

TRINIDAD AND TOBAGO.

Council Paper No. 142 of 1911.

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# MINES.

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Administration Report of the Inspector of Mines for  
the year 1910-11.

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*Laid before the Legislative Council on the  
6th November, 1911.*

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*Previous Council Paper No.*

*Registered No. of Correspondence relating to the subject—M.P. No. 6551/1911.*

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1911.

## MINES.

### Administration Report of the Inspector of Mines for the year 1910-11.

*Council Paper No. 143 of 1911.*

*M.P. No. 6551/1911.*

1. I have the honour to submit for the information of His Excellency the Governor the following report on the work of the Mines Department for the Financial Year 1910-11.

#### OFFICIAL DUTIES.

2. As before, all the Mines' Work was performed by me and Mr. D. M. Hahn as Inspector and Deputy Inspector of Mines respectively, in addition to our duties in the Public Works Department.

In October, 1910, Mr. N. Betancourt was appointed, temporarily, as First Assistant Inspector of Mines. Professor J. Cadman, D.Sc. Expert Adviser of the Department, left England to visit the Colony on the 5th of July, and returned to England on the 5th of September, 1910. During his stay he inspected many of the Oilfields and the Asphalt Lake at La Brea, and from time to time, during his stay and after, gave valuable advice on many important matters.

The following was the expenditure :—

#### *Personal Emoluments :*

Inspector of Mines	...	...	...	
Deputy Inspector of Mines	...	...	...	
Assistant Inspectors	...	...	...	£189 2 3
Expert Adviser	...	...	...	100 0 0
Clerk and Assistant Clerk	...	...	...	71 1 11
Messenger	...	...	...	4 17 0

#### *Other Charges :*

				£365 1 2
Travelling Expenses	...	...	...	96 11 11½
Surveys	...	...	...	39 1 10½
Contingencies	...	...	...	54 19 6
Salary and expenses in connection with Expert Adviser's visit	...	...	...	100 0 0
Total	...	...	...	£655 14 6

#### WORK UNDER THE MINES BORINGS AND QUARRIES ORDINANCES No. 13 OF 1907, AND THE AMENDED ORDINANCE No. 37 OF 1909.

4. MINES.—The Trinidad Vistabella Manjak Co., Ltd., continued operations at the Vistabella Mine in the San Fernando district during the year. The work was conducted under the supervision of the manager, Mr. J. C. T. Raspass, M.I.M.E. During the year a new seam of Manjak was located and shafts were sunk to test it.

5. Notice under Sub-section 3 of Section 20 of Ordinance No. 13 of 1907 was received in connection with the Marabella Manjak Mine, but nothing of immediate importance was done. Mr. Raspass was appointed manager under Section 4 of the Ordinance.

6. The plans under Ordinance No. 37 of 1909 were regularly received each quarter.

7. Both mines were inspected on different occasions and it was found that the provisions of the Ordinances were being followed. No accidents of any nature were reported.

8. So far no necessity has arisen for the appointment of a Board under Section 8 of Ordinance No. 13 of 1907.

9. BORINGS.—The General Petroleum Properties of Trinidad, Limited, continued operations on their Private Lands and to some extent on Crown Lands at Guayaguayare. In addition to the roads, tramways, and bungalows, referred to in my last administration report, several important additional works for the accommodation of their staff, skilled drillers, &c., were completed. Interim reports on the work at Guayaguayare were submitted during the year.

10. The Trinidad Lake Petroleum Company, Limited, carried on operation on their private lands at Brighton with satisfactory results. In addition to the storage tanks, quarters for workmen, workshops, settling pits, &c., referred to in my last Administration Report, a number of additional large storage tanks were erected. A large building for the staff, several bungalows for employees, lumber shed, barracks for labourers and their families, quarters for timekeepers, houses for electric plant, stables, and a number of other works were completed. Drilling operations were actively carried on. The pipe line and pier mentioned in my last Administration Report were completed, and a number of tank vessels have already loaded crude oil at the pier. An oil refinery capable of dealing with some 5,000 barrels of crude oil daily was completed. In addition to the foregoing, the following works were practically completed or nearing completion :—

Asphalt roads, electric power plant, electric pumps, telephone system, ice plant and storage reservoir for fresh water. In this case also interim reports were submitted giving details of the various works.

11. At Guapo the Trinidad Oilfields, Limited, continued operations on their private lands. No actual borings were made on the Crown Lands under their lease; but a light railway of some 2½ miles in length leading from a 230 feet pier with a depth of some 6 feet at low tide into the Crown Lands was practically completed. Bungalows for the staff, barracks for the labourers, sheds, workshops, machinery sheds, &c., were completed, and steel storage tanks were about to be erected. Oil gushes were obtained from two of the wells during boring operations.

12. The Trinidad Petroleum Options, Limited, commenced boring at Palo Seco in May. Bungalows and barracks were erected for the accommodation of the manager, drillers and workmen. Boring operations were at the close of the year being actively pursued and an application for a mining lease is under consideration.

13. The Guapo (Trinidad) Oilfields, Limited, started boring on their private lands in January last. Bungalows and barracks for staff and workmen, workshops, sheds, and a large sump were completed. Suitable roads were provided. Drilling operations are continuing.

14. The Trinidad Western Oilfields, Limited, commenced boring on their private lands at Siparia in February last. Borings were in progress when the year closed but have since been suspended.

15. The Trinidad Cedros Oil Company, Limited, started actual boring on their private lands at Cedros in January last and work is continuing.

16. Mr. C. C. Stollmeyer also commenced boring in January last on his private lands, Peseverence Estate, in the wards of La Brea and Guapo, and work is in progress.

17. During the year 22 wells were in progress at the above-mentioned places and an aggregate depth of 15,347 feet was drilled.

18. The Monthly Abstract from the Logs under Boring Regulation No. 16, showing the working of the borings, their depths, strata bored through, and quantity of oil extracted, and the plans showing the location of each boring under Ordinance No. 37 of 1909, have been fairly regularly received.

19. The total aggregate boring over the various Oilfields from the commencement of Prospecting work to the end of the year is 32,972 feet; and the total number of wells 44.

20. During the year 13 wells proved to be fair producers and drilling operations continue to afford proof of the potentialities of the Southern oil-bearing portion of the Island.

21. The Oilfields were inspected as occasion demanded and the provisions of the Ordinances are being followed.

22. No accidents of any serious nature were reported.

23. Oil from the wells is used as fuel in connection with all the boilers at the various Oilfields.

24. PROSPECTING LICENSES.—The rush for licenses to prospect for oil, referred to in my last Annual Report, continued during the year. A large number of applications were received and fifty nine, involving an area of 92,507 acres, were approved.

Sixty-three licenses, covering an area of 84,386 acres were issued. Companies and Syndicates have been and are being formed to work most of these licenses and the matters generally, as they arose, were given attention.

In view of the large number of applications for licenses and the licenses actually issued it was found necessary to cease receiving further applications for the present and the public notice to the effect was given in the *Royal Gazette* dated 9th June, 1910. Questions concerning licenses on lands sold since 1902 and on which the Crown has reserved mineral rights were considered and reported on.

25. QUARRIES.—Appendix B shows the Mines, Borings and Quarries worked both by the Government and private enterprise. The quarries in Port-of-Spain and its vicinity were again inspected practically monthly, and those in the out districts about once quarterly. Work generally is being carried on in accordance with the provisions of Ordinance No. 13 of 1907.

26. Under Sub-section 1 of Section 20 of Ordinance No. 13 of 1907 fifteen notices of the commencement of work were received. The usual notices of discontinuance and recommencement were fairly regularly received. Every care is taken to see that the law is correctly followed by the managers.

27.—Five quarries are provided with steam boilers and the regulations governing them were followed by all.

28. Two minor injuries were reported, one of which was caused by the disregard of regulations and instructions by the workmen concerned, the other was purely accidental.

#### RETURNS UNDER THE ORDINANCES.

29. Appendix A., compiled from returns received under Section 18 of Ordinance No. 13 of 1907, shows the number of persons employed daily and the output from the various mines, borings and quarries. The aggregate is made up from the returns supplied by a number of different

managers and must be looked upon as approximate only. It is difficult for the managers of some of the quarries to keep accurate records. Once again the Department has had a great deal of difficulty in getting some of the managers to comply with the section.

#### WORK UNDER THE ASPHALT INDUSTRY ORDINANCE No. 10 OF 1906

30. Digging operations were confined, as hitherto, to the different village lots at La Brea. No additional land was declared "Asphalt Bearing" under Section 7.

31. Under "Notices to Commence" (Section 8) seven lots were excavated, and in connection with them 2,069 levels were taken. This brings the total number of levels since the introduction of the Ordinance to 17,545.

32. No application for a "Permit" under Section 9 was received.

33. Six applications for "Certificates" under Section 11 were received from the Sub-Intendant of Crown Lands and two from the General Agent of the New Trinidad Lake Asphalt Company, Limited, and in all cases "Awards" under Section 14 were issued.

34. No difficulty arose in correctly locating the boundaries of the lots from the plans prepared under Ordinance 18 of 1905.

35. The provisions of the Ordinance do not for the present apply to the area of the Pitch Lake under lease to the New Trinidad Lake Asphalt Company, Limited.

#### IRON ORE.

36. Samples of iron ore from the Maracas and Santa Cruz Wards were brought to the notice of the Department. Mr. Cunningham Craig, late Government Geologist, in his report on the metamorphic rocks of Trinidad, Council Paper 76 of 1907, refers to the occurrence of the ore in the Northern Range somewhat in detail. The ore from Maracas was analysed by the Government Analyst and the following results obtained:—

			<i>Large Sample.</i>		<i>Small Sample.</i>
Specific gravity ...	...	...	4.61	...	4.81
			(1)		
Ferroso-ferric oxide ...	...	...	92.41		(2)
Ferric oxide ...	...	...	...	...	92.17
Aluminum oxide and phosphorus pentoxide			1.00	...	1.13
			(3)		
"Silica" ...	...	...	4.97	...	6.00
Not determined ...	...	...	1.62	...	.70
			100.0		100.0

(1) = 66.92 per cent. of iron.

(2) = 64.52 per cent. of iron.

(3) contains titanium.

37. A sample from the Ward of Santa Cruz on analysis gave an even higher percentage of iron oxide; viz. 96.86 of magnetic oxide = 70.14 per cent. of iron.

38. Whether there is any likelihood of the ore being found in paying quantities is a matter for consideration. In addition to the percentage of iron, the presence of titanium is a matter of importance. Attention is being given to the subject.

#### CONCLUSION.

39. It again gives me pleasure to say that, save in a few cases, ready information and assistance were given to the Department to carry out its duties under the various Ordinances, Licenses and Leases.

40. The work of the Officers of the Department was satisfactory and they all rendered me loyal assistance.

41. The work of the Department has developed fairly rapidly in many directions and the increase to the staff referred to in my last report has at date of writing been settled.

ARCHIBALD G. BELL,  
Inspector of Mines.

#### APPENDIX A.

Daily average number of persons employed and quantity and value of minerals obtained from Mines, Borings and Quarries during the financial year ended 31st March, 1911.

Mineral.	Daily average number of persons employed.		Total.	Quantity.	Approximate value.
	Males.	Females.			
Manjak ...	55	8	63	1,910 tons	£ 3,979 3 4
Oil ...	488	20	508	4,378,942 imp. gals.	18,069 18 2
Asphalt (Crude, Epuré, &c.) ...	546	24	570	138,244 tons	81,311 9 9
Limestone, Gravel, &c. (Private Quarries)	86	60	146	67,816 "	1,801 14 1½
Limestone, &c. (Government Quarries)	308	122	430	65,204 "	7,608 14 5½

APPENDIX B.—List of Mines, Borings and Quarries worked during the Financial year 1910-11.

No.	Name.	Situation.	Owner and Address.	Manager.	Daily average No. of persons employed.	Mineral worked.
<i>Mines.</i>						
1	Vista Bella	San Fernando	Trinidad Vista Bella Manjak Company, Limited	J. C. T. Raspass	55	Manjak.
2	Marabella	"	Marabella Manjak Company, Port-of-Spain	"	8	"
3	Pitch Lake	La Brea	Ambard & Protheroe, Port-of-Spain	R. Fitzallen	145	Asphalt.
4	Do.	"	New Trinidad Lake Asphalt Co., Ltd., London, England	L. J. Proctor	425	"
<i>Borings.</i>						
1	Oil Wells	Guayaguayare	General Petroleum Properties of Trinidad, Ltd., Port-of-Spain	J. H. Wallen	159	Oil.
2	Do.	Pointe Fortin	Trinidad Oilfields, Limited, Pointe Fortin	H. P. Ingram	116	"
3	Perseverance Estate	Guapo	C. C. Stollmeyer, Port-of-Spain	C. P. Griffith	6	"
4	Oil Wells	Palo Seco	Trinidad Petroleum Options, Ltd., 62, London Wall, E.C.	Alex. Covey	32	"
5	Do.	Cedros	Trinidad Cedros oil Company, Limited	J. D. Davis	40	"
6	Do.	Pointe Ligoure	Guapo (Trinidad) Oil Company, Limited	C. W. Davson	84	"
7	Do.	Siparia	Trinidad Western Oilfields, Limited, Wilsons (G & T) Limited, Port-of-Spain	Geo. Thom	11	"
8	Do.	Brighton	Trinidad Lake Petroleum Company, Limited, Brighton	Arthur Knapp	60	"
<i>Quarries.</i>						
1	Champ Fleurs	Champ Fleurs	F. J. Gransaul, St. Joseph	L. Brown	1	Limestone.
2	Campo street	St. Juan	J. T. Gittens	"	5	"
3	River Estate	Diego Martin	Trinidad Government	District Officer	6	"
4	Cutucupano	Santa Cruz	"	"	5	"
5	Carrera	Carrera Island	"	Supt. of Prisons	73	"
6	Villamar	Gasparec	F. Herrera	Peter Charles	5	"
7	Gasparee	Gasparee Island	J. T. Gittens	Joseph Gittens	5	"
8	Brasso	Brasso	Trinidad Government	District Officer	7	"
9	Nariva	Tabaquite	"	"	8	"
10	Atagual	"	"	"	4	"
11	Plum	Plum	"	"	13	"
12	Tamana	Tamana	"	"	10	"
13	Morichal	Morichal	"	"	4	"
14	Mayo	Mayo	"	"	13	"
15	Mochel Poorie	Talparo	"	"	10	"
16	Sanehuchu	Tamaua	"	"	4	"
17	Glendale	San Fernando	H. R. McClean	H. R. McClean	8	Gravel.
18	Circular road	"	Borough Council, San Fernando	J. J. Waddell	6	"
19	Usine	"	New Colonial Company	H. T. Cox	12	"
20	La Coulée	"	Heirs of Mary Joaquin, Coffee street, San Fernando	A. Pitt	2	"
21	Pickering	"	W. Harewood	P. P. Pickering	1	"
24	Siparia	Siparia	Trinidad Government	District Officer	31	Limestone.
25	Rock River	Moruga	"	"	9	Sandstone.
26	Biche	Biche	"	"	19	Limestone.

APPENDIX B.—List of Mines, Borings and Quarries worked during the Financial Year 1910-11.—CONTINUED

No.	Name.	Situation	Owner and Address.	Manager.	Daily average No. of persons employed.	Mineral worked.
30	Whim and Providence	... Tobago	... Trinidad Government	... District Officer	3 & 4	Dead Rock.
31	Morne Roche	... Bonne Aventure	... " "	... "	20	Limestone.
32	La Pique	... San Fernando	... Canadian Mission	... Rev. J. A. Seringour..	1	Gravel.
33	Bronos Ayres	... Erin	... Trinidad Government	... District Officer	7	Limestone.
34	Railway	... Champ Fleurs	... Trinidad Government Railway	... J. W. Stewart	18	"
36	Cumuto	... Cumuto	... Trinidad Government	... District Officer	12	"
37	Moruga	... Moruga	... " "	... "	15	Sandstone.
38	El Cupan	... Tamana	... " "	... "	7	Limestone.
43	Santa Maria	... Santa Cruz	... J. P. Bernard	... S. Barnswell	6	"
45	Morne Diable	...	... Trinidad Government	... District Officer	25	"
A	Basilon street	... Basilon street	... J. T. Gittens	... J. Lashley	26	"
C	David street	... Gloster Lodge	... " "	... "	7	"
D	Quarry street	...	... " "	... "	19	"
E	St. John	...	... " "	... "	9	"
F	Gloster Lodge	... Gloster Lodge	... F. Gonzales	... N. Waterman	7	"
G	Duke street	... Port-of-Spain	... F. Sorzano	... C. Prime	7	"
H	Queen street	... "	... J. T. Gittens	... J. Lashley	4	"
I	Prisoners'	... Laventille	... Trinidad Government	... Supt. of Prisons	17	"
J	Clifton Hill	... "	... J. W. McCarthy	... J. T. Gittens	4	"
K	Eastern	... "	... Trinidad Government	... J. deNobriga	86	"
N	St. Joseph road	... "	... J. W. McCarthy	... J. T. Gittens	5	"
P	Smart ...	... "	... Albertina Smart	... Sonny Daniel	6	"

N.B. Reference letters extend to U. Numbers or reference letters left out denote quarries not worked during the year