

"The yield of oil from the swamp timber is low, and the distillation of the material is unlikely to be remunerative.

"The results of the examination of the crude kauri-oil received from New Zealand indicate that it would be suitable for use as a fuel oil. The oil contains as its principal constituents 34 per cent. of aromatic hydrocarbons, 24 per cent. of unsaturated hydrocarbons, 14 per cent. of saturated paraffins, and 9 per cent. of phenolic substances. On account of the unsaturated nature of a large proportion of the oil, its fractionation and refining for the production of marketable motor-spirit, kerosene, and other products would prove very wasteful, and would, moreover, necessitate the installation of expensive refining plant. In fact, it appears probable that the losses on refining would exceed those involved in the refining of crude shale-oil. The unrefined motor-spirit produced from the crude kauri peat had a calorific value about 10 per cent. below that recorded for motor-spirit of good quality. It appears therefore that the most economical method of utilizing kauri-peat oil would be to sell it locally as a fuel for heavy-oil engines, provided that it can be produced at such a price as to be able to compete with imported petroleum fuel oil.

"The residue (peat coke) remaining after the distillation of the oil from the kauri peat was spongy and hence unsuitable for metallurgical use unless briquetted. The coke from KP contained about 36 per cent. of ash, which would be a serious obstacle to its industrial use. It could, however, be used as a fuel for producer-gas plant. The coke from Redhill P was of a similar character to that from KP, whilst the coke yielded by BP contained much less ash and had a good calorific value. The last-mentioned coke would be a useful fuel if briquetted, or it could be completely gasified in producer-gas plant.

"The recovery of sulphate of ammonia is unlikely to prove remunerative if the peat is distilled at 650° centigrade in a current of steam in order to obtain a maximum yield of oil. Under these conditions the whole of the ammonia is not evolved, and owing to the condensation of the steam the liquor obtained is very dilute."

H. J. LOWE,  
Kauri-gum Superintendent.

### KAURI-GUM INDUSTRY ACCOUNT.

#### RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH, 1926.

<i>Receipts.</i>	£	s.	d.	<i>Payments.</i>	£	s.	d.
Cash in Public Account, 1st April, 1925..	2,434	13	10	Wages to workmen and gum-buyers ..	1,870	16	10
Advance from Consolidated Fund ..	10,000	0	0	Plant, machinery, stores, &c. ..	251	3	9
Sales of gum ..	5,521	15	6	Purchases of gum ..	9,877	14	11
Miscellaneous receipts ..	72	15	2	Freight, cartage, &c. ..	1,396	15	10
				General expenses ..	1,190	14	9
				Cash in Public Account, 31st March, 1926	3,441	18	5
	<u>£18,029</u>	<u>4</u>	<u>6</u>		<u>£18,029</u>	<u>4</u>	<u>6</u>

#### TRADING ACCOUNT.

	£	s.	d.		£	s.	d.
To Gum on hand, 1st April, 1925 ..	54,633	12	11	By Gum on hand, 31st March, 1926 ..	59,430	2	10
Purchases of gum ..	9,687	0	3	Sales of gum ..	6,574	8	6
Wages ..	1,890	9	3	Gross loss carried down ..	905	4	9
Freights inward ..	698	13	8				
	<u>£66,909</u>	<u>16</u>	<u>1</u>		<u>£66,909</u>	<u>16</u>	<u>1</u>

#### PROFIT AND LOSS ACCOUNT.

	£	s.	d.		£	s.	d.
Gross loss from Trading Account ..	905	4	9	Balance carried down ..	6,213	5	8
Freights outward ..	443	9	5				
General expenses ..	95	3	1				
Cables, &c. ..	24	9	8				
Sacks, cases, &c. ..	297	8	4				
Fire insurance ..	212	5	0				
Printing and stationery ..	36	19	0				
Depreciation ..	53	10	0				
Travelling-expenses ..	13	8	2				
Rent ..	318	14	0				
Salaries ..	574	6	4				
Debenture interest ..	3,238	7	11				
	<u>£6,213</u>	<u>5</u>	<u>8</u>		<u>£6,213</u>	<u>5</u>	<u>8</u>
	£	s.	d.		£	s.	d.
Balance from previous years ..	11,035	12	3	Balance at 31st March, 1926 ..	17,248	17	11
Balance carried down ..	6,213	5	8				
	<u>£17,248</u>	<u>17</u>	<u>11</u>		<u>£17,248</u>	<u>17</u>	<u>11</u>