

TRINIDAD AND TOBAGO.

Council Paper No. 67 of 1935.

MINES DEPARTMENT.

Administration Report of the Inspector of Mines
for the year 1934.

*Laid before the Legislative Council on the
17th of May, 1935.*

Previous Council Paper No. 47 of 1934.

Registered No. of Correspondence relating to the subject—M.P. No. 27271.

TRINIDAD :
PRINTED BY THE GOVERNMENT PRINTER,
GOVERNMENT PRINTING OFFICE,
PORT-OF-SPAIN.

1935,

[Price 84c.]

MINES DEPARTMENT.

Administration Report of the Inspector of Mines for the year 1934.

Council Paper No. 67 of 1935.

M.P. No. 27271.

HONOURABLE COLONIAL SECRETARY,

I have the honour to submit, for the information of His Excellency the Governor, the following report on the working of the Mines Department for the year 1934.

2. The production of 10,894,363 barrels of crude oil during 1934 is the highest obtained in the Colony since the inception of its Petroleum Industry. Of this production 6,391,544 barrels were obtained from lands the oil rights of which are in the Crown at 24.92 barrels per foot drilled, and 4,502,819 barrels from private lands at 47.23 barrels per foot drilled. The total 1934 production was obtained at the rate of 31 barrels per foot drilled, whereas in the year 1930, which is the peak year for footage drilled in the Colony, the production realised 25 barrels per foot drilled.

The year 1934 was also marked by the highest monthly production of over 1,000,000 barrels of crude oil.

The quantity of petroleum products exported shows an increase over 1933, the figures being as follows :

1933—8,909,298 barrels valued at	£2,254,055
1934—9,981,774 do.	£2,928,360

The Table hereunder, based on the Customs returns, shows a comparative statement of the average price for the years 1933 and 1934 of petroleum and its products exported from the Colony, from which it will be seen that during the period under review the prices on the whole show an improvement over 1933.

Table.

<i>Petroleum and Products Exported.</i>	<i>Average declared value (per barrel) for the years</i>	
	1933	1934
Crude Oil	3/2½d.	3/5d.
Fuel Oil	3/7½d.	4/6½d.
Petrol	9/2d.	9/3¼d.
Kerosene	19/11½d.	£1 3s. 3d.
Lubricating Oil	£2 8s. 1d.	£2 3s. 1½d.
Road Oil	12/5d.	12/1½d.

3. Petroleum and its products still formed the largest part of the Colony's exports in 1934, the value exported being more than three times that of the products of the next most important of its industries, viz., sugar (including molasses and rum). Petroleum and its products and Asphalt formed 66.79 per cent. of the total exports.

The value of the exports of the leading staple products of the Colony during 1934 is shown below :

	<i>Value</i>	<i>Percentage of</i>
	<i>£</i>	<i>total.</i>
Petroleum and its products	2,928,360	63.21
Sugar, molasses and rum	951,835	20.54
Cocoa	349,694	7.55
Asphalt	166,052	3.58
Coconuts, copra and coconut oil	88,823	1.92
Bitters	29,184	.63
Coffee	10,595	.23
Other Exports not enumerated	108,330	2.34
	£4,632,873	100.00

4. The Dubbs Cracking plant of the Trinidad Leaseholds, Ltd., mentioned in the 1933 Administration Report was completed, and is in operation. Apart from the above, there is little of interest to note regarding the construction of new works.

5. **REFINERIES.**—The capacity of the six main refineries operating in the Colony is 2,030,950 tons per annum. This includes two Dubbs Cracking plants.

There are two Edeleanu petroleum distillate refining plants, three Gas Absorption plants and one Gas Adsorption plant in operation in the Colony.

DEEP WATER LOADING PIERS.—Four deep water piers are in use with facilities for the delivery of petroleum and its products in cargo lots, bunkers, and also water supply to vessels. Means are also provided for bunkering vessels in the Harbour of Port-of-Spain.

MAIN PIPELINES.—Approximately 130 miles of main pipelines have been laid in the Colony. These do not include the usual field and gathering lines on the various fields.

MAIN STORAGE CAPACITY.—The total main tank storage capacity is approximately 3,900,000 barrels (35 Imp. gals.) exclusive of the flow tanks connected to the wells and the crude oil settling tanks.

6. The following table shows the number of feet drilled and the quantity of oil produced during 1934 as compared with the years 1932 and 1933 :

	YEAR ENDED 31ST DECEMBER, 1932.		YEAR ENDED 31ST DECEMBER, 1933.		YEAR ENDED 31ST DECEMBER, 1934.	
	<i>Feet drilled.</i>	<i>Oil won byrls. 35 gals.</i>	<i>Feet drilled.</i>	<i>Oil won byrls. 35 gals.</i>	<i>Feet drilled.</i>	<i>Oil won byrls. 35 gals.</i>
Crown Oil rights	111,730	5,610,896	173,496	5,290,743	256,455	6,391,544
Private Lands ..	61,557	4,515,225	62,206	4,270,610	95,328	4,502,819
	<u>173,287</u>	<u>10,126,121</u>	<u>235,702</u>	<u>9,561,353</u>	<u>351,783</u>	<u>10,894,363</u>

7. During the period 1st January to 31st December, 1934, 124 new wells were commenced of which 86 were on lands the oil rights of which are owned by the Crown and 38 were drilled on private lands the oil rights of which are in the surface owner. This brings the total number of wells drilled to the end of 1934 to 2,106, of which 1,339 are on lands the oil rights of which are in the Crown and 767 are on private lands. Of the wells commenced during the year 118 were completed.

8. The number of firms engaged in the mining of oil at the close of the year was 13 as against 14 at the end of 1933.

9. **ROYALTY.**—The royalty paid to the Government in 1934 in respect of crude oil won from lands the oil rights of which are owned by the Government amounted to £86,860 as compared with £89,588 in 1933. It will be noticed that although the production of Crude Oil from lands the oil rights of which are owned by the Government is greater in 1934 than in 1933 yet the royalty collected is less in 1934 than in 1933. This is accounted for by the fact that the production during the half-year ended 31st December, 1934, will be reflected in 1935.

10. **WAYLEAVES.**—The revenue collected under this head was wholly in respect of oil pumped along the public roads of the Colony and amounted to £362 15s. 8½d. as compared with £1,569 15s. 2d. for the previous year. The fall in revenue is chiefly due to the Trinidad Petroleum Development Co., Ltd., having ceased transporting their crude oil through pipelines subject to wayleave along roads.

11. **FEES.**—Fees charged for pipelines crossing the Trinidad Government Railway and public roads amounted to £543.

12. **LEASES AND LICENSES.**—Towards the end of 1933 the Kern Trinidad Oilfields, Ltd., surrendered their Crown and Alienated Lands lease, C.P. 82 of 1926, of 436 acres, and late in December, 1933, took another lease over approximately the same area with the addition of certain other Crown and Alienated lands surrendered by the Petroleum Development Co., Ltd. The new lease was registered as No. 141 of 1934 and was published as C.P. No. 63 of 1934.

The following Prospecting Licenses were extended pending the coming into force of the new forms of Mining Lease.

Prospecting License to the Apex (Trinidad) Oilfields, Ltd., registered No. 1938 of 1930 was further extended for two years from 1st July, 1934, by Deed registered No. 4140 of 1934.

Prospecting License to the Siparia Trinidad Oilfields, Ltd., registered No. 1742 of 1929, was further extended to the 30th April, 1935.

An Exploration License, registered as No. 1583 of 1934, was granted to the United British Oilfields of Trinidad, Ltd., over approximately 107,109 acres of Crown Lands in the Central portion of the Island. The Company have carried out and are still carrying out geophysical surveys over the area.

The Land (Oil Mining) Regulations were brought into force in December, 1934. This code of Rules indicates the conditions under which exploration licenses and mining leases may be granted by the Government.

13. RETURNS.—The various returns required to be submitted by the oil companies in respect of their operations have been regularly received in the Department, where, after being checked, they have been filed with the records of the Department.

14. A large number of inspections have been carried out by the officers of the Department in connection with the various operations taking place on the fields. The Managers have readily co-operated with the Department in endeavouring to carry out the provisions of the Ordinances and Regulations.

15. LEGISLATION.—The Prevention of Accidents Ordinance, Caput 157 and its five amending Ordinances Nos. 11 of 1928, 30 of 1928, 6 of 1929, 12 of 1929 and 18 of 1929 were repealed and consolidated by a new Prevention of Accidents Ordinance No. 28 of 1934.

Drilling Regulations Nos. 13, 21 and 30 were amended during the year.

SAN FERNANDO BRANCH OF THE DEPARTMENT.

16. A report by the Petroleum Technologist on the working of his branch is enclosed as Appendix 'B'.

PREVENTION OF ACCIDENTS ORDINANCE, CAP. 157.

17. During the period under review 170 factories in Trinidad and Tobago were worked. These factories on the whole were regularly inspected by officers of the Department and the recommendations made for ensuring the safety of the workmen employed have been readily carried out by the managers of the various factories.

QUARRIES.

18. The number of quarries worked during the past year was 86 as compared with 81 during 1933. From inspections that have been made they have, in most cases, been found to have been worked in a careful manner but, with few exceptions, they are relatively unimportant.

PETROLEUM ORDINANCE, CAP. 145.

19. The premises in which the various products of petroleum are stored have been carefully inspected, and it is satisfactory to note that, generally, care has been taken to ensure safety. The revenue derived from licenses issued to sell petroleum products during 1934 amounted to £429.

APPENDICES.

20. Appendix 'A' shows the list of oil companies operating in the Colony during the year 1934.

21. Appendix 'B' is the Report on the working of the Petroleum Office, San Fernando.

22. In Appendix 'C' will be found the daily average number of persons employed in oilfields and quarries and the quantity and value of minerals obtained during the period under review.

23. A statement of the oil produced and exported is shown in Appendix 'D'.

24. Appendix 'E' shows the amount of oil refined year by year.

25. Appendix 'F' consists of a series of charts depicting in graphic form the progress made in various industries during the past few years.

26. Appendix 'G' shows the relation of mineral exports to agricultural exports.

STAFF.

27. Mr. A. P. Catherall, B.Sc., late Inspector of Mines, retired from the Service and sailed for England on the 3rd April, 1934. It affords me pleasure to record the able and loyal assistance I have received from the members of the staff.

NELSON BETANCOURT,
Acting Inspector of Mines.

26th April, 1935.

APPENDIX A.

No.	Companies.	Nature of tenure of lands on which operations took place.		Disposal of Oil.	Remarks.
1	Trinidad Leaseholds, Ltd.	Crown Oil Rights under lease	Fyzabad, Barrackpore and Guayaguayare	Pumped to the Company's Refinery at Pointe-a-Pierre and there refined.	The Trinidad Leaseholds Ltd., is the most important company in the Colony from the point of view of refining and marketing, and is second only to the Apex (Trinidad) Oilfields, Ltd., in respect of production. The bulk of the Company's production still continues to be obtained from its holdings in the Fyzabad area where there has been a considerable increase in development with a resultant increase of production. In the Guayaguayare field there has been a small increase of drilling, and the production has fallen slightly. The production from the Barrackpore area has been maintained.
		Private Lands	Fyzabad and Barrackpore	Most of the refined products are exported in bulk	
2	United British Oilfields of Trinidad, Ltd.....	Crown Lands under lease	Morne L'Enfer Forest Reserve	Pumped to the Company's Refinery at Point Fortin and there refined.	Development of the Parry Lands field in the Morne L'Enfer Reserve has continued during the year and the footage drilled has been doubled. The production has been maintained at much the same level as last year. The production in the Morne L'Enfer Reserve formerly operated by the Petroleum Development Co. has been largely increased. The production at Point Fortin has been maintained.
		Private Lands	Point Fortin	Most of the refined products are exported in bulk	
3	Trinidad Central Oilfields, Ltd.	Crown Lands under lease	Tabaquite, Guapo and Lizard Springs	Pumped from Tabaquite and Lizard Springs refined, sold locally and exported; that from the Cruse Field is sold to the Trinidad Leaseholds, Ltd.	The operations of this Company at Tabaquite and Lizard Springs were on a small scale and the production has more or less been maintained. In the Cruse Field, Guapo, there has been a considerable increase in footage drilled with a resultant great increase in production.
4	Trinidad Lake Petroleum Co., Ltd.	Private Lands	Brighton	Refined	Producing only.
5	Apex (Trinidad) Oilfields, Ltd.	Crown Oil Rights under lease and prospecting license and private lands	Fyzabad and Siparia	Crude oil sold to the Trinidad Leaseholds, Ltd., casing head petroleum spirit sold the United British Oilfields of Trinidad, Ltd.	The Company is the largest producer in the Colony. Drilling and production have been maintained at about the same level as last year.

APPENDIX A.—Continued.

No.	Companies.	Nature of tenure of lands on which operations took place.	Disposal of Oil.	Remarks.	
6	Kern Trinidad Oilfields, Ltd.	Crown Lands under lease Private Lands	La Brea Guapo and Roussillac	Some of the production is exported in bulk and also sold to the Trinidad Leaseholds Ltd., West India Oil Co., and also United British Oilfields of Trinidad, Ltd.	There was a considerable increase of footage by this Company, mostly on its private lands at Guapo. The production from this area has also been considerably increased.
7	Trinidad Investments, Ltd.	Private Lands	Fyzabad	Sold to Trinidad Leaseholds, Ltd.	No drilling has been done and production has been increased.
8	Trinidad Petroleum Development Co., Ltd	Crown Oil Rights under lease and prospecting license Private Lands	Palo Seco Palo Seco and Naparima	Sold to the United British Oilfields of Trinidad, Ltd.	The Company's operations have been chiefly confined to the Palo Seco district where the footage drilled has greatly increased. The production also has considerably increased.
9	Palo Seco Oilfields (C. C. Stollmeyer)	Crown lands under lease	Palo Seco	Refined, and products sold locally....	A small amount of drilling has been undertaken. The production has slightly increased.
10	Trinidad Oilfields Operating Co., Ltd.	Crown Lands under lease Private Lands	San Francique Fyzabad, San Francique and Palo Seco	Sold to the West India Oil Co., for refining purposes. The Refinery has now been taken over by Trinidad Oilfields Operating Co., Ltd.	Both footage drilled and production obtained in the Palo Seco area have decreased. The production at Fyzabad has been maintained and at San Francique has declined. During the year the Company surrendered to the Petroleum Development Company their sub-lease in the Point D'Or and Grant's Trace areas.
11	New Dome Oilfields, Ltd.	Private Lands	Fyzabad	Sold to Trinidad Leaseholds, Ltd., and Kern Trinidad Oilfields, Ltd.	Drilling was considerably increased but the production was less than that during the previous year.
12	Siparia Trinidad Oilfields, Ltd.	Crown Lands under Prospecting license	Palo Seco	Sold to Trinidad Leaseholds, Ltd., and Trinidad Petroleum Development Co., Ltd.	Drilling was considerably reduced and a smaller production was obtained.
13	Trinidad Freeholds, Ltd.	Private Lands	Fyzabad	This Company has now been taken over early in the year by Trinidad Investments, Ltd.	Small production obtained from this area. No drilling.
14	Petroleum Options (1925) Ltd.	Private Lands	San Francique	Sold to Trinidad Leaseholds, Ltd.	This Company was re-organised in 1934, carried out drilling operations and obtained production.

APPENDIX B.

HONOURABLE INSPECTOR OF MINES (ACTING).

Production for the year under review amounted to 10,894,363 barrels or an increase of 13.94 per cent. over the 1933 figure of 9,561,354.40 barrels. This is a record for the Island. The footage drilled for the year was 351,783 feet as compared with 235,702 feet for 1933, or an increase of 49.25 per cent.

A comparative analysis of the figures for 1933 and 1934 respectively is given as follows:—

	1933.			1934.		
	<i>Production.</i>	<i>Feet Drilled.</i>	<i>Average production per well.</i>	<i>Production.</i>	<i>Feet Drilled.</i>	<i>Average production per well.</i>
Crown Lands ..	3,684,148.30	85,946	741	4,586,366	167,952	853
Alienated ..	1,606,594.66	87,550	1,014	1,805,178	88,503	987
Private ..	4,270,611.44	62,206	1,226	4,502,819	95,328	1,146

The number of barrels produced per foot drilled works out as follows:—

1930	25.3
1931	44.6
1932	58.6
1933	40.6
1934	31.0

One hundred and twenty-four new wells were started during the year, and were disposed of as under:—

	<i>Crown.</i>	<i>Private.</i>
Wells started in 1934	86	38
Wells brought forward as unfinished in 1933	31	9
Total drilling in 1934	117	47
Wells completed as producers	79	35
Wells completed as water well	1	—
Wells completed as dry holes but not officially abandoned	3	—
Wells temporarily abandoned	1	—
Wells officially abandoned	10	5
Wells unfinished at the end of 1934	23	7
	117	47
Old wells abandoned during 1934	5	3
Wells recompleted	14	8

The average number of wells producing shows an increase over previous years as follows:—

	1931	1932	1933	1934
Wells flowing	185	215	231	222
Wells pumping	504	469	443	465
Wells swabbing or bailing	60	81	124	140
Wells on air or gas lift	13	15	29	70
Wells on displacement pumping	—	6	9	9
	762	786	836	906

It will be noticed from the above that there has been a large increase in the number of wells operated by air or gas lift as compared with previous years. Table No. 1 attached gives the monthly drilling and footage figures.

At the end of the year the depth of the deepest well in the Island was 6,400 feet and there were 56 wells of 4,000 feet or more in depth as compared with 34 wells at the end of 1933.

The greatest production again came from the Fyzabad area with 63.1 per cent. of the total for the Colony divided amongst the Companies operating there.

During the year the past records in this office were overhauled and checked and the following tables have been compiled from the corrected records.

Table (2) showing number of wells started and footage drilled since the inception of the Industry.

Table (3) showing annual production since returns were first sent in to the Government.

Table (4) shows number of wells started annually and the status of these wells at the end of 1934.

During the year there were three fatal accidents and 31 other reportable accidents. An analysis of these shows that 47 per cent. of the whole were classified as unavoidable and 35 per cent. due to carelessness on the part of the deceased or injured man.

One well was struck by lightning and a small quantity of gas ignited but no material damage was done either to the well or surroundings.

A few minor alterations to the Drilling Regulations were made (a) to prevent houses being placed near wells; (b) regarding the reporting of water when found in the oil production from a well and (c) to give the Petroleum Technologist the right of appeal to the Petroleum Conservation Board should he disagree with a drilling or repair programme.

The recovery of barytes from drilling mud has been undertaken in several fields either by the batch principle or continuous process and satisfactory results are being obtained, in most cases the barytes is recovered as a sludge which is then added to the drilling fluid to increase its weight.

A new type of automatic plunger lift has been tried in connection with gas lift wells in the Island and is operating successfully where used.

Frequent inspections of drilling and production machinery were carried out in conjunction with the ordinary routine duties.

I am pleased to report that I have received continued co-operation in carrying out my duties by all the Companies and their Staffs.

11th April, 1935.

C. ERIK CAPITO,
Petroleum Technologist.

TABLE 1.
DRILLING AND PRODUCTION RETURN FOR 1934.

Month.	New Wells started.		New Wells completed as Producers.		Wells re-completed as Producers.		New Wells completed as dry or uncommercial and abandoned, or for fresh water.		Wells abandoned.		Total Wells started to date.	Footage drilled during month.	Production. (Barrels).	Flowing.		Pumping.		Bailing or Swabbing.		Air/Gas Lift.		Displacement Pumps.		Total Number of Wells Producing		Grand Total Crown and Private.	Percentage Wells producing to total drilled.	REMARKS.
	C	P	C	P	C	P	C	P	C	P				C	P	C	P	C	P	C	P	C	P	C	P			
January	7	3	5	3	—	—	—	—	2	—	1,993	18,997	852,189	138	88	283	172	102	38	28	9	2	6	553	313	866	43.45	
February	3	2	1	1	—	2	—	—	2	2	1,998	26,317	766,254	129	91	287	174	101	32	36	10	3	5	556	312	868	43.44	
March	8	4	8	1	3	1	—	—	—	—	2,010	20,082	876,544	140	89	285	181	102	27	43	11	3	5	573	313	886	44.08	
April	4	3	5	1	—	—	—	—	1	1	2,017	34,364	876,950	137	89	269	181	103	31	50	13	1	6	560	320	880	43.63	
May	9	3	3	2	4	1	—	—	—	—	2,029	30,054	926,785	132	85	265	183	110	32	50	15	3	5	560	320	880	43.37	
June	6	3	8	6	1	1	—	—	1	—	2,038	25,757	947,122	132	85	284	191	111	32	51	14	3	6	581	328	909	44.60	
July	11	3	7	1	2	—	1	—	2	—	2,052	31,509	1,008,669	135	85	286	187	109	33	64	15	3	9	597	329	926	45.13	1 Water Well.
August	7	4	5	5	1	—	—	—	—	—	2,063	33,543	975,697	128	88	289	188	113	34	61	16	3	10	594	336	930	45.08	
September	11	2	7	4	—	1	—	—	—	—	2,076	33,435	919,469	137	85	294	184	109	34	58	17	2	11	600	331	931	44.84	
October	5	5	7	3	2	1	—	—	1	—	*2,085	31,864	906,152	140	90	283	190	108	35	66	20	2	9	599	344	943	45.23	*On inspection, one old well recorded in Central Range was found to have never been drilled.
November	8	2	8	1	1	—	—	—	—	—	2,095	35,828	907,655	125	88	282	191	110	36	72	18	3	8	592	341	933	44.53	
December	7	4	15	7	—	1	3	—	6	5	2,106	30,033	930,877	133	87	256	191	110	34	81	19	1	7	581	338	919	43.64	
Totals	86	38	79	35	14	8	4	—	15	8	2,106	351,783	10,894,363	134	88	280	185	107	33	55	15	2	7	Averages				
Grand Totals	124		114		22		4		23		2,106	351,783	10,894,363	222		465		140		70		9		579	327	906	42.90	"C" denotes Crown Oil Rights. "P" denotes Private Rights.

TABLE 2.

COLONY OF TRINIDAD.

Number of Wells Started and Footage Drilled Annually.

YEAR.	WELLS STARTED.								FOOTAGE DRILLED.								YEARLY TOTALS.	CUMULATIVE.
	CROWN.		ALIENATED.		PRIVATE.		TOTALS.		CROWN.		ALIENATED.		PRIVATE.					
	Annual.	Cum.	Annual.	Cum.	Annual.	Cum.	Annual.	Cum.	Annual.	Cum.	Annual.	Cum.	Annual.	Cum.				
1867	—	—	—	—	1	1	1	1	—	—	—	—	964	964	964	964		
1900	—	—	—	—	1	2	2	2	—	—	—	—	600	1,564	600	1,564		
1902	1	1	—	—	2	4	3	5	600	600	—	—	1,315	2,879	1,915	3,479		
1903	1	2	—	—	—	4	1	6	1,172	1,772	—	—	1,060	3,939	2,232	5,711		
1904	1	3	—	—	—	4	1	7	860	2,632	—	—	—	3,939	860	6,571		
1905	—	3	—	—	—	4	—	7	—	2,632	—	—	—	3,939	—	6,571		
1906	1	4	—	—	2	6	3	10	1,104	3,736	—	—	1,499	5,438	2,603	9,174		
1907	1	5	—	—	2	8	3	13	798	4,534	—	—	1,563	7,001	2,361	11,535		
1908	—	5	—	—	4	12	4	17	—	4,534	—	—	2,352	9,353	2,352	13,887		
1909	—	5	—	—	6	18	6	23	—	4,534	—	—	5,362	14,715	5,362	19,249		
1910	5	10	—	—	7	25	12	35	3,771	8,305	—	—	4,319	19,034	8,090	27,339		
1911	8	18	—	—	38	63	46	81	4,902	13,207	—	—	34,010	53,044	38,912	66,251		
1912	10	28	—	—	35	96	45	126	6,839	20,046	—	—	32,881	85,925	39,720	105,971		
1913	25	53	—	—	18	114	43	169	13,813	33,859	—	—	26,388	112,313	40,201	146,172		
1914	50	103	—	—	16	132	66	235	35,146	69,005	—	—	23,283	135,596	58,429	204,601		
1815	31	134	—	—	19	151	50	285	29,208	98,213	—	—	25,652	161,248	54,860	259,461		
1916	28	162	—	—	20	171	48	333	30,866	129,079	—	—	28,035	189,283	58,901	318,362		
1917	38	200	—	—	6	177	44	377	41,227	170,306	—	—	9,557	198,840	50,784	369,146		
1918	38	238	—	—	4	181	42	419	47,700	218,006	—	—	6,796	205,636	54,496	423,642		
1919	39	277	—	—	13	194	52	471	49,741	267,747	—	—	16,769	222,405	66,510	490,152		
1920	44	321	1	1	23	217	68	539	53,002	320,749	1,665	1,665	24,009	246,414	78,676	568,828		
1921	49	370	4	5	32	249	85	624	71,318	392,067	2,896	4,561	44,631	291,045	118,845	687,673		
1922	68	438	4	9	19	268	91	715	88,299	480,366	8,701	13,262	39,463	330,508	136,463	824,136		
1923	71	509	4	13	33	301	108	823	79,907	560,273	7,060	20,322	58,805	389,313	145,772	969,908		
1924	71	580	4	17	35	336	110	933	90,141	650,414	6,190	26,512	55,197	444,510	151,528	1,121,436		
1925	52	632	10	27	37	373	99	1,032	90,908	741,322	14,442	40,954	63,543	508,053	168,893	1,290,329		
1926	69	701	13	40	46	419	128	1,160	109,866	851,188	18,100	59,054	72,691	580,744	200,657	1,490,986		
1927	73	774	13	53	73	492	159	1,319	101,920	953,108	17,288	76,342	122,465	703,209	241,673	1,732,659		
1928	43	817	32	85	64	556	139	1,458	71,481	1,024,589	58,842	135,184	112,863	816,072	243,186	1,975,845		
1929	52	869	59	144	48	604	159	1,617	92,590	1,117,179	118,583	253,767	96,309	912,381	307,482	2,283,327		
1930	76	945	31	175	56	660	163	1,780	170,389	1,287,568	85,561	339,328	116,706	1,029,087	372,656	2,655,983		
1931	9	954	25	200	26	686	60	1,840	42,972	1,330,540	95,410	434,738	80,260	1,109,347	218,642	2,874,625		
1932	21	975	20	220	20	706	61	1,901	44,568	1,375,108	67,162	501,900	61,557	1,170,904	173,287	3,047,912		
1933	36	1,011	22	242	23	729	81	1,982	85,946	1,461,054	87,550	589,450	62,206	1,323,110	235,702	3,283,614		
1934	56	1,067	30	272	38	767	124	2,106	167,952	1,629,006	88,503	677,953	95,328	1,328,438	351,783	3,635,397		
		1,067		272		767		2,106		1,629,006		677,953		1,328,438		3,635,397		

11th April, 1935.

C. ERIK CAPITO,
Petroleum Technologist.

TABLE 3

Yearly Trinidad Production.

YEAR.	Crown.	Accumulative Total.	Alienated.	Accumulative Total.	Private.	Accumulative Total.	Yearly Totals.	Grand Accumulative Total.
1908	—	—	—	—	37	37	37	37
1909	—	—	—	—	47,295	47,332	47,295	47,332
1910	55	55	—	—	105,023	152,355	105,078	152,410
1911	3,994	4,049	—	—	217,298	369,653	221,292	373,702
1912	9,104	13,153	—	—	476,801	846,454	485,905	859,607
1913	52,153	65,306	—	—	533,029	1,379,483	585,182	1,444,789
1914	512,299	577,605	—	—	480,917	1,860,400	993,216	2,438,005
1915	392,389	969,994	—	—	512,330	2,372,730	904,719	3,342,724
1916	478,815	1,448,809	—	—	449,060	2,821,790	927,875	4,270,599
1917	1,065,945	2,514,754	—	—	536,357	3,358,147	1,602,302	5,872,901
1918	1,588,805	4,103,559	—	—	493,115	3,851,262	2,081,920	7,954,821
1919	1,539,973	5,643,532	—	—	301,063	4,152,325	1,841,036	9,795,857
1920	1,758,039	7,401,571	—	—	325,071	4,477,396	2,083,110	11,878,967
1921	1,751,943	9,153,514	300	300	601,916	5,079,312	2,354,159	14,233,126
1922	1,534,796	10,688,310	147	447	909,727	5,989,039	2,444,670	16,677,796
1923	1,847,118	12,535,428	63,334	63,781	1,140,335	7,129,374	3,050,787	19,728,583
1924	2,410,737	14,946,165	76,467	140,248	1,570,856	8,700,230	4,058,060	23,786,643
1925	2,653,541	17,599,706	194,335	334,583	1,538,634	10,238,864	4,386,510	28,173,153
1926	2,642,585	20,242,291	298,468	633,051	2,030,426	12,269,290	4,971,479	33,144,632
1927	2,048,602	22,290,893	288,522	921,573	3,043,676	15,312,966	5,380,800	38,525,432
1928	2,660,649	24,951,542	1,462,665	2,384,238	3,561,273	18,874,239	7,684,587	46,210,019
1929	2,989,501	27,941,043	1,625,733	4,009,971	4,100,554	22,974,793	8,715,788	54,925,807
1930	3,429,030	31,370,073	1,831,338	5,841,309	4,158,589	27,133,382	9,418,957	64,344,764
1931	2,795,572	34,165,645	2,530,175	8,371,484	4,417,751	31,551,133	9,743,498	74,088,262
1932	3,200,083	37,365,728	2,410,813	10,782,297	4,515,225	36,066,358	10,126,121	84,214,383
1933	3,684,148	41,049,876	1,606,595	12,388,892	4,270,610	40,336,968	9,561,353	93,775,367
1934	4,586,366	45,636,242	1,805,178	14,194,070	4,502,819	44,839,787	10,894,363	104,670,099

C. ERIK CARITO,
Petroleum Technologist

11th April, 1935.

TABLE 4.

Table showing Number of Wells started in each Year and Status of these Wells at 31st December, 1934.

YEAR.	WELLS STARTED.			PRODUCING.			IDLE.			ABANDONED.			UNFINISHED.			TOTALS.			
	C	A	P	C	A	P	C	A	P	C	A	P	C	A	P				
1867	—	—	1							—	—	1				—	—	1	—
1900	—	—	1							—	—	1				—	—	1	—
1902	1	—	2							1	—	2				—	—	3	—
1903	1	—	—							1	—	—				—	—	1	—
1904	1	—	—							1	—	—				—	—	1	—
1905	—	—	—							—	—	—				—	—	—	—
1906	1	—	2							1	—	2				—	—	3	—
1907	1	—	2							1	—	2				—	—	3	—
1908	—	—	4	—	—	1	—	—	—	—	—	3				1	—	3	—
1909	—	—	6	—	—	2	—	—	3	—	—	1				2	3	1	—
1910	5	—	7	—	—	1	3	—	1	2	—	5				1	4	7	—
1911	8	—	38	1	—	7	2	—	2	5	—	29				8	4	34	—
1912	10	—	35	2	—	7	3	—	5	5	—	23				9	8	28	—
1913	25	—	18	8	—	4	8	—	1	9	—	13				12	9	22	—
1914	50	—	16	16	—	6	10	—	2	24	—	8				22	12	32	—
1915	31	—	19	10	—	9	8	—	5	13	—	5				19	13	18	—
1916	28	—	20	10	—	10	10	—	6	8	—	4				20	16	12	—
1917	38	—	6	20	—	3	5	—	—	13	—	3				23	5	16	—
1918	38	—	4	18	—	—	10	—	—	10	—	4				18	10	14	—
1919	39	—	13	22	—	2	7	—	2	10	—	9				24	9	19	—
1920	44	1	23	21	—	7	9	—	1	14	1	15				28	10	30	—
1921	49	4	32	25	—	10	9	—	6	15	4	16				35	15	35	—
1922	68	4	19	33	1	5	14	—	5	21	3	9				39	19	33	—
1923	71	4	33	31	1	17	11	—	2	28	3	14	1	—	—	49	13	45	1
1924	71	4	35	32	1	19	14	—	4	25	3	12	—	—	—	52	18	40	—
1925	52	10	37	27	5	17	7	—	7	18	5	13	—	—	—	49	14	36	—
1926	69	13	46	33	4	29	15	1	6	21	8	11	—	—	—	66	22	40	—
1927	73	13	73	33	8	35	15	2	17	25	3	21	—	—	—	76	34	49	—
1928	43	32	64	24	27	42	9	3	8	10	2	14	—	—	—	93	20	26	—
1929	52	59	48	28	37	36	6	17	4	16	5	8	2	—	—	101	27	29	2
1930	76	31	56	52	19	38	9	7	6	13	5	11	2	—	1	109	22	29	3
1931	9	25	26	6	19	19	—	4	1	2	2	6	1	—	—	44	5	10	1
1932	21	20	20	18	16	16	—	3	1	3	—	3	—	1	—	50	4	6	1
1933	36	22	23	25	20	20	1	2	—	7	—	3	3	—	—	65	3	10	3
1934	56	30	38	43	25	31	—	—	—	5	—	1	8	5	6	99	—	6	19
Totals	1,067	272	767	538	183	393	185	39	95	327	44	272	17	6	7	*1,114	319	643	30
	2,106															2,106			

* Includes 6 Gas Wells, and 7 Water Wells.

C. ERIK CAPITO,
Petroleum Technologist.

11th April, 1935.

APPENDIX C.

Daily average number of persons employed in Oilfields and Quarries and the quantity and value of minerals obtained during the year ended 31st December, 1934.

Minerals.	Daily average number of persons employed.			Quantity.	Approximate Value. *
	Males.	Females.	Total.		
Oil	5,347	85	5,432	10,894,363 barrels	1,567,733 2 2
Asphalt	554	3	557	† 70,071 tons	43,794 0 0
Private Quarries (Limestone, Gravel, &c.)	325	97	422	160,717 tons	13,223 5 2
Government Quarries (Limestone, &c.)	256	67	323	80,869 tons	10,948 13 6

* The values in this column are those returned by owners and managers and represent the value at the place of production.

† In addition to this amount 22,758 tons were extracted from the Pitch Lake by the Public Works Department for use on the roads of the Colony.

APPENDIX D.

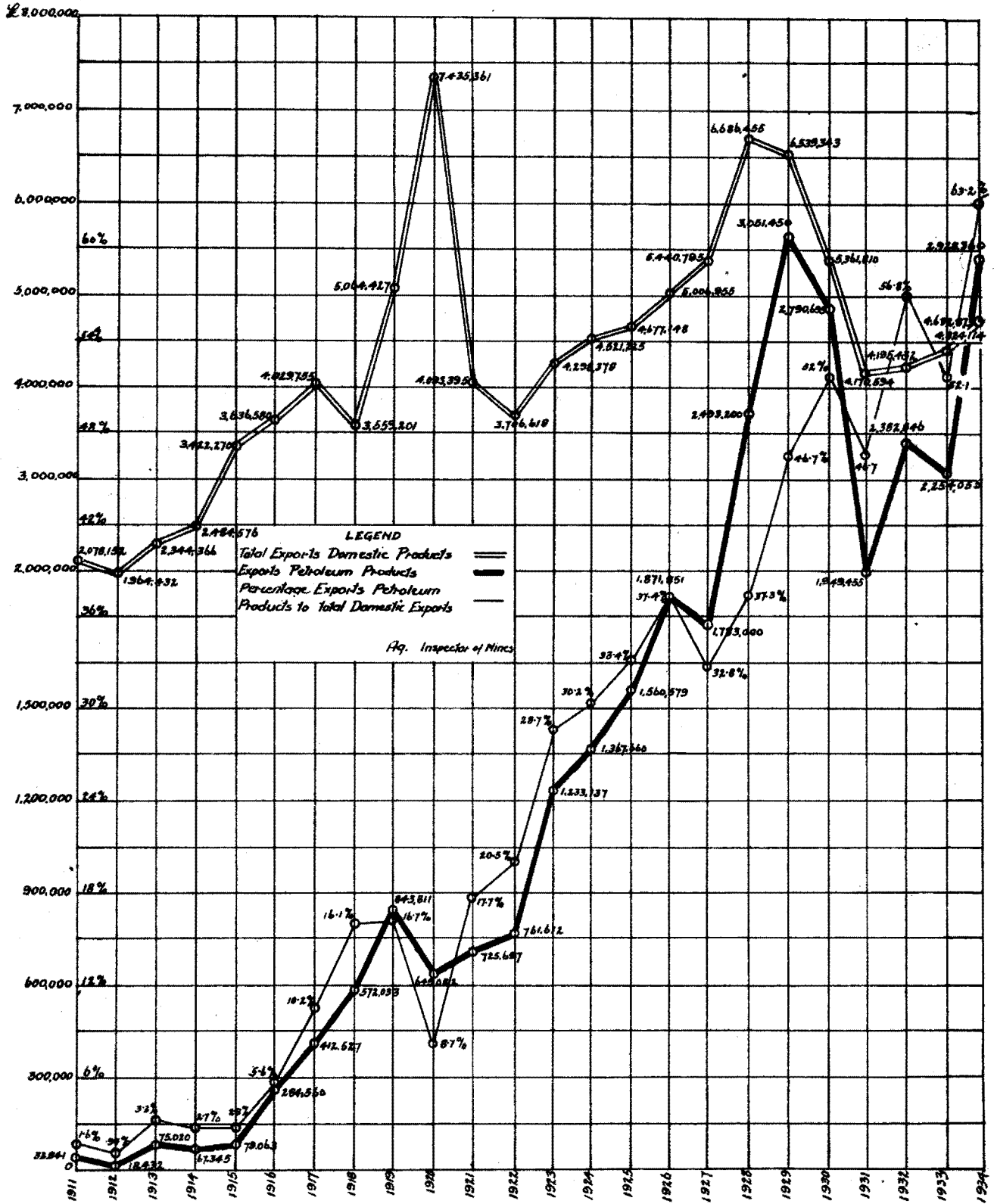
Statement of oil produced and exported year by year since the inception of the Petroleum Industry in the Colony.

Year.	Production in barrels.	Quantity of Crude oil and Refined Oil exported in barrels.
1908	37	—
1909	47,295	46
1910	105,078	—
1911	221,292	219,582
1912	485,905	122,734
1913	585,182	387,719
1914	993,216	348,351
1915	904,719	408,188
1916	927,875	975,142
1917	1,602,302	1,079,369
1918	2,081,920	1,305,407
1919	1,841,036	1,406,264
1920	2,083,110	1,034,907
1921	2,354,159	1,223,346
1922	2,444,670	1,615,740
1923	3,050,787	2,432,470
1924	4,058,060	3,224,529
1925	4,386,510	3,606,608
1926	4,971,479	3,988,308
1927	5,380,800	4,456,770
1928	7,684,587	6,361,675
1929	8,715,788	8,243,023
1930	9,418,957	7,678,807
1931	9,743,498	8,964,303
1932	10,126,121	9,637,474
1933	9,561,353	8,909,298
1934	10,894,363	9,981,774
	104,670,099	87,611,834

APPENDIX "F"

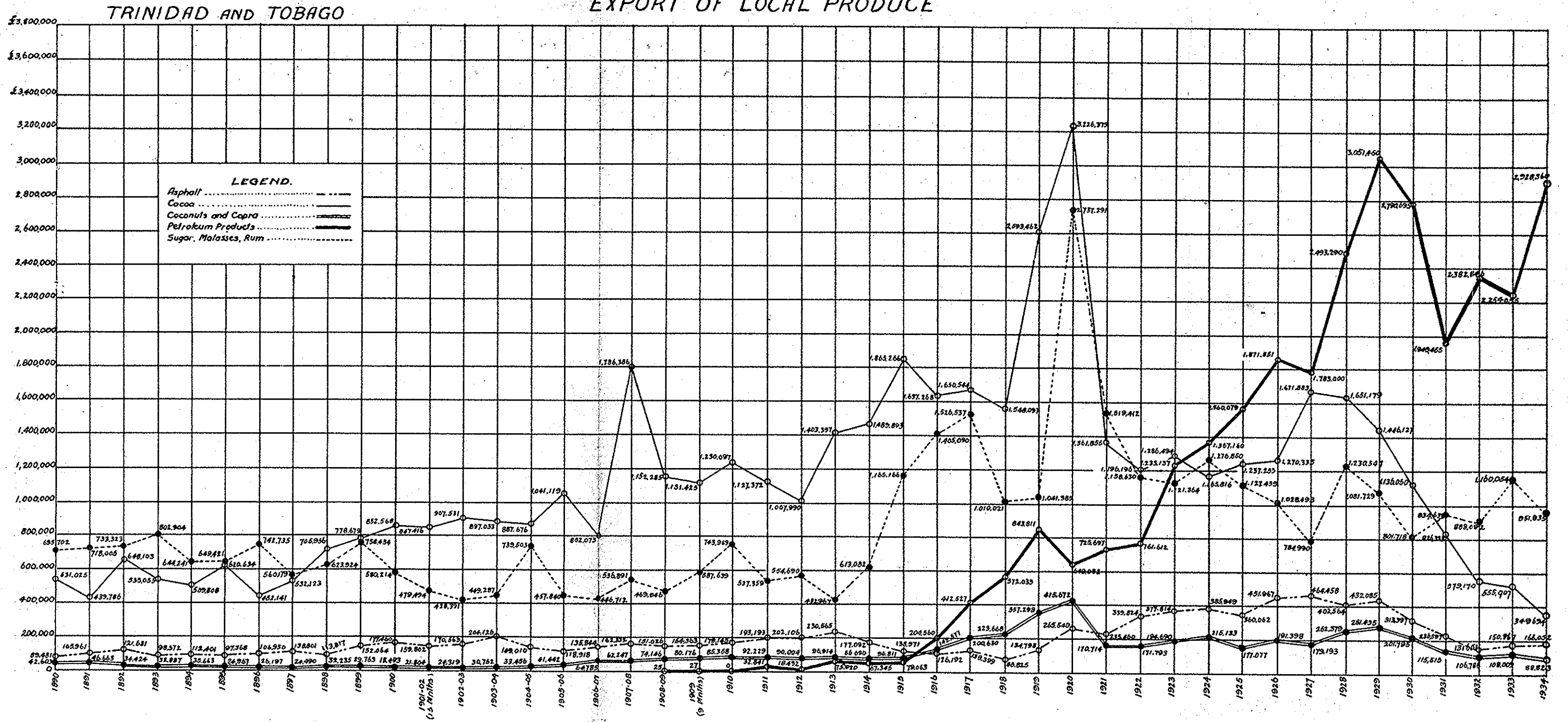
A

TRINIDAD AND TOBAGO



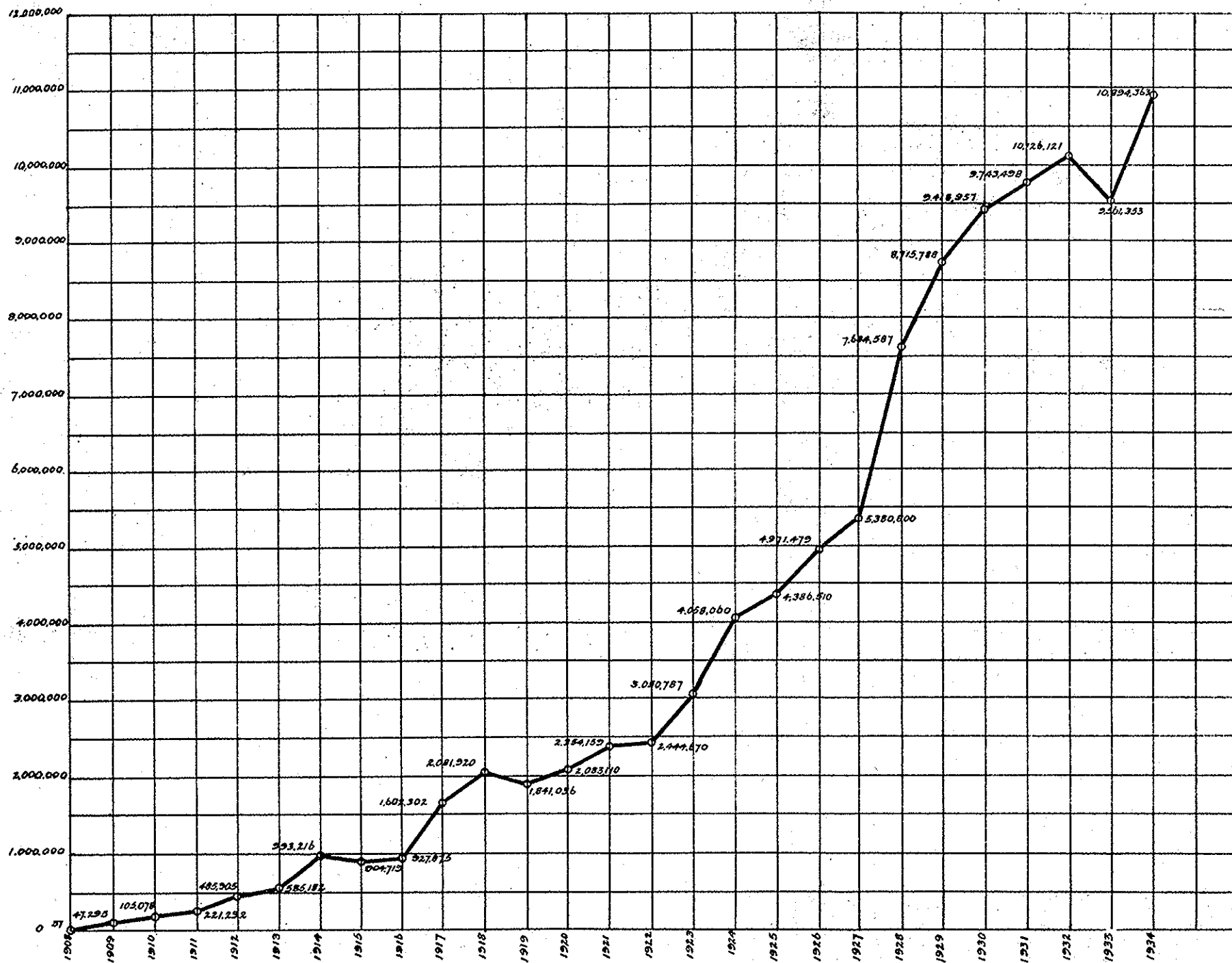
B

EXPORT OF LOCAL PRODUCE



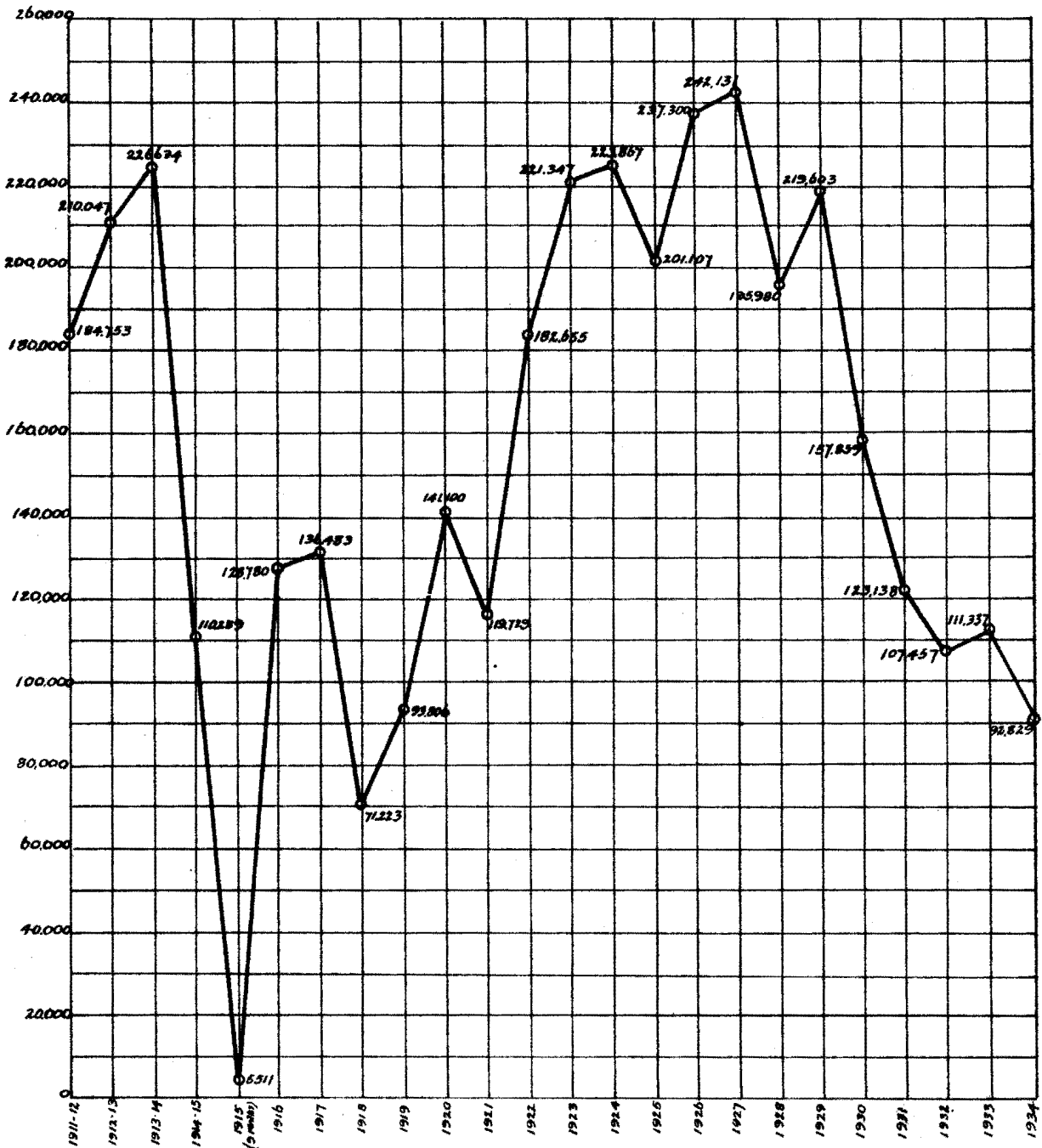
"C"

Total Annual Production of Crude Oil in Barrels
One Barrel = 35 Imperial Gallons



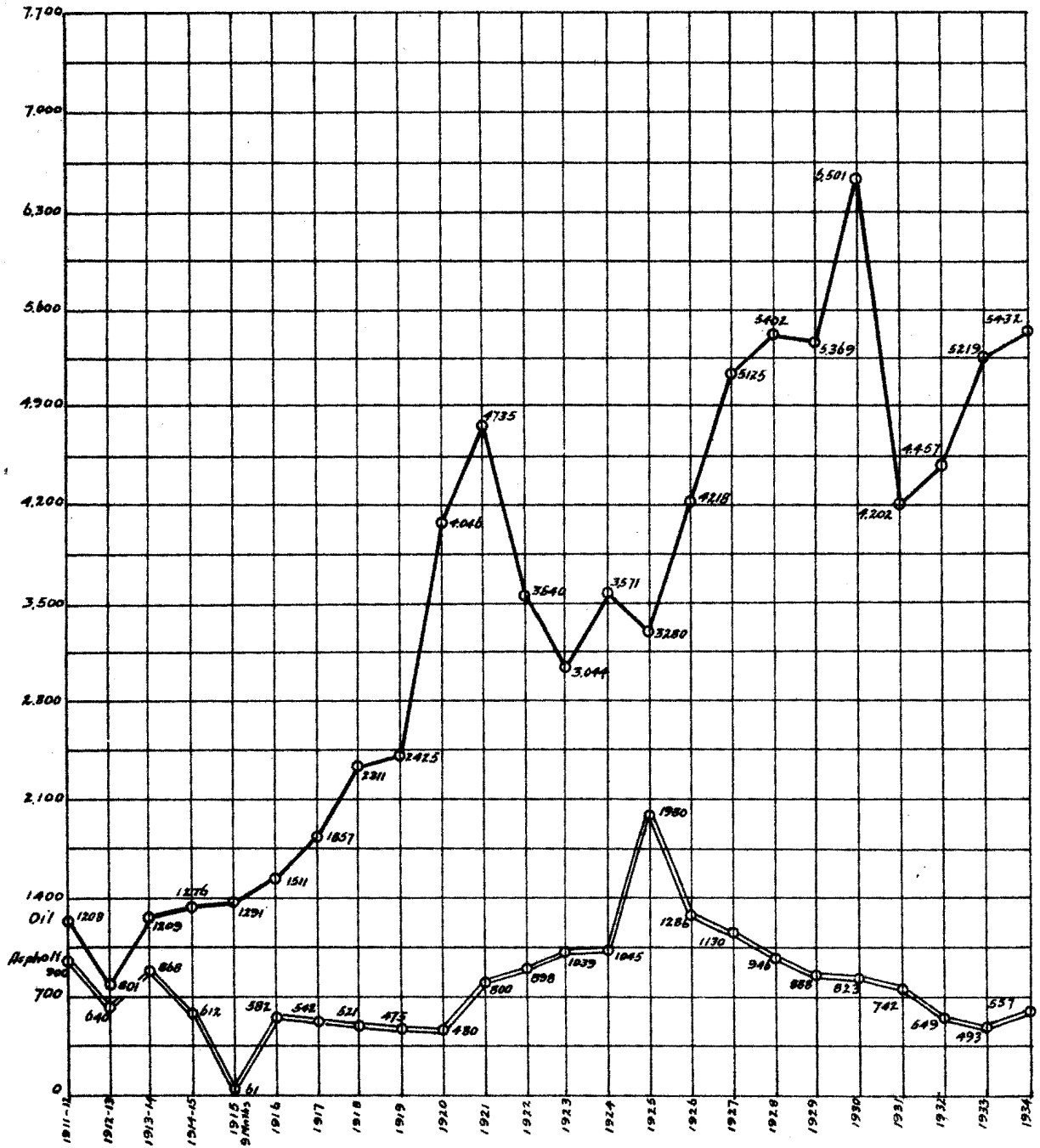
'D'

Curve showing yearly output of Asphalt from
The Colony in Tons from 1st April 1911 to
31st December 1934



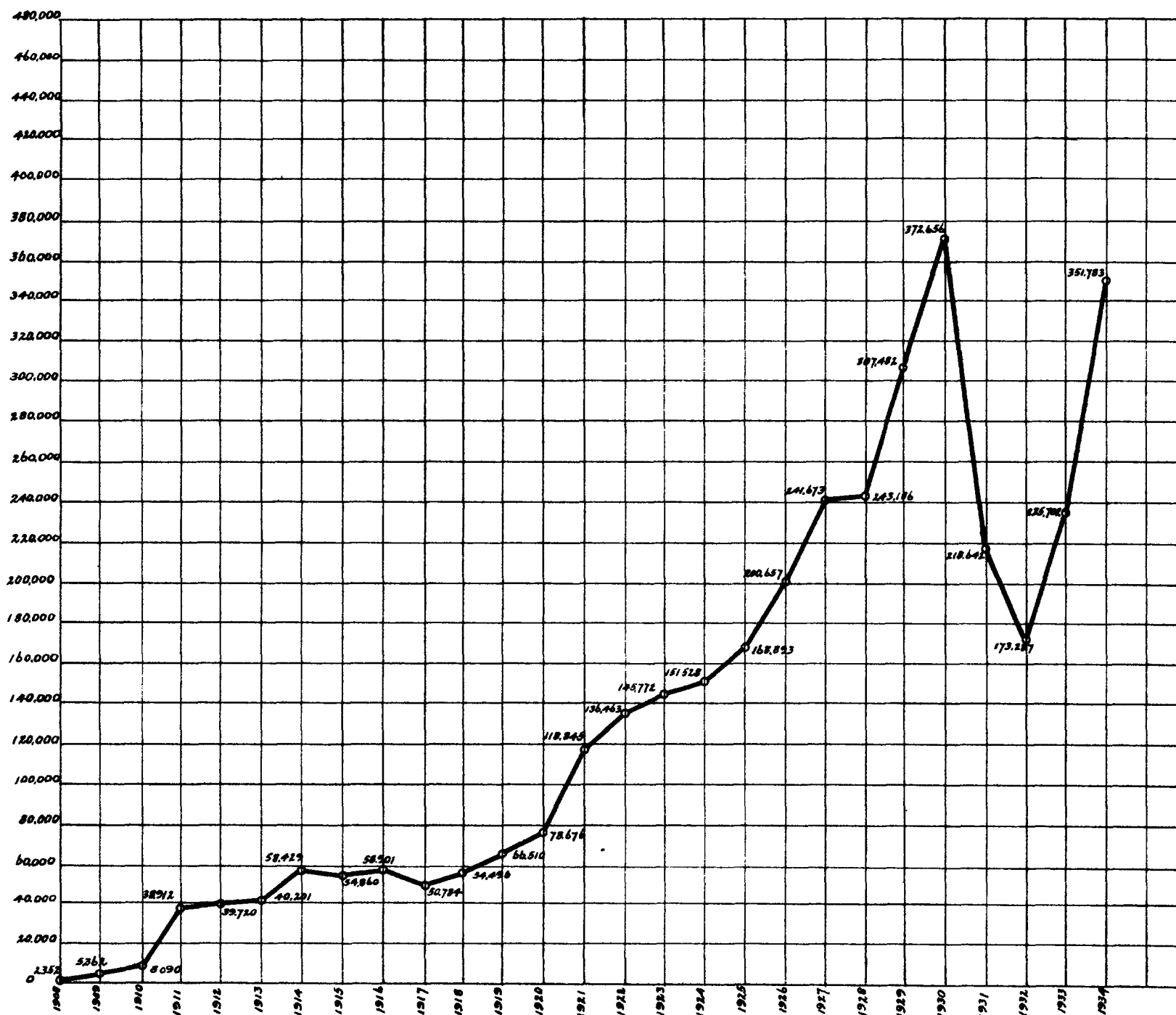
"E"

Curve showing comparison of daily average number of persons employed in the Oil and Asphalt Industries of the Colony from 1st April 1911 to 31st December 1934



"F"

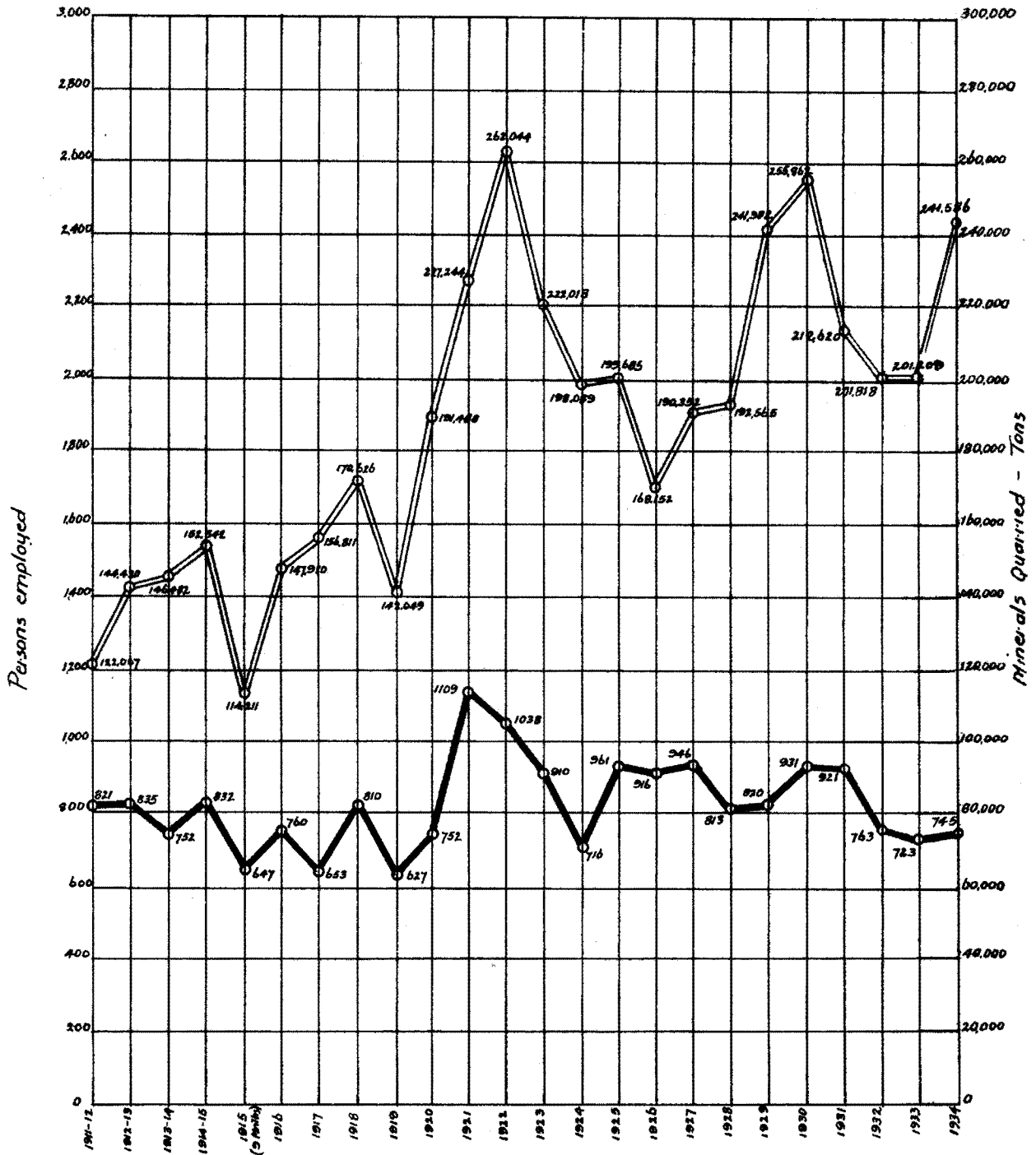
Total number of feet drilled annually
in the Colony



"G"

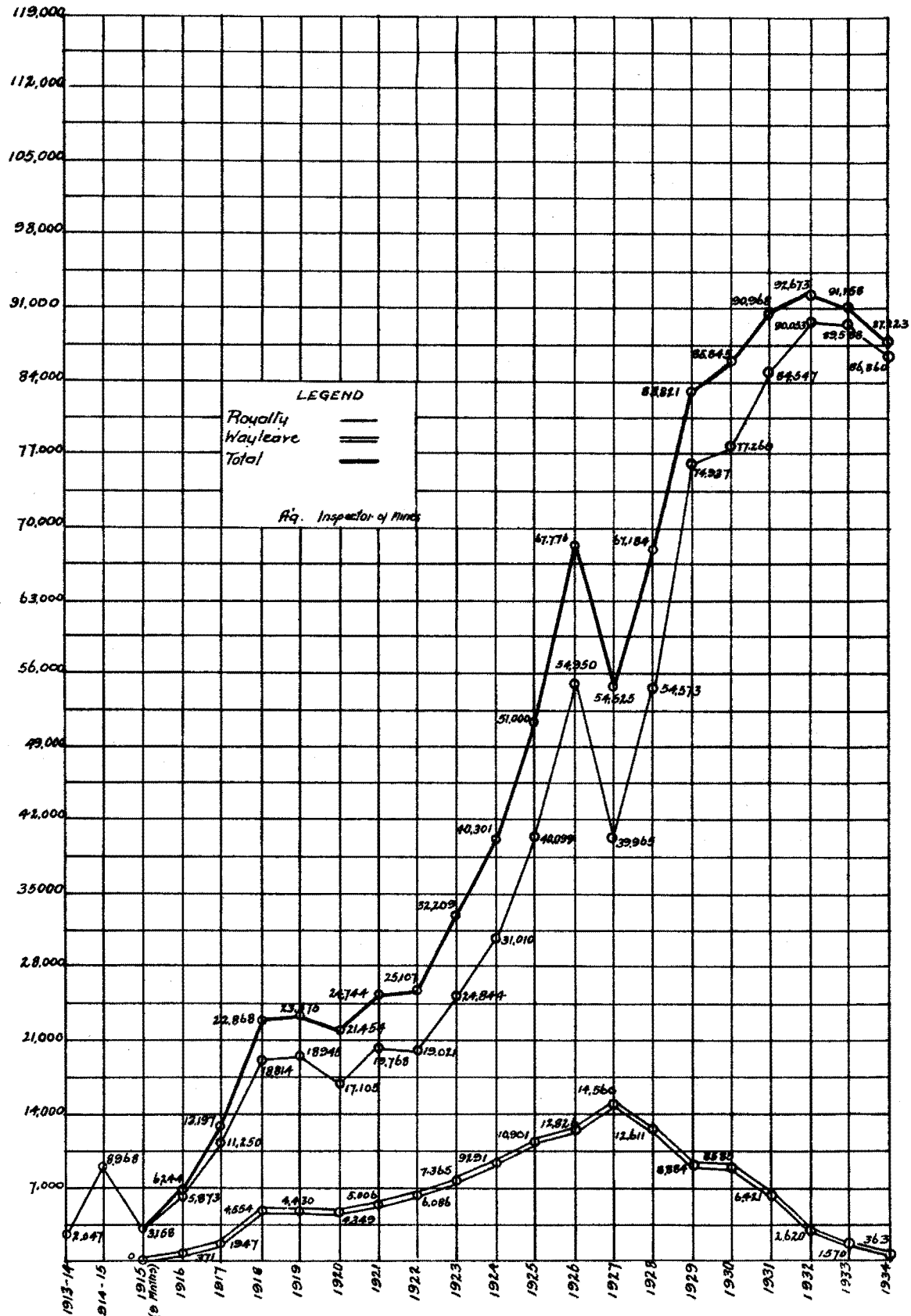
Curve showing the yearly total quantity of Minerals quarried and a comparison of the daily average number of persons employed in Quarries in the Colony from 1st. April, 1911. to 31st. December, 1934

Minerals quarried — Persons employed —

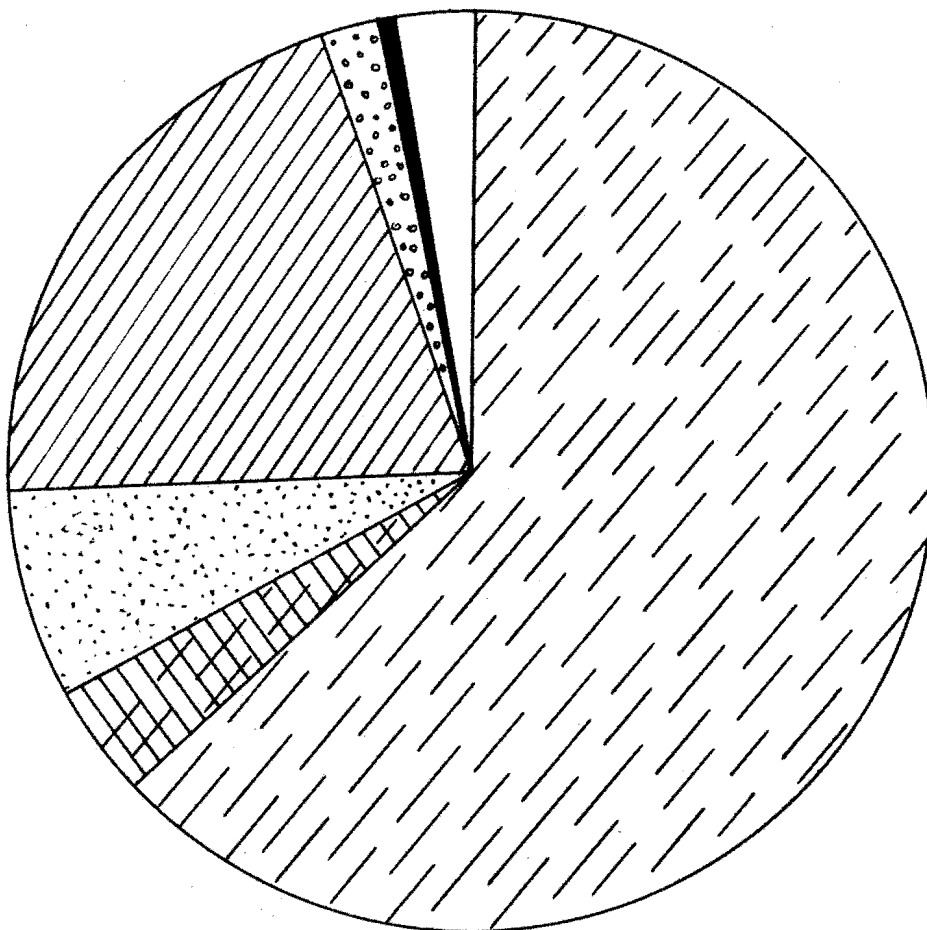








H

ROYALTY AND WAYLEAVE



APPENDIX "G."



<u>Mineral Exports</u>	66.8%	
Petroleum Products	63.2%	
Asphalt	3.6%	
<u>Agricultural and other Exports</u>	33.2%	
Cocoa	7.5%	
Sugar, Malasses, Rum	20.5%	
Coconuts, Copra, Coconuts Oil	2.0%	
Bitters	.6%	
Other Exports	2.6%	