting Governor, Mr. P. M. Renison on the 30th July. The plant has been in full operation for the remainder of the year.

17. Refinery input (Table I, Item 13) showed an increase over the previous year of 2.5 per cent., the actual figure being 36,041,044 barrels. Of this total 9,339,511 barrels were processed by United British Oilfields of Trinidad at Point Fortin and 26,369,556 barrels by Trinidad Leaseholds Limited at Point-a-Pierre. Brighton Terminal processed 324,498 barrels, while 7,479 barrels were treated in field topping plants.

NATURAL GASOLINE RECOVERY PLANTS

18. Two plants for the recovery of natural gasoline were in operation during the year. The construction of a new one was started at Forest Reserve by Trinidad Leaseholds Limited. The following table gives an idea of the performance of these plants:

Company	Location	Type of Plant	Percentage of Company's total production of gas processed	Average Daily Throughput		Recovery in gallons per 1,000 cu. ft.	
				1951	1952	1951	1952
Apex	Fyzabad	Charcoal	94.4	9.99	10.40	1.09	1.04
T.P.D.	Santa Flora	Oil Absorption	61.7	9.80	9.94	0.80	0.80
T.L.L.	Forest Reserve	Oil Absorption	under	construction			

Some compression gasoline was made both by Apex Trinidad Oilfields Limited and by Trinidad Leaseholds Limited at its Guayaguayare Field.

NATURAL GAS

19. Details of the production and utilization of natural gas in 1951 and 1952 are given in Table IV. There has been very little change in either the total production of gas or in its utilization for several years.

TRANSPORT AND STORAGE

20. No major additions were made during the year either to the main pipeline system or to the storage capacity, which at the end of the year totalled ten million barrels.

IMPORTS AND EXPORTS OF PETROLEUM AND ITS PRODUCTS

21. Crude oil imported into the Colony for refining and re-export showed a small increase of 5.5 per cent. rising from 15,855,000 barrels in 1951 to 16,722,000 barrels in 1952. (Table I, Item 8).

22. Imports of Tucupita Fuel Oil by Brighton Terminal Limited for bunkering or transshipment amounted to 3,240,976 barrels. Esso Standard Oil (Antilles) S.A. transhipped 54,970 barrels of Bunker "C" Grade Fuel Oil and 94,338 barrels of Diesel Oil in Port-of-Spain Harbour.

23. Both Trinidad Leaseholds Limited and Antilles Petroleum Company (Trinidad) Limited continued to export crude oil to Canada. Exportation fell by about 4 per cent. compared to the 1951 figure being 1,844,000 barrels. (Table I, Item 11).

24. Total exports of petroleum and its products (local crudes plus foreign crudes) increased by 1.2 per cent. rising from 34,359,000 barrels to 34,778,000 barrels. Details of exports and imports are given in Table V.

SECTION II—THE OIL INDUSTRY IN RELATION TO THE LOCAL ECONOMY

LOCAL EXPENDITURE

25. The annual local outgoings of the Industry which were 66 million dollars B.W.I. in 1951 showed an increase of 17.6 per cent. and amounted in 1952 to no less than 77.6 million dollars B.W.I. This figure is made up of 26.5 million dollars Government revenue and 51.1 million dollars in wages, purchases and other local expenditure. Details of contributions to revenue and to local expenditure are shown respectively in Tables VI and VII.

TAXATION OF THE INDUSTRY

26. In 1952 the total revenue of the Colony was 73.01 million dollars of which the Oil Industry directly contributed 36.4 per cent. or \$26,574,942. Table VI shows details of the amount received under each Head of Revenue for the past 10 years. The more important changes in 1952 as compared to 1951 are listed below and are discussed individually in the succeeding paragraphs.

Source of Revenue					Increase	Decrease
Customs Import duties	...	...	...	...	\$507,641	—
Royalty on oil and gas	...	...	...	...	69,721	—
Income Tax	...	...	...	...	3,375,802	—
Sundry Heads	...	...	...	...	186,932	—
Harbour Dues	...	...	...	...	20,796	—
Net increase	...	...	...	...	\$4,160,892	—

27. Customs Import duties (Item 1, Table VI) paid by the oil industry showed a large increase of 72 per cent. rising from \$697,095 in 1951 to \$1,204,736 in 1952.

28. Reference to Items 6, 7 and 8 of Table VII will give an indication of the source of this increase. Imports from Canada, which are almost wholly accounted for by Barytes (free of import duty), remained constant whereas importations from the United Kingdom rose by 33 per cent. from 17.2 million dollars in 1951 to 22.9 million dollars in 1952. Imports from the United States of America and other countries not enjoying a preferential tariff both rose by over 80 per cent. compared to the previous year and these accounted for just over 90 per cent. of the increased revenue from customs duties.

29. The actual values of imports for 1952 were \$22,888,622 from the United Kingdom and \$8,577,249 from other sources; the total, namely \$31,465,871 being an increase of almost 41 per cent. on 1951. This large increase is only partially accounted for by higher average price levels in 1952 as compared to 1951 and certainly reflects a greater overall activity in the industry. (See paragraphs 34-37).

30. Royalties assessed in 1952 in respect of the period 1st July, 1951 to 30th June, 1952, on crude oil and casing head petroleum spirit produced, on gas sold and for dead rent (minimum royalty on non-productive leases) amounted to \$6,711,615 as compared to \$6,615,557 assessed for the previous twelve months. This increase of \$96,058 is the net result of various changes in the production and value of crude oil and other items as tabulated below:—

	INCREASES			DECREASES		
	Production Barrels	Value \$/Bbl.	Revenue \$	Production Barrels	Value \$/Bbl.	Revenue \$
Old leases	—	0.0871	—	41,266	—	83,456
1934-Type	618,370	—	181,417	—	0.0746	—
Gas	—	—	—	—	—	13,764
C.H.P.S.	13,177	0.0353	12,794	—	—	—
Dead Rents	—	—	—	—	—	933
Net increase	...	...	\$194,211	...	...	98,153 96,058
			\$194,211			\$194,211

31. The decrease of 7.46 cents B.W.I. in the average value per barrel of crude produced on the 1934 type leases for the period 1st July, 1951 to 30th June, 1952, as compared to the preceding twelve months was due to the operation of the new method of assessing royalty on these leases which was effective for half the above period, i.e., from 1st January, 1952 to 30th June, 1952.

32. The increase of 8.71 cents B.W.I. in the average value per barrel of crude produced on the old-type leases was due to a change in sampling procedure which started on the 1st January, 1952. The effect on the value of this crude or changes in the price of its components was negligible during the 2-year period, 1st July, 1950 to 30th June, 1952. The increase in the average value of casing head petroleum spirit is accounted for by a change in the method of assessment on the casing head petroleum spirit produced by Trinidad Petroleum Development Company Limited, which for royalty assessment purposes is valued as crude oil. Up to the 31st December, 1951, this product was therefore valued by reference to the price of West Texas Sour Crude of the same A.P.I. gravity plus 14.3 U.S. cents per barrel, but as from the 1st January, 1952, it came under the new procedure described in paragraph 50 of this report and is now valued as 100 per cent. 70-72 Octane M.M. Gasoline. The casing head petroleum spirit produced by Apex Trinidad Oilfields Limited is assessed at the Gulf Export Low Quotation for 83 Octane Gasoline, less $\frac{3}{4}$ U.S. cent per U.S. gallon, the royalty on which has been constant at 2.11 cents B.W.I. per Imperial Gallon for some time.

33. Income Tax collected during 1952 showed an increase of \$3,375,802 over the \$13,715,292 collected in the previous year, the actual figure being \$17,091,094. The rate of tax, 40 per cent., was the same as that for the previous year. This increase was due to the average price of products being higher in 1951 than in 1950.

LOCAL DISBURSEMENTS

34. The annual expenditure of the oil industry in the Colony other than contributions to revenue again showed a substantial increase being 17.1 per cent. greater than the \$43,645,782 expended in 1951, the actual figure amounting to \$51,105,385. Table VII Items 1-5 gives a breakdown of this figure under various heads.

35. Payments to employees (Table VII, Item 1) increased by over 18 per cent. This increase is in part accounted for by a rise of 5.8 per cent. in the average daily number of registered employees (15,218 as compared to 14,378 in 1951) and in part by the increase in wages of a minimum of 7½ cents per hour effective on 25th August, 1952, by cost of living bonus additions to wages and by other benefits. (See paragraphs 43-47).

36. Payments to contractors showed an increase of only 1 per cent., rising from \$7,527,758 to \$7,604,548. (Table VII, Item 2). The daily average number of persons employed by contractors fell slightly from 3,338 in 1951 to 3,212 in 1952.

37. Local purchases of materials (Table VII, Item 3) rose by 17 per cent. to \$5,662,114, while the various items comprising "other local expenditure" jumped by 26.4 per cent. to just over 13 million dollars. These increases are only partly accounted for by increased prices, and they certainly reflect an increased overall activity in the industry.

38. No detailed breakdown is available of the numerous accounts making up Item 4 of Table VII—"Other local cash expenditure"—which showed an increase of 26.4 per cent. reaching a figure of \$13,095,125 for the year.

EXPORTS OF PETROLEUM AND ITS PRODUCTS

39. The total values of petroleum and its products exported during 1951 and 1952 based on Customs and Excise Department figures are:—

	1951	1952
Crude Oil and products	\$158,675,574	\$170,532,239
Petroleum Bitumen	3,183,533	4,958,271
	<u>\$161,859,107</u>	<u>\$175,490,510</u>

40. The value of the leading staple products exported from the Colony during 1952 is shown in the following table:—

	Value \$	Percentage of Total
1. Petroleum and its products	170,532,239	76.35
2. Petroleum Bitumen	4,958,271	2.22
3. Asphalt and its products	5,980,848	2.68
4. Cocoa	8,237,147	3.69
5. Sugar, Molasses and Rum	20,889,530	9.35
6. Coconuts, Coconut Oil, &c.	2,173,950	0.97
7. Coffee	1,467,731	0.66
8. Bitters	726,217	0.33
9. Fresh Fruits, Fruit Juices, &c.	2,050,688	0.92
10. All others	6,315,004	2.83
	<u>\$223,331,445</u>	<u>100.00</u>

41. The value given for Item 1 above includes the value of products obtained from imported crude and is therefore not on a strictly comparable basis with the export values given for other products which are wholly of local origin. The value of each of the more important products exported annually is shown in Appendix "E", graphed as a percentage of the total annual value of the Colony's exports. The value of the products obtained from imported crude is shown on this graph which indicates clearly the increasing importance of imported crudes in the local refining business and the relatively decreasing importance of indigenous crude.

42. Harbour Dues on petroleum cargoes (14 cents per ton) increased by 2.8 per cent. from \$732,802 to \$753,598. This increase is due to increased imports of crude for refining and re-export. (Table I, Item 8).

INDUSTRIAL RELATIONS

ADJUSTMENTS TO WAGE RATES

43. During 1950 and 1951 the Government Statistician and his staff carried out a budgetary survey for the purpose of revising the Cost of Living Index which had been subjected to considerable criticism for many years especially by certain of the Trade Unions. The Cost of Living Index, first published in June, 1938, was based on 1935 prices and its mode of construction was no longer applicable to changed post-war conditions. Accordingly, publication ceased after December, 1951, for which month the index was ascertained to be 251. A new Index of Retail Prices was constructed from data collected in the budgetary survey to cover working class families who do not grow the bulk of their own food. The standard of consumption at the time of the survey was taken for the new index (which is a fixed weight index) prices in the middle of January, 1952, being taken as 100.

44. The introduction of this new index necessitated a revision of the method of ascertaining the Cost of Living Bonus. This Bonus had been at the rate of $\frac{1}{2}$ cent per hour for every five (5) completed points rise in the Cost of Living Index. It was agreed between the Oilfield Workers Trade Union and the Oilfield Employers Association that from January, 1952, bonus additions would be at the rate of $\frac{1}{2}$ cent per hour for each two completed points rise in the General Index of Retail Prices. The following additions to the Cost of Living Bonus were made during the year:—

- i. The addition of 1 cent per hour on and from 1st February, 1952, consequent upon the general index number for that month rising to 104.2.
- ii. The addition of $\frac{1}{2}$ cent per hour on and from 1st July, 1952, consequent upon the general index number for that month rising to 106.6.

45. During the year the Oilfield Workers Trade Union gave to the Oilfield Employers Association of Trinidad due notice of its desire to amend the agreement existing between them and presented to the Association a list of suggested amendments. A new Memorandum of Agreement effective on and from 20th November, 1952 was drawn up, the more important amendments to wage rates being as follows:—

1. Eight (8) cents per hour of the Cost of Living Bonus has been consolidated and added to the standard wage rates of all hourly, daily and weekly paid workmen.
2. The wages of all hourly paid workmen were adjusted with effect from the 25th August, 1952, so that no workman received less than a minimum increase of seven and a half ($7\frac{1}{2}$) cents per hour on his rate of pay as at 24th August, 1952. The *ex-gratia* allowance of one cent per hour granted on 1st October, 1951, was consolidated and added to the standard wage rates of all workmen covered by the agreement as from and including 20th November, 1952.
3. The wages of all weekly paid workmen aged eighteen (18) years and over were adjusted so that no workman received less than a minimum increase of \$3.60 per week on his weekly rate of pay as at 24th August, 1952.

The wages of weekly paid Office Boys, Messengers, Blue Print Boys, Laboratory Boys, under eighteen (18) years of age were adjusted so that none received less than a minimum increase of \$2.70 per week on his weekly rate of pay as at 24th August, 1952.

4. Bonus additions designed to assist in meeting the increased Cost of Living are now paid to all workmen as follows:—
 - (i) An addition of $\frac{1}{2}$ cent per hour for every two complete points rise in the Government's official Index of Retail Prices.
 - (ii) The Index of Retail Prices Number to be taken as the basis of calculations shall be 100 ascertained for the month of January, 1952.
 - (iii) If the Index of Retail Prices Number after having risen at least 2 points above the starting figure of 100 shall subsequently fall a deduction of $\frac{1}{2}$ cent per hour shall be made from the Bonus additions specified under (i) above for every fall of 2 complete points but nothing in this clause shall authorize any deduction from the standard wage rates laid down in the Schedule.

46. The above amendments resulted in the Cost of Living Bonus at the rate applicable to December, 1951, and the Schedule of wage rates in operation during 1951 being amalgamated to form the new standard wage rates. Under the new Schedule for hourly paid men the lowest wage rate is $43\frac{1}{2}$ cents per hour for unskilled labour as compared to the highest rate of $64\frac{1}{2}$ cents per hour for skilled labour.

47. The bonus additions noted in paragraph 44 above were still in operation at the end of 1952 so that for December, 1952, the lowest hourly paid man received in wages plus bonus 45 cents per hour and the highest hourly paid man received 66 cents per hour.

EFFECT ON THE INDUSTRY

48. The expenses of the industry on account of increased wages and other benefits resulting from this agreement will be increased by about 3½ million dollars per annum. This increase in expenses will reduce taxable income and will therefore be partially offset by a corresponding reduction in income tax of about 1½ million dollars resulting in a net two million dollars increase in outgoings.

SECTION III—ADMINISTRATION

ROYALTY ASSESSMENT

49. A new method of evaluating crude oil for royalty assessment on the production of leases issued under the Land (Oil Mining) Regulations, 1934, came into effect on the 1st January, 1952.

50. Except for details this method is the same as that which has been in use since May, 1949, for evaluating crude oil taken as royalty in kind under the old type leases. It is described in the Land (Oil Mining) (Amendment) Regulation, 1953, as follows:—

CRUDE OIL

- (i) Royalty on the net crude oil received in the field storage tanks of the lessee or licensee on and from 1st January, 1952, shall be paid in cash at the end of each half-yearly royalty period at the rate of ten per centum of the "Field Storage Value" of the net crude oil produced on the lease or licence, provided that if and whenever the net crude oil produced from any well shall in any half-yearly royalty period exceed in the case of a Land Oil Mining Lease 350,000 barrels, and in the case of a Submarine Oil Mining Licence 450,000 barrels, then and in every such case the royalty payable for that royalty period on such quantity of crude oil produced from the lease or licence as is equivalent to the amount by which the production from any such well exceeds the respective amounts stated above shall be at the following rates:—

Amount by which production from any well in the royalty period exceeds 350,000 barrels and 450,000 barrels in the case of Land Oil Mining Leases and Submarine Oil Mining Licences respectively	...	...	...	...	...	<i>Royalty Rate</i>
For the first 100,000 barrels of excess	...	...	...	...	...	11 per cent.
For the next 50,000 barrels of excess	...	...	...	...	...	12 per cent.
For all further excess production	...	...	...	...	...	12½ per cent.

FIELD STORAGE VALUE

- (ii) The "Field Storage Value" of the net crude oil shall be calculated by aggregating the values in B.W.I. Currency of the volumes of the gasoline, gas oil and fuel oil products thereof and deducting therefrom:—
1. The value of the Tetra Ethyl Lead determined as described in sub-clause (v) hereof, which would be required to bring the gasoline content of the net crude oil up to 70/72 Oct. M. Leaded.
 2. A refining and handling allowance equal to 9 per cent. of such aggregate of the values of the volumes of gasoline, gas oil and fuel oil after such aggregate has been reduced by the value of Tetra Ethyl Lead referred to in paragraph 1 of this sub-clause.

DETERMINATION OF VOLUME OF PRODUCTS

- (iii) The volume in barrels of each of the products, namely, gasoline, gas oil and fuel oil contained in the net crude oil shall be determined by calculation from the results of distilling a sample or samples in the R.L.E. 1 Still, as described in the *Journal of the Institute of Petroleum*, Vol. XXIV, dated November, 1938, pages 605-620, under the heading "Laboratory Method of Evaluating Crude Oils" by R. E. Johnstone and R. Palmer, provided that:—
1. The Gasoline product shall be such that 32 per cent. minimum is evaporated at 100°C. as determined by the A.S.T.M. distillation test.
 2. The Fuel Oil product shall be 150 seconds Saybolt Furol Viscosity at 122°F.
 3. The Gas Oil product shall be the intermediate fraction evaporated between the gasoline and the fuel oil.

DETERMINATION OF PRICE OF PRODUCTS

- (iv) The prices per barrel to be applied to the volume of each product contained in the net crude ascertained as under sub-clause (iii) above shall be the average of the daily low prices for the six months in each half-yearly royalty period as quoted in *Platt's Oilgram Price Service* for export cargoes at U.S. Gulf Ports for the corresponding product, namely:—
- (a) Gasoline, Motor Gasoline, 70/72 Oct. M. Leaded.
 - (b) Gas Oil, according to the diesel index of the product actually obtained. Gas Oil will be priced as No. 2 Fuel if the diesel index obtained shall be less than 43.
 - (c) Fuel Oil Bunker "C" grade fuel in cargo lots.

When the price of a product is quoted in *Platt's Oilgram Price Service* in U.S. currency per U.S. gallon it shall be multiplied by 42 in order to arrive at the price per barrel. If on account of Sundays, holidays or any other reason the price or prices of any of the above products shall not be ascertainable for any day then the said price or prices for the last preceding day for which such price or prices are ascertainable shall be used.

VALUE OF TETRA ETHYL LEAD

- (v) The value of the volume of Tetra Ethyl Lead shall be determined by multiplying the volume of the gasoline product in the net crude oil by the Tetra Ethyl Lead in millilitres per barrel required to bring the gasoline content of the crude oil up to 70/72 Oct. M. Leaded (determined by testing a sample of the gasoline product on the C.F.R. Engine) and then by multiplying the figure so obtained by the average C.I.F. value per millilitre of Tetra Ethyl Lead during the relevant royalty period (which value shall be agreed from time to time between the parties) increased by 10 per cent. to cover transportation, handling and blending charges.

CALCULATION OF THE VALUE OF PRODUCTS

- (vi) The value in U.S. currency of the volume of each of the three products above mentioned shall be calculated by multiplying the volume in barrels of each product (determined as in subclause (iii) hereof by the price per barrel of the corresponding product as described in subclause (iv) hereof.
- (vii) The value of the volume of each product obtained as in subclause (vi) above shall be converted into Trinidad currency at the average of the middle rate between the buying and selling rates quoted for sight drafts on New York by Barclays Bank (D.C. & O.), Port-of-Spain, Trinidad, at the close of business on each day of the relevant royalty period. If on account of Sundays, holidays or for any other reason the rate shall not be ascertainable for any day, the rate for the last preceding day for which a rate is ascertainable shall be used.

GENERAL

- (viii) The average of each of the daily low prices per barrel obtained as in subclause (iv) above together with the rate applicable to each millilitre of Tetra Ethyl Lead and the average of the middle rate of exchange as detailed in subclause (vii) above shall be published in the *Royal Gazette* as soon as may be after the end of that half-yearly royalty period.
- (ix) The sampling of crude oil shall be carried out in manners and at times to be agreed from time to time between the lessee or licensee and the Petroleum Technologist.
- (x) If at any time after the 1st January, 1952, the prices of products referred to in subclause (iv) above, or any of them, shall not be published in *Platt's Oilgram Price Service* (or in any other publication agreed by the parties as being a suitable substitute therefor), then the price or prices to be adopted for calculating the Field Storage Value shall be such other price or prices published in *Platt's Oilgram Price Service* for all or any of the products hereinbefore mentioned (or in any other publication agreed by the parties as being a suitable substitute therefor) as may be agreed between the parties with such adjustment as may be necessary. In default of such agreement the matter shall be referred to two arbitrators, one to be chosen by each of the parties with power to appoint an Umpire in case of disagreement, such arbitration to be held in Trinidad and be deemed a reference to arbitration under the provisions of the Arbitration Ordinance, Ch. 7. No. 1, or any Ordinance or Law amending or replacing the same for the time being in force.

51. The following table summarises the data relating to royalty assessment on crude oil produced on these 1934-Type leases. The free of royalty concession is restricted to certain oil used in drilling and production operations only.

PERIOD	BARRELS AS PER STATISTICAL RECORDS			Actual quantity valued (1) barrels	Average value per barrel \$ B.W.I.	Revenue \$ B.W.I.
	Gross Production	Free of Royalty	Nett Production			
1950						
July-December	4,016,615	15,788	4,000,827	4,001,350	3.96.91	1,588,158.18
1951						
January-June	4,001,595	12,631	3,988,964	3,989,554	3.97.59	1,586,220.96
July-December	4,270,513	14,747	4,255,766	4,256,352	3.96.16	1,686,187.81*
1952						
January-June	4,369,352	16,987	4,352,365	4,352,922	3.83.56	1,669,608.60
July-December	4,771,920	17,665	4,754,255	4,754,785	3.59.49	1,709,287.83 (2)

* Amended figure from previous report.

OLD TYPE LEASES

52. Ten per cent. of the crude oil produced on these leases is taken as royalty in kind and is sold back to the lessees at a price determined by aggregating the values of its gasoline, gas oil and fuel oil contents and deducting therefrom a refining charge. Certain fuel used in drilling, producing and refining is allowed free of royalty.

On the 30th June, 1952, Apex (Trinidad) Oilfields Limited surrendered three small old type leases which had nearly run their terms. The company was granted one new lease under the Land (Oil Mining) Regulations, 1934, with effect from the 1st July, 1952, covering the same area as the three old leases.

In December, 1950, Government gave to the lessees concerned twelve (12) months notice of its desire to terminate the then existing sales agreements under which crude oil taken as royalty in kind was sold back to the lessees. Accordingly these agreements terminated on the 31st December, 1952.

The following table shows the total sales of royalty oil by half-yearly periods for 1951 and 1952:—

PERIOD	BARRELS AS PER STATISTICAL RECORDS			Actual quantity sold (1) barrels	Average value per barrel \$ B.W.I.	Revenue \$ B.W.I.
	Gross Production	Free of Royalty	Nett Production			
1950						
July-December	4,120,061	70,337	4,049,724	405,099	3.58.51	1,452,319.42
1951						
January-June	4,012,983	71,677	3,941,306	391,253	3.66.05	1,443,149.04
July-December	3,976,915	69,130	3,907,785	390,890	3.71.34	1,451,537.06
1952						
January-June	3,739,997	69,092	3,670,905	367,196	3.70.50	1,360,475.83
July-December	3,763,606	82,300	3,681,306	368,244	3.49.55	1,287,198.81 (2)

FOOTNOTE : (1) Royalty oil sold on old-type leases or valued for royalty on the 1934-type leases is calculated at 34.9726 Imperial gallons per barrel.

Statistical volumes of gross production, F.O.R., &c., include some volumes reported at 34.973 Imperial gallons per barrel and some at 35 Imperial gallons per barrel.

(2) Revenue figures for the the period July-December, 1952 are provisional only and are subject to slight adjustment.

53. In addition to the above royalties on crude oil, the following table shows the amounts collected on natural gas sold, casinghead petroleum spirit recovered and minimum royalties paid on leases with small or no production.

PERIOD	NATURAL GAS SOLD		C.H.P.S. RECOVERY		Minimum Royalties \$
	Volume (M.C. Ft.)	Royalty \$	Volume (Imp. gals.)	Royalty \$	
<i>Old Type Leases :</i>					
1950					
July-December	114,192	2,302.04	158,185	1,689.15	—
1951					
January-June	16,224	331.08	183,444	2,035.30	—
July-December	43,619	876.98	167,391	2,373.76	—
1952					
January-June	37,256	745.12	171,462	2,568.36	—
July-December	50,264	1,005.28	79,633	1,646.27	—
<i>1934-Type Leases :</i>					
1950					
July-December	1,717,017	51,920.36	1,767,150	32,441.43	172,316.28
1951					
January-June	1,540,138	44,635.14	1,992,245	36,687.20	201,351.69
July-December	1,680,436	49,300.82	2,059,424	38,005.63	185,984.42*
1952					
January-June	1,271,405	34,501.54	2,163,933	42,700.01	186,750.03
July-December	1,493,192	40,834.37	2,147,243	42,359.42	178,970.55

* Amended figure from previous report.

54. The total royalty assessed during 1952 in respect of the two half-yearly royalty periods ended respectively on 31st December, 1951 and 30th June, 1952 was \$6,711,615.97 being the sum

of the separate items of revenue shown for those two periods in the preceding three tables. The amount collected by the Accountant General during the year in respect of royalties was \$6,797,118.35, the reconciliation between the two figures being as follows:—

Amount collected in respect of royalty	...	...	...	...	\$6,797,118.35
<i>Less :</i>					
Minimum rents paid in advance—					
Trinidad Petroleum Development Co.	...	...	...	\$ 2,819.07	
Dominion Oil Limited	...	...	...	10,500.00	
Siparia Trinidad Oilfields Limited	...	...	...	23,373.76	
Trinidad Leaseholds Limited	...	...	...	99,178.55	
Amount due by United British Oilfields of Trinidad on M.L.3090/16 for period May, 1949-May, 1951				4,437.81	
Amount due by Trinidad Petroleum Development Company being minimum rents for period 1st January, 1951 to 30th June, 1952				483.30	140,792.49
					<u>\$6,656,325.86</u>
<i>Add :</i>					
Amount due on Mining Lease No. 3478/45	...	...	...	\$ 2,688.55	
Amount due on Mining Lease No. 4432/37	...	...	...	1.24	
Minimum Rentals paid in advance:—					
United British Oilfields of Trinidad Limited	...	...	...	52,312.32	
Kern Trinidad Oilfields Limited	...	...	...	288.00	55,290.11
Amount assessed	...	...	...	...	<u>\$6,711,615.97</u>

55. The average value of crude oil per barrel was adversely affected during the second half of 1952 by the Gulf export price of Bunker "C" Grade Fuel Oil which fell by 10 cents U.S. per barrel on 2nd July and by a further 15 cents U.S. per barrel on 1st August, 1952. The combined effect of these two decreases in price was to lower the average value of the crude oil over the period 1st July-31st December, 1952, by 24 cents B.W.I. per barrel. There was no change in the price of either of the other two components of the crude oil used for its evaluation.

LOCAL SALES OF PETROLEUM PRODUCTS

56. On the 23rd November, 1951, the Gulf export price for kerosene increased by $\frac{1}{2}$ cent U.S. per U.S. gallon which increased the local refinery price at Pointe-a-Pierre by 1.0293 B.W.I. cents per Imperial Gallon. This price increase resulted in a net withdrawal of about \$5,600.00 per month from the Price Stabilization Fund which had fallen to \$6,534.68 by 29th February, 1952, and which would have been extinguished in a further five weeks unless a price adjustment had been made.

57. In the interest of the working classes, Government decided not to allow an increase in the price of kerosene but to subsidize it from the Stabilization Fund which would be kept in credit by increasing the price of gasoline.

58. Accordingly, the retail price of gasoline was increased by 1 cent B.W.I. per Imperial Gallon from 42 cents to 43 cents per Imperial Gallon on 26th March, 1952. This increase in the price of gasoline was sufficient to cover withdrawals from the fund to meet the deficit on kerosene sales and to permit a net increase of about \$6,000.00 per month in the fund.

59. The volume of motor gasoline assessed for excise duty (9 cents B.W.I. per gallon) increased by over 7.5 per cent. compared to the previous year, a revenue of \$1,560,225 being collected on a total of 17,335,833 gallons. Sales of aviation spirit at Piarco Airport amounted to 3,507,278 gallons (free of excise) an increase of 17 per cent. compared to 1951. Local sales of kerosene, also free of excise, amounted to 4,420,472 gallons.

ACCIDENTS

60. The reporting of accidents has been standardized and all those classed as serious, that is to say, those involving a fracture, amputation, deep incision or multiple injuries, are investigated by the department. During the year 80 accidents of a serious nature were reported, 28 of these occurred to drilling or production rigmen and 52 to people employed in other occupations on the oilfields. Refinery accidents are reported to the Factory Inspector.

61. Three fatal accidents occurred during the year. A driller was killed by a piece of fourble board breaking off and dropping on his head. A rigbuilder was knocked off a derrick during its erection and died in hospital a few days later. A workman fell off a transport vehicle and was killed.

62. The larger companies maintain very efficient safety departments and every effort is made to reduce the accident rate by educating the workmen to avoid dangerous practices and by constant inspection of equipment and plant.

LEGISLATION

63. The Oil Refining (Amendment) Regulations, 1952, effective on and from 15th April, 1952, extended the definition of "refinery area" to include any point within 300 feet of a marine oil loading pier or jetty and prohibited the navigation of a vessel of any description within the area without the special permission of the manager of the refinery.

64. The Oil Mining (High Water Mark) Ordinance, 1952, effective on and from 26th June, 1952, placed restrictions on the drilling of wells within 500 feet of High Water Mark and provided that alteration of high water mark by accretion, erosion or otherwise should not affect the rights of oil operators or royalty owners. (See paragraphs 67-71 of this report).

65. The Land (Oil Mining) (Amendment) Regulations, 1952, effective on and from September, 1952, modified the provisions of the Land (Oil Mining) Regulations, 1934 relating to survey requirements prior to the issue of a mining lease.

OIL MINING LEASES AND LICENCES

LAND LEASES

66. The Registration under the Companies Ordinance in February, 1952 of a Canadian Company, Dominion Oil Limited, a wholly owned subsidiary of The Standard Oil Company of California gave a considerable impetus to leasing. Twenty applications for crown oil mining leases were received during the year covering an area of 89,450 acres while applications for exploration licences covered 119,374 acres. Leasing activity extended to the northern basin of Trinidad which has not yet been proved to be commercially productive. In this area permission was given to Dominion Oil Limited to conduct exploratory operations for oil over certain parts of the United States Base territory.

MARINE LICENCES

67. The first two licences to be issued under the Submarine (Oil Mining) Regulations, 1945, defined the seaward boundary of the licenced area as the agreed three mile limit on the commencing date of the licence. The landward boundary was defined as the agreed high water mark on the commencing date of the licence.

68. It was found however that there was legal objection to the landward boundary so defined since rights (including oil rights) in land abutting high water mark are not limited by the position of High Water Mark on a given date but will move with any subsequent movement of High Water Mark due to accretion or erosion of the land. The three mile limit was also an unsatisfactory boundary from a practical point of view.

69. The two licensees whose respective licenced areas had been described by means of these unsatisfactory boundaries were asked and agreed to accept new licences in which the areas were redefined. In these two new licences and all others subsequently issued the landward boundary is High Water Mark (in whatever position it may take up during the term of the licence). The seaward boundary is defined by a chain of straight lines which approximate the position of the three mile limit on the commencing date of the licence. The co-ordinates of the end points of these lines are defined on an extension of the survey grid system for the Colony.

70. Since the drainage areas of a number of boundary wells drilled near to high water mark overlie both crown oil rights below high water mark and one or more private oil rights above high water mark each change in the position of high water mark would have necessitated a re-survey and a corresponding change in the percentage of the total royalty payable on the production of such a boundary well to each of the several royalty owners. This would have been most undesirable. Accordingly, the Oil Mining (High Water Mark) Ordinance No. 45 of 1952 effective on and from 26th June, 1952, was enacted.

71. This ordinance requires that before any well is drilled within 500 feet of high water mark a survey shall be made of the then existing high water mark for a distance of at least 500 feet on each side of the point on such high water which is nearest to the site of the proposed well. The ordinance then provides that after such high water mark has been determined by survey no alteration from time to time by erosion, accretion or otherwise of the actual high water mark shall alter or affect the rights of the oil operator who drilled the well or the rights of any person to royalty on its production.

72. In February a marine licence over the northern half of the Gulf of Paria comprising 346,000 acres of high seas and 37,000 acres of territorial waters was issued to Dominion Oil Limited of Canada.

73. At the end of the year Marine licences had been granted over the territorial waters of Trinidad from the south side of Port-of-Spain harbour around the entire east, south and west coasts up to the northern end of Matura Bay. Only a small area of 6,600 acres underlying water in excess of 20 fathoms in depth south of Cedros remained unleased. Licences have also been granted over all the submarine areas of the Gulf of Paria outside the territorial waters, except for some small reserved areas. Suitable structures visible for many miles at sea have been erected over the Trigonometric Survey Stations at Greenhill, La Fabiana, Monte Blanco and Point Rojas. These together with three others shortly to be erected on the Venezuelan coast will enable any marine drilling installation to be accurately and easily located.

74. Antilles Petroleum Company (Trinidad) Limited successfully completed a number of wells from shore line locations deviated for some distance under the sea. At the end of the year more than half of this company's total production was being produced by means of these deviated wells from its marine licenced area.

The map at Appendix I shows the marine licences granted and other data relevant to the marine areas. A summary of the leasing situation as at 31st December, 1952 is as follows:—

A.—Leases Registered :

Mining Leases	Locality	CROWN OIL RIGHTS—ACREAGE					
		Private Surface			Crown Surface		
		A.	R.	P.	A.	R.	P.
Principal Mining Leases as at 31st December, 1951	87	74,765	2	02½	161,546	2	36
Principal Submarine Licences as at 31st December, 1951	2	—	—	—	18,304	0	00
Principal Mining Leases issued during 1952 :—							
Apex Reg. No. 5637/52	1	—	—	—	207	3	04
T.N.A. do. 6331/52	1	—	—	—	1	3	33
T.P.D. do. 6764/52	1	13	1	37	205	1	01
6765/52	1	147	3	39	—	—	—
U.B.O.T. do. 3942/52		—	—	—	923	3	39
4037/52		80	3	29	845	2	27
6763/52	3	11	0	32	330	1	11
	96	75,028	0	19½	182,370	2	31
Principal Submarine Licence issued during 1952 :—							
Dominion Reg. No. 4056/52	1	—	—	—	383,000	0	00
	97	75,028	0	19½	565,370	2	31
Principal Mining Leases surrendered during 1952 :—							
T.N.A. Reg. No. 4141/52	1	—	—	—	500	0	00
U.B.O.T. do. 6750/52 (Part Surrender)		—	—	—	2,708	1	15
	96	75,028	0	19½	562,162	1	16
Supplemental Mining Leases issued during 1952 :—							
K.T.O. Reg. No. 7033/52		0	3	08	15	0	18
7034/52*	2	—	—	—	—	—	—
U.B.O.T. do. 3810/52*		—	—	—	—	—	—
4016/52		156	3	19	14	2	08
4042/52		—	—	—	4	3	12
4043/52*		—	—	—	—	—	—
7491/52*	5	—	—	—	—	—	—
	7	75,185	3	06½	562,196	3	14

Exploration Licences	Locality	ACREAGE					
		Surface Rights vested in Crown			Surface Rights vested in Crown		
		A.	R.	P.	A.	R.	P.
Area held at 31st December 1951	...	—	—	—	30,132	2	06
Area leased during 1952	...	—	—	—	—	—	—
		—	—	—	30,132	2	06
Areas approved for conversion to Mining Leases :							
T.P.D. Reg. No. 2236/50	Nariva	5,664	0	00	5,664	0	00
		—	—	—	24,468	2	06
Areas relinquished during 1952:							
U.B.O.T.	Nariva	23,629	0	00	23,629	0	00
Exploration Licences in force:							
T.N.A. Reg. No. 8867/51	Pointe-a-Pierre	—	—	—	839	2	06

*Supplemental Leases over Reserved Areas without right of surface entry.

B.—Leases granted but not yet registered :—

(i) Principal Leases :

Company	Locality	CROWN OIL RIGHTS—ACREAGE					
		Private Surface			Crown Surface		
		A.	R.	P.	A.	R.	P.
Antilles	3 ... Mayaro	—	—	—	8,400	0	00
	Cocal	—	—	—	1,240	0	00
	Ortoire	—	—	—	9,144	0	00
Apex	4 ... Tamana, Charuma, &c. ...	—	—	—	8,744	2	02
	Turure	778	2	18	1,980	2	35
	Turure, Manzanille, &c. ...	—	—	—	187	0	07
	La Brea and Erin	302	2	36	—	—	—
Dominion	1 ... Nariva	—	—	—	40,006	0	00
T.N.A.	3 ... Nariva	—	—	—	7,603	0	00
	Central Range	—	—	—	6,704	0	00
	Central Range	12,277	0	22½	268	0	22
T.L.L.	7 ... Naparima	308	0	00	20	0	00
	Savana Grande, Siparia and Moruga	290	0	00	1,587	0	00
	Moruga	16	0	33	—	—	—
	Siparia	—	—	—	79	1	32
	Moruga	—	—	—	2,360	0	00
	Savana Grande	—	—	—	159	0	01
	La Brea	4	3	39	—	—	—
T.P.D.	7 ... Moruga	—	—	—	274	0	00
	Moruga	1,688	3	35	292	2	20
	Savana Grande	999	0	20	220	2	39
	Erin	157	0	19	—	—	—
	Central Range	—	—	—	5,664	0	00
	Pointe-a-Pierre	—	—	—	61	2	01
Erin (Palo Seco Beach Camp)...	—	—	—	77	2	35	
U.B.O.T.	4 ... Cocal, Charuma and Ortoire ...	118	2	36	2,323	1	04
	Ortoire	—	—	—	2,791	0	00
	Ortoire	—	—	—	45,901	0	00
	Nariva	—	—	—	6,122	0	00
			16,941	2	14½	152,210	2	38

(ii) Supplemental Leases :

Company	Locality	CROWN OIL RIGHTS—ACREAGE					
		Private Surface			Crown Surface		
		A.	R.	P.	A.	R.	P.
T.P.D.	4 ... Central Range Reserve ...	49	0	31	—	—	—
	Siparia	11	3	34	31	3	35
	Erin	57	3	17	10	0	03
	Pointe-a-Pierre and Moruga ...	126	1	20	52	3	09
U.B.O.T.	6 ... Ortoire	—	—	—	24	2	36
	Ortoire, Charuma and Cocal ...	3,223	3	26	—	—	—
	Siparia	—	—	—	33	2	28
	Cocal	8	1	09	—	—	—
	Ortoire	875	1	34	—	—	—
	Ortoire	370	1	05	—	—	—
		4,723	1	16	153	0	31

C.—Submarine Licences granted but not registered up to 31st December, 1952.

Company	Locality	CROWN OIL RIGHTS—ACREAGE					
		Private Surface			Crown Surface		
		A.	R.	P.	A.	R.	P.
Dominion Oil Ltd.	1 East Coast	—	—	—	131,000	0	00
Reg. No. 500/53							
T.N.A. Reg. No. 1038/53	1 Gulf of Paria	—	—	—	231,157	0	00
T.P.D.	1 Gulf of Paria South coast ...	—	—	—	225,100	0	00
		—	—	—	587,257	0	00

Total acreage of areas granted but not yet registered up to 31st December, 1952 A. 761,285 R. 3 P. 19½

D.—Private Oil Rights.

Oil Company returns showed that 119,202 acres of private oil rights were under lease at the end of the year as compared to 113,845 acres at 31st December, 1951.

The total area of land held under oil mining lease under heads A, B and D is 529,309 acres or about 4 per cent. of the total area of Trinidad.

THE ASPHALT INDUSTRY

75. The following tables show the quantity of natural asphalt extracted from the Pitch Lake and the quantity of derived products exported:—

	1952	1951
	<i>Tons</i>	<i>Tons</i>
Extracted by Works and Hydraulics Department	48,304	38,413
Extracted by Company	122,291	116,292
	<hr/> 170,595	<hr/> 154,705
<i>Exported</i>		
Crude Asphalt	—	38
Dried Asphalt	52,485	45,557
Asphalt Cement	75,779	39,473
	<hr/> 128,264	<hr/> 85,068

STAFF

76. The staff of the Department during the year was as follows:—

Port-of-Spain Office

W. N. FOSTER	Petroleum Technologist
I. S. RUTHERFORD	Assistant Petroleum Technologist
A. G. A. SUTTON	Geologist—Left 29th April, 1952
G. M. COOLMAN	Chief Draughtsman
C. NILES	Principal Officer—Left 14th February, 1952
H. O. ROBERTS	Senior Clerk—Appointed Principal Officer 15th February, 1952
W. M. SAMLALSINGH	1st Class Clerk—Appointed Senior Clerk 15th February, 1952
E. G. HART	1st Class Clerk—Appointed 1st May, 1952
P. B. RAMROOP	2nd Class Clerk
L. MOHAMID	Acting 2nd Class Clerk—Left 1st November, 1952— Appointed to Customs Department
E. A. MAULE	Stenographer
R. HUGGINS	Messenger, Grade II.

San Fernando Office

J. BURSLEM	2nd Assistant Petroleum Technologist
J. D. BACK	Inspecting Officer
Y. ALI	Draughtsman
R. E. ALEXANDER	2nd Class Clerk
L. HARNANAN	Acting 2nd Class Clerk— <i>vice</i> H. A. Ramsankar who left 23rd February, 1952
C. E. GIRDHARIE	2nd Class Clerk—Appointed 2nd January, 1952 <i>vice</i> L. Harnanan—Left on secondment to Audit Department 11th December, 1952
R. AWONG	Acting 2nd Class Clerk— <i>vice</i> C. E. Girdharie— Appointed to act on 12th December, 1952
H. ALI	Messenger, Grade II.

I have much pleasure in recording the very able and willing assistance I have received from the members of the staff.

W. N. FOSTER
Petroleum Technologist

TABLE I—ANNUAL STATISTICS OF PRODUCTION, DRILLING, EXPORTS AND IMPORTS

Item	Unit	1952	% difference 1952/51	1951	1950	1949	1948	1947	1946	1945	1944
PRODUCTION											
1 Crude Oil	1,000's bbls.	21,258	+ 2.0	20,843	20,632	20,617	20,107	20,433	20,142	21,000	21,543
2 Natural Gasoline	do.	204	+ 1.5	201	185	168	182	181	187	182	185
3 TOTAL CRUDE OIL AND NATURAL GASOLINE	do.	21,462	+ 2.0	21,044	20,817	20,785	20,289	20,614	20,329	21,182	21,728
4 From Crown Oil Rights	do.	16,782	+ 2.3	16,397	16,300	16,288	15,309	15,373	15,541	16,878	17,430
5 From Private Oil Rights	do.	4,680	+ 0.7	4,647	4,517	4,497	4,980	5,241	4,788	4,304	4,298
6 TOTAL IMPORTS	1,000's bbls.	17,028	+ 4.2	16,347	11,258	11,678	8,882	5,917	2,933	3,394	3,188
7 Imports of Refined Products	do.	32	— 11.1	36	23	25	22	21	40	409	840
8 Imports of Crude Oil for Refining	do.	16,722	+ 5.5	15,855	11,214	11,333	8,840	5,896	2,893	2,119	1,082
9 Imports of Other Oils for Refining and Blending	do.	274	— 40.0	456	21	320	20	—	—	866	1,266
10 TOTAL EXPORTS	1,000's bbls.	34,778	+ 1.2	34,359	29,150	29,745	26,552	23,092	20,687	20,723	19,781
11 Exports of Crude Oil	do.	1,844	— 3.9	1,918	2,194	2,037	1,706	881	263	—	—
12 Exports of Refined Products	do.	32,934	+ 1.5	32,441	26,956	27,708	24,846	22,211	20,424	20,723	19,781
13 Refinery throughput (Crude Oil and Natural Gas)	1,000's bbls.	36,041	+ 2.5	35,160	29,813	29,617	27,074	25,281	22,713	23,170	22,498
14 No. of Wells Started	As stated	187	+ 29.9	144	149	146	145	162	124	110	105
15 TOTAL NUMBER OF DRILLING WELLS COMPLETED	As Stated	182	+ 30.0	140	144	144	141	157	108	100	100
16 Number of Drilling Wells completed as oil wells	do.	177	+ 35.1	131	136	130	134	141	104	95	96
17 Number of Drilling Wells abandoned while drilling (Dry holes, &c.)	do.	5	— 44.4	9	8	14	7	16	4	5	4
18 TOTAL FOOTAGE DRILLED (ALL WELLS)	Feet	736,535	+ 10.8	664,887	659,565	630,209	638,681	644,689	533,209	453,872	456,957
19 Footage drilled on Crown Oil Rights	do.	578,031	+ 10.8	521,751	524,374	451,624	489,987	446,798	406,017	345,071	352,988
20 Footage drilled on Private Oil Rights	do.	158,504	+ 10.7	143,136	135,191	178,585	148,694	197,891	127,192	108,801	103,969
21 Average depth of Completed Drilling Wells (Item 15)	Feet	4,286	— 4.4	4,481	4,436	4,065	4,259	4,155	4,772	4,586	4,535
22 TOTAL NUMBER OF WELLS PRODUCING (average during year)	As stated	2,407	+ 5.6	2,280	2,197	2,089	2,015	1,876	1,820	1,735	1,637
23 Number of Wells producing by flowing (average during year)	do.	594	+ 1.7	584	594	616	629	625	615	634	642
24 Number of Wells producing by Artificial Lift (Average during year)	do.	1,813	+ 6.9	1,696	1,603	1,473	1,384	1,251	1,205	1,101	995
25 AVERAGE DAILY PRODUCTION DURING YEAR PER PRODUCING WELL	Barrels	24.1	— 4.0	25.1	25.7	27.0	27.3	30.0	30.4	33.3	36.1
26 Average daily production during year per flowing well	Barrels	47.3	— 2.5	48.5	50.2	51.9	50.7	54.2	55.0	59.5	63.9
27 Average daily production during year per artificial lift well	do.	16.6	— 2.4	17.0	16.6	16.6	16.7	17.8	17.9	18.2	18.3
28 TOTAL VALUE OF DOMESTIC EXPORTS	000 \$	223,331	+ 7.6	207,584	167,562	181,790	127,105	82,262	57,572	54,815	49,273
29 TOTAL VALUE OF PETROLEUM AND ITS PRODUCTS	do.	175,490	+ 8.4	161,859	129,183	99,166	96,287	63,050	43,046	44,065	39,811
30 TOTAL VALUE OF ASPHALT AND ITS PRODUCTS	do.	5,981	+ 49.9	3,989	2,669	3,011	2,946	1,773	1,739	477	859
31 TOTAL NATURAL GAS PRODUCED	Millions of Cu. ft.	31,503	— 0.7	31,725	32,312	32,287	30,697	29,618	27,169	27,503	28,496
32 Used as Fuel	do.	16,870	+ 1.5	16,616	16,771	17,270	16,430	14,371	14,190	13,882	12,639
33 Replaced in Formation	do.	2,786	+ 7.8	2,590	2,674	2,387	1,241	902	807	96	191
34 Losses, Not collected, Vented, &c.	do.	11,847	— 5.4	12,519	12,867	12,630	13,026	14,345	12,172	13,525	15,666

TABLE II—MONTHLY ANALYSIS OF DRILLING WELLS FOR THE YEAR 1952

MONTH	Average No. of Rigs Running	No. of New Wells Started	No. of Old Wells Abandoned	No. of Oil Wells Recompleted	DRILLING WELLS COMPLETED						MONTHLY FOOTAGE DRILLED			Average Footage drilled per day
					Completed as Oil Wells		Abandoned while drilling				Crown Oil Rights	Private Oil Rights	Total	
					No.	Aggregate Depth in Feet	Dry holes		Technical causes					
							No.	Aggregate Depth in Feet	No.	Aggregate Depth in Feet	No.	Aggregate Depth in Feet		
JANUARY	27	17	3	20	16	87,064	—	—	—	—	41,465	13,900	55,365	1,786
FEBRUARY	29	14	5	9	19	88,771	—	—	—	—	43,193	16,471	59,664	2,057
MARCH	27	15	5	16	10	44,380	2	6,304	—	—	52,014	17,962	69,976	2,257
APRIL	26	11	1	6	8	28,128	—	—	—	—	35,723	11,239	46,962	1,565
MAY	27	13	1	10	16	78,840	1	8,114	—	—	40,763	12,581	53,344	1,721
JUNE	26	15	—	11	13	51,267	1	10,334	—	—	44,608	11,877	56,485	1,883
JULY	28	14	—	16	16	67,070	—	—	—	—	46,318	12,074	58,392	1,884
AUGUST	28	19	3	9	15	62,237	—	—	—	—	51,657	7,367	59,024	1,904
SEPTEMBER	30	15	1	8	15	58,388	—	—	—	—	52,554	17,341	69,895	2,330
OCTOBER	29	17	3	8	18	67,793	—	—	—	—	61,035	14,221	75,256	2,428
NOVEMBER	28	21	1	12	16	58,945	—	—	—	—	59,429	6,655	66,084	2,203
DECEMBER	27	16	2	12	15	58,719	—	—	1	3,620	49,272	16,816	66,088	2,132
TOTALS AND AVERAGES	Avg. 28	187	25	137	177	751,602	4	24,752	1	3,620	578,031	158,504	736,535	Avg. 2,012

Average depth of Drilling Wells Completed = 4,286 feet.

TABLE III

ANALYSIS OF MONTHLY PRODUCTION FOR THE YEAR ENDED 31ST DECEMBER, 1952

All crude oil quantity figures are for dry oil—1 barrel (bbl.)=34.9726 Imperial Gallons

MONTH	FLOWING				GAS/AIR/LIFT				PUMPING			Daily Average per Well Bbls.	PLUNGER LIFT			OTHER METHODS			SALT WATER			No. of Wells Produced	No. of Idle Wells	Total No. of Wells Abandoned	No. of Wells drilling at end of month	Total No. of Wells Started	Daily Average per Producing Well Bbls.	CROWN OIL RIGHTS		PRIVATE OIL RIGHTS		Total Oil Produced Bbls.			
	No. of Wells	Quantity Bbls.	% of Total Oil	Daily Average per Well Bbls.	No. of Wells	Quantity Bbls.	% of Total Oil	Daily Average per Well Bbls.	No. of Wells	Quantity Bbls.	% of Total Oil		No. of Wells	Quantity Bbls.	% of Total Oil	Daily Average per Well Bbls.	No. of Wells	Quantity Bbls.	% of Total Oil	Daily Average per Well Bbls.	No. of Wells							Quantity Bbls.	% of Total Fluid Production	Daily Average per Wet Well	No. of Wells Produced		No. of Wells	Quantity Produced Bbls.	No. of Wells	Quantity Produced Bbls.
January ...	597	848,577	48.6	45.9	82	112,420	6.4	44.2	1,389	687,509	39.4	16.0	227	96,478	5.5	13.7	59	1,376	0.1	0.8	790	347,216	16.6	14.2	2,354	1,281	937	23	4,595	23.9	1,625	1,363,260	729	383,100	1,746,360
February ...	616	840,949	50.6	47.1	87	107,679	6.5	42.7	1,389	620,396	37.3	15.4	227	90,917	5.5	13.8	61	1,923	0.1	1.1	788	308,776	15.7	13.5	2,380	1,266	942	19	4,607	24.1	1,644	1,295,091	736	366,773	1,661,864
March ...	592	865,547	48.5	47.2	94	119,648	6.7	41.1	1,404	706,662	39.6	16.2	223	91,495	5.1	13.2	62	2,350	0.1	1.2	800	354,662	16.6	14.3	2,375	1,276	949	22	4,622	24.3	1,639	1,395,120	736	390,582	1,785,702
April ...	583	826,308	48.2	47.2	98	112,037	6.5	38.1	1,387	679,634	39.6	16.3	224	95,303	5.6	14.2	60	2,004	0.1	1.1	795	344,398	16.7	14.4	2,352	1,306	950	25	4,633	24.3	1,613	1,328,874	739	386,412	1,715,286
May ...	591	842,131	47.5	46.0	95	109,740	6.2	37.3	1,398	711,706	40.1	16.4	218	107,715	6.1	15.9	67	1,892	0.1	0.9	814	380,946	17.7	15.1	2,369	1,304	952	22	4,647	24.1	1,636	1,378,363	733	394,821	1,773,184
June ...	607	815,118	47.2	44.8	107	110,905	6.4	34.5	1,404	698,277	40.4	16.6	223	102,476	5.9	15.3	55	1,773	0.1	1.1	808	370,660	17.7	15.3	2,396	1,291	953	22	4,662	24.0	1,664	1,348,641	732	379,908	1,728,549
Production 1st Jan., to 30th June, 1952 Totals	—	5,038,630	—	—	—	672,429	—	—	—	4,104,184	—	—	—	584,384	—	—	—	11,318	—	—	799	2,106,658	16.8	14.6	—	—	—	—	—	—	8,109,349	—	2,301,596	10,410,945	
July ...	599	881,952	48.2	47.5	106	110,986	6.1	33.8	1,423	721,645	39.5	16.3	227	111,721	6.1	15.9	62	2,105	0.1	1.1	813	376,429	17.1	14.9	2,417	1,287	953	18	4,675	24.4	1,674	1,437,465	743	390,944	1,828,409
August ...	581	889,469	48.6	49.3	118	109,035	6.0	29.8	1,435	719,585	39.3	16.2	229	109,516	6.0	15.4	67	2,118	0.1	1.0	849	370,304	16.8	14.1	2,430	1,284	956	23	4,694	24.3	1,686	1,436,733	744	392,990	1,829,723
September ...	586	839,565	47.8	47.8	102	96,970	5.5	31.7	1,449	710,227	40.4	16.3	238	108,789	6.2	15.2	65	2,222	0.1	1.1	895	371,232	17.4	13.8	2,440	1,288	957	24	4,709	24.0	1,686	1,390,384	754	367,389	1,757,773
October ...	596	866,068	48.0	46.9	110	102,756	5.7	30.1	1,458	726,654	40.2	16.1	238	107,329	5.9	14.5	61	2,831	0.2	1.5	882	386,459	17.6	14.1	2,463	1,281	960	22	4,726	23.6	1,710	1,422,449	753	383,189	1,805,638
November ...	588	859,175	48.7	47.9	110	95,760	5.4	29.0	1,455	701,781	39.8	16.2	233	104,239	5.9	14.9	68	2,690	0.2	1.3	874	382,526	17.8	14.6	2,454	1,303	961	29	4,747	24.0	1,709	1,382,587	745	381,058	1,763,645
December ...	596	920,951	49.5	49.8	119	102,377	5.5	27.7	1,455	723,240	38.8	16.0	238	112,762	6.1	15.3	55	2,217	0.1	1.3	887	414,226	18.2	15.1	2,463	1,310	964	27	4,764	24.4	1,709	1,465,908	754	395,639	1,861,547
Production 1st July, to 31st Dec., 1952 Totals	—	5,257,180	—	—	—	617,884	—	—	—	4,303,132	—	—	—	654,356	—	—	—	14,183	—	—	867	2,301,176	17.5	14.4	—	—	—	—	—	—	8,535,526	—	2,311,209	10,846,735	
Year's Production Totals	—	10,295,810	—	—	—	1,290,313	—	—	—	8,407,316	—	—	—	1,238,740	—	—	—	25,501	—	—	—	4,407,834	—	—	—	—	—	—	—	—	16,644,875	—	4,612,805	21,257,680	
Daily Averages	—	28,131	—	47.3	—	3,525	—	34.6	—	22,971	—	16.2	—	3,384	—	14.8	—	70	—	1.1	—	12,043	—	14.5	—	—	—	—	24.1	—	45,478	—	12,603	58,081	
Average during year	594	—	48.5	—	102	—	6.1	—	1,420	—	39.5	—	229	—	5.8	—	62	—	0.1	—	833	—	17.2	—	2,407	—	—	—	—	1,666	—	741	—	—	

Natural Gasoline Production 1952

	Barrels
From Crown Oil Rights ...	137,575
From Private Oil Rights ...	66,927
Total ...	204,502

TABLE IV
 PRODUCTION AND DISPOSAL OF NATURAL GAS
 (All Figures in thousands of cubic feet)

1952	GAS PRODUCTION (M.C. Ft.)		GAS DISPOSAL (M.C. Ft.)				
	Gas Production	Inter Company Sales and Interfield Transfers	Used as Fuel	Replaced in formation	Losses and unaccounted for	Not collected	Vented as surplus
January ...	2,671,340	902,435	1,403,328	244,906	112,359	428,106	482,641
February ...	2,587,693	870,034	1,294,094	209,686	170,976	337,603	575,334
March ...	2,658,943	927,353	1,440,963	225,956	145,939	421,603	424,482
April ...	2,558,830	920,123	1,398,854	222,394	127,454	406,224	403,904
May ...	2,604,680	935,278	1,440,533	239,911	111,788	394,818	417,630
June ...	2,566,831	954,032	1,361,707	249,696	130,679	458,208	366,541
July ...	2,701,198	1,050,638	1,458,501	233,179	173,602	425,438	410,478
August ...	2,727,842	1,018,880	1,461,949	246,786	185,715	436,885	396,507
September ...	2,608,557	967,663	1,443,500	233,494	157,896	455,462	318,205
October ...	2,581,606	878,902	1,369,602	239,648	176,593	442,862	352,901
November ...	2,556,088	911,941	1,368,276	223,747	176,759	491,867	295,439
December ...	2,679,225	950,765	1,429,048	216,220	98,135	441,433	494,389
TOTALS ...	31,502,833	11,288,044	16,870,355	2,785,623	1,767,895	5,140,509	4,938,451
Percentage of Total ...	100	—	53.6	8.8	5.6	16.3	15.7

TABLE IVA
 PRODUCTION AND DISPOSAL OF NATURAL GAS
 (All Figures in thousands of cubic feet)

1951	GAS PRODUCTION (M.C. Ft.)		GAS DISPOSAL (M.C. Ft.)				
	Gas Production	Inter Company Sales and Interfield Transfers	Used as Fuel	Replaced in formation	Losses and unaccounted for	Not collected	Vented as surplus
January ...	2,758,872	947,192	1,440,718	218,626	213,648	413,886	471,994
February ...	2,351,727	802,472	1,242,089	175,179	147,988	384,058	402,413
March ...	2,565,123	926,539	1,329,306	226,978	183,897	396,264	428,678
April ...	2,575,854	955,538	1,411,642	200,482	170,621	388,463	404,646
May ...	2,776,967	959,831	1,382,354	204,258	161,195	484,976	544,184
June ...	2,668,114	923,991	1,337,888	205,889	184,878	459,473	479,986
July ...	2,711,960	963,214	1,382,686	231,520	189,952	504,447	403,355
August ...	2,665,597	905,875	1,405,393	206,371	169,557	439,638	444,638
September ...	2,607,606	888,167	1,381,472	206,407	165,141	353,841	500,745
October ...	2,718,328	949,155	1,420,151	221,318	134,845	424,462	517,552
November ...	2,603,103	942,979	1,408,396	231,242	119,906	395,310	448,249
December ...	2,721,504	981,559	1,474,369	261,375	152,050	415,373	418,337
TOTALS ...	31,724,755	11,146,512	16,616,464	2,589,645	1,993,678	5,060,191	5,464,777
Percentage of Total ...	100	—	52.4	8.1	6.3	16.0	17.2

TABLE V

RETURN OF PRODUCTION, STOCKS AND DISPOSAL OF PETROLEUM DURING THE YEAR ENDED 1952

(All figures in Barrels)

	Crude and Process Oils	AVIATION SPIRIT		Motor Spirit	White Spirit	Burning Oil	Vapourising Oil	Gas and Diesel Oils	Fuel Oils (All Grades)	Lub. Oil and Grease	Bitumen	Other finished products	Liquified Petroleum Gas	Feed and Blending Stocks for Transfer
		100 Octane	Other Grades											
1. OPENING STOCKS	1,511,076	46,071	124,010	429,020	1,968	84,248	314,106	503,160	1,110,044	12,894	46,122	34,976	99	326,572
2. CRUDE OIL PRODUCTION INCLUDING CASING HEAD PETROLEUM SPIRIT	21,461,683	—	—	—	—	—	—	—	—	—	—	—	—	—
3. IMPORTS : Venezuela	15,627,048	—	—	—	—	—	—	94,338†	484,790†	—	—	—	—	—
Colombia	1,128,016	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Countries	240,081	—	—	—	—	—	—	—	—	31,524	—	—	—	—
TOTAL IMPORTS	16,995,145	—	—	—	—	—	—	94,338†	484,790†	31,524	—	—	—	—
4. RUNS TO STILLs	36,041,044	—	—	—	—	—	—	—	—	—	—	—	—	—
5. PRODUCTS OBTAINED	—	442,971	1,242,463	5,531,962	440	876,912	3,645,211	5,272,315	16,584,217	2,370	618,780	506,991	1,823	231,553
6. CONSUMPTION: Trinidad and Tobago	29,808	—	44	520,463	1,408	128,920	31	193,516	482,729	24,030	3,459	272,053	1,848	10,973
Bunkers	—	47,025	52,677	9,614	—	—	—	2,023,757	8,773,506	—	—	—	—	—
Refinery Fuel	—	—	—	—	—	—	—	—	189,702	—	—	—	—	—
TOTAL CONSUMPTION	29,808	47,025	52,721	530,077	1,408	128,920	31	2,217,273	9,445,937	24,030	3,459	272,053	1,848	10,973
7. SHIPMENTS: Sterling Areas	—	258,534	147,098	2,009,282	—	189,220	3,485,102	1,097,507	2,294,697	3,412*	448,093	182,618	—	5,403
North America	1,843,995	—	—	—	—	—	—	—	875,362	—	—	—	—	164,152
Other American Countries	—	7,996	931,997	82,553	—	8,598	—	23,163	92,519	—	6,551	2,792	—	—
Western Hemisphere	—	114,412	119,333	1,906,224	—	355,275	—	666,319	1,606,664	—	48,141	—	—	—
O.E.E.C. Countries	—	18,973	—	1,032,556	—	208,947	214,201	1,088,939	1,648,420	68	82,687	40,669	—	7,077
Rest of the World	—	—	—	—	—	—	—	279,760	960,133	—	30,668	—	—	—
TOTAL SHIPMENTS	1,843,995	399,915	1,198,428	5,030,615	—	762,040	3,699,303	3,155,688	7,477,795	3,480	616,140	226,079	—	176,632
8. CLOSING STOCKS ON 31ST DECEMBER, 1952	1,887,239	42,102	115,324	400,290	1,000	70,200	259,983	496,852	1,255,319	19,278	45,303	43,835	74	370,520
9. BALANCE NOT SPECIFICALLY ACCOUNTED FOR	165,818	—	—	—	—	—	—	—	—	—	—	—	—	—

* Includes 2,454 Barrels of Lubricating Oil re-exported.

† Re-exported as Bunkers.

TABLE VI

STATEMENT SHOWING CONTRIBUTIONS TO REVENUE OF THE COLONY BY THE OIL INDUSTRY

	1952	% difference 1952/51	1951	1950	1949	1948	1947	1946	1945	1944	1943
1. Customs	1,204,736	+ 72.8	697,095	974,118	1,238,426	778,276	650,525	370,193	636,035	709,372	578,030
Excise Duty on Petroleum Spirit	132,817	+ 47.1	90,291	115,637	36,910	—	—	—	—	—	—
2. Land and Building Taxes	113,301	+ 12.7	100,526	101,203	84,754	145,874	150,919	167,062	120,484	130,733	121,974
Vehicles, Licences and Registration	107,868	+ 18.7	90,885	107,647	69,371	—	—	—	—	—	—
3. Taxes on Income	17,091,094	+ 24.6	13,715,292	8,704,846	13,292,777	7,441,508	3,552,074	2,730,744	3,076,581	2,666,052	2,918,920
4. Reimbursements—Petroleum Office	27,750	— 8.4	30,287	32,151	24,611	30,071	23,884	16,808	21,839	19,176	16,621
5. Earnings of Government Departments	17,784	+ 64.6	10,804	10,504	5,045	1,934	2,079	1,319	555	760	491
6. Miscellaneous	42,365	+ 50.4	28,177	31,917	64,386	5,204	13,190	7,658	10,351	15,472	35,129
7. Royalty on Oil	6,592,399	+ 1.3	6,508,520	5,823,226	3,596,251	4,030,076	1,976,989	1,287,917	1,428,160	1,351,531	1,498,307
Royalty on Gas	85,031	— 14.3	99,189	81,233	74,217	—	—	—	—	—	—
8. Forests—Sale of Timber, &c.	61,701	+ 44.9	42,594	68,899	38,715	43,693	37,924	22,667	23,849	19,569	16,490
Exploration Licences...	14,192	+ 321.6	3,366	9,797	3,864	15,222	13,956	21,031	10,757	16,060	15,509
9. Emergency Tax	—	—	—	—	—	—	—	—	—	—	414,348
SUB-TOTALS	25,491,038	+ 19.0	21,417,026	16,061,178	18,529,327	12,491,858	6,421,540	4,625,399	5,328,611	4,928,725	5,615,819
10. Harbour dues on Crude Oil and Products	753,598	+ 2.8	732,802	587,516	585,901	557,040	367,345	226,055	190,480	169,513	—
SUB-TOTALS	26,244,636	+ 18.5	22,149,828	16,648,694	19,115,228	13,048,898	6,788,885	4,851,454	5,519,091	5,098,238	5,615,819
11. Fees and Payments for Specific Services	29,609	+ 31.0	22,600	26,146	12,308	9,294	16,261	11,060	10,331	8,009	10,783
12. Post Office	50,154	+ 16.3	43,140	30,529	34,656	25,061	28,066	25,405	19,424	19,166	23,520
13. Rent of Government Property	10,732	+ 12.7	9,523	5,588	11,151	4,174	5,662	49,999	2,509	1,079	1,489
14. Government Railway and Telegraph	165,312	+ 8.8	151,930	137,501	115,539	101,209	110,571	107,499	77,260	62,734	80,080
15. Wharves and Harbours (Rentals and other services)	74,499	+ 101.2	37,029	27,182	*26,350	39,027	127,194	47,767	50,533	28,259	34,499
16. GRAND TOTAL	26,574,942	+ 18.6	22,414,050	16,875,640	19,315,232	13,227,663	7,076,639	5,093,184	5,679,148	5,217,485	5,766,190
17. Total Revenue of the Colony under the above fifteen Heads	73,013,672	+ 12.0	65,215,814	56,038,019	58,391,567	49,593,902	42,075,147	47,776,085	34,900,299	29,158,819	33,373,031
18. Percentage of the Total Revenue of Colony contributed by the Oil Industry	36.4	+ 2.0	34.4	30.1	33.1	26.6	16.8	†10.7	16.3	17.9	17.3
19. Excise collected on Petroleum products (including duty shown under 1 above)	1,560,225	+ 7.3	1,454,567	1,367,860	2,394,109	2,381,909	2,135,938	1,762,496	1,491,779	1,255,876	1,212,306

* Corrected figure from 1949 Report.

† Note—Drop in percentage of total revenue contributed by Oil Industry in 1946 was due to total revenue of Colony being increased by re-payment by His Majesty's Treasury a loan of \$9,200,000.

TABLE VII

STATEMENT SHOWING THE AMOUNT OF MONEY DISBURSED IN THE COLONY (OTHER THAN CONTRIBUTION TO REVENUE) BY THE OIL INDUSTRY

	1952	% difference 1952/1951	1951	1950	1949	1948	1947	1946	1945	1944	1943
1. Payments to Employees *	24,743,598	+ 18.3	20,918,670	18,839,945	17,081,804	16,201,000	14,701,680	13,896,842	12,781,464	12,401,298	11,695,979
2. Payments to Contractors *	7,604,548	+ 1.0	7,527,758	6,125,164	4,488,089	3,543,432	2,855,917	2,369,675	2,410,418	2,871,227	2,969,415
3. Local Purchases of materials	5,662,114	+ 17.0	4,837,764	3,946,065	4,336,776	3,929,831	4,005,478	3,494,215	3,813,021	3,955,870	3,095,691
4. Other local expenditure (Rents, Private Royalties, &c.)	13,095,125	+ 26.4	10,361,590	8,456,079	7,080,430	3,817,212	3,181,947	2,619,541	2,609,726	2,273,991	2,316,201
5. Sub-total	51,105,385	+ 17.1	43,645,782	37,367,253	32,987,099	27,491,475	24,745,022	22,380,273	21,614,629	21,502,386	20,077 286
OVERSEAS PURCHASES OF MATERIALS, C.I.F. DOLLARS TRINIDAD CURRENCY											
6. Importation from the United Kingdom	22,888,622	+ 33.0	17,208,625	14,690,802	14,161,158	8,515,146	6,822,090	4,425,954	1,438,971	1,019,965	1,303,615
7. Importation from :											
Canada	927,095	— 1.9	944,464	724,216	516,130	} 5,690,016	4,758,800	2,322,331	5,136,245	5,085,790	3,679,393
United States of America	6,217,177	+ 82.8	3,401,644	5,469,200	7,766,696						
Other Sources	1,432,977	+ 85.3	773,214	947,512	1,012,427						
8. Sub-total	31,465,871	+ 40.9	22,327,947	21,831,730	23,456,411	14,205,162	11,580,890	6,748,285	6,575,216	6,105,755	4,983,008
9. Total (Items 5 and 8 of this Table and Item 16 of Table VI)	109,146,198	+ 23.5	88,387,779	76,074,623	75,758,742	54,924,300	43,402,551	34,221,742	33,868,993	32,825,626	30,826,484

* These amounts include hidden contributions to the direct revenue of the Colony in the form of Customs Duties, Income Tax, Licences, &c.

TABLE VIII

LIST OF OIL COMPANIES IN TRINIDAD SHOWING THE AREAS HELD UNDER MINING LEASE AND EXPLORATION LICENCE

ITEM	COMPANIES	LANDS HELD UNDER EXPLORATION LICENCE ON 31ST DEC., 1952																				
		OIL RIGHTS HELD UNDER REGISTERED MINING LEASE ON 31ST DECEMBER, 1952																				
		Crown Surface Crown Oilrights			Crown Surface Crown Oilrights			Private Surface Crown Oilrights			Private Surface Private Oilrights			Territorial Waters			High Seas Areas			Total		
A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.	A.	R.	P.		
1	ANTILLES PETROLEUM CO. (TRINIDAD) LTD.	—	—	—	254	1	36	5,900	2	38	12,361	1	21	12,544	0	00	—	—	—	31,060	2	15
2	APEX (TRINIDAD) OILFIELDS, LTD.	—	—	—	9,401	3	10	18,783	3	03	3,173	2	27	—	—	—	—	—	—	31,359	1	00
3	DOMINION OIL LIMITED	—	—	—	—	—	—	—	—	—	—	—	—	37,000	0	00	346,000	0	00	383,000	0	00
4	GOLDING PETROLEUM COMPANY	—	—	—	—	—	—	—	—	—	18	0	12	—	—	—	—	—	—	18	0	12
5	KERN TRINIDAD OILFIELDS, LTD.	—	—	—	346	1	30	610	3	23	13,458	2	23	5,760	0	00	—	—	—	20,175	3	36
6	NATIONAL MINING CORPORATION, LTD.	—	—	—	10,139	0	10	1,608	3	02	2,760	3	06	—	—	—	—	—	—	14,508	2	18
7	PREMIER CONSOLIDATED OILFIELDS, LTD.	—	—	—	500	0	00	1,026	2	11	3,601	1	25	—	—	—	—	—	—	5,127	3	36
8	TIMOTHY ROODAL...	—	—	—	—	—	—	9	2	12	—	—	—	—	—	—	—	—	—	9	2	12
9	SIPARIA (TRINIDAD) OILFIELDS, LTD.	—	—	—	2,008	3	00	10,976	3	28	79	2	17	—	—	—	—	—	—	13,065	1	05
10	TRINIDAD CENTRAL OILFIELDS, LTD.	—	—	—	6,996	2	31	—	—	—	35	2	00	—	—	—	—	—	—	7,032	0	31
11	TRINIDAD INVESTMENTS, LTD.	—	—	—	—	—	—	—	—	—	3,275	1	00	—	—	—	—	—	—	3,275	1	00
12	TRINIDAD LEASEHOLDS LIMITED	—	—	—	91,035	1	14	15,780	0	05	13,305 *8,826	3 1	30 03	—	—	—	—	—	—	120,121 *8,826	1 1	09 03
13	TRINIDAD NORTHERN AREAS, LTD.	839	2	06	1	3	33	—	—	—	13,490	1	06	—	—	—	—	—	—	14,331	3	05
14	TRINIDAD PETROLEUM DEVELOPMENT COMPANY, LIMITED	—	—	—	22,041	0	14	7,861	2	04	31,595	3	00	—	—	—	—	—	—	61,498	1	18
15	UNITED BRITISH OILFIELDS OF TRINIDAD, LIMITED	—	—	—	18,167	0	36	12,627	0	00½	12,686 *532	3 2	18 28	—	—	—	—	—	—	43,481 *532	0 2	14½ 28
	TOTALS	839	2	06	160,892	3	14	75,185	3	06½	119,202	0	16	55,304	0	00	346,000	0	00	757,424	1	02½

* Held jointly by Trinidad Leaseholds and United British Oilfields of Trinidad, Limited.

TABLE IX

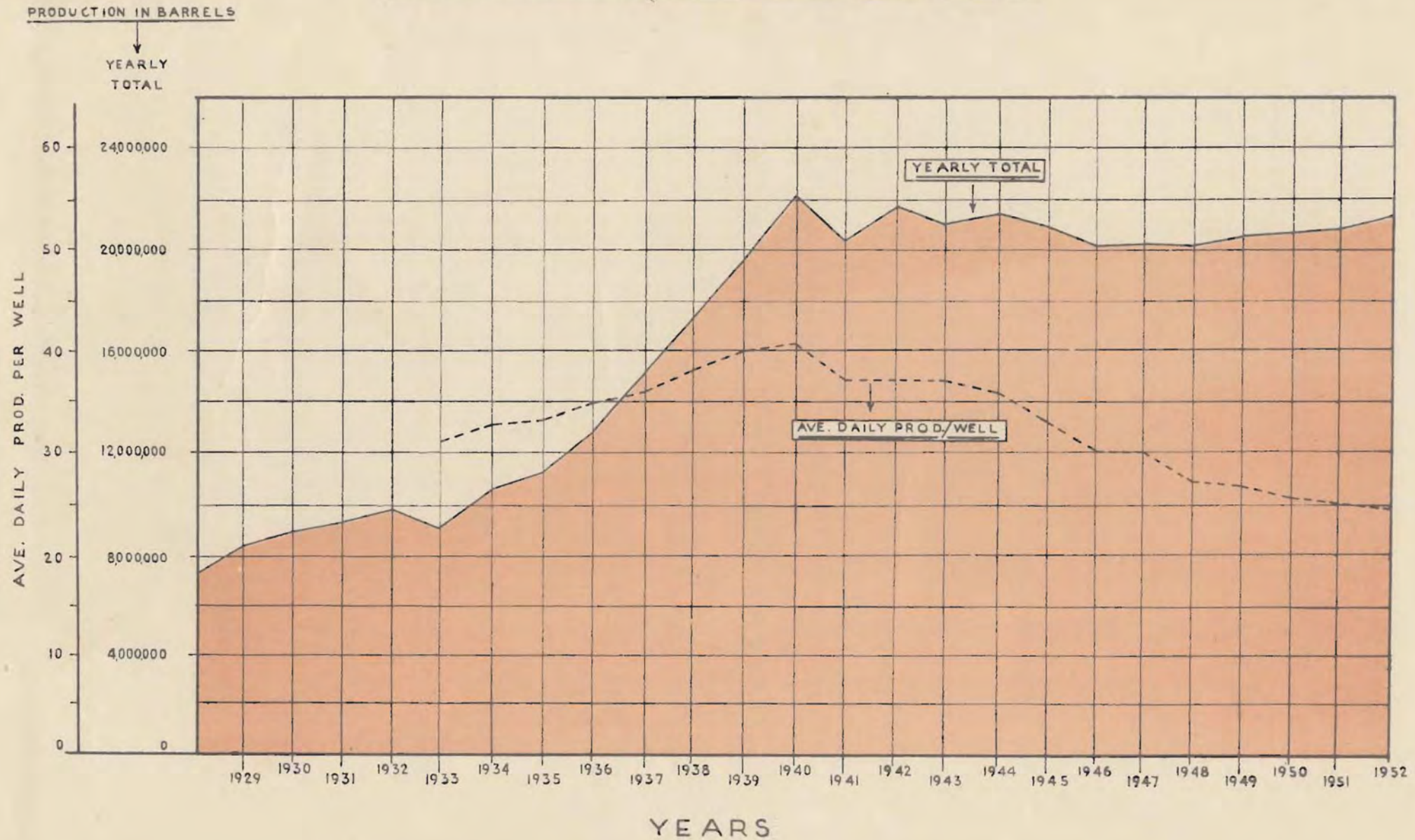
INFORMATION REGARDING EXPLORATORY WELLS DRILLING OR COMPLETED DURING 1952

Company	Well No.	Total Depth Feet	Remarks	Map Reference Appendix H
Apex (Trinidad) Oilfields Limited	Ryzabad ... 525	8,114 (4,967 feet included in 1951 return)	Abandoned. Unproductive	F. — 6
	do. ... 527	8,000 (6,433 feet included in 1951 return)	Producer	F. — 6
	do. ... 530	8,366	Producer	F. — 6
	do. ... 534	7,953	Producer	F. — 6
	do. ... 537	8,677	Drilling in progress. Objective 15,000 feet	F. — 6
	do. ... 539	5,687	Drilling in progress. Objective 8,300 feet	F. — 6
Trinidad Leaseholds Limited	Barrackpore ... 347	10,363 (9,883 feet included in 1951 return)	Producer	H. — 6
	Wilson ... 53	10,296 (8,563 feet included in 1951 return)	Producer. Joint interest with T.C.O.	H. — 6
	do. ... 54	9,698	Drilling in progress. Incomplete. Joint interest with T.C.O.	H. — 6
	Marac ... 1	12,347 (8,151 feet included in 1951 return)	Abandoned. Reached upper cretaceous	I. — 6
Trinidad Petroleum Development Company Limited	Coora ... 190	9,478 (9,478 feet included in 1951 return)	Producer. Well completed at 4,772 feet	F. — 6
	do. ... 191	11,617 (11,617 feet included in 1951 return)	Testing	F. — 6
	do. ... 192	10,034	Producer	F. — 6
	do. ... 193	9,550	Testing	F. — 7
	do. ... 195	5,703	Drilling in progress. Objective 10,500 feet	F. — 7
	Moruga ... 2	13,008 (10,201 feet included in 1951 return)	Testing in higher sands still to be completed	I. — 6
	do. ... 3	10,256	Drilling in progress. Objective 12,000 feet.	K. — 6
			Completed in January, 1953, at 11,448 feet	K. — 6
	New Grant ... 1	7,292	Objective, cretaceous at 12,000 feet. Abandoned owing to unfavourable structural conditions encountered	I. — 4
The United British Oilfields of Trinidad Limited	Penal ... P-175	9,170 (8,663 feet included in 1951 return)	Producer	G. — 6
	do. ... P-180	10,334 (3,881 feet included in 1951 return)	Abandoned	F. — 6
	do. ... P-189	9,310	Producer	G. — 6
	do. ... P-195	8,407	Drilling in progress. Objective 9,200 feet	G. — 6
	Cat's Hill ... CO-3	9,095	Testing	K. — 5
	do. ... CO-4	7,879	Drilling in progress. Objective ±10,000 feet.	J. — 5
	Balata East ... E-1	4,485	Producer in Oligocene Herrera sands. New field of 1-10 million barrel class may develop	M. — 4

TABLE X
SUMMARY OF OLD TYPE MINING LEASES CRUDE OIL SALES, PRICES AND ANALYSES

Half-yearly Assessment Periods		Net Production Bbls.	ROYALTY				Sub-Division of (Royalty) Crude into Products as per R.L.E. Analyses									
			10% taken in kind and sold to Producer Bbls.	Total Sale Price \$	Average Sale Price per Barrel \$	GASOLINE		GAS OILS				TOTAL GAS OILS		FUEL OIL		
						Quantity	Percentage	53-57D.I.	48-52D.I.	43-47D.I.	No. 2 Fuel	Quantity	Percentage	Quantity	Percentage	
1950 July-December	T.L.L.	2,300,278	230,027	855,870.07	3.72	28,405	—	—	—	4,774	59,867	64,641	—	136,981	—	
	U.B.O.T.	1,614,531	161,580	545,414.91	3.38	16,225	—	—	3,644	22,531	—	26,175	—	119,180	—	
	Apex	134,915	13,492	49,208.12	3.65	1,316	—	—	—	—	4,005	4,005	—	8,171	—	
	TOTALS AND AVERAGES	4,049,724	405,099	1,450,293.10	3.58	45,946	11.3	—	3,644	27,305	63,872	94,821	23.4	264,332	65.3	
1951 January-June	T.L.L.	2,256,226	225,623	852,868.69	3.78	27,592	—	—	—	4,718	60,491	65,209	—	132,822	—	
	U.B.O.T.	1,545,204	154,642	536,911.69	3.47	15,522	—	4,256	—	22,289	—	26,545	—	112,575	—	
	Apex	139,876	13,988	51,334.42	3.67	1,302	—	—	—	—	4,156	4,156	—	8,530	—	
	TOTALS AND AVERAGES	3,941,306	394,253	1,441,114.80	3.66	44,416	11.3	4,256	—	27,007	64,647	95,910	24.3	253,927	64.4	
July-December	T.L.L.	2,314,435	231,442	893,998.66	3.86	28,457	—	—	—	4,883	61,818	66,701	—	136,284	—	
	U.B.O.T.	1,451,109	145,224	502,084.35	3.46	13,778	—	3,999	—	—	21,653	25,652	—	105,704	—	
	Apex	142,241	14,224	53,455.09	3.76	1,326	—	—	—	—	4,104	4,104	—	8,794	—	
	TOTALS AND AVERAGES	3,907,785	390,890	1,449,538.10	3.71	43,561	11.1	3,999	—	4,883	87,575	96,457	24.7	250,872	64.2	
1952 January-June	T.L.L.	2,214,357	221,437	855,782.95	3.86	26,486	—	—	—	5,331	57,903	63,234	—	131,717	—	
	U.B.O.T.	1,319,415	132,045	450,741.22	3.41	14,915	—	—	3,488	14,012	126	17,626	—	99,504	—	
	Apex	137,133	13,714	51,951.26	3.79	1,319	—	—	—	—	3,995	3,995	—	8,400	—	
	TOTALS AND AVERAGES	3,670,905	367,196	1,358,475.43	3.70	42,720	11.6	—	3,488	19,343	62,024	84,855	23.1	239,621	65.3	
July-December	T.L.L.	2,240,540	224,055	813,962.05	3.63	27,302	—	—	—	4,993	58,107	63,100	—	133,653	—	
	U.B.O.T.	1,440,766	144,189	471,189.56	3.27	18,266	—	3,802	—	19,248	110	23,160	—	102,763	—	
	TOTALS AND AVERAGES	3,681,306	368,244	1,285,151.61	3.49	45,568	12.4	3,802	—	24,241	58,217	86,260	23.4	236,416	64.2	

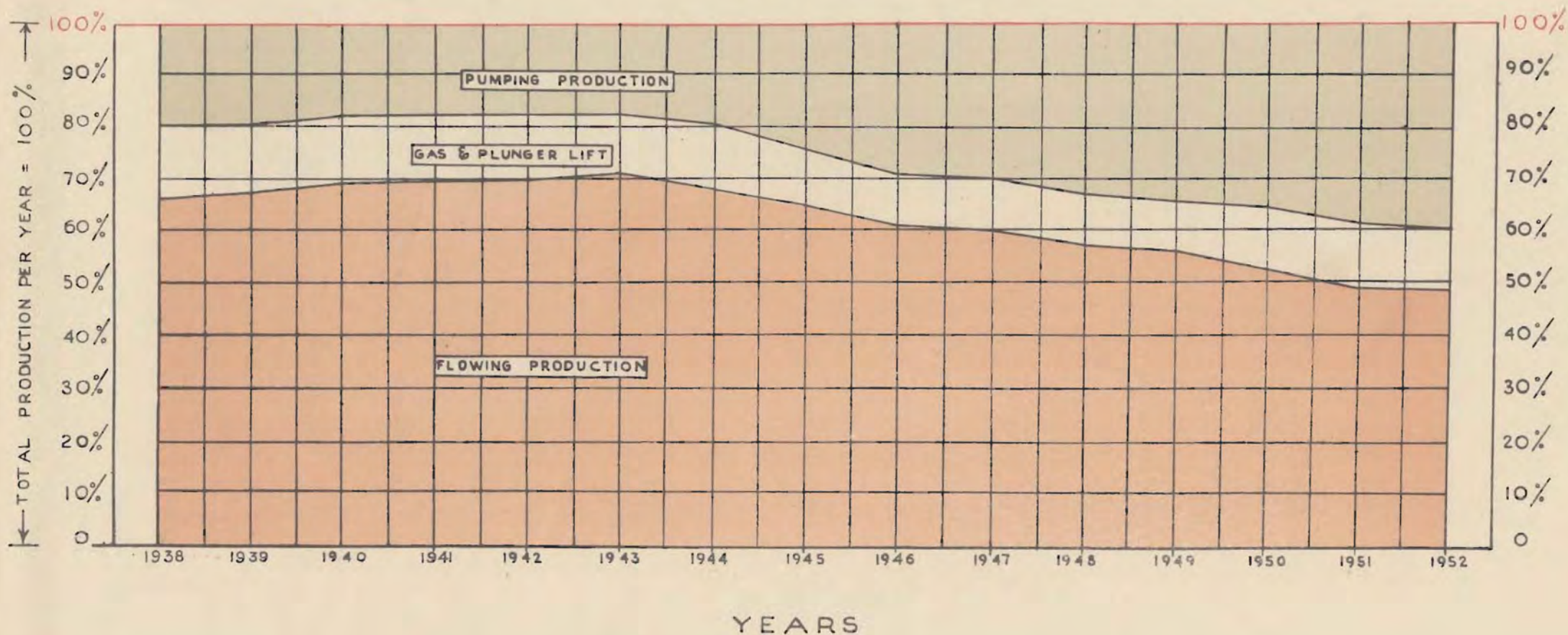
ANNUAL CRUDE OIL PRODUCTION



FOR FIGURES USED IN CONSTRUCTING GRAPH SEE TABLE 1 — ITEMS 1 AND 25 —

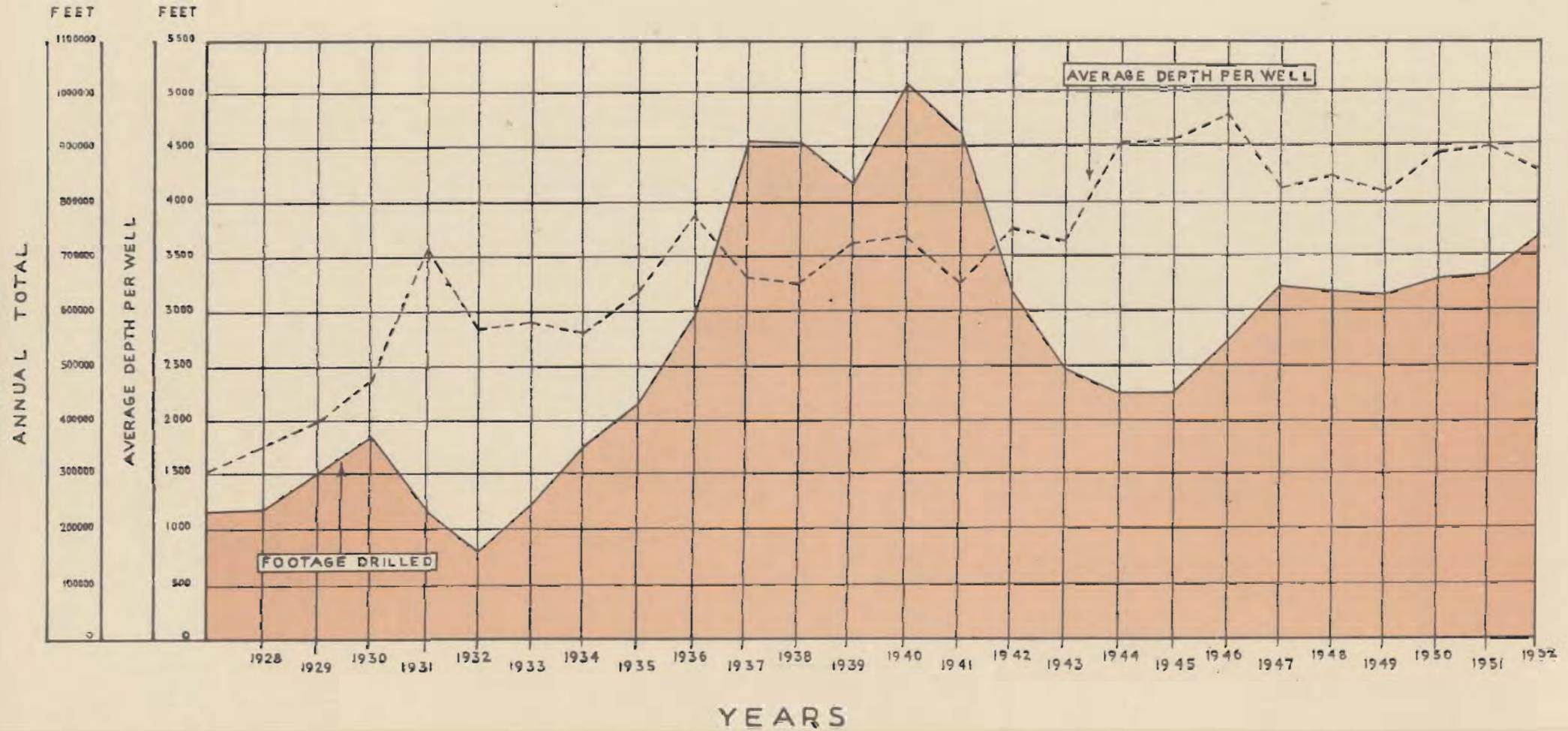
CRUDE OIL PRODUCTION METHODS

RELATIVE PROPORTIONS OF ANNUAL PRODUCTION (100%) OBTAINED BY THE THREE PRINCIPAL PRODUCING METHODS



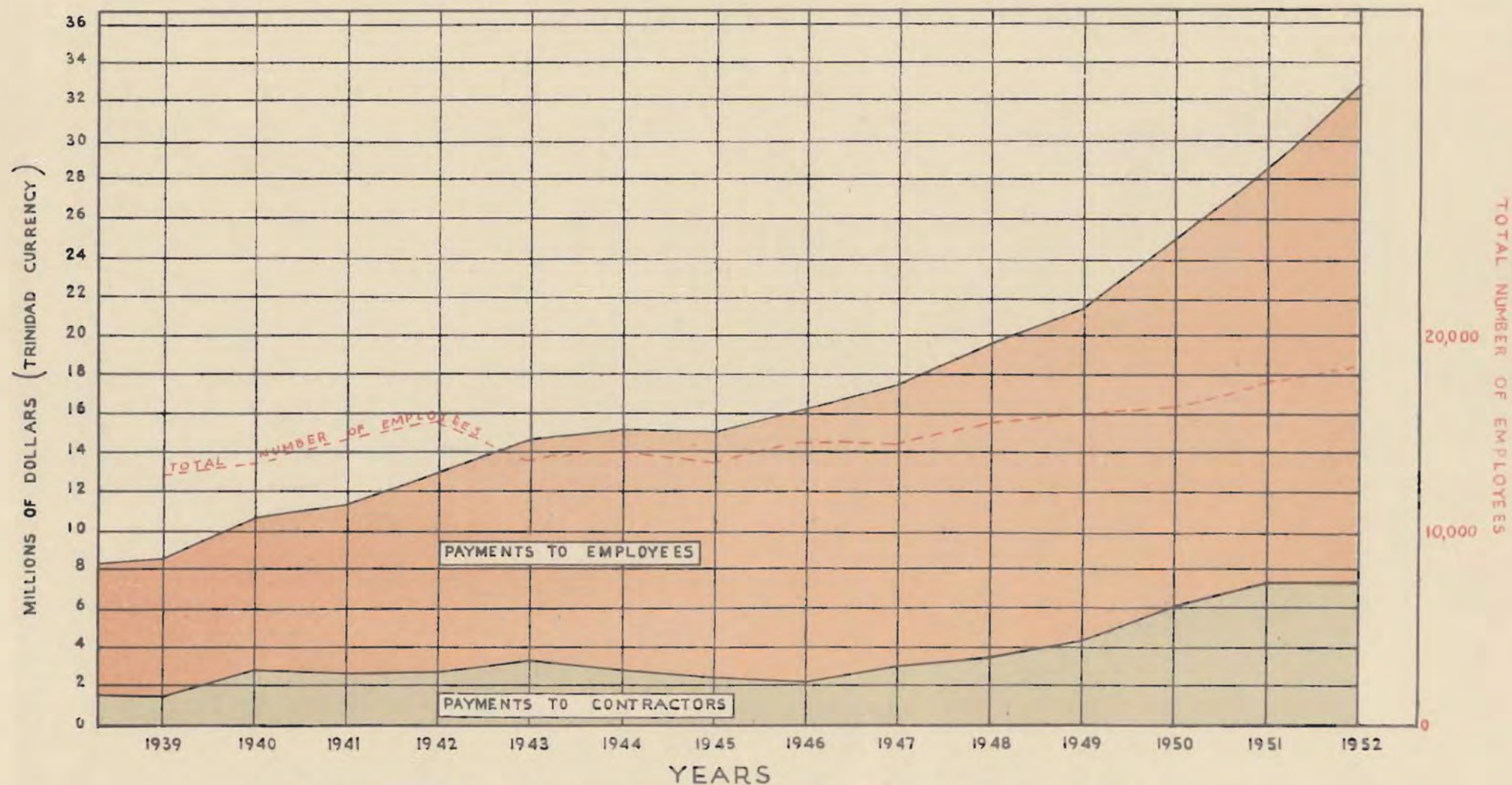
SEE TABLE III FOR DETAILED FIGURES FOR 1952

ANNUAL DRILLING FOOTAGE



FOR FIGURES USED IN CONSTRUCTING GRAPH SEE TABLE 1 - (ITEMS 18 AND 21) -

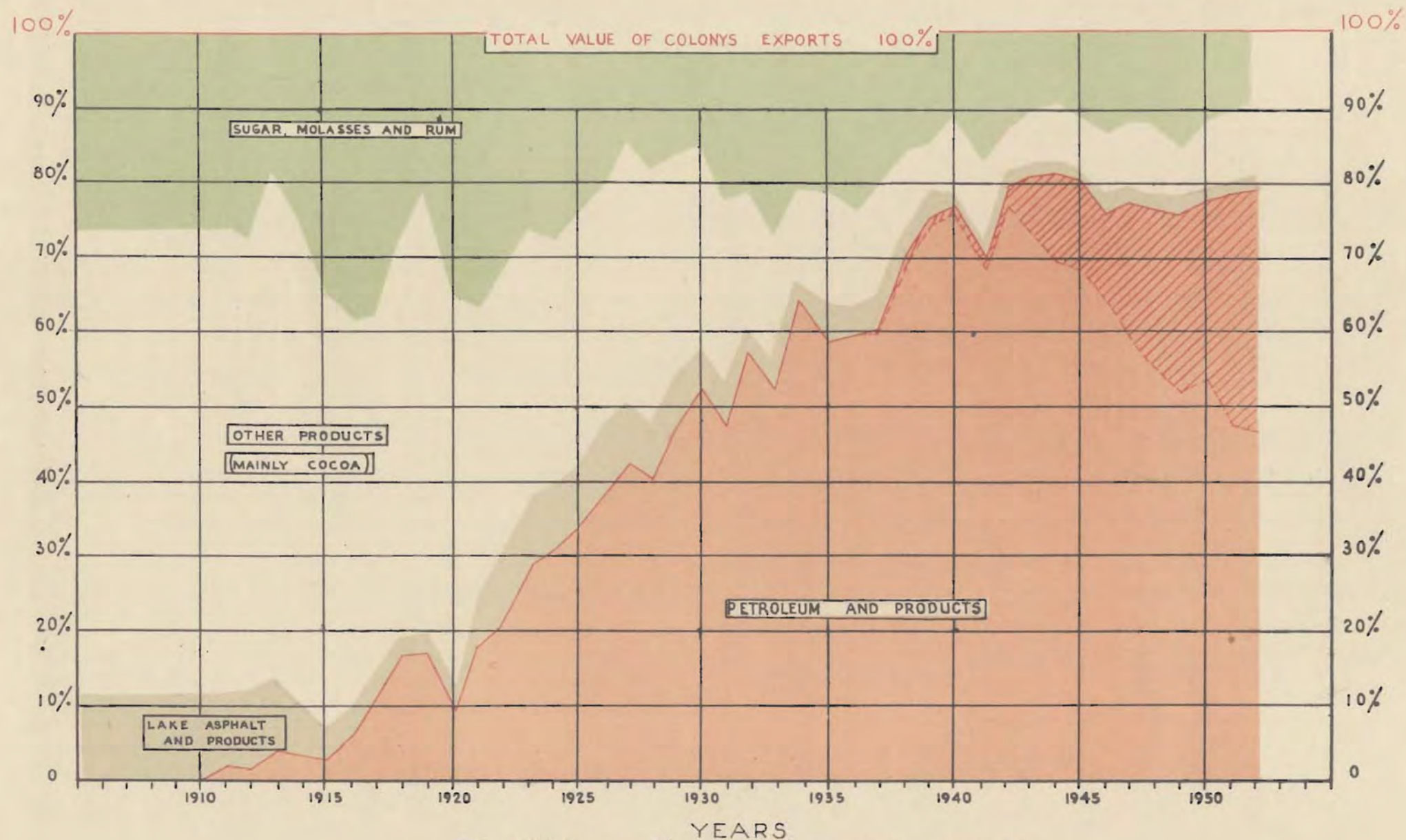
OIL COMPANIES ANNUAL PAYMENTS TO CONTRACTORS AND EMPLOYEES



FOR FIGURES USED IN CONSTRUCTING GRAPH SEE TABLE VII ITEMS 1 AND 2

N.B. PAYMENTS TO CONTRACTORS ARE MAINLY WAGES

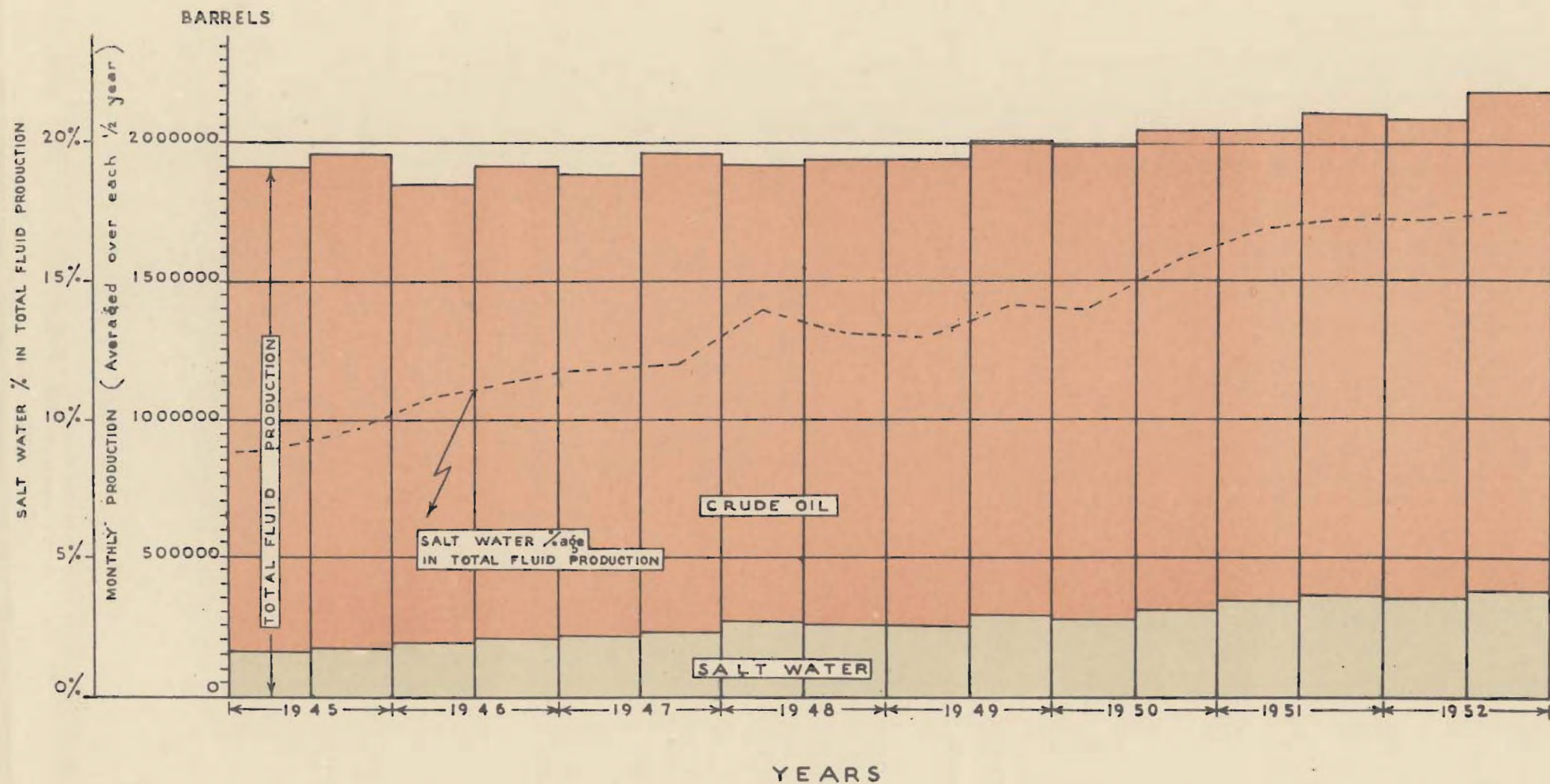
PERCENTAGE DISTRIBUTION OF TOTAL VALUES OF COLONY'S EXPORTS



FOR VALUES IN \$^s SEE TABLE I- ITEMS 28, 29 AND 30

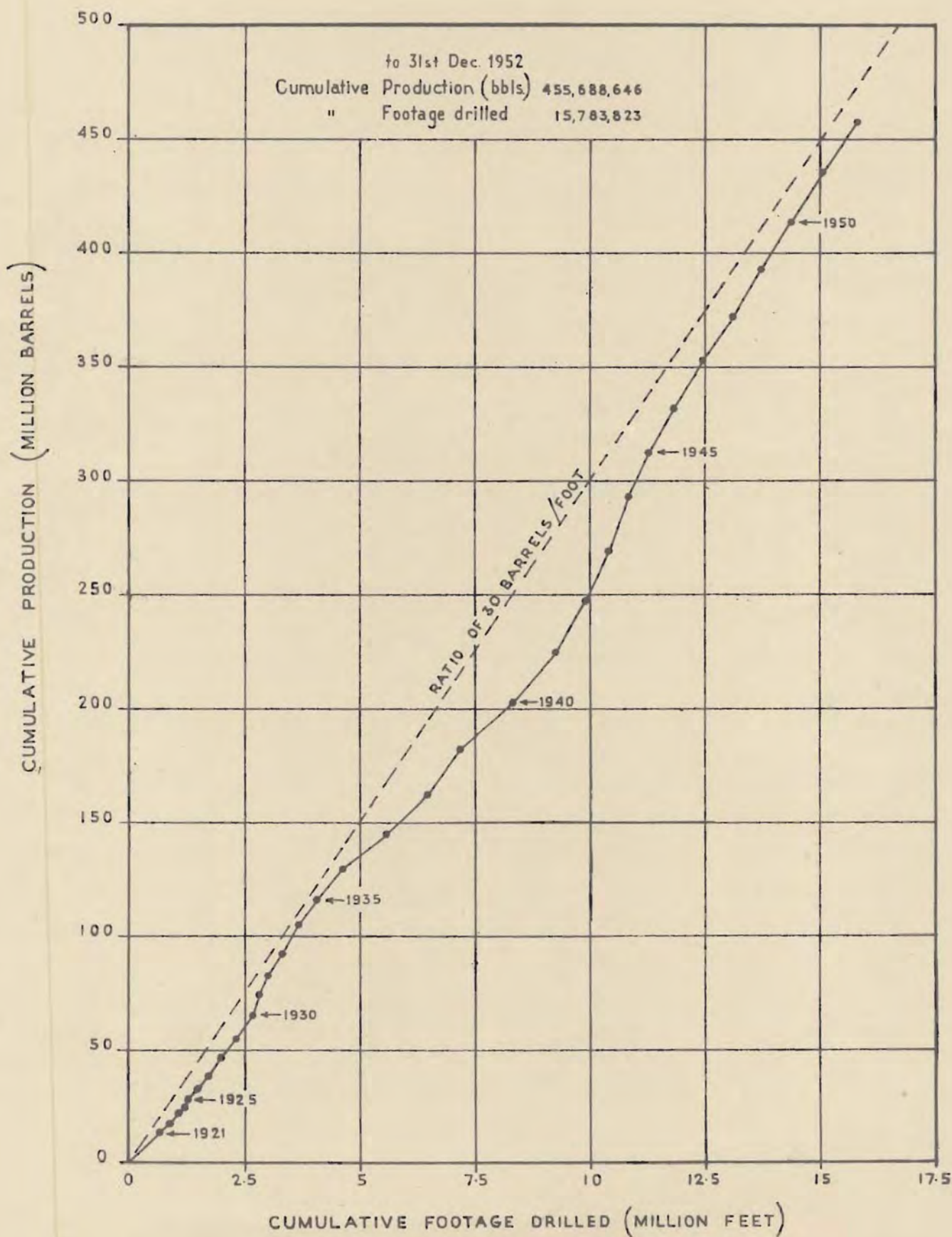
THE HATCHED AREA SHOWS THE VALUE OF IMPORTED CRUDE REFINED IN THE COLONY

PRODUCTION OF SALT WATER



SEE TABLE III FOR 1952 FIGURES IN DETAIL





CUMULATIVE PRODUCTION & FOOTAGE



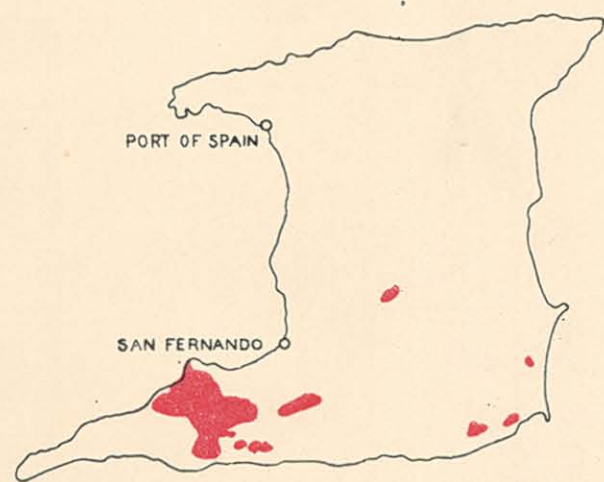
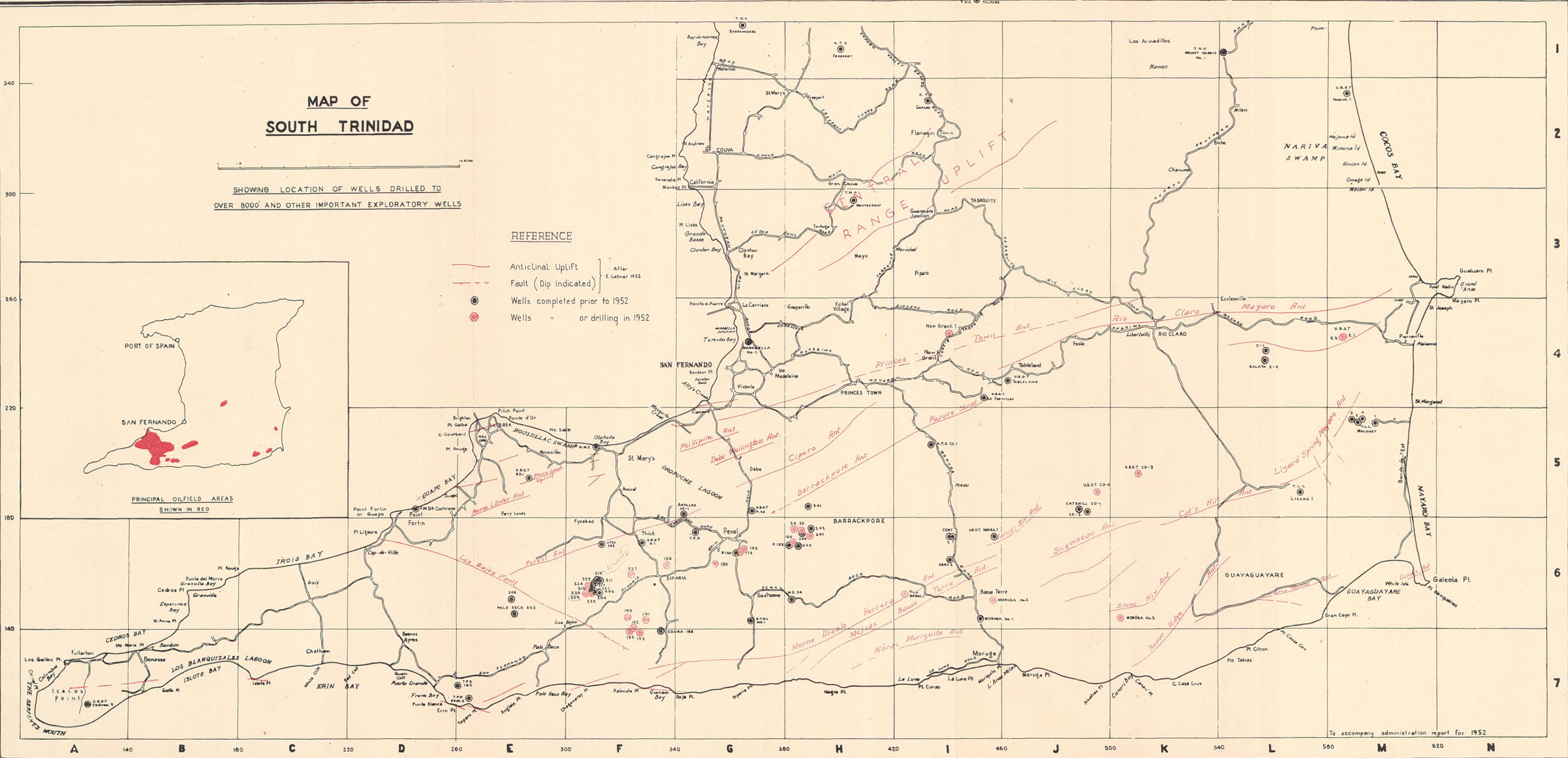
MAP OF SOUTH TRINIDAD

SHOWING LOCATION OF WELLS DRILLED TO OVER 8000' AND OTHER IMPORTANT EXPLORATORY WELLS

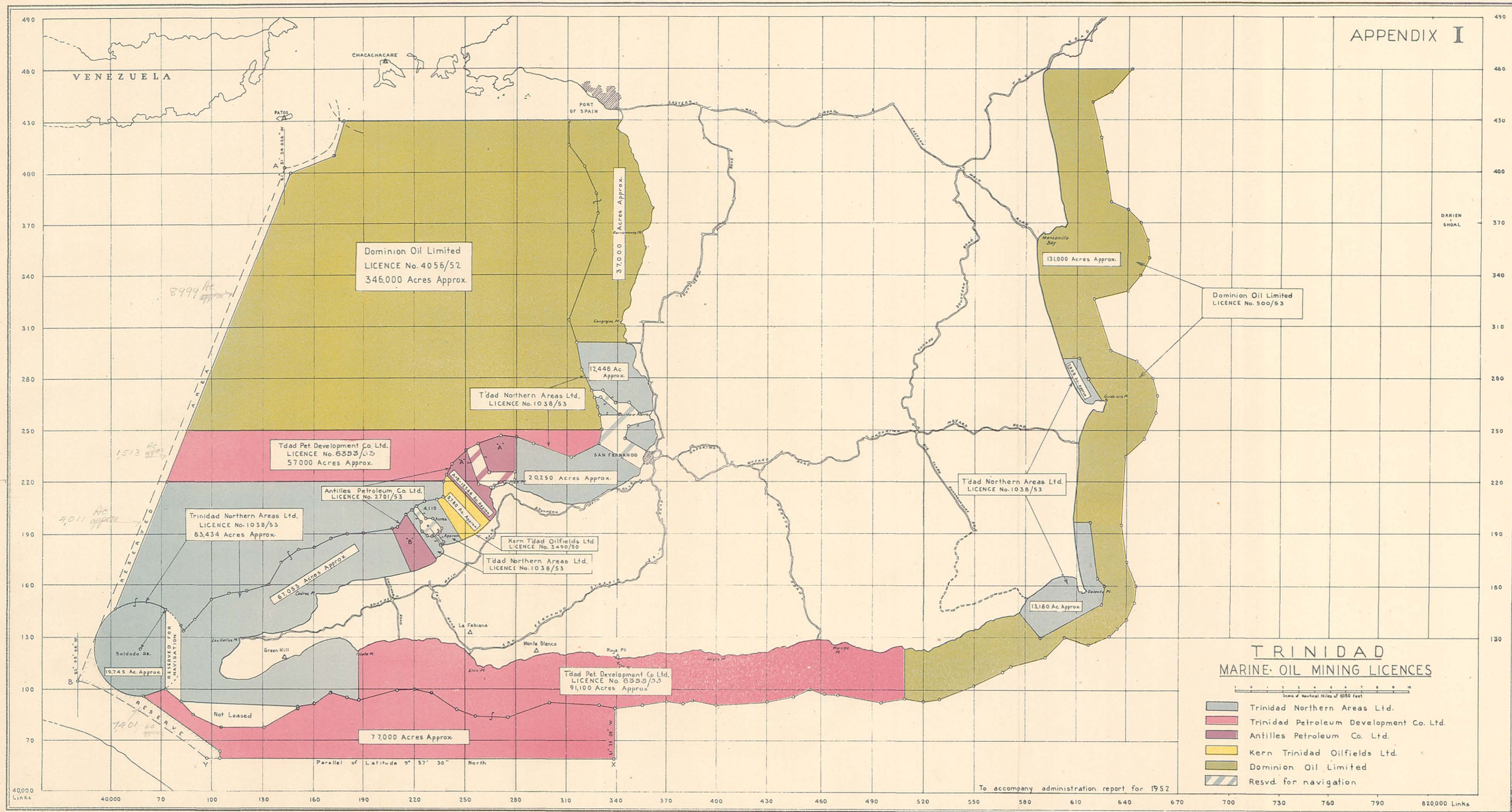
REFERENCE

-  Anticlinal Uplift
-  Fault (Dip Indicated)
-  Wells completed prior to 1952
-  Wells " or drilling in 1952

After E. Lehnar 1933



PRINCIPAL OILFIELD AREAS SHOWN IN RED



Dominion Oil Limited
LICENCE No. 4056/52
346,000 Acres Approx.

Dominion Oil Limited
LICENCE No. 500/53

Tdad Pet Development Co. Ltd.
LICENCE No. 6353/53
57,000 Acres Approx.

Tdad Northern Areas Ltd.
LICENCE No. 1038/53

Trinidad Northern Areas Ltd.
LICENCE No. 1038/53
83,434 Acres Approx.

Kern Tdad Oilfields Ltd.
LICENCE No. 3490/50

Tdad Northern Areas Ltd.
LICENCE No. 1038/53

Tdad Pet Development Co. Ltd.
LICENCE No. 6353/53
91,100 Acres Approx.

77,000 Acres Approx.

Tdad Northern Areas Ltd.
LICENCE No. 1038/53

13,180 Ac. Approx.

131,000 Acres Approx.

87,053 Acres Approx.

20,250 Acres Approx.

12,446 Ac. Approx.

37,000 Acres Approx.

1513 Ac. approx.

4,011 Ac. approx.

7,201 Ac. approx.

8,999 Ac. approx.

RESERVE

RESERVED FOR NAVIGATION

RESERVE

RESERVE

RESERVE

RESERVE

RESERVE

RESERVE

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RESERVE

Total Area of Reserved Marine Areas
Approx. 21,924.69 Ha.