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### JUNE TIN MARKET REVIEW

#### Kuala Lumpur Tin Market (KLTM)

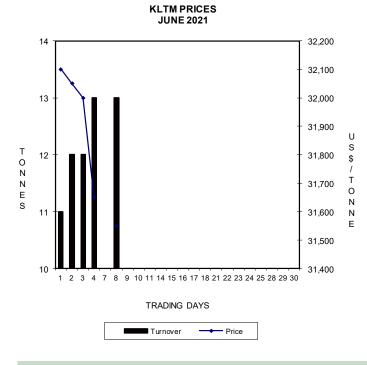
Tin trading on the KLTM during the month of June was conducted for only five trading days. Following the notification from MSC regarding its declaration of Force Majeure with effect from 7<sup>th</sup> June 2021, the KLTM suspended trading on 9<sup>th</sup> June 2021 until such time when MSC announced its lifting of that Force Majeure.

Tin was traded downwards throughout the short trading month. The continuing uncertainty over the global economy and the resurgence in the Covid-19 pandemic infections in many countries were factors that had caused the price decline.

The local physical tin market opened the first trading week at US\$32,100 per tonne, unchanged from the May closing price. It was the highest price level for the month. The market softened afterwards until end of the trading week. Total turnover recorded was 48 tonnes for the week.

The market eased further at the opening of the second trading week to record its lowest price for the month at US\$31,550 per tonne on 8th June. That was also its closing price for the short June trading month. Turnover recorded for the week was 13 tonnes as trading was conducted for just one day.

June's average tin price was US\$31,857 per tonne, higher than May's average of US\$31,132 per tonne. The average daily turnover for the month was 12 tonnes, lower than May's average of 17 tonnes. The highest daily turnover recorded in June was 13 tonnes while the lowest was 11 tonnes.



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#### London Metal Exchange (LME)

Tin metal on the LME in June was traded range bound during the first three trading weeks before rising upward towards end of the trading month. The metal was traded during the entire month within a price range of US\$31,264 to US\$33,460 per tonne for cash tin, and between US\$29,810 to US\$31,662 per tonne for 3-month tin. June's average cash and 3-month tin prices were US\$32,678 and US\$30,829 per tonne, respectively.

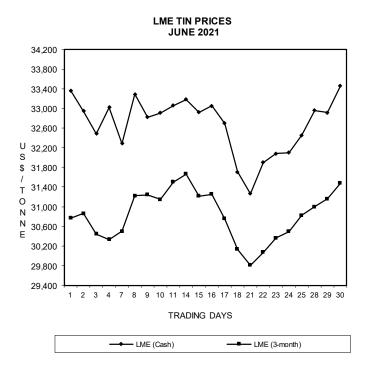
The first trading week opened at US\$33,366 per tonne for cash tin and US\$30,766 per tonne for 3-month tin. The metal was traded range bound during the rest of the week as market sentiment remained largely uncertain, in-line with the movement of the other base-metals traded on the Exchange.

During the second trading week, the tin price continued to be traded range bound but more on an incline to close the week higher, due to high demand.

Continued strong demand strengthened the tin price at the opening of the third trading week to record its highest level for 3-month tin at US\$31,662 on 14<sup>th</sup> June. Thereafter, the tin price softened towards end of the trading week to close lower. The decline, however, was checked midway by some technical corrections.

The tin price opened the fourth trading week at US\$31,264 per tonne for cash tin and US\$29,810 per tonne for 3-month tin, both being their lowest level for the month and recorded on 21st June. Supported by strong demand, the tin price rebounded towards end of the trading week to close higher.

The market rose throughout the final trading week to close the June trading month at US\$33,460 and US\$31,476 per tonne for cash and 3-month tin, respectively, with the former being its highest level for the month.



#### NEWS HIGHLIGHTS

#### London Metal Exchange Ring Will Return

The shouting will resume on Sept 6, when the nine ring-dealing members of the London Metal Exchange (LME) take their red leather seats after more than a year's coronavirus-induced break. It is an unexpected outcome. When the LME proposed closing the 144-year-old bastion of open outcry trading in January, few in the metals trading community expected it to survive. But industrial users have rallied around the ring.

The exchange received an unprecedented 192 responses to its discussion document, mostly from the physical side of the market and mostly negative. It's not just the ring. Trade users don't think much of the LME's other proposed changes either.

A "disaster" was how Liangmin Gu, head of the London office of Chinese state trading company Minmetals, described the plan to switch margining methodology. The common concern among industrial users, often smaller companies with limited balance-sheet muscle, is that they are being pushed aside in favour of bigger financial players with their promise of increased exchange volumes.

So the LME's backed down. Sort of. The ring returns, but under potentially much reduced circumstances. It feels more like a stay of execution unless there's a radical rethink about how open outcry fits into the LME's curious ecosystem. The LME remains convinced "that electronic pricing for reference price generation will result in improvements to the integrity of

the reference price, through an increase in direct participation and enhanced transparency."

But the exchange has politically snookered itself. When Matthew Chamberlain took over as LME chief executive in 2017 after an earlier bruising battle between modernists and traditionalists, he pledged that the first of the exchange's "guiding principles" would be to "protect those features that are core to the LME's market and its physical user base."

So the change to margining will be watered down and the official prices, set half way through the trading day and referenced by the supply chain in its physical contracts, will return to the ring. But not the end-of-day closing prices, which are more important for financial players and which have experienced much broader participation since the LME was forced to suspend the ring in March last year.

At first sight this might seem a sensible split in pricing. After all, the LME's physical user base isn't much interested in the closes and financial players are even less interested in the official prices. The number of participants in the closing copper session rose from an average of four to 42 after the suspension of the ring and the switch to electronic price discovery. Participation in the official ring session, by contrast, increased by just one and was unchanged in the case of nickel, lead and tin.

However, the question for the nine ring-dealing members is whether the permanent move to electronic price discovery of the closes undermines the financial case for bearing the extra costs of a floor team. There will now be a further consultation on the LME's proposed split in referencing pricing. It comes with a sting in the tail.

The exchange proposes a new rule that would allow it unilaterally to move the official price discovery session from ring to screen in the event that the number of ring dealing members falls below six or their share of volumes falls below 75%. If such a "ring price liquidity event" were to occur, the exchange would be "under no obligation to reverse" a decision to switch to electronic pricing even if the causes of that "event" no longer applied.

The consultation is open to all members and interested parties, but again it poses the hardest questions of the nine companies seated around the ring. Can the LME ring survive with just one reference price role? Could it survive if the official prices followed the closing prices onto the screen? It seems unlikely.

If open outcry is going to stay, as so many of the LME's industrial users want, it will have to evolve. The ring still has an important role to play in negotiating the multiple arbitrage op-

portunities afforded by the exchange's unique rolling date structure. Interestingly, a separate LME proposal to push more inter-office transactions onto its electronic platform has run into opposition from members arguing that large orders split across a large number of prompt dates need "bespoke negotiation".

If such parts of the LME system require human contact, then could more of that business flow through the ring? It's possible that other complex parts of the LME system could find a more natural home on the ring. The LME options committee has looked several times over the years at whether open outcry could enhance what many feel is an underpowered part of the market-place.

More fundamentally, the ring needs more than nine members if its survival is to last and, given the current debate, it seems highly unlikely that anyone is considering joining the hallowed few. The answer could be opening up ring-trading to locals, the sole traders who once populated the floors of all the major exchanges.

There are a number of former LME floor traders who would be happy to return but who can't because their employers won't bear the corporate costs of ring-dealing membership. Ironically, there have always been the LME equivalent of locals operating in the more obscure parts of the date structure but because of the membership structure they always traded by telephone or by screen.

That's a radical suggestion for the current ring incumbents but if they and their supporters among the physical supply chain want to keep open outcry, it's going to be up to them to come up with a solution. The LME for its part will focus on enhancing its electronic closing price methodology and finetuning its proposed fee changes to encourage more screen trading.

The exchange still "considers that the longer term direction of travel for financial markets is towards electronic trading and pricing." Which leaves the onus on rethinking the ring on those who have rushed to its rescue.

"LME participants have demonstrated their ability to adapt, innovate and find new ways to service their clients' needs (...) over many decades and in the midst of great technological changes," the exchange noted, adding it "believes that this will continue". Now might be the time for some of that fabled adaptation and innovation.

(Source: The Star, 11 June 2021)

#### Repercussions for the Tin Market

The restriction on the tin smelting and mining operations of Malaysia Smelting Corp Bhd (MSC) during phase one of the National Recovery Plan has led to an indefinite suspension of the Kuala Lumpur Tin Market (KLTM).

MSC is the world's third-largest tin supplier as well as the world's largest toll smelter. A large portion of its 40,000 tonnes of tin ore annually is smelted and traded on the local physical tin market in Malaysia.

When contacted, MSC chief executive officer Datuk Patrick Yong said, "To the best of my memory in my short stint in the tin business, this may be the first time the KLTM is suspended due to the stoppage in MSC's production."

Given that MSC is the sole tin smelter and the only industrial scale miner in Malaysia, he noted that the operation restriction would limit the group's production, thus surely affecting the turnover of the KLTM. He told *StarBiz* that "although the KLTM is technically independent of MSC, other than being related in trading, the physical tin market is also linked by the supply chain of the tin being traded and MSC happens to be the only smelter in the country and supplies over 95% of tin to the KLTM".

The current restriction on operations has also disrupted its tin supply to both the London Metal Exchange and the KLTM, added Yong. "As we are restricted to operating at 10% of our total workforce, we can only keep our furnaces and kettles warm and are unable to operate efficiently."

MSC also had to declare a force majeure to protect the group from international contractual obligations, Yong pointed out. "Since we supply the bulk of tin traded on the KLTM, and with this stoppage of production, the situation has led to the suspension of all tin trading activities on the KLTM until MSC's operation is back to normal," he added.

During the movement control order (MCO) 1 and MCO 2, MSC was classified as an essential and integral part of the global supply chain by the International Trade and Industry Ministry. "Much to our surprise and dismay, when MCO 3.0 was announced, we were restricted to operate with only 10% of our workforce, under 'idle-warm' despite nothing much having changed in the operations of our tin smelters and mine, "Yong said.

With such restrictions on its workforce, no tin can possibly come out from MSC's tin mines which are managed by Rahman Hydraulic Tin Sdn Bhd and its tin smelting plants. Yong also expects trading on the KLTM to remain suspended until MSC receives the approval from the relevant authorities. The imbalance in the supply and demand position will drive tin prices higher, affecting industries that require tin in their downstream activities.

Yong cautioned that "more local industries such as tin canning, tin plating and solder making which require tin will now have to import tin at a higher price. "Even the collection of royalties and levies by the state departments will not be spared. These are just a few of the collateral damages." Another point highlighted by Yong is on MSC's status as the world's largest custom toll smelter.

The group has to source and receive tin ore from third-party miners from all over the world such as Brazil, Peru and Indonesia, among others. "The Covid-19 pandemic presented these countries with challenges and coupled with the restriction on MSC's operations, it further impacted the global tin supply chain, causing tin prices to shoot up sky high internationally," he added.

Furthermore, the drop in MSC's tin production will have a global impact, namely, in the semiconductor and photovoltaic industries. The rise in demand for more electronic devices and renewable energy has led to a sharp rise in prices of solar panels and solder.

To date, half of the global tin demand is used as tin solder, which is needed to attach the electronic components to circuit boards as well as to connect cells in a solar panel. Operational-wise, Yong pointed out that for MSC, there was very little damage control that could be done except to bite the bullet

"However, we have utilised this non-revenue time to do planning and activities low down the merit list. We have also written to appeal to the relevant authorities to allow resumption of production," he added. According to Yong, the higher tin price will affect MSC more in the mining sector as "our export value of tin metal will greatly benefit us."

"Our inventory of tin containing material will also benefit from the price hike. As far as the toll smelting business is concerned, there will be little effect as we earn tolling charges. The lower turnover in smelting volume will translate to slightly lower earnings."

He also expects that MSC can return to full operations in a couple of months after the situation is all cleared with lower Covid-19 infections. Nonetheless, with MSC's new smelting plant in Pulau Indah, the main benefit will be in improved smelting speeds and efficiency.

However, Yong noted that the planned smelting throughput will remain roughly the same, as it will take some time to smelt the backlog of tin ore, which has accumulated for return to tolling customers, after which, considerations will be given to increase smelting output, depending on the market situation.

(Source: The Star, 28 June 2021)

#### NEWS ROUND UP

#### Renison Shipments Reorganised Following MSC Disruption

Metals X Limited, half-owner of the Renison Tin Mine which is Australia's largest tin producer, has issued notification concerning Malaysia Smelting Corporation Berhad's (MSC) recent operational situation.

Renison's tin concentrates are typically shipped to Malaysia, Thailand, or China, their usual primary destinations for smelting.

The Malaysian government, on 1 June 2021, introduced a third Movement Control Order (MCO 3.0) that restricts companies to operate only at maximum 10 per cent of their workforce. As such, MSC finds it difficult to continue operating since it requires the majority of its workforce to be on-site. The MCO 3.0, which was earlier meant for two weeks, have been extended until 28 June.

Although MSC has appealed to the Malaysian government for exemption, it has been unsuccessful. As a result, the smelter has to suspend smelting operations and MSC has also declared Force Majeure on all concentrate contracts. The Force Majeure includes contracts between MSC and Metals X, via the Bluestone Mines Tasmania Joint Venture. Following

MSC's declaration of Force Majeure, the Kuala Lumpur Tin Market (KLTM) suspended its tin trading. This has raised further issues for Metals X as the KLTM sets pricing for tin concentrates from Renison.

To reduce the impact of these developments, Metals X has reorganised its tin concentrate shipments. All concentrates about to be shipped to MSC, or currently in transit, will continue to be received by the smelter. However, these shipments and some already received by MSC will be subjected to extended payment terms. As MSC will not be receiving large amounts of concentrate for the remainder of the MCO 3.0 period, Thaisarco in Thailand has agreed to take additional shipments on extended payment terms.

Although the problems in Malaysia will impact Metals X's cash flow in the short-term, the company does not expect the changes to impact the forecast revenue for this calendar year. This is likely due to higher-than-expected tin prices in 2021. Moreover, the company believes that its current cash reserves are sufficient to ensure that development work at Renison will not be affected.

#### YTC Commences Annual Maintenance Work

Yunnan Tin Company Limited (YTC), China's largest tin producer and exporter, has announced that it will cease production at its main smelter for maintenance work which can take up to 45 days.

The company has two smelters in China, one each located in Yunnan and Hunan provinces. In total, the two smelters produced some 76,500 tonnes of refined tin in 2020, with the majority coming from the Yunnan smelter.

The Yunnan smelter is one of the largest in the world. It uses Ausmelt technology which allows the smelter to process lower grade ores compared to other furnace technologies. However, the internal brick layer needs to be replaced often and is usually done yearly by shutting down the smelter completely.

#### Myanmar Tin Exports Declined Due to Worker Shortage

China's total gross imports of tin ores and concentrates in May declined by 42 per cent or nearly 8,000 tonnes to some 11,159 tonnes. Over half of these imports in gross weight came from Myanmar. The substantial decline in imports from Myanmar was due to shortages of workers in the country's major tin mining areas.

In terms of tin content, however, an estimated 62 per cent came from other countries, including Bolivia, Australia, and the Democratic Republic of Congo (DRC). Imports of tin-inconcentrate from these countries increased by 79 per cent or some 1,100 tonnes.

Myanmar's grade of imports continues to average around 25 per cent Sn. The May imports decline from Myanmar in May to more than half was also due to the lack of material. The country's strict policies meant to prevent the continuing spread of Covid-19 have reduced the number of workers available for mining and processing with no indication as to when the restriction will be lifted and allowing the number of workers to increase.

(Source: International Tin Association Ltd. UK)

#### SPECIAL ARTICLE

#### Miners Target the Sea as Reserves on Land Dwindle

From the shores of Bangka island, miners like Hendra head out by boat every day to scores of crudely built wooden pontoons dotted off the coast that are equipped to dredge the seabed for lucrative deposits of tin ore.

Indonesia is the world's biggest exporter of tin used in everything from food packaging to electronics and now green technologies.

But deposits in the mining hub of Bangka-Belitung have been heavily exploited on land, leaving parts of the islands off the southeast coast of Sumatra island resembling a lunar land-scape with vast craters and highly acidic, turquoise lakes. Miners are instead turning to the sea.

"On land, our income is diminishing. There are no more reserves," said Hendra, 51, who shifted to work in offshore tin mining a year ago after a decade in the industry. "In the ocean, there are far more reserves."

Often grouped together around undersea tin seams, the ramshackle encampments of pontoons emit plumes of black smoke from diesel generators that rumble so loudly workers use hand gestures to communicate. Hendra, who like many Indonesians uses one name, operates six pontoons, each manned by three to four workers, with pipes that can be over 20m long to suck up sand from the seabed.

The pumped mixture of water and sand is run across a bed of plastic mats that trap the glittery black sand containing tin ore. Hendra is among scores of artisanal miners who partner with PT Timah to exploit the state miner's concessions. The miners are paid about 70,000 to 80,000 rupiah (RM20.40 to RM23.40) per kg of tin sand they pump up, and a pontoon typically produces about 50kg a day.

Timah has been ramping up production from the sea. Data shows its proven tin reserve on land was 16,399 tonnes last year, compared with 265,913 tonnes offshore. The huge expansion, coupled with reports of illegal miners targeting offshore deposits, has heightened tension with fishermen, who say their catches have collapsed due to steady encroachment on their fishing grounds since 2014.

Fisherman Apriadi Anwar said in the past his family earned enough to pay for his two younger siblings to go to university, but in recent years, they have barely scraped by. "Never mind going to university, these days it's difficult to even buy food," said Apriadi, 45, who lives in Batu Perahu village.

Apriadi says fishing nets can get tangled up in offshore mining equipment, while trawling the seabed to find seams of ore has polluted once-pristine waters. "Fish are becoming scarce because the coral where they spawn is now covered with mud from the mining," he added.

In a statement, Timah said it communicates with fishing communities to improve their catch, adding it had built artificial reefs to help restock the sea in line with regulations. Authorities have cracked down on the tin industry from time to time, particularly illegal mining, and remaining land reserves are often hard to access or require heavy machinery to exploit. Still, rising tin prices are an incentive to overcome these obstacles.

Amri, an unlicensed miner in Bangka, said he had restarted his land operations after a 14-month hiatus when tin prices rose due to tighter global supplies.

(Source: The Star, 9 June 2021)

#### KLTM & LME TIN PRICES

		KL	LME					
	Average		Average Daily	Total				
David and	Price *	Exchange	Turnover	Turnover	Cash	3-Month		
Period	(US\$/Tonne)	Rates	(Tonnes)	(Tonnes)	(US\$/Tonne)	(US\$/Tonne)		
2016 2017	17,528 20,029		47 37	11,568 8,890	17,982 20,098	17,889 19,994		
2017	20,027		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		
2018 Jan.	20,415		46	973	20,711	20,602		
Feb.	21,558		42	756	21,694	21,549		
Mar.	21,049		42	933	21,214	21,123		
Apr.	21,151		35	744	21,340	21,167		
May Jun.	20,740 20,616		39 45	710 907	20,900 20,663	20,794 20,577		
Jul.	19,687		39	857	19,700	19,610		
Aug.	19,299		31	642	19,281	19,224		
Sep.	18,905		43	736	18,999	18,951		
Oct.	19,048		33	762	19,129	19,092		
Nov.	19,133		27	536	19,139	19,123		
Dec.	19,208		26	519	19,243	19,219		
2019 Jan.	20,417		34	719	20,480	20,372		
Feb. Mar.	21,268 21,317		37 50	628 1,046	21,268	21,172 21,359		
Mar. Apr.	20,528		38	833	21,444 20,684	21,359		
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	392	16,840	16,834		
Oct.	16,562		21	464	16,603	16,627		
Nov. Dec.	16,624 16,883		20 18	417 376	16,369 17,093	16,386 17,063		
2020 Jan.	17,014		19	406	17,075	17,057		
Feb.	16,536		18	354	16,457	16,456		
Mar.	16,417		20	236	15,321	15,307		
Apr.	N.A		N.A	N.A	15,039	14,949		
May	15,110		17	268	15,410	15,231		
Jun.	16,605		18	374	16,806	16,627		
Jul.	17,287		16 18	358	17,452	17,375		
Aug. Sep.	17,515 17,846		21	343 444	17,672 17,946	17,649 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.	26,162		21	494	27,396	25,079		
Apr. May	27,106 31,132		16 17	327 298	28,427 32,524	26,568 29,736		
Jun.	31,857		12	61	32,678	30,829		
2021 1	32,100	4.1248	132,406	11	33,366	30,766		
JUNE 2	32,050	4.1290	132,334	12	32,950	30,860		
3	32,000	4.1270	132,064	12	32,489	30,445		
4	31,650	4.1316	130,765	13	33,022	30,332		
7	31,550	CLOSED	120 105	10	32,290 33,290	30,500 31,225		
8 9	31,330	4.1244 CLOSED	130,125	13	33,290	31,225 31,240		
10		CLOSED			32,908	31,150		
11		CLOSED			33,060	31,501		
14		CLOSED			33,182	31,662		
15		CLOSED			32,925	31,217		
16		CLOSED			33,055	31,254		
17		CLOSED			32,700	30,755		
18 21		CLOSED			31,709 31,264	30,134 29,810		
22		CLOSED CLOSED			31,902	30,070		
23		CLOSED			32,079	30,364		
24		CLOSED			32,100	30,495		
25		CLOSED			32,457	30,825		
28		CLOSED			32,963	30,997		
29		CLOSED			32,918 33,460	31,161 31,476		
30		CLOSED						

: 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.

N.A: Not Available

#### WORLD REFINED TIN STOCKS (Tonnes)

Period   LME Stock   Germany   U.K.   Indonesia   Japan   Mallysia*   Brazil*   U.S.A.   Country   Stocks   S					COL	JNTRY STO	CKS		Total			
2016   3,800   2,129   955   3,976   1,400   3361   3,600   6,470   18,000   24,800   4,000   2,001	Period	LMF Stock	Germany	U.K				Brazil*	U.S.A		Total Commercial	US Strategic
2016   3,000   2,129   955   3,976   1,400   3561   3,600   6,220   18,600   24,800   4,000   2,130   258   3,870   1,320   6,000   3,600   6,730   19,245   26,395   4,000   2,130	renod	LIVIE STOCK	Germany	0.10	maonesia	Japan	ivialaysia	Didzii	0.5.7 (			Stockpile
2017   2235   2130   955   3870   1360   600°   3,000°   6,730   19,245   26,395   400°   2020   1,890   2,130   955   8600°   1,806   400°   3,600°   5,920   22,217   35,678   400°   2020   1,890   2,130   955   8600°   1,473   271°   3600°   5,920   22,217   35,678   400°   2020   1,890   2,130   955   8600°   1,473   271°   3600°   5,920   22,127   35,678   400°   2020   1,890   2,130   955   3435°   1,416   356°   3600°   6,470   18,902   27,908   400°										Otocho	Otocho	otoettp://o
2017   2235   2130   955   3870   1360   600°   3,000°   6,730   19,245   26,395   400°   2020   1,890   2,130   955   8600°   1,806   400°   3,600°   5,920   22,217   35,678   400°   2020   1,890   2,130   955   8600°   1,473   271°   3600°   5,920   22,217   35,678   400°   2020   1,890   2,130   955   8600°   1,473   271°   3600°   5,920   22,127   35,678   400°   2020   1,890   2,130   955   3435°   1,416   356°   3600°   6,470   18,902   27,908   400°												
2018   2,165   2,130   955   3680°   1,469   345°   3600°   5,5410   16,700   27,276   4,00   2020   1,890   2,130   955   8800°   1,473   271°   3600°   5,520   22,217   23,678   4,0   2020   1,890   2,130   955   8800°   1,473   271°   3600°   5,100   22,129   29,464   4,0   2020   2,130   2,129   955   3435°   1,416   356°   3600°   6,470   18,902   27,708   4,0	2016	3,800	2,129	955	3,976*	1,400	356*	3,600*	6,220	18,600	24,800	4,020
2018	2017	2,235	2,130	955	3,870	1,360	600*	3,600*	6,730	19,245	26,395	4,020
2020   1.890	2018	2,165	2,130	955	2587*	1,469	439*	3600*	5,610		27,226	4,020
2017   Jan.   5,800   2,129   955   3435*   1,416   356*   3600*   6,470   18,902   27,908   4,0	2019	7,130	2,130	955	8600*	1,806	400*	3600*	5,920		35,678	4,020
Jam.   5,800   2,129   955   3435*   1,416   356*   3600*   6,470   18,709   26,743   4,0	2020	1,890	2,130	955	8600*	1,473	271*	3600*	5,100		29,464	4,020
Feb.	2017											
Mair.   3,510   2,129   955   3435°   1,282   356°   3600°   6,470   18,227   23,760   4,0	Jan.	5,800	2,129	955	3435*	1,416	356*	3600*	6,470	18,902	27,908	4,020
Mair.   3,510   2,129   955   3435°   1,282   356°   3600°   6,470   13,227   23,760   4,0	Feb.	5,560	2,129	955	3435*	1,283	356*	3600*	6,470	18,769	26,743	4,020
Apr.   2,865   2,129   955   3435   1,244   356   3600   6,470   18,189   22,220   4,0	Mar.		2,129	955	3435*	1,282	356*	3600*	6,470	18,227	23,760	4,020
May			2,129	955	3435*	1,244	356*	3600*	6,470		23,260	4,020
Jun.   1,690   2,130   955   3870°   1,311   920°   3600°   6,540   19,326   20,068   4.0		1,910	2,129	955	3868*	1,196	241*	3600*	6,480	18,469	24,179	4,020
Jul.   1,985   2,130   955   3870°   1,349   920°   3600°   6,540   19,374   29,663   4,0			2,130	955	3870*	1,311	930*	3600*	6,540		26,068	4,020
Aug.   1,910					3870*		930*	3600*				4,020
Sep				955	3870*		930*	3600*				4,020
Oct.         2,995         2,130         955         3870°         1,338         350°         3600°         6,500         18,818         30,637         4,00           Dec.         2,235         2,130         955         3870°         1,348         350°         3600°         6,730         19,245         26,395         4,0           2018         Jan.         1,955         2,130         955         3956°         1,347         600°         3600°         6,730         19,318         26,6395         4,0           Feb.         1,720         2,130         955         3956°         1,384         600°         3600°         6,730         19,318         26,869         4,0           Mar.         2,040         2,130         955         3956°         1,384         600°         3600°         6,430         19,318         26,869         4,0           May.         2,420         2,130         955         3956°         1,184         732°         3600°         6,430         19,318         24,614         4,0           Jul.         2,1970         2,130         955         3956°         1,184         407°         0         6,430         11,343         407°         1,414 </td <td></td> <td>4,020</td>												4,020
Nov.   2,395   2,130   955   3870*   1,348   350*   3600*   6,730   18,983   29,610   4.0												4,020
Dec.   2,235   2,130   955   3870°   1,360   600°   3600°   6,730   19,245   26,395   4,0												4,020
2018   Jan.   1,955   2,130   955   3956*   1,347   600*   3600*   6,730   19,318   25,885   4,0   Feb.   1,720   2,130   955   3956*   1,384   600*   3600*   6,730   19,318   26,506   4.0												4,020
Jan.   1,955   2,130   955   3956*   1,347   600*   3600*   6,730   19,318   25,885   4.0		_,	_,	. 50		.,500			2,: 00	,20		.,,,,,
Feb.   1,720   2,130   955   3956*   1,384   600*   3600*   6,730   19,318   26,506   4,0   Apr.   2,060   2,130   955   3956*   1,322   732*   3600*   6,430   19,087   26,735   4,0   Apr.   2,225   2,130   955   3956*   1,222   732*   3600*   6,430   19,087   24,650   4,0   Apr.   2,225   2,130   955   3956*   1,184   407*   0   6,430   19,087   24,661   4,0   Apr.   3,130   2,130   955   3198*   1,184   407*   0   6,430   14,304   25,151   4,0   Aug.   2,970   2,130   955   3246*   1,093   407*   3600*   6,400   17,727   27,857   4,0   Aug.   2,940   2,130   955   3246*   1,093   407*   3600*   6,410   17,741   26,728   4,0   Aug.   2,940   2,130   955   3246*   1,414   677*   3600*   6,310   18,332   27,715   4,0   Aug.   2,840   2,130   955   3246*   1,414   677*   3600*   6,310   18,332   27,715   4,0   Aug.   2,2130   955   3246*   1,414   677*   3600*   6,310   18,332   27,715   4,0   Aug.   2,130   955   3246*   1,414   677*   3600*   6,310   18,332   27,715   4,0   Aug.   2,130   955   3246*   1,414   677*   3600*   5,610   17,728   29,299   4,0   Aug.   2,130   955   3246*   1,414   677*   3600*   5,610   17,728   29,299   4,0   Aug.   2,130   955   3246*   1,414   677*   3600*   5,610   1,728   29,299   4,0   Aug.   2,130   955   3246*   1,414   677*   3600*   5,610   1,728   29,299   4,0   Aug.		1,955	2,130	955	3956*	1,347	600*	3600*	6,730	19,318	25,885	4,020
Mar.   2,060   2,130   955   3956*   1,222   3600*   6,330   19,087   25,753   4,0	1											4,020
Apr												4,020
May.   2,420   2,130   955   3956   1,184   732*   0   6,430   15,387   24,661   4,0     Jul.   2,970   2,130   955   3246*   1,134   407*   3600*   6,430   14,304   25,151   4,0     Aug.   2,940   2,130   955   3246*   1,134   407*   3600*   6,310   17,741   26,728   4,0     Sep.   2,865   2,130   955   3246*   1,414   677*   3600*   6,310   18,332   27,715   4,0     Oct.   3,085   2,130   955   3246*   1,414   677*   3600*   6,310   18,332   27,715   4,0     Nov.   3,045   2,130   955   3246*   1,414   677*   3600*   6,310   15,332   22,715   4,0     Dec.   2,165   2,130   955   3246*   1,414   677*   3600*   6,310   15,332   22,715   4,0     Dec.   2,165   2,130   955   2587*   1,469   439*   3600*   5,610   16,790   27,226   4,0     2019   Jan.   1,845   2,130   955   2587*   1,578   439*   3600*   5,610   16,790   27,226   4,0     Mar.   950   2,130   955   8594*   1,765   439*   3600*   5,150   16,439   26,524   4,0     May.   2,810   2,130   955   8594*   1,765   439*   3600*   5,150   16,6552   26,111   4,0     Jul.   4,640   2,130   955   8600*   1,844   439*   3600*   5,510   23,033   31,451   4,0     Jul.   4,640   2,130   955   8600*   2,520   209*   3600*   5,510   23,524   37,961   4,0     Jul.   4,640   2,130   955   8600*   2,220   209*   3600*   5,510   23,524   34,583   4,0     Aug.   6,830   2,130   955   8600*   2,220   209*   3600*   5,510   23,244   33,844   4,0     Sep.   6,620   2,130   955   8600*   2,021   209*   3600*   5,510   23,244   33,844   4,0     Nov.   6,235   2,130   955   8600*   2,022   209*   3600*   5,510   23,244   33,844   4,0     Aug.   6,830   2,130   955   8600*   2,021   400*   3600*   5,510   23,244   33,844   4,0     Nov.   6,235   2,130   955   8600*   2,022   209*   3600*   5,510   23,244   33,844   4,0     Nov.   6,235   2,130   955   8600*   2,022   209*   3600*   5,510   23,244   33,116   4,0     Apr.   5,375   2,130   955   8600*   1,645   268*   3600*   4,780   22,246   36,171   4,0     Jul.   3,675   2,130   955   8600*   1,645   268*   3600*   4,780   2												4,020
Jun.   3,130   2,130   955   3198*   1,184   407*   0   6,430   14,304   2,5151   4,0   40,4   40,												4,020
Jul. 2,970 2,130 955 3246* 1,134 407* 3600* 6,400 17,872 27,857 4.0 Aug. 2,940 2,130 955 3246* 1,093 407* 3600* 6,310 17,741 26,728 4.0 Sep. 2,865 2,130 955 3246* 1,414 677* 3600* 6,310 15,332 27,715 4.0 Oct. 3,085 2,130 955 3246* 1,414 677* 3600* 6,310 15,332 27,715 4.0 Nov. 3,045 2,130 955 3246* 1,414 677* 3600* 6,310 15,332 25,139 4.0 Dec. 2,165 2,130 955 2587* 1,169 439* 3600* 5,610 17,728 29,299 4.0 Dec. 2,165 2,130 955 2587* 1,469 439* 3600* 5,610 16,790 27,226 4.0  2019 Jan. 1,845 2,130 955 2587* 1,578 439* 3600* 5,150 16,439 26,524 4.0 Mar. 950 2,130 955 8594* 1,834 439* 3600* 5,150 16,552 26,111 4.0 May. 2,810 2,130 955 8594* 1,834 439* 3600* 5,550 23,333 31,458 4.0 Jun. 6,045 2,130 955 8600* 1,849 439* 3600* 5,550 23,332 31,451 4.0 Aug. 6,830 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 31,961 4.0 Jul. 4,640 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 34,983 4.0 Aug. 6,830 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 34,983 4.0 Aug. 6,830 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 34,983 4.0 Aug. 6,830 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 34,983 4.0 Aug. 6,830 2,130 955 8600* 2,1445 209* 3600* 5,510 23,524 34,583 4.0 Aug. 6,830 2,130 955 8600* 2,1445 209* 3600* 5,510 23,524 34,583 4.0 Aug. 6,830 2,130 955 8600* 2,144 209* 3600* 5,510 23,524 34,983 35,55 4.0 Cct. 6,020 2,130 955 8600* 2,013 919* 3600* 5,510 23,114 34,215 4.0 Dec. 7,130 2,130 955 8600* 1,606 400* 3600* 5,510 23,114 34,215 4.0 Dec. 7,130 2,130 955 8600* 1,606 400* 3600* 5,510 23,114 34,215 4.0 Jun. 4,230 2,130 955 8600* 1,606 400* 3600* 5,510 23,217 33,116 4.0 Aug. 3,675 2,130 955 8600* 1,766 400* 3600* 5,510 22,211 32,685 4.0 Aug. 5,245 2,130 955 8600* 1,761 268* 3600* 5,000 22,241 33,681 4.0 Nov. 6,235 2,130 955 8600* 1,761 268* 3600* 5,000 22,241 33,681 4.0 Aug. 5,040 2,130 955 8600* 1,761 268* 3600* 5,000 22,241 33,611 4.0 Aug. 5,040 2,130 955 8600* 1,761 268* 3600* 5,000 22,248 31,110 4.0 Aug. 5,040 2,130 955 8600* 1,761 268* 3600* 5,000 22,248 31,110 4.0 Aug. 5,040 2,130 955 8600* 1,761 268* 3600* 5,000 22,248 31,11												4,020
Aug.   2940	1											4,020
Sep.   2,865   2,130   955   3246*   1,414   677*   3600*   6,310   18,332   27,715   4,0												4,020
Oct.         3,085         2,130         955         3246*         1,414         677*         3600*         6,310         15,332         25,139         4,0           Dec.         2,165         2,130         955         3246*         1,510         677*         3600*         5,610         17,728         29,299         4,0           2019         Jan.         1,845         2,130         955         2587*         1,578         439*         3600*         5,610         16,790         27,224         4,0           Mar.         950         2,130         955         2587*         1,578         439*         3600*         5,150         16,552         26,111         4,0           Mar.         950         2,130         955         8594*         1,765         439*         3600*         5,150         16,552         26,111         4,0           May.         2,810         2,130         955         8600*         1,849         439*         3600*         5,510         23,132         31,451         4,0           Jul.         4,640         2,130         955         8600*         2,520         209*         3600*         5,510         23,524         34,583         4,0												4,020
Nov.   3,045   2,130   955   3246*   1,510   677*   3600*   5,610   17,728   29,299   4,0												
Dec.   2,165   2,130   955   2587*   1,469   439*   3600*   5,610   16,790   27,226   4,0												
Dec.												
Jan.   1,845   2,130   955   2587*   1,578   439*   3600*   5,150   16,439   26,524   4,0.		2,103	2,130	933	2307	1,409	437	3000	3,010	10,790	27,220	4,020
Feb. 1,325		1 0/15	2 120	055	2507*	1 5 7 0	120*	2400*	5 150	14 /20	26 524	4.020
Mar. 950 2,130 955 8594* 1,765 439* 3600* 4,850 22,333 31,458 4,0 Apr. 890 2,130 955 8594* 1,834 439* 3600* 5,580 23,132 31,451 4,0 Jun. 6,045 2,130 955 8600* 2,520 209* 3600* 5,510 23,683 34,096 4,0 Jul. 4,640 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 37,961 4,0 Aug. 6,830 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 34,583 4,0 Aug. 6,830 2,130 955 8600* 2,445 209* 3600* 5,510 23,524 34,583 4,0 Aug. 6,630 2,130 955 8600* 2,415 209* 3600* 5,510 23,149 35,355 4,0 Oct. 6,020 2,130 955 8600* 2,100 400* 3600* 5,510 23,104 33,684 4,0 Nov. 6,235 2,130 955 8600* 2,022 400* 3600* 5,510 23,117 34,215 Apr. 7,130 2,130 955 8600* 1,806 400* 3600* 5,510 23,217 33,116 4,0 Apr. 5,375 2,130 955 8600* 1,966 400* 3600* 4,780 22,431 36,261 4,0 Apr. 5,375 2,130 955 8600* 1,966 400* 3600* 4,780 22,431 36,261 4,0 Apr. 15,375 2,130 955 8600* 1,761 268* 3600* 4,780 22,113 32,855 4,0 Apr. 5,375 2,130 955 8600* 1,806 268* 3600* 4,780 22,113 32,855 4,0 Apr. 5,375 2,130 955 8600* 1,850 268* 3600* 4,780 22,131 32,855 4,0 Apr. 5,375 2,130 955 8600* 1,850 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,654 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,645 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,645 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,645 268* 3600* 5,080 22,133 36,111 4,0 Sep. 5,550 2,130 955 8600* 1,645 268* 3600* 5,080 22,133 36,111 4,0 Sep. 5,550 2,130 955 8600* 1,645 268* 3600* 5,080 22,133 30,811 4,0 Sep. 5,550 2,130 955 8600* 1,643 432* 3600* 5,080 22,143 30,811 4,0 Sep. 5,550 2,130 955 8600* 1,643 432* 3600* 5,080 22,143 30,811 4,0 Sep. 5,550 2,130 955 8600* 1,643 432* 3600* 5,080 22,143 30,811 4,0 Sep. 5,550 2,130 955 8600* 1,643 432* 3600* 5,080 22,143 30,811 4,0 Sep. 5,550 2,130 955 8600* 1,578 271* 3600* 5,100 22,290 31,110 4,0 Sep. 5,550 2,130 955 8600* 1,578 271* 3600* 5,100 22,290 31,110 4,0 Sep. 5,550 2,130 955 8600* 1,578 271* 3600* 5,100 22,290 31,110 4,0 Sep. 1,580 2,130 955 8600* 1,578 271* 3600* 5,100 22,129 29,464 4,0 Sep. 1,540 2,	1						-					
Apr.         890         2,130         955         8594*         1,834         439*         3600*         5,580         23,132         31,451         4,0           May.         2,810         2,130         955         8600*         1,849         439*         3600*         5,510         23,083         34,096         4,0           Jul.         4,640         2,130         955         8600*         2,520         209*         3600*         5,510         23,524         34,583         4,0           Aug.         6,830         2,130         955         8600*         2,2445         209*         3600*         5,510         23,524         34,583         4,0           Oct.         6,620         2,130         955         8600*         2,013         919*         3600*         5,510         23,017         34,215         4,0           Nov.         6,235         2,130         955         8600*         2,020         400*         3600*         5,510         23,104         33,684         4,0           Nov.         6,235         2,130         955         8600*         2,022         400*         3600*         5,510         23,117         33,116         4,0	1											
May. 2,810 2,130 955 8600* 1,849 439* 3600* 5,510 23,083 34,096 4,0 Jun. 6,045 2,130 955 8600* 2,520 209* 3600* 5,510 23,524 37,961 4,0 Aug. 6,830 2,130 955 8600* 2,445 209* 3600* 5,510 23,524 37,961 4,0 Sep. 6,620 2,130 955 8600* 2,445 209* 3600* 5,510 23,449 35,355 4,0 Oct. 6,020 2,130 955 8600* 2,100 400* 3600* 5,510 23,104 33,684 4,0 Nov. 6,235 2,130 955 8600* 2,022 400* 3600* 5,510 23,217 33,116 4,0 Dec. 7,130 2,130 955 8600* 1,806 400* 3600* 5,920 23,217 35,678 4,0  2020 Jan. 6,630 2,130 955 8600* 2,041 400* 3600* 5,920 23,217 35,678 4,0 Feb. 7,440 2,130 955 8600* 1,966 400* 3600* 4,780 22,546 36,171 4,0 Apr. 5,375 2,130 955 8600* 1,663 268* 3600* 4,780 22,211 32,855 4,0 Jun. 4,230 2,130 955 8600* 1,663 268* 3600* 4,780 22,211 32,855 4,0 Jun. 4,230 2,130 955 8600* 1,676 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,676 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,676 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,676 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,676 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,677 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,677 268* 3600* 5,090 22,183 28,129 4,0 Jun. 4,230 2,130 955 8600* 1,663 432* 3600* 5,080 22,330 29,666 4,0 Aug. 5,040 2,130 955 8600* 1,663 432* 3600* 5,080 22,330 29,666 4,0 Aug. 5,040 2,130 955 8600* 1,663 432* 3600* 5,080 22,330 29,666 4,0 Oct. 4,533 2,130 955 8600* 1,663 432* 3600* 5,100 22,480 31,518 4,0 Oct. 4,533 2,130 955 8600* 1,643 432* 3600* 5,100 22,290 31,110 4,0 Dec. 1,890 2,130 955 8600* 1,473 2271* 3600* 5,910 22,094 31,111 4,0 Dec. 1,890 2,130 955 8600* 1,578 271* 3600* 5,910 22,004 33,151 4,0 Apr. 1,745 2,130 955 8600* 1,578 181* 3600* 4,540 21,584 30,492 4,0 Apr. 1,245 2,130 955 8600* 1,578 181* 3600* 4,540 21,584 30,492 4,0												
Jun.   6,045   2,130   955   8600*   2,520   209*   3600*   5,510   23,524   37,961   4,00     Jul.   4,640   2,130   955   8600*   2,520   209*   3600*   5,510   23,524   34,583   4,0     Aug.   6,830   2,130   955   8600*   2,445   209*   3600*   5,510   23,449   35,355   4,0     Sep.   6,620   2,130   955   8600*   2,1013   919*   3600*   5,510   23,017   34,215   4,0     Oct.   6,020   2,130   955   8600*   2,100   400*   3600*   5,510   23,104   33,684   4,0     Nov.   6,235   2,130   955   8600*   2,022   400*   3600*   5,510   23,217   33,116   4,0     Dec.   7,130   2,130   955   8600*   1,806   400*   3600*   5,920   23,217   35,678   4,0     Oct.   6,630   2,130   955   8600*   1,806   400*   3600*   4,780   22,546   36,171   4,0     Feb.   7,440   2,130   955   8600*   1,966   400*   3600*   4,780   22,431   36,261   4,0     Mar.   6,205   2,130   955   8600*   1,966   400*   3600*   4,780   22,211   32,855   4,0     Apr.   5,375   2,130   955   8600*   1,761   268*   3600*   4,780   22,994   31,171   4,0     May.   2,455   2,130   955   8600*   1,850   268*   3600*   5,090   22,183   28,129   4,0     Jun.   4,230   2,130   955   8600*   1,645   268*   3600*   5,090   22,183   28,129   4,0     Jul.   3,675   2,130   955   8600*   1,645   268*   3600*   5,000   22,183   22,266   4,0     Aug.   5,040   2,130   955   8600*   1,645   268*   3600*   5,080   22,143   30,811   4,0     Sep.   5,550   2,130   955   8600*   1,645   268*   3600*   5,000   22,480   31,518   4,0     Oct.   4,533   2,130   955   8600*   1,645   243*   3600*   5,100   22,290   31,100   4,0     Dec.   1,890   2,130   955   8600*   1,473   271*   3600*   5,100   22,290   31,100   4,0     Dec.   1,890   2,130   955   8600*   1,578   271*   3600*   5,910   22,366   29,477   4,0     Feb.   1,745   2,130   955   8600*   1,578   271*   3600*   5,910   23,004   33,151   4,0     Apr.   1,245   2,130   955   8600*   1,578   181*   3600*   4,540   21,584   31,739   4,0     Apr.   1,245   2,130   955   8600*   1,578   181*   3600*   4,540												
Jul.         4,640         2,130         955         8600*         2,520         209*         3600*         5,510         23,524         34,583         4,0           Aug.         6,830         2,130         955         8600*         2,445         209*         3600*         5,510         23,449         35,355         4,0           Oct.         6,020         2,130         955         8600*         2,100         400*         3600*         5,510         23,104         33,684         4,0           Nov.         6,235         2,130         955         8600*         2,022         400*         3600*         5,510         23,104         33,684         4,0           Dec.         7,130         2,130         955         8600*         2,022         400*         3600*         5,510         23,217         33,116         4,0           Dec.         7,130         2,130         955         8600*         1,806         400*         3600*         5,510         23,217         35,678         4,0           2020         Jan.         6,630         2,130         955         8600*         1,966         400*         3600*         4,780         22,546         36,171         4,0<												
Aug.         6,830         2,130         955         8600*         2,445         209*         3600*         5,510         23,449         35,355         4,0           Sep.         6,620         2,130         955         8600*         2,013         919*         3600*         5,510         23,017         34,215         4,0           Nov.         6,235         2,130         955         8600*         2,022         400*         3600*         5,510         23,104         33,684         4,0           Dec.         7,130         2,130         955         8600*         2,022         400*         3600*         5,510         23,104         33,684         4,0           Dec.         7,130         2,130         955         8600*         1,866         400*         3600*         5,510         23,217         35,678         4,0           2020         Jan.         6,630         2,130         955         8600*         1,966         400*         3600*         4,780         22,546         36,171         4,0           Mar.         6,205         2,130         955         8600*         1,966         268*         3600*         4,780         22,211         32,855         4,0<	1											
Sep.         6,620         2,130         955         8600*         2,013         919*         3600*         5,510         23,017         34,215         4,0           Oct.         6,020         2,130         955         8600*         2,100         400*         3600*         5,510         23,104         33,684         4,0           Nov.         6,235         2,130         955         8600*         2,022         400*         3600*         5,510         23,217         33,116         4,0           Dec.         7,130         2,130         955         8600*         1,806         400*         3600*         5,920         23,217         35,678         4,0           2020         Jan.         6,630         2,130         955         8600*         2,041         400*         3600*         4,780         22,546         36,171         4,0           Feb.         7,440         2,130         955         8600*         1,966         400*         3600*         4,780         22,546         36,171         4,0           Mar.         6,205         2,130         955         8600*         1,966         268*         3600*         4,780         22,111         32,285         4,0<							-					4,020
Oct.         6,020         2,130         955         8600*         2,100         400*         3600*         5,510         23,104         33,684         4,0           Nov.         6,235         2,130         955         8600*         2,022         400*         3600*         5,510         23,217         33,116         4,0           Dec.         7,130         2,130         955         8600*         1,806         400*         3600*         5,920         23,217         33,116         4,0           2020         Jan.         6,630         2,130         955         8600*         2,041         400*         3600*         4,780         22,546         36,171         4,0           Feb.         7,440         2,130         955         8600*         1,966         400*         3600*         4,780         22,546         36,171         4,0           Mar.         6,205         2,130         955         8600*         1,966         268*         3600*         4,780         22,211         32,855         4,0           May.         2,455         2,130         955         8600*         1,850         268*         3600*         5,090         22,183         28,129         4,0<												4,020
Nov. 6,235												4,020
Dec.         7,130         2,130         955         8600*         1,806         400*         3600*         5,920         23,217         35,678         4,0           2020         Jan.         6,630         2,130         955         8600*         2,041         400*         3600*         4,780         22,546         36,171         4,0           Feb.         7,440         2,130         955         8600*         1,966         400*         3600*         4,780         22,431         36,261         4,0           Mar.         6,205         2,130         955         8600*         1,966         268*         3600*         4,780         22,431         36,261         4,0           Apr.         5,375         2,130         955         8600*         1,761         268*         3600*         4,780         22,211         32,855         4,0           May.         2,455         2,130         955         8600*         1,850         268*         3600*         5,090         22,183         28,129         4,0           Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,080         22,330         29,666         4,0<												4,020
Dec.												4,020
Jan.         6,630         2,130         955         8600*         2,041         400*         3600*         4,780         22,546         36,171         4,00           Feb.         7,440         2,130         955         8600*         1,966         400*         3600*         4,780         22,431         36,261         4,0           Mar.         6,205         2,130         955         8600*         1,966         268*         3600*         4,780         22,211         32,855         4,0           Apr.         5,375         2,130         955         8600*         1,761         268*         3600*         4,780         22,211         32,855         4,0           May.         2,455         2,130         955         8600*         1,850         268*         3600*         5,090         22,183         28,129         4,0           Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,080         22,330         29,666         4,0           Aug.         5,040         2,130         955         8600*         1,645         268*         3600*         5,080         22,143         30,811         4,0 <t< td=""><td></td><td>7,130</td><td>2,130</td><td>955</td><td>8600*</td><td>1,806</td><td>400*</td><td>3600*</td><td>5,920</td><td>23,21/</td><td>35,6/8</td><td>4,020</td></t<>		7,130	2,130	955	8600*	1,806	400*	3600*	5,920	23,21/	35,6/8	4,020
Feb.         7,440         2,130         955         8600*         1,966         400*         3600*         4,780         22,431         36,261         4,00           Mar.         6,205         2,130         955         8600*         1,966         268*         3600*         4,780         22,431         32,855         4,0           Apr.         5,375         2,130         955         8600*         1,761         268*         3600*         4,780         22,211         32,855         4,0           May.         2,455         2,130         955         8600*         1,850         268*         3600*         5,090         22,183         28,129         4,0           Jun.         4,230         2,130         955         8600*         1,697         268*         3600*         5,080         22,330         29,666         4,0           Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,080         22,143         30,811         4,0           Sep.         5,550         2,130         955         8600*         1,663         432*         3600*         5,00         22,480         31,518         4,0 <tr< td=""><td>1</td><td>/ / 22</td><td>0.400</td><td>055</td><td>0,000</td><td>0.044</td><td>400:</td><td>2/00:</td><td>4 700</td><td>20 5 ***</td><td>2/471</td><td>4.000</td></tr<>	1	/ / 22	0.400	055	0,000	0.044	400:	2/00:	4 700	20 5 ***	2/471	4.000
Mar.         6,205         2,130         955         8600*         1,966         268*         3600*         4,780         22,211         32,855         4,0           Apr.         5,375         2,130         955         8600*         1,761         268*         3600*         4,780         22,094         31,171         4,0           May.         2,455         2,130         955         8600*         1,850         268*         3600*         5,090         22,183         28,129         4,0           Jun.         4,230         2,130         955         8600*         1,697         268*         3600*         5,080         22,330         29,666         4,0           Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,080         22,133         29,666         4,0           Jul.         3,675         2,130         955         8600*         1,520         268*         3600*         5,080         22,143         30,811         4,0           Sep.         5,550         2,130         955         8600*         1,663         432*         3600*         5,100         22,480         31,119         4,0 <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4,020</td></tr<>												4,020
Apr.         5,375         2,130         955         8600*         1,761         268*         3600*         4,780         22,094         31,171         4,00           May.         2,455         2,130         955         8600*         1,850         268*         3600*         5,090         22,183         28,129         4,00           Jun.         4,230         2,130         955         8600*         1,697         268*         3600*         5,080         22,330         29,666         4,0           Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,070         22,268         29,226         4,0           Aug.         5,040         2,130         955         8600*         1,520         268*         3600*         5,080         22,143         30,811         4,0           Sep.         5,550         2,130         955         8600*         1,663         432*         3600*         5,100         22,480         31,518         4,0           Nov.         3,805         2,130         955         8600*         1,473         432*         3600*         5,100         22,290         31,100         4,0      <												4,020
May.         2,455         2,130         955         8600*         1,850         268*         3600*         5,090         22,183         28,129         4,00           Jun.         4,230         2,130         955         8600*         1,697         268*         3600*         5,080         22,330         29,666         4,0           Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,070         22,268         29,226         4,0           Aug.         5,040         2,130         955         8600*         1,520         268*         3600*         5,080         22,143         30,811         4,0           Sep.         5,550         2,130         955         8600*         1,663         432*         3600*         5,100         22,480         31,518         4,0           Oct.         4,533         2,130         955         8600*         1,621         432*         3600*         5,060         22,398         31,119         4,0           Nov.         3,805         2,130         955         8600*         1,473         271*         3600*         5,100         22,290         31,100         4,0 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>22,211</td><td></td><td>4,020</td></t<>										22,211		4,020
Jun.         4,230         2,130         955         8600*         1,697         268*         3600*         5,080         22,330         29,666         4,0           Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,070         22,268         29,226         4,0           Aug.         5,040         2,130         955         8600*         1,520         268*         3600*         5,080         22,143         30,811         4,0           Sep.         5,550         2,130         955         8600*         1,663         432*         3600*         5,100         22,480         31,518         4,0           Oct.         4,533         2,130         955         8600*         1,621         432*         3600*         5,060         22,398         31,119         4,0           Nov.         3,805         2,130         955         8600*         1,473         432*         3600*         5,100         22,290         31,100         4,0           Dec.         1,890         2,130         955         8600*         1,570         271*         3600*         5,240         22,366         29,477         4,0 <tr< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4,020</td></tr<>												4,020
Jul.         3,675         2,130         955         8600*         1,645         268*         3600*         5,070         22,268         29,226         4,0           Aug.         5,040         2,130         955         8600*         1,520         268*         3600*         5,080         22,143         30,811         4,0           Sep.         5,550         2,130         955         8600*         1,663         432*         3600*         5,100         22,480         31,518         4,0           Oct.         4,533         2,130         955         8600*         1,621         432*         3600*         5,060         22,398         31,119         4,0           Nov.         3,805         2,130         955         8600*         1,473         432*         3600*         5,100         22,290         31,100         4,0           Dec.         1,890         2,130         955         8600*         1,473         271*         3600*         5,100         22,290         31,100         4,0           Jan.         820         2,130         955         8600*         1,570         271*         3600*         5,240         22,366         29,477         4,0												4,020
Aug.         5,040         2,130         955         8600*         1,520         268*         3600*         5,080         22,143         30,811         4,00           Sep.         5,550         2,130         955         8600*         1,663         432*         3600*         5,100         22,480         31,518         4,00           Oct.         4,533         2,130         955         8600*         1,621         432*         3600*         5,060         22,398         31,119         4,00           Nov.         3,805         2,130         955         8600*         1,473         432*         3600*         5,100         22,290         31,100         4,0           Dec.         1,890         2,130         955         8600*         1,473         271*         3600*         5,100         22,129         29,464         4,0           2021         Jan.         820         2,130         955         8600*         1,570         271*         3600*         5,240         22,366         29,477         4,0           Feb.         1,745         2,130         955         8600*         1,578         271*         3600*         5,910         23,004         33,151         4,0												4,020
Sep. Oct. Oct. A,533         2,130         955         8600* 1,663         432* 3600* 5,100         22,480         31,518         4,00           Nov. 3,805         2,130         955         8600* 1,621         432* 3600* 5,060         22,398         31,119         4,0           Dec. 1,890         2,130         955         8600* 1,473         271* 3600* 5,100         22,290         31,100         4,0           2021         Jan. 820         2,130         955         8600* 1,570         271* 3600* 5,100         22,366         29,477         4,0           Feb. 1,745         2,130         955         8600* 1,578         271* 3600* 5,910         23,004         33,151         4,0           Mar. 1,740         2,130         955         8600* 1,578         181* 3600* 4,540         21,584         31,739         4,0           Apr. 1,245         2,130         955         8600* 1,578         181* 3600* 4,540         21,584         30,492         4,0												4,020
Oct.         4,533         2,130         955         8600*         1,621         432*         3600*         5,060         22,398         31,119         4,02           Nov.         3,805         2,130         955         8600*         1,473         432*         3600*         5,100         22,290         31,100         4,02           Dec.         1,890         2,130         955         8600*         1,473         271*         3600*         5,100         22,129         29,464         4,02           2021         Jan.         820         2,130         955         8600*         1,570         271*         3600*         5,240         22,366         29,477         4,02           Feb.         1,745         2,130         955         8600*         1,578         271*         3600*         5,910         23,004         33,151         4,02           Mar.         1,740         2,130         955         8600*         1,578         181*         3600*         4,540         21,584         31,739         4,02           Apr.         1,245         2,130         955         8600*         1,578         181*         3600*         4,540         21,584         30,492												4,020
Nov.         3,805         2,130         955         8600*         1,473         432*         3600*         5,100         22,290         31,100         4,0           Dec.         1,890         2,130         955         8600*         1,473         271*         3600*         5,100         22,290         31,100         4,0           2021         Jan.         820         2,130         955         8600*         1,570         271*         3600*         5,240         22,366         29,477         4,0           Feb.         1,745         2,130         955         8600*         1,578         271*         3600*         5,910         23,004         33,151         4,0           Mar.         1,740         2,130         955         8600*         1,578         181*         3600*         4,540         21,584         31,739         4,0           Apr.         1,245         2,130         955         8600*         1,578         181*         3600*         4,540         21,584         30,492         4,0												4,020
Dec.         1,890         2,130         955         8600*         1,473         271*         3600*         5,100         22,129         29,464         4,00           2021         Jan.         820         2,130         955         8600*         1,570         271*         3600*         5,240         22,366         29,477         4,00           Feb.         1,745         2,130         955         8600*         1,578         271*         3600*         5,910         23,004         33,151         4,00           Mar.         1,740         2,130         955         8600*         1,578         181*         3600*         4,540         21,584         31,739         4,00           Apr.         1,245         2,130         955         8600*         1,578         181*         3600*         4,540         21,584         30,492         4,00												4,020
Dec.     1,890     2,130     955     8600*     1,473     271*     3600*     5,100     22,129     29,464     4,03       2021     Jan.     820     2,130     955     8600*     1,570     271*     3600*     5,240     22,366     29,477     4,03       Feb.     1,745     2,130     955     8600*     1,578     271*     3600*     5,910     23,004     33,151     4,03       Mar.     1,740     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     31,739     4,03       Apr.     1,245     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     30,492     4,03	Nov.											4,020
Jan.     820     2,130     955     8600*     1,570     271*     3600*     5,240     22,366     29,477     4,00       Feb.     1,745     2,130     955     8600*     1,578     271*     3600*     5,910     23,004     33,151     4,00       Mar.     1,740     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     31,739     4,00       Apr.     1,245     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     30,492     4,00	Dec.	1,890		955	8600*	1,473	271*	3600*	5,100		29,464	4,020
Jan.     820     2,130     955     8600*     1,570     271*     3600*     5,240     22,366     29,477     4,00       Feb.     1,745     2,130     955     8600*     1,578     271*     3600*     5,910     23,004     33,151     4,00       Mar.     1,740     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     31,739     4,00       Apr.     1,245     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     30,492     4,00	2021											
Feb.     1,745     2,130     955     8600*     1,578     271*     3600*     5,910     23,004     33,151     4,00       Mar.     1,740     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     31,739     4,00       Apr.     1,245     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     30,492     4,00		820	2,130	955	8600*	1,570	271*	3600*	5,240	22,366	29,477	4,020
Mar.     1,740     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     31,739     4,0       Apr.     1,245     2,130     955     8600*     1,578     181*     3600*     4,540     21,584     30,492     4,0					8600*			3600*				4,020
Apr.         1,245         2,130         955         8600*         1,578         181*         3600*         4,540         21,584         30,492         4,03												4,020
	1											4,020
												n.y.a
		<u> </u>								<u></u>		

\* : at producer
n.y.a : not yet available
Sources : World Bureau of Metal Statistics

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

YEAR	А	GGRE	GATE	D	redgir	ng	G	ravel F	'ump	(	Open (	Cast	Ur	nder Gr	ound	F	anning	a	Amar	ng Retre	eatment
	Prod.				Units		Prod.	Units	_	Prod.	Units	Emp.		Units		Prod.	Units		Prod.	Units	Emp.
2016	4,158	14	1,406	-	-	-	-	-	-	3,388	14	1,130	-	-	-	293	-	-	442	18	276
2017	3,894	16	1,286	-	1	36	-	-	-	3,104	16	1,058	-	-	-	406	-	-	390	16	228
2018	3,868	12	1,295	-	-	-	-	-	-	3,184	12	1,075	-	-	-	424	-	-	260	11	220
2019	3,611	13	1,387	-	-	-	-	-	-	3,103	13	1,201	-	-	-	244	-	-	264	11	186
2020**	2,961	10	1,534	-	-	-	-	-	-	2,779	10	1,348	-	-	-	124	-	-	57	11	186
2017																					
Jan.	351	14	1,298	-	-	-	-	-	-	272.8	14	1,030	-	-	-	29.6	-	-	48.3	18	268
Feb.	316	14	1,308	-	1	36	-	-	-	251.8	13	990	-	-	-	28.3	-	-	36.0	18	282
Mar.	306	14	1,200	-	1	36	-	-	-	248.9	13	929	-	-	-	24.4	-	-	32.3	16	235
Apr.	275	13	1,220	-	-	-	-	-	-	227.9	13	985	-	-	-	30.6	-	=	16.3	16	235
May	338	16	1,330	-	-	-	-	-	-	268.1	16	1,095	-	-	-	33.6	-	-	37.7	16	235
Jun	306	17	1,301	-	-	-	-	-	-	272.0	17	1,069	-	=	-	30.7	=	-	5.5	16	232
July	333	18	1,350	-	1	36	-	-	-	273.4	17	1,083	-	-	-	34.2	-	-	25.7	16	231
Aug.	328	19	1,391	-	1	36	-	-	-	262.7	18	1,122	-	=	-	36.8	=	-	29.2	16	233
Sep.	313	16	1,316	-	-	-	-	-	-	248.6	16	1,083	-	=	-	36.5	=	-	28.9	16	233
Oct.	322	18	1,358	-	1	36	-	-	-	251.8	17	1,089	-	-	-	36.1	-	-	35.3	16	233
Nov.	368	16	1,283	-	-	-	-	-	-	271.9	16	1,050	-	-	-	43.6	-	-	53.9	16	233
Dec.	338	16	1,286	-	-	-	-	-	-	254.5	16	1,058	-	-	-	41.8	-	-	40.8	16	228
2018																					
Jan.	308	17	1,330	-	-	-	-	-	-	244.5	17	1,088	-	-	-	37.3	-	-	26.5	16	242
Feb.	297	17	1,305	-	-	-	-	-	-	233.4	17	1,063	-	-	-	36.9	-	-	26.6	16	242
Mar.	323	16	1,272	-	-	-	-	-	-	260.4	16	1,029	-	-	-	34.6	-	-	27.6	16	243
Apr.	330	17	1,271	-	-	-	-	-	-	268.5	17	1,031	-	-	-	39.6	-	-	21.8	16	240
May	336	16	1,137	-	-	-	-	-	-	260.8	16	971	-	-	-	40.1	-	=	34.9	11	166
Jun	310	15	982	-	-	-	-	-	-	256.3	15	977	-	-	-	53.3	-	-	-	10	5
July	342	15	1,218	-	-	-	-	-	-	300.9	15	1,010	-	-	-	22.3	-	-	18.8	10	208
Aug.	393	14	1,225	-	-	-	-	-	-	325.3	14	1,012	-	-	-	36.6	-	-	31.23	10	213
Sep.	280	14	1,308	-	-	-	-	-	-	244.8	14	1,085	-	-	-	30.7	-	=	4.74	10	223
Oct.	319	12	1,280	-	-	-	-	-	-	271.2	12	1,059	-	-	-	31.5	-	=	16.30	10	221
Nov.	324	12	1,309	-	-	-	-	-	-	253.5	12	1,085	-	-	-	36.0	-	=	34.00	10	224
Dec.	307	12	1,295	-	-	-	-	-	-	264.0	12	1,075	-	-	-	25.0	-	=	18.00	11	220
2019	205									070.0						007					0.47
Jan.	325	11	1,242	-	-	-	-	-	-	272.0	11	1,025	-	-	-	28.7	=	=.	24.8	11	217
Feb.	278	12	1,262	-	-	-	-	-	-	243.3	12	1,070	-	-	-	22.1	-	-	12.5	11	192
Mar.	324	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**	200	10	1 424							272.0	10	1 240				11 /			2/	11	107
Jan.	288	12	1,434	-	-	-	-	-	-	273.0	12	1,248	-	-	-	11.4	-	-	3.6	11	186
Feb.	265	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	-	-	2.0	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
2024+				<b> </b>						-									1		
2021**	070	10	1 500							252.4	10	1 050				100			, -	1.4	107
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
L																					

Source: Department of Mineral and Geoscience Malaysia

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

\*\* Preliminary

- Nil

# 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*	4,158 3,894 3,868 3,611 2,961	30,536 29,866 27,450 25,644 22,288	26,849 27,211 27,115 24,387 22,367	2,238 2,707 1,964 1,441 1,512	27,470 27,147 27,342 24,418 22,597
2017 Jan. Feb. Mar. Apr. May. Jun. Jul. Aug. Sep. Oct. Nov. Dec.	351 316 306 275 338 306 333 328 313 322 368 338	2,377 2,033 1,723 2,441 2,598 2,446 3,154 2,428 2,565 2,775 2,740 2,586	1,683 2,167 2,044 1,832 2,572 2,121 2,605 2,812 2,149 2,256 2,478 2,492	171 203 322 263 218 258 320 178 179 225 204	1,530 2,635 2,091 1,777 2,326 1,732 2,768 3,106 2,275 2,116 2,510 2,281
2018 Jan. Feb. Mar. Apr. May. Jun. Jul. Aug. Sep. Oct. Nov. Dec.	308 297 323 330 336 310 342 393 280 319 324 306	2,424 2,046 2,488 2,430 2,895 2,494 2,609 2,619 1,653 2,284 1,844 1,664	2,060 2,214 2,340 2,111 2,343 2,219 2,571 2,470 2,068 2,282 2,563 1,874	171 190 158 192 171 192 162 215 149 117	1,950 2,009 2,584 2,401 2,435 2,162 2,687 2,257 1,899 2,138 2,746 2,074
2019 Jan. Feb. Mar. Apr. May. 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. May. Jun. Jul. Aug. Sep. Oct. Nov. Dec	288 265 162 36 252 278 272 277 292 295 272 272	2,136 1,449 1,105 1,198 2,187 1,927 1,972 2,785 2,398 1,565 1,536 2,030	2,314 1,880 1,228 1,110 1,344 1,926 1,819 2,672 2,057 2,078 1,974 1,965	93 119 71 75 99 190 150 151 138 146 125	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.	278 257 290	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 n.y.a n.y.a

\* : Preliminary

n.y.a : Not yet available

Sources : Department of Statistics, Malaysia

Department of Mineral and Geoscience Malaysia Malaysia Smelting Corporation Bhd.

## MALAYSIA'S DOMESTIC TIN CONSUMPTION (In Tonnes)

	TOTAL				
PERIOD	CONSUMPTION	SOLDER *	TINPLATE	PEWTER	OTHERS *
2016	2,238	1,314	750	86	88
2017	2,707	1,348	737	63	559
2018	1,964	1,019	759	39	147
2019	1,441	695	639	19	88
2020	1,512	738	626	8	140
2017 Jan.	171	102	54	12	3
Feb.	203	133	64	2	4
Mar.	322	139	76	13	94
Apr.	263	100	72	2	89
May	218	150	61	3	4
Jun	258	108	61	12	77
July	320	143	76	1	100
Aug.	178	79	62 40	2	35
Sep.	179 225	101 104	68	1 4	37 49
Oct. Nov.	204	95	49	1	59
Dec.	166	94	54	10	8
2018					
Jan.	171	101	57	3	10
Feb.	190	133	54	1	2
Mar.	158 192	93 103	49 78	13 1	3 10
Apr. May	171	103	78 56	1	8
Jun.	192	116	61	13	2
Jul.	162	99	60	0	3
Aug.	215	132	75	1	7
Sep.	149	62	62	1	24
Oct.	117	23	69	1	24
Nov.	102	11	61	0	30
Dec. 2019	145	40	77	4	24
Jan.	125	66	51	1	7
Feb.	99	60	35	0	4
Mar.	134	69	56	1	8
Apr.	125	51	64	2	8
May	145	70	62	1	12
Jun. Jul.	129 144	66 91	56 47	1 3	6 3
Aug.	122	60	51	1	10
Sep.	111	41	60	3	7
Oct.	111	41	59	3	8
Nov.	105	45	52	1	7
Dec. 2020	91	35	46	2	8
2020 Jan.	93	40	48	0	5
Feb.	119	62	52	0	5
Mar.	71	22	45	0	4
Apr.	75	19	53	0	3
May.	99	49	44	0	6
Jun.	190	74	67	3	46
Jul. Aug.	150 151	84 49	55 65	3 0	8 37
Sep.	138	85	46	0	7
Oct.	146	77	59	0	10
Nov.	125	78	40	2	5
Dec.	155	99	52	0	4
2021**			,,		
Jan. Feb.	n.y.a	n.y.a	66 37	n.y.a	n.y.a
Mar.	n.y.a n.y.a	n.y.a n.y.a	68	n.y.a n.y.a	n.y.a n.y.a
Apr.	n.y.a	n.y.a	68	n.y.a	n.y.a
May	n.y.a	n.y.a	46	n.y.a	n.y.a

: The figures include high-grade tin (99.9% Sn) imported for consumption.
: Preliminary.
: not yet available

n.y.a

: Department of Mineral and Geoscience Malaysia Sources

Malaysia Smelting Corporation Bhd

Perstima Bhd

 $: \quad \text{Local consumption of tin metal refers to the use of tin in a particular application}. \\$ Note 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.

#### WORLD MINE PRODUCTION

(In Tonnes)

	2016	2017	2018	2019	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	2021	2021	2021
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
EUROPE																					
Portugal	48	56	60	108	108	9	9	9	9	9	9	9	9	9	9	9	0	9	0	9	0
Spain	7	23	32	147	74	,	,	,	7	6	7	7	7	7	7	7	7	0	0	0	0
Russia United King- dom	1,140 -		1,200	2,264	2,538	200	200	200	200	200	200	200	200	200	200	211	212	200	200	200	200
AFRICA																					
Burundi	51	123	126	143	121	-	-	-	-	26	-	10	10	10	10	10	0	12	10	11	13
Democ.Rep.Co ngo Egypt	4,128	7,145 -	9,000	6,250	13,508	500	500	500	400	400	1,341	1,063	1,252	1,218	1,000	1,200	1,200	1,200	1,200	1,200	1,200
Nigeria	3,827	5,964	8,784	7,020	5,848	345	345	300	340	340	300	300	300	500	500	500	500	575	550	500	500
Rwanda	2,621	3,508	2,400	2,223	1,692	155	91	133	50	50	50	120	151	118	-	75	75	200	200	200	200
South Africa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zimbabwe	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tanzania	104	68	6	18	1,600	-	-	-	200	100	100	100	100	100	100	100	100	100	100	100	100
Uganda	-	66	53	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ASIA																					
China	153,100	163,000	157,500	142,900	161,300	7,500	7,500	7,500	11,300	11,300	8,700	9,000	9,000	15,100	16,400	13,300	17,500	17,000	17,000	14,500	18,700
Indonesia	60,000	60,000	84,000	86,400	65,400	7,200	7,200	7,200	6,000	6,000	6,000	6,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Kazakhstan	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Laos	1,308	779	566	1,156	1,237	190	172	120	50	50	94	199	57	60	50	150	150	50	50	104	62
Malaysia	4,123	3,967	3,999	4,080	3,183	340	340	340	340	340	265	265	265	265	265	265	265	265	265	265	265
Mongolia	36	50	60	110	120	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Myanmar	47,435	58,883 705	45,900	33,750		2,300	2,300	2,700	1,600	1,600	3,100	2,800	1,500	1,500	2,000	3,000	3,000	1,750	1,648	3,633	3,270
Thailand Vietnam	124 5,520	4,560	720 4,560	720 5,520	720 5,420	60 460	60 460	60 450	60 450	60 450	60 450	450	60 450	60 450	60 450	60 450	450	450	60 450	60 450	60 450
AMERICA																					
Bolivia	17,614	17,973	17,259	17,194	14,710	1,500	1,500	1,500	1,000	1,000	1,000	1,000	700	700	700	1,000	1,000	1,600	1,700	1,700	1,700
Brazil	25,500	18,000	18,000	18,000	15,000	1,500	1,500	1,500	1,500	1,500	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250
Peru	18,789	17,790	18,601	19,683	20,647	1,600	1,600	1,000	0	1,218	1,461	2,158	1,895	2,220	2,156	2,097	2,464	2,101	1,949	2,385	2,338
U.S.A.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
OCEANIA																					
Australia	6,635	7,217	6,871	7,738	7,836	500	500	580	604	604	604	600	600	775	775	775	775	500	500	500	500
WORLD TOTAL	351,948	370,299	379,482	355,116	320,452	24,369	24,287	24,102	23,913	25,131	22,010	22,818	19,992	27,648	28,992	27,219	31,777	29,482	29,201	32,146	35,867

Source : World Bureau of Metal Statistics

## WORLD REFINED TIN CONSUMPTION (In Tonnes)

	2016	2017	2018	2019	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2020	2021	2021	2021	2021
EUROPE						Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Austria	3,323	4,148	3,983	3,082	2,960	225	225	250	317	300	286	300	100	75	100	235	235	371	350	608	400
Belgium	2,400	697	720	720	720	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60
Bulgaria	101	1	117	210	240	25	25	25	25	25	25	25	25	25	25	20	20	24	20	31	30
Czech Republic	515	532	603	605	335	29	43	44	10	7	41	40	60	16	16	25	25	48	39	25	42
Denmark	3	17	7	1	10	1	1	1	0	0	1	1	1	1	1	0	0	1	1	1	0
Finland	86	51	77	94	72	3	3	6	5	5	7	7	5	1	10	3	3	8	7	7	7
France	4,736	5,456	6,080	5,020	4,982	534	610	608	467	625	465	512	337	379	312	148	148	218	380	337	248
Germany	18,242	20,284	20,236	18,441	14,898	1,521	1,400	1,400	1,488	1,143	997	997	1,173	1,000	1,100	1,083	1,000	1,150	1,000	1,159	1,200
Greece	632	600	646	634	637	51	50	53	61	51	58	58	52	52	52	51	51	50	58	51	52
Hungary	145	1,177	2,050	2,036	1,714	190	190	150	150	150	100	100	100	75	70	100	100	185	150	189	150
Ireland	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Italy	3,495	3,974	4,678	4,324	3,402	336	300	100	220	190	400	400	300	300	200	200	200	265	250	396	350
Netherlands	6,000	6,000	6,000	6,000	5,400	500	500	500	500	500	500	500	500	500	500	450	450	450	450	450	450
Norway	0	1	1	1	10	8	5	0	2	1	0	0	0	0	0	1	0	2	0	0	0
Poland	3,669	3,537	3,723	3,335	1,580	598	360	360	572	400	500	500	624	75	75	90	90	90	90	150	150
Portugal	554	856	891	831	463	44	57	109	56	127	100	100	29	10	10	90	90	88	57	87	42
Romania	336	516	866	551	442	25	25	20	20	20	20	20	10	20	20	30	50	65	50	63	60
Russia	995	1,339	495	1,914	1,443	122	136	136	190	190	160	105	85	85	130	170	84	145	78	56	225
Slovakia	465	645	767	593	614	48	45	69	93	23	25	93	45	46	45	36	65	23	25	40	80
Spain	1,495	1,605	1,652	1,563	1,898	205	140	120	245	120	60	60	90	150	150	150	150	127	150	95	120
Sweden	6,492	5,457	6,020	5,835	5,343	530	500	350	487	500	386	250	400	350	482	388	388	591	327	767	650
Switzerland	47	69	45	60	44	6	6	3	3	3	3	3	3	3	3	10	10	7	5	1	4
United Kingdom	979	936	961	262	102	15	12	8	12	9	6	7	7	6	9	10	12	1	2	5	3
Yugoslavia	1,080	1,080	1,080	1,080	240	90	90	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Other Europe	720	720	720	720	530	60	60	50	40	40	40	40	40	40	40	40	40	40	40	40	40
	'																				
AFRICA	107	110	225	174	120	12	10	10	0	0	10	10	_	10	_	0	0	_	_	0	
Egypt	107	119	225	174	139	13	10	10	0	0	12	12	5	10	5	8	8	5	5	0	5 1
Morocco	21	15	22	20	22	3	3	0	3	0	4	4	1	2	0	2	20	0	3	0	
Nigeria	300	623	1,436	1,322	240	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0	20
South Africa	1,047	957	633	604	326	50	50	50	30	45	24	0	0	24	24	82	10	10	10	8	13
Other Africa	720	720	720	720	530	60	60	50	40	40	40	40	40	40	40	40	40	40	40	40	40
ASIA																					i
China	191,415	183,391	174,183	177,891	216,152	8,926	11,175	12,672	14,716	16,382	14,851	15,220	12,330	18,773	20,084	19,332	22,804	21,231	18,656	19,102	23,229
Hong Kong	1,800	1,800	3,300	3,600	480	70	39	69	40	40	40	40	40	40	40	40	40	40	24	63	130
India	9,088	9,861	11,365	10,615	9,734	972	1,000	700	840	840	400	400	600	500	1,000	1,332	1,000	1,013	1,000	1,000	1,000
Indonesia	1,200	1,200	1,200	1,200	1,200	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Iran	987	1,058	1,573	2,221	2,261	120	120	100	225	200	200	200	200	200	200	180	180	180	180	180	180
Japan	26,113	29,111	28,084	24,905	20,198	2,551	1,484	1,936	1,697	2,138	1,697	1,479	1,337	1,599	1,521	1,644	1,448	2,314	2,236	2,626	2,002
Kazakhstan	490	431	405	350	287	20	2	52	52	50	18	18	54	52	55	0	0	2,314	2,230	0	2,002
Malaysia	1,560	1,560	1,560	1,560	1,560	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
Pakistan	279	300	489	311	194	10	10	20	25	25	25	25	25	25	25	15	15	13	13	10	10
Philippines	506	220	307	1,385	776	120	100	100	17	20	116	100	120	60	60	40	40	40	40	79	40
Singapore	1,960	1,920	1,920	1,920	1,720	160	160	140	140	140	140	140	140	140	140	140	140	160	160	160	160
South Korea	14,199	13,112	13,927	11,957	13,405	1,265	763	1,880	844	1,274	670	1,150	832	1,420	843	1,293	1,171	897	882	1,270	1,895
Syria	120	120	120	11,937	13,403	1,263	703	1,000	044	1,274	0/0	1,130	032	1,420	043	1,293	1,171	097	002	1,270	1,093
Taiwan	4,140	4,494	4,576	4,569	10,096	375	310	679	614	409	959	900	960	960	850	919	900	603	642	963	800
Thailand	3,131	4,494	3,000	3,000	3,000	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250	250
Turkey	2,416	3,110	3,000	3,202	3,746	231	387	378	278	333	340	151	481	182	205	343	361	256	376	308	247
United Arab	1		_	1																	
Emirates	4,800	4,800	3,600	3,600	2,160	300	300	200	600	600	200	200	200	200	200	180	180	180	180	180	180
Vietnam	6,000	6,000	4,200	3,600	4,639	300	300	300	300	300	400	400	400	400	400	400	400	433	381	388	380
Other Asia	2,160	2,160	2,160	2,160	1,690	180	180	160	130	130	130	130	130	130	130	130	130	130	130	130	130
AMERICA	i l																				
Argentina	878	596	674	420	1,108	33	60	53	96	33	274	86	96	80	103	65	128	40	30	115	116
Bolivia	480	480	480	480	480	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
Brazil	17,258	10,009	9,357	9,398	3,333	936	844	829	847	1,037	471	500	181	181	100	109	108	147	192	191	258
Canada	2,887	2,562	2,489	2,387	1,871	218	201	114	190	1,037	83	174	119	224	119	156	165	210	182	282	237
Chile	111	82	95	111	133	15	5	0	3	20	10	16	11	17	19	1	16	5	5	14	14
Colombia	300	280	271	248	237	30	30	6	7	0	23	20	30	15	10	29	20	16	15	13	20
Mexico	4,160	4,197	4,906	4,779	4,406	433	400	200	306	300	456	450	450	450	250	362	400	400	400	317	300
Peru	216	216	216	216	198	18	18	18	300	18	18	18	18	18	18	18	18	18	18	18	18
U.S.A.	29,455	31,476	34,664	31,057	29,191	3,373	2,784	4,894	2,868	2,403	1,170	2,018	1,725	1,891	1,895	2,376	2,123	1,948	2,411	2,483	2,443
Venezuela	29,455	31,476		12	29,191	ا کرر 1	∠,/ 04 1	7,074	ک,000 1	∠,≒∪3	1,170	2,018	1,725	1,891	1,895	2,3/0	∠,1∠3 1	1,740	∠,≒11	د, <del>4</del> 03 1	2, <del>44</del> 3 1
Other America	420	420	16 420	420	275	35	35	25	20	20	20	20	20	20	20	20	20	20	20	20	20
	420	420	420	420	2/3	33	33	23	20	20	20	20	20	20	20	20	20	20	20	20	∠0
OCEANIA	i l																				
Australia	215	259	284	375	255	20	20	45	1	45	0	10	3	20	20	19	22	25	0	40	21
New Zealand	7	49	46	41	30	5	0	0	0	0	5	1	0	0	0	18	1	5	0	20	0
WORLD TOTAL	387,563	381,702	378,582	368,742	384,161	26,609	26,234	30,723	30,573	32,060	27,656	28,720	25,214	31,567	32,406	33,304	35,782	35,009	32,441	35,245	38,879
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Source : World Bureau of Metal Statistics