

RYAN'S NOTES

Ferrous and Nonferrous News and Prices

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FERROALLOYS

KazChrome and Samancor Chrome to join forces in South Africa

The ferrochrome market could be on the verge of a significant change. It now looks as if Samancor Chrome and KazChrome will join forces and become the dominate player in the ferrochrome market. South African charge chrome producers say they have been contacted by the government's competition commission which plans to send them a questionnaire about the proposed joint control.

Specifically, a subsidiary of KazChrome will have joint control of Samancor Chrome along with Kermas; reportedly the KazChrome subsidiary will take at least a 36.5% interest in the company. Samancor has over 1-million mt of charge chrome capacity, while KazChrome has over 800,000 mtpy of high-carbon ferrochrome capacity. Kermas is not expected to have any equity in KazChrome's own operations.

"The joint entity will have control over the ferrochrome market," one competitor said. "And, it will offer some much needed stability." However, consumers may not be as happy with the combined entity and the EC may launch an investigation.

For US buyers, KazChrome may have the option of delivering high carbon or charge chrome. Currently, BHP Billiton, the old owner of Samancor Chrome, still handles most of Samancor's sales.

While Samancor once was the market leader, the company relinquished the role in recent years. Xstrata, currently the largest ferrochrome producer, has taken over the title and now could find itself playing second fiddle. And, there were already rumors that the senior management of Xstrata is interested in disposing of its ferrochrome assets. While Xstrata may not be in any rush to sell its ferrochrome operations, prospective buyers could include Norilsk, CVRD, and Renova. "Once Xstrata was only ferrochrome," one analyst pointed out, "but now chrome is an under performing asset. Merafe will keep its 20% plus interest Xstrata Chrome but is unlikely to take a larger percentage."

US high-carbon prices continued to rise on truckload sales, with small buyers paying around 55¢, ex warehouse, for prompt material. With supplies tight, intermerchant sales picked up as merchants starting buying in anticipation of higher prices. However, the higher the price, the more uncommitted metal will be headed to the US.

European high-carbon prices didn't budge much last week, with buyers claiming to get offers between 47-49¢ in warehouse. Indian metal was even offered at around 50¢, DDP, but the material was low chrome and high silicon. US merchants said they had offers to buy Indian metal at 43¢ per lb, f.o.b.

With the rand falling to below R6 to the US dollar, the South African producers' cost of production is soaring. "There will be no further price reductions," one producer warned. "The bottom has been reached."

DLA offered 1,612.9 tons of ferrochrome at last week's BOA auction—1,000 tons of 0.10% C low carbon (71.24% Cr from France) at Belle Mead, NJ, and 612.9 tons of 67.16% Cr high carbon from Italy at Curtis Bay, MD. The Curtis Bay ferrochrome was left over from the previous week's tender and is "bottom of the pile" material with a high fines content. Potential buyers want a steep discount.

The agency is thought to be readying its next long-term negotiated tender for high- and low-carbon ferrochrome.

Tisco recently booked 20,000 mt of high-carbon ferrochrome with a 60% Cr content at RMB4,950 per mt, for cracked lumps. The suppliers for the 20,000 mt were Minmetals and a few Shanxi-based smelters including Jinneng Group. The equivalent price is 55¢ per lb or 47-48¢, c.i.f. Other consumers, however, have been buying material at around RMB5,000-5,300 for regular lumpy-grade metal, or about 56-59¢. In addition, cracked lumps carry a small premium.

Tisco's prices are long considered the "thermometer" for the market; therefore, sources believe that ferrochrome will come under further pressure in the coming weeks. Also Tisco no longer buys quarterly and has adopted monthly purchases. Tisco is looking for RMB4,700 (52.8¢) for regular lumpy grade, delivered. Suppliers, however, are offering RMB4,900 ex warehouse. "I think many smelters will concede that it is now a buyers market," a trade source said.

Chinese ferrochrome prices are not expected to see any major improvement in the foreseeable future despite increased stainless steel production. Domestic consumption has been lagging expectations. "Many Chinese still prefer pottery and stoneware rather than stainless," one analyst pointed out. "It will take time for people to switch."

The combination of lower-than-expected domestic demand coupled with higher production could mean sharply higher exports. The rapid growth in stainless capacity does not necessarily mean a growth in demand, but it can result in an oversupply, thus bringing about an adverse effect on ferrochrome, analysts say.

The Chinese ferrochrome producers are also facing higher ore prices. MMTC said that its "official" fourth-quarter 2005 price was \$176 per dmt, f.o.b. Indian port basis 50% Cr₂O₃. Indian sellers raised their prices to \$140 per mt in recent weeks, up from \$125, while Turkish material is becoming not only more expensive but also harder to find.

Oriel Resources' detailed feasibility study on its Voskhold chrome project is on track to be completed by the end of the first quarter. The project consists of a mine and plant to produce about 511,000 mtpy of chrome ore. A smelter might be included in the project at a later date.

China exported 53,705 mt of ferrochrome in the first 11 months 2005, down from the 60,307 mt in 2004. Japan was the major buyer with 37,681 mt (39,801 mt in 2004) and South Korea followed with 10,355 mt (13,515 mt). Chinese bulk ferroalloy prices continued to soften last week as the Chinese New Year celebrations began. The lower prices are expected to encourage more exports.

Highlanders to produce SiMn and HC FeMn; court decision on Nikopol's fate

The US bulk ferroalloy markets remained calm last week despite the shortage of nearby supplies. There was a definite backwardation in the low-carbon ferromanganese market, with spot material being offered in the mid70¢s, but second-quarter metal booked at just under 70¢, delivered. Producers definitely had the advantage and were taking most of the business. Ferrosilicon prices were also marginally up.

Chinese bulk ferroalloy prices continued to soften last week as the Chinese New Year celebrations approached. The lower prices are expected to encourage more exports. Most Chinese manganese ore buyers were still staying out of the market, though some good quality material was sold as low as \$2.30.

With the transfer of the Highlanders plant to Felman Productions formally scheduled for this week, insiders confirmed that the facility will be operating three furnaces and it will produce silicomanganese (65/17) and high-carbon ferromanganese. Felman Productions is in the process of obtaining permissions from environmental authorities and other regulatory agencies and Privat employees have been acting in an "advisory" capacity.

After the Jan. 24 date, the relationship between Privat and Felman is expected to become public. Boris Bannai, the old owner of Highlanders, confirmed to *Ryan's Notes* that he has a long-term contract to supply the Highlanders plant with manganese ore from his southern African mines. This was also confirmed by an insider, who said the plant plans to use ore from Namibia "as well as other ore offered at the market provided its cost serves the interests of economic expediency."

Bannai also said that he has made a joint bid with Privat for CSC's Warren, OH, bar mill.

Meanwhile, the Ukrainian Supreme Court on Jan. 20 upheld a lower court's decision that the sale of Nikopol to Interpipe in 2003 was illegal, paving the way for the return of the silicomanganese facility to the government. While the Supreme Court's decision cannot be appealed, Viktor Pinchuk, the majority owner of Interpipe, said through his lawyer that there would be an appeal to the European Court of Human Rights. The government can now reprivatize the plant, which was sold for only about \$81-million at the time.

However, while Yushchenko government wants to resell the plant, it could run into opposition from the Parliament. And, nothing is expected before the Parliamentary elections in March. Already, workers at the plant have protested any move to resell the facility.

Eramet Marietta has apparently given up on any attempts to reimpose dumping duties on US imports of silicomanganese from CVRD. In its final determination, the ITA reaffirmed its Sept. 9, 2005 preliminary annual administrative review's zero determination for the Dec. 1, 2003 through Nov. 30, 2004 period. In fact, Eramet Marietta, the petitioner in the original case, did not file case or rebuttal briefs. The final review was the second consecutive annual review without duties over 0.5%, and as a result, if the next administrative review results in a zero determination—which is the likely scenario—there will be no further reviews. The duty on Brazilian silicomanganese, other than CVRD's, remains at 17.6%.

Eramet Marietta can still theoretically ask for the duties to be retained on Brazilian imports under the sunset review,

which is currently being conducted, but it is not expected to make the request. The question now is whether Eramet will try to challenge dumping duties on Ukrainian and even Chinese silicomanganese (*Ryan's Notes*, Jan. 16, p1).

Transalloys is nearing full capacity, insiders say, with only one silicomanganese furnace left to reopen and that should be accomplished shortly. However, there are still rumors of minor production problems. Medium-carbon output is especially tight, with analysts saying the facility is sold out of that product through the first quarter. The shortage is adding to the existing tightness in the European medium-carbon market. Anglo American doesn't seem to be in any rush to sell its majority interest in Highveld, which includes Transalloys.

CVRD plans to sell its 49% interest in Nova Era Silicon to its two Japanese partners, JFE Steel and Mitsubishi, which each already own 25.5%. All the plant's current production of approximately 42,000 mtpy of ferrosilicon is exported to Japan. CVRD, according to insiders, has been trying to sell its interest for some time, but the Japanese have had the right of first refusal. In the past CVRD also thought of converting the plant to manganese alloys.

The joint venture was created in the mid 1980s when CVRD was a state-owned company. The Japanese wanted to diversify their ferrosilicon requirements from China. The plant, however, has never been very profitable, and CVRD had few options other than selling it to the partners.

China's exports of silicon carbide surged in November to 24,798 mt, up sharply from the 7,379 mt in October. The November exports included 5,505 mt to Japan and 16,757 mt to United States. China exported 183,075 mt through November, including 58,733 mt to Japan and 93,040 mt to the US.

Scrap puts pressure on pig iron

Low scrap prices continue to put downward pressure on pig iron. "With scrap at \$210 per mt, Asian mills are not interested in pig iron," said a trader. Similarly, in the US, prices for No. 1 factory bundles of \$220-230 per mt, delivered, are making scrap a much more attractive option for mills. A buyer at one mini-mill said that his company's pig iron intake was half what it was "not too long ago."

Most analysts expect scrap prices to remain depressed for the next few months, or at least until integrated mills become more interested in the bundles. Once the integrated mills enter the bundle market in force, prices for both scrap and pig iron should rise, they say. Another factor that could cause pig iron prices to recover is the supply situation. Even though China reportedly has a large surplus of pig iron, hefty export taxes are preventing the Chinese from flooding the market with material. US buyers admit they do not have any firm offers from the Chinese. Traders doubt that Chinese suppliers would stick to fixed price contracts if the market firmed.

Meanwhile, the commitment of Brazilian pig iron producers to shutting down furnaces has taken some traders by surprise. In the past, Brazilians have not carried out threats to shut furnaces because of low prices, but sources report that many producers are taking drastic measures, and the furnace shutdowns could last for a few months. It's possible that the profits from 2005 have enabled producers to follow through on shutdown announcements. In any case, Brazilian pig iron is tight, and traders remark that if a major consumer needed to buy, prices would spike. By some accounts, Brazilian pro-

ducers have increased their offer prices by \$5-10 per mt.

Russian pig iron producer, Tula, has attempted to raise its price from \$235 per mt to \$250, according to one source. Another source, however, said that Tula continued to offer pig iron at \$235 per mt, the same price it obtained in Taiwan earlier this month (*Ryan's Notes*, Jan. 16, p4).

Moly prices jump another notch

The moly price bounce last week may pale in comparison to price moves in 2004 and 2005, and there may not be quite as much frantic buying activity taking place, but the market appears to be going through more than a minor price correction. Moly oxide sales were reported in Europe at \$24 per lb, \$25 and \$26. In the US, oxide business was done at \$24. Just a week before, sellers noted, they had been thrilled to book oxide at marginally above \$21 and early last week, there was only a smattering of oxide business above \$23.

FeMo prices also increased, but not as sharply as oxide. At the start of the week, two German mills purchased FeMo, one at \$52.30 per kg via an electronic auction and another at \$51.80 via a traditional tender. Another European mill reportedly was bidding at \$52.70. Some traders were confident that business had been done in Europe at \$53, especially because prices for Chinese FeMo were at a premium to Western FeMo at \$54-55 per kg. In the US, half-truck sales of FeMo were reported at \$24 per lb and at \$25. At the same time, traders said they had offered at \$23 and had lost out, presumably to producers.

By mid-week, truckload FeMo sales were done in Europe at \$54 per kg and in the US at \$23.50-24.00. But later in the week, an unconfirmed consumer sale was reported at \$58 per kg, and a trader claimed to have sold duty-paid Chinese FeMo at \$60-61 per kg in Europe. Other traders reported selling Western FeMo at \$58-60 per kg. They said they had achieved \$61 for less than truckload quantities only. A US consumer reportedly bought a truck of FeMo for nearby delivery at \$26 per lb.

Chinese suppliers, meanwhile, reportedly increased their oxide price to \$25 and their FeMo prices to \$57-58 per kg. Chinese producers continued to look for concentrate prices at a 30-35% discount off oxide prices, sources said. Even so, some Chinese converters reportedly bit the bullet and bought concentrates at discounts of 10-15%. This probably explains why Chinese FeMo suppliers have raised their prices. To justify buying concentrate prices at today's prices, sources say, Chinese producers would have to obtain at least \$55 per kg for FeMo.

Chinese converters apparently were able to obtain low-priced concentrates produced domestically at the end of 2005, sources say. This allowed the converters to lower their FeMo prices. However, that low-priced domestic concentrate supply seems to have dried up, sending several Chinese converters into the market for Western concentrate.

China produced 59,396 mt of moly concentrate (45% Mo basis) in the first 11 months of 2005, a 1.12% increase compared to the same period of 2004. Analysts expect China's 2005 production to be roughly 64,800 mt. The year-long closure of the Huludao mines resulted in a 33.47% decrease in moly output from Liaoning Province to 3,528.6 mt through November. Output in Henan Province, where many mines also were shut because of environmental and safety concerns, fell by 13.94% to 16,860 mt. Making up for some of the mining shortfall, however, was output from southern

China's Hunan and Jiangxi provinces where tungsten reserves are abundant. The high moly prices encouraged tungsten miners to draw on moly reserves. Hunan's output rose 203% to 2,725 mt and Jiangxi's production rose 179% to 2,216 mt. Ore output in Shannxi Province where Jinduicheng is located rose 1.88% to 27,344 mt.

China's concentrate shortage is not the only reason behind the recent price rally. Moly prices dropped too much and too quickly, sellers believe. Consumers held off buying and some traders went short. Buying interest in the US and Europe has picked up considerably since the start of the year, sellers say. Some short covering has been taking place. At the same time, consumers are not believed to be holding more than a few weeks of stock. "They had to come into the market at some time," said a trader. "This is the scenario that we saw all of last year, but I think most of us had lost confidence that it would continue into this year."

There does not appear to be much excess material in the spot market. Major producers are well sold under contracts and other producers have limited amounts of spot material. High prices for Chinese moly, meanwhile, have discouraged traders from building positions. All of this could spell higher prices if demand remains strong, traders say.

Smooth sailing for Globe to take over Alloy

There wasn't much interest in silicon metal last week in any market. Chinese prices were basically unchanged, which surprised some analysts. "Usually during the dry winter months when power is expensive, Chinese smelters really cut back and prices go above \$1,000," one analyst pointed out. "It hasn't happened yet this winter."

After investigating, many US silicon consumers concluded that they really couldn't do much to stop Globe Metallurgical's purchase of Elkem's Alloy silicon smelter, now West Virginia Alloys. "Sure it gives Globe over 50% of total US production, but Globe's sales are less than half US consumption," one buyer explained. "We tried to convince the government that Globe would use the US trade laws to further restrict imports but we were told that unless we can accurately predict the future, it is only speculation to the US government. As a result, we will have to learn how to deal with it."

The 479-mt shipment of Macedonian silicon to the US in November is expected to be a one-time deal, insiders say. Silmak, the Macedonian producer, has shut one of its two 6-MW furnaces and plans to close the other by the end of March. The material is typically 98% Si, 0.7% Fe, and 0.05% Ca. The company, however, will concentrate its production of ferrosilicon and is expected to produce about 80,000 mt in 2006, none of which will come to the US market.

Elkem's Meraker silicon plant will close its #22 furnace on June 1, stopping all production at the facility (*Ryan's Notes*, Dec. 26, 2005, p4) as part of the company's restructuring of its silicon business. Elkem will continue to consolidate its silicon business. Elkem blamed tougher international competition, particularly from China. The closure date has been chosen in part on the basis of a detailed assessment of the time and process needed to transfer customer contracts to other Elkem plants. Elkem Meraker had about 100 employees at the end of 2005. Earlier decisions on shutting down two of Meraker's furnaces meant that the workforce was already downsized by about 45 employees.

GE Toshiba Silicones will build its fourth Chinese organosilicon manufacturing facility, this time at Nantong in Jiangsu province. The 20,000-mtpy facility will start production at the end of 2007 and will be the company's largest production base in China. With Chinese silicones demand growing about 30% annually, GE Toshiba, Dow Corning, and Rhodia/Bluestar are each trying to boost market share and meet growing demand; GE Toshiba has over a 10% share of the Chinese market.

GE Silicones will eliminate 95 positions at its Waterford, NY, plant as the company copes with increasing costs and declining business.

Chinese silicon metal exports rose to 48,874 mt in November 2005 from 39,434 mt in October, but down from the 50,800 mt for one year ago. China exported 14,329 mt to Japan (18,725 mt in 2004), 8,770 mt (192 mt) to the UK, 4,671 mt (2,946 mt) to South Korea and 5,997 mt (6,533 mt) to Hong Kong. From January to November 2005 China exported 483,232 mt of the metal compared to 483,643 mt in 2004. Major importers were Japan 173,175 mt (182,589 mt), South Korea, 40,005 mt (35,651 mt), the UK, 33,070 mt (24,720 mt), Canada, 23,466 mt (32,841 mt), India, 21,742 mt (24,721 mt) and Hong Kong, 67,801 mt (43,751 mt).

FERROALLOY Notes

The January 18/8 stainless steel scrap price rose to \$1,360 per lt from \$1,268 in December. The new price translates to (with old values in parentheses): \$5.60 (\$4.99) per lb for Ni; 45¢ (45¢) per lb for Cr and 11¢ (12¢) per lb for Fe.

The Chinese government has issued the first batch of 2006 tungsten export licenses. No one is certain why the government did not hand out the licenses in December as it has done in the past. Compared to the first batch in 2005, the newly-issued quotas were reduced by 1.85%. Specifically, APT quotas were cut by 6.45%, tungstenic acid by 6.21%, and tungsten oxide by 6.01%, but the tungsten powder license quota rose 6.01%. The first batch of licenses accounts for 75% of the total annual quota, which has been reduced to 15,800 mt in 2006. A total of 13 companies have qualified as state-run tungsten exporters and 19 others have qualified as export suppliers.

Stratcor made the first vanadium-halide catalyst shipments from its new production facility in Hot Springs, AR, earlier this month. The modernized plant has allowed Stratcor to consolidate all of its vanadium production in Arkansas (*Ryan's Notes*, Oct. 24, 2005, p4). Stratcor will close its Niagara Falls, NY, vanadium halide plant in February. The Hot Springs plant will produce primarily vanadium oxytrichloride, vanadium tetrachloride and vanadium-titanium mixes used as catalysts in the production of polyethylene, synthetic rubber and other chemicals. In addition to vanadium halides, the Hot Springs plant produces high-purity vanadium pentoxide, vanadium trioxide and ammonium metavanadate. These products are sold to chemical customers or used as the raw material in Stratcor's vanadium chemicals and its ferrovanadium and vanadium aluminum for the steel and titanium industries, respectively.

BHP Billiton sold three lots of cobalt for a total of 20 mt at \$14.05 per lb on Jan. 13. It was the company's first sale since Nov. 11, 2005 and the posted price on Jan. 13 was \$14.75. BHP Billiton lowered its price to \$14.20. All of the material is for delivery to North America, with 5 mt and 10 mt for February delivery and 5 mt for January delivery. Some traders predict that prices could further weaken to \$12-13 per lb given the amount of material that is being processed in China from ores imported from the Democratic Republic of Congo. Demand in China has been good, sources say, but it is not high enough to absorb all internal production. Exports, therefore, continue to be active, especially as China still has not removed the 16% rebate on value added taxes for cobalt exports. If supply does become tight, the Chinese government would remove the rebate, a source said. Japanese consumers, meanwhile, have completed their 2006 annual contracts and are not interested in buying additional spot material at this time.

US ferrovanadium prices sank to \$19-19.50 per lb, with several sales reported at \$19. Spot sales were not active, but contract demand has been strong, sellers say. European FeV prices slipped to \$35-37 per kg.

Voisey's Bay Nickel, a subsidiary of Inco, has decided that it will not be able to process nickel at Argentia, Newfoundland, as originally planned, because a waste pipeline would have to be placed in protected watersheds. The company started up a demonstration hydrometallurgical plant in October 2005 at Argentia. Voisey's Bay Nickel is considering Long Harbour, some 15 km north of Argentia, as a possible site for the hydrometallurgical plant. For years, Inco was blocked from proceeding with the development of the Voisey's Bay nickel deposit because it would not commit to processing the ore in Newfoundland. Finally, Inco agreed to build a pilot plant with the goal of having a full commercial plant in operation by 2011, provided it proved to be economically and technically viable.

Minara Resources' production of nickel and cobalt was at record levels in the December quarter at 7,790 mt of nickel and 501 mt of cobalt compared to 7,094 mt of nickel and 476 mt of cobalt in the previous quarter. In calendar 2005 nickel production totaled 28,240 mt. Production at Minara's Murrin Murrin mine in Western Australia still is far short of its original planned capacity levels of 40,000 mtpy of nickel and 3,500 mtpy of cobalt. Murrin Murrin is owned 60% by Minara and 40% by Glencore. Production met or exceeded budget in four of the last five months, Minara said. The company acknowledged that the focus will be on maintenance in the next year. It also will begin building a 200,000-mtpy demonstration heap leach plant this month, with nickel and cobalt production from stockpiled ore expected by the end of the year.

Moly production at Kennecott's Bingham Canyon mine in Utah rose to 15,600 mt in 2005 compared to 6,800 mt in 2004. Expanded efforts to recover moly from copper contributed to the production jump, despite reduced copper ore output last year.

LEAD & ZINC

Tough times for SLI makers

North American battery manufacturers say business has been in a slump as a result of the warm winter. "We have enough units on hand to last through this season," one maker said, "so I don't see us ordering any unusual quantities of lead. Also, with the lead prices so high, we are buying only enough to cover our immediate requirements." Another battery maker pointed out that original equipment sales have been falling as US auto makers reduce output and capacity.

The only saving grace, according to the battery makers, is industrial which has been soaring. C&D Technologies announced last week a general price increase of 8% on all 10- and 20-year battery products, including hardware, components and parts, as well as all motive battery products, effective with orders placed starting Mar. 1, 2006.

"Since our November 28, 2005 general pricing announcement, the market price for lead, which is a dominant raw material used for the manufacture of industrial battery products, has risen roughly 30%, from approximately 45¢ per lb to 60¢," said Dr. Jeffrey Graves, President and Chief Executive Officer. "This base price escalation has been compounded by higher 'lead premiums' that are typically added by suppliers to the base LME price as a function of market conditions. This rapid escalation in total lead costs has occurred simultaneously with copper and polymer resin price increases of over 8% over this same period and a similarly dramatic rise in the price of natural gas used in battery manufacturing operations. While we are continuing to focus aggressively on productivity improvements and cost reduction efforts, increases of this magnitude that occur in essential commodity costs must be addressed in part through increased pricing to our customers. We continue to work with our suppliers to drive economies in the supply chain and are hopeful that this difficult cost environment is of limited duration."

In the meantime, other SLI manufacturers still are pointing their fingers at Exide for keeping prices down. "Exide has to be losing money," one competitor said. "First, its raw material suppliers are demanding cash in advance while its wholesale buyers want 90-day credit. It is stuck in a liquidity trap. In addition, the buyers are demanding steep discounts since they say Exide may not be able to back up its warranty claims if it goes bankrupt again."

Exide's stock fell almost 15% last week to below \$3 per share.

Still, many analysts feel that Exide has bought time and unless it takes an unexpected financial hit, the company will be "safe" for the next few quarters. "The October through March quarters are the ones that draws down cash," one analyst pointed out. "Apparently Exide will survive them, but that doesn't mean the company will next year."

RBC Dain Rauscher re-established its coverage of Exide's 10 1/2% senior notes with a buy recommendation. According to the high-yield sales representative, Exide will generate over \$100-million in cash through working capital through the second half of fiscal 2006. "Basically, the sales pitch is 'Hey Exide didn't default last quarter, its seasonal low point, and now it is going to generate cash,'" one analyst pointed out.

JCI's power solutions subsidiary's sales were up 35% to \$976-million in the quarter ended Dec. 31, 2005 from \$720-million in the same year-ago period due to increased unit shipments in the Americas and Europe as well as the impact of the Delphi battery acquisition. Operating income increased 17% to \$109-million from \$93-million, due to the higher volume and operational efficiencies. These increases were partially offset by higher lead costs, most of which are expected to be recovered in customer pricing.

China's Zhuzhou smelter has restarted its 100,000-mtpy lead smelter, while an ongoing investigation into pollution of Hunan's Xiang River has yet to be completed. The environmental protection bureau in Hunan had asked all plants that pour waste water containing cadmium into the Xiang river to stop production, after a silt disturbance earlier this month raised cadmium content above minimum levels. Zhuzhou plans to operate at full capacity, and targets production of 95,000-100,000 mt of lead this year.

MINOR METAL Notes

Indium prices firmed to \$925-975 per kg, and some traders said they were pushing for \$1,000. Plants in Xiangtan and Zhuzhou remained closed after the Hunan Provincial government ordered them to shut (*Ryan's Notes*, Jan. 16, p5). There is no timetable for restarting the plants with environmental problems, but one source says the likelihood that they could resume operations after the Chinese New Year holidays is small. **Antimony** prices edged up to the mid-\$1.80s per lb. **Selenium** prices softened to \$39-42 per lb.

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RYAN'S NOTES

Twice-Weekly PRICES

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January 23, 2006

		Tuesday Jan. 17			Friday Jan. 20			Week Avg	4-Week Avg	6-Week Avg
Chrome Metal										
RN Aluminothermic Imported	\$/lb	2.50	-	2.60	2.50	-	2.60	2.500	2.500	2.500
Chrome Ore										
RN Turkish Ore 38-40%	\$/mt	85.00			120.00			102.500	93.125	95.417
RN Turkish Ore 44%	\$/mt	100.00			110.00			105.000	106.250	110.833
Cobalt										
RN 99.8% NA Transaction	\$/lb	13.25	-	14.00	13.25	-	14.00	13.250	14.156	14.521
RN 99.65% NA Transaction	\$/lb	12.50	-	13.00	12.50	-	13.00	12.500	13.250	13.500
RN 99.3% NA Transaction	\$/lb	11.75	-	12.50	11.75	-	12.50	11.750	11.906	12.021
Ferrochrome										
RN 50-52% HC Imp. NA Transaction	¢/lb	57.00	-	59.00	57.00	-	59.00	57.000	57.000	58.000
RN 50-52% European Transaction	¢/lb	55.00	-	57.00	55.00	-	57.00	55.000	55.000	55.000
RN 60-65% HC Imp. NA Transaction	¢/lb	52.50	-	54.00	54.00	-	56.00	53.250	50.594	50.104
RN 60-65% European Transaction	¢/lb	49.00	-	51.00	49.00	-	51.00	49.000	49.000	49.000
RN 0.05% LC Imp. NA Transaction	¢/lb	109.00	-	111.00	109.00	-	111.00	109.000	108.688	108.625
RN 0.1% LC Imp. NA Transaction	¢/lb	88.00	-	90.00	88.00	-	90.00	88.000	87.625	88.375
RN 0.15% LC Imp. NA Transaction	¢/lb	87.00	-	90.00	87.00	-	90.00	87.000	87.000	87.750
RN FeCr/Si NA Transaction	¢/lb	40.30			41.10			40.700	43.213	47.096
Ferromanganese										
RN 78% Imported NA Transaction	\$/lt	690.00	-	715.00	690.00	-	715.00	690.000	688.750	689.583
RN Medium Carbon NA Transaction	¢/lb	52.50	-	55.00	52.50	-	55.00	52.500	51.875	50.750
RN Low-Carbon NA Transaction	¢/lb	70.00	-	73.50	69.50	-	73.50	69.750	69.625	N.A
Chinese HC FeMn 75% Mn	\$/mt	610.00	-	625.00	605.00	-	620.00	607.500	N.A	N.A
Chinese MC FeMn (78% Mn - 2% C)	\$/mt	890.00	-	915.00	880.00	-	910.00	885.000	N.A	N.A
Ferromolybdenum										
RN Chinese FeMo	\$/kg	54.00		55.00	57.00		58.00	55.500	47.000	49.000
RN US FeMo	\$/lb	23.50	-	24.50	25.00	-	26.00	24.250	23.656	25.313
RN Western FeMo	\$/kg	51.00	-	52.50	58.00	-	60.00	54.500	51.875	54.500
Ferrosilicon										
RN 50% NA Transaction	¢/lb	52.00	-	54.00	52.00	-	54.00	52.000	51.125	50.750
RN 75% NA Transaction	¢/lb	46.50	-	48.50	47.00	-	48.50	46.750	45.469	45.354
RN SiC	\$/st	540.00	-	560.00	520.00	-	540.00	530.000	537.500	540.833
Chinese FeSi	\$/mt	615.00	-	625.00	610.00	-	620.00	612.500	N.A	N.A
Ferrotitanium										
RN 68-72% Ti NA	\$/lb	8.75	-	9.00	8.75	-	9.00	8.750	8.875	9.000
Ferrotungsten										
RN NA Transaction	\$/lb	16.50	-	17.50	16.50	-	17.50	16.500	16.500	16.500
Ferrovanadium										
RN European Transaction	\$/kg	36.00	-	38.00	35.00	-	37.00	35.500	37.188	39.042
RN NA Transaction	\$/lb	19.00	-	20.00	19.00	-	19.50	19.000	19.813	20.042
Manganese										
RN NA Transaction, Electrolytic Metal	¢/lb	68.00	-	70.00	68.00	-	70.00	68.000	68.500	69.667
RN 44% Mn Ore	\$/MnU	1.85	-	1.95	1.85	-	1.95	1.850	1.850	1.850
RN 48% Mn Ore	\$/MnU	2.35	-	2.50	2.30	-	2.40	2.325	2.344	2.333
Molybdenum										
RN Worldwide Oxide	\$/lb	22.00	-	23.00	24.00	-	25.50	23.000	22.063	23.542
RN Worldwide Oxide Mean	\$/lb	22.500			24.750			23.625	22.594	24.063
Nickel										
Melting Premium	¢/lb	32.00	-	35.00	32.00	-	35.00	32.000	32.750	34.500
Plating Premium	¢/lb	40.00	-	42.00	40.00	-	42.00	40.000	40.000	40.000
Pig Iron										
RN Steel-Making Grade	\$/lt	240.00	-	245.00	240.00	-	245.00	240.000	240.000	243.333
Silicomanganese										
RN NA Transaction	¢/lb	35.50	-	38.00	35.50	-	38.00	35.500	34.813	34.917
Chinese SiMn 65/17	\$/mt	590.00	-	610.00	580.00	-	605.00	585.000	N.A	N.A
Chinese SiMn 60/14	\$/mt	540.00	-	565.00	540.00	-	560.00	540.000	N.A	N.A
Silicon Metal										
RN 0.5% Fe NA Transaction	¢/lb	70.50	-	73.00	70.50	-	73.00	70.500	70.375	70.333
RN 0.5% Fe NA Transaction Mean	¢/lb	71.750			71.750			71.750	71.625	71.583
RN 0.5% Fe European Transaction	€/mt	1215.00	-	1230.00	1215.00	-	1230.00	1215.000	1224.375	1226.250
RN Chinese 5-5-3	\$/mt	965.00	-	975.00	965.00	-	975.00	965.000	954.375	952.083
RN Chinese 4-4-1	\$/mt	990.00	-	1010.00	995.00	-	1010.00	992.500	985.625	986.250
Tantalum										
RN Ore	\$/lb	30.00	-	35.00	30.00	-	35.00	30.000	30.000	30.000
Tungsten										
RN Ore	\$/stu	165.00	-	185.00	165.00	-	185.00	165.000	168.125	175.417
RN APT NA	\$/stu	245.00	-	250.00	245.00	-	250.00	245.000	245.000	245.000
Vanadium										
RN V ₂ O ₅ Transaction	\$/lb	8.25	-	8.80	8.25	-	8.80	8.250	8.469	8.563

RYAN'S NOTES

Daily Prices

Volume 12, No. 4

January 23, 2006

			Jan. 16		Jan. 17		Jan. 18
Base – Aluminum							
COMEX Cash	¢/lb	Holiday			109.10		110.50
COMEX 2nd Position	¢/lb	Holiday			109.70		111.10
COMEX 3rd Position	¢/lb	Holiday			109.60		111.00
LME HG Cash	\$/mt	2391.00 - 2392.00			2381.00 - 2381.50		2367.50 - 2368.00
LME HG Settlement	\$/mt	2392.00			2381.50		2368.00
LME HG 3-Month	\$/mt	2409.50 - 2410.00			2397.50 - 2398.00		2384.50 - 2385.00
LME HG 15-Month	\$/mt	2263.00 - 2268.00			2262.00 - 2267.00		2258.00 - 2263.00
LME HG 27-Month	\$/mt	2148.00 - 2153.00			2150.00 - 2155.00		2153.00 - 2158.00
LME Alloy Cash	\$/mt	2005.00 - 2015.00			1990.00 - 1995.00		2000.00 - 2005.00
LME Alloy Settlement	\$/mt	2015.00			1995.00		2005.00
LME Alloy 3-Month	\$/mt	2045.00 - 2050.00			2045.00 - 2050.00		2039.00 - 2040.00
LME Alloy 15-Month	\$/mt	2100.00 - 2110.00			2100.00 - 2110.00		2085.00 - 2095.00
LME Alloy 27-Month	\$/mt	2115.00 - 2125.00			2115.00 - 2125.00		2100.00 - 2110.00
LME NASAA Cash	\$/mt	2089.00 - 2090.00			2050.00 - 2060.00		2032.00 - 2033.00
LME NASAA Settlement	\$/mt	2090.00			2060.00		2033.00
LME NASAA 3 Month	\$/mt	2120.00 - 2130.00			2100.00 - 2105.00		2080.00 - 2085.00
LME NASAA 15-Month	\$/mt	2160.00 - 2170.00			2155.00 - 2165.00		2130.00 - 2140.00
LME NASAA 27-Month	\$/mt	2160.00 - 2170.00			2155.00 - 2165.00		2130.00 - 2140.00
Copper							
COMEX HG Cash	¢/lb	Holiday			216.90		217.00
COMEX HG 2nd Position	¢/lb	Holiday			211.10		212.00
COMEX HG 3rd Position	¢/lb	Holiday			206.30		207.40
LME Grade A Cash	\$/mt	4753.00 - 4754.00			4692.00 - 4692.50		4696.00 - 4700.00
LME Grade A Settlement	\$/mt	4754.00			4692.50		4700.00
LME Grade A 3-Month	\$/mt	4616.00 - 4617.00			4568.00 - 4569.00		4569.00 - 4570.00
LME Grade A 15-Month	\$/mt	3990.00 - 4000.00			3940.00 - 3950.00		3945.00 - 3955.00
LME Grade A 27-Month	\$/mt	3570.00 - 3580.00			3510.00 - 3520.00		3515.00 - 3525.00
Lead							
LME Cash	\$/mt	1260.00 - 1265.00			1268.50 - 1269.00		1295.50 - 1296.00
LME Settlement	\$/mt	1265.00			1269.00		1296.00
LME 3-Month	\$/mt	1232.00 - 1233.00			1233.00 - 1234.00		1255.00 - 1256.00
LME 15-Month	\$/mt	1130.00 - 1135.00			1140.00 - 1145.00		1160.00 - 1165.00
RN US Lead Oxide	¢/lb	70.223			70.414		71.700
RN NA Solder Transaction	¢/lb	81.263			81.386		82.670
RN HG	¢/lb	65.380			65.561		66.286
RN SG	¢/lb	65.380			65.561		66.786
Nickel							
LME Cash	\$/mt	14625.00 - 14630.00			14420.00 - 14430.00		14520.00 - 14525.00
LME Settlement	\$/mt	14630.00			14430.00		14525.00
LME 3-Month	\$/mt	14725.00 - 14730.00			14550.00 - 14575.00		14640.00 - 14650.00
LME 15-Month	\$/mt	14300.00 - 14400.00			14175.00 - 14275.00		14215.00 - 14315.00
LME 27-Month	\$/mt	13780.00 - 13880.00			13650.00 - 13750.00		13675.00 - 13775.00
RN NA Melting	\$/lb	6.971			6.880		6.923
RN NA Plating	\$/lb	7.046			6.955		6.998
Ferronickel							
RN 40% FeNi NA Reference	\$/mt	5997.505			5917.505		5955.505
RN 25% FeNi NA Reference	\$/mt	3839.381			3789.381		3813.131
Tin							
LME Cash	\$/mt	7210.00 - 7215.00			7150.00 - 7175.00		6920.00 - 6950.00
LME Settlement	\$/mt	7215.00			7175.00		6950.00
LME 3-Month	\$/mt	7230.00 - 7235.00			7195.00 - 7200.00		6960.00 - 6970.00
LME 15-Month	\$/mt	7110.00 - 7160.00			7075.00 - 7125.00		6840.00 - 6890.00
RN NA Solder Transaction	¢/lb	474.150			472.338		458.488
RN NA Dealer	¢/lb	345.411			343.597		333.391
KLTM	¢/lb	318.42			323.87		325.91
Zinc							
LME Cash	\$/mt	2065.00 - 2066.00			2060.50 - 2061.00		2072.50 - 2073.00
LME Settlement	\$/mt	2066.00			2061.00		2073.00
LME 3-Month	\$/mt	2080.00 - 2081.00			2073.50 - 2074.00		2083.50 - 2084.00
LME 15-Month	\$/mt	1953.00 - 1958.00			1945.00 - 1950.00		1957.00 - 1962.00
LME 27-Month	\$/mt	1775.00 - 1780.00			1765.00 - 1770.00		1770.00 - 1775.00
RN NA Dealer	¢/lb	98.712			98.485		99.030
RN NA #3 Alloyers	¢/lb	107.613			107.352		107.817
Precious – Gold							
COMEX Cash	\$/oz	Holiday			553.40		543.70
COMEX 2nd Position	\$/oz	Holiday			554.30		544.50
COMEX 3rd Position	\$/oz	Holiday			559.20		549.30
London Final	\$/oz	561.75			553.25		545.00
London Initial	\$/oz	559.40			558.05		544.75
Palladium							
NYMEX Cash	\$/oz	Holiday			285.35		273.90
Platinum							
NYMEX Cash	\$/oz	Holiday			1040.60		1021.40
NYMEX 2nd Position	\$/oz	Holiday			1049.10		1029.90
Silver							
COMEX Cash	¢/oz	Holiday			902.00		882.00
COMEX 2nd Position	¢/oz	Holiday			907.30		887.30
COMEX 3rd Position	¢/oz	Holiday			915.10		894.90
London Spot US Equiv.	¢/oz	919.00			903.50		887.50

RYAN'S NOTES

Daily Prices

Volume 12, No. 4

January 23, 2006

		Jan. 19	Jan. 20	Week Avg	4-Week Avg	6-Week Avg
Base – Aluminum						
COMEX Cash	¢/lb	109.90	109.10	109.6500	106.8450	105.5433
COMEX 2nd Position	¢/lb	110.50	109.60	110.2250	107.3981	106.1921
COMEX 3rd Position	¢/lb	110.40	109.60	110.1500	107.3981	106.1921
LME HG Cash	\$/mt	2399.00	2374.00	2382.5000	2320.1833	2294.5389
LME HG Settlement	\$/mt	2400.00	2375.00	2383.3000	2320.7583	2295.1222
LME HG 3-Month	\$/mt	2408.00	2389.00	2397.7000	2315.1479	2289.2153
LME HG 15-Month	\$/mt	2288.00	2278.00	2269.8000	2171.5125	2139.8083
LME HG 27-Month	\$/mt	2185.00	2172.00	2161.6000	2064.4958	2034.5639
LME Alloy Cash	\$/mt	2025.00	2015.00	2007.0000	1970.7500	1938.5000
LME Alloy Settlement	\$/mt	2030.00	2025.00	2014.0000	1978.3125	1945.3917
LME Alloy 3-Month	\$/mt	2055.00	2045.00	2045.8000	2007.4708	1973.4806
LME Alloy 15-Month	\$/mt	2105.00	2100.00	2098.0000	2050.9375	2010.7917
LME Alloy 27-Month	\$/mt	2120.00	2115.00	2113.0000	2056.6667	2016.2778
LME NASAA Cash	\$/mt	2070.00	2045.00	2057.2000	1984.2625	1955.0417
LME NASAA Settlement	\$/mt	2071.00	2050.00	2060.8000	1987.1292	1958.7194
LME NASAA 3 Month	\$/mt	2110.00	2085.00	2099.0000	2025.3750	1995.5500
LME NASAA 15-Month	\$/mt	2160.00	2135.00	2148.0000	2058.4792	2023.1528
LME NASAA 27-Month	\$/mt	2160.00	2135.00	2148.0000	2057.1250	2021.5833
Copper						
COMEX HG Cash	¢/lb	215.60	213.00	189.6500	198.5369	204.7096
COMEX HG 2nd Position	¢/lb	211.10	209.00	185.9500	190.8100	194.2983
COMEX HG 3rd Position	¢/lb	206.80	204.85	182.5250	186.2887	189.3542
LME Grade A Cash	\$/mt	4761.00	4706.00	4721.6000	4655.0833	4629.9556
LME Grade A Settlement	\$/mt	4762.00	4706.50	4723.0000	4656.1125	4631.0917
LME Grade A 3-Month	\$/mt	4621.00	4578.50	4590.5000	4525.1354	4490.7069
LME Grade A 15-Month	\$/mt	3990.00	3955.00	3964.0000	3893.0625	3859.7083
LME Grade A 27-Month	\$/mt	3550.00	3510.00	3531.0000	3485.6667	3453.7778
Lead						
LME Cash	\$/mt	1305.00	1300.00	1285.8000	1172.6146	1159.6597
LME Settlement	\$/mt	1307.00	1300.50	1287.5000	1173.9042	1160.8528
LME 3-Month	\$/mt	1264.00	1269.50	1250.7000	1139.7708	1125.6806
LME 15-Month	\$/mt	1172.00	1178.00	1156.0000	1038.0417	1025.8278
RN US Lead Oxide	¢/lb	72.224	71.914	71.2950	65.8850	65.2634
RN NA Solder Transaction	¢/lb	83.168	83.302	82.3578	76.5035	75.7324
RN HG	¢/lb	65.285	64.990	65.5004	60.1413	59.6180
RN SG	¢/lb	67.285	66.490	66.3001	61.1245	60.5402
Nickel						
LME Cash	\$/mt	14550.00	14530.00	14529.00	14110.9375	13922.6250
LME Settlement	\$/mt	14570.00	14550.00	14541.00	14119.6250	13930.7500
LME 3-Month	\$/mt	14700.00	14675.00	14658.00	14228.0000	14035.5000
LME 15-Month	\$/mt	14275.00	14275.00	14248.00	13870.9792	13619.1528
LME 27-Month	\$/mt	13700.00	13725.00	13706.00	13431.5417	13142.3611
RN NA Melting	\$/lb	6.944	6.935	6.9307	6.7396	6.6722
RN NA Plating	\$/lb	7.019	7.010	7.0057	6.8146	6.7289
Ferronickel						
RN 40% FeNi NA Reference	\$/mt	5973.505	5965.505	5961.9050	5803.2760	5728.8283
RN 25% FeNi NA Reference	\$/mt	3824.381	3819.381	3817.1310	3724.1885	3678.3477
Tin						
LME Cash	\$/mt	7125.00	7060.00	7093.0000	6763.5625	6787.3750
LME Settlement	\$/mt	7150.00	7070.00	7112.0000	6775.8750	6798.7500
LME 3-Month	\$/mt	7175.00	7100.00	7132.0000	6774.5000	6755.1667
LME 15-Month	\$/mt	7050.00	6980.00	7011.0000	6647.2083	6616.1389
RN NA Solder Transaction	¢/lb	471.065	466.723	468.5528	447.5613	447.0773
RN NA Dealer	¢/lb	342.463	338.834	340.7390	325.4926	326.5302
KLTM	¢/lb	325.91	323.87	323.5960	307.0021	306.8171
Zinc						
LME Cash	\$/mt	2124.00	2160.00	2096.4000	1979.4479	1928.0986
LME Settlement	\$/mt	2125.00	2162.00	2097.4000	1980.2021	1928.8181
LME 3-Month	\$/mt	2132.00	2172.00	2108.2000	1988.9375	1937.8250
LME 15-Month	\$/mt	2007.00	2045.00	1981.4000	1835.4583	1791.8722
LME 27-Month	\$/mt	1815.00	1870.00	1799.0000	1656.3833	1626.9222
RN NA Dealer	¢/lb	101.388	103.067	100.1366	94.8206	92.4898
RN NA #3 Alloyers	¢/lb	110.098	111.663	108.9086	103.6659	101.4056
Precious – Gold						
COMEX Cash	\$/oz	558.40	553.50	552.2500	536.9925	526.6650
COMEX 2nd Position	\$/oz	559.00	554.00	552.9500	538.3613	528.4475
COMEX 3rd Position	\$/oz	563.90	558.90	557.8250	543.0300	532.9733
London Final	\$/oz	554.75	567.25	556.4000	540.4304	529.8069
London Initial	\$/oz	557.70	559.25	553.8300	534.8950	526.0967
Palladium						
NYMEX Cash	\$/oz	277.50	274.20	277.7375	272.6181	269.8371
Platinum						
NYMEX Cash	\$/oz	1040.20	1027.70	1032.4750	1002.9413	992.9608
NYMEX 2nd Position	\$/oz	1048.70	1036.20	1040.9750	1011.4850	1000.5300
Silver						
COMEX Cash	¢/oz	905.80	888.00	895.7000	899.5900	886.9733
COMEX 2nd Position	¢/oz	910.80	893.00	901.5000	905.8500	893.6000
COMEX 3rd Position	¢/oz	918.50	900.60	909.1250	905.6638	893.1925
London Spot US Equiv.	¢/oz	890.50	908.00	902.5000	880.1958	882.8306

LME Warehouse Stocks (mt)

	Friday Jan 20	Week Change	Friday Jan 13	Nov 25
Aluminum	684,775	+28,900	655,875	624,375
Aluminum Alloy	49,960	-1,220	51,180	55,560
Copper	104,950	+2,575	102,375	69,500
Lead	53,900	+6,025	47,875	43,825
Nickel	36,372	+156	36,216	21,684
Tin	16,620	-240	16,860	12,750
Zinc	378,625	-7,475	386,100	448,575

LIBOR Rates (BTM)

	1/16	1/17	1/18	1/19	1/20	Week Avg
Avg Offered 1-Mo	4.480000	4.483130	4.490000	4.510000	4.519380	4.496500
Avg Offered 3-Mo	4.600000	4.602250	4.601000	4.613750	4.620000	4.607400
Avg Offered 6-Mo	4.721250	4.720000	4.720000	4.730000	4.740000	4.726300

Exchange Rates

	Jan. 16	Jan. 17	Jan. 18	Jan. 19	Jan. 20	Wk. Avg	4-Wk Avg	6-Wk Avg
LME Sterling	1.768000	1.762700	1.766000	1.755100	1.760900	1.7625000	1.7508000	1.7538000
LME Yen	114.780000	115.170000	115.160000	115.260000	115.240000	115.122000	115.82640	116.39560
Euro	1.213100	1.208700	1.212200	1.207900	1.207500	1.209900	1.202000	1.222000

Producer Prices

Chrome Metal				
NA Producer	\$/lb	4.500		28-May-97
Ferrovanadium				
Stratcor/Spot 80%	\$/lb	Suspended		15-Jan-04
Indium				
Indium Corp. (99.97%)	\$/kg	965.000		7-Feb-05
Lead				
NA Primary	¢/lb	66.000		1-Dec-05
NA Secondary	¢/lb	66.000		1-Dec-05

Minor Metals

Antimony				
RN Spot Transaction	\$/lb	1.84-	1.86	18-Jan-06
Bismuth				
RN Spot Transaction	\$/lb	4.50-	4.65	11-Jan-06
Cadmium				
*RN Spot Transaction	\$/lb	1.45-	1.55	11-Jan-06
Indium				
RN Spot Transaction	\$/kg	925.00-	975.00	18-Jan-06
Selenium				
RN Spot Transaction	\$/lb	39.00-	42.00	18-Jan-06

(*Cadmium price is 99.95%, sticks, in warehouse Rotterdam)

RYAN'S NOTES

Ferrous and Nonferrous News and Prices

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Notes: