

THE MORO KIMBERLITE DEPOSIT

The east bank of the Moro river constitutes the international boundary with Liberia. The Moro Kimberlite deposit and associated west bank terrace and swamp lie on the Sierra Leone side of the boundary. Most of this region, which is covered by high rain forest, is sparsely inhabited and not very accessible, undetected illicit mining has been going on for a long time.

Kimberlite exploration was carried out by the Geological Surveys in 1963, and this resulted in the discovery of 4 small dykes. (see map). The dyke material is a mottled, dark brown clay yielding magnesian ilmenite and pyrope garnet. More exploration is necessary to give precise estimate of reserve potential.

The Moro river is actively incising the valley floor, so there are numerous rock bars and rapids in the channel and frequent narrow strips of terrace at various elevations. The Moro channel appears to contain diamonds throughout its entire length, but there is limited evidence to base a precise estimate of values. Evidence of illicit mining is abundant. Swamp mining has been discovered in several localities, and at all of them the swamps are intersecting high terrace ground and the gravels contain reconcentrated terrace material.

MINERALOGY

The Moro diamonds have approximately 90% clear stones; with good octahedra. There are occurrences of flattened octahedra, dodecahedra or irregular pieces. Heavy mineral concentrates consist of corundum, ilmenite, zircon, chrysoberyl and magnesian ilmenite. Purple pink garnet is present in all samples from the Moro channel but absent from all terrace and swamp deposits. The wide spread occurrence of magnesian ilmenite shows that the Moro diamonds are related to a major zone of well exposed kimberlite rock.

RESERVE ESTIMATE

Deposit	Reserves (Conservative estimate)
Moro Kimberlite Deposit	300 000 Carats
Terrace and Swamp Deposit	100 000 Carats
Moro Channel Deposit	200 000 Carats