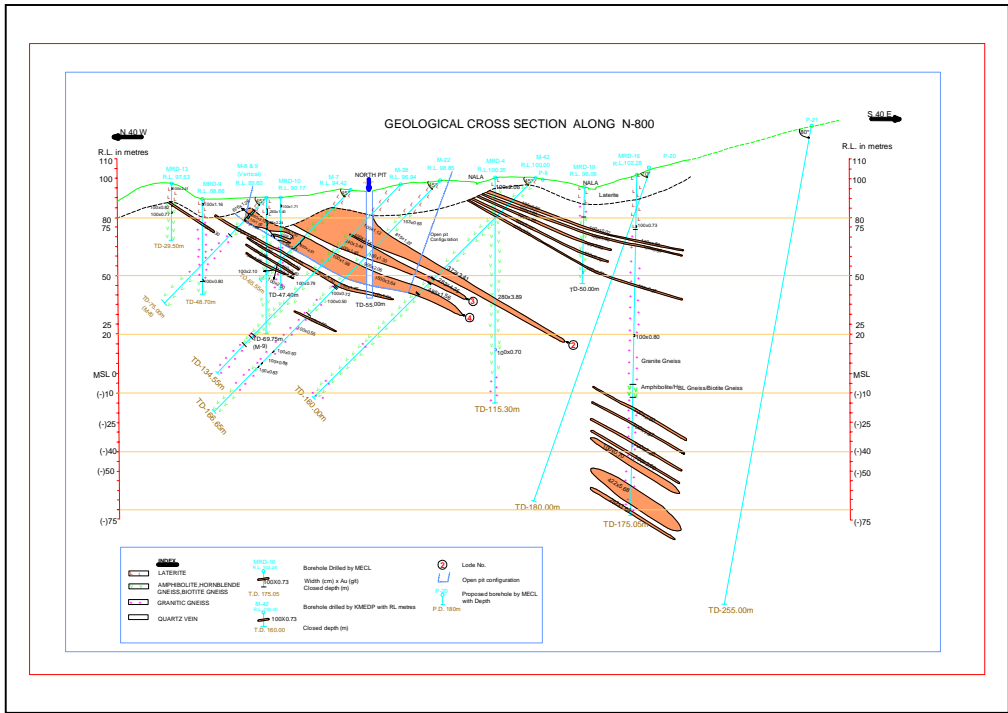


EXPLORATION REPORT MARUDA GOLD DEPOSIT (CENTRAL BLOCK)

Wayanad-Nilambur Granulite Terrain, Mallapuram District, KERALA

EXECUTIVE SUMMARY



MINERAL EXPLORATION CORPORATION LIMITED
(A Government of India Enterprise)

Seminary Hills
NAGPUR
NOVEMBER-1994

EXPLORATION REPORT MARUDA GOLD DEPOSIT (CENTRAL BLOCK)
WAYAND-NILAMBUR GRANULITE TERRAIN
MALLAPURAM DISTRICT, KERALA

EXECUTIVE SUMMARY

1.0 LOCATION

The Maruda gold deposit is situated about 25 km north east of Nilambur town in the Mallapuram district and bounded between Latitude-11°24'12" - 11°25'10" and Longitude-76° 19'18" - 76°20'11". It covers in Survey of India Toposheet No.58A/7. The nearest post office is at Vazihikadavu which is about 5 km away from the deposit. The nearest railhead is at Nilambur. The deposit can be approached from Nilambur town by a motorable road. Calicut is the nearest airport, at a distance of about 200km. The Kolar Gold Field (KGF), where mining-milling complex exists, is about 400km north-east of the deposit.

2.0 GEOLOGY AND STRUCTURE

The Maruda gold deposit forms a part of Wayand-Nilambur granulite terrain. It falls partly within the greenstone belt and partly within the retrograded Charnockite-Khondolite mobile belt of high-grade metamorphism. The major rock types are reported to be massive amphibolite interbanded with hornblende-biotite gneiss, sericite-quartz feldspathic gneiss and amphibolite facies of metamorphism. The general trend of foliations in amphibolite and other felsic units is NNE-SSW with steep dips towards ESE. Retrograde metamorphism in the lower amphibolite facies is manifested in the shear zones.

3.0 MINERALISATION

Gold mineralisation is observed along the contact zones of discordant veins and vein lets of quartz stocked in a roughly en-echelon patterns with mild wall-rock alteration in a meta-volcanic sequence of amphibolite, hornblende gneiss and granitic gneiss. The mineralisation is characterised by development of sericite, chlorite and associated sulphides such as pyrrhotite, pyrite and chalcopyrite. The lodes in this quartz veins are very narrow both along strike and dip. The quartz veins trending in the different directions are observed. However, those trending generally NE-SW directions are mostly auriferous and are shallow dipping. The intensity of mineralisation is related to the size and shape of the fractures.

4.0 QUANTUM OF WORK DONE

MECL has carried out detailed Geological Mapping & topographical survey covering 0.48Sq. Km area. 1733.70 Mtrs of drilling in 20 boreholes, 2978 (2809+169) number of primary and check samples for gold, Duplicate half core samples for gold by fire assay 103 Nos were analysed. 1727 Primary samples are also analysed for Ag. 44 Nos of composite samples are analysed for Au, Ag, Wo₃, Pt & Pd and 44 Nos.of samples for Emission Spectroscopy studies. Petrographic studies on 60 Nos.of samples and Minerographic studies on 60 Nos of samples, 39 Nos of specific gravity determination test and 15 Nos of

samples for Heavy mineral analysis along with 2 Ore beneficiation study and Base line Environmental studies were also carried out by MECL in the Block. Based on the above data an exploration report was submitted by MECL.

4.0 ORE RESERVE ESTIMATION

The ore reserves have been estimated over a strike length of 200m between sections N-650 and N-850. A cut-off of 1 g/t Au and 1m minimum stopping width were considered. Reserves have been estimated for correlated lodes viz. lode 1,2,3 and 4 under 'proved' and 'probable' categories and for uncorrelated zones under 'probable' and possible' categories separately. A total of 1.07 mt of reserves with 2.86 g/t Au was estimated of which the reserves in correlated lodes are 0.56mt with an average grade of 2.76g/t Au and in uncorrelated lodes 0.51 mt with an average grade of 2.96 g/t Au.

Out of the total potential of correlated lodes, the reserves of cross-section N-800 and N-850 have been considered for open cast proposition based on favorable parameters. The total reserves available within the proposed pit configuration would be 318549 tonnes of 2.30 g/t. The overburden is of the order of 772504 tonnes with ore to over burden ratio of 1:2.4. This requires further confirmation by additional exploration inputs.

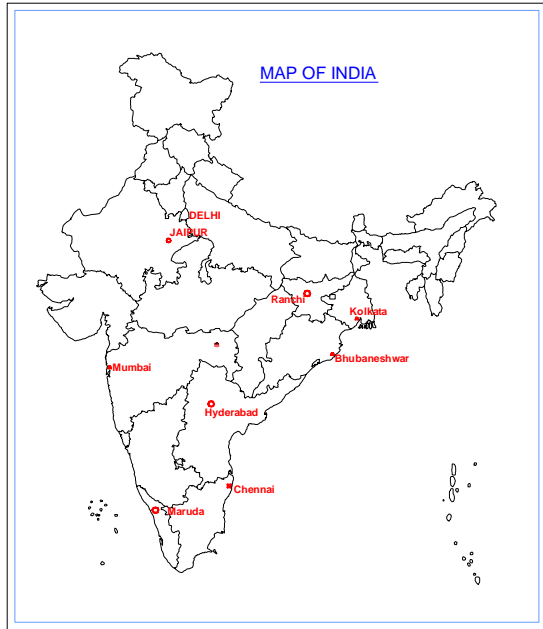
The ore beneficiation studies carried out by Indian Bureau of Mines reveals that the ore is amenable.

The Deposit has been classified as Category 'C' of UNFC 332.

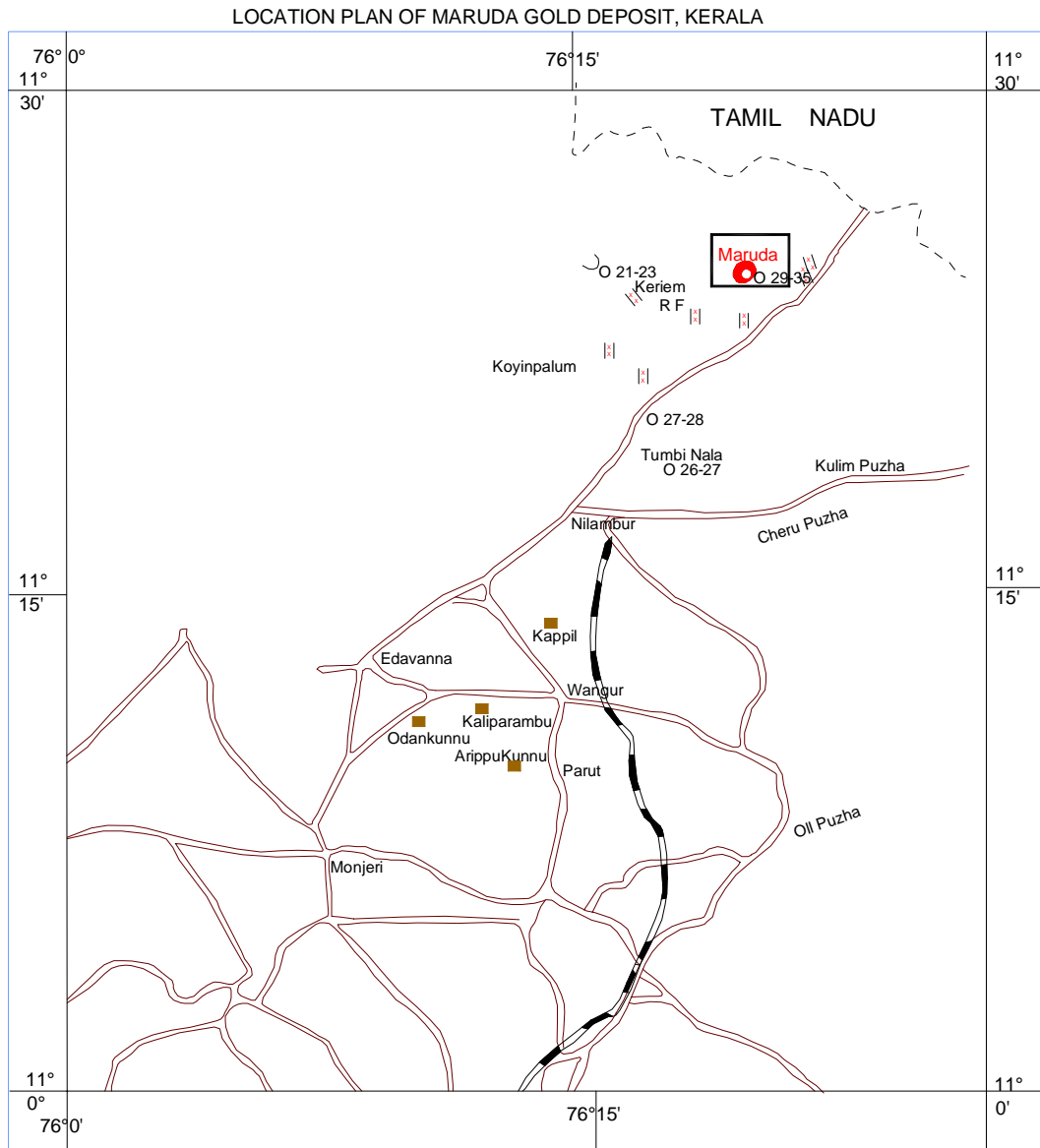
Various base line environmental data in the vicinity of the deposit were collected during the course of exploration are discussed.

The Total Cost of Exploration is Rs. 143.44 Lakhs.

LOCATION MAP



- INDEX**
- Old Working(Pitting & Panning for gold)
 - ⌘ Quartz veins
 - D10 Sample numbers
 - Maruda Prospect



GEOLOGICAL SECTIONS OF PIT WALLS

