

## MYANMAR

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**M**yanmar is still suffering a sharp decline in foreign investment in exploration and mining projects. No new foreign companies embarked on joint ventures during 2001 or during the first quarter of 2002. As a result, foreign exchange earnings from the mining sector continues to decline.

The government is contemplating a fourth round of bidding for mineral projects during 2002 to attract foreign investors but will need to modify the current terms and conditions for joint-venture exploration projects if foreign investors are to be attracted at this time of weak metal markets and scarce venture capital.

Under state ownership, only one gold lode mine (Kyaukpahto), three base metal mines (Bawdwin, Bawsaing and Yadanatheingi) and two coal mines (Kalewa and Namma) remain. These hardrock mines with their chronically declining mine, mill and smelter production, are struggling to maintain even a minimal operational capability. However, in view of the private sector's poor performance to date in hardrock mining (gold and tin-tungsten), the government is reluctant to privatise these remaining mines, at least for the present.

During 2001-2002 (up to the end of the first quarter of 2002), no new or additional capital has been committed to the mining sector by foreign investors. However, bonuses and dead rents paid by the four remaining foreign exploration companies amounted to US\$217,000, nearly double that of the preceding year. Of the four companies, only two are active, one for gold and the other for zinc. The other two companies (both exploring for copper-gold) failed to fulfil their exploration commitments, primarily because of a shortage of funds.

The shortfall in foreign investments, did not affect private sector activity in the mining of

gold, jade and gemstones. Instead, the activity thrived and prospered. In addition to its increased production-share quotas from the joint-venture operations, the Mines Ministry earned higher revenues (in local currency), through leases, royalties, rentals, other sundry taxes and technical services (such as chemical analyses, geophysical surveys and drilling).

Although the bulk of foreign exchange income stemmed from annual and bi-annual mineral sales, especially jade (through routine exports and gems emporia), the mining sector's contribution to GDP in 2001-02 was only 0.8%. In the National Economic Development Scheme of the third short-term Five-Year Plan (2001-2002 to 2005-2006), the mining sector still retains the fifth position, ahead of energy, but behind agriculture, livestock breeding and fisheries, and forestry sectors.

### Exploration

The Department of Geological Survey and Mineral Exploration (DGSE) continued geological mapping and mineral prospecting on a regional scale of one inch to one mile (1:63,360) in Kachin State (816 km<sup>2</sup>), Mandalay Division (207 km<sup>2</sup>) and Shan State (790 km<sup>2</sup>) for a total of 1,813 km<sup>2</sup>. Altogether, ten lithostratigraphic units, with ages ranging from Precambrian to Recent, were differentiated by faunal evidence and tectonic affiliations. Occurrences of gold, copper, coal, fluorite and sapphire were been found in 14 localities. Up to now, 77% of the country has been geologically mapped.

On behalf of the Ministry of Mines of Myanmar and the Ministry of Land and Resources of the Peoples Republic of China (PRC), the DGSE and the International Scientific and Technological Co-operation Department respectively, signed a Memorandum of Understanding (MoU) in July 2001, for full co-

operation, technological exchange and commercial exploitation in the geological and mineral resources sectors of the two nations. In January 2002, a team of geologists from the Geological Survey in Beijing, and a team of mining engineers and geologists from the Office of Science, Technology and Industry for National Defence, Kunming, Yunnan Province, arrived in Myanmar for preliminary discussions with their counterparts. The Chinese geologists will study the close relationships between geology and ore deposits, with special interest in lead-zinc-silver, copper and gold; the Chinese mining engineers are seeking to expedite the mining of gold and platinum group metals (PGM) in the northern and northeastern parts of Myanmar.

After two years of field surveys and satellite data analyses in selected areas, the Metal Mining Agency of Japan (MMAJ) has proposed that it undertakes an airborne geophysical survey and a regional geochemical baseline survey along Myanmar's Central Volcanic Arc which stretches from Pinlebu-Banmauk (Wuntho Massif) in the north to Taungni (Mt Popa) in the south. The targets are possible centres of hydrothermal activity in the older volcanics, and epithermal mineralisation in concealed high-level intrusives and/or volcanics (at Shinmadaung and Salingyi). Work is most likely to begin in the Mt Popa region and an MoU will probably be signed by the MMAJ and DGSE in July 2002. MMAJ geologists have high hopes for finding porphyry-related copper-gold deposits and shallow-seated epithermal gold deposits.

Exploration for coal and lignite resources by DGSE is in full swing following the government's decision to install coal-fired power plants in Myanmar. Exploration is currently focussed in the Townships of Pauk (Tazu-Letpanhla), Saw (Namadaung), Sidoktaya (Myaung-U) and Ngape (Kyaukset) all in Magwe Division in central Myanmar. Geologically it represents the southern portion of the Kalewa-Minbu Eocene coal basin. Coal seams range in thickness from 0.3 m to 1.5 m,

and resource estimation will be undertaken where coal seams prove feasible for mining.

Exploration is also being carried out in Shan State: at Tigyt (Hsikip) in Pinlaung Township, where three coal seams, 0.3 m to 0.9 m thick have been found; and near Nyaungsanphu, Aungban Township, where six coal seams with thicknesses ranging from less than 0.3 m to 1.5 m have been found in ten outcrops. The coal at both locations ranges from lignite to sub-bituminous.

DGSE geologists have carried out coal investigation in Kazunma and Aingyi village tracts in Seikphyu Township, Magwe Division. Some 33 coal outcrops have been found in an area measuring of 2.7 km by 1.3 km, and eight coal seams have been located, with thicknesses ranging from 0.3 m to 1.5 m. Test pitting and auguring has delineated a resource of 1.1 Mt. The coal is lignite to sub-bituminous. Numerous other small coal showings have been located in various parts of the country but no significant tonnages have been outlined to date.

Other DGSE activities include: chromite exploration in Falam Township, Chin State and Webula and Hakhalay areas in Kale Township, Sagaing Division where a modest tonnage of podiform chromite has been outlined; the upgrade of a 7 Mt gypsum resource at Mankaung in Thibaw Township, Shan State; and various surveys for other industrial minerals and dimension stone on behalf of Myanmar Economic Corp.

In northwestern Myanmar, Vancouver-based Leeward Tiger Co. Ltd is reported to be doing good business with local Kachin traders, buying specimens of amber (burmite) with exotic insects encapsulated. Such specimens find ready markets in the US and Western Europe. Direct foreign investor participation in jade, gemstone and amber mining in Myanmar is not permitted as yet.

Recently, alluvial diamonds have been recorded at Namkham, Tanai Township,

Kachin State. More than ten diamonds, all white and of gem quality, were reportedly recovered from gold washing by local panners, the biggest stone reportedly weighings about 6 ct. One diamond in possession of a local panner weighs about 1 ct and has perfect crystal form with sharp edges. Alluvial gem-quality diamonds have been reported from eight other areas, dubbed 'headless placers' by foreign diamond geologists. They occur along a linear belt of Precambrian rocks of the Mogok Group which extends from Yunnan Province in China through eastern Myanmar as far south as Phuket Island in Thailand. The belt is about 2,400 km long and 80 km wide, and is located along the western edge of the Asian Plate.

Ivanhoe Myanmar Holdings (Exploration) Ltd, wholly-owned by Vancouver-based Ivanhoe Mines Ltd, is concentrating its exploration activities in the Kyauksayit-Modi Taung area of Block 2/10, Yamethin Township, Mandalay Division. Five gold-quartz mesothermal veins in low-grade slates have been identified as a result of geological mapping, surface trenching, drilling and underground development. The veins dip steeply, are approximately 200 m apart and vary in thickness from 0.3 m to 2.7 m. Gold occurs free in vugs associated with pyrite, and almost 80% of the channel samples collected to date have assayed (uncut) at between 20 g/t (0.64 oz/t) and 50 g/t (1.6 oz/t) across widths of several centimetres. Although the grades are high, the gold distribution is extremely erratic and apparently confined to very small veinlets and stringers. Drilling now under way will test whether mineralisation continues down-dip beneath the oxide zone.

Well into its third year of exploration, Cornerstone Resources (Myanmar) Ltd (CRL), using CSA Australia Pty Ltd as its consultant, has conducted a first-pass drilling programme at the Loncheng zinc deposits (ten holes totalling 553 m at Hill No.1 and five holes totalling 226 m at Hill No.2) based on geochemical anomalies and geological assessment. The expected targets were

possible structurally controlled down-dip extensions at Hill No.1 and down-plunge and along-strike extensions at Hill No.2, untested by previous drilling in 1957.

Results have been disappointing in that only a few thousand tonnes of massive smithsonite has been added to the resource base. As a consequence, the planned depth extension test drilling at Hill No.1 (for likely deep-level supergene blanket-type deposit) has been postponed. Deep overburden sampling also yielded disappointing results, dashing hopes for finding sizeable zinc carbonate mineralisation in karst pockets.

Currently, CSA is carrying out test drilling at the Loi Hoakk prospect (3 km x 2 km) 3 km south of Loncheng, where outcropping, very low-grade disseminated zinc carbonate mineralisation (500 m x 200 m averaging 1% to 2% Zn) has been found in dolomite. Here, the expected target is a possible deeper, structurally-controlled high-grade mineralisation and/or a supergene blanket-type deposit at depth.

East Asia Gold Corp. (EAG) relinquished its exploration rights hold in Block 1/14 last September but intends to drill a copper/gold target in Block 2/4 beneath the present artisanal workings. Four to six holes to depths of between 60 m and 120 m are planned.

Elsewhere, Myanmar First Dynasty Mines Ltd (MFD), now wholly-owned by Sterlite Industries (India) Ltd, will have to relinquish its exploration rights in Block 1/2 where four very promising copper/gold prospects have been delineated, unless it resumes exploration to during this year's second quarter and requests a further extension to the existing contract.

### Mining

Although there was no new foreign investment in the mining sector during 2001, privately-owned domestic mining operations for gold, jade and gemstones continued to thrive in response to the soaring price of gold in local

currency and the high demand for jade, rubies and sapphires on foreign markets. Low-cost artisanal gold-mining is widespread in Kachin State, Sagaing Division, Mandalay Division, Shan State, Kayin State and Mon State. Jade mining is more mechanised, higher cost and confined to Kachin State. Traditional gemstone mining, both manual and mechanised, is centred on the famous Mogok stone tract in Mandalay Division and the newly developed Mōngshu stone tract in Shan State. Ruby mining in the other new gemstone area, Pyinlon in Shan State has been greatly reduced owing to paucity of good stones.

Since April 2000, Myanmar Gems Enterprise (MGE) under the Ministry of Mines, has been mining jade and gemstones with ten indigenous enterprises as production-sharing joint ventures — eight for jade in Lonkhin-Pharkant and two for rubies in the Mōngshu area. The jade and rubies won from these jv operations, together with gems from private enterprises, are sold bi-annually (March and October) in US dollars through gems emporia and the Gems Trading Centre (GTC). During 2001, the total sale proceeds amounted to US\$4.69 million (US\$3.9 million in 2000). A new development has been the sale and transport of raw jade for the first time legally to China.

Besides its jv activities, MGE also issues permits for small mining concessions to local gemstone miners and indigenous people in the Mogok, Mōngshu and Nayazeik areas. The actual production statistics are not available and illegal mining and gemstone smuggling are still rampant in these remote and inaccessible areas.

In the base metals sector, the state-owned No.1 Mining Enterprise (ME1) operates three mines in Shan State, Bawdwin, Bawsaing and Yadanatheingi. The current reserves are shown in the table below.

Apart from producing refined silver, lead metal and zinc concentrates, the Namtu-Bawdwin mining complex produces copper matte, nickel speiss and antimonial lead as by-products for export. Oxide ore from the open pit is processed at Bawdwin to yield a concentrate averaging 41.73% Pb, 9.03% Zn and 3.06% Cu. Underground sulphide ore is treated at the Namtu concentrator to yield a lead concentrate averaging 51.33% Pb, 14.07% Zn and 1.162% Cu. Namtu also produces a zinc concentrate averaging 26.08% Zn and 18.13% Pb. The blast furnaces (four in number and just two operational) at the Namtu smelter require lead concentrates having a minimum content of 57% Pb with 10-15% Zn and 1-2% Cu.

To boost lead and silver production against the declining lead grades, management at Namtu-Bawdwin have purchased a blast furnace from Yunnan Import & Export Co. Ltd of China, said to be capable of smelting lead concentrates as low as 40% Pb and with a tolerance of up to 8% Zn and 3% Cu. The rated capacity is 50 t/d. Also, a Chinese company, M-Apex Construction Co. Ltd, is building a zinc fuming plant that will zinc oxide from zinc slags. The zinc oxide will be transported via the Namtu-Lashio-Muse-Kunming highway to a zinc smelter in Yunnan Province. ME1 would earn foreign exchange in US dollars from the slag sales and plant-site lease.

## Reserves

Sr. No.	Mine	Reserves			Grade		Remarks
		(t)	Ag oz/t	Pb %	Zn %	Cu %	
1	Bawdwin						
	(a)Surface	9,260,000	-	5.05	2.12	0.28	Oxidised Pb-Zn ore
	(b)Underground	3,620,000	4.63	7.65	3.57	0.16	Sulphide Pb-Zn ore
2	Bawsaing	10,000	-	6.12	0.45	-	Both Pb sulphide and carbonate ore
3	Yadanatheingi	110,000	-	3.90	1.13	-	Sulphide Pb-Zn ore



Of ME1's two other lead-zinc mines, Bawsaing produces both lead sulphide (galena) and lead carbonate (cerussite) ores and concentrates, and Yadanatheingi produces only lead sulphide ores and concentrates. Sulphide ores and concentrates from both mines contain quantities of silver. Similar to Bawdwin, production in both mines is declining.

ME1 also has production-sharing jvs with Hawsaing Mining Co., Kachin National Development Co. and Wa Development General Trading Co., all in Shan State. The first two ceased operations in August last year and the third produced just 1,777 t of smithsonite in the 13 months to January 31 this year.

The S & K (Sabedaung and Kyisindaung) copper mine operated by Myanmar Ivanhoe Co. Ltd (MIC), a 50:50 JV between Vancouver-based Ivanhoe Mines Ltd and ME1 in the Monywa area, Salingyi Township, Sagaing Division, produced 21,184 t of cathode copper in 2001-2002. The cathode has been registered as LME Grade A (99.99% Cu) since December 2001.

An increasing clay content in the run-of-mine ore from the open pit is posing serious problems in the leaching process and consideration is being given to develop a second pit, either at Sabedaung South or at Kyisindaung, and to blend the more siliceous ore from this deposit with the Monywa ore to bring down the clay content to a tolerable level prior to heap leaching.

Separately, consideration is being given to an expanded development of the Letpadaung Taung deposit (drill-indicated resource of 1,000 Mt at 4% Cu) situated some 10 km to the south of the S & K mine. Mitsui, Mitsubishi and Marubeni of Japan are understood to have approached the Ministry of Mines with separate proposals. An initial capital outlay of US\$280 million is envisaged with an estimated total financing of US\$400 million. The Japanese are believed to favour equity financing.

At the Longcheng zinc property, the plans to treat the carbonate ores using pyrometallurgy made little headway. ME1's JV partner, Cornerstone Resources (Myanmar) Ltd (CRL) was attempting to treat the ore in a small-scale Chinese-made smelter but the economics proved unsatisfactory. With CRL's exploration efforts also proving a disappointment, a viable zinc mining and metal extraction operation at Longcheng looks unlikely.

The state-owned No.2 Mining Enterprise (ME2) no longer has any operating tin-tungsten mines on its own account, and its activities are now confined to joint ventures with one foreign company, Myanmar Pongpipat Co. Ltd (MPC) of Thailand, and several indigenous mining companies. Except for the Thai company, where the production-sharing ratio at the Heinda mine is 35:65 (ME 2:MPC), the ratio is 30:70. Mining is undertaken on a tribute system with local miners. In addition to its seven JV tin-tungsten mines (Mawchi, Heinda, Kanbauk, Hermyingyi, Kyaukmedaung, Bokeyyin and Theindaw), ME2 has issued mining leases to private individuals in Pyinmana, Mawlamyaing, Dawai (Tavoy) and Myeik (Mergui) Townships of Tanintharyi Division in the southeastern and southern parts of the country. Production statistics for tin-tungsten ores during 2001 are shown below.

Weak tin and wolfram prices on the world market has dealt a severe blow to the Myanmar companies. Owing to the low prices paid for the ore by the JV partners, the labour turnover among tribute miners has been high and production has suffered. In an attempt to revitalise an ailing industry, meetings have been held between ME2 its JV partners and the Mines Ministry, and some form of compensation for the weak metal markets and lower ore production is being considered, such as altering the production-sharing ratio in favour of JV company partners and greater government assistance in the provision of mining equipment and explosives.

**Tin-tungsten Ore Production for 2001 (t)**

Sr. No.	Area	Jan - Apr	May - Aug	Sep - Dec	Total
<b>JV Mines</b>					
1	Mawchi (KMTC)	171.57	164.65	106.37	442.59
2	Heinda (MPC)	192.72	163.12	173.85	529.69
3	Kanbauk	14.14	21.85	19.50	55.49
4	Hermyingyi	8.48	10.60	8.07	27.15
5	Kyaukmedaung	15.81	27.15	22.80	65.76
6	Bokepyin	24.90	19.00	12.60	56.50
7	Theindaw	0.08	0.37	0.55	1.00
<b>Total</b>		<b>427.70</b>	<b>406.74</b>	<b>343.74</b>	<b>1,178.18</b>
<b>Leases</b>					
1	Pyinmana	17.85	27.34	17.25	62.40
2	Mawlamyaing	3.55	-	-	3.55
3	Dawai / Yebyu	28.65	30.15	39.98	98.78
4	Myeik	10.56	12.81	3.62	26.99
<b>Total</b>		<b>60.61</b>	<b>70.26</b>	<b>60.85</b>	<b>191.72</b>
<b>Mines + Leases</b>		<b>488.31</b>	<b>477.00</b>	<b>404.59</b>	<b>1,369.90</b>

*Remarks: Heinda mine alone produces tin (cassiterite) while others produce, tin-tungsten and mixed ores.*

At the Heinda operations, alluvial tin mining at G2 Ridge is being switched by MPC to gravel pumping and sluicing from current hydraulic mining and jigging in order to boost cassiterite production and to cope with the inadequate power supply from the Paungdaw hydroelectric plant. Also, to increase alluvial tin production, the Kalonta mining lease is to be elevated to jv mine status.

Kyaukpahto, in Kawlin Township, Sagaing Division, is the only lode gold mine remaining under the direct control of ME2. It is unrequipped and poorly maintained and there is a struggle to maintain a monthly production target of 25 kg. To achieve this target, the mine tailings (containing 1-2 g/t Au) have been transferred to a production-sharing jv between ME2 and Golden Family Co. (the current jv partner at the Phayaung Taung mine) and alluvial production in a nearby valley is now subject to a production-sharing jv between ME2 and Eternal Co. Ltd. The production-sharing ratio is 50:50 for both jvs.

Elsewhere, the various mining leases (for both alluvial and lode gold deposits) registered with

ME2 in Kachin State, Sagaing Division, Mandalay Division and Mon State, produced a total of 1,036 oz (32.14 kg) of which Kachin State produced 810 oz (25.13 kg) or roughly 78% of the total. Total production of the jv gold mines of ME2 (Phayaung Taung and Thayetkhon) amounted of 667 oz (20.69 kg) of which Phayaung Taung's share was 421 oz (13.06 kg) or 63%.

After six months of mine development, EAG, in a profit-sharing jv with ME2, has begun to test alluvial deposits in the Wethe area (formerly part of Exploration Block 1/14), Thabeikkyin Township, Mandalay Division. EAGC is the first foreign company allowed to mine gold in the country. After paying a 5% royalty to the Mines Ministry, the profit will be split with 25:75 ratio (ME 2:EAGC). The profit sharing will apply only after all the costs and expenses incurred are recovered by EAG.

The No.3 Mining Enterprise (ME3), deals with iron and steel, coal and lignite, antimony, nickel, industrial minerals and dimension (decorative) stones). It has one iron and steel mill (Pyin Oo Lwin), two barytes mines (Heho and Kyaukse), two coal mines (Kalewa and Namma), one gypsum mine (Thibaw), two limestone quarries (Patheingyi and Pyinmana) and several township production centres for assorted industrial raw materials (antimony, chromite, clays, manganese and steatite) under its direct control. It also has jvs with both foreign and indigenous partners in the production of antimony concentrates, barytes powder, coal and dimension stones.

There was a slight increase in the production of pig iron, steel rods and ingots in 2001 from iron and steel mill, near Pyin Oo Lwin in Mandalay Division, but negotiations with the Italian firm Danielli & CSpA for boosting annual production to 50,000 t were unsuccessful. Instead, a ne oxygen plant will be purchased to enable more research work to be done.

A positive prefeasibility study resulting from the successful preliminary coal exploration at

Kalewa by NEDO has been submitted to the authorities concerned in Japan. But the expected preparatory work leading to the development of coal-based industrial enterprises in the Kalewa region, as envisaged in the original MoU with the Japanese consortium (Chiyoda, Itochu and Nissho Iwai Corp.), did not materialise. However, the government is still hoping to develop the country's coal and lignite resources for power generation because both oil and gas as well as hydroelectric power potential are limited. Accordingly, ME3 has invited sealed tender bids from all interested parties, both local and foreign, for mine development at Kalewa. The invitation failed to attract any bids.

### Refined Gold Production

Sr.No.	Year	Production		Remarks
		oz	Kg	
1	1993-1994	1,659.10	50.98	
2	1994-1995	5,271.86	163.95	
3	1995-1996	3,105.58	96.58	
4	1996-1997	5,523.54	171.78	
5	1997-1998	5,828.78	181.28	Peak production
6	1998-1999	3,913.26	121.70	
7	1999-2000	3,731.74	116.05	
8	2000-2001	3,109.98	96.71	
9	2001-2002	2,071.99	64.43	Up to end of January 2002

At Sam Lao in Thibaw Township, Shan State, a production-sharing jv between ME3 and AAA International Co. Ltd, mined 13,022 t of sub-bituminous coal and sold 12,942 t in 2001. In the Lweje area, Momauk Township, Kachin State, Ayeyarwaddy Myitphya Co., another jv partner of ME3, commenced mining lignite in November 2001.

During 2001, a total of 8,770 t of coal and coal dust (against 3,700 t last year) from three mines - Kalewa (2,921 t), Namma (5,813 t) and Sam Lao (36 t) were sent to districts and townships in Yangon Division and upper Myanmar for the manufacture of firewood-substitute fuel cartridges. Direct sales of coal

from the mines, Kalewa (14,261 t) and Namma (22,636 t) amounted to 36,897 t (19,255 t in 2000). This substantial increase in coal supply was mainly due to the increase in production from the Namma mine.

The first coal-fired electric power generation plant with a rated capacity of 120 MW is now being built at Tigyt (Hsikip) in Pinlaung Township, Shan State, in the east-central part of the country. Annually 500,000 t of coal will be consumed by this power plant. The Tigyt coal deposit has a drill-indicated resource of 20 Mt and will supply the plant for 40 years. A private Myanmar mining company, Shwethanlwin Co. Ltd, now a jv partner of ME3, has begun mining the coal. The plant is expected begin generating electricity by 2003. The DGSE is exploring for more coal resources in both Tigyt and Aungban coal basins further north. Depending on the availability of substantial additional coal reserves, another power plant with similar capacity will also be built in the same area. Currently Myanmar is producing 870 MW from hydroelectric power stations and gas-fired power plants.

### Annual Production Figures for Selected Metals and Minerals (t except where stated)

Commodity	1999 -2000	2000 -2001	2001 -2002*
Tin concentrate	426	636	241
Wolfram concentrate	22	2	1
Tin-wolfram concentrate	184	222	70
Cathode copper	27,853	26,546	21,184
Lead	1,717	775	1,200
Gold (kg)	116	100	84
Silver (kg)	2,159	2,019	559
Coal	42,773	52,553	34,513
Barytes	27,679	32,669	24,232
Gypsum	43,102	52,573	63,031

*Remarks: - Production figures represent financial years from April 1 to March 31.*

*\*Production figures for the period April 1, 2001 to January 31, 2002.*

*Decrease in cathode copper production is due to higher clay content in the run-of-mine ore fed to leaching pads.*

Antimony mining in Lebyin area, Thazi Township, Mandalay Division, by the joint venture between ME3 and Mayflower Mining Enterprise Ltd, has been suspended since April 2001 owing to a lack of market demand for the export of upgraded antimony concentrates. After producing 5.4 t of high-grade antimony concentrates (85% Sb) in May 2001, the antimony ore processing plant at Kalaw, run by Mayflower Mining Enterprise also suspended operations indefinitely.

No progress has been reported in the development of nickel laterites in the Tagaung Taung area in Thabeikkyin Township, Mandalay Division. Mt Burgess Mining NL of Australia had shown an interest.

In 2001, the barytes plant at Thazi, Mandalay Division, operated by the production-sharing jv between between ME3 and Singapore-based ECI Mineral Pte Ltd, produced 1,556.5 t of barytes powder. Export sales to Focus Energy amounted to 1,372 t.