

Finding large scale metallic deposit in Malaysia. Have we exhausted our effort?

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Abstract: Since the collapse of the tin industry in mid-80's, there were hardly any systematic exploration for hard rock tin deposits in Peninsular Malaysia. A few exploration programmes were carried out by foreign companies but did not yield and meaningful results (Yeap, 2000).

Sg Lembing tin mine were consider a large hard rock system that were mine in the late 19th century. From 1880 to 1987, underground tunnelling (shaft and adits) methods yielded about 8,472,750 tons of ores averaging of 1% for a total ore contained 86,717 tonnes of tin metal.

The Sungai Lembing mine had produced large amount of metal over the century however the site is hardly seen any systematic re assessment study to determine the true size of the deposit.

Within the central gold belt, despite a large exploration campaign conducted by Geological Survey Malaysia and foreign exploration companies in the 80s and 90s, there is no major discovery of large metallic metal deposit outside the known hard rock gold occurrence at Selinsing, Buffalo Reef, Raub, Penjom and at Ulu Sokor in Kelantan.

Selinsing, Penjom and Raub were all an historical site which were discovered and operated intermittently through history for more than 100 years. The introduction of block system in the 90s attracted foreign capital to re assess the site led to expansion of the known resources.

The Penjom gold mine was developed by Avocet Mining plc in 1996 with a reserve of 223,000 ounces of gold and by the end of 2013, Penjom had produced approximately 1.4Moz and remaining resources are 21mt at 1.63g/t or 1.2Moz.

Monument acquired the Selinsing and Buffalo Reef property in 2007 from the previous operator and commenced commercial production in 2010 and since produced a total of 280,000 Ounce of gold with a remaining resource of 764Koz including reserve of 279koz Au at 1.4g/t.

At Raub gold mine, operated intermittently since 1889 had produced more than 1mOz. Peninsular Gold Ltd, of UK announced 180,000 ounces of proven reserves in a large tailings deposit immediately adjacent to its existing processing plant in Pahang. Additional resource were declared by the company at its Tersang-Tenggelan-Chenua project areas estimated to contain about 579,000 ounces.

At Ulu Sokor, Kelantan CNMC of Singapore identified a total measured, indicated and inferred gold resources for the Sokor project are 13.8mt at 1.6g/t gold for a total of 724,000 ounces. A total of approximately 120Koz were produced till end of 2017.

Mengapur base metal project is the first major metallic metal discovery from a grassroot exploration activity in central gold belt. The deposit was first identified by geological survey Malaysia from a reconnaissance drilling program carried out in 1979 and subsequently via an agreement signed between the government of Pahang and Malaysia Mining Corporation in 1983. MMC completing a drilling program from 1983 to 1988 and a definitive feasibility study in 1990, MMC did not pursue development of Mengapur and the land reverted back to the Government of Pahang sometime after 1993. Monument Mining Limited acquired Mengapur project in 2011 and since then completed additional 58,000m of drilling and currently finalising the NI 43-101 resource reporting for Mengapur project. Historical report showing Mengapur hosting 762,000 tonnes of copper, 1.1mOz of Au, 64mOz of Ag and 45million tonne of magnetite.

In Sarawak, the Bau gold field has been intermittently mined since the mid-19th century with historic production of more than 3M oz gold. Besra in their technical report update 2012, showing Measured and indicated resource of 21.3mt @ 1.64g/t Au and inferred resource of 51.3mt @ 1.32g/t from 34 prospects along 15km long and 7km wide mineralisation corridor.

In 2018, the Sabah state government in a historic event after the closure of Mamut copper mine in 1999, permitted the operation of open cast gold mining activities at Mantri, Tawau. The project reportedly hosting a gold resource between 1.5 to 1.8mt of at 4.5g/t to 4.6g/t for total ounces between 242,000 to 263,000 ounces.

In recent years, the main challenges faced by the mining and exploration industry in Malaysia today are the lack of available land for mining, the short period of mining lease, as well as the small area of mining tenement granted by the state authorities. These situation does not encourage large scale exploration activities nor attracted investment from major companies. The prolonged depress investing environment had not auger well for major discovery of metallic metal. The window is closing down rapidly with urbanisation especially within the Kinta and Klang Valley and opening of land for other land used.

Both combined tin field had produced most of world tin production over the century from placer mining activities but lacking hard rock exploration initiative that can led to its revival.

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