# ZAMBIA CONSOLIDATED COPPER MINES LTD

## OPERATIONS CENTRE, TECHNICAL SERVICES
## GROUP GEOLOGICAL SERVICES


# MODELLING OF CHAMBISHI SOUTHEAST MINERALISATION USING THE LYNX MINE MODELLING SYSTEM

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## EXECUTIVE SUMMARY


The Chambishi SE Property is one of the unutilised resources of ZCCM Ltd and lies between Mindola Mine to the Southeast and Chambishi Mine to the Northwest.

The area has been subjected to field traversing, pitting, geochemical and geophysical surveys as well as diamond drilling in phases since 1928.

During 1993 - 95, 12 boreholes were drilled with Japanese assistance with the objective of exploring this area further. For ease of handling and processing of data, from a total of 123 boreholes, it was decided to use computer assisted methods.

This report is an account of the computer aided modelling and computation using the LYNX Mine Modelling System at Group Geological Services, Technical Services, Kalulushi. It records the specific details of project format, data entry and validation, interactive geological and mineralisation sectional interpretation/3D modelling and tonnage/grade calculations.
For the two areas of potentially economic mineralisation, defined as blocks having a minimum 2% TCu and 3m true thickness, the tonnage and grade estimates are summarised below.

| | | GRADE(%) | TONNAGE |
|---|---|---|---|
| Cu IN POTENTIALLY ECONOMIC MINERALISATION | NORTHERN SHOOT | 2.70 | 54,793,000 |
| | SOUTHERN SHOOT | 2.19 | 14,934,000 |
| Co IN POTENTIALLY ECONOMIC MINERALISATION | NORTHERN SHOOT | 0.128 | 54,793,000 |
| | SOUTHERN SHOOT | 0.128 | 14,934,000 |

The grade/tonnage distribution is summarised in the Table below:

| **COMPOSITE CUT-OFF GRADE INTERNAL** | **TONNAGE** | **GRADE** (%TCu) |
|---|---|---|
| 2.0 | 69,727,000 | 2.57 |
| 2.5 | 28,262,000 | 3.28 |
| 3.0 | 17,956,246 | 3.74 |
| 3.5 | 12,933,676 | 4.54 |
| 4.0 | 4,078,000 | 4.79 |
| 4.5 | 2,814,000 | 4.97 |
| 5.0 | 778,000 | 5.19 |

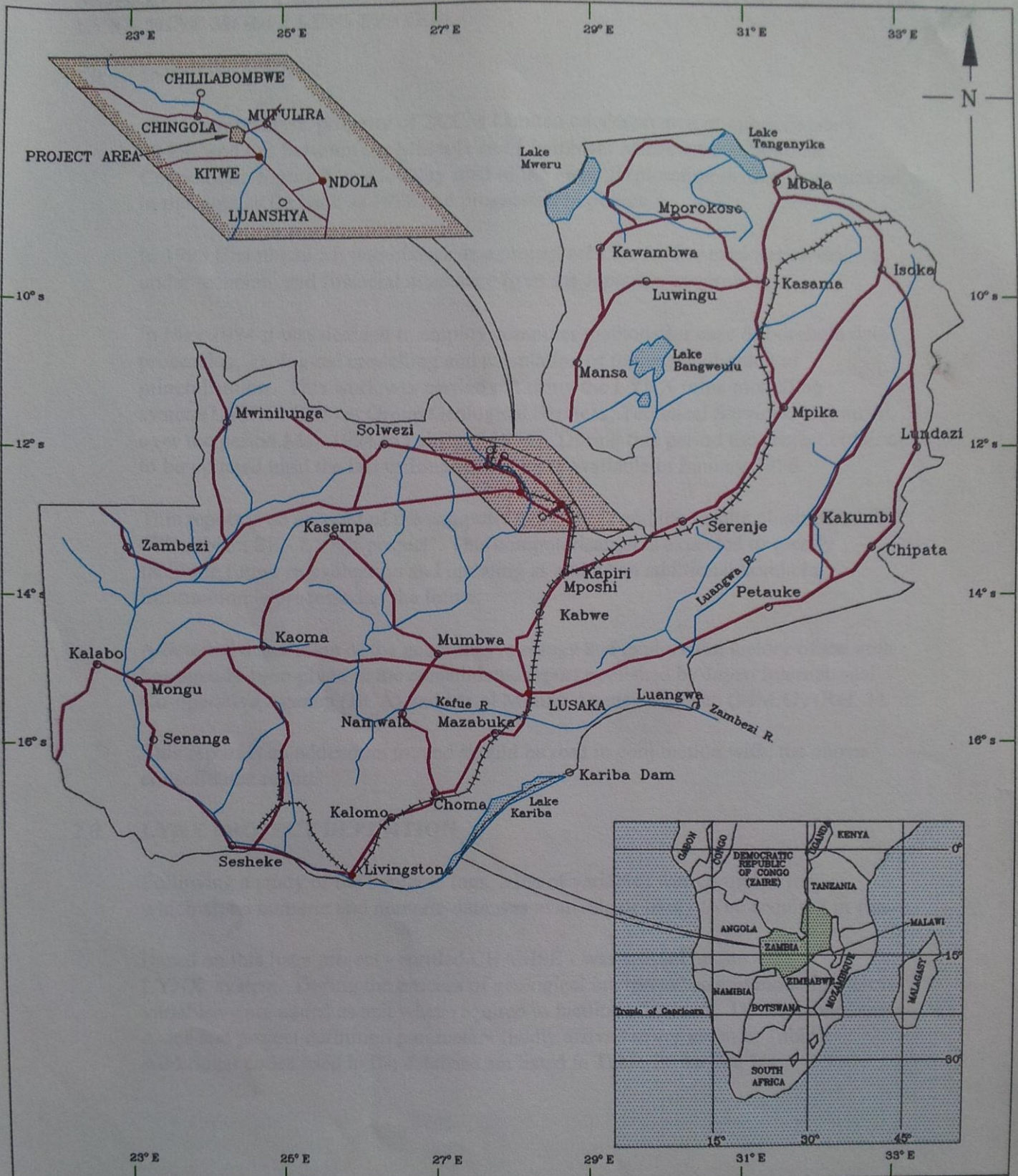
The main reasons that Chambishi SE has remained unutilised by ZCCM are (i) its depth of mineralisation which occurs from 500m to 1050m below surface and (ii) a generally flat lying structure in blind ie, no surface exposure which would require a hangingwall shaft. These negative factors can best be compensated for by increasing the mineral resource base. While the host rocks surface to the east and north east, the mineralisation remains open ended to the west and Southwest and these areas offer the greatest potential for further exploration to increase the mineral resource base.

The borehole density todate remains less than 2 boreholes per square kilometre. The Chambishi SE - LYNX Project, described in this report, is expected to be of great assistance in rapid re-evaluation and updating as and when any additional drillhole information becomes available in the future.

Any future drilling in this area should focus on :

i firming up the structure and grade/tonnage estimates in the two areas of potentially economic mineralisation and

ii on exploring the link, if any, between the main areas of continuous mineralisation and the isolated mineralisation to the Southwest revealed by borehole RCB2.




CHAMBISHI SOUTHEAST PROJECT AREA
LOCATION MAP

| | | | |
|---|---|---|---|
| DRAWN BY: | R CHANYA | DATE: | MAY 1998 |
| ORIGINATOR: | S HAABANYAMA | | |
| APPROVED BY: | | | FIG. 01 |