

Metals Daily

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Chinese ferromolybdenum supported by steel mill tenders, upstream disruption

- Steel mills have released molybdenum tenders since end-Dec
- Chinese ferromolybdenum prices set to firm in near term: trade

Chinese ferromolybdenum prices have received some support from heightened demand from steel mills as well as concerns of tightness arising from supply disruptions ahead of the Lunar New Year holiday, market sources said Jan. 3.

China's Tsingshan Group settled the bidding price at Yuan 209,800 (\$29,406)/mt on Jan. 3, up Yuan 1,980/mt from the bidding price for last week, market sources said.

Chinese steel mills have successively released molybdenum tenders since the end of December to stock up before the Lunar New Year holidays, which has pushed ferromolybdenum prices up, combined with supply tightness in the domestic market.

Market sources said that they had heard a large molybdenum ore mine in Inner Mongolia has shut down production due to winter freezing, with output not set to resume until March, boosting the market sentiment for ferromolybdenum further.

Buoyed by the news, Chinese ferromolybdenum sellers have been reluctant to sell in the market, and some inquiries from European buyers have also been heard.

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Platts Key Metals Benchmarks

	Symbol		Change	Date assessed
Daily prices				
Alumina PAX FOB Australia (\$/mt)	MMWAU00	356.000	6.000	03-Jan
Aluminum MW US Transaction premium (¢/lb)	MMAKE00	18.800	0.000	03-Jan
Aluminum CIF Japan premium (\$/mt)	MMANA00	77.000-77.000	0.000/0.000	03-Jan
Aluminum CIF Japan premium Q4 (\$/mt)	AAFGA00	97.000-97.000	0.000/0.000	03-Jan
Aluminum GW premium paid IW Rotterdam (\$/mt)	AALVE00	230.000-250.000	0.000/0.000	03-Jan
Molybdenum oxide, daily dealer (\$/lb)	MMAYQ00	19.900-20.150	0.050/0.150	03-Jan
Ferromolybdenum, 65% European (\$/kg)	MMAFO00	48.500-49.000	0.500/0.000	03-Jan
Clean Copper Concentrates TC (\$/mt)	PCCCB00	51.800	-1.200	03-Jan
Clean Copper Concentrates RC (cents/lb)	PCCCR00	5.180	-0.120	03-Jan
Twice weekly prices				
MW US A380 Alloy (¢/lb)	MMAAD00	127.000-129.000	0.000/0.000	02-Jan
Weekly prices				
Aluminum CIF Brazil premium (\$/mt)	MMABP04	250.000	0.000	29-Dec
Aluminum ADC12 FOB China (\$/mt)	AAVSJ00	2320.000-2420.000	0.000/0.000	02-Jan
Aluminum Alloy 226 del. European works (Eur/mt)	AALVT00	2260.000-2320.000	0.000/0.000	29-Dec
Manganese Ore, 44% Mn, CIF Tianjin (\$/dmtu)	AAWER00	4.070	0.000	29-Dec
Manganese Ore, 36% Mn, CIF Tianjin (\$/dmtu)	AAXRX00	3.500	0.000	29-Dec
Moly oxide, Daily Dealer Wk Avg. (\$/lb)	MMAGQ00	19.500-20.033	0.100/0.073	29-Dec
Silicon, 553 Grade delivered US Midwest (¢/lb)	MMAJM00	140.000-145.000	2.000/1.000	03-Jan
Ferrosilicon, US 65% High-Carbon IW US (¢/lb)	MMAFA00	180.000-190.000	0.000/0.000	03-Jan
Silicomanganese, 65:16 DDP NW Europe (Eur/mt)	MMAGR00	980.000-1025.000	30.000/45.000	03-Jan
Ferrosilicon, FOB China (\$/mt)	MMAJP00	1255.000-1285.000	0.000/0.000	03-Jan
Ferrotitanium MW US, 70% (\$/lb)	MMAFT00	3.000-4.000	0.000/0.000	28-Dec
Copper NY Dealer cathodes premium (¢/lb)	MMACP00	7.500-8.500	0.000/0.000	02-Jan
Copper MW No.1 Bare Bright Disc (¢/lb)	MMACL10	10.000	0.000	02-Jan

Aluminum

US primary aluminum market sees steady pricing, sentiment

The Platts spot US aluminum Transaction premium was assessed at 18.80 cents/lb plus LME cash, delivered Midwest, Jan. 3, unchanged from the previous assessment.

A trader maintained his open offer at 19.50 cents/lb over the LME average for the next 30 days, for delivery within seven to 30 days, 200 mt, sow/T-bar shape, any non-Russian brand acceptable to the buyer, net 30-day payment terms.

No interest was seen yet on the offer. But a consumer said spot quotes from sellers have been at 18.80 cents, and another said he was continuing to hear pricing below the Platts level.

"We will be looking for things starting in second quarter," the latter consumer said, adding he did not anticipate much change in the next couple months. "There's some concern about scrap availability and demand return," he added.

A trader echoed this sentiment. "We aren't seeing demand yet. Where is the business? We want to see customers come to the market and buy metal, and we haven't seen that yet," he said.

The range of indicative values heard on the day was 17-19 cents/lb, spot delivery, net 30-day payment terms.

Platts US Low-Carbon Aluminum Premium was assessed at zero, reflecting no differential for the spot trade of minimum 99.7% high-grade P1020 with total certified emissions of 4-mt equivalent or less of CO₂ per mt of aluminum.

Traders reported hearing from other sellers that they were looking to achieve premiums of 50-75 cents, but had not been

able to do so yet.

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— Sarah Baltic

Japanese aluminum spot premium stable on quiet market

Platts assessed the CIF Japan spot premium for 99.7% P1020/P1020A aluminum ingot unchanged on the day at \$77/mt plus London Metal Exchange cash, CIF Japan, Jan. 3.

The Japanese market remained quiet as many domestic market participants were away for holiday. Japan was closed on Jan. 1 for New Year's Day. Some sources said they've taken the whole week off as the following Monday was also a national holiday – Coming of Age Day.

As of Jan. 1, a 7.5 magnitude earthquake had struck Japan causing landslides and aftershocks. While some sources raised concern over demand within the domestic space, so far the earthquake has had no concrete impact on prices of aluminum.

Some said it could either disrupt local demand or boost demand as there will be more demand coming from the automobile and construction sectors in the long run due to rebuilding works.

Tradable levels from market sources were indicated at \$77/mt for CIF Japan cargoes aligned to Platts methodology.

For Q1 quarterly negotiations, several trades for Good Western aluminum were reported done at \$90/mt under annual contracts. However, market sources were still waiting for a handful of others to complete the negotiation process.

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— Leah Chen

Platts

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Asian aluminum market premium falls \$2/mt on lower price indications

Platts assessed the CIF Main Asian Ports (MAP) spot P1020 aluminum premium at \$98/mt plus London Metal Exchange cash Jan. 3, down \$2/mt on the day.

Tradable levels were heard lower in the range of \$90-\$95/mt CIF Korea from market sources. Duty-free cargo on an FCA Korea basis were heard higher at \$110-\$115/mt premium for January loading and January quotation period (QP).

Despite lower indications, many market sources said as the new year just began, little to no trading activities were heard concluded this week.

With the Chinese import arbitrage window closed while moving into January, market participants were heard to continue moving cargoes to China or neighboring ports such as Taiwan's Kaohsiung port.

"Many are betting on China now... we are waiting for arbitrage to open," a producer said who shared that the Chinese consumers might have pre-holidays stocking demand before February.

"No offers yet, China is very quiet," the producer added.

In Southeast Asia, premiums were heard slightly higher although no trades were heard concluded on Jan. 3.

Indications to Southeast Asian countries such as Vietnam and Thailand were heard offered at QMJP level plus a double-digit premium.

Another trader was offering CIF Southeast Asia cargoes at \$97-\$98/mt for January QP.

Market sources are monitoring the ongoing conflict situation at the Red Sea. Higher freight costs and disruptions in the Red Sea have impacted nearby shipments, causing freight rates to spike for January cargoes.

"It used to be \$1,000/mt in December, now a container costs us \$3,500/mt to ship from Asia to Rotterdam for January loading," a producer said.

However, some sources shared that freight squeeze might not last too long as some felt that it would have a short-term impact.

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— Leah Chen

Australian alumina gains on fresh liquidity, Chinese prices continue to rise on bauxite concerns

- 30,000 mt Indian alumina trades at \$366/mt FOB Visakhapatnam
 - Domestic prices in China at Yuan 3,200/mt EXW Shanxi
- Platts assessed benchmark Australian alumina up \$6/mt at \$356/mt FOB Jan. 3.

A deal for 30,000 mt of Indian alumina loading in H2 January concluded at \$366/mt FOB Visakhapatnam, India, with payment terms being letter of credit at sight or advanced payment.

The transaction was reported after the market close on Jan. 2 by a producer, who was the buyer. This cargo was offered to the market via a tender, which accepted bids until Dec. 28 with

validity until Jan. 2.

Market participants generally saw Indian alumina at a \$5-\$10/mt premium to Western Australian origin on an FOB basis for major destinations deliverable for both origins.

Potential buyers and sellers saw tradable levels ranging \$345-\$362/mt for spot alumina cargoes aligning to Platts methodology, and saw reasonable assessment levels around the mid-\$350s/mt.

Buyers' guidance ranged up to around \$350/mt, while sellers' guidance was in the \$360s/mt and above on an FOB Australia basis.

The highest and lowest price indications, by prospective buyers and sellers, respectively, centered at \$356/mt FOB.

Participants were generally unsurprised by the continuous rise in seaborne alumina prices, largely led by a spike in domestic Chinese prices.

Chinese alumina prices continue to be supported by tight domestic bauxite supply and lower refinery operating rates due to raw material concerns and environmental audits.

Sources in China said the actual impact from bauxite supply issues mostly stemmed from domestic mining cuts in the Shanxi and Henan regions, while immediate impact from the Guinean oil terminal explosions on seaborne bauxite shipments was largely muted.

They added it was more of forward market expectations, instead of ongoing shipment disruptions due to the uncertainty in Guinea, that was fueling market sentiment.

Platts assessed Chinese domestic alumina up Yuan 20/mt at Yuan 3,200/mt ex-works Shanxi.

Spot deal negotiations in China were heard in the range of Yuan 3,150-3,300/mt EXW Shanxi.

Meanwhile, a refinery in Henan Province with a nameplate capacity of about 600,000 mt/year recently stopped production due to high mining costs and insufficient bauxite supply, market sources said, adding that a resumption of production would depend on the stability of subsequent bauxite supply.

Bauxite supply tightness in central China's Shanxi and Henan provinces are expected to continue reining in the alumina refineries output in the near term, as mining in Shanxi remains restrained due to previous coal mining accidents and air pollution warnings, while bauxite production in Henan Sanmenxia remained halted since June due to land reclamation.

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— Jenson Ong

Light Metals

US secondary magnesium prices slip on weak spot demand, high consumer inventories

- Platts 93% mag alloys drops to \$2.25-\$3.25/lb DDP US
- Platts 99.8% pure mag holds at \$3.75-\$4.25/lb DDP US

US secondary magnesium prices continued to slip in the week ended Jan. 3 as offers moved lower on plentiful supply and weak spot demand.

The Platts 93% magnesium alloy price dropped to \$2.25-\$3.25/lb DDP US for the Dec. 28-Jan. 3 period from \$2.50-\$3.50/lb DDP US the week prior.

One US aluminum consumer reported purchasing one truckload of AM60 alloy at \$2.16/lb DDP after receiving three offers at \$2.25/lb DDP and below.

"That's what we used all of last year," the consumer said of AM-type alloys. "If we had used the original prime magnesium quoted in 2022 for last year and locked that under contract, we would have lost at least \$750,000."

A US-based trader was not surprised when hearing about the sale. "I've heard \$2.20/lb, \$2.30/lb has been done," he said, adding that he would offer at \$2.30-\$2.35/lb.

"Traders own a bunch that they brought over here, but there's no demand for the first quarter," the trader said. "And the buyers we talk to all say they have inventory through Q1."

A second US-based trader was also not surprised to hear the lower number, saying the secondary magnesium market had become weaker due weak spot demand and sizable consumer inventories.

"That doesn't surprise me," the second US-based trader said. "The cost of borrowing money has gotten higher, and for anyone with excess inventory, that makes them want to dump it, especially if they can get paid right away," adding that he would offer at \$2.25/lb DDP if he had material.

On the high side, an international trader sold two truckloads of AM-type alloys earlier in the week at \$3.15/lb DDP for prompt delivery, and expressed surprise at the lower offers.

Pure magnesium steady

The Platts 99.8% magnesium price remained at \$3.75-\$4.25/lb for the Dec. 28-Jan. 3 period, unchanged from the previous week.

Several market sources in recent weeks have confirmed offers for Chinese pure magnesium below \$4/lb DDP, though without much interest.

The first US-based trader cited earlier said he was able to import Chinese magnesium on an FOB basis below \$3/lb. But the trader cautioned that Chinese supply could dry up with the start of the Lunar New Year on Feb. 10.

"After that, the Chinese will be out a couple of weeks," he said.

A second international trader reported a recent sale of non-China magnesium just below \$4/lb FOB Baltimore for multiple truckloads.

The trader also acknowledged 2024 contract business signed during the holidays at \$3.75/lb DDP and above, but no higher than \$4.25/lb DDP.

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— Nick Jonson

Battery Metals

Chinese nickel sulfate price rises on higher offers, manganese sulfate drops

- Offers for nickel sulfate stand at Yuan 25,000/mt and higher
- Some manganese sulfate producers desperate to sell: producer

Chinese nickel sulfate price edged up on the week Jan. 3 on higher offers, while manganese sulfate dropped slightly as buying interest remained tepid, market participants said.

Platts assessed spot battery-grade nickel sulfate with a minimum 22% nickel content and maximum 100 ppb magnetic material at Yuan 24,500/mt (\$3,451/mt) DDP China Jan. 3, flat on the day but up Yuan 500/mt on the week.

Mainstream tradable values heard in the market were mostly around Yuan 24,000-25,000/mt in the week to Jan. 3.

"Overall [Nickel sulfate] prices were still considered low even though the prices moved up a bit," a consumer said.

There was little restocking demand coming up recently. "Nickel sulfate prices are being supported by higher offers, and some consumers have to restock before the Lunar New Year," a procurement source said.

"However, from the discussions with other market participants, seems like everyone is still quite bearish," the source added.

This seasonal demand would be lower compared with last year. "I think there will be some stockpiling, but the volume will be much lower than before," a consumer said.

"The market will continue to be in oversupply, downstream factories need to take a longer time to digest the supply," a Chinese trader said.

Platts assessed the MHP CIF North Asia basis LME nickel monthly average price flat on the day and on the week at 72% payables, while the MHP CIF North Asia basis Platts nickel sulfate price was also unchanged at 77% payables Jan. 3.

The all-in price, as calculated from the payables basis of the LME nickel price, was at \$11,795/mt, while the all-in price, as calculated from the payables basis of the Platts nickel sulfate price, was at Yuan 82,756/mt (\$11,655/mt) Jan. 3.

Platts assessed spot battery-grade manganese sulfate with a minimum 32% manganese content at Yuan 4,450/mt (\$627/mt) DDP China Jan. 3, down Yuan 50/mt on the day and on the week.

Battery-grade manganese sulfate offer levels dropped to Yuan 4,700-4,800/mt, while tradable levels were heard at around Yuan 4,500/mt and lower. Market participants agreed that tradable levels were at around a 5% discount on offer prices.

“Some producers have to sell their manganese sulfate at lower prices because spot demand from downstream is not great, tradable could go to as low as Yuan 4,200/mt, depending on how desperate they want to sell,” a producer said.

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— Yoowei Lim

US EV policy likely to give free trade agreement nations a lift

- US policy aims for 67% new light-duty auto sales to be EVs by 2032
- US dependent on foreign battery metal producers
- Federal law discourages using Chinese materials

Battery metal-producing nations that hold free trade agreements with the US are poised for a trade boost from the country’s efforts to shift to electric vehicles, analysts and industry observers told S&P Global Commodity Insights.

Under US policy, EVs could account for 67% of new light-duty auto sales by model year 2032, up from 6.6% in 2022. While tax credit-eligible EVs are encouraged to include US-sourced battery metals such as lithium, cobalt and nickel, low domestic production is expected to keep the country dependent on foreign producers for years. At the same time, federal law has created disincentives for automakers to use materials produced by Chinese companies or from a key producer, China.

The Inflation Reduction Act gives EV buyers access to credits when their cars are made with materials from countries with US free trade agreements (FTAs). It is an option that, combined with other US laws and policies, makes FTA countries a particularly appealing source of supply for automakers.

The US has comprehensive FTAs with 20 countries and a limited critical minerals FTA with Japan. The Biden administration is also seeking to make FTA-like agreements in other parts of the world, notably with nickel giant Indonesia or with Argentina, the fourth-largest global producer of lithium.

“The way that I think this is going to go from a more political

economy kind of perspective is that while there is a notional commitment to helping develop and widen supply chains for these minerals at the mine site [and] in terms of refining capacity ... not [in] the US or China, I think that there is going to be a heavy emphasis on the subset of US FTA partners that are also kind of advanced industrial or post-industrial democracies,” said Cullen Hendrix, senior fellow at the Peterson Institute for International Economics, a think tank.

Tax credit advantage

Automakers have already zeroed in on producers in FTA countries for mineral offtake agreements in response to the IRA, experts noted.

Benigna Leiss, a nonresident fellow at Rice University’s Baker Institute of Public Policy and former general director of Chevron Energía de Mexico, pointed to US-based Albemarle’s Chilean lithium operations as a draw for automakers under the IRA. Albemarle has a lithium offtake agreement with Ford.

“They are importing already under [Inflation Reduction Act] rules,” Leiss said. “I think that they have moved quickly, and I know that Ford is making that agreement with Albemarle because of the FTA that Chile has.”

Chile is the No. 2 global producer of lithium and already the US’ top source for imports, giving it a strong foundation for expanding its market share.

However, shifting import sources toward FTA countries is easier for some materials than others.

“For lithium, for instance, the [sourcing] picture actually isn’t all that bad ... [but] with cobalt, it is not on any kind of firm footing,” Hendrix said.

The Democratic Republic of Congo, which does not have an FTA, produced 69.9% of the world’s mined cobalt supply in 2022, although it was not a major supplier for US cobalt imports. However, a history of concerns about labor and environmental problems makes automakers and US diplomats alike reluctant to strike agreements there. Instead, Norway, Canada and Japan have topped the list of US suppliers over the last several years.

Top FTA and non-FTA markets of origin of US lithium imports (mt)

Legend	-----2020-----				-----2021-----				-----2022-----				-----2023-----		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
● Chile	1,377	1,297	1,033	1,013	1,677	1,410	1,950	2,419	3,475	2,288	1,687	1,922	2,817	1,864	2,557
● Japan	7	2	2	5	0	5	8	18	0	0	9	0	18	3	0
● Australia	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
● Argentina	1,955	2,458	2,166	862	673	1,800	2,278	1,532	2,369	1,938	1,681	1,691	3,126	1,307	1,140
● Russia	210	462	27	38	5	88	79	66	25	5	14	0	0.1	0.03	0
● China	145	36	4	18	37	24	49	12	35	13	35	1	3	55	18
● FTA countries															
● Non-FTA countries															

Data compiled Nov. 22, 2023.

FTA = free trade agreement.

Includes US imports of lithium carbonate and lithium oxide and hydroxide.

Only includes countries that reported monthly data to the US Census Bureau for specific time periods.

Source: S&P Global Market Intelligence, Global Trade Analytics Suite.

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Top FTA and non-FTA markets of origin of US cobalt imports (mt)

	2020				2021				2022				2023		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
FTA															
Canada	584	571	463	483	281	264	275	464	320	475	330	533	551	445	379
Japan	507	482	237	239	384	344	347	124	347	452	238	367	278	512	306
Australia	734	0	10	0	6	97	30	74	11	40	0	105	10	7	51
Non-FTA															
Norway	1,132	223	208	362	838	950	767	595	886	407	808	462	742	540	615
Finland	157	172	265	119	240	357	261	427	386	404	365	96	521	173	255
UK	378	254	188	241	225	246	272	362	295	249	406	288	332	228	153

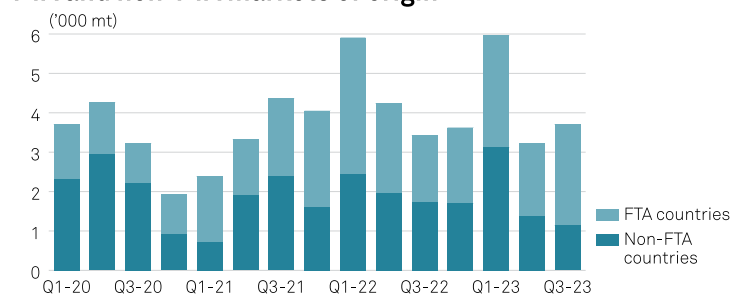
FTA = free trade agreement.

Includes US imports of cobalt ores and concentrates, cobalt oxides and hydroxides, cobalt mattes and other intermediate products, and cobalt and articles thereof, including waste and scrap.

Only includes countries that reported monthly data to the US Census Bureau within specified time periods.

Source: S&P Global Market Intelligence, Global Trade Analytics Suite.

Quarterly US lithium imports by FTA and non-FTA markets of origin



Source: S&P Global Market Intelligence, Global Trade Analytics Suite

Free trade nations edge into lead

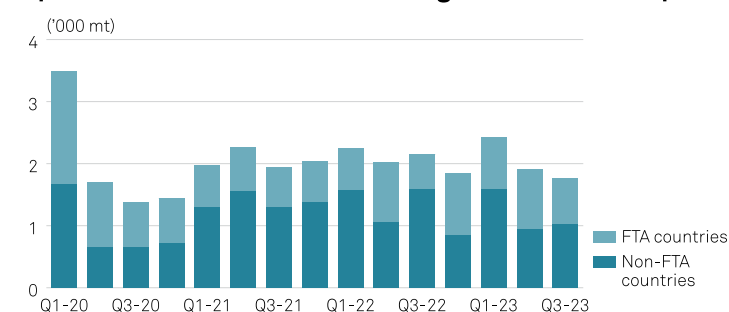
US imports have already shifted slightly, perhaps in response to the law. In the first three quarters of 2023, the US sourced 55.8% of its overall lithium imports from nations it either has an FTA with or is in prospective critical mineral trade talks with, like the UK, increasing from 54.9% year on year, according to S&P Global Market Intelligence data.

US lithium imports from the EU, with which the US has been engaged in lengthy trade discussions, have declined significantly since 2020. They dropped 78.2% to 174 mt in the first three quarters of 2023, compared with 798 mt in the same period of 2020.

The US depends more heavily on non-FTA countries for its cobalt supply than for lithium, with just 38.4% of cobalt imports in the first three quarters of 2023 coming from FTA countries, although that was up 1.2 percentage points from the same period in 2022.

US cobalt imports from the EU, where there is as yet no agreement, were down 18.6% year over year during the first three quarters of 2023 compared with a year prior.

Top FTA and non-FTA markets of origin of US cobalt imports



Source: S&P Global Market Intelligence, Global Trade Analytics Suite

Canada and Australia, both of which have FTAs with the US, are also promising sources of battery metals for US automakers. Canada is also considered a domestic source under the US Defense Production Act, which includes funding for critical minerals projects, and US President Joe Biden has requested the same designation for Australia.

"What we have now is a preemption that's built around this notion that we can make up for the challenges with sourcing these materials [with] large-scale increases in mining capacity in places like Australia and Canada," Hendrix said. "That may work five, 10 years from now ... [but] the US legislation was written in a way that it sort of put the time horizon for removing Chinese content from these supply chains in 2025."

"My best guess for when Canada and Australia would actually be in a position to pick up the slack on some of these materials will probably be closer to 2027, 2028, optimistically speaking," Hendrix said.

— Camellia Moors

Copper

China copper concentrate TCs fall on lower offers

- Some smelters plan for plant maintenance during March-April
 - Offers heard lower at \$40s/mt after New Year holiday
- Platts assessed CIF China Clean Copper Concentrates treatment and refining charges at \$51.80/mt and 5.18 cents/lb, respectively Jan. 3, down by \$1.20/mt and 0.12 cent/lb respectively from Jan. 2.

Producer-to-trader copper concentrates TC/RC differentials were assessed at minus \$5.60/mt and minus 0.56 cent/lb, respectively, down by \$1/mt and 0.10 cent/lb on the day.

Some large-size smelters have no interest to bid against offers at \$50s/mt, and are still relying on long-term contracts for their production needs.

"But we cannot stay away from the spot market for too long, it is just a matter of time to restock again," a procurement source said.

Buying interest is still around and smelters are looking for March arrival shipments.

An indicative offer for Asia-origin blended copper concs was heard at mid-\$50s/mt, and a firm offer for ex-Asia-origin blended copper concs was heard at mid-to-high-\$50s/mt for January loading.

Due to the shortage of Q1 loading shipments, some smelters are planning for plant maintenance during March and April.

"There is no other option available as not many smelters booked enough tons for January loading cargoes," a smelter source said.

Maintenance plans were particularly happening among northern China smelters, which had more spot shortages earlier.

Some sellers lowered offers from low-\$50s/mt to \$40s/mt for standard clean copper concs after the New Year break, citing "more enquiries than available offers."

"It is impossible to trade at \$40s/mt right now but low-\$50s/mt is achievable for super clean quality," a trader said.

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— Lu Han

Chinese copper cathode import premiums continue to fall

- Warrants normal brand ER cathode offered at \$70/mt
- CCCP brand ER cathodes offered at \$70/mt
- Arbitrage window remains shut

Platts assessed Chinese copper import premiums at \$62/mt plus London Metal Exchange cash, CIF China, Jan. 3, for LME-registered normal brands of electrolytically-refined cathode, down \$5/mt on the week. The top ER brands differential was assessed at \$8/mt and the solvent-extracted/electrowon differential at minus \$5/mt over the same period.

Trading activities remained to be thin in the week to Jan. 3,

according to market sources.

Offers for top brand ER cathodes were heard around \$70-\$80/mt, while bids were reported at around \$60/mt Jan. 2, end-December delivery, with quotational period of January.

Warrants basis material was also heard offered at \$70/mt Jan. 2, according to market sources.

However, it was still hard to trade at this level according to a trader source.

It was buyers' market during the week as import arbitrage window continued to close and buying interests was still low at the end of the year.

"There should be few transactions today as people are testing the market in the first of working day in 2024," another trader source said Jan. 2.

CCCP brand ER cathodes were heard offered at \$70/mt Jan. 3, H1 January delivery, with January and February QP.

In addition, ESOX brand cathodes were heard offered at \$60/mt Jan. 3, H1 January delivery, with January QP.

SPCC-ILO brand ER cathodes were reported offered at \$65/mt Jan. 3, H1 February delivery, with February QP.

ILO brand ER cathodes were heard offered at \$65/mt Jan. 3, H2 January delivery, with February QP.

People would make losses if they import cathodes these days, so it was hard to sell according to a third trader source.

It was expected that copper cathodes spot trading would maintain the status before the Spring Festival unless the import arbitrage was repaired, a market source said.

The Chinese domestic copper cathodes supply was good for now and the domestic demand was predicted to be weaker approaching holidays. "Since imported cathodes are currently unable to flow in, China domestic premiums may remain for some time," the source added.

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— Yuxi Du

Fire extinguished at Udokan Copper hydrometallurgical plant in eastern Russia

- Fire impacted solvent extraction shop at plant, under construction
- Start-up of hydrometallurgical plant had been scheduled for Q2

A solvent extraction shop at the Udokan hydrometallurgical plant in Russia was impacted by a fire on the night of Dec. 30-31, a spokesperson for Udokan Copper, the plant's owner, confirmed to S&P Global Commodity Insights Jan. 3, adding that the incident has now been brought under control.

The fire spread over approximately 500 square meters of one of the copper plant's three shops, the spokesperson said, declining to comment on the impact.

The new plant, located in the Zabaykalsky Krai of Russia's Far East, is currently nearing the end of construction and comprises three major units, including the solvent extraction shop, where the fire broke.

The other two units house concentrate filtration and electrolysis shops, which are already fully built and have been in the commissioning phase since December.

The plant's equipment was ordered in 2019 from Finnish company Outotec — now Metso — and delivered before Russia's invasion of Ukraine. However, Metso has subsequently ceased relations with Russian customers, making it impossible for them to receive any assistance, including parts and spares. As a result, it is not clear whether the accident will delay the start-up of the hydrometallurgical plant, which has been scheduled to start operations in the second quarter of 2024.

Udokan Copper said it will inform the market about the cause of the accident, any damage and the likely duration of restoration works once an investigation has been completed.

Once in operation, the plant will produce initially up to 135,000 mt/year of copper equivalent contained in sulfide concentrate and cathode copper, the output of which will require 15 million mt/year of crude ore and will be distributed mainly in China.

Udokan Copper is part of USM Holdings, which also owns Russian iron ore miner and HBI/DRI producer Metalloinvest.

— Katya Bouckley

Ferroalloys and Steel

US ferrosilicon prices rise on short-covering, shipping issues

US ferrosilicon prices rose further in the week ended Jan. 3 on short covering by a steelmaker and traders, while the deteriorating international shipping situation added further support, market participants said.

The Platts assessment for regular 75% Si ferrosilicon rose to \$1.20-\$1.25/lb ex-warehouse basis on Jan. 3 from \$1.10-\$1.20/lb on Dec. 27.

On Dec. 29, 3,000 mt was traded at \$1.20/lb ex-warehouse producer-to-trader for first-quarter release, which understood to be linked to a requirement by a steelmaker. On Jan. 2, that same steelmaker bought around 200 mt from another producer also at \$1.20/lb ex warehouse.

Just before Dec. 25, a 3,000 mt trade was heard at \$1.15/lb ex-warehouse producer-to-trader.

Market participants said ferrosilicon was more prone to delays and soaring freight rates in container shipping compared with other alloys, but also noted that dry bulk freight rates were rising as a result of choke points in both the Suez and Panama Canals, keeping ships off the market for longer and resulting in rising freight rates with implications for the import-dependent US ferroalloys market generally.

A trader said it was hard to find ferrosilicon below \$1.20/lb and said he thought there was a long-term supplier to steel mills that had either suffered significant shipping delays, or was reneging on contracts.

"The shipping situation certainly isn't helping anybody, both

from the delays and the costs," the trader said.

A producer source said the only ferrosilicon of any volume that was in the US was Russian origin, but said steel mills were reluctant to buy Russian-origin raw materials.

"Yeah, the mills say they won't buy it but... If it's a choice between turning off a furnace and buying Russian, they're buying Russian," the producer said. "They may do it through an intermediary or a trader, but they'll do it if they have to."

A second producer said the Russian ferrosilicon that was in the US was duty-paid and had been imported legally.

"The people I've been selling to could have gone elsewhere but found [other suppliers] didn't have it," the second producer said. "I'm the market of last resort, so if I sold at \$1.20, that's the bottom of the market."

Market participants predicted that other steel mills that thought they had contract cover for ferrosilicon may find themselves back in the market because of shipping delays.

"Right now, ferrosilicon shipments from Malaysia are facing an additional three weeks to get to the US, and a lot of those ships also stop in India for additional ferroalloys cargoes," the second trader said. "So a six-to-seven week voyage becomes a 9-10 week voyage, so anything you book today, if it's a prompt load, isn't arriving here until the end of the first quarter."

The first producer said ferrosilicon would remain tight in the US for the first half of the year.

A second trader agreed, but added there was a risk that by the time delayed shipments did arrive in the US, it would be in time for the third quarter — "seasonally the weakest, and then you could see downward pressure on prices."

A stainless mill buyer noted that ferrosilicon prices had risen, but was not in the market for additional ferrosilicon because of soft demand.

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— Anthony Poole

Asian ferrosilicon prices stable; silicomanganese prices inch higher

- Offers for Asian 75% FeSi heard in the \$1,270-\$1,320/mt CIF Japan range

- Mainstream Asian 65% SiMn offers around \$900-\$920/mt CIF Japan

Platts assessed 75% Si ferrosilicon CIF Japan and Chinese 75% ferrosilicon at \$1,270-\$1,300/mt and \$1,255-\$1,285/mt FOB China, respectively, Jan. 3, unchanged from a week earlier.

Platts assessed 65% Mn silicomanganese CIF Japan at \$900-\$920/mt Jan. 3, up \$5/mt from last week.

Mainstream offers for 75% ferrosilicon Chinese and Malaysian material were heard in a range of \$1,270-\$1,320/mt CIF Japan. Tradable values were heard in a range of \$1,270-\$1,300/mt CIF Japan, according to market participants.

A deal for 600 mt of Malaysian 75% ferrosilicon was concluded at \$1,290/mt on a CIF Japan basis.

There were no big changes for the FeSi market in the week to Jan. 3, especially when Japan was still in holiday.

According to a producer source, the materials from China should be more than \$1,300/mt on an FOB basis considering China FeSi future market.

"If export price is lower than this [FeSi future prices], seller can just sell to futures warehouse," the source added.

A deal for 200 mt of Malaysian 65% SiMn was heard concluded at \$910/mt on a CIF Vietnam basis.

Another deal for 500 mt with the same origin and material was concluded at \$910/mt on a CIF Malaysia basis.

Mainstream offers for Asian 65% SiMn were heard in a range of \$900-\$920/mt CIF Japan, according to sources. Tradable values were heard in a wide range of \$910-\$930/mt CIF Japan during the week, according to market participants.

The offers from India were all still above \$900/mt in the week to Jan. 3, according to the producer source.

A second producer shared that India suppliers offered at \$900/mt FOB India and productions cut continued.

"Production cut is there and will remain till the price stabilizes," the source said.

Another trader source revealed that they did not receive any offers in the week to Jan. 3 as Japan was still in holiday.

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— Yuxi Du

Chinese ferrochrome import prices rangebound amid yuan's appreciation

- Chinese domestic offers steady at Yuan 8,600-8,700/mt
- UG2 chrome ore prices stable at \$280-\$285/mt
- Japanese ferrochrome prices up 2 cents/lb

Platts assessed the Chinese 58%-60% Cr high-carbon ferrochrome import price inched up 50 cents on the week at 96-97 cents/lb CIF China Jan. 3, considering stronger Chinese yuan.

Market participants said mainstream domestic offers had stabilized in the week at around Yuan 8,600-8,700/mt (\$1,211-\$1,225/mt), supported by some restocking activity from downstream and high cost of production, a downstream consumer said. The offers were equivalent to about 96-97 cents/lb CIF Asia, up 50 cents from the last week, due to the appreciation of the Chinese yuan.

The volume traded in the spot market was limited, according to a Chinese trader. "There's some restocking demand from downstream, which pushes prices up slightly, but it's not sustainable as there's new furnaces put into production," the source added, indicating that there will be more supply in the following months.

Market participants agreed that UG2 chrome ore prices remained stable at \$280-\$285/mt.

Charge chrome was trading at a 1-cent/lb premium to high-carbon ferrochrome.

Domestic prices in India, meanwhile, continued to climb amid high chrome ore prices in the country, an Indian trader said. Domestic prices had increased week on week from Rupee 110,000/mt to around 110,000-111,000/mt (\$1,320-\$1,333/mt) amid high chrome ore prices and high electricity cost, the source added, equating to about 104 cents/lb on a FOB basis.

Spot market activity in Japan remained muted due to tepid downstream demand in the spot market. Tradable indications were heard at around 102-103 cents/lb.

Japanese ferrochrome trade was generally conducted under term contracts amid limited spot activity.

Platts assessed CIF Japan ferrochrome up 2 cents/lb at 101-103 cents/lb amid higher tradable indications.

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— Litian Wang

Finnish Metso receives order for ferrochrome plant from Vedanta subsidiary

- Low electricity use, high recovery main features of new equipment
- 300,000 mt/year plant representing \$87 million due online in 2025

Finnish engineering company Metso and Ferro Alloys Corporation Limited, part of Indian miner Vedanta, have agreed on the design and delivery of a ferrochrome plant for FACOR's expansion project in Bhadrak, Odisha, India.

The contract is valued at Eur80 million (\$87 million), according to Metso.

The scope of delivery includes the engineering and supply of equipment for an Outotec Steel Belt Sintering Plant and two 75 MVA Outotec Submerged Arc Smelting Furnaces.

Metso says its Steel Belt Sintering Plant is known for the production of high-quality pellets enabling consistent electric furnace performance with low power consumption, and Submerged Arc Furnace technology also has low electricity consumption and low CO2 and dust emissions while providing high metal recovery.

The new plant will produce 300,000 mt/year of ferrochrome — an essential ingredient for production of corrosion-, acid- and heat-resistant steels — and was estimated to start operating in 2025. With the investment, FACOR aims to become India's leading ferrochrome producer, according to Metso.

FACOR, part of Vedanta since September 2020, has the capacity to produce 81,300 mt/year of charge chrome/ferrochrome in Bhadrak, and has also established a mining complex at Jajpur and Dhenkanal districts in Odisha for the mining of chrome ore with an annual capacity of 250,000 mt/year, according to Vedanta.

China and South Africa are currently the world's largest producers of ferrochrome.

— Katya Bouckley

Lead and Zinc

US lead acid battery market sees slow trade, prices flat

The Platts assessment for US spot 50% lead starter ignition was flat at 19-21 cents/lb, picked-up US Midwest, Jan. 2, unchanged over its previous price Dec. 29. The Platts assessment for the material, picked-up Northeast was also static over its previous level, at 21-22.5 cents.

"The markets are nothing right now," said a scrap dealer, who reported lead acid batteries changing hands at 20-21 cents, picked-up Midwest. "It's flat. All the optimism that was coming before Christmas, with the markets up...everyone had optimism prices were going to go up. But it's given back everything, so we're back down."

A trader echoed that market conditions were unchanged from the week prior to Christmas, and reported paying 19-21 cents for the material, picked-up Midwest, and 21-22 cents, picked-up Northeast.

A second scrap dealer was in a similar position, with very little to report at the outset of the New Year.

"We haven't heard or done anything on scrap batteries since the second week in December, so I have no new news to share," the dealer said.

A second trader described business in the Midwest as "really, really quiet". The trader reported the tradable value for lead acid batteries at 19-20 cents, picked-up Midwest.

"It's quiet. There is plenty of material, so I think that's why prices are so low," the trader said.

The trader sold spot lead acid batteries at 23 cents, picked-up South for export.

The Platts weekly assessment for 99.97% lead was flat at 13.5 cents/lb plus LME cash, delivered Midwest as spot inquiries took pause.

The trader hadn't sold any pure lead in several weeks, and speculated it could be another two weeks before spot business is transacted.

"I don't think we will see movement until after MLK weekend," the trader said, referring to the Jan. 13-15 period.

The smelter source said he hadn't sold any pure lead, as the smelter was currently tolling nearly 100% of their material.

Still, he pegged premiums for the material in a range of 13.5-18 cents, delivered Midwest.

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— Meghann McDonnell

Assessment rationales

Platts Alumina Australia Daily Rationale

Platts assessed benchmark Australian alumina up \$6/mt at \$356/mt FOB Jan. 3.

A deal for 30,000 mt of Indian alumina loading in H2 January

concluded at \$366/mt FOB Vizag, India, with payment terms being letter of credit at sight or advanced payment. The transaction was reported after market close on Jan. 2 by a producer who was the buyer. This cargo was offered to the market via a tender, which accepted bids until Dec. 28 and was valid until Jan. 2.

Market participants generally saw Indian alumina at a \$5-\$10/mt premium to Western Australian origin on an FOB basis for major destinations deliverable for both origins.

Potential buyers and sellers saw tradable levels ranging \$345-\$362/mt for spot alumina cargoes aligning to Platts methodology, and saw reasonable assessment levels around the mid-\$350s/mt.

Buyers' guidance ranged up to around \$350/mt while sellers' guidance were in the \$360s/mt and above on an FOB Australia basis.

The highest and lowest price indications, by prospective buyers and sellers, respectively, centered at \$356/mt FOB.

No market data was excluded from the assessment.

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This rationale applies to market data symbol: MMWAU00.

Platts CCC Clean Copper Concentrates CIF China Rationale

Platts assessed CIF China Clean Copper Concentrates treatment and refining charges at \$51.80/mt and 5.18 cents/lb, respectively, Jan. 3, down by \$1.20/mt and 0.12 cent/lb on the day.

Tradable values were heard at \$54/mt for March-loading clean copper concs, trader to smelter, M+2 or M+4 pricing at a seller's option.

Considering a \$14/mt contango between June and July, the tradable values normalized to \$51.80/mt on an M+3 pricing basis.

Platts assessed producer-to-trader copper concentrates TC/RC differentials at minus \$5.60/mt and minus 0.56 cent/lb, respectively, down by \$1/mt and 0.10 cent/lb on the day.

Tradable values were heard at \$40-\$41/mt for March-loading clean copper concs, producer to trader, M+1 or M+4 pricing at a buyer's option.

Considering a \$36.75/mt contango between April and June, the tradable values normalized to \$45.70-\$46.70/mt on an M+3 pricing basis.

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No market data was excluded from the assessment process.

The above rationale applies to market data symbols:

PCCCB00, PCCCC00

Platts Japan CIF Spot Aluminum Premium Assessment Rationale

Platts assessed the CIF Japan spot premium for 99.7% P1020/P1020A aluminum ingot unchanged on the day at \$77/mt plus London Metal Exchange cash on Jan. 3.

Tradable levels from market sources were indicated at \$77/mt and above for cargoes aligned with Platts methodology.

No market data was excluded from the assessment.

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The above rationale applies to market data symbol: MMANA00

Platts Global Molybdenum Oxide Daily Rationale

The Platts Daily Dealer Molybdenum Oxide assessment was \$20.025/lb Mo Jan. 3, up from the previous assessment of \$19.925/lb Mo.

The assessed range was \$19.9-\$20.15/lb Mo.

Deals were reported in-warehouse Busan across the full assessed range.

No data was excluded from assessment.

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This rationale applies to symbol(s) <MMAYQ00>

Platts US MW Aluminum Transaction Premium Assessment Daily Rationale

The Platts spot 99.7% P1020 US Aluminum Transaction Premium was assessed at 18.8 cents/lb plus LME cash, delivered Midwest, net 30-day payment terms, Jan. 3, unchanged from the previous assessment.

The most competitive open offer, from a trader, was unchanged at 19.5 cents/lb over the LME average for the next 30 days, for delivery within seven to 30 days, 200 mt, sow/T-bar shape, any non-Russian brand acceptable to the buyer, net 30-day payment terms.

The range of indicative values heard on the day narrowed to 17-19 cents/lb, spot delivery, net 30-day payment terms.

No market data was excluded from the Jan. 3 assessment.

Platts is part of S&P Global Commodity Insights.

This rationale applies to the market data symbol MMAKE00.

Platts EMEA Aluminum IW Rotterdam Premiums Daily Rationale

The Platts Daily Aluminum Duty Paid In-Warehouse Rotterdam Premium was assessed at \$230-\$250/mt Jan. 3, with a midpoint of \$240/mt, unchanged from the previous assessment.

Activity was quiet in the duty paid Rotterdam market, with no transactions reported on the day.

Indicative tradable levels were heard at a range of \$245-\$260/mt Duty Paid IW Rotterdam, with 30 days payment terms, as per prevailing normalizations.

The Platts Daily Aluminum Duty Unpaid In-Warehouse Rotterdam Premium was assessed at \$150-\$180/mt Jan. 3, with a midpoint of \$165/mt, unchanged from the previous assessment.

A minimum tradable value was heard at \$185/mt Duty Unpaid FCA Rotterdam, with cash payment terms, normalized to \$185/mt IW Rotterdam with 30-day payment terms as per prevailing normalizations. This value could not be sufficiently tested by market close amid reduced activity.

No data was excluded from the assessment.

Platts is part of S&P Global Commodity Insights

This rationale applies to symbol(s) <AALVE00> <AALVI00>

Platts EMEA Cobalt Metal Daily Rationale

Platts assessed cobalt metal in-warehouse Rotterdam at \$12.85-\$16.25/lb Jan. 3, with a midpoint of \$14.55/lb, unchanged from the previous assessment on Jan. 2.

A trade of 2 mt of briquettes was made on Jan. 3 at \$12.75/lb DDP Europe, netted back by the trader to \$12.6/lb IW Rotterdam. The deal, however, was for an origin not widely accepted by the market.

An offer was heard for 2 mt of chemical grade at \$14.25/lb IW Rotterdam. A second offer for alloy grade was heard at \$16.25/lb IW Rotterdam for 20 mt.

Two rejected bids to buy chemical grade material were heard on the day at \$12.7/lb and \$13/lb IW Rotterdam respectively.

Tradable levels for chemical grade were heard between \$12.6-\$14/lb IW Rotterdam. The lower-end of the range was for an origin not widely accepted by the market.

Tradable levels for alloy grade were heard between \$15-\$17/lb IW Rotterdam.

No data was excluded from the assessment.

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This rationale applies to symbol(s) <MMAIK00>.

Marketplace

Nonferrous Heards

Jan. 3

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 17-18 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, delivery 7-30 days, delivered US Midwest, net-30: 200 mt non-Russian sow/T-bar offered at LME cash average next 30 days plus 19.50 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 19 cents/lb: trader

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus \$77/mt: international trader

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus \$90/mt: producer

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus \$90/mt: international trader

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus \$77/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: bid indications at \$330-\$355/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$370/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$360-\$364/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$350-\$355/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: bid indications at \$345-\$350/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: offer indication seen at \$360/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$350/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$345/mt: consumer

Platts molybdenum, oxide briquettes, 57% Mo, spot, DDP Europe, net-30: 20 mt reportedly offered at \$20/lb Mo, netted to \$19.50-\$19.55/lb oxide powder, in-warehouse Rotterdam: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, in-warehouse Busan: 20 mt reportedly traded at \$20.35/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, in-warehouse Busan: 20 mt traded at \$20.15/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, in-warehouse Rotterdam: offer indications at \$20-\$20.25/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, in-warehouse Busan: 20 mt offered at \$20.50/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, in-warehouse Busan: 20 mt bid at \$20.10/lb Mo rejected: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, in-warehouse Rotterdam: 20 mt offer indication at \$21/lb Mo: trader

Jan. 2

Platts aluminum, A380 secondary alloy, spot, DDP US Midwest, net 30-60: quote at \$1.27/lb: producer

Platts aluminum, A380 secondary alloy, spot, DDP US Midwest, net 30-60: quote at \$1.28-\$1.29/lb: producer

Platts aluminum, A380 secondary alloy, spot, DDP US Midwest, net 30-60: indicative value at \$1.26-\$1.29/lb: producer

Platts aluminum, A380 secondary alloy, spot, DDP US Midwest, net 30-60: indicative value at \$1.30-\$1.32/lb: trader

Platts Aluminum: US: 99.7% P1020, delivery 7-30 days, delivered US Midwest, net-30: 200 mt non-Russian sow/T-bar offered at LME cash average next 30 days plus 19.50 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 19.50 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 17-18 cents/lb: trader

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus above \$77/mt: producer

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus \$77/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$340-\$350/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$340/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$355-\$360/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$350-\$355/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: bid indication at \$345/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$360/mt: producer

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt reportedly traded at \$19.85/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt offer indications at \$20-\$20.40/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt offered at \$20/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Rotterdam: 20 mt offered at \$20/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt reportedly traded at \$20/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, DDP Spain: 20 mt traded at \$20.25/lb Mo, nets back to \$20/lb in-warehouse Rotterdam: trader

Dec. 29

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 19.50 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 17-18 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 120 cents/lb: trader

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus \$75-\$80/mt: Japanese trader

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at LME cash plus \$90/mt: international trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$340-\$345/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$335/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$355/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$340-\$345/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$340/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$355-\$360/mt: producer

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Rotterdam: 20 mt traded at \$19.85/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Rotterdam: 20 mt bids in range of \$19.65-\$19.80/lb Mo rejected: trader

Platts molybdenum, oxide briquettes, 57% Mo, prompt, DDP Europe, with terms: 24 mt traded at \$20.75/lb Mo, nets to \$20.45/lb in-warehouse basis for powder: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Rotterdam 20 mt traded at \$19.65/lb Mo: trader

Dec. 28

Platts Aluminum: US: 99.7% P1020, Jan, delivered US Midwest, net-30: 120 mt sold at fixed price, based on LME cash plus 19.75 cents/lb premium: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 19.50-19.75 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 19 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 17-18 cents/lb: trader

Platts aluminum, 99.7% Al P1020, Good Western, Q1, CIF Japan, net-30: 500-999 mt/month settlement at LME cash plus \$90/mt, part of annual contract negotiation: producer

Platts aluminum, 99.7% Al P1020, Good Western, Q1, CIF Japan, net-30: 1,000 mt plus/month settlement at LME cash plus \$90/mt, part of annual contract negotiation: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$335/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$335-\$345/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$340-\$350/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$350/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$340/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$347-\$350/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$350/mt: producer

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt traded at \$19.75/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Rotterdam: 60 mt traded at \$19.70/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt traded at \$19.60/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt traded at \$19.85/lb Mo: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt offered at \$19.70/lb Mo: seller

Dec. 27

Platts Aluminum: US: 99.7% P1020, Jan, delivered US Midwest, net-30: indicative value at LME cash plus 30 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 17-18 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 19 cents/lb: trader

Platts Aluminum: US: 99.7% P1020, spot, delivered US Midwest, net-30: indicative value at LME cash plus 19.50 cents/lb: trader

Platts aluminum, 99.7% Al P1020, Good Western, Q1, CIF Japan, net-30: 500-999 mt/month settlement at LME cash plus \$90/mt, part of annual contract negotiation: producer

Platts aluminum, 99.7% Al P1020, Good Western, Q1, CIF Japan, net-30: 1,000 mt plus/month settlement at LME cash plus \$90/mt, part of annual contract negotiation: producer

Platts aluminum, 99.7% Al P1020, Good Western, Q1, CIF Japan, net-30: offer at LME cash plus \$97/mt: Japanese trader

Platts aluminum, 99.7% Al P1020, Good Western, Jan, CIF Japan, net-30: indicative value at \$80/mt: Japanese trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at \$350/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$340-\$345/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$335-\$340/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: buying interest at \$335/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$335-\$340/mt: consumer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$340-\$347/mt: trader

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: indicative value at \$347-\$350/mt: producer

Platts aluminum, alumina, 30,000 mt, Dec/Jan, FOB Kwinana/Bunbury, net-30: selling interest at above \$350/mt: producer

Platts molybdenum, oxide briquettes, 57% Mo, spot, DDP Europe, net-30: 24 mt traded at \$20.35/lb, netted to \$19.90/lb powder, in-warehouse basis, CAD: trader

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt sold at \$19.35/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt sold at \$19.30/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt sold at \$19.60/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt sold at \$19.40/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Busan: 20 mt sold at \$19.50/lb Mo: seller

Platts molybdenum, oxide powder, 57% Mo, prompt, ex-warehouse Rotterdam: 20 mt offered at \$19.80/lb Mo: trader

Chinese ferromolybdenum supported by steel mill tenders, upstream disruption ...from page 1

Driven by the climbing demand from downstream steel mills approaching the year end, Chinese ferromolybdenum prices ended the decline seen over the September-October period and have picked up since late November.

Market sources have suggested that prices could firm in the near term, with a confluence of market factors constricting supply flows for ferromolybdenum, such as stronger-than-expected demand from steel mills and upstream molybdenum concentrate disruption, coupled with low inventory levels of miners.

Molybdenum, typically a byproduct of copper mining, is mainly used in steel industry as an additive for the production of alloy steel.

The global ferromolybdenum market is closely tied to China, because China is not only one of the largest producing countries of ferromolybdenum across the world, but also has a massive steel sector that requires large amounts of ferromolybdenum as an alloying element.

— Lucy Tang: Market Specialist - Metals, Louissa Liau

Subscriber Notes

Platts launches daily US low-carbon primary aluminum price assessment

Platts, part of S&P Global Commodity Insights, has launched a new daily low-carbon primary aluminum price assessment for the US market, effective Jan. 2, 2024.

The new US Low-Carbon Aluminum Premium (US-LCAP) reflects any differential achieved for the spot trade of minimum 99.7% high-grade P1020 with total certified emissions of 4-mt equivalent (mte) or less of CO2 per mt of aluminum.

Platts first announced its intent to launch the assessment on Nov. 14 via a subscriber note available here.

Following market feedback, Platts clarified its description of emissions in scope for the new assessment in a Dec. 15 subscriber note published here.

US-LCAP, which complements low-carbon primary aluminum and billet assessments previously launched by Platts in Europe, covers direct and indirect emissions associated with aluminum

smelting, typically considered by market participants as Scope 1 and 2 emissions.

Emissions must be certified by an internationally accepted, independent organization. Market participants are expected to supply proof of such certification upon request. Platts continues to invite feedback regarding certifiers currently working with aluminum producers and the industry, as well as feedback on guidelines for a transparent publication process.

Trade in aluminum products using offsets to reduce overall emissions profiles, such as credits sourced from voluntary carbon markets, are not considered for inclusion in this assessment.

The US-LCAP reflects any differential achieved for low-carbon P1020 over standard P1020 aluminum. Published as a standalone value in cents/lb, the US-LCAP also is applied to two existing daily all-in transaction prices to create two new daily low-carbon all-in transaction prices US-LCAP Transaction (All-in) and US-LCAP All-in (Basis CME).

The US-LCAP Transaction (All-in) is the sum of the existing Aluminum US Transaction (All-in) price (MMAAF10) plus the US-LCAP. The US-LCAP All-in (Basis CME) is the sum of the existing Aluminum US All-in (Basis CME) price (ALINA00) plus the US-LCAP.

The Aluminum US Transaction (All-in) price is the sum of the US Midwest Aluminum Transaction Premium (MMAKE00) and the daily LME high-grade aluminum cash settlement price.

The Aluminum US All-in (Basis CME) price is the sum of the US MWP (MMAKE00) and the daily COMEX physically delivered Aluminum (ALI) price.

Assessment	Symbol	Monthly Average
US-LCAP	ALCRA00	ALCRA03
US-LCAP Transaction (All-in)	ALCRB00	ALCRB03
US-LCAP All-in (Basis CME)	ALCRC00	ALCRC00

The US-LCAP assessment reflects the following primary aluminum specifications:

Platts observes direct market activity as well as the effect of movements in related markets through spread differentials, for example. In the absence of observable spot market activity, Platts may consider other verifiable data reported.

Platts has previously introduced low-carbon aluminum and carbon-accounted steel assessments in alignment with S&P Global Commodity Insights strategic focus on offering ESG-related commodities pricing. The assessments respond to requests from market participants for tools to help quantify cost and manage risks and opportunities associated with a growing focus on carbon-reduction strategies and increasing global regulation.

Quality	Quantity	Dimensions	Incoterms	Location	Timing	Payment	UOM
Min 99.7% high-grade P1020A (LME spec, max 0.1% Si, 0.2% Fe, 0.03% zinc, 0.04%	Min full 45,000 lb truckloads, typical 100-1,000 mt	Ingots, low-profile sow or T-bars	DDP, delivery by truck or rail	Midwest consumer works	Delivered within seven to 30 days forward	Net 30 days	Cents/lb

Platts US-LCAP assessment and related all-in prices are published in Metals Daily, Metals Weekly, on Platts Metals Alert on fixed page PMA 412 and in the Platts price database.

Please send any comments to Platts_Aluminum@spglobal.com and pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available to the public upon request.

Platts clarifies inclusion of Phase 1 CORSIA credit in European ZCAP aluminum price assessments from Jan 2

Platts, part of S&P Global Commodity Insights, wishes to clarify that its calculated Zero-Carbon Aluminum Price (ZCAP) premium assessments for European P1020 will reflect carbon credits eligible under Phase 1 of the CORSIA scheme for the Platts CEC component of the calculation from Jan. 2.

Platts CEC assessment reflects carbon credits eligible for the International Civil Aviation Organization's CORSIA program.

The assessment will continue to reflect CORSIA-eligible credits once the Pilot phase (2021-2023) of the program ends, and evolves to Phase 1 (2024-2026) from January 2024.

More information is available in the subscriber note here: <https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/112823-platts-cec-price-assessment-will-reflect-phase-1-corsia-credits-from-jan-2>

The following aluminum price calculations are affected by the change to Platts CEC specification:

Assessment name	Symbols
Zero-carbon Aluminum Good Western premium duty paid in-warehouse Rotterdam	Daily:ZALVE00
	Weekly avg:ZALVE04
	Monthly avg:ZALVE03
	Yearly avg:ZALVE16
Zero-carbon Aluminum Good Western premium duty unpaid in-warehouse Rotterdam	Daily:ZALVI00
	Weekly avg:ZALVI04
	Monthly avg:ZALVI03
	Yearly avg:ZALVI16

The Zero-Carbon Aluminum Price (ZCAP) assessments leverage Platts CEC to calculate the cost of offsetting the carbon emissions of the Platts Low-Carbon Aluminum Premium (LCAP) assessment to zero.

CORSIA, the Carbon Offsetting and Reduction Scheme for International Aviation, is referenced by a wide range of non-aviation industries as an acceptable approach for voluntarily curbing carbon's impact on climate change.

Platts ZCAP aluminum premium assessments are published in Platts Metals Daily, on pages 421 of Platts Metals Alert and Platts Non Ferrous Metals Alert, in the Platts Market Center, Platts Connect and in the Platts price database under the codes listed above.

Platts invites feedback from market participants on incorporating the cost of carbon within Platts aluminum price assessments, to be sent to Platts_Aluminum@spglobal.com and

pricegroup@spglobal.com. For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing.

Platts launches daily European aluminum scrap assessment

Platts, part of S&P Global Commodity Insights, has launched a new daily price assessment for the European high-grade auto shred aluminum scrap market, effective Jan. 2, 2024.

European market participants have sought greater transparency of aluminum scrap pricing as they seek to use more recycled content to meet decarbonization goals. The assessment brings additional transparency to the market for high-grade auto shreds, also known as floated fragmentizer scrap.

Platts initially proposed the new assessment on Dec. 1, in a subscriber note available here: <https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/120123-platts-proposes-to-launch-daily-european-aluminum-scrap-assessment>

Following market feedback, Platts revised quality specifications from the original proposal in a subscriber note published Dec. 15:

<https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/121523-platts-to-launch-daily-european-aluminum-scrap-assessment>

The new assessment reflects the following specifications:

Assessment	European Aluminum Scrap High Grade Auto Shreds
Symbol	Daily: ANICC00 Monthly average: ANICC03
Published	Daily
Origin	Any origin
Quality	Floated fragmentizer scrap/high-grade auto shred derived from wet or dry media separation device, to meet ISRI "Twitch" specification, containing not more than 1% free Zn, 1% mg and 1% analytical iron. Maximum non-metallics content is 2%.
Quantity	Minimum one truckload
Dimensions	N/A
Incoterms and location	DDP Germany
Timing	Delivery within 30 days
Payment	Net 30 days
UOM	Eur/mt
Assessment timestamp	4:30pm London Time

The assessment is published in Platts Market Data and in the Platts price database under the symbols listed above. It will be added to the Platts Metals Daily and included on pages MTL4310 and PMA4310 of Platts Nonferrous Alert from Jan. 22. The monthly average will be published on pages MTL4311 and PMA4311.

Please submit any feedback, comments or questions to Platts_Aluminum@spglobal.com and pricegroup@spglobal.com

For written comments, please provide a clear indication if they are not intended for publication by Platts for public viewing.

Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts aligns China alumina, ADC12 publishing schedule to Singapore calendar

Platts, part of S&P Global Commodity Insights, has aligned the publishing schedule of its daily Alumina Ex-Works China (MMXY00) and weekly Aluminum ADC12 Ex-Works China (AAVSI02) price assessments with the Singapore holiday calendar, effective January 2024.

The assessments were previously published according to both the Singapore and China holiday calendars.

The following symbols are impacted by the change:

DESCRIPTION	SYMBOL	WEEKLY AVERAGE	MONTHLY AVERAGE	YEARLY AVERAGE
China Alumina Ex-Works Yuan/Mt	MMXY00	MMXY04	MMXY03	
China Alumina Ex-Works \$/Mt	MMXWC00	MMXWC04	MMXWC03	MMXWC16
Aluminum ADC12 Ex Works China Yuan/Mt	AAVSI02		AAVSI13	
Aluminum ADC12 Ex Works China	AAVSI00		AAVSI03	AAVSI16

Platts originally published the proposal on Nov. 8, and the relevant note can be found at: <https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/110823-platts-proposes-to-align-china-alumina-adc12-publishing-schedule-to-singapore-calendar>

Following market feedback, Platts communicated its decision to implement the proposed change in a subscriber note published Dec. 1: <https://www.spglobal.com/commodityinsights/en/our-methodology/subscriber-notes/120123-platts-to-align-china-alumina-adc12-publishing-schedule-to-singapore-calendar>

Platts China Alumina and China ADC12 assessments are published in Platts Metals Daily, on pages PMA/MTL0005, PMA0650/MTL0650, PMA0678/MTL0678, and PMA/MTL0810 of Platts Metals Alert and Platts Non Ferrous Metals Alert, in Platts Market Center, Platts Connect and in the Platts price database under the codes listed above.

Platts' official holiday calendar is available at <https://www.spglobal.com/commodityinsights/en/our-methodology/holiday>

Please send comments, feedback, and questions to platts_alumina_moc@spglobal.com and pricegroup@spglobal.com.

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts proposes to change European P1020 aluminum premiums to open-origin, cash payment terms

Platts, part of S&P Global Commodity Insights, is proposing to move its daily European P1020 aluminum Duty Paid and Duty Unpaid IW Rotterdam premium assessments to an open-origin basis, away from a Good Western definition, effective Feb. 1, 2024.

Platts has observed that aluminum traded in Europe

categorized under the Good Western term has become less distinct in recent years, and the proposed change reflects initial market feedback that the use of the term has fallen significantly.

Under the proposal, open-origin aluminum spot bids, offers and trades would typically take precedence over information containing a specific origin exclusion.

Platts is also proposing to move payment term specifications to a cash against documents basis, from net 30 days payment terms, also effective Feb. 1, 2024, to better reflect actual trading activity and provide more clarity for the in-warehouse Rotterdam aluminum market.

The proposed changes would be reflected as follows:

Current Assessment Name	Proposed Assessment Name	Current Payment Terms	Proposed Payment Terms	Symbols
Aluminum Good Western premium duty paid in-warehouse Rotterdam	Aluminum duty paid in-warehouse Rotterdam premium	Net 30 days	Cash against documents	Daily: AALVE00 Weekly avg: AALXJ00 Monthly avg: AALVH00 Yearly avg: AALVH16 Daily: AALVI00
Aluminum Good Western premium duty unpaid in-warehouse Rotterdam	Aluminum duty unpaid in-warehouse Rotterdam premium	Net 30 days	Cash against documents	Weekly avg: AALXK00 Monthly avg: AALVK00 Yearly avg: AALVK16 Daily: LALVE00
Low-carbon Aluminum Good Western premium duty paid in-warehouse Rotterdam	Low-carbon Aluminum duty paid in-warehouse Rotterdam premium	Net 30 days	Cash against documents	Weekly avg: LALVE04 Monthly avg: LALVE03 Yearly avg: LALVE16 Daily: LALVI00
Low-carbon Aluminum Good Western premium duty unpaid in-warehouse Rotterdam	Low-carbon Aluminum duty unpaid in-warehouse Rotterdam premium	Net 30 days	Cash against documents	Weekly avg: LALVI04 Monthly avg: LALVI03 Yearly avg: LALVI16 Daily: ZALVE00
Zero-carbon Aluminum Good Western premium duty paid in-warehouse Rotterdam	Zero-carbon Aluminum duty paid in-warehouse Rotterdam premium	Net 30 days	Cash against documents	Weekly avg: ZALVE04 Monthly avg: ZALVE03 Yearly avg: ZALVE16 Daily: ZALVI00
Zero-carbon Aluminum Good Western premium duty unpaid in-warehouse Rotterdam	Zero-carbon Aluminum duty unpaid in-warehouse Rotterdam premium	Net 30 days	Cash against documents	Weekly avg: ZALVI04 Monthly avg: ZALVI03 Yearly avg: ZALVI16

Full assessment specifications are outlined in the Global Nonferrous Metals specifications guide, available here.

Platts IW Rotterdam aluminum premium assessments are published in Platts Metals Daily, on pages 421 of Platts Metals Alert and Platts Non Ferrous Metals Alert, in the Platts Market Center, Platts Connect and in the Platts price database under the codes listed above.

Platts invites feedback on this proposal to EMEAMetalsTeam@spglobal.com and pricegroup@spglobal.com by Jan. 3, 2024.

Sector	Commodity	Assessment	Symbol	Units	UoM conversion	Assessment frequency	Current weighting in index	Latest annual production (million tons)	Year	Source
Chemicals	Polyethylene	Global LDPE Index	AAXVR00	USD/MT		Daily	2.4%	114	2023	S&P Global Commodity Insights
	Polypropylene	Global PP Index	AAXVS00	USD/MT		Daily	1.8%	86	2023	
	Purified Terephthalic Acid	PTA FOB China	PTFCA00	USD/MT		Daily	1.8%	82	2023	
	Polyvinyl chloride	PVC Susp FAS Houston	PHAIT00	USD/MT		Weekly	0.3%	48	2023	
		PVC Susp FOB China	EBPVS00	USD/MT		Daily	0.8%	2023		
	Rubber	ESBR 1502 CFR NE Asia	AAWZI04	USD/MT		Weekly	0.6%	29	2019	
	ABS	ABS Inj CFR China	PHAHF00	USD/MT		Weekly	0.2%	8	2023 demand	
Metals	Steel scrap	Heavy Melting Scrap Grade 1 and 2 80/20 CFR Turkey	TS01011	USD/MT						World Steel Association, Bureau of International Recycling
	Iron ore	IODEX 62% Fe CFR China	IODBZ00	USD/MT		Daily	55.7%	2600	2022	United States Geological Survey
	Coking coal	Prem Low Vol HCC FOB Aus	PLVHA00	USD/MT		Daily	21.8%	1016	2022	International Energy Agency
	Copper	Copper CIF China Fixed Price Equivalent (All-in)	MMCUC00	USD/MT		Daily	0.6%	26	2022	United States Geological Survey
	Aluminum	Aluminum US Transaction (All-in)	MMAAF10	USC/LB	22.0462442	Daily	1.5%	69	2022	United States Geological Survey

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts corrects Aug weekly, monthly averages for CFR China aluminum

Platts, part of S&P Global Commodity Insights, has backfilled the Aug. 8 daily aluminum CFR China Import Price (All-in) and subsequently corrected its weekly average for Aug. 7-11 and August monthly average.

The backfilled and corrected assessments are as follows:

Assessment	Symbol	Affected Dates	Corrected Prices
Aluminum CFR China Import Price (All-in)	MMBAB00	Aug. 8, 2023	\$2591.22
MMBAB03	Month of August 2023	\$2538.32	
MMBAB04	Week of Aug. 7-11, 2023	\$2574.138	

The aluminum CFR China Import Price (All-in) weekly and monthly averages are published in Platts Metals Daily, on pages PMA/MTL0107, and PMA/MTL0108 of Platts Metals Alert and Platts Non Ferrous Metals Alert, in Platts Market Center, Platts Connect and in the Platts price database under the codes listed above.

Market participants are invited to send all comments, feedback, and questions to platts_mjp_moc@spglobal.com and pricegroup@spglobal.com

Platts proposes to launch Platts Industrial Materials Index Feb 1, 2024

Platts, part of S&P Global Commodity Insights, proposes to launch the Platts Industrial Materials Index, effective Feb. 1, 2024.

This index would represent a global price of some of Platts key physical assessments of commodities in the metals and chemicals sectors, used in industrial production.

It would be an average daily index price published in US\$/mt, for the following component assessments and indexes, weighted

by the latest global production volumes of the corresponding commodity relative to the total global production volumes of all commodities represented in the index. For PVC, the weighting would be further divided between the FOB China and FAS Houston assessments 3:1 according to the relative market sizes between China and the US.

For ABS and steel scrap, global consumption volumes would be used to calculate the weightings.

For steel scrap, Platts would estimate global steel scrap consumption using the global crude steel production number, published by the World Steel Association, and a scrap consumption ratio, derived from recycled steel consumption and crude steel production in key countries and regions, published by the Bureau of International Recycling.

When a component assessment or index is not published on a particular day, the price published from the previous working day would be used in the calculation.

Please send any feedback or questions by Jan. 15 to pricegroup@spglobal.com.

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing.

Platts will consider all comments received and will make comments not marked as confidential available upon request.

Platts launches daily European nickel sulfate assessments

Platts, part of S&P Global Commodity Insights, has launched daily European nickel sulfate in-warehouse Rotterdam assessments, effective Dec. 18, 2023.

The new IW Rotterdam assessments complement Platts established battery metals assessments in Asia and follow earlier additions of DDP China nickel sulfate and CIF North Asia mixed hydroxide precipitate (MHP), as well as the world-first launch of a global suite of daily black mass assessments.

The launch responds to growing demand from market participants for increased pricing information on nickel sulfate as the battery supply chain further develops in Europe.

Nickel sulfate has become the preferred chemical feed in the production of cathode materials for lithium-ion batteries with a nickel-cobalt-manganese (NCM) chemistry. Higher nickel content in an NCM battery allows for greater energy density, which means the overall driving range of the electric vehicle that the battery is used in is higher.

For light-duty electric vehicles, high-nickel content NCM batteries are forecast to take a near-50% market share globally by 2030, according to S&P Global Mobility, and are expected to remain the leading battery chemistry in the Europe and US electric vehicle battery markets.

The new assessments reflect a daily differential over the prevailing exchange value for nickel metal and an all-in calculation representing the sum of the differential and the LME official cash price multiplied by the minimum nickel content.

Assessment specifications are as follows:

All origins of nickel sulfate meeting these specifications will be taken into consideration, while other grades of nickel sulfate may be normalized to Platts base standards.

Platts European nickel sulfate assessments consider market information reported to Platts and published throughout the day, including firm bids and offers, transactions and indications, as well as any other data deemed relevant to the assessment process.

The daily assessments are timestamped to 4:30 pm London time.

Full description of the Platts assessments methodology can be found here: https://www.spglobal.com/commodityinsights/plattscontent/_assets/_files/en/our-methodology/methodology-specifications/platts-assessments-methodology-guide.pdf

The assessments are published on Platts Nonferrous Metals Alert pages, Platts Metals Daily, Platts Connect, Platts Market Center, and in the Platts price database under the symbols listed above.

The assessments are included on pages MTL8888 and PMA8888, and the monthly averages on pages PMA0663 and MTL0663, alongside Platts full suite of battery metals assessments. Publication of the monthly average assessments will commence on Jan. 31, 2024, following the first full month of publication of the daily spot assessment.

Please send all comments and questions to battery_metals@spglobal.com and pricegroup@spglobal.com

For written comments, please provide a clear indication if comments are not intended for publication by Platts for public viewing. Platts will consider all comments received and will make comments not marked as confidential available upon request.

Description	Symbol	Monthly average	Quality	Volume	Dimensions	Payment terms	Timing	UOM
Europe Nickel Sulfate Premium Duty Paid IW Rotterdam	ANICA00	ANICA03	Nickel content: min 22% Magnetic materials: max 100 ppb	Min 10 mt	Powder packed in bags	30 days	Delivery within 60 days	\$/mt
Europe Nickel Sulfate calculated price Duty Paid IW Rotterdam	ANICB00	ANICB03	Nickel content: min 22% Magnetic materials: max 100 ppb	Min 10 mt	Powder packed in bags	30 days	Delivery within 60 days	\$/mt

Primary Aluminum Production ('000 mt)

	Actual	M/M change (%)	Y/Y change (%)	Daily rate	Annual rate
United States					
Sep-23	64.07	-2.53	3.83	2.136	779.518
Aug-23	65.736	-1.2	5.488	2.147	773.988
Year to date	583.762	12.3285	-13.96	3.866	1411.08
Canada					
Sep-23	271.36	3.287	7.32	9.045	3301.595
Aug-23	280.588	1.329	9.432	9.051	3303.697
Year to date	2431.667	12.561	8.316	16.104	5877.871

Index of Net New Orders in US and Canada Sep-23 (%)

Change in index	Non-heat treatable sheet products	Domestic Can stock	Export Can stock	Heat treatable sheet products	Plate products	Foil	Extruded products	Drawing Stock	Total
Current month vs previous month	-4.5	-2.4	-18.7	-4.8	-12.5	-4.4	-7	-10.1	-5
Current month vs previous year	-2.3	3.4	-28.9	1.9	-10.6	-22.8	-0.3	-3.8	-1.8
Current year-to-date vs year ago	-8.9	-5.2	-7.6	9.5	-4.5	-11.2	-12.3	2.4	-6

The index is based on the Aluminum Association's 2013 base figures.

US and Canada Producer Net Shipments of Aluminum Sheet and Plate in Sep-23 (million lb)

	Sep-23	Sep-22	Y/Y change (%)	Aug-23	M/M change (%)	Year to date 2023	Year to date 2022	Y/Y change (%)
Can Stock	352.4	342.6	2.9	351.5	0.3	3056.6	3210.5	-4.8
Non-heat Treatable Sheet	264	260.9	1.2	269.5	-2	2396.5	2556.3	-6.3
All Other Sheet and Plate	187.3	177.6	5.4	193.9	-3.4	1647.2	1474	11.8
Total sheet and plate	803.7	781	2.9	814.9	-1.4	7100.3	7240.8	-1.9

US and Canada Aluminum Shipments of Extruded Products in Sep-23 (million lb)

	Sep-23	Sep-22	Y/Y change (%)	Aug-23	M/M change (%)	Year to date 2023	Year to date 2022	Y/Y change (%)
Rod and bar (rolled & ext)	34.7	37	-6.4	34.4	0.9	325.1	408.6	-20.4
Pipe and tube (ext or drawn)	29.7	32.9	-9.8	30.8	-3.5	285.8	302.8	-5.6
Extruded shapes	312.4	353.8	-11.7	311	0.5	2923.9	3295.1	-11.3
Total extruded products	376.7	423.7	-11.1	376.1	0.2	3534.8	4006.4	-11.8

Source: Aluminum Association

Primary Aluminum

	Symbol		Change	Date assessed
Alumina				
PAX FOB Australia (\$/mt)	MMWAU00	356.000	6.000	03-Jan
PAX FOB Brazil-Aus differential (\$/mt)	MMWAD04	23.000	1.000	28-Dec
PAX CIF China (Yuan/mt)	MMACA00	2692.400	50.560	03-Jan
PAX CIF China (\$/mt)	MMALZ00	379.200	5.900	03-Jan
China Ex-works (Yuan/mt)	MMXCY00	3200.000	20.000	03-Jan
China Ex-works (\$/mt)	MMXWC00	450.690	1.350	03-Jan
Dry bulk freight: Aus-China Handysize (\$/mt)	MMACH00	23.200	-0.100	03-Jan
Aluminum				
MW US Transaction premium (¢/lb)	MMAKE00	18.800	0.000	03-Jan
MW US Transaction premium (\$/mt)	MMATP00	414.469	0.000	03-Jan
MW US Transaction (¢/lb)	MMAAF10	121.108	-3.674	03-Jan
US Aluminum all-in (basis CME) (¢/lb)	ALINA00	120.904	-1.258	03-Jan
US Aluminum all-in (basis CME) (\$/mt)	ALINB00	2665.474	-27.734	03-Jan
US Low-Carbon Premium (US-LCAP) (¢/lb)	ALCRA00	0.000	NA	03-Jan
US Low-Carbon Premium (US-LCAP) (\$/mt)	ALCRD00	0.000	NA	03-Jan
US-LCAP Transaction (All-in) (¢/lb)	ALCRB00	121.108	-3.674	03-Jan
US-LCAP Transaction (All-in) (\$/mt)	ALCRE00	2669.971	-80.998	03-Jan
US-LCAP All-in (Basis CME) (¢/lb)	ALCRC00	120.904	-1.258	03-Jan
US-LCAP All-in (Basis CME) (\$/mt)	ALCRF00	2665.474	-27.734	03-Jan
MW US Net-Cash premium (¢/lb)	MMACN00	17.900	0.000	03-Jan
US P1020 Duty Freight Factor (\$/mt)	AFLSA00	120.000	0.000	03-Jan
US P1020 Duty Freight Factor (¢/lb)	AFLSB00	5.443	0.000	03-Jan
US P1020 Import Duty (¢/lb)	MMOEU00	10.515	-0.334	03-Jan
MW US Transaction premium (implied duty-unpaid) (¢/lb)	MMOFU00	8.285	0.334	03-Jan
MW US Transaction price (implied duty-unpaid) (¢/lb)	MMOGU00	110.593	-3.340	03-Jan
MW US Market (¢/lb)	MMAAE00	122.000	-1.250	03-Jan
CIF New Orleans duty-unpaid premium (\$/mt)	MMODU00	195.000	0.000	03-Jan
CIF New Orleans duty-unpaid premium (¢/lb)	MMNDU00	8.845	0.000	03-Jan
NOLA-MW premium diff (¢/lb)	MMNOL00	9.955	0.000	03-Jan
GW premium unpaid in-warehouse Rotterdam (\$/mt)	AALVI00	150.000-180.000	0.000/0.000	03-Jan
GW premium paid in-warehouse Rotterdam (\$/mt)	AALVE00	230.000-250.000	0.000/0.000	03-Jan
Billet 6060/6063 DDP Germany (\$/mt)	ABGEA04	370.000	0.000	03-Jan
Billet 6060/6063 DDP Italy (\$/mt)	ABITA04	360.000	0.000	03-Jan
Aluminum CFR China All-in Import Price (\$/mt)	MMBAA00	2741.060	1.370	03-Jan
CIF Japan premium (\$/mt)	MMANA00	77.000-77.000	0.000/0.000	03-Jan
CIF Japan premium Q4 (\$/mt)	AAFQA00	97.000-97.000	0.000/0.000	03-Jan
CIF Japan Fixed Price Equivalent (\$/mt)	MMJAL00	2413.50-2413.50	23.00/23.00	03-Jan
CIF Japan Quarter Fixed Price Equivalent (\$/mt)	MMJAQ00	2433.50-2433.50	23.00/23.00	03-Jan
CIF Major Asian Port (MAP) P1020 Premium	AAFQG00	98.00	-2.00	03-Jan
Japan delivered (current month) (\$/mt)	MMALU00	2392.500-2413.530	23.230/23.050	03-Jan
Japan delivered (2 months out) (\$/mt)	MMALX00	2412.480-2433.520	23.200/23.030	03-Jan
Low-Emissions/Carbon-Accounted Aluminum				
Low-carbon GW premium unpaid in-warehouse Rotterdam (\$/mt)	LALVI00	175.000-205.000	0.000/0.000	03-Jan
Zero-carbon GW premium unpaid in-warehouse Rotterdam (\$/mt)	ZALVI00	219.000-249.000	0.000/0.000	03-Jan
Low-carbon GW premium paid in-warehouse Rotterdam (\$/mt)	LALVE00	255.000-275.000	0.000/0.000	03-Jan
Zero-carbon GW premium paid in-warehouse Rotterdam (\$/mt)	ZALVE00	299.000-319.000	0.000/0.000	03-Jan
Low-carbon 6060/6063 Billet DDP Germany (\$/mt)	LCABG00	370.00	0.00	03-Jan
Low-carbon 6060/6063 Billet DDP Italy (\$/mt)	LCABT00	360.00	0.00	03-Jan
MW US Transaction-A380 Spread (¢/lb)	ALUMB00	-3.220	7.100	02-Jan
MW US Transaction-Mill MLCCs Spread (¢/lb)	ALUMC00	44.780	4.600	02-Jan
MW US Transaction-UBCs Spread (¢/lb)	ALUMA04	47.740	1.060	28-Dec
Weekly/monthly prices				
Calcined Petroleum Coke				
FOB US Gulf Coast (\$/mt)	MMXEV00	415.000-450.000	-40.000/-15.000	29-Dec
Caustic Soda				
FOB NE Asia (\$/mt)	AAVSE04	339.000-341.000	0.000/0.000	19-Dec
CFR SE Asia (\$/mt)	AAVSF04	410.000-412.000	6.000/6.000	19-Dec
Domestic East China Ex-works (Yuan/mt)	AAXDE00	769.000-771.000	-20.000/-20.000	19-Dec
FOB NWE (\$/mt)	AANTF00	398.000-402.000	0.000/0.000	19-Dec
CFR Med (\$/mt)	AC SMA04	530.000	20.000	19-Dec
FOB US Gulf (\$/mt)	AANTI00	355.000-365.000	0.000/0.000	19-Dec
Aluminum				
US Six-Months P1020 premium (¢/lb)	MMANJ04	21.000	0.500	28-Dec
US 6063 Billet Upcharge (¢/lb)	MMAKC00	9.000-10.000	0.000/0.000	28-Dec
CIF Brazil premium duty-unpaid (\$/mt)	MMABP04	250.000	0.000	29-Dec
Brazil DDP Southeast premium, low ICMS (\$/mt)	MMABS04	265.000	0.000	29-Dec
Brazil DDP Southeast premium, high ICMS (\$/mt)	ABRAA04	200.000	0.000	29-Dec

Secondary Aluminum

	Symbol		Change	Date assessed
US Old Cast (\$/lb)	AAFBJ00	72.000-74.000	1.000/1.000	02-Jan
US Old Sheet (\$/lb)	AAFBL00	75.000-77.000	3.000/3.000	02-Jan
US Mill-Grade MLCCs (\$/lb)	AAFBP00	79.000-81.000	1.000/1.000	02-Jan
US MW Transaction-Mill MLCCs Spread (\$/lb)	ALUMC00	44.780	4.600	02-Jan
US Smelter-Grade MLCCs (\$/lb)	AAFBT00	68.000-70.000	0.000/0.000	02-Jan
US HG Auto Shreds (\$/lb)	AASSP00	86.000-88.000	0.000/0.000	02-Jan
US LG Auto Shreds (\$/lb)	AASS000	74.000-76.000	0.000/0.000	02-Jan
US Turnings (\$/lb)	AAFCA00	65.000-67.000	0.000/0.000	02-Jan
US clean aluminum wheels (\$/lb)	ACLEA00	102.500	-0.500	03-Jan
US UBCs (used beverage cans) (\$/lb)	AAFCD00	75.000-77.000	5.000/5.000	28-Dec
US MW Transaction-UBCs Spread (\$/lb)	ALUMA04	47.740	1.060	28-Dec
US Painted Siding (\$/lb)	AASNW02	78.000-80.000	2.000/2.000	28-Dec
US 6063 New Bare Extrusion Scrap discount (\$/lb)	AAFC000	16.000-21.000	-1.000/-1.000	28-Dec
US 6063 New Bare Extrusion Scrap (\$/lb)	AAFCF00	100.108-105.108	-3.674/-3.674	03-Jan
US 6022 New Bare Scrap discount (\$/lb)	AAXVM04	26.000-30.000	-2.000/0.000	28-Dec
US 6022 New Bare Scrap (\$/lb)	AAXVM00	91.108-95.108	-3.674/-3.674	03-Jan
US 5052 New Bare Scrap discount (\$/lb)	ABSD004	14.000-18.000	0.000/1.000	28-Dec
US 5052 New Bare Scrap (\$/lb)	ABSDA00	103.108-107.108	-3.674/-3.674	03-Jan
Brazilian UBCs (Real/kg)	SB01018	5.800-6.250	0.000/0.000	02-Jan
Brazilian Castings (Real/kg)	SB01020	6.500-7.200	0.000/0.000	02-Jan
Brazilian Profile Scrap (Real/kg)	SB01022	10.400-11.600	0.000/0.000	02-Jan
Old cast delivered NE Mexico (pesos/kg)	AAXXA04	35.500-36.500	0.000/0.000	28-Dec
– \$/lb conversion	AAXUA04	94.845-97.517	0.483/0.497	28-Dec
Old sheet delivered NE Mexico (pesos/kg)	AAXXB04	28.500-29.500	0.000/0.000	28-Dec
– \$/lb conversion	AAXUB04	76.143-78.815	0.388/0.402	28-Dec
UBCs delivered NE Mexico (pesos/kg)	AAXXC04	24.000-25.000	-0.500/-0.500	28-Dec
– \$/lb conversion	AAXUC04	64.120-66.792	-1.003/-0.989	28-Dec
6063 new bare delivered NE Mexico (pesos/kg)	AAXXD04	37.000-38.000	0.000/0.000	28-Dec
– \$/lb conversion	AAXUD04	98.852-101.524	0.503/0.517	28-Dec
MW US A380 (\$/lb)	MMAAD00	127.000-129.000	0.000/0.000	02-Jan
US MW Transaction-A380 Spread (\$/lb)	ALUMB00	-3.220	7.100	02-Jan
MW US 319 (\$/lb)	MMAAC00	142.000-144.000	-2.000/-2.000	02-Jan
MW US Sec 356 (\$/lb)	MMAAB00	146.000-148.000	0.000/0.000	02-Jan
MW US A356.2 Upcharge (\$/lb)	AUMIA00	18.500	0.000	03-Jan
MW US A356.2 (All-in) (\$/lb)	AUMIB00	139.608	-3.674	03-Jan
MW US F132 (\$/lb)	MMAAA00	149.000-151.000	0.000/0.000	02-Jan
MW US A413 (\$/lb)	MMWUS00	164.000-166.000	0.000/0.000	02-Jan
MW US B390 (\$/lb)	FAALB00	186.000-188.000	0.000/0.000	02-Jan
ADC12 FOB China (\$/mt)	AAVSJ00	2320.000-2420.000	0.000/0.000	02-Jan
ADC12 Ex-works China (\$/mt)	AAVS000	2727.140-2741.270	7.490/7.530	02-Jan
Alloy 226 delivered European Works (Eur/mt)	AALVT00	2260.000-2320.000	0.000/0.000	29-Dec
Alloy 231 DDP Germany (Eur/mt)	ABLVT04	2330.000-2390.000	0.000/0.000	29-Dec

Light Metals

	Symbol		Change	Date assessed
Weekly prices				
Magnesium				
MW Magnesium 93% Alloy DDP US (\$/lb)	MMAHR00	225.000-325.000	-25.000/-25.000	03-Jan
MW Magnesium 99.8% DDP US (\$/lb)	MMAHQ00	375.000-425.000	0.000/0.000	03-Jan
European Free Market (\$/mt)	MMAIZ00	3000.000-3200.000	0.000/15.000	03-Jan
Silicon				
553 Grade delivered US Midwest (\$/lb)	MMAJM00	140.000-145.000	2.000/1.000	03-Jan
553 Grade IW EU (Eur/mt)	AAIUT00	2600.000-2750.000	0.000/-50.000	03-Jan
Manganese				
Electrolytic 99.7% FOB China (\$/mt)	MMAIX00	1750.000-1800.000	0.000/0.000	29-Dec
Titanium				
US Turnings 9064 (\$/lb)	MMAJZ00	2.000-2.500	0.000/0.000	28-Dec
Europe Turnings 9064 (\$/lb)	MMAJY00	2.100-2.500	0.000/0.000	28-Dec

Battery Metals

	Symbol		Change	Date assessed
Daily prices				
Lithium Carbonate				
CIF North Asia (\$/mt)	BATLC04	15000	+0	03-Jan
DDP China (Yuan/mt)	BATCA04	98000	+0	03-Jan
CIF North Asia Import Parity (Yuan/mt)	BATCP04	120558	+393	03-Jan
CIF Europe (\$/mt)	LCCIF00	15800	+0	03-Jan
Lithium Hydroxide				
CIF North Asia (\$/mt)	BATLH04	15200	+0	03-Jan
DDP China (Yuan/mt)	BATHY04	88000	+0	03-Jan
CIF Europe (\$/mt)	LHCIF00	15900	+0	03-Jan
Cobalt Sulfate				
CIF North Asia (\$/mt)	BATC004	5900	+0	03-Jan
DDP China (Yuan/mt)	BATCS04	30800	+300	03-Jan
Cobalt Hydroxide				
CIF China (\$/lb)	BATCH04	6.70	+0.00	03-Jan
CIF China (\$/mt)	BATCT04	14770.95	+0.00	03-Jan
Cobalt Metal				
99.8% IW Rotterdam (\$/lb)	MMAIK00	14.550	-0.075	03-Jan
99.8% US Spot Cathode (\$/lb)	MMAE000	17.750	+0.000	03-Jan
Nickel Sulfate				
DDP China (Yuan/mt)	BATNS04	24500	+0	03-Jan
DDP China (\$/mt)	BATNU00	3451	-11	03-Jan
Europe Nickel Sulfate premium IW Rotterdam (\$/mt)	ANICA00	2300	+0	03-Jan
Europe Nickel Sulfate calculated price IW Rotterdam (\$/mt)	ANICB00	4072	-81	03-Jan
MHP CIF North Asia basis Nickel Sulfate (\$/mt)	BATME00	11655	-39	03-Jan
MHP CIF North Asia basis Nickel Sulfate (Yuan/mt)	BATMA00	82756	+0	03-Jan
MHP CIF North Asia payable basis Nickel Sulfate (%)	BATMB00	76	+0	03-Jan
MHP CIF North Asia basis LME Nickel (\$/mt)	BATMC00	11795	+0	03-Jan
MHP CIF North Asia payable basis LME Nickel (%)	BATMD00	72	+0	03-Jan
Manganese Sulfate				
DDP China (Yuan/mt)	BATMS00	4450	-50	03-Jan
DDP China (\$/mt)	BATMT00	627	-9	03-Jan
Black Mass				
LFP black mass DDP China percent Lithium (Yuan/mt)	LBMCA00	3150	+100	03-Jan
Ni-Co Black Mass DDP China Lithium payables (%)	NBMCA00	61	+2	03-Jan
Ni-Co Black Mass DDP China Cobalt payables (%)	NBMCB00	61	+2	03-Jan
Ni-Co Black Mass DDP China Nickel payables (%)	NBMCC00	61	+2	03-Jan
Ni-Co Black Mass DDP China calculated price (Yuan/mt)	NBMCD00	35035	+1235	03-Jan
Ni-Co Black Mass EXW Europe Lithium payables (%)	NBMEA00	0.00	—	03-Jan
Ni-Co Black Mass EXW Europe Cobalt payables (%)	NBMEB00	55.00	+0.00	03-Jan
Ni-Co Black Mass EXW Europe Nickel payables (%)	NBMEC00	55.00	+0.00	03-Jan
Ni-Co Black Mass EXW Europe calculated price (\$/MT)	NBMED00	3547	-50	03-Jan
Ni-Co Black Mass DDP US Lithium payables (%)	NBNEC00	10.00	+0.00	03-Jan
Ni-Co Black Mass DDP US Cobalt payables (%)	NBNEB00	55.00	+0.00	03-Jan
Ni-Co Black Mass DDP US Nickel payables (%)	NBNEA00	55.00	+0.00	03-Jan
Ni-Co Black Mass DDP US calculated price (\$/mt)	NBNED00	2204	-21	03-Jan
Lithium Spodumene				
FOB Australia (\$/mt)	BATSP03	950	-20	03-Jan
0.1% differential to Spodumene 6% FOB Australia (\$/mt)	BATSS00	15.80	-0.40	03-Jan

Copper

	Symbol		Change	Date assessed
Daily prices				
CIF China premium (\$/mt)	MMAMK00	62.00-62.00	-3.00/-3.00	03-Jan
Top Brand ER differential	ACTBA00	8.00	0.00	03-Jan
SX-EW differential	ACTBB00	-5.00	0.00	03-Jan
COMEX Spot (¢/lb)	CMAAD10	384.75	-2.15	03-Jan
Clean Copper Concentrates (\$/mt)	PCCCA00	2073.00	-19.00	03-Jan
Clean Copper Concentrate Treatment Charge (\$/mt)	PCCCB00	51.80	-1.20	03-Jan
Clean Copper Concentrate Refining Charge (¢/lb)	PCCCC00	5.18	-0.12	03-Jan
Clean Copper Concentrate Producer-Trader Treatment Charge Differential (\$/mt)	PCCCG00	-5.60	1.00	03-Jan
Clean Copper Concentrate Producer-Trader Refining Charge Differential (¢/lb)	PCCCH00	-0.56	0.10	03-Jan

Copper (continued)

	Symbol		Change	Date assessed
Weekly prices				
NY Dealer premium cathodes (¢/lb)	MMACP00	7.50-8.50	0.00/0.00	02-Jan
MW No.1 Burnt Scrap Disc (Scrap) (¢/lb)	MMA CJ10	18.00	0.00	02-Jan
MW No.1 Bare Bright Disc (Scrap) (¢/lb)	MMA CL10	10.00	0.00	02-Jan
MW No.2 Scrap Disc (¢/lb)	MMA CN10	30.00	1.00	02-Jan

Bulk Ferroalloys

	Symbol		Change	Date assessed
Weekly prices				
Manganese Ore				
36% Mn Ore CIF Tianjin (\$/dm tu)	AAXRX00	3.500	0.000	29-Dec
44% Mn Ore CIF Tianjin (\$/dm tu)	AAWER00	4.070	0.000	29-Dec
Iron Differential per 1% (\> 40% Mn Ore)	FAWER04	0.040	0.000	29-Dec
Silica Differential per 1% (\> 40% Mn Ore)	SAWER04	-0.040	0.000	29-Dec
Ferrochrome				
Charge Chrome 48-52% in-warehouse US (¢/lb)	MMAEX00	144.000-145.000	0.000/0.000	03-Jan
Charge Chrome 52% DDP Europe (¢/lb)	MMAIP00	113.000-117.000	0.000/0.000	03-Jan
Charge Chrome 48-52% CIF China (¢/lb)	CCXIC04	97.000-98.000	0.500/0.500	03-Jan
65% High Carbon in-warehouse US (¢/lb)	MMAFA00	180.000-190.000	0.000/0.000	03-Jan
65%-68% High Carbon DDP Europe (¢/lb)	MMAIQ00	180.000-190.000	0.000/0.000	03-Jan
60%-65% High Carbon Spot CIF Japan (¢/lb)	MMAEW00	101.000-103.000	1.000/3.000	03-Jan
58%-60% High Carbon CIF China (¢/lb)	SB01103	96.000-97.000	0.500/0.500	03-Jan
Low Carbon 0.10% in-warehouse US (¢/lb)	MMAIM00	305.000-310.000	0.000/0.000	03-Jan
Low-Carbon 0.10% C, 65-70% Cr DDP NWE (¢/lb)	MMAIL00	280.000	0.000	03-Jan
Low-Carbon 0.10% C, 60-64.99% Cr DDP NWE (¢/lb)	FLCDA00	235.000	0.000	03-Jan
Low Carbon 0.15% in-warehouse US (¢/lb)	MMANR00	250.000-280.000	0.000/0.000	03-Jan
Low Carbon 0.05% in-warehouse US (¢/lb)	MMAFC00	385.000-395.000	0.000/0.000	03-Jan
Ferromanganese				
High Carbon 76% in-warehouse US (\$/long ton)	MMAFH00	1150.000-1200.000	0.000/0.000	03-Jan
High Carbon 76% DDP NW Europe (Eur/mt)	AFERA04	950.000-1000.000	20.000/50.000	03-Jan
Medium Carbon 85% in-warehouse US (¢/lb)	MMAFK00	110.000-112.000	0.000/0.000	03-Jan
Silicomanganese				
65% Mn in-warehouse US (¢/lb)	MMAGR00	55.000-56.000	0.000/0.000	03-Jan
65% Mn CIF Japan (\$/mt)	MMAJG00	900.000-920.000	10.000/0.000	03-Jan
65:16 DDP NW Europe (Eur/mt)	AAITQ00	980.000-1025.000	30.000/45.000	03-Jan
Ferrosilicon				
75% Si in-warehouse US (¢/lb)	MMAFT00	120.000-125.000	10.000/5.000	03-Jan
75% Si CIF Japan (\$/mt)	MMAJP00	1270.000-1300.000	0.000/0.000	03-Jan
75% Si FOB China (\$/mt)	MMAKB00	1255.000-1285.000	0.000/0.000	03-Jan
75% Std DDP NW Europe (Eur/mt)	AAIUR00	1400.000-1450.000	0.000/0.000	03-Jan

Noble Alloys

	Symbol		Change	Date assessed
Daily prices				
Molybdenum				
Daily Dealer Oxide (\$/lb)	MMAYQ00	19.900-20.150	0.050/0.150	03-Jan
Ferromolybdenum				
MW European 65% Ferromolybdenum (\$/kg)	MMAFO00	48.500-49.000	0.500/0.000	03-Jan
Weekly prices				
Molybdenum				
Oxide Daily Dealer Wkl Avg. (\$/lb)	MMAGQ00	19.500-20.033	0.100/0.073	29-Dec
MW US FeMo (\$/lb)	MMAFQ00	22.500-23.000	0.300/0.000	28-Dec
60% Ferromolybdenum FOB China (\$/kg)	MMAFP00	49.800-50.500	0.100/0.100	28-Dec
60% Ferromolybdenum CIF Asia (\$/kg)	MMAFM00	46.800-48.200	0.800/-0.800	28-Dec
Ferrovanadium				
US Free Market V205 (\$/lb)	MMAGD00	9.000-10.000	0.000/0.000	28-Dec
US Ferrovanadium, 80% V (\$/lb)	MMAFY00	12.700-12.800	-0.050/-0.200	28-Dec
Europe Ferrovanadium, 80% V (\$/Kg)	MMAYY04	30.000-30.500	3.000/2.000	28-Dec
Titanium				
MW US Turnings 9064 (\$/lb)	MMAJZ00	2.000-2.500	0.000/0.000	28-Dec
Europe Turnings 9064 (\$/lb)	MMAJY00	2.100-2.500	0.000-0.000	28-Dec
Ferrotitanium				
MW US Ferrotitanium 70% Ti (\$/lb)	MMAJX00	3.000-4.000	0.000/0.000	28-Dec
Europe Ferrotitanium 70% Ti (\$/kg)	MMAJW00	4.000-5.000	0.000/0.000	28-Dec

Other Steel Inputs

	Symbol		Change	Date assessed
Weekly prices				
Nickel				
NY Dealer Cathode (\$/lb)	MMAAQ00	7.889-7.891	-0.120/-0.120	28-Dec
NY Dealer Melt (\$/lb)	MMAAS00	7.889-7.891	-0.120/-0.120	28-Dec
NY Dealer Plate (\$/lb)	MMAAU00	7.789-7.791	-0.120/-0.120	28-Dec
Cathode premium Spot US (¢/lb)	MMAZM04	45.000	0.000	28-Dec
Melt premium US (¢/lb)	MMAZI04	45.000	0.000	28-Dec
Plate premium Spot US (¢/lb)	MMAZK04	35.000	0.000	28-Dec
Plating Grade premium IW Rotterdam (\$/mt)	MMAYO04	350.000-500.000	0.000/0.000	29-Dec
Uncut Cathode IW Rotterdam (\$/mt)	MMAYP04	250.000-350.000	0.000/0.000	29-Dec
Briquette premium IW Rotterdam (\$/mt)	AALWJ00	250.000-325.000	0.000/0.000	29-Dec
Stainless Steel				
Scrap NA Free Market 18-8 (\$/lt)	AALDQ00	896.000-1008.000	0.000/-0.000	28-Dec
Manganese				
Electrolytic 99.7% FOB China (\$/mt)	MMAIX00	1750.000-1800.000	0.000/0.000	29-Dec

Other Base Metals

			Change	Date assessed
Daily prices				
Lead				
North American Market (¢/lb)	MMALF01	105.353	-0.362	03-Jan
Twice weekly prices				
Tin				
Tin MW Dealer (¢/lb)	MMAAW10	1197.000	5.000	02-Jan
Weekly prices				
Zinc				
MW SHG premium (¢/lb)	MMAYH00	21.000	0.000	28-Dec
MW Galv. premium (¢/lb)	MMAYI00	21.000	0.000	28-Dec
MW Alloy No. 3 premium (¢/lb)	MMAYJ00	47.000	0.000	28-Dec
Lead				
North American Premium (¢/lb)	MMXCD00	13.500	0.000	02-Jan
Used lead-acid batteries US Midwest (¢/lb)	MMLAA04	19.000-21.000	0.000/0.000	02-Jan
Used lead-acid batteries US Northeast (¢/lb)	MMLAB04	21.000-22.500	0.000/0.000	02-Jan

Minor Metals

	Symbol		Change	Date assessed
Daily prices				
Cobalt				
99.8% cathode DDP Europe (\$/lb)	MMAIK00	12.850-16.250	0.100/-0.250	03-Jan
99.8% cathode DDP US (\$/lb)	MMAEQ00	17.500-18.000	0.000/0.000	03-Jan

Precious Metals assessments

	Symbol		Change	Date assessed
Weekly prices				
NY Dealer Platinum (\$/oz)	MMAHX00	963.000-1015.000	23.000/45.000	28-Dec
NY Dealer Palladium (\$/oz)	MMABV00	1125.000-1250.000	35.000/5.000	28-Dec
NY Dealer Rhodium (\$/oz)	MMAID00	4200.000-4400.000	0.000/0.000	28-Dec
NY Dealer Iridium (\$/oz)	MMAIJ00	4600.000-4900.000	100.000/-100.000	28-Dec
NY Dealer Ruthenium (\$/oz)	MMAIH00	360.000-380.000	0.000/-10.000	28-Dec

Exchange-Traded Data and Third Party Data

	Symbol		Date assessed
COMEX Settlements			
Copper Spot (¢/lb)	CMAAD10	384.750	03-Jan
Copper 2 months out (¢/lb)	CMAAE10	386.150	03-Jan
Copper One Year out (¢/lb)	CMAAF10	393.150	03-Jan
Silver Spot (¢/oz)	CMAAJ10	2294.600	03-Jan
Silver 2 months out (¢/oz)	CMAAK10	2315.700	03-Jan
Silver 1 year out (¢/oz)	CMAAL10	2426.800	03-Jan
Gold Spot (\$/oz)	CMAAG10	2034.200	03-Jan
Gold 1 year (\$/oz)	CMAAH10	2131.000	03-Jan
Aluminum Spot (\$/mt)	CMALI01	2251.00	03-Jan
Aluminum M2 (\$/mt)	CMALI02	2278.00	03-Jan
Aluminum M3 (\$/mt)	CMALI03	2296.50	03-Jan
Aluminum M4 (\$/mt)	CMALI04	2313.25	03-Jan
NYMEX Settlements			
Platinum Active (\$/oz)	XMAAB10	987.100	03-Jan
Palladium Active (\$/oz)	XMAAA10	1071.100	03-Jan
COMEX Closing Stocks			
Daily Copper Stocks (lb)	CMAAO10	19224.000	03-Jan
Daily Silver Stocks (oz)	CMAAM10	279959145.000	03-Jan
Daily Gold Stocks (oz)	CMAAN10	20035709.000	03-Jan
Precious Metals			
London Gold AM Fix (\$/oz)	MMABM10	2054.050	03-Jan
London Gold PM Fix (\$/oz)	MMABL10	2042.100	03-Jan
Gold H&H (\$/oz)	MMABK10	2042.100	03-Jan
Gold Engelhard Unfabricated (\$/oz)	MMABN10	2040.000	03-Jan
London Silver Fix, US (¢/tr oz)	MMACF10	2328.000	03-Jan
London Silver Fix, Pence (p/tr oz)	MMACE10	1844.000	03-Jan
London Silver Price (\$/tr oz)	MMAXD00	23.280	03-Jan
Silver H&H (¢/oz)	MMACD10	2296.000	03-Jan
Silver Engelhard Unfabricated (¢/oz)	MMACH10	2310.000	03-Jan
Platinum J.Matthey Base NA (\$/oz)	LMABW10	979.000	03-Jan
Platinum J.Matthey Base Asia (\$/oz)	AMACH00	999.000	03-Jan
Platinum J.Matthey Base Europe (\$/oz)	LMABV10	995.000	03-Jan
Platinum Engelhard Unfabricated (\$/oz)	MMAHH10	975.000	03-Jan
Platinum Engelhard Asia (\$/oz)	AMACM00	988.000	03-Jan
Palladium J.Matthey Base NA (\$/oz)	LMABS10	1083.000	03-Jan
Palladium J.Matthey Base Asia (\$/oz)	AMACI00	1110.000	03-Jan
Palladium J.Matthey Base Europe (\$/oz)	LMABR10	1099.000	03-Jan
Palladium Engehlard Unfabricated (\$/oz)	MMABW10	1085.000	03-Jan
Palladium Engelhard Asia (\$/oz)	AMACN00	1102.000	03-Jan
Rhodium J.Matthey Base NA (\$/oz)	LMACA10	4425.000	03-Jan
Rhodium J.Matthey Base Asia (\$/oz)	AMACJ00	4425.000	03-Jan
Rhodium J.Matthey Base Europe (\$/oz)	LMABZ10	4425.000	03-Jan
Rhodium Engelhard (\$/oz)	MMAHY10	4500.000	03-Jan
Rhodium Engelhard Asia (\$/oz)	AMACO00	4500.000	03-Jan
Iridium J.Matthey Base North America (\$/oz)	MMABP10	5000.000	03-Jan
Iridium Engelhard Unfabricated (\$/oz)	MMABO10	5000.000	03-Jan
Iridium Engelhard Asia (\$/oz)	AMACP00	5000.000	03-Jan

Molybdenum Dealer Oxide Weekly Averages (\$/lb)

Week ended 29-Dec

	Symbol	Low	High	Midpoint
Weekly average		19.500	20.033	19.767

Daily Assessment Recap

Wed,27-Dec	MMAYQ00	19.250	19.900	19.575
Thu,28-Dec	MMAYQ00	19.600	19.850	19.725
Fri,29-Dec	MMAYQ00	19.650	20.350	20.000

Tonnage Volume (mt)

Total	MWTVT00	572
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By region

Europe	MWTV00	212
Japan	MWTVJ00	0
South Korea	MWTVK00	360
India	MWTVI00	0
United States	MWTVU00	0
China	MWTV00	0

Metals Week

A Weekly Supplement to Platts Metals Daily

Daily prices

	Symbol	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	Week avg
Alumina							
PAX FOB Australia (\$/mt)	MMWAU00	NA	340.000	347.000	347.000	350.000	346.000
PAX CIF China (\$/mt)	MMALZ00	NA	361.850	368.850	368.850	372.300	367.963
PAX China Ex-works (\$/mt)	MMXWC00	NA	426.970	433.790	436.780	444.750	435.573
DBF Aus-China Handysize (\$/mt)	MMACH00	NA	21.850	21.850	21.850	22.300	21.963
Aluminum							
MW US Transaction (\$/lb)	MMAAF10	NA	NA	122.832	123.739	124.737	123.769
MW US Transaction premium (\$/lb)	MMAKE00	NA	NA	18.800	18.800	18.800	18.800
US Aluminum all-in (basis CME) (\$/lb)	ALINA00	NA	NA	124.374	123.988	124.589	—
US Aluminum all-in (basis CME) (\$/mt)	ALINB00	NA	NA	2741.974	2733.464	2746.714	—
MW US Net-Cash premium (\$/lb)	MMACN00	NA	NA	17.900	17.900	17.900	17.900
US P1020 Import Duty (\$/lb)	MMOHU00	NA	NA	10.672	10.754	10.845	10.757
MW US Transaction premium (implied duty-unpaid) (\$/lb)	MMOFU00	NA	NA	8.128	8.046	7.955	8.043
MW US Transaction price (implied duty-unpaid) (\$/lb)	MMOGU00	NA	NA	112.160	112.985	113.892	113.012
MW US Market (\$/lb)	MMAAE00	NA	NA	125.500	125.000	125.500	125.333
CIF New Orleans duty-unpaid premium (\$/mt)	MMODU00	NA	NA	195.000	195.000	195.000	195.000
CIF New Orleans duty-unpaid premium (\$/lb)	MMNDU00	NA	NA	8.845	8.845	8.845	8.845
CIF NOLA-MW premium differential (\$/lb)	MMNOL00	NA	NA	9.955	9.955	9.955	9.955
MW US A380 Alloy (\$/lb)	MMAAD00	NA/NA	127.000/129.000	NA/NA	NA/NA	NA/NA	128.000
US MW Transaction-A380 Spread (\$/lb)	ALUMB00	NA	NA	NA	NA	NA	—
MW US 319 (\$/lb)	MMAAC00	NA/NA	144.000/146.000	NA/NA	NA/NA	NA/NA	145.000
MW US Sec 356 (\$/lb)	MMAAB00	NA/NA	146.000/148.000	NA/NA	NA/NA	NA/NA	147.000
MW US A356.2 Upcharge (\$/lb)	AUMIA00	NA	18.500	18.500	18.500	18.500	18.500
MW US A356.2 (All-in) (\$/lb)	AUMIB00	NA	NA	141.332	142.239	143.237	142.269
MW US F132 (\$/lb)	MMAAA00	NA/NA	149.000/151.000	NA/NA	NA/NA	NA/NA	150.000
MW US A413 (\$/lb)	MMWUS00	NA/NA	164.000/166.000	NA/NA	NA/NA	NA/NA	165.000
MW US B390 (\$/lb)	FAALB00	NA/NA	186.000/188.000	NA/NA	NA/NA	NA/NA	187.000
US Old Cast (\$/lb)	AAFBJ00	NA/NA	71.000/73.000	NA/NA	NA/NA	NA/NA	72.000
US Old Sheet (\$/lb)	AAFBL00	NA/NA	72.000/74.000	NA/NA	NA/NA	NA/NA	73.000
US Mill-grade MLCCs (\$/lb)	AAFBP00	NA/NA	78.000/80.000	NA/NA	NA/NA	NA/NA	79.000
US MW Transaction-Mill MLCCs Spread (\$/lb)	ALUMC00	NA	NA	NA	NA	NA	—
US Smelter-grade MLCCs (\$/lb)	AAFBT00	NA/NA	68.000/70.000	NA/NA	NA/NA	NA/NA	69.000
US HG Auto Shreds (\$/lb)	AASSP00	NA/NA	86.000/88.000	NA/NA	NA/NA	NA/NA	87.000
US LG Auto Shreds (\$/lb)	AASSO00	NA/NA	74.000/76.000	NA/NA	NA/NA	NA/NA	75.000
US Turnings (\$/lb)	AAFCA00	NA/NA	65.000/67.000	NA/NA	NA/NA	NA/NA	66.000
US clean aluminum wheels (\$/lb)	ACLEA00	NA	103.000	103.000	103.000	103.000	103.000
US 6063 New Bare Extrusion Scrap (\$/lb)	AAFCF00	NA/NA	NA/NA	100.832/105.832	102.739/107.739	103.737/108.737	104.936
US 6022 New Bare Scrap (\$/lb)	AAXVM00	NA/NA	NA/NA	92.832/94.832	93.739/97.739	94.737/98.737	95.436
US 5052 New Bare Scrap (\$/lb)	ABSDA00	NA/NA	NA/NA	105.832/108.832	105.739/109.739	106.737/110.737	107.936
Aluminum CFR China All-in Import Price (\$/mt)	MMBAA00	NA	2623.540	2625.800	2692.470	2715.100	2664.228
Japan del (current mo) (\$/mt)	MMALU00	NA/NA	NA/NA	NA/NA	2349.200/2370.490	2369.270/2390.480	2369.865
Japan del (2 mos. out) (\$/mt)	MMALX00	NA/NA	NA/NA	NA/NA	2369.210/2390.490	2389.280/2410.490	2389.870
CIF Japan premium (\$/mt)	MMANA00	NA/NA	75.000/75.000	77.000/77.000	77.000/77.000	77.000/77.000	76.500
CIF Japan premium Q3 (\$/mt)	AAFGA00	NA/NA	97.000/97.000	97.000/97.000	97.000/97.000	97.000/97.000	97.000
CIF Japan Fixed Price Equivalent (\$/mt)	MMJAL00	NA/NA	NA/NA	NA/NA	2370.50/2370.50	2390.50/2390.50	—
CIF Japan Quarter Fixed Price Equivalent (\$/mt)	MMJAQ00	NA/NA	NA/NA	NA/NA	2390.50/2390.50	2410.50/2410.50	—
CIF Major Asian Port (MAP) P1020 Premium	AAFGG00	NA	100.00	100.00	100.00	100.00	—
GW premium paid IW R'dam (\$/mt)	AALVE00	NA/NA	NA/NA	215.000/235.000	230.000/250.000	230.000/250.000	235.000
GW premium unpaid IW R'dam (\$/mt)	AALVI00	NA/NA	NA/NA	147.500/170.000	150.000/180.000	150.000/180.000	162.917
Billet 6060/6063 DDP Germany (\$/mt)	ABGEA04	NA	NA	370.000	370.000	370.000	370.000
Billet 6060/6063 DDP Italy (\$/mt)	ABITA04	NA	NA	360.000	360.000	360.000	360.000
Low Emissions Aluminum							
Low-carbon GW premium unpaid in-warehouse R'dam (\$/mt)	LALVI00	NA/NA	NA/NA	172.500/195.000	175.000/205.000	175.000/205.000	187.917
Zero-carbon GW premium unpaid in-warehouse R'dam (\$/mt)	ZALVI00	NA/NA	NA/NA	174.700/197.200	177.960/207.960	177.960/207.960	190.623
Low-carbon GW premium paid in-warehouse R'dam (\$/mt)	LALVE00	NA/NA	NA/NA	240.000/260.000	255.000/275.000	255.000/275.000	260.000
Zero-carbon GW premium paid in-warehouse R'dam (\$/mt)	ZALVE00	NA/NA	NA/NA	242.200/262.200	257.960/277.960	257.960/277.960	262.707

Daily prices (continued)

	Symbol	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	Week avg
Low-carbon 6060/6063 Billet DDP Germany (\$/mt)	LCABG00	NA	NA	370.000	370.000	370.000	370.000
Low-carbon 6060/6063 Billet DDP Italy (\$/mt)	LCABI00	NA	NA	360.000	360.000	360.000	360.000
Copper							
COMEX HG 1st Position (\$/lb)	CMAAD10	NA	389.550	394.350	391.300	388.050	390.813
COMEX HG 2nd Position (\$/lb)	CMAAE10	NA	389.400	395.300	392.450	389.050	391.550
COMEX HG 3rd Position (\$/lb)	CMAAF10	NA	389.550	401.250	399.000	395.950	396.438
COMEX inventories (st)	CMAA010	NA	18561	18561	18215	18810	— — —
US Transaction (\$/lb)	MMCUT00	NA	397.550	402.350	399.300	396.050	398.813
Zinc							
MW North America SHG (\$/lb)	MMABD10	NA	NA	139.184	139.841	140.771	139.932
MW North America GAL (\$/lb)	MMABI10	NA	NA	139.184	139.841	140.771	139.932
MW Alloyer No. 3 (\$/lb)	MMABH10	NA	NA	165.184	165.841	166.771	165.932
Lead							
North American Market (\$/lb)	MMALF01	NA	NA	106.305	106.668	105.625	106.199
Tin							
MW NY Dealer (\$/lb)	MMAAW10	NA	1192.000	NA	NA	NA	1192.000
Cobalt							
99.8% European (\$/lb)	MMAIK00	NA	NA	14.600	14.600	14.600	14.600
99.8% Cathode DDP US (\$/lb)	MMAEO00	NA	17.750	17.750	17.750	17.750	—
Molybdenum/Ferromolybdenum							
Daily Dealer Oxide (\$/lb)	MMAYQ00	NA/NA	NA/NA	19.250/19.900	19.600/19.850	19.650/20.350	19.767
MW Europe 65% Ferromolybdenum (\$/kg)	MMAF000	NA/NA	NA/NA	48.000/49.000	48.000/49.000	48.000/49.000	48.500
Gold							
COMEX 1st Position (\$/tr oz)	CMAAG10	NA	2058.200	2081.900	2073.900	2062.400	2069.100
COMEX 2nd Position (\$/tr oz)	CMAAH10	NA	2157.300	2180.800	2171.800	2160.100	2167.500
Comex Inventories (tr oz)	CMAAN10	NA	20041014	20041014	20041014	20041014	—
Engelhard Unfabricated (\$/tr oz)	MMABN10	NA	NA	2070.000	2077.000	2062.000	2069.667
Handy & Harman (\$/tr oz)	MMABK10	NA	NA	NA	NA	NA	NA
London Final (\$/tr oz)	MMABL10	NA	NA	2069.400	2078.400	NA	2073.900
London Initial (\$/tr oz)	MMABM10	NA	NA	2061.700	2077.800	2062.400	2067.300
Battery Metals							
Lithium							
Carbonate CIF North Asia (\$/mt)	BATLC04	NA	17000.000	15000.000	15000.000	15000.000	15500.00
Hydroxide CIF North Asia (\$/mt)	BATLH04	NA	17200.000	15200.000	15200.000	15200.000	15700.00
Carbonate CIF North Asia	BATCP04	NA	136574.000	120598.000	120551.000	120551.000	124506.25
Import Parity (Yuan/mt)							
Carbonate DDP China (Yuan/mt)	BATCA04	NA	97000.000	94000.000	94000.000	95000.000	95000.00
Hydroxide DDP China (Yuan/mt)	BATHY04	NA	91000.000	90000.000	89000.000	88000.000	89500.00
Carbonate CIF Europe (\$/mt)	LCCIF00	NA	NA	17000.000	16000.000	15800.000	—
Hydroxide CIF Europe (\$/mt)	LHCIF00	NA	NA	17100.000	16100.000	15900.000	—
Cobalt							
Sulfate CIF North Asia (\$/mt)	BATCO04	NA	5900.000	5900.000	5900.000	5900.000	5900.00
Hydroxide CIF China (\$/mt)	BATCT04	NA	14330.030	14330.030	14550.490	14770.950	14495.38
Hydroxide CIF China (\$/lb)	BATCH04	NA	6.500	6.500	6.600	6.700	6.58
Sulfate DDP China (Yuan/mt)	BATCS04	NA	28800.000	29000.000	30000.000	30500.000	29575.00
Nickel							
Sulfate DDP China (Yuan/mt)	BATNS04	NA	24000.000	24000.000	24200.000	24500.000	24175.00
Sulfate DDP China (\$/mt)	BATNU00	NA	3382	3380	3410	3459	3408
Europe Nickel Sulfate premium IW Rotterdam (\$/mt)	ANICA00	NA	NA	2300	2300	2300	—
Europe Nickel Sulfate calculated price IW Rotterdam (\$/mt)	ANICB00	NA	NA	4103	4115	4087	—
MHP CIF North Asia basis Nickel Sulfate (\$/mt)	BATME00	NA	11423	11418	11517	11684	—
MHP CIF North Asia basis Nickel Sulfate (Yuan/mt)	BATMA00	NA	81067	81067	81742	82756	—
MHP CIF North Asia payable basis Nickel Sulfate (%)	BATMB00	NA	76	76	76	76	—
MHP CIF North Asia basis LME Nickel (\$/mt)	BATMC00	NA	12222	12222	12222	12222	—
MHP CIF North Asia payable basis LME Nickel (%)	BATMD00	NA	72	72	72	72	—

Daily prices (continued)

	Symbol	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	Week avg
Manganese							
Sulfate DDP China (Yuan/mt)	BATMS00	NA	4500.000	4500.000	4500.000	4500.000	4500
Sulfate DDP China (\$/mt)	BATMT00	NA	634	634	634	635	634
Black Mass							
LFP Black Mass DDP China percent Lithium (Yuan/mt)	LBMCA00	NA	3100	3050	3050	3050	—
Ni-Co Black Mass DDP China Lithium payables (%)	NBMCA00	NA	57	58	58	59	—
Ni-Co Black Mass DDP China Cobalt payables (%)	NBMCB00	NA	57	58	58	59	—
Ni-Co Black Mass DDP China Nickel payables (%)	NBMCC00	NA	57	58	58	59	—
Ni-Co Black Mass DDP China calculated price (Yuan/mt)	NBMCD00	NA	31808	32056	32442	33427	—
Ni-Co Black Mass EXW Europe Lithium payables (%)	NBMEA00	NA	NA	0.00	0.00	0.00	—
Ni-Co Black Mass EXW Europe Cobalt payables (%)	NBMEB00	NA	NA	57.50	57.50	57.50	—
Ni-Co Black Mass EXW Europe Nickel payables (%)	NBMEC00	NA	NA	57.50	57.50	57.50	—
Ni-Co Black Mass EXW Europe	NBMED00	NA	NA	3731	3737	3722	—
Ni-Co Black Mass DDP US Lithium payables (%)	NBNEC00	NA	10.00	10.00	10.00	10.00	—
Ni-Co Black Mass DDP US Cobalt payables (%)	NBNEB00	NA	55.00	55.00	55.00	55.00	—
Ni-Co Black Mass DDP US Nickel payables (%)	NBNEA00	NA	55.00	55.00	55.00	55.00	—
Ni-Co Black Mass DDP US calculated price (\$/mt)	NBNED00	NA	NA	2212	2215	2208	—
PGMs							
Palladium							
Nymex Nearby (\$/tr oz)	XMAAA10	NA	1189.400	1157.700	1140.200	1109.300	1149.150
J.Matthey Base NA (\$/tr oz)	LMABS10	NA	1212.000	1187.000	1152.000	1123.000	1168.500
J.Matthey Base Asia (\$/tr oz)	AMACI00	NA	NA	1202.000	1175.000	1147.000	1174.667
J.Matthey Base Europe (\$/tr oz)	LMABR10	NA	NA	1204.000	1155.000	1135.000	1164.667
Engelhard Unfabricated (\$/tr oz)	MMABW10	NA	NA	1190.000	1150.000	1125.000	1155.000
3-month borrow rate (%)		NA	NA	NA	NA	NA	NA
Engelhard Industrial Asia (\$/tr oz)	AMACN00	NA	NA	1196.000	1168.000	1145.000	1169.667
Platinum							
Nymex Nearby (\$/tr oz)	XMAAB10	NA	982.400	1002.100	1023.200	1009.200	1004.225
J.Matthey Base N (\$/tr oz)	LMABW10	NA	984.000	982.000	1009.000	1008.000	995.750
J.Matthey Base Asia (\$/tr oz)	AMACH00	NA	NA	994.000	1010.000	1014.000	1006.000
J.Matthey Base Europe (\$/tr oz)	LMABV10	NA	NA	995.000	1010.000	1012.000	1005.667
Engelhard Unfabricated (\$/tr oz)	MMAHH10	NA	NA	980.000	1005.000	1020.000	1001.667
3-month borrow rate (%)		NA	NA	NA	NA	NA	NA
Engelhard Industrial Asia (\$/tr oz)	AMACM00	NA	NA	982.000	1002.000	1008.000	997.333
Iridium							
J.Matthey Base NA (\$/tr oz)	MMABP10	NA	5000.000	5000.000	5000.000	5000.000	5000.000
Engelhard Unfabricated (\$/tr oz)	MMABO10	NA	NA	5000.000	5000.000	5000.000	5000.000
Engelhard Industrial Asia (\$/tr oz)	AMACP00	NA	NA	5000.000	5000.000	5000.000	5000.000
Rhodium							
J.Matthey Base Asia (\$/tr oz)	AMACJ00	NA	NA	4425.000	4425.000	4425.000	4425.000
J.Matthey Base Europe (\$/tr oz)	LMABZ10	NA	NA	4425.000	4425.000	4425.000	4425.000
J.Matthey Base NA (\$/tr oz)	LMACA10	NA	4425.000	4425.000	4425.000	4425.000	4425.000
Engelhard Unfabricated (\$/tr oz)	MMAHY10	NA	NA	4500.000	4500.000	4500.000	4500.000
Engelhard Industrial Asia (\$/tr oz)	AMACO00	NA	NA	4500.000	4500.000	4500.000	4500.000
Ruthenium							
J.Matthey Base NA (\$/tr oz)	MMAIF10	NA	450.000	450.000	450.000	450.000	450.000
Engelhard Unfabricated (\$/tr oz)	MMAIE10	NA	NA	465.000	450.000	450.000	455.000
Engelhard Industrial Asia (\$/tr oz)	AMACQ00	NA	NA	465.000	465.000	450.000	460.000
Silver							
COMEX 1st Position (¢/tr oz)	CMAAJ10	NA	2414.400	2437.500	2413.400	2385.300	2412.650
COMEX 2nd Position (¢/tr oz)	CMAAK10	NA	2428.500	2452.600	2437.200	2408.600	2431.725
COMEX 3rd Position (¢/tr oz)	CMAAL10	NA	2533.400	2557.800	2549.200	2519.500	2539.975
Comex Inventories (tr oz)	CMAAM10	NA	275551576	275543411	276802248	277869765	
Handy & Harman (¢/tr oz)	MMACD10	NA	NA	NA	NA	NA	NA
Engelhard Unfabricated (¢/tr oz)	MMACH10	NA	NA	2415.000	2435.000	2370.000	2406.667
London Fix, Pence (p/tr oz)	MMACE10	NA	NA	1888.000	1896.000	1867.000	1883.667
London Fix, US (¢/tr oz)	MMACF10	NA	NA	2404.000	2425.500	2379.000	2402.833
London Silver Price (\$/tr oz)	MMAXD00	NA	NA	24.040	24.255	23.790	24.028

Daily prices (continued)

	Symbol	25-Dec	26-Dec	27-Dec	28-Dec	29-Dec	Week avg
Exchange rates							
Platts Exchange Rates							
USD.GBP London close	GBPUS00	NA	NA	1.279900	1.274100	1.274400	1.276000
USD.AUD Singapore close	AUDUS00	NA	0.680500	0.683700	0.684000	0.683600	0.683000
USD.JPY Singapore close	JPYUS00	NA	0.007000	0.007000	0.007100	0.007100	0.007000
USD.EUR London close	EURUS00	NA	NA	1.111600	1.107400	1.107900	1.109000

Weekly prices

	Symbol		Change/ date assessed
Major Metals			
Alumina			
PAX FOB Brazil-Aus differential (\$/mt)	MMWAD04	23.000	+1.000
Aluminum			
US Six-Months P1020 (¢/lb)	MMANJ04	21.000	+0.500
US 6063 Billet Upcharge (¢/lb)	MMAKC04	9.000 / 10.000	28-Dec / 28-Dec
US UBCs (¢/lb)	AAFCDD00	75.000 / 77.000	+5.000 / +5.000
US MW Transaction-UBCs Spread (¢/lb)	ALUMA04	47.740	+1.060
US Painted Siding (¢/lb)	AASNW02	78.000 / 80.000	+2.000 / +2.000
US 6063 New Bare Extrusion	AAFCE00	16.000 / 21.000	-1.000 / -1.000
Scrap discount (¢/lb)			
US 6022 New Bare Scrap discount (¢/lb)	AAXVM04	26.000 / 30.000	-2.000 / 28-Dec
US 5052 New Bare Scrap discount (¢/lb)	ABSDDB04	14.000 / 18.000	28-Dec / +1.000
Old cast delivered NE Mexico (pesos/kg)	AAXXA04	35.500 / 36.500	28-Dec / 28-Dec
– ¢/lb conversion	AAXUA04	94.845 / 97.517	+0.483 / +0.497
Old sheet delivered NE Mexico (pesos/kg)	AAXXB04	28.500 / 29.500	28-Dec / 28-Dec
– ¢/lb conversion	AAXUB04	76.143 / 78.815	+0.388 / +0.402
UBCs delivered NE Mexico (pesos/kg)	AAXXC04	24.000 / 25.000	-0.500 / -0.500
– ¢/lb conversion	AAXUC04	64.120 / 66.792	-1.003 / -0.989
6063 new bare del NE Mexico (pesos/kg)	AAXXD04	37.000 / 19.000	28-Dec / 27-Dec
– ¢/lb conversion	AAXUD04	98.852 / 101.524	+0.503 / +0.517
CIF Brazil premium duty-unpaid (\$/mt)	MMABP04	250.000	29-Dec
DDP SE Brazil premium, low ICMS (\$/mt)	MMABS04	265.000	29-Dec
DDP SE Brazil premium, high ICMS (\$/mt)	ABRAA04	200.000	29-Dec
Alloy 226 delivered	AALVT00	2260.000 / 2320.000	29-Dec / 29-Dec
European works (Eur/mt)			
Alloy 231 DDP Germany (Eur/mt)	ABLVT04	2330.000 / 2390.000	29-Dec / 29-Dec
ADC12 FOB China (\$/mt)	AAVSJ00	2320.000 / 2420.000	+40.000 / +20.000
ADC12 ex-works China (Yuan/mt)	AAVS100	19300.000 / 19400.000	+300.000 / +300.000
Caustic Soda			
FOB NE Asia (\$/mt)	AAVSE04	339.000 / 341.000	19-Dec / 19-Dec
CFR SE Asia (\$/mt)	AAVSF04	410.000 / 412.000	19-Dec / 19-Dec
Domestic East China Ex-works (\$/mt)	AAXDE00	769.000 / 771.000	19-Dec / 19-Dec
FOB NWE (\$/mt)	AANTF00	398.000 / 402.000	19-Dec / 19-Dec
CFR Med (\$/mt)	AC SMA04	530.00	19-Dec
FOB US Gulf (\$/mt)	AANTI00	355.000 / 365.000	19-Dec / 19-Dec
FOB US Plant (\$/mt)	AANTH00	490.000 / 500.000	19-Dec / 19-Dec
US Contract (\$/mt)	AANTJ00	745.000 / 755.000	19-Dec / 19-Dec
Copper			
MW No.1 Burnt Scrap Disc (¢/lb)	MMACJ10	18.000	26-Dec
MW No.1 Bare Bright Disc (¢/lb)	MMACL10	10.000	26-Dec
MW No.2 Scrap Disc (¢/lb)	MMACN10	29.000	26-Dec
NY Dealer Premium cathodes range (¢/lb)	MMACP00	7.500 / 8.500	26-Dec / 26-Dec
NY Dealer Prem cathodes mean (¢/lb)	MMACP00	8.000	26-Dec
Clean Copper Concentrate (\$/mt)	PCCCA04	2102.25	+24.85
Clean Copper Concentrate TC (\$/mt)	PCCCB04	54.45	-6.89
Clean Copper Concentrate RC (¢/lb)	PCCCC04	5.45	-0.69
Clean Copper Concentrate	PCCCH04	-0.54	+0.25
Producer-Trader TC Differential (\$/mt)			
Clean Copper Concentrate	PCCCG04	-5.35	+2.59
Producer-Trader RC Differential (¢/mt)			
Lead			
North American Premium (¢/lb)	MMXCD00	13.500	27-Dec
Used lead-acid batteries	MMLAA04	19.000 / 21.000	27-Dec / 27-Dec
US Midwest (¢/lb)			
Used lead-acid batteries	MMLAB04	21.000 / 22.500	27-Dec / 27-Dec
US Northeast (¢/lb)			
Nickel			
NY Dealer/Cathode (\$/lb)	MMAAQ00	7.889 / 7.891	-0.120 / -0.120
NY Dealer/Melting (\$/lb)	MMAAS00	7.889 / 7.891	-0.120 / -0.120
NY Dealer/Plating (\$/lb)	MMAAU00	7.789 / 7.791	-0.120 / -0.120
NY Dealer/cathode Premium (¢/lb)	MMAZM04	45.000	28-Dec
NY Dealer/Melting Premium (¢/lb)	MMAZI04	45.000	28-Dec
NY Dealer/plating Premium (¢/lb)	MMAZK04	35.000	28-Dec
Plating Grade Prem IW R'dam (\$/mt)	MMAYO04	350.000 / 500.000	29-Dec / 29-Dec
Uncut Cathode IW R'dam (\$/mt)	MMAYP04	250.000 / 350.000	29-Dec / 29-Dec
Briquette Premium IW R'dam (\$/mt)	AALWJ00	250.000 / 325.000	29-Dec / 29-Dec

	Symbol		Change/ date assessed
Zinc			
MW SHG Premium (¢/lb)	MMAYH00	21.000	28-Dec
MW Galv. Prem. (¢/lb)	MMAYI00	21.000	28-Dec
MW Alloy #3 Prem. (¢/lb)	MMAYJ00	47.000	28-Dec
Precious Metals			
Iridium			
MW NY Dealer (\$/tr oz)	MMAIJ00	4600.000 / 4900.000	+100.000 / -100.000
Palladium			
MW NY Dealer (\$/tr oz)	MMABV00	1125.000 / 1250.000	+35.000 / +5.000
Platinum			
MW NY Dealer (\$/tr oz)	MMAHX00	963.000 / 1015.000	+23.000 / +45.000
Rhodium			
MW NY Dealer (\$/tr oz)	MMAID00	4200.000 / 4400.000	28-Dec / 28-Dec
Ruthenium			
MW NY Dealer (\$/tr oz)	MMAIH00	360.000 / 380.000	28-Dec / -10.000
Light Metals			
Magnesium			
MW Magnesium 93% Alloy DDP US (¢/lb)	MMAHR00	250.000 / 350.000	27-Dec / 27-Dec
MW Magnesium 99.8% DDP US (¢/lb)	MMAHQ00	375.000 / 425.000	27-Dec / 27-Dec
Europe Free Market (\$/mt)	MMAIZ00	3000.000 / 3185.000	27-Dec / 27-Dec
Silicon			
553 Grade Delivered US Midwest (¢/lb)	MMAJM00	138.000 / 144.000	27-Dec / 27-Dec
553 Grade, In-warehouse EU (Eur/mt)	AAIUT00	2600.000 / 2800.000	+250.000 / +250.000
Titanium			
MW US 70% Ferrotitanium (\$/lb)	MMAJX00	3.000 / 4.000	28-Dec / 28-Dec
Eur. 70% Ferrotitanium (\$/kg)	MMAJW00	4.000 / 5.000	28-Dec / 28-Dec
MW US Turning 0.5% (\$/lb)	MMAJZ00	2.000 / 2.500	28-Dec / 28-Dec
Eur. Turning .5% (\$/lb)	MMAJY00	2.100 / 2.500	28-Dec / 28-Dec
Ferroalloys			
Ferrochrome			
Charge Chrome 48-52% in-warehouse US (¢/lb)	MMAEX00	144.000 / 145.000	-9.000 / -9.000
65% High Carbon in-warehouse US (¢/lb)	MMAFA00	180.000 / 190.000	27-Dec / 27-Dec
Low Carbon 0.05% in-warehouse US (¢/lb)	MMAFC00	385.000 / 395.000	27-Dec / 27-Dec
Low Carbon 0.10% in-warehouse US (¢/lb)	MMAIM00	305.000 / 310.000	27-Dec / 27-Dec
Low Carbon 0.15% in-warehouse US (¢/lb)	MMANR00	250.000 / 280.000	27-Dec / 27-Dec
Charge Chrome 52% DDP NWE (¢/lb)	MMAIP00	113.000 / 117.000	27-Dec / 27-Dec
65% 6-8% High-Carbon DDP NWE (¢/lb)	MMAIQ00	180.000 / 190.000	27-Dec / 27-Dec
Low-Carbon 0.10% C, 65-70% Cr DDP NWE (¢/lb)	MMAIL00	280.000	27-Dec
Low-Carbon 0.10% C, 60-64.99% Cr DDP NWE (¢/lb)	FLCDA00	235.000	27-Dec
Charge Chrome 48-52% CIF China (¢/lb)	CCXIC04	96.500 / 97.500	-0.500 / -0.500
58-60% High Carbon CIF China (¢/lb)	SB01103	95.500 / 96.500	-0.500 / -0.500
60-65% Spot CIF Japan (¢/lb)	MMAEW00	100.000 / 100.000	27-Dec / -2.000
Ferromanganese			
High Carbon 76% in-warehouse US (\$/gt)	MMAFH00	1150.000 / 1200.000	27-Dec / 27-Dec
High Carbon 76% DDP NWE (Eur/mt)	AFERA04	930.000 / 950.000	27-Dec / 27-Dec
Medium Carbon 85% Mn in-warehouse US (¢/lb)	MMAFK00	110.000 / 112.000	27-Dec / 27-Dec
Ferromolybdenum			
MW US FeMo (\$/lb)	MMAFQ00	22.500 / 23.000	+0.300 / 28-Dec
60% Ferromolybdenum FOB China (\$/kg)	MMAFP00	49.800 / 50.500	+0.100 / +0.100
60% Ferromolybdenum CIF Japan (\$/kg)	MMAFM00	46.800 / 48.200	+0.800 / -0.800
Ferrosilicon			
75% Si in-warehouse US (¢/lb)	MMAFT00	110.000 / 120.000	+3.000 / +5.000
75% Si CIF Japan (\$/mt)	MMAJP00	1270.000 / 1300.000	+10.000 / +10.000
75% Si FOB China (\$/mt)	MMAKB00	1255.000 / 1285.000	+10.000 / +10.000
75% Std DDP NWE (Eur/mt)	AAIUR00	1400.000 / 1450.000	27-Dec / 27-Dec

Weekly prices (continued)

	Symbol		Change/ date assessed
Ferrovanadium			
Free Market V205 (\$/lb)	MMAGD00	9.000 / 10.000	28-Dec / 28-Dec
US Ferrovanadium (\$/lb)	MMAFY00	12.700 / 12.800	-0.050 / -0.200
Europe Ferrovanadium (\$/kg)	MMAYY04	30.000 / 30.500	+3.000 / +2.000
Manganese			
Electrolytic 99.7% FOB China (\$/mt)	MMAIX00	1750.000 / 1800.000	29-Dec / 29-Dec
44% Manganese Ore CIF Tianjin (\$/dmtn)	AAWER00	4.070	29-Dec
36% Manganese Ore CIF Tianjin (\$/dmtn)	AAXRX00	3.500	29-Dec
Iron Differential per 1% (> 40% Mn Ore)	FAWER04	0.040	29-Dec
Silica Differential per 1% (> 40% Mn Ore)	SAWER04	-0.040	29-Dec

	Symbol		Change/ date assessed
Silicomanganese			
65% Mn in-warehouse US (\$/lb)	MMAGR00	55.000 / 56.000	27-Dec / 27-Dec
65% Mn CIF Japan (\$/mt)	MMAJG00	890.000 / 920.000	+20.000 / 27-Dec
65:16 DDP NWE (Eur/mt)	AAITQ00	950.000 / 980.000	27-Dec / 27-Dec
Stainless Scrap			
NA FREE MKT 18-8 (\$/gt)	AALDQ00	896.000 / 1008.000	28-Dec / 28-Dec

Monthly prices

	Symbol		Change/ date assessed
Calcined Petroleum Coke			
FOB US Gulf Coast (\$/mt)	MMXEV00	415.000 / 450.000	-40.000 / -15.000

Monthly averages December 2023

	Symbol		Last month	% Change	Last year	% Change	2023 High	2023 Low
Major Metals								
Alumina								
PAX FOB Australia (\$/mt)	MMWAU03	332.90	329.10	1.2	324.48	2.6	371.000	325.000
PAX FOB Brazil-Aus differential (\$/mt)	MMWAD03	22.25	21.00	6.0	20.40	9.1	32.000	14.000
PAX CIF China (\$/mt)	MMALZ03	354.733	352.538	0.6	348.457	1.8	395.900	343.150
PAX China Ex-works (\$/mt)	MMXWC03	423.148	418.755	1.0	421.179	0.5	444.750	381.650
DBF Aus-China Handysize (\$/mt)	MMACH03	21.833	23.443	-6.9	23.981	-9.0	30.900	18.150
Caustic Soda								
FOB NE Asia (\$/mt)	AAVSE03	340.000	348.500	-2.4	548.750	-38.0	541.000	314.000
CFR SE Asia (\$/mt)	AAVSF03	410.000	412.500	-0.6	645.000	-36.4	641.000	358.000
Aluminum								
MW US Transaction (¢/lb)	MMAAF02	117.390	118.744	-1.1	128.957	-9.0	148.256	113.211
MW US Transaction premium (¢/lb)	MMAKE03	18.766	18.852	-0.5	20.328	-7.7	30.050	18.750
US Aluminum all-in (basis CME) (¢/lb)	ALINA03	117.866	119.139	-1.1	NA	NA	132.259	117.656
US Aluminum all-in (basis CME) (\$/mt)	ALINB03	2598.492	2626.561	-1.1	NA	NA	2915.818	2593.863
MW US Net-Cash premium (¢/lb)	MMACN03	17.866	17.952	-0.5	19.548	-8.6	28.528	17.866
US P1020 Import Duty (¢/lb)	MMOHU03	10.177	10.300	-1.2	11.208	-9.2	12.241	10.177
MW US Transaction premium (implied duty-unpaid) (¢/lb)	MMOFU03	8.589	8.552	0.4	9.120	-5.8	17.177	8.552
MW US Transaction price (implied duty-unpaid) (¢/lb)	MMOGU03	107.213	108.444	-1.1	117.749	-8.9	127.995	107.213
MW US Market (¢/lb)	MMAAE03	118.250	119.011	-0.6	129.488	-8.7	0.00	0.00
CIF NOLA duty-unpaid prem (¢/lb)	MMNDU03	8.857	9.072	-2.4	10.433	-15.1	11.340	8.845
CIF NOLA-MW premium differential (¢/lb)	MMNOL03	9.909	9.780	1.3	9.895	0.1	19.391	9.364
CIF NOLA duty-unpaid prem (\$/mt)	MMODU03	195.263	200.000	-2.4	230.000	-15.1	250.000	195.000
GW paid IW Rdam mean (\$/mt)	AALVH03	214.29	209.55	2.3	253.25	-15.4	332.50	202.50
GW paid IW Rdam low (\$/mt)	AALVH03	201.32	199.09	1.1	238.50	-15.6	320.00	190.00
GW paid IW Rdam high (\$/mt)	AALVH03	227.26	220.00	3.3	268.00	-15.2	345.00	215.00
GW unpaid IW Rdam mean (\$/mt)	AALVK00	150.84	145.34	3.8	194.25	-22.3	250.00	140.00
GW unpaid IW Rdam low (\$/mt)	AALVK00	140.18	134.09	4.5	181.00	-22.6	240.00	130.00
GW unpaid IW Rdam high (\$/mt)	AALVK00	161.50	156.59	3.1	207.50	-22.2	260.00	150.00
Low-carbon 6060/6063 Billet DDP Germany (\$/mt)	LCABG03	370.00	377.16	-1.9	710.00	-47.9	675.00	365.00
Low-carbon 6060/6063 Billet DDP Italy (\$/mt)	LCABI03	364.53	376.82	-3.3	710.00	-48.7	675.00	360.00
Billet 6060/6063 DDP Germany (\$/mt)	ABGEA03	370.00	377.16	-1.9	710.00	-47.9	675.00	365.00
Billet 6060/6063 DDP Italy (\$/mt)	ABITA03	364.53	376.82	-3.3	710.00	-48.7	675.00	360.00
CIF Japan premium (\$/mt)	AAMDP00	75.300	76.476	-1.5	75.800	-0.7	130.000	85.000
CIF Japan Fixed Price Equivalent (\$/mt)	MMJAL03	2236.278	2282.238	-2.0	2472.000	-9.5	2443.458	2234.976
CIF Japan Quarter Fixed Price Equivalent (\$/mt)	MMJAQ03	2258.056	2302.762	-1.9	2495.200	-9.5	2455.792	2258.056
CIF Major Asian Port (MAP) P1020 Premium	AAFGG03	100.250	99.952	0.3	NA	NA	140.500	99.952
CIF Brazil premium (\$/mt)	MMABP03	250.000	250.000	0.0	280.000	-10.7	280.000	250.000
Brazil DDP SE Prem, low ICMS (\$/mt)	MMABS03	265.000	265.000	0.0	398.000	-33.4	395.000	250.000
Brazil DDP SE Prem, high ICMS (\$/mt)	ABRAA03	200.000	200.000	0.0	312.500	-36.0	300.000	200.000
Alloy 226 del Eur (Eur/mt)	AALVU00	2282.000	2201.250	3.7	2359.000	-3.3	2450.000	1950.000
Alloy 231 DDP Germany (Eur/mt)	ABLVT03	2352.000	2270.000	3.6	2557.000	-8.0	2550.000	2040.000
MW A-380 Alloy (¢/lb)	MMAAD02	127.786	127.500	0.2	145.063	-11.9	146.500	125.000
US MW Transaction-A380 Spread (¢/lb)	ALUMB03	-11.773	-8.638	36.3	-15.747	-25.2	-5.466	-16.725
MW 319 (¢/lb)	MMAAC02	143.643	143.938	-0.2	164.875	-12.9	168.000	140.000
MW 356 (¢/lb)	MMAAB02	146.286	146.875	-0.4	183.250	-20.2	184.000	143.000
MW US A356.2 Upcharge (¢/lb)	AUMIA03	17.675	NA	NA	NA	NA	19.000	15.000
MW A356.2 (All-in) (¢/lb)	AUMIB03	135.022	NA	NA	NA	NA	143.237	130.211
MW F132 (¢/lb)	MMAAA02	150.000	148.250	1.2	173.000	-13.3	176.000	145.000
MW US A413 (¢/lb)	MMWUS03	164.571	164.125	0.3	190.750	-13.7	191.000	163.000
MW US B390 (¢/lb)	FAALB03	186.857	188.313	-0.8	212.875	-12.2	211.056	186.857
US Old Cast (¢/lb)	AAFFN00	71.714	71.875	-0.2	63.500	12.9	76.000	64.000
US Old Sheet (¢/lb)	AAFB000	72.714	72.813	-0.1	64.125	13.4	76.000	65.000
US Mill-grade MLCCs (¢/lb)	AAFBR00	76.571	76.875	-0.4	81.750	-6.3	93.000	72.000
US MW Transaction-Mill MLCCs Spread (¢/lb)	ALUMC03	39.810	41.988	-5.2	47.753	-16.6	55.812	39.810
US Smelter-grade MLCCs (¢/lb)	AAFBV00	68.571	68.000	0.8	66.625	2.9	73.000	63.000
US HG Auto Shreds (¢/lb)	AASSP03	86.143	85.063	1.3	83.375	3.3	92.000	77.000
US LG Auto Shreds (¢/lb)	AASSO03	74.643	74.500	0.2	68.500	9.0	76.000	68.000
US Turnings (¢/lb)	AAFCC00	63.857	62.375	2.4	49.188	29.8	67.000	49.000
US Clean Aluminum Wheels (¢/lb)	ACLEA03	101.975	NA	NA	NA	NA	104.000	99.000
US 6063 Billet Upcharge (¢/lb)	AAMD000	9.625	10.200	-5.6	19.300	-50.1	20.000	9.000
US 6063 New Bare Extrusion	AAMCZ00	19.750	18.800	5.1	21.500	-8.1	28.000	15.000

Monthly averages (continued)

	Symbol		Last month	% Change	Last year	% Change	2023 High	2023 Low
Scrap discount (¢/lb)								
US 6063 New Bare Ext Scrap (¢/lb)	AAXVZ03	104.936	96.948	8.2	109.523	-4.2	130.256	89.211
US 6022 New Bare Scrap discount (¢/lb)	AAXVM03	28.875	29.900	-3.4	27.500	5.0	33.000	25.000
US 6022 New Bare Scrap (¢/lb)	AAXVX03	88.258	88.744	-0.5	101.457	-13.0	123.256	82.211
US 5052 New Bare Scrap discount (¢/lb)	ABSD803	16.000	16.200	-1.2	20.500	-22.0	28.000	13.000
US 5052 New Bare Scrap (¢/lb)	ABSDA03	101.548	102.176	-0.6	108.457	-6.4	128.256	92.776
US Painted Siding (¢/lb)	AASNW03	77.000	78.400	-1.8	80.100	-3.9	93.000	74.000
US UBCs (¢/lb)	AAMDC00	72.000	70.200	2.6	82.400	-12.6	96.000	66.000
US MW Transaction-UBCs Spread (¢/lb)	ALUMA03	45.765	48.264	-5.2	47.202	-3.0	51.598	45.765
Old cast, del NE Mexico (¢/lb)	AAXUA03	94.674	94.794	-0.1	84.851	11.6	96.096	87.205
Old sheet, del NE Mexico (¢/lb)	AAXUB03	76.202	73.463	3.7	79.500	-4.1	84.458	66.734
UBCs, del NE Mexico (¢/lb)	AAXUC03	64.990	61.995	4.8	79.033	-17.8	84.208	57.380
6063 scrap del NE Mexico (¢/lb)	AAXUD03	98.955	97.671	1.3	107.166	-7.7	113.482	92.307
Old cast, del NE Mexico (pesos/kg)	AAXXA03	35.875	36.400	-1.4	36.500	-1.7	37.500	34.600
Old sheet, del NE Mexico (pesos/kg)	AAXXB03	28.875	28.200	2.4	34.200	-15.6	34.875	26.250
UBCs, del NE Mexico (pesos/kg)	AAXXC03	24.625	23.800	3.5	34.000	-27.6	34.500	22.700
6063 scrap del NE Mexico (pesos/kg)	AAXXD03	37.500	37.500	0.0	46.100	-18.7	47.500	36.375

Low Emissions Aluminum

LC GW paid IW R'dam mean (\$/mt)	LALVE03	239.289	235.000	1.8	273.250	-12.4	349.861	235.000
LC GW paid IW R'dam low (\$/mt)	LALVE03	226.316	224.545	0.8	258.500	-12.5	340.000	224.545
LC GW paid IW R'dam high (\$/mt)	LALVE03	252.263	245.455	2.8	288.000	-12.4	361.750	245.455
LC GW unpaid IW R'dam mean (\$/mt)	LALVI03	175.842	170.795	3.0	214.250	-17.9	265.000	170.795
LC GW unpaid IW R'dam low (\$/mt)	LALVI03	165.184	159.545	3.5	201.000	-17.8	255.250	159.545
LC GW unpaid IW R'dam high (\$/mt)	LALVI03	186.500	182.045	2.4	227.500	-18.0	275.000	182.045
ZC GW paid IW R'dam mean (\$/mt)	ZALVE03	241.801	237.611	1.8	284.774	-15.1	357.797	237.611
ZC GW paid IW R'dam low (\$/mt)	ZALVE03	228.827	227.156	0.7	270.024	-15.3	347.936	227.156
ZC GW paid IW R'dam high (\$/mt)	ZALVE03	254.775	248.065	2.7	299.524	-14.9	367.658	248.065
ZC GW unpaid IW R'dam mean (\$/mt)	ZALVI03	178.354	173.406	2.9	225.774	-21.0	270.436	173.406
ZC GW unpaid IW R'dam low (\$/mt)	ZALVI03	167.696	162.156	3.4	212.524	-21.1	260.228	162.156
ZC GW unpaid IW R'dam high (\$/mt)	ZALVI03	189.012	184.656	2.4	239.024	-20.9	282.936	184.656

Copper

COMEX HG 1ST Pos (¢/lb)	CMAAD02	385.153	371.836	3.6	381.645	0.9	426.700	354.200
COMEX HG 2ND Pos (¢/lb)	CMAAE02	385.528	373.779	3.1	382.081	0.9	426.750	355.200
COMEX HG 3RD Pos (¢/lb)	CMAAF10	392.098	385.248	1.8	381.940	2.7	428.150	362.450
MW No.1 Burnt Scrap (¢/lb)	MMACJ02	17.750	16.750	6.0	14.000	26.8	18.000	14.000
MW No.1 Bare Bright (¢/lb)	MMACL02	10.000	9.000	11.1	8.000	25.0	10.000	8.000
MW No.2 Scrap (¢/lb)	MMACN02	29.000	29.750	-2.5	34.000	-14.7	38.000	27.000
NY Dlr Prem Cath (¢/lb)	MMACP03	7.500	7.375	1.7	10.250	-26.8	13.000	7.000
US Transaction (¢/lb)	MMCUT03	393.153	379.836	3.5	392.645	0.1	438.700	364.200
Clean Copper Concentrate (\$/mt)	PCCCA03	2058.350	1979.762	4.0	1985.524	3.7		
Clean Copper Concentrate TC (\$/mt)	PCCCB03	63.160	77.729	-18.7	86.352	-26.9		
Clean Copper Concentrate RC (¢/lb)	PCCCC03	6.316	7.773	-18.7	8.635	-26.9		

Lead

North American Market (¢/lb)	AADDN00	105.869	112.613	-6.0	119.856	-11.7	125.233	103.538
Used lead-acid batteries USMW (¢/lb)	MMLAB04	20.500	21.625	-5.2	18.500	10.8	23.000	18.000
Used lead-acid batteries USNE (¢/lb)	MMLAB03	22.500	24.000	-6.3	18.500	21.6	25.000	18.000

Tin

MW NY Dealer (¢/lb)	MMAAW02	1170.000	1153.625	1.4	1170.250	0.0	1518.000	1096.000
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Zinc

MW NA SHG (¢/lb)	MMABD02	135.423	140.520	-3.6	178.745	-24.2	196.166	129.706
MW NA GAL (¢/lb)	MMABI02	135.423	140.520	-3.6	178.745	-24.2	196.166	129.706
MW Alloyer NO. 3 (¢/lb)	MMABH02	160.686	164.338	-2.2	197.995	-18.8	216.166	152.557

Precious Metals

Gold

COMEX 1ST Pos (\$/tr oz)	CMAAG02	2031.675	1985.371	2.3	1797.114	13.1	2081.9	1808.8
COMEX 2ND Pos (\$/tr oz)	CMAAH02	2134.820	2086.067	2.3	1886.171	13.2	2181.2	1904.2
Engelhard Unfab (\$/tr oz)	MMABN02	2034.211	1985.150	2.5	1799.450	13.0	2077.0	1815.0
Handy& Harman (\$/tr oz)	MMABK02	2026.176	1984.115	2.1	1797.555	12.7	2068.7	1811.0
London Final (\$/tr oz)	MMABL02	2029.291	1985.273	2.2	1796.742	12.9	2078.4	1811.0
London Initial (\$/tr oz)	MMABM02	2033.311	1983.745	2.5	1794.238	13.3	2077.8	1809.1

Iridium

NY Dealer mean (\$/tr oz)	MMAIJ03	4775.000	4890.000	-2.4	4240.000	12.6	5200.0	3900.0
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Palladium

JM Base NA (\$/tr oz)	LMABS02	1093.800	1061.182	3.1	1839.381	-40.5	1814.0	963.0
Engelhard Unfab (\$/tr oz)	MMABW02	1084.947	1063.150	2.1	1839.650	-41.0	1820.0	965.0

Monthly averages (continued)

	Symbol		Last month	% Change	Last year	% Change	2023 High	2023 Low
NYMEX EX NEARBY (\$/tr oz)	XMAAA02	1088.535	1058.838	2.8	1822.500	-40.3	1806.7	940.3
NY Dealer mean (\$/tr oz)	MMABV03	1088.750	1062.700	2.5	1828.000	-40.4	1790.0	973.5
NY Dealer low (\$/tr oz)	MMABV03	1019.500	1018.600	0.1	1743.000	-41.5	1735.0	925.0
NY Dealer high (\$/tr oz)	MMABV03	1158.000	1106.800	4.6	1913.000	-39.5	1845.0	1022.0

Platinum

JM Base NA (\$/tr oz)	LMABW02	952.550	913.909	4.2	1023.905	-7.0	1138.0	858.0
Engelhard Unfab (\$/tr oz)	MMAHH02	949.947	911.100	4.3	1021.100	-7.0	1135.0	856.0
NYMEX EX NEARBY (\$/tr oz)	XMAAB02	952.285	912.157	4.4	1021.752	-6.8	1138.7	845.6
NY Dealer mean (\$/tr oz)	MMAHX03	949.500	908.900	4.5	1015.900	-6.5	1135.0	839.0
NY Dealer low (\$/tr oz)	MMAHX03	926.000	880.800	5.1	981.800	-5.7	1067.0	839.0
NY Dealer high (\$/tr oz)	MMAHX03	973.000	937.000	3.8	1050.000	-7.3	1135.0	900.0

Rhodium

NY Dealer mean (\$/tr oz)	MMAID03	4287.500	4225.000	1.5	12410.000	-65.5	12050.0	3500.0
NY Dealer low (\$/tr oz)	MMAID03	4175.000	4020.000	3.9	12120.000	-65.6	11900.0	3100.0
NY Dealer high (\$/tr oz)	MMAID03	4400.000	4430.000	-0.7	12700.000	-65.4	12400.0	3900.0
JM Base N. AMERI (\$/tr oz)	LMACA02	4412.500	4376.136	0.8	12580.952	-64.9	12400.0	4000.0
Engelhard Unfab (\$/tr oz)	MMAHY02	4500.000	4401.250	2.2	12582.500	-64.2	12400.0	4000.0

Ruthenium

NY Dealer mean (\$/tr oz)	MMAIH03	373.125	384.500	-3.0	423.500	-11.9	450.0	360.0
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Silver

COMEX 1ST Pos (¢/tr oz)	CMAAJ02	2391.370	2352.100	1.7	2336.152	2.4	2603.5	2000.5
COMEX 2ND Pos (¢/tr oz)	CMAAK02	2410.280	2370.338	1.7	2347.219	2.7	2622.7	2015.1
COMEX 3RD Pos (¢/tr oz)	CMAAL02	2520.030	2465.000	2.2	2441.071	3.2	2729.8	2106.6
Handy& Harman (¢/tr oz)	MMACD02	2387.788	2348.780	1.7	2332.585	2.4	2592.0	2006.7
Engelhard Unfab (¢/tr oz)	MMACH02	2407.211	2361.250	1.9	2344.250	2.7	2600.0	1320.0
London Fix, Pence (pence/tr oz)	MMACE02	1894.684	1883.909	0.6	1908.050	-0.7	2080.000	1675.000
London Fix, US (¢/tr oz)	MMACF02	2398.500	2338.977	2.5	2324.200	3.2	2602.5	2009.0
London Silver Price (\$/tr oz)	MMAXD02	23.985	23.390	2.5	23.242	3.2	26.0	20.1

Light Metals

Magnesium

MW Magnesium 93% Alloy DDP US (¢/lb)	MMAHR03	312.500	355.000	-12.0	465.625	-32.9	525.000	250.000
MW Magnesium 99.8% DDP US (¢/lb)	MMAHQ03	406.250	427.000	-4.9	600.000	-32.3	650.000	375.000

Silicon

553 Grade Del US Midwest (¢/lb)	MMAJM03	140.000	142.100	-1.5	256.250	-45.4	250.000	137.000
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Titanium

MW US 70% Ferro (\$/lb)	MMAJX03	3.500	3.500	0.0	3.820	-8.4	5.000	3.000
MW US Turning 0.5% (\$/lb)	MMAJZ03	2.250	2.250	0.0	3.050	-26.2	2.500	2.000

Battery Metals

Lithium Carbonate CIF North Asia (\$/mt)	BATLC03	17150	21024	-18.4	75905	-72.3	75000	15000
Lithium Hydroxide CIF North Asia (\$/mt)	BATLH03	17160	21162	-18.9	81862	-79.0	81300	15200
Cobalt Sulfate CIF North Asia (\$/mt)	BATCO03	6108	6560	-6.9	8567	-28.7	8400	5600
Cobalt Hydroxide CIF China (\$/mt)	BATCT03	14671.75	16944.08	-13.41	25342.63	-42.11	24250.82	14330.03
Cobalt Hydroxide CIF China (\$/lb)	BATCH03	6.66	7.69	-13.39	11.50	-42.09	11.00	6.50
Cobalt Sulfate DDP China (Yuan/mt)	BATCS03	30420	35024	-13.1	51024	-40.4	49300	28800
Lithium Carbonate DDP China (Yuan/mt)	BATCA03	98825	139190	-29.0	552548	-82.1	510000	94000
Lithium Hydroxide DDP China (Yuan/mt)	BATHY03	93750	133333	-29.7	556690	-83.2	520000	88000
Lithium Carbonate CIF North Asia Import Parity (Yuan/mt)	BATCP03	137930	170228	-19.0	599253	-77.0	589051	120302
Lithium Carbonate CIF Europe (\$/mt)	LCCIF03	17711	21377	-17.1	NA	NA	23100	15800
Lithium Hydroxide CIF Europe (\$/mt)	LHCIF03	17811	21807	-18.3	NA	NA	24900	15900
Cobalt Metal 99.8% IW Rotterdam (\$/lb)	MMAIK03	14.982	16.494	-9.167	20.673	-27.529	20.000	12.700
Nickel Sulfate DDP China (Yuan/mt)	BATNS03	25410	29286	-13	38081	-33	40000.000	24000.000
Nickel Sulfate DDP China (\$/mt)	BATNU03	3577	4094	-13	5453	-34	5805.000	3380.000
MHP CIF North Asia basis	BATME03	12263	14397	-15	NA	NA	18373	11416
Nickel Sulfate (\$/mt)								
MHP CIF North Asia basis	BATMA03	87122	102997	-15	NA	NA	126222	81067
Nickel Sulfate (Yuan/mt)								
MHP CIF North Asia payable basis	BATMB03	77	79	-3	NA	NA	81	76
Nickel Sulfate (%)								
MHP CIF North Asia basis	BATMC03	12519	14060	-11	NA	NA	17337	12222
LME Nickel (\$/mt)								
MHP CIF North Asia payable basis	BATMD03	74	77	-4	NA	NA	78	67
LME Nickel (%)								
Manganese Sulfate DDP China (Yuan/mt)	BATMS03	4540	5095	-11	5936	-24	6000.000	4450.000

Monthly averages (continued)

	Symbol		Last month	% Change	Last year	% Change	2023 High	2023 Low
Manganese Sulfate DDP China (\$/mt)	BATMT03	639	712	-10	850	-25	876.000	625.000
LFP Black Mass DDP China percent Lithium (Yuan/mt)	LBMCA03	3410	5526	-38	NA	NA	13500	3050
Ni-Co Black Mass DDP China Lithium payables (%)	NBMCA03	60	71	-15	NA	NA	85	49
Ni-Co Black Mass DDP China Cobalt payables (%)	NBMCB03	60	71	-15	NA	NA	85	50
Ni-Co Black Mass DDP China Nickel payables (%)	NBMCC03	60	71	-15	NA	NA	85	50
Ni-Co Black Mass DDP China calculated price (Yuan/mt)	NBMCD03	34853	51261	-32	NA	NA	93135	31688
Ni-Co Black Mass EXW Europe Lithium payables (%)	NBMEA03	0.00	0.00	NA	NA	NA	0.00	0.00
Ni-Co Black Mass EXW Europe Cobalt payables (%)	NBMEB03	61.11	70.00	-12.70	NA	NA	74.00	57.50
Ni-Co Black Mass EXW Europe Nickel payables (%)	NBMEC03	61.11	70.00	-12.70	NA	NA	75.00	57.50
Ni-Co Black Mass EXW Europe calculated price (\$/mt)	NBMED03	4026	4933	-18	NA	NA	6036	3722
Ni-Co Black Mass DDP US Lithium payables (%)	NBNEC00	10.00	1.50	566.67	NA	NA	10.00	0.00
Ni-Co Black Mass DDP US Cobalt payables (%)	NBNEB00	55.75	60.00	-7.08	NA	NA	65.00	55.00
Ni-Co Black Mass DDP US Nickel payables (%)	NBNEA00	55.75	60.00	-7.08	NA	NA	65.00	55.00
Ni-Co Black Mass DDP US calculated price (\$/mt)	NBNED00	2319	2315	0	NA	NA	2711	2153

Ferroalloys

Cobalt

99.8% US Spot cath mean (\$/lb)	MMAE003	18.398	18.835	-2.3	20.610	-10.7	20.000	13.150
99.8% European (\$/lb)	MMAIK03	14.982	16.494	-9.2	20.673	-27.5		

Ferrochrome

65% High Carbon IW US mean (¢/lb)	MMAFA03	187.500	195.000	-3.8	295.000	-36.4	295.000	
65% High Carbon IW US low (¢/lb)	MMAFA03	182.500	190.000	-3.9	285.000	-36.0	290.000	
65% High Carbon IW US high (¢/lb)	MMAFA03	192.500	200.000	-3.8	305.000	-36.9	305.000	
Low Carbon .10% IW US mean (¢/lb)	MMAIM03	307.500	337.500	-8.9	577.500	-46.8	577.500	
Low Carbon .10% IW US low (¢/lb)	MMAIM03	305.000	335.000	-8.9	575.000	-46.8	575.000	
Low Carbon .10% IW US high (¢/lb)	MMAIM03	310.000	340.000	-8.9	580.000	-46.6	580.000	
Low Carbon .05% IW US mean (¢/lb)	MMAFC03	390.000	436.000	-10.6	602.500	-35.3	602.500	
Low Carbon .05% IW US low (¢/lb)	MMAFC03	385.000	431.000	-10.7	600.000	-35.8	600.000	
Low Carbon .05% IW US high (¢/lb)	MMAFC03	395.000	441.000	-10.4	605.000	-34.7	605.000	
60-65% High Carbon CIF Japan (¢/lb)	MMAEW03	100.375	103.800	-3.3	100.500	-0.1	125.000	

Ferromanganese

Med Carbon 85% Mn IW US mean (¢/lb)	MMAFK03	111.000	111.000	0.0	159.000	-30.2	144.000	
Med Carbon 85% Mn IW US low (¢/lb)	MMAFK03	110.000	110.000	0.0	157.500	-30.2	142.000	
Med Carbon 85% Mn IW US high (¢/lb)	MMAFK03	112.000	112.000	0.0	160.500	-30.2	146.000	
High Carbon 76% IW US mean (\$/gt)	MMAFH03	1175.000	1175.000	0.0	1403.125	-16.3	1450.000	
High Carbon 76% IW US low (\$/gt)	MMAFH03	1150.000	1150.000	0.0	1350.000	-14.8	1400.000	
High Carbon 76% IW US high (\$/gt)	MMAFH03	1200.000	1200.000	0.0	1456.250	-17.6	1500.000	

Ferromolybdenum

US FeMo mean (\$/lb)	MMAFQ03	21.938	20.935	4.8	28.250	-22.3	52.000	18.500
Europe 65% mean (\$/lb)	MMAFO03	45.350	43.767	3.6	62.006	-26.9	106.500	40.500

Stainless scrap

NA FREE MKT 18-8 (\$/lt)	AALDS00	952.000	1061.760	-10.3	3024.670	-68.5	2923.200	896.000
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Ferrosilicon

75% Si IW US mean (¢/lb)	MMAFT03	109.250	100.600	8.6	206.250	-47.0	183.500	
75% Si IW US low (¢/lb)	MMAFT03	104.750	95.000	10.3	185.000	-43.4	182.000	
75% Si IW US high (¢/lb)	MMAFT03	113.750	106.200	7.1	227.500	-50.0	185.000	
75% CIF Japan (\$/mt)	MMAJP03	1277.500	1290.000	-0.97	1630.000	-21.63		
75% FOB China (\$/mt)	MMAKB03	1262.500	1275.000	-0.98	1610.000	-21.58		

Ferrovanadium

US Ferrovanadium (\$/lb)	MMAFY03	13.294	14.020	-5.2	19.285	-31.1	20.000	12.700
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Manganese

44% Mn Ore CIF Tianjin (\$/dmtu)	AAWER03	4.056	4.175	-2.9	4.962	-18.3	5.840	4.056
37% Mn Ore CIF Tianjin	AAXRX03	3.520	3.588	-1.9	4.240	-17.0	4.748	3.520

Monthly averages (continued)

	Symbol		Last month	% Change	Last year	% Change	2023 High	2023 Low
Iron Differential per 1% (\> 40% Mn Ore)	FAWER03	0.042	0.125	-66.4	NA	NA	0.138	0.033
Silica Differential per 1% (\> 40% Mn Ore)	SAWER03	-0.040	-0.025	60.0	NA	NA	0.048	-0.040

Molybdenum

Dealer Oxide Midpoint/mean (\$/lb)	MMAYQ03	18.534	17.410	6.5	26.134	-29.1	38.500	
Dealer Oxide low (\$/lb)	MMAYQ03	18.341	17.191	6.7	25.648	-28.5	38.000	
Dealer Oxide high (\$/lb)	MMAYQ03	18.726	17.630	6.2	26.620	-29.7	39.250	

Nickel

NY Dealer Cathode mean (\$/lb)	MMAAQ03	7.889	8.421	-6.3	14.551	-45.8	14.640	7.732
NY Dealer Cathode low (\$/lb)	MMAAQ03	7.884	8.418	-6.3	14.541	-45.8	14.639	7.726
NY Dealer Cathode high (\$/lb)	MMAAQ03	7.893	8.423	-6.3	14.561	-45.8	14.641	7.737
NY Dealer Melt mean (\$/lb)	MMAAS03	7.889	8.401	-6.1	14.551	-45.8	14.640	7.732
NY Dealer Melt low (\$/lb)	MMAAS03	7.884	8.398	-6.1	14.541	-45.8	14.639	7.726
NY Dealer Melt high (\$/lb)	MMAAS03	7.893	8.403	-6.1	14.561	-45.8	14.641	7.737

Silicomanganese

65% Mn IW US mean (\$/lb)	MMAGR03	55.500	56.250	-1.3	80.750	-31.3	77.500	
65% Mn IW US low (\$/lb)	MMAGR03	55.000	55.700	-1.3	79.000	-30.4	75.000	
65% Mn IW US high (\$/lb)	MMAGR03	56.000	56.800	-1.4	82.500	-32.1	80.000	
65% CIF Japan (\$/mt)	MMAJG03	887.500	863.000	2.84	1027.500	-13.63		

Platts Exchange Rates

USD.GBP London close	GBPUS03	1.265505	1.242841	1.8	1.218440	3.9	1.311700	1.184700
USD.AUD Singapore close	AUDUS03	0.668785	0.649743	2.9	0.675010	-0.9	0.715300	0.630600
USD.JPY Singapore close	JPYUS03	0.006935	0.006671	4.0	0.007410	-6.4	0.007800	0.006600
USD.EUR London close	EURUS03	1.090595	1.081491	0.8	1.058470	3.0	1.123800	1.045900