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Mineral Industry Surveys

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ZINC IN AUGUST 2004

Domestic mine production of zinc in August of 63,500 metric tons (t) was slightly more than production in July and about 2% more than that in August 2003, according to the U.S. Geological Survey (USGS). Estimated smelter production of 29,300 t was also slightly more than that in July and about 25% more than production in August 2003. Apparent consumption of 108,000 t was 14% higher than consumption in July and about 27% higher than consumption in August 2003.

The Platts Metals Week monthly average composite price for North American Special High Grade zinc decreased by about 1% to 49.44 cents per pound in August. The average zinc price was about 23% higher than that in August 2003.

The U.S. steel industry expanded its sheet galvanizing capacity in 1998 and 1999, but the utilization rate during those years was only about 85%. Galvanized sheet production began to increase in 2003, and by August 2004 the industry was producing near capacity. During the first 7 months of 2004, shipments of galvanized steel increased by nearly 10% compared with shipments in the same period of 2003, mainly owing to increased demand by the nonresidential construction sector (CRU International Ltd., 2004a). According to USGS data, the apparent consumption of zinc in galvanized sheet and strip production for the first 8 months of 2004 was up by about 9% compared with that in the same period in 2003.

Production of refined zinc in the second quarter of 2004 by MidAmerican Energy Holdings Co. (formerly CalEnergy Co. Inc.) increased to about 3,000 t from a few hundred metric tons during the same period in 2003, but remained well below the originally targeted production of 30,000 metric tons per year (t/yr). If modifications to its extraction process prove to be unsuccessful, MidAmerican may be compelled to close its plant and write down its $420 million investment in zinc production (CRU International Ltd., 2004d).

OntZinc Corp. of Canada announced that it will commence operations at its Balmat Mine in upstate New York in December 2004. On August 24, the company secured a private investment of up to $5 million, and was negotiating an additional line of credit. Production at Balmat is expected to reach 55,000 t/yr, most of which would be shipped to Noranda Inc.'s Canadian Electrolytic Zinc Ltd. (CEZinc) in Valleyfield, Quebec, Canada (CRU International Ltd., 2004c). OntZinc was also negotiating to purchase Hudson Bay Mining and Smelting Co. Ltd. from owner Anglo American International S.A. (a subsidiary of Anglo American plc) for $250 million. The company entered into a purchase agreement, subject to final adjustment. Hudson Bay's Flin Flon smelter in Manitoba, Canada, produced 118,000 t of zinc and 83,100 t of anode copper in 2003. The smelter would process concentrates from the Balmat Mine and the Scotia Mine (Nova Scotia) with a combined output of about 200,000 t/yr (Metal-Pages, 2004a§[1]).

During a time of a worldwide zinc concentrates shortage, European smelters are expected to face additional reductions of deliveries from Canada owing to a cutback in exports of concentrates from Noranda's Brunswick Mine in Bathurst, New Brunswick. Increasing amounts of concentrates are expected to be shipped to the CEZinc smelter in Valleyfield, Quebec, as a replacement for the Bell Allard, Louvicourt, and Bouchard-Hebert mines, which are expected to be closed in 2005 (CRU International Ltd., 2004b).

At the same time that China was struggling with diminishing sources of domestic concentrates, numerous Chinese smelting companies were expanding their capacities or building new plants. From 1998 to 2003, Chinese output of zinc increased by 9% per year while their growth rate of concentrates production increased by only 3.8% per year. During the same period, apparent zinc consumption in China increased more than 12%. As a result, China imported increasing amounts of concentrates, metal, and galvanized steel (nearly one-half of zinc is used for galvanizing). The country became a net importer of about 350,000 t of zinc in concentrate in 2001, having been a net exporter in 2000 (Antaike, 2004). The scarcity of concentrates, however, did not deter Qinling Non-Ferrous Metals Corp. from increasing its production capacity by nearly 150%. A 100,000-t/yr addition to its 70,000-t/yr smelter is expected to be completed by 2005 (Metal-Pages, 2004b§).

[1]References that include a section mark (§) are found in the Internet References Cited section.

Henna Yuguang Gold and Lead Group, the biggest lead producer in China, was expected to complete its 100,000-t/yr zinc plant in November 2004. Most of the feed is to be supplied by its recently purchased mines in Sichuan and Inner Mongolia (Metal-Pages, 2004c§).

Update

According to the International Lead and Zinc Study Group, the global demand for zinc is increasing and this upward trend will continue into 2005. This growth is fueled mainly by China where consumption of zinc was expected to increase by more than 10% in 2004 and 11% in 2005, compared with worldwide increases of 4.8% and 4.3%, respectively. With a production of 9.77 million metric tons (Mt) of zinc in concentrate in 2004, mine production and downstream refined production, which are projected to reach 10.14 Mt and 10.34 Mt, respectively, in 2004, are expected to continue to lag behind refined zinc consumption (International Lead and Zinc Study Group, 2004§).

References Cited

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TABLE 1
SALIENT ZINC STATISTICS[1]

(Metric tons, unless otherwise specified)

	2003	2004			
	January-December	June	July	August	January-August
Production:					
Mine, zinc content of concentrate	768,000	61,300	63,200	63,500	476,000
Mine, recoverable zinc	738,000	59,000	60,800	61,100	462,000
Smelter, refined zinc	272,000	28,600	29,200 e	29,300 e	228,000
Consumption:					
Refined zinc, reported	423,000	37,000	33,700	33,600	285,000
Ores[e] (zinc content)	727	61	61	61	485
Zinc-base scrap[e] (zinc content)	191,000	15,900	15,900	15,900	127,000
Copper-base scrap[e] (zinc content)	176,000	14,700	14,700	14,700	117,000
Aluminum-and magnesium-base scrap[e] (zinc content)	1,430	120	120	120	956
Total[e]	791,000	67,700	64,400	64,300	531,000
Apparent consumption, metal[2]	1,050,000	97,800	94,700 r	108,000 3	795,000 3
Stocks of refined (slab) zinc, end of period:					
Producer[4]	XX	6,340	6,390	6,370	XX
Consumer[5]	XX	54,100	57,500	53,500	XX
Merchant	XX	10,400 r	11,500 r	10,400	XX
Total	XX	70,800 r	75,400 r	70,300	XX
Shipments of zinc metal from Government stockpile	13,600	1,170	44	3,360	28,900
Imports for consumption:					
Refined (slab) zinc	758,000	71,600	70,600	NA	470,000 6
Oxide (gross weight)	98,300	7,390	8,970	NA	62,200 6
Ore and concentrate (zinc content)	164,000	23,900	--	NA	129,000 6
Exports:					
Refined (slab) zinc	1,680	1,470	141	NA	2,580 6
Oxide (gross weight)	12,100	1,550	1,130	NA	8,550 6
Ore and concentrate (zinc content)	841,000	4,380	179,000	NA	236,000 6
Waste and scrap (gross weight)	50,200	3,230	2,090	NA	28,600 6
Price:					
London Metal Exchange, average, dollars per metric ton	$827.32	$1,021.08	$987.94	$975.39	$1,031.73
Platts Metals Week North American Special High Grade, average, cents per pound	40.63	51.33	50.08	49.44	51.71

[e]Estimated. [r]Revised. NA Not available. XX Not applicable. -- Zero.

[1]Data are rounded to no more than three significant digits; except prices; may not add to totals shown.

[2]Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

[3]Data based on reported consumption, stocks, and estimated trade data.

[4]Data from U.S. Geological Survey and American Bureau of Metal Statistics.

[5]Includes an estimate for companies that report annually.

[6]Includes data through July only.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES[1]

(Metric tons)

Month	Beginning stocks[2]	Production	Shipments	Ending stocks[2]
2003:				
August	8,360	23,500	23,600	8,230
September	8,230	21,600	22,100	7,790
October	7,790	21,800	21,300	8,300
November	8,300	23,500	23,800	8,010
December	8,010	20,200	20,500	7,660
Year	XX	272,000	273,000	XX
2004:				
January	7,660	26,900	28,100	6,440
February	6,440	26,900	28,100	5,230
March	5,230	28,900	28,200	5,960
April	5,960 e	29,600	28,300	7,300
May	7,300 e	28,600	28,300	7,660
June	7,660 e	28,600 e	29,900	6,340
July	6,340 e	29,200 e	29,200	6,390
August	6,390 e	29,300 e	29,300	6,370
January-August	XX	228,000	229,000	XX

[e]Estimated. XX Not applicable.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes stocks held at locations other than smelters.

Sources: U.S. Geological Survey and American Bureau of Metal Statistics.

TABLE 3
APPARENT CONSUMPTION OF REFINED ZINC
ACCORDING TO INDUSTRY USE AND PRODUCT[1]

(Metric tons)

	2003	2004			
Industry and product	January-December	June	July[r]	August[2]	January-August[2]
Galvanizing:					
Sheet and strip	442,000	39,800	38,700	44,800	325,000
Other	146,000	13,900	13,400	16,700	116,000
Total	588,000	53,700	52,100	61,500	441,000
Brass and bronze	167,000	16,900	15,800	16,200	131,000
Zinc-base alloy	222,000	20,200	20,000	22,800	166,000
Other uses[3]	70,700	7,200	6,900	7,800	57,700
Grand total	1,050,000	97,800	94,700 r	108,000	795,000

[r]Revised.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Data based on reported consumption, stocks, and estimated trade data.
[3]Includes zinc used in making zinc dust, desilvering lead, powder, alloys, anodes, chemicals, castings, light metal alloys, rolled zinc, and miscellaneous uses not elsewhere specified.

TABLE 4
AVERAGE MONTHLY ZINC PRICES[1]

Period	North American ¢/lb.	LME[2] cash ¢/lb.	LME[2] cash $/t
2003:			
August	40.10	37.08	817.48
September	40.07	37.10	817.81
October	43.70	40.71	897.54
November	44.80	41.47	914.16
December	47.85	44.33	977.35
Year	40.63	37.53	827.32
2004:			
January	49.93	46.11	1,016.62
February	53.84	49.32	1,087.26
March	55.25	50.14	1,105.37
April	52.09	46.82	1,032.28
May	51.76	46.63	1,027.93
June	51.33	46.32	1,021.08
July	50.08	44.81	987.94
August	49.44	44.24	975.39
January-August	51.71	46.80	1,031.73

[1]Special High Grade.
[2]London Metal Exchange.

Source: Platts Metals Week.

TABLE 5
U.S. EXPORTS OF ZINC[1]

Material	2003 Quantity (metric tons)	2003 Value (thousands)	2004[2] July Quantity (metric tons)	2004[2] July Value (thousands)	2004[2] Year to date Quantity (metric tons)	2004[2] Year to date Value (thousands)
Refined (slab) zinc	1,680	$1,760	141	$175	2,580	$4,370
Ore and concentrate (zinc content)	841,000	337,000	179,000	97,100	236,000	119,000
Waste and scrap (gross weight)	50,200	32,600	2,090	1,760	28,600	24,600
Powders, flakes, dust (zinc content)	6,550	9,090	638	1,140	4,600	8,090
Oxide (gross weight)	12,100	15,200	1,130	1,290	8,550	12,000
Chloride (gross weight)	1,470	1,650	136	119	1,180	1,350
Sulfate (gross weight)	2,310	1,440	148	92	2,060	1,210
Compounds, other (gross weight)	183	472	2	22	87	231

[1]Data are rounded to no more than three significant digits.
[2]Data for August 2004 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF ZINC[1]

Material	2003		2004[2]			
			July		Year to date	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	758,000	$647,000	70,600	$73,800	470,000	$516,000
Ore and concentrate (zinc content)	164,000	60,000	--	--	129,000	45,900
Waste and scrap (gross weight)	10,300	5,740	471	343	5,890	4,110
Powders, flakes, dust (zinc content)	27,400	41,200	2,110	3,510	13,800	22,600
Oxide (gross weight)	98,300	72,200	8,970	7,580	62,200	51,900
Chloride (gross weight)	663	914	104	120	493	567
Sulfate (gross weight)	25,800	11,700	2,260	1,030	16,600	7,840
Compounds, other (gross weight)	1,010	951	566	371	1,920	1,670

-- Zero.

[1]Data are rounded to no more than three significant digits.

[2]Data for August 2004 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 7
SHIPMENTS OF ZINC METAL FROM THE NATIONAL DEFENSE STOCKPILE[1]

(Metric tons)

Period	Beginning inventory	Shipments	Ending inventory
2003:			
August	104,000	712	103,000
September	103,000	841	102,000
October	102,000	--	102,000
November	102,000	539	102,000
December	102,000	6,270	95,200
Year	XX	13,600	XX
2004:			
January	95,200	3,340	91,900
February	91,900	--	91,900
March	91,900	2,920	89,000
April	89,000	3,340	85,600
May	85,600	14,700	70,900
June	70,900	1,170	69,800
July	69,800	44	69,700
August	69,700	3,360	66,400
January-August	XX	28,900	XX

XX Not applicable. -- Zero.

[1]Data are rounded to no more than three significant digits; may not add to totals shown.

Source: Defense Logistics Agency.