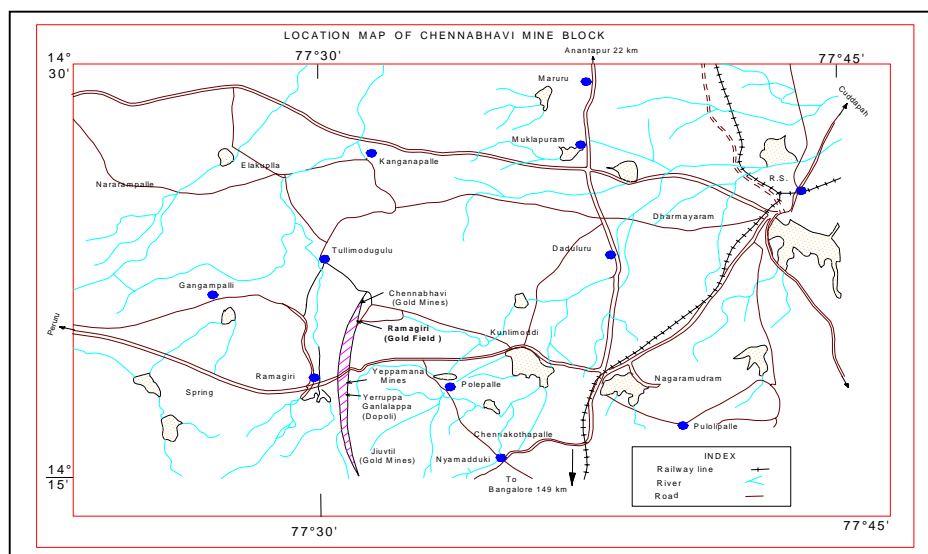


GEOLOGICAL REPORT ON THE EXPLORATION FOR GOLD CHENNABHAVI MINE BLOCK

RAMAGIRI GOLD FIELD

DISTRICT - ANANTAPUR, ANDHRA PRADESH

EXECUTIVE SUMMARY



MINERAL EXPLORATION CORPORATION LIMITED
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SEMINARY HILLS, NAGPUR

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EXECUTIVE SUMMARY

1.0 LOCATION

Chennabhavi mine block lies in the northern extremity of the R.G.F. It is located at 14°15'00"N Latitude and 77°45'00"E Longitude and falls in the survey of India toposheet 57 F/11. It is situated in Chennakothapalle taluk of Anantapur district of Andhra Pradesh. IT is located 5 km north of Yeppamana mine and mill complex of BGML.

Dharmavaram is the nearest town where all the infrastructural facilities like post and Telegraph, workshop, marketing and hospital facilities are available.

2.0 GEOLOGY AND STRUCTURE

The major rock types occurring in the Ramgiri Gold Field are represented by two groups with distinctive characteristics. The lower group is termed as "Basement Complex" comprising of gneissic granite. The upper group is known as "Dharwar group" consisting of Hornblende schist with associated quartzites as a bottom most unit whereas greenstone (meta-andesite) with phyllite bands overlie it.

In Chennabhavi block greenstone and phyllite are the two main litho units encountered in all the boreholes as manifested on the surface. In all, there are 10 major phyllite bands observed which are separated by greenstone. The major phyllite band with ancient workings and old shafts persisting in the sough is termed as Main reef. However, the phyllite occurring in the hanging wall side of the Main reef with an average parting of about 23m was also tested by John Taylor & Son's and it is termed as East Reef and is insignificant.

The general strike of the formation is N 35° E –S35°W with dip of about 80° towards South East. The generalized plunge of mineralisation is 60° towards north.

3.0 MINERALISATION

The highly foliated phyllite bands of varying thickness occurring within greenstone host the entire gold mineralisation. It is mainly confined to quartz in the form of veins, veinlets, stringers and streaks generally associated with sulphides. The major sulphide minerals are pyrite, arsenopyrite and chalcopyrite, whereas limonite and rutile are also present but in minor quantities. Gold is present in the native form. A solitary instance of visible gold streak has been observed in borehole No CBM-13.

The mechanism involved in the following aspects, by and large, controls the gold mineralisation in the block in conformity with the most of the blocks in the south of Ramagiri Gold Fields.

1. Distribution of phyllite within greenstone, particularly in the central part of main syncline mostly conforming generally to axial plane.
2. Localization of quartz bodies within phyllites.
3. Mobilisation and enrichment of gold within quartz bodies generally along with sulphides.

The phyllites have been formed due to shearing cum alteration of the original greenstone (meta andesite) along the axial plane of main syncline. In the process, silica liberated from the altered zones would account for the concentration of quartz bodies in phyllites. Although quartz bodies originated in several stages, only those formed early and subjected to later shearing and fracturing became amenable for localization of gold, while the rest are post mineralized.

4.0 QUANTUM OF WORK DONE

MECL has carried out detailed Geological Mapping & topographical survey covering 1.00 Sq. Km area. 5606.75 Mtrs of drilling in 14 boreholes, 2836 (2701+135) Nos. of primary and check samples for gold. 27 Nos of composite samples were also analysed. Petrographic studies on 35 Nos.of samples and Minerographic studies on 25 Nos of samples, 36 Nos of specific gravity determination test and 27 Nos of samples for semi-quantitative spectroscopic analysis. 10 Nos. of samples for XRD studies were also carried out by MECL in the Block. Based on the above data and earlier data of GSI, an exploration report was submitted by MECL.

5.0 ORE RESERVE ESTIMATION

The present exploration programme has established both the southern and northern ore shoots of Main and East Reefs between 450 & 650 levels and 350' to 850' levels respectively. The ore reserves computed at 1 g/t gold over 1m. Minimum stopping width (MSW) cut-off for both the reefs have been grouped under drilled probable category.

The available data reveal that the "Main Reef" has been established over a strike length of 245m in Southern and Northern shoots (including lean stone) in the unstopped areas within two shafts and between 450' and 650' levels and a portion of northern shoot extending upto 850' level, but the grade is very marginal compared to the grade of stopped areas by Jhon Taylor. The strike continuity of these shoots have also been confirmed between tow levels over 125m south of shaft 4 and 32m north of shaft -5 upto dolerite dyke. The grade of these shoots in the extension areas is also marginal. The total reserves of both these shoots of Main Reef are estimated as 634.31 tonnes of 1.45 g/t Au on 1 g/t and 1m MSW cut-off and grouped under probable category.

Besides "Main Reef" the positive intersections of East Reef have also been obtained in limited boreholes mostly in the peripheral part of the shoots of Main Reef. However, limited data indicated that a total of 69082 tonnes of gold ore of 1.42 g/t Au has been estimated in this reef in the explored portions only.

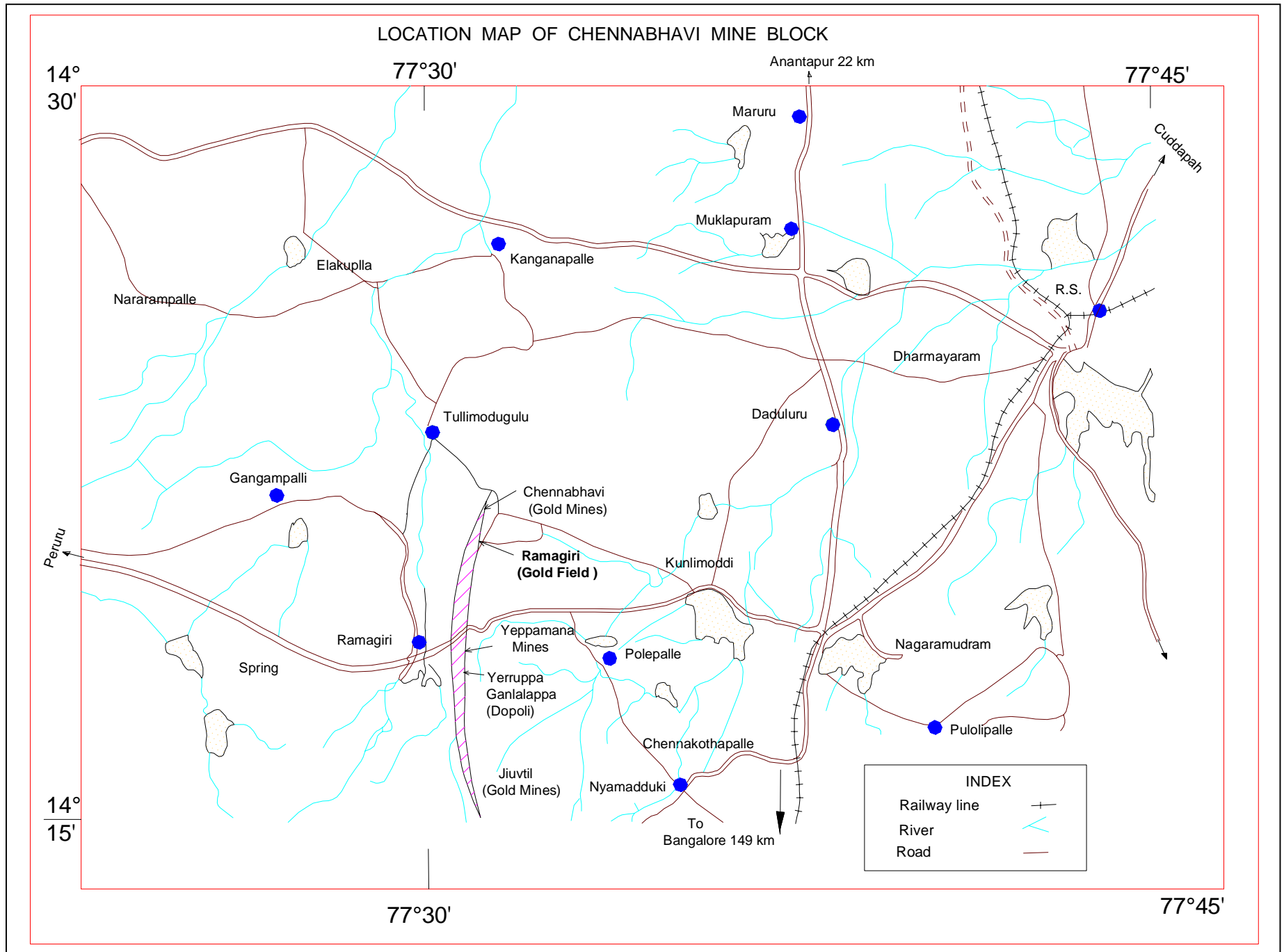
An isolated but significantly rich ore shoot has been intersected at around 1850 level (-40 MRL) towards northern side of shaft-5 beyond dolerite dyke. Though it is shown as a separate shoot of East reef, it can be visualized that it could be a part of extensively stopped northern shoot of existing Main reef probably displaced by a fault later occupied by dolerite dyke.

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

Based line environmental studies has been carried out in Ramagiri south shaft area and Gantalappa block. Chennabhavi Mine Block is falling within the radius of 10 km of the above block hence separate study is not done for the area.

The Total Cost of Exploration is Rs. 185.28 Lakhs.

LOCATION MAP OF CHENNABHAVI BLOCK



GEOLOGICAL CROSS SECTION

