

## CHAPTER VII: CONCLUSIONS AND SUGGESTIONS

### VII.1 Conclusions

Based on the findings of this research, the following conclusions have been made:

- Mineralization is controlled by the older NW-SE normal fault. The NE – SW sinistral fault is post mineralization.
- Primary tin mineralization is restricted to S-type, medium-grained two-mica granites that intruded into the Pemali Group.
- Primary tin mineralization is concentrated in greisen zones and partly the top part of the Aplite granite. Cassiterite is associated with wolframite, chalcopyrite, bornite, stannite and arsenopyrite.
- The Pemali Tin Deposit Model resembles that of a resultant of a combination of the Cornish type and the USSR type deposits with some amendments.

### VII.2 Suggestions

Following some limitations to this research, the report also aims to highlight some suggestions for future research to consider. Some of the suggestions are given below:

- Future work may consider further investigation on the influence of the younger sinistral fault to hydrothermal activity and the occurrence of possible mineralization by probably trenching, augering or drillhole data along the NE – SW sinistral fault.
- An attempt to understand the most probable number of primary tin mineralizing phases may be investigated to come up with an improved ideal conceptual mineralization model.
- The relationship between the older Klabat Granite and the younger Aplite Granite may need to be investigated further in future studies.
- The lateral extend of the mineralized greisen zone to the south of the NE –SW sinistral fault cutting across the southern pit may need future deeper understanding to expand the primary tin resource base in the study area.