THE EL DORADO OF WEST AFRICA *by Guy Wingate*

Until the publication of Mr. Ian Fleming's book *Diamonds are Forever*, few people realised that there exists in West Africa a major diamond-producing area located mainly in Ghana and Sierra Leone. The deposits in these countries constitute a real twentieth-century El Dorado, and the alluvial diamond fields at present being worked in Sierra Leone are among the most valuable ever to be found.

There are two main sorts of diamonds, namely, gem and industrial stones. Gem diamonds are used entirely in the jewellery trade. The finest are, in their uncut state, a perfect octahedron in shape and possess a brilliant light. Gem stones are sometimes bought for investment purposes, the attraction being the stable price of diamonds which is only made possible by the existence of the Central Selling Organisation, founded by Sir Ernest Oppenheimer in the 1930s. Through it most of the diamond production from Africa, and, incidentally, Russia, is sold. Industrial diamonds, the other main type, although less valuable than gem diamonds, are invaluable to industry, for instance in cutting and drilling tools where their extreme hardness can be used to advantage.

The potential of the Sierra Leone diamond deposits was first realised in the late 1920s by Consolidated African Selection Trust, a mining company who then had interests in what is now Ghana. The development of efficient mining operations in Sierra Leone is mainly due to their subsidiary company, Sierra Leone Selection Trust. This company's mines are located in two areas of Sierra Leone, namely, Yengama and Tongo, where agreements are held from the Sierra Leone Government.

Alluvial mining is, as its name implies, mining close to the earth's surface and the method of mining employed is similar to open-cast coal mining in Great Britain, where a coal seam is exposed by removing the top-soil.

The discovery of a diamond-bearing area depends mainly on precise geological surveying and prospecting work. After surveying an area of ground a number of prospecting pits are dug and samples of gravel are removed. These pits are dug to a precise size and the caratage of the diamonds discovered is applied directly to the volume of top-soil and gravel removed so that some idea of the costs involved in mining the area can be obtained.

Between 1961 and 1962 Sierra Leone Selection Trust's diamond production entailed the removal of nearly 2,500,000 cub. yds. of top-soil or overburden to expose some 747,000 cub. yds. of diamondiferous gravel from which nearly 716,000 carats of diamonds were extracted. Mining operations on this scale require a very large staff not only of mining engineers but also of people to maintain the equipment and supply spare parts, and people to train Africans in its use. Because the main lease area lies some 200 miles up country it has to be self-sufficient, personnel and light stores being flown up from Freetown to the Company's airstrip, all heavy equipment being sent up the one road into the mine.

Yengama and the smaller Tongo mine to the south are complete townships containing not only the plants for separating the diamonds from the gravel, but also living-quarters, clubs and hospitals, with workshops, training-schools and administrative office blocks.

The existence of these communities is of great benefit to the prosperity of the surrounding areas. For instance in 1962 over £750,000 was paid out in wages, while the hospitals treated over 100,000 out-patients and performed more than 80 major operations.

One factor that must make these mines very nearly unique is that a very large local population live all over the lease areas. Perhaps the most startling sight of all is a large African town called Koidu, which lies geographically almost in the centre of the main lease and has a population of 10,000.

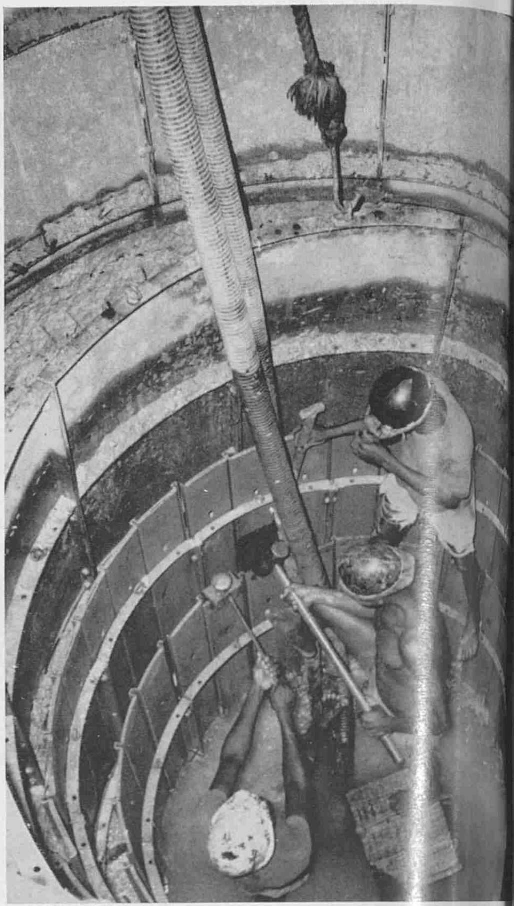
This obviously poses a very special security problem, a problem aggravated by the nature of the mining operations where diamond deposits may often be readily accessible. It is not surprising that the area and particularly Koidu town became a mecca for the unscrupulous, and illicit mining during the 1950s grew to alarming proportions. By increasing its security force the company soon managed to reduce illicit mining to a trickle, while the Sierra Leone Police dealt rapidly with illicit mining outside the lease areas.

Part of a diamond's attraction is its exceedingly stable price. This could not be achieved unless there exists an agreement among the producers as to the value of their product, and although monopolies are as a rule to be deplored, the diamond industry as a whole undoubtedly has a very special case where without some kind of control the economic and social conditions of diamond-producing countries would suffer irreparably.

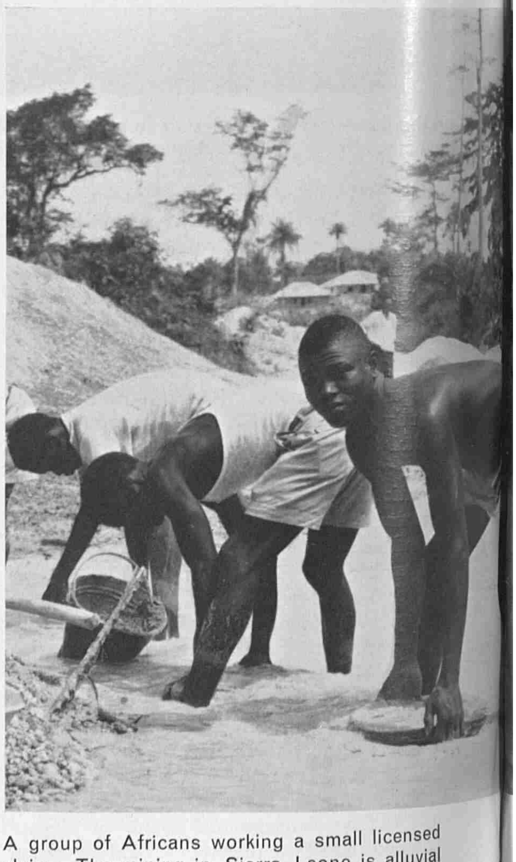
In 1956 the Sierra Leone Government took two steps. It promoted an Alluvial Diamond Mining Scheme whereby Africans could buy licences to mine for diamonds outside the Selection Trust leases, and it invited the Diamond Corporation to set up an official buying office which would regularise the trade and enable the Government to obtain revenue from the diamonds being produced. During the next three years this office bought nearly £15 million worth of diamonds.

By 1959 it became apparent that the only effective way to control the diamond trade in Sierra Leone was to have one legal exporter, and the Government therefore established a Government Diamond Office which became solely responsible for the export and marketing of diamonds produced under the Alluvial Diamond Scheme. The Diamond Corporation were appointed Managing Agents for the Government Diamond Office and as agents undertook to buy all the diamonds offered to the Government Diamond Office.

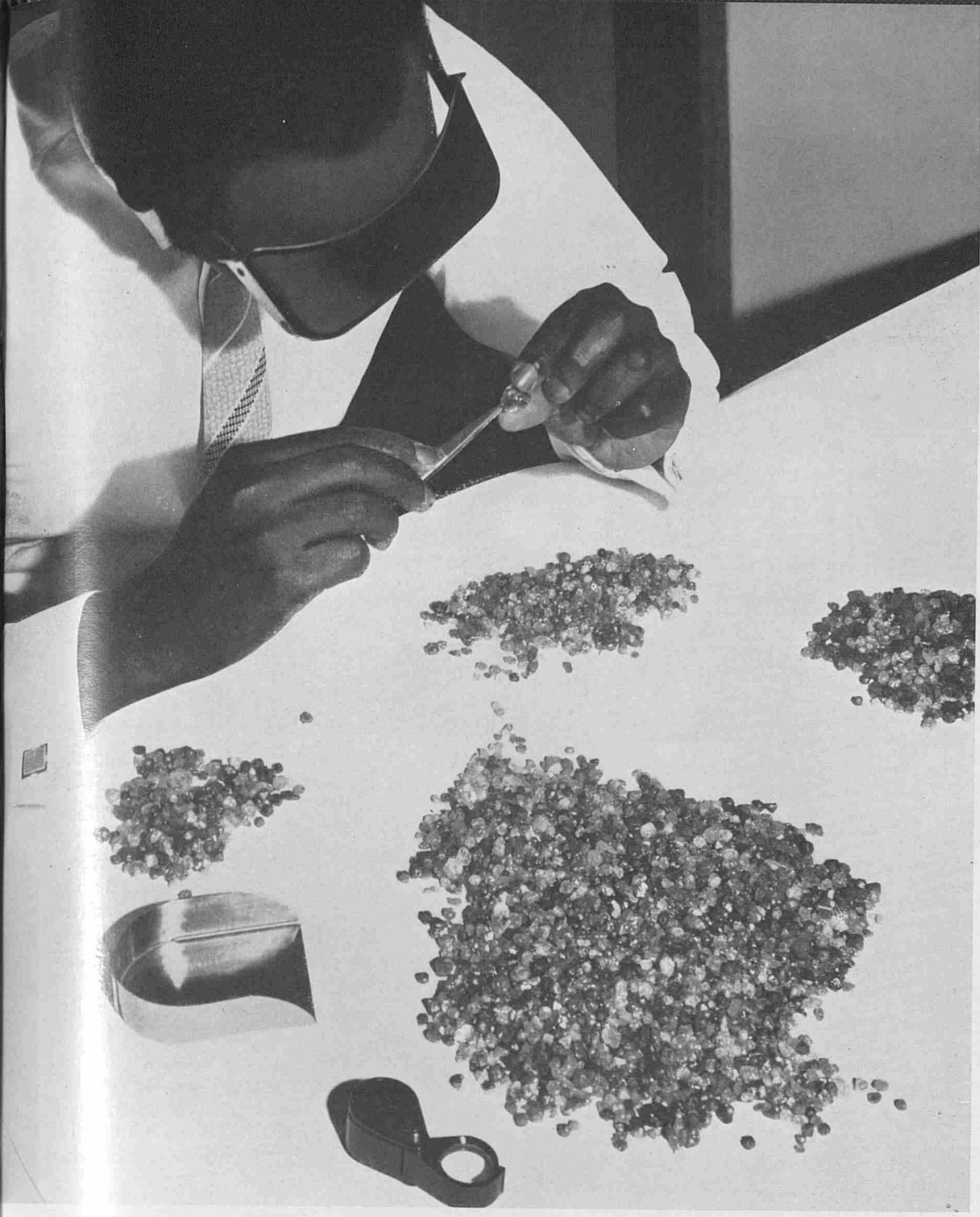
These steps have proved so successful that now practically all the diamonds produced in Sierra Leone are handled by the Government Diamond Office with a corresponding increase in revenue for the Government. For instance, in 1961 diamond purchases from the alluvial mining scheme amounted to £11·3 million, for which the Government received a tax income of nearly £535,000. If this figure is added to the sum paid in tax by Sierra Leone Selection Trust the diamond industry, therefore, is contributing a total of over £2 million a year in direct taxation and in addition providing very large sums in wages, salaries and local purchases within the country.



Prospecting for diamonds. A pit lined with metal sections is used for digging through loose soil



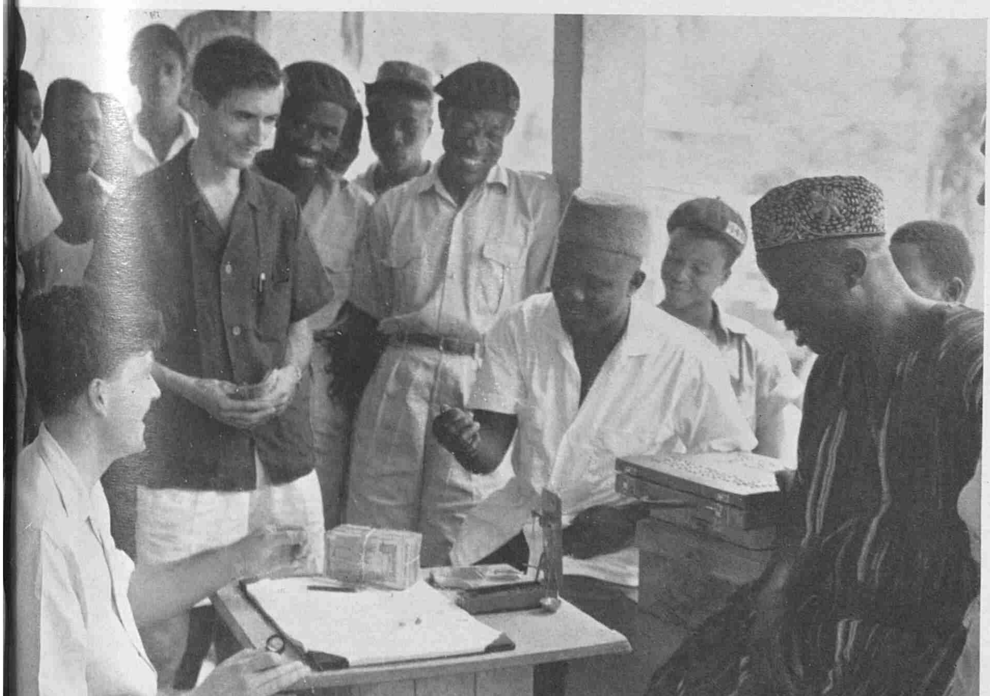
A group of Africans working a small licensed claim. The mining in Sierra Leone is alluvial



Sorting industrial diamonds. In Sierra Leone the Government Diamond Office is now solely responsible for exporting and marketing diamonds under the Alluvial Diamond Mining Scheme set up in 1956

A prospecting team uses foot jigs to size gravel which has been taken from the prospecting pits

An example of a semi-detached house for African staff of the Sierra Leone Selection Trust



Two buyers of the Diamond Corporation purchasing diamonds in one of the villages near a licensed mining area. Since 1959 the Diamond Corporation have been managing agents for the Government Diamond Office

WEALTH FROM ORE

354 It is 30 years since iron ore was first shipped from Sierra Leone. 1963 is therefore a significant date for those concerned with its production in the Marampa Chiefdom of one of the country's major sources of wealth. It was not until 1927 that ore deposits were discovered in the area by government geologists. In the following years prospecting was carried out by commercial interests. By 1930 it was certain there were deposits of quality and quantity to justify their development. The Sierra Leone Development Company was founded, to acquire and work a concession at Marampa.

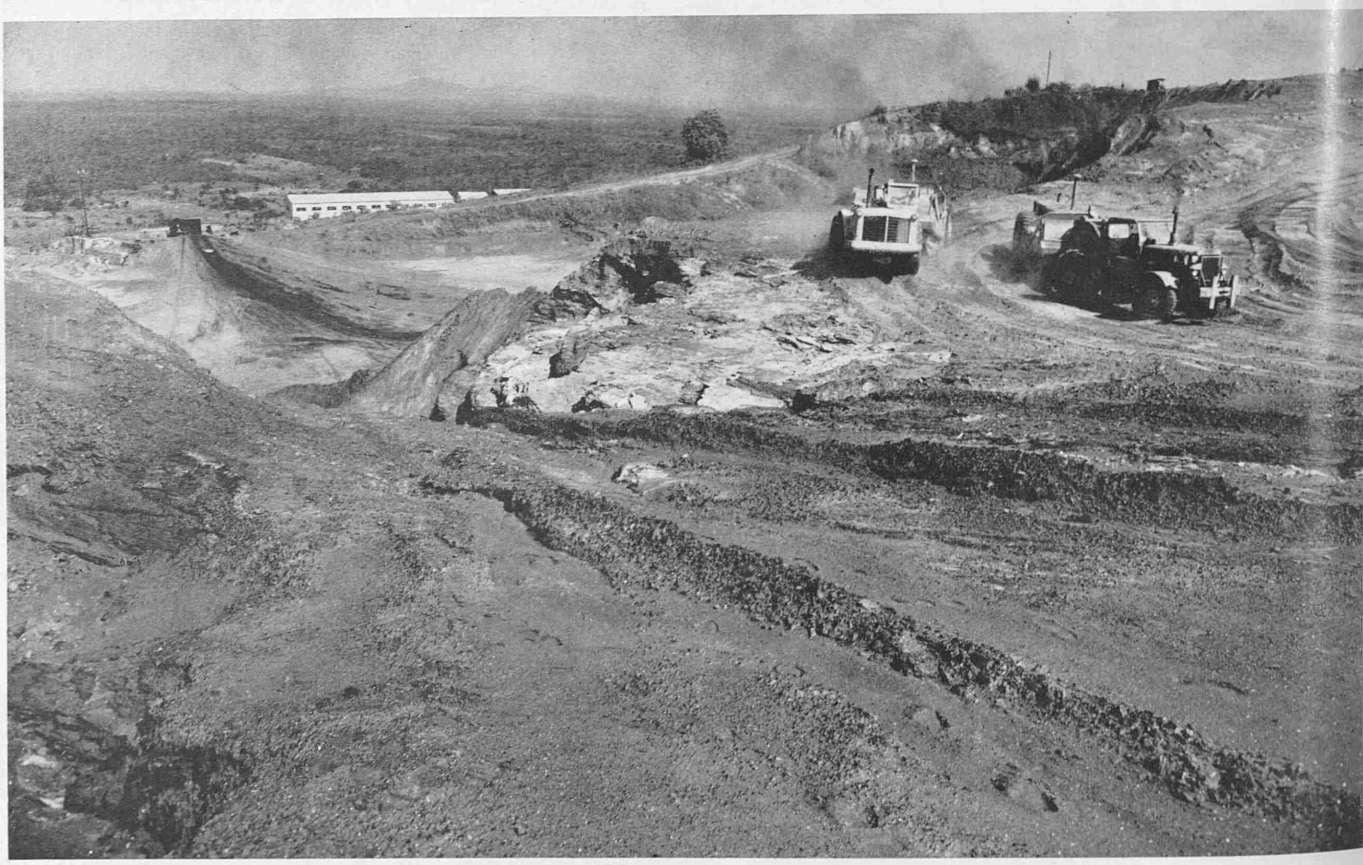
Delco, as it soon came to be called, had to overcome many problems before it could start operations. The chief port of Sierra Leone was, and remains, its capital, Freetown. The cost of building a railway to carry the ore over the 60 miles from Marampa to Freetown through the mountainous peninsula would have been prohibitive. So the company decided to build its own line through the north of the country and create a new port at Pepel. The railway's construction took three years. During this period the pier and loading installation at Pepel were built and at Marampa mines were laid out and houses built for European and African staff.

The first commercial shipment of ore was made in September 1933, and in 1934 228,515 tons were shipped. By 1962 the annual shipments had reached 1,900,000 tons. Initially, only lump ore was produced. Beneath this hard capping were quantities of powder ore. The mining of this began in 1938, when the first mill for treating and up-grading the powder ore was established.

The construction of the first stages of the extensions at Pepel, from which the iron ore is shipped. All the modernisation work, being undertaken by Taylor Woodrow, should be completed by 1964

Like other British enterprises in Sierra Leone, Delco contributes much to the welfare as well as the wealth of the people. Marampa has a 36-bed hospital which is a recognised training school for student nurses. There is an infant school and an Apprentice Training Centre, where pupils undergo a three-and-a-half-year course. Some of the best apprentices are sent to Britain for further training. The company also sponsors selected employees to follow university degree courses in Great Britain and to obtain professional qualifications at technical colleges. Mention should be made, too, of the studentships available to a limited number of Sierra Leonean graduates to go to British universities to read for higher degrees. There is no obligation on them to enter Delco's service. The scheme aims at advancing educational and cultural standards in Sierra Leone generally.

A target of 2,750,000 tons of ore has been set for 1965. An expansion programme is being undertaken, the railway from Marampa is being entirely relaid with heavier gauge rails and sleepers, and new rolling-stock is being brought in. At Pepel the port is being modernised to accommodate larger ocean-going vessels. Altogether Delco's current investment programme amounts to nearly £9 million and is impressive evidence of British confidence in the future of Sierra Leone. *C.D.*



A general view of the workings at the iron ore mine at Marampa. Euclid twin-power scrapers are removing the ore. Over the ridge in background is the roof of the concentrating mills of the Sierra Leone Development Company. The ore deposits were discovered in 1927 and first shipments made in 1933