MALAYSIAN TIN BULLETIN

MARCH 2022

VOLUME 33 NO. 3

MARCH TIN MARKET REVIEW

Kuala Lumpur Tin Market (KLTM)

Although the KLTM was in session during the month of March, not a single transaction was recorded. There was a daily bidder for 10 tonnes, but with no corresponding offer.

London Metal Exchange (LME)

Tin trading on the LME during the month of March showed an uptrend during the first two trading weeks and was somewhat flat during the remaining weeks, reflecting the trading movement of other base metals on the Exchange.

The tin price opened the trading month at US\$46,000 per tonne for cash tin and US\$45,750 per tonne for 3-month tin. Thereafter, it strengthened towards end of the first trading week to close higher. The price rise was backed by strong demand which came particularly from overseas interests arising from the weakening US dollar.

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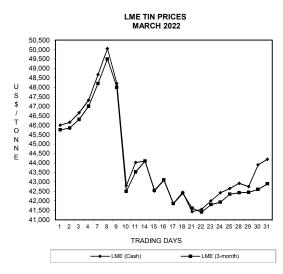
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+603 21616171 / 21616173

mcom@mcom.com.my

Tin Industry (Research and Development) Board 8th Floor, West Block, Wisma Golden Eagle Realty

The strong demand continued during the first half of the second trading week, boosting the tin price to reach its highest level for the month at US\$50,050 per tonne for cash tin, and at US\$49,500 per tonne for 3month tin. They were both recorded on 8th March. Buyers dominated the market during this period while sellers stayed on the sideline. It declined drastically thereafter, for two consecutive days before rebounding at end of the trading week.

During the third trading week, the tin price zigzagged its way downwards as demand dwindled.

The tin price eased during the first two days of the fourth trading week to record its lowest price level for the month at US\$41,425 per tonne for cash tin, and at US\$41,400 per tonne for 3-month tin. They were recorded on 21^{st} and 22^{nd} March, respectively. It regained some strength towards end of the trading week.

Supported by strong demand, the tin price continued to scale upward during the final trading week to close the trading month of March at US\$44,200 per tonne for cash tin and US\$42,900 per tonne for 3-month tin.

The average LME cash tin price recorded in March was US\$44,249 per tonne, whilst the average 3-month tin price was US\$43,917 per tonne.

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NEWS HIGHLIGHT

MSC Eyes More Mining Leases

Riding on the current record-high tin prices, Malaysia Smelting Corp Bhd (MSC) plans to acquire more mining leases around the existing tin mines under its subsidiary, Rahman Hydraulic Tin Sdn Bhd (RHT). According to executive director and group CEO Datuk Patrick Yong, the global integrated tin producer this year will focus on expanding its mining operation, which is its main profit contributor at the moment.

He told *StarBiz* that additional capex has been approved for a new processing plant that can provide additional capacity for new mineral extractions and secondary tin processing from MSC's tailings stockpile.

"This is also expected to bring our mining output from 10 tonnes a day to 14 tonnes a day within the next few years. Modernisation using integrated head material processing equipment will enhance production volume as in situ partial ore processing can be enabled, thus reducing the cost of internal transportation of barren material from the mining pit to the processing plants," added Yong.

Yong noted that the high tin price contributed directly and significantly to the profits of MSC's mining segment. "Even the tailings that were left unprocessed in the past, are now valuable feed for secondary extraction. Past data have linked the profitability of MSC directly to the tin price, showing a better than linear co-relation, hence we are highly optimistic that the growing demand for tin will only push the performance of MSC higher," he added.

Yong said the group's new smelting plant in Pulau Indah near Klang, Selangor has added significant capacity to the smelting capacity and is already being used to smelt ore from tolling customers. MSC's old smelting plant in Butterworth, Penang is also used to recover 6,000 tonnes of tin metal trapped in the intermediates accumulated over the years.

"This is a welcome bonus to MSC as the trapped tin has been fully costed in our books," explained Yong. Upon full commissioning of the Pulau Indah plant, he said the group will be able to completely retire the old inefficient Butterworth plant. Yong also described that MSC as most fortunate to perform above expectations in 2021 following the record-high tin prices. "This has boosted the group's mining activity income significantly. Tin price, which has doubled also boosted profits when we recovered a portion of the trapped tin in the intermediates that accumulated over the past years," he said.

Yong also does not expect the price of tin to retreat as much in 2022. He expects that "demand from the electronic sector and electric mobility tipping the supplydemand balance positively for us. "As MSC continues to retrieve the tin in our huge stockpile of tin bearing intermediates, the good financial performance is expected to flow through over the next couple of years."

The main challenge faced by the MSC group last year was mostly due to the shutdown by the authorities during the full movement control order.

"Our smelting plant in particular was closed for a few months. Then our mines in RHT also faced a period of closure resulting in zero ore production for a couple of months. Externally, disruption in shipping logistics and closure of mines overseas have also impacted supply of ore to our smelter," he said.

However, these challenges are now over, Yong said, adding that the return to normalcy has enabled mining in RHT to recover and importation of ore for smelting is almost back to pre-Covid days. He said MSC has well utilised the recovery period to catch up on the backlog in toll-smelting and also to complete commissioning the new smelter in Pulau Indah. On whether the rally in tin price is sustainable, Yong said "In my opinion, the long term demand for tin has no other direction to grow but northwards."

The Covid-19 pandemic and the Ukraine-Russian conflict will also come to pass and will only delay, but not stop the march of the zero emission vehicles, where tin will play its role in this energy conversion metamorphosis. Hence, the price of tin will find a point of equilibrium within the supply and demand balance in due course and will be very unlikely to find any significant decline, he added.

(Source: The Star, 28 March 2022)

NEWS ROUND-UP

Myanmar - China Tin Trade Again Disrupted by Covid-19 Cases

Tin trade between China and Myanmar will be disrupted again after two new Covid-19 cases were confirmed in Panghsang, Myanmar.

Production from the Man Maw area of Myanmar is one of China's most important tin supply sources. Its ore will passes through the city of Panghsang en route to China. From Panghsang, trucks pass through Menglian, a Chinese border town, before heading to Gejiu for smelting and refining. According to a statement released in late February, Menglian has disallowed trucks from Panghsang through. Due to China's Zero Covid policy, even a single case of Covid-19 is viewed as a risk. Panghsang will be locked down from 1st to 5th March for all residents to be tested for the virus. Once the extent of the outbreak has been determined, the local authorities will review the closure of the two towns.

Elementos Discovered Further Mineralisation

Elementos, an Australian tin exploration and development company, has discovered further mineralisation during geotechnical drilling, outside of the Mineral Resource (MR) at its Oropesa project in Spain.

The company has been drilling around the defined MR at its Oropesa project recently. Instead of just extracting drill core, the company has also been compiling geotechnical data from drill holes. The data will be used to assist in the mine design and add confidence to mine slope angle calculations in the company's Definitive Feasibility Study (DFS).

Although the area is not known as having tin mineralisation, these drill holes returned good grades averaging 0.27 per cent Sn, slightly lower than the MR grade of 0.4 per cent Sn. Apart from tin, these drill holes were also assayed for copper and zinc, with strong grades returned. According to a company spokesman, there is potential for the recovery of the two base metals as a separate product. Copper and zinc-containing material would be separated early from the tin ore, with the two streams processed in parallel, thus requiring no change to the planned tin processing circuit. Elementos now plans to model copper and zinc throughout the existing deposit to determine whether further test work is worthwhile.

The company is currently working on an Optimisation Study (OS) for Oropesa to determine the scale of the final mine, which will feed into the DFS and aims to publish the OS by the end of March. Applications are underway for an Environmental Impact Assessment and Mining Licence.

China's Tin Concentrates Imports Increased

Imports of tin ores and concentrates into China in January increased significantly after a backlog of deliveries from end 2021 was cleared.

The gross weight of imports into China increased by some 200 per cent to 39,989 tonnes in January 2022 compared to December 2021. February's total declined by 51 per cent, month-on-month, to 19,755 tonnes. However, it was 95 per cent higher compared to a year earlier.

Some 90 per cent of the total imports in January were from Myanmar. In February, only 79 per cent of the total imports were from Myanmar. Some 9,000 tonnes of contained tin were imported from Myanmar into China in January, triple that recorded in December, and nearly twice the 12-month rolling average. In February, imports from Myanmar contained only 3,900 tonnes of tin, but was still above average.

Instead of just depending on Myanmar, China has further diversified its imports of tin-in-concentrate over the last year. Imports of contained tin from these sources, mostly from the DR Congo, totalled some 2,000 tonnes in January and 2,100 tonnes in February, slightly higher than 1,900 tonnes recorded in December.

Meanwhile, China imported a lesser amount of refined tin metal during the January to February period, despite a wide arbitrage. Only 774 tonnes of refined tin were imported during the said period while exports were some 1,247 tonnes.

Alphamin to Proceed Developing Mpama South

Alphamin Resources (AR) has confirmed that it will develop the Mpama South deposit as part of its Bisie complex in the DR Congo.

In early March this year, AR announced a maiden Mineral Resource Estimate (MRE) for its Mpama South tin deposit, located just 1km from its operations at Mpama North. More recent drilling work has now been incorporated into the MRE. Inferred Resources were increased by 75 per cent to 3.42Mt at 2.45 per cent Sn for 83,700 tonnes of contained tin. Indicated Resources were relatively unchanged, but now contained some 21,500 tonnes of tin within 0.85Mt of ore. The update has repositioned Mpama South as the 10th largest undeveloped tin project from its 16th previous placing. Although the recent Preliminary Economic Assessment (PEA) for the proposed mine and the updated MRE were conceptual in nature, AR has decided to go ahead with the development of Mpama South. The decision was made as the company wants to take advantage of the current shortfall in tin concentrate supply and its ability to self-fund the project.

The project is given a 20-month development timeframe and its first production is estimated to be in December 2023. While still some time to come, it is significantly faster than most mines, which can take some 10 years to start production after a maiden MRE. At full capacity, the mine is forecast to produce some 7,232 tonnes of tin-inconcentrate annually.

(Source: International Tin Association Ltd. UK)

SPECIAL ARTICLE

Rising Semiconductor Demand Brings Back the Shine in Tin

Not long ago, tin and natural rubber were the darlings of our economy. Together, they accounted for a major share of employment. Rubber was later displaced by oil palm. The switch by big plantation companies led to the decline in rubber. Only the recent spike in earnings from rubber gloves brought some cheer to the industry.

But, the current high price of palm oil, towards a historic high of RM9,000 per tonne, further strengthens the position of the oil palm. Tin, however, went through a differ-

ent decline trajectory. The price crash of the 1980s dealt the biggest blow to tin. The emergence of aluminium as the preferred material in the canning industry made tin lose most of its lustre.

And, with the shrinkage in the economically viable tin deposits in the country, the fate was sealed for the industry after many years of prosperity. There is change in the air now for tin. The world tin price recently hit a historic high of US\$43,000 per tonne. World demand has now outstripped supply. As a result, some tin enthusiasts are now canvassing for support from the government to take a fresh look at tin. Their arguments make a lot of sense.

The rising world demand in consumer electronics is a factor behind the new market expansion as tin is increasingly used in the manufacture of semiconductors used in consumer electronics, with over 50 per cent of the tin used for soldering. The electronics sector is destined for more robust expansion. The growth of the packaged food industry is also favouring the growth of the tin market.

These industries are showing significant growth predominantly in the emerging economies, especially among rising middle-class population. In addition, the potential application of tin in solar power generation is also expected to drive growth.

Tin production and consumption are expected to experience a demand-supply gap in the coming years. The high-paced industrial growth and urbanisation in the emerging economies of Asia Pacific and Latin America is expected to outpace tin production. Depleting resources in major mines in Brazil and Peru is expected to hit tin production. At the same time, new pipeline projects for tin production are not expected to commence before 2024.

As a result, the severity in tin supply shortfall is only expected to increase over the coming years. Pipeline projects might cater to the demand in future, but for now, the rising demand will not be met as supply is seen reducing.

According to one report, the global tin market is projected to rise at a compounded rate (CAGR) of more than three per cent. Soldering is the leading application area and is expected to rise at a CAGR of close to three per cent between 2015 and 2023 in terms of volume. Soldering is a core component in most semiconductor-based industries for high durability and reliable joining of components.

Tin being one of the key components of soldering alloys is needed in large quantities in semiconductor devices. The world market stood at US\$7.4 billion in 2014 and is projected to rise. By volume, the global tin market is anticipated to rise at a CAGR of 2.5 per cent from 2015 to 2023.

Asia Pacific stood as the leading regional market for tin production. China is expected to lead in tin consumption due to a flourishing consumer electronics industry. Europe stood as the second-largest region of tin consumption in 2014. It's time we look at our policy on tin. Experts say we still have large untapped rock deposits.

While it is true there are environmental risks associated with mining, there is evidence that shows that through the deployment of the latest technology, coupled with responsible mining practices, such risks can be effectively managed. There is a need to formulate a new way forward for tin if we are to capture the new opportunities the material presents. Since we still have the basic infrastructure, reviving the tin industry should not be too difficult.

(Source: New Straits Times, 23 March 2022)

			KLTM			LME			
		Average Price *	Exchange	Average Daily	Total		2.14		
Pe	eriod	(US\$/Tonne)	Rates	Turnover (Tonnes)	Turnover (Tonnes)	Cash (US\$/Tonne)	3-Month (US\$/Tonne)		
	2016	17,528	Rates	47	11,568	17,982	17,889		
	2017	20,029		37	8,890	20,098	19,994		
	2018	20,151		37	9,075	20,168	20,086		
	2019	19,168		26	6,445	18,671	18,610		
	2020	17,504		19	4,088	17,134	17,079		
2010	2021	26,589		16	1,955	32,584	31,105		
2019	Jan. Feb.	20,417 21,268		34 37	719 628	20,480 21,268	20,372 21,172		
	Mar.	21,200		50	1,046	21,200	21,359		
	Apr.	20,528		38	833	20,684	20,560		
	May	19,394		19	388	19,531	19,326		
	Jun.	19,065		19	344	19,177	19,076		
	Jul.	18,074		19	416	17,991	17,983		
	Aug.	16,532		20	422	16,577	16,567		
	Sep.	16,730		22 21	392	16,840	16,834		
	Oct. Nov.	16,562 16,624		21	464 417	16,603 16,369	16,627 16,386		
	Dec.	16,883		18	376	17,093	17,063		
2020	Jan.	17,014		19	406	17,056	17,057		
	Feb.	16,536		18	354	16,457	16,456		
	Mar.	16,417		20	236	15,321	15,307		
	Apr.		CLOSED		0.15	15,039	14,949		
	May	15,110		17	268	15,410	15,231		
	Jun.	16,605		18 16	374 358	16,806	16,627 17,375		
	Jul. Aug.	17,287 17,515		18	358 343	17,452 17,672	17,375 17,649		
	Sep.	17,846		21	444	17,946	17,962		
	Oct.	18,026		18	383	18,154	18,152		
	Nov.	18,433		20	413	18,568	18,539		
	Dec.	19,693		23	509	19,727	19,643		
2021	Jan.	22,085		17	314	21,955	21,596		
	Feb.	25,965		25	456	26,717	24,415		
	Mar. Apr.	26,162 27,106		21 16	494 327	27,396 28,427	25,079 26,568		
	May	31,132		17	298	32,524	29,736		
	Jun.	31,857		12	61	32,678	30,829		
	Jul.	-	CLOSED			34,183	33,010		
	Aug.		CLOSED			35,205	34,352		
	Sep.		CLOSED			35,048	34,109		
	Oct.		CLOSED CLOSED			37,962	36,567		
	Nov. Dec.	39,500	CLOSED	5	5	39,333 39,574	38,042 38,956		
2022	Jan.	41,007		5	21	41,807	41,344		
2022	Feb.	11,007	NO TRANSACTION	Ũ		44,118	43,820		
	Mar.		NO TRANSACTION			44,249	43,917		
2022									
Mar.	1		NO TRANSACTION			46,000	45,750		
	2 3		NO TRANSACTION			46,150	45,850		
	3 4		NO TRANSACTION NO TRANSACTION			46,655 47,325	46,300 47,000		
	4		NO TRANSACTION			47,323	48,205		
	8		NO TRANSACTION			50,050	49,500		
	9		NO TRANSACTION			48,200	48,000		
	10		NO TRANSACTION			42,800	42,500		
	11		NO TRANSACTION			44,025	43,525		
	14 15		NO TRANSACTION			44,100	44,100		
	15 16		NO TRANSACTION NO TRANSACTION			42,525 43,100	42,550 43,100		
	16		NO TRANSACTION			43,100	43,100 41,850		
	18		NO TRANSACTION			42,450	42,400		
	21		NO TRANSACTION			41,425	41,605		
	22		NO TRANSACTION			41,550	41,400		
	23		NO TRANSACTION			42,000	41,800		
	24		NO TRANSACTION			42,425	41,925		
	25 28		NO TRANSACTION			42,650	42,350		
	28 29		NO TRANSACTION NO TRANSACTION			42,925 42,750	42,425 42,450		
	30		NO TRANSACTION			43,900	42,600		
	31		NO TRANSACTION			44,200	42,900		
	-					. ,	,		

KLTM & LME TIN PRICES

: The Kuala Lumpur Tin Market London Metal Exchange Sources

Note

: As from 1 February 2001, KLTM price is quoted in U.S. Dollar * KLTM's monthly average price is arrived at on a weighted average against total tonnage basis.

COUNTRY STOCKS Total Total											
Period	LME Stock	Germany	U.K	Indonesia*	Japan	Malaysia*	Brazil*	U.S.A	Country	Commercial	US Strategic
ronou		Connuny	0.11	maonoola	oupun	malayola	Brazil	0101/1	Stocks	Stocks	Stockpile
									010010	o to ako	otoonpilo
2016	3,800	2,129	955	3,976*	1,400	356*	3,600*	6,220	18,600	24,800	4,020
2017	2,235	2,130	955	3,870	1,360	600*	3,600*	6,730	19,245	26,395	4,020
2018	2,165	2,130	955	2587*	1,469	439*	3600*	5,610	16,790	27,226	4,020
2019	7,130	2,130	955	8600*	1,806	400*	3600*	5,920	23,217	35,678	4,020
2020	1,890	2,130	955	8600*	1,473	271*	3600*	5,100	22,129	29,464	4,020
2021	2,045	2,130	955	8600*	1,545	377*	3600*	4,530	21,737	25,142	4,020
2019											
Jan.	1,845	2,130	955	2587*	1,578	439*	3600*	5,150	16,439	26,524	4,020
Feb.	1,325	2,130	955	2587*	1,578	439*	3600*	5,150	16,552	26,111	4,020
Mar.	950	2,130	955	8594*	1,765	439*	3600*	4,850	22,333	31,458	4,020
Apr.	890	2,130	955	8594*	1,834	439*	3600*	5,580	23,132	31,451	4,020
May.	2,810	2,130	955	8600*	1,849	439*	3600*	5,510	23,083	34,096	4,020
Jun.	6,045	2,130	955	8600*	2,520	209*	3600*	5,510	23,524	37,961	4,020
Jul.	4,640	2,130	955	8600*	2,520	209*	3600*	5,510	23,524	34,583	4,020
Aug.	6,830	2,130	955	8600*	2,445	209*	3600*	5,510	23,449	35,355	4,020
Sep.	6,620	2,130	955	8600*	2,013	919*	3600*	5,510	23,017	34,215	4,020
Oct.	6,020	2,130	955	8600*	2,100	400*	3600*	5,510	23,104	33,684	4,020
Nov.	6,235	2,130	955	8600*	2,022	400*	3600*	5,510	23,217	33,116	4,020
Dec.	7,130	2,130	955	8600*	1,806	400*	3600*	5,920	23,217	35,678	4,020
2020											
Jan.	6,630	2,130	955	8600*	2,041	400*	3600*	4,780	22,546	36,171	4,020
Feb.	7,440	2,130	955	8600*	1,966	400*	3600*	4,780	22,431	36,261	4,020
Mar.	6,205	2,130	955	8600*	1,966	268*	3600*	4,780	22,211	32,855	4,020
Apr.	5,375	2,130	955	8600*	1,761	268*	3600*	4,780	22,094	31,171	4,020
May.	2,455	2,130	955	8600*	1,850	268*	3600*	5,090	22,183	28,129	4,020
Jun.	4,230	2,130	955	8600*	1,697	268*	3600*	5,080	22,330	29,666	4,020
Jul.	3,675	2,130	955	8600*	1,645	268*	3600*	5,070	22,268	29,226	4,020
Aug.	5,040	2,130	955	8600*	1,520	268*	3600*	5,080	22,143	30,811	4,020
Sep.	5,550	2,130	955	8600*	1,663	432*	3600*	5,100	22,480	31,518	4,020
Oct.	4,533	2,130	955	8600*	1,621	432*	3600*	5,060	22,398	31,119	4,020
Nov.	3,805	2,130	955	8600*	1,473	432*	3600*	5,100	22,290	31,100	4,020
Dec.	1,890	2,130	955	8600*	1,473	271*	3600*	5,100	22,129	29,464	4,020
2021											
Jan.	820	2,130	955	8600*	1,570	271*	3600*	5,240	22,366	29,477	4,020
Feb.	1,745	2,130	955	8600*	1,578	271*	3600*	5,910	23,044	33,151	4,020
Mar.	1,740	2,130	955	8600*	1,573	181*	3600*	4,540	21,579	31,734	4,020
Apr.	1,245	2,130	955	8600*	1,573	181*	3600*	4,550	21,589	30,572	4,020
May	755	2,130	955	8600*	1,573	181*	3600*	4,550	21,589	28,232	4,020
Jun.	2,015	2,130	955	8600*	1,573	181*	3600*	4,500	21,539	27,012	4,020
Jul.	2,290	2,130	955	8600*	1,573	181*	3600*	4,460	21,499	26,954	4,020
Aug.	1,395	2,130	955	8600*	1,581	181*	3600*	4,440	21,487	24,199	4,020
Sep.	1,235	2,130	955	8600*	1,518	265*	3600*	4,440	21,508	24,344	4,020
Oct.	670	2,130	955	8600*	1,518	265*	3600*	4,510	21,508	23,287	4,020
Nov.	1,285	2,130	955	8600*	1,548	265*	3600*	4,530	21,508	24,894	4,020
Dec.	2,045	2,130	955	8600*	1,545	377*	3600*	4,530	21,737	25,142	4,020
2022											
2022 Jan.	2,390	2,130	0	8600*	1,545	377*	3600*	4,530	20,782	26,236	4,020
Feb.	2,390 2,245										
100.	2,243	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a	n.y.a
	I			1		I	l	1		I	1

WORLD REFINED TIN STOCKS (Tonnes)

* : at producer

n.y.a : not yet available

Source : World Bureau of Metal Statistics

YEAR	A	GGREC	GATE	D	Dredgir	ng	G	Gravel F	Pump	(Open	Cast	Un	der Gr	ound	P	annin	g	Amar	g Retre	atment
	Prod.		Emp.		Units	· ·		Units	<u> </u>	Prod.			Prod.	Units	Emp.	Prod.		-	Prod.	Units	Emp.
-																					
2016	4,158	14	1,406	_	_	_	_	_	_	3,388	14	1,130	_	_	_	293	_	_	442	18	276
2010	3,894	16	1,286	_	1	36		_	_	3,104	16	1,058		_	_	406	_	_	390	16	228
2017	3,868	12	1,295	-		50	-			3,184	12	1,075	_			400		-	260	11	220
2010	3,611	13	1,387	-	-	-	-	-	-	3,104	13	1,201	-	-	-	244	-	-	264	11	186
2019	2,963	14	1,534	-	-	-	-	-	-	2,780	10	1,348	-	-	-	125	-	-	58	11	186
2020	2,903	14	1,844	-	-	-	-	-	-	2,796	13	1,624	-	-	-	123	-	-	64	11	220
2021	2,7/7	15	1,044	-	-	-	-	-	-	2,770	15	1,024	-	-	-	117	-	-	04		220
	325	11	1,242							272.0	11	1,025				28.7		-	24.8	11	217
Jan. Feb.	278			-	-	-	-	-	-	243.3	12		-	-	-	20.7	-		12.5		192
	324	12	1,262	-	-	-	-	-	-			1,070	-	-	-		-	-		11	
Mar.		13	1,289	-	-	-	-	-	-	286.0	13	1,097	-	-	-	18.4		-	20.0	11	192
Apr.	301	13	1,290	-	-	-	-	-	-	250.1	13	1,098	-	-	-	16.1	-	-	34.6	11	192
May	282	12	1,283	-	-	-	-	-	-	240.2	12	1,091	-	-	-	22.2	-	-	19.4	11	192
Jun	213	12	1,254	-	-	-	-	-	-	181.9	12	1,067	-	-	-	15.3	-	-	15.7	11	187
July	263	12	1,282	-	-	-	-	-	-	227.1	12	1,095	-	-	-	15.9	-	-	20.4	11	187
Aug.	299	10	1,396	-	-	-	-	-	-	260.2	10	1,209	-	-	-	20.0	-	-	19.1	11	187
Sep.	320	10	1,281	-	-	-	-	-	-	280.6	10	1,094	-	-	-	20.5	-	-	19.4	11	187
Oct.	312	12	1,441	-	-	-	-	-	-	262.6	12	1,255	-	-	-	15.4	-	-	33.5	11	186
Nov.	323	12	1,391	-	-	-	-	-	-	276.4	12	1,205	-	-	-	18.1	-	-	28.1	11	186
Dec.	356	12	1,387	-	-	-	-	-	-	309.4	12	1,201	-	-	-	31.1	-	-	15.7	11	186
2020																					
Jan.	289	12	1,434	-	-	-	-	-	-	273.0	12	1,248	-	-	-	11.4	-	-	3.6	11	186
Feb.	266	12	1,387	-	-	-	-	-	-	234.0	12	1,201	-	-	-	20.1	-	-	11.4	12	186
Mar.	162	13	1,550	-	-	-	-	-	-	143.9	13	1,364	-	-	-	13.2	-	-	4.6	12	186
Apr.	36	13	1,410	-	-	-	-	-	-	34.2	13	1,224	-	-	-	1.8	-	-	-	12	186
May	252	13	1,401	-	-	-	-	-	-	233.4	13	1,215	-	-	-	15.5	-	-	3.2	11	186
Jun	278	12	1,391	-	-	-	-	-	-	261.4	12	1,205	-	-	-	12.0	-	-	4.4	11	186
July	272	12	1,411	-	-	-	-	-	-	258.4	12	1,225	-	-	-	9.0	-	-	4.2	11	186
Aug.	277	13	1,567	-	-	-	-	-	-	263.7	13	1,381	-	-	-	9.2	-	-	3.8	11	186
Sep.	292	14	1,572	-	-	-	-	-	-	274.5	14	1,386	-	-	-	11.7	-	-	5.8	11	186
Oct.	295	13	1,562	-	-	-	-	-	-	283.7	13	1,376	-	-	-	6.9	-	-	4.1	11	186
Nov.	272	14	1,573	-	-	-	-	-	-	257.1	14	1,387	-	-	-	6.0	-	-	8.4	11	186
Dec.	272	10	1,534	-	-	-	-	-	-	261.4	10	1,348	-	-	-	7.1	-	-	3.3	11	186
2021**																					
Jan.	278	10	1,539	-	-	-	-	-	-	252.1	10	1,353	-	-	-	19.0	-	-	6.5	11	186
Feb.	257	11	1,541	-	-	-	-	-	-	238.9	11	1,355	-	-	-	12.5	-	-	5.5	11	186
Mar.	290	10	1,550	-	-	-	-	-	-	271.9	10	1,364	-	-	-	12.9	-	-	5.0	11	186
Apr.	294	11	1,551	-	-	-	-	-	-	277.7	11	1,365	-	-	-	11.0	-	-	5.5	11	186
May.	262	11	1,508	-	-	-	-	-	-	244.5	11	1,322	-	-	-	11.3	-	-	5.8	11	186
Jun.	44	10	1,450	-	-	-	-	-	-	40.1	10	1,264	-	-	-	0.0	-	-	4.2	11	186
Jul.	204	10	1,450	-	-	-	-	-	-	199.2	10	1,264	-	-	-	1.0	-	-	3.7	11	186
Aug.	233	9	1,547	-	-	-	-	-	-	218.1	9	1,361	-	-	-	11.4	-	-	3.7	11	186
Sep.	262	10	1,794	-	-	-	-	-	-	245.4	10	1,608	-	-	-	11.4	-	-	4.8	11	186
Oct.	292	12	1,358	-	-	-	-	-	-	276.2	12	1,138	-	-	-	11.0	-	-	4.7	11	220
Nov.	270	13	1,844	-	-	-	-	-	-	255.6	13	1,624	-	-	-	9.0	-	-	5.7	11	220
Dec.	294	13	1,844	-	-	-	-	-	-	276.2		1,624	-	-	-	8.1	-	-	9.4	11	220
2022**																					
Jan.	234	13	1,743	-	-	-	-	-	-	218.6	13	1,557	-	-	-	7.9	-	-	7.2	11	186

MALAYSIAN PRODUCTION BY MINING METHODS (In Tonnes) NUMBER OF MINES IN OPERATIONS EMPLOYMENT AT TIN MINES

Source : Department of Mineral and Geoscience Malaysia

Note : * Aggregate number of mines does not include Retreatment units

** Preliminary

- Nil

8

9

MALAYSIAN REFINED TIN PRODUCTION IMPORT OF TIN-IN-CONCENTRATES AND EXPORT OF TIN METAL (In Tonnes)

Period	Production of Tin-In- Concentrates	Imports of Tin-In- Concentrates	Refined Tin Production	Local Consumption	Exports of Tin Metal
2016 2017 2018 2019 2020 2021*	4,158 3,894 3,868 3,611 2,963 2,980	30,536 29,866 27,450 25,644 22,288 322	26,849 27,211 27,115 24,387 22,367 16,634	2,238 2,707 1,964 1,441 1,512 1,156	27,470 27,147 27,342 24,418 22,597 16,441
2019 Jan. Feb. Mar. Apr. Jun. Jul. Aug. Sep. Oct. Nov. Dec.	325 278 324 301 282 213 263 299 320 312 323 356	2,169 1,700 2,263 2,090 1,842 2,393 2,393 2,381 1,998 2,506 2,147 1,762	1,887 1,912 2,169 2,145 1,836 1,536 2,491 2,476 2,234 1,478 2,137 2,086	125 99 134 125 145 129 144 122 111 111 105 91	2,205 1,694 2,195 2,097 1,891 1,630 2,347 2,257 1,886 1,790 2,086 2,340
2020 Jan. Feb. Mar. Apr. Jun. Jul. Jul. Aug. Sep. Oct. Nov. Dec	3,596 289 266 162 36 252 278 272 277 292 295 272 272 272	25,644 2,136 1,449 1,105 1,198 2,187 1,927 1,972 2,785 2,398 1,565 1,536 2,030	24,387 2,314 1,880 1,228 1,110 1,344 1,926 1,819 2,672 2,057 2,078 1,974 1,965	1,441 93 119 71 75 99 190 150 151 138 146 125 155	24,418 2,180 2,226 1,191 933 1,516 1,644 2,240 2,290 2,198 2,126 2,108 1,945
2021* Jan. Feb. Mar. Apr. Jun. Jul. Jul. Aug. Sep. Oct Nov. Dec	278 257 290 294 262 44 204 233 262 292 270 294	28 29 46 47 26 0 21 19 59 16 10 21	1,639 1,847 2,041 1,680 1,861 695 973 1,115 1,221 1,349 1,086 1,127	145 70 113 115 91 86 84 86 85 98 91 92	1,770 1,765 1,982 1,836 1,638 894 507 1,085 1,599 1,165 1,172 1,028
2022* Jan.	234	n.y.a	n.y.a	n.y.a	n.y.a

: Preliminary

: Not yet available n.y.a Sources

*

Department of Statistics, Malaysia
Department of Mineral and Geoscience Malaysia
Malaysia Smelting Corporation Bhd.

PERIOD	TOTAL CONSUMPTION	SOLDER *	TINPLATE	PEWTER	OTHERS *
2016 2017 2018 2019 2020 2021**	2,238 2,707 1,964 1,441 1,512 1,156	1,314 1,348 1,019 695 738 395	750 737 759 639 626 710	86 63 39 19 8 6	88 559 147 88 140 45
2019 Jan. Feb. Mar. Apr. May Jun. Jul. Aug. Sep. Oct. Nov. Dec.	125 99 134 125 145 129 144 122 111 111 105 91	66 60 51 70 66 91 60 41 41 45 35	51 35 64 62 56 47 51 60 59 52 46	1 0 1 2 1 1 3 1 3 3 1 2	7 4 8 12 6 3 10 7 8 7 8
2020 Jan. Feb. Mar. Apr. May. Jun. Jul. Jul. Aug. Sep. Oct. Nov. Dec.	93 119 71 75 99 190 150 151 138 146 125 155	40 62 22 19 49 74 84 49 85 77 78 99	48 52 45 53 44 67 55 65 46 59 40 52	0 0 0 3 3 0 0 0 2 0	5 5 4 3 6 46 8 37 7 10 5 4
2021** Jan. Feb. Mar. Apr. May Jun Jul. Aug. Sep. Oct. Nov. Dec.	145 70 113 115 91 86 84 86 85 98 91 92	73 30 40 39 40 29 20 25 30 29 20 20 20	66 37 68 68 46 50 64 57 53 69 69 63	1 0 1 0 0 0 0 2 0 2 0 2 0	5 3 5 7 5 7 0 4 0 0 0 9
2022** Jan. Feb. Mar.	n.y.a n.y.a n.y.a	n.y.a n.y.a n.y.a	56 69 58	n.y.a n.y.a n.y.a	n.y.a n.y.a n.y.a

MALAYSIA'S DOMESTIC TIN CONSUMPTION (In Tonnes)

*	:	
n.y.a	:	not yet available
Sources	:	Department of Mineral and Geoscience Malaysia
		Malaysia Smelting Corporation Bhd
		Perstima Bhd
Note	:	Local consumption of tin metal refers to the use of tin in a particular application.
		Sales to manufacturing industries have been used as proxy for consumption except
		in the case of manufacture of tinplate which are actual tin consumption data.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
												Jan
EUROPE Portugal Spain	45 -	24	24	84 -	96 -	48 7	56 23	32	108 147	108 74	108 49	9 2
Russia United Kingdom	612	600 -	600 -	240	240	1,140	702 -	1,200 -	2,264 -	2,538 -	2,920 -	244 -
AFRICA Burundi	-	-	-	-	-	51	123	126	143	121	127	47
Democ.Rep. Congo Egypt	4,800	2,462	5,220 87	4,116 12	2,977 -	4,128 -	7,145	9,000	6,250 -	-	15,000 -	1,500 -
Namibia Nigeria Rwanda South Africa	- 1,800 4,167	- 2,400 3,493	- 2,590 3,600 -	- 2,425 4,245 -	- 2,100 2,017	- 3,827 2,621	- 5,964 3,508 -		9 7,020 2,223	242 5,848 1,692	499 6,900 2,122	45 500 150
Zimbabwe Tanzania Uganda	-	-	-	-	-	- 104 -	- 68 66	_	- 18 50	۔ 1,600 -	۔ 1,200 -	- 100 -
ASIA China Indonesia Kazakhstan	127,400 78,000		148,981 84,000	177,300 69,600	146,600 68,400	153,100 60,000			142,900 86,400	- /	152,200 60,000	10,500 5,000
Laos Malaysia Mongolia	1,200 3,346 24	766 3,639 24	745 3,685 44	840 3,600 72	815 3,731 240	1,308 4,123 36	- 779 3,967 50	3,999 60	1,156 4,080 110	120	1,415 3,180 120	50 265 10
Myanmar Thailand Vietnam	534 252 5,400	658 199 5,400	8,943 119 5,400	17,475 131 5,400	2,400 45 3,600	47,435 124 5,520	58,883 705 4,560	720	33,750 720 5,520	720	29,544 720 5,400	1,800 60 450
AMERICA												
Bolivia Brazil Peru U.S.A.	20,373 8,200 29,022 -	19,701 10,800 26,097 -	16,976 13,800 23,661 -	19,548 13,800 12,105 -	20,135 13,800 19,511 -	17,614 25,500 18,789 -	17,973 18,000 17,790 -	18,000	17,194 18,000 19,683 -	14,710 15,000 20,647 -	19,462 17,168 26,995 -	1,700 1,500 2,410 -
OCEANIA Australia	15,400	6,014	5,888	7,042	7,056	6,635	7,217	6,871	7,738	7,836	8,691	600
WORLD	300,575				315,363		370,299			320,452	353,820	26,942

WORLD MINE PRODUCTION (In Tonnes)

Source : World Bureau of Metal Statistics

- : Nil

WORLD REFINED TIN CONSUMPTION (In Tonnes)

EUROPE Austria 3,200 Belgium 6,584 Bulgaria 520 Czech 470 Republic 470 Denmark 108 Finland 131 France 4,839 Gerenany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Kingdom 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 I	011 201	2	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Austria 3,200 Belgium 6,584 Bulgaria 520 Czech 470 Pepublic 470 Denmark 108 Finland 131 France 4,839 Geremany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 2292 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nother Africa 9,000 Indanesia 1,200 </th <th></th> <th>-</th> <th></th>		-										
Belgium 6,584 Bulgaria 520 Czech 470 Denmark 108 Finland 131 France 4,839 Germany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 5292 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 2000 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 AFRICA Egypt Hong Kong 1,800 Indai 9,738 Indonesia 1,200	3 200 2	,978	3,184	3,715	3,438	3,323	4,148	3,983	3,082	2,960	4,057	Jan 250
Bulgaria 520 Czech 470 Denmark 108 Finland 131 France 4,839 Germany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 2000 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA E Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 AFRICA E Egypt 400 Morocco 84		,231	5,400	2,400	2,400	2,400	697	720	720	720	720	230 60
Republic 470 Denmark 108 Finland 131 France 4,839 Germany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 Iran 2,400 Japan 26,936 Kazakhstan 1,044 </td <td></td> <td>500</td> <td>501</td> <td>360</td> <td>144</td> <td>101</td> <td>1</td> <td>117</td> <td>210</td> <td>240</td> <td>303</td> <td>20</td>		500	501	360	144	101	1	117	210	240	303	20
Denmark 108 Finland 131 France 4,839 Geremany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 229 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 2000 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA China China 180,812 Hong Kong 1,800 Inda 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936	470	474	379	300	460	515	532	603	605	335	439	36
Finland 131 France 4,839 Germany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 2000 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA 1200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Paliand 3,540 Thailand 3,540 Turkey <t< td=""><td>108</td><td>13</td><td>24</td><td>11</td><td>8</td><td>3</td><td>17</td><td>7</td><td>1</td><td>10</td><td>17</td><td>1</td></t<>	108	13	24	11	8	3	17	7	1	10	17	1
Germany 19,788 Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA 2 China 180,812 Hong Kong 1,800 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Pakistan 440 </td <td></td> <td>121</td> <td>72</td> <td>244</td> <td>211</td> <td>86</td> <td>51</td> <td>77</td> <td>94</td> <td>72</td> <td>95</td> <td>3</td>		121	72	244	211	86	51	77	94	72	95	3
Greece 1,350 Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Kingdom 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea <		,323	4,616	5,203	4,382	4,736	5,456	6,080	5,020	4,982	3,643	242
Hungary 106 Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA China China 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malysia 4,440 Syria 180 Taiwan		,592	17,896	18,835	17,931	18,242	20,284	20,236	18,441	14,898	16,052	1,000
Ireland 48 Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA China China 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malysia 4,440 Pakistan 4,802 Taiwan 8,093 Thailand <td></td> <td>630 105</td> <td>616 111</td> <td>676 109</td> <td>655 163</td> <td>632 145</td> <td>600 1,177</td> <td>646 2,050</td> <td>634 2,036</td> <td>637 1,714</td> <td>646 1,706</td> <td>50 100</td>		630 105	616 111	676 109	655 163	632 145	600 1,177	646 2,050	634 2,036	637 1,714	646 1,706	50 100
Italy 4,807 Netherlands 4,867 Norway 5 Poland 1,582 Portugal 529 Romania 1,140 Russia 2,960 Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA China China (Song) 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404		7	3	3	7	4	0	2,030	2,030	0	1,700	0
Norway5Poland1,582Portugal529Romania1,140Russia2,960Slovakia400Spain2,032Sweden5,742Switzerland200United703Yugoslavia2,390Other Europe900AFRICA8Egypt400Morocco84Nigeria300South Africa1,464Other Africa900ASIA703China180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Vietnam2,000Other Asia1,860AMERICA778Argentina778Bolivia480Brazil5,628Canada2,882Chile2422Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other335Other600OCEANIA400		,111	3,096	3,760	3,017	3,495	3,974	4,678	4,324	3,402	4,153	300
Poland1,582Portugal529Romania1,140Russia2,960Slovakia400Spain2,032Sweden5,742Switzerland200United703Yugoslavia2,390Other Europe900AFRICA84Egypt400Morocco84Nigeria300South Africa1,464Other Africa900ASIA180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,444Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Vietnam2,000Other Asia1,860AMERICAArgentinaArgentina778Bolivia480Brazil5,628Canada2,882Chile2422Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other335Other600OCEANIA400	4,867 4,	,500	7,399	7,200	6,000	6,000	6,000	6,000	6,000	5,400	5,400	450
Portugal529Romania1,140Russia2,960Slovakia400Spain2,032Sweden5,742Switzerland200United703Yugoslavia2,390Other Europe900AFRICAEgyptEgypt400Morocco84Nigeria300South Africa1,464Other Africa900ASIAChinaChina180,812Hong Kong1,800India9,738Indonesia1,200Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Vietnam2,000Other Asia1,860AMERICAArgentinaArgentina778Bolivia480Brazil5,628Canada2,882Chile2442Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other335Other600OCEANIAF	0	9	5	3	3	0	1	1	1	10	0	0
Romania1,140Russia2,960Slovakia400Spain2,032Sweden5,742Switzerland200United703Yugoslavia2,390Other Europe900AFRICAEgyptEgypt400Morocco84Nigeria300South Africa1,464Other Africa900ASIA180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICAArgentinaArgentina778Bolivia480Brazil5,628Canada2,882Chile2442Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other335Other600OCEANIA600		,085	1,908	2,520	2,647	3,669	3,537	3,723 891	3,335	1,580	1,012 476	125 60
Russia2,960Slovakia400Spain2,032Sweden5,742Switzerland200United703Yugoslavia2,390Other Europe900AFRICAEgyptEgypt400Morocco84Nigeria300South Africa1,464Other Africa900ASIAChinaChina180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Vietnam2,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other335Other600OCEANIA400		435 960	356 3,200	482 960	408 840	554 336	856 516	866	831 551	463 442	476 554	60 25
Slovakia 400 Spain 2,032 Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 1,400 Japan 26,936 Kazakhstan 1,000 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 2177 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 2,000 Other Asia 1,860 AMERICA Argentina 778 Bolivia 480 Prazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600		,039	3,196	1,516	1,262	995	1,339	495	1,914	1,443	2,015	23 99
Sweden 5,742 Switzerland 200 United 703 Yugoslavia 2,390 Other Europe 900 AFRICA Egypt Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 4,809 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Vietnam 2,000		240	202	404	501	465	645	767	593	614	669	40
Switzerland200United703Yugoslavia2,390Other Europe900AFRICAEgyptEgypt400Morocco84Nigeria300South Africa1,464Other Africa900ASIA180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,444Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Vietnam2,000Other Asia1,860AMERICAArgentinaArgentina778Bolivia480Brazil5,628Canada2,882Chile2422Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other335Other335Other600OCEANIA600	2,032 1,	,303	1,913	1,470	1,864	1,495	1,605	1,652	1,563	1,898	1,715	160
United Kingdom703 Yugoslavia2,390 Q00Other Europe900AFRICA900Egypt400 Morocco84 NigeriaNigeria300 South Africa1,464 Other AfricaOther Africa1,800 India180,812 P,738 IndonesiaIndonesia1,200 Iran2,400 JapanJapan26,936 Kazakhstan1,044 M40 PakistanPhilippines217 Singapore2,000 South KoreaSouth Korea14,404 Syria180 TaiwanTaiwan8,093 Thailand3,540 TurkeyUnited Arab Emirates3,000 Vietnam2,000 Q000 Cher AsiaAMERICA Argentina778 S628 Canada2,882 ChileChile2442 Colombia348 MexicoMexico3,898 Peru216 U.S.A.OCEANIA000 COEANIA000 COEANIA		,910	4,385	6,435	5,682	6,492	5,457	6,020	5,835	5,343	6,105	600
Kingdom703Yugoslavia2,390Other Europe900AFRICAEgyptEgypt400Morocco84Nigeria300South Africa1,464Other Africa900ASIACChina180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Vietnam2,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other335Other600OCEANIA		55	861	66	81	47	69	45	60	44	46	1
Yugoslavia 2,390 Other Europe 900 AFRICA 900 Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA 1 China 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Vietnam 2,000 Other Asia 1,860 Amgentina 778 Boliv	703	780	821	794	962	979	936	961	262	102	80	2
AFRICA Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA 900 ASIA 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Vietnam 2,000 Other Asia 1,860 Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 2422		,320	1,140	1,080	1,080	1,080	1,080	1,080	1,080	240	960	80
Egypt 400 Morocco 84 Nigeria 300 South Africa 1,464 Other Africa 900 ASIA 200 China 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Vietnam 2,000 Other Asia 1,860 Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile	900	720	720	720	720	720	720	720	720	530	480	40
Borocco84Nigeria300South Africa1,464Other Africa900ASIAChinaChina180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan180,737Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Vietnam2,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexicco3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA600												
Nigeria300South Africa1,464Other Africa900ASIAChina180,812Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan180,812Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Vietnam2,000Other Asia1,860AMERICA778Argentina778Bolivia480Brazil5,628Canada2,882Chile2422Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA		110	104	0	155	107	119	225	174	139	181	20
South Africa 1,464 Other Africa 900 ASIA 900 China 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 2422 Colombia 348 M		84	29	14	16	21	15	22	20	22	27	3 20
Other Africa 900 ASIA China 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 266,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Vietnam 2,000 Other Asia 1,860 Amgentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 2422 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela		300 ,200	300 1,152	300 1,243	300 1,129	300 1,047	623 957	1,436 633	1,322 604	240 326	240 340	20 59
China 180,812 Hong Kong 1,800 India 9,738 Indonesia 1,200 Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Other Asia 1,860 AMERICA Argentina Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other		720	720	720	720	720	720	720	720	530	480	40
Hong Kong1,800India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA												
India9,738Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA600		,404	168,194	192,610	175,842	191,415	183,391	174,183	177,891	216,152	191,061	13,800
Indonesia1,200Iran2,400Japan26,936Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Vietnam2,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA600		,800 ,985	1,800 9,941	1,800 11,870	1,800 12,857	1,800 9,088	1,800 9,861	3,300 11,365	3,600 10,615	480 9,734	1,359 10,566	130 912
Iran 2,400 Japan 26,936 Kazakhstan 1,044 Malaysia 4,440 Pakistan 480 Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina Argentina 2,788 Canada 2,882 Chile 2422 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 335 Other 600		,200	600	1,200	1,200	1,200	1,200	1,200	1,200	1,200	1,200	100
Kazakhstan1,044Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICAArgentinaArgentina778Bolivia480Brazil5,628Canada2,882Chile2442Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA		,200	797	737	1,129	987	1,058	1,573	2,221	2,261	1,600	100
Malaysia4,440Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA	6,936 27	,657	28,272	27,090	26,762	26,113	29,111	28,084	24,905	20,198	28,383	1,923
Pakistan480Philippines217Singapore2,000South Korea14,404Syria180Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICA480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA		606	602	431	423	490	431	405	350	287	0	5
Philippines 217 Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Emirates 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 2422 Colombia 348 Mexicco 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 OCEANIA 400		,440	3,900	3,900	1,560	1,560	1,560	1,560	1,560	1,560	1,560	130
Singapore 2,000 South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 OCEANIA		360 122	528 143	618 225	480 118	279 506	300 220	489 307	311 1,385	194 776	322 1,045	16 75
South Korea 14,404 Syria 180 Taiwan 8,093 Thailand 3,540 Turkey 2,422 United Arab 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 Mexica 600		,000	2,000	1,998	2,000	1,960	1,920	1,920	1,920	1,720	1,920	160
Taiwan8,093Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICA480Argentina778Bolivia480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA0		,238	14,533	13,772	13,091	14,199	13,112	13,927	11,957	13,405	14,457	1,135
Thailand3,540Turkey2,422United Arab3,000Emirates3,000Other Asia1,860AMERICAArgentinaArgentina778Bolivia480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600OCEANIA0		120	0	120	120	120	120	120	0	0	0	. 0
Turkey 2,422 United Arab Emirates 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		,071	5,883	4,583	4,703	4,140	4,494	4,576	4,569	10,096	8,772	580
United Arab Emirates 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		,538	4,500	3,952	3,074	3,131	4,259	3,000	3,000	3,000	3,000	250
Emirates 3,000 Vietnam 2,000 Other Asia 1,860 AMERICA Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		,135	2,337	2,259	2,136	2,416	3,110	3,215	3,202	3,746	4,158	350
Other Asia1,860AMERICAArgentina778Bolivia480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600America600	-	,400	2,400	2,400	4,200	4,800	4,800	3,600	3,600	2,160	2,160	180
AMERICA Argentina 778 Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		,000	3,600	5,457	6,000	6,000	6,000	4,200	3,600	4,639	4,622	380
Argentina778Bolivia480Brazil5,628Canada2,882Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600America600	1,860 2,	,160	2,160	2,160	2,160	2,160	2,160	2,160	2,160	1,690	1,560	130
Bolivia 480 Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600	770	750	000	F / 0	000	070	F0/	, , ,	100	4 400	700	10
Brazil 5,628 Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		752 480	882 480	560 480	833 480	878 480	596 480	674 480	420 480	1,108 480	799 480	40 40
Canada 2,882 Chile 242 Colombia 348 Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		480	480 6,073	480 4,600	480	480 17,258	480 10,009	480 9,357	480 9,398	480 3,333	480 2,466	40 40
Chile242Colombia348Mexico3,898Peru216U.S.A.30,365Venezuela335Other600America600		,601	2,360	2,740	3,238	2,887	2,562	2,489	2,387	1,871	3,264	148
Mexico 3,898 Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		199	132	96	152	111	82	95	111	133	130	16
Peru 216 U.S.A. 30,365 Venezuela 335 Other 600 America 600		320	308	286	243	300	280	271	248	237	207	33
U.S.A. 30,365 Venezuela 335 Other 600 America 600		,493	3,393	3,769	3,615	4,160	4,197	4,906	4,779	4,406	4,661	400
Venezuela 335 Other 600 OCEANIA		216	220	216	216	216	216	216	216	198 20 101	216	18
Other 600 America 600 OCEANIA		,691 205	29,193 187	28,800 178	30,644 90	29,455 59	31,476 19	34,664 16	31,057 12	29,191 10	34,559 12	4,736 1
OCEANIA		420	420	420	420	420	420	420	420	275	240	20
	570	480	E12	427	117	215	259	204	275	255	217	~
Australia 579 New Zealand 66		480 73	516 19	427 18	467 19	215 7	259 49	284 46	375 41	255 30	317 65	0
WORLD TOTAL 381,772	1,772 360,	,887	359,960	381,439	361,943	387,563	381,702	378,582	368,742	384,161	377,773	29,735
Source : World Bureau of Met	of Matal Cr	iati										

Source : World Bureau of Metal Statistics