

Mineral Industry Surveys

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ZINC IN APRIL 2004

Domestic mine production in April, at 58,500 metric tons (t), was about 1% higher than in March and about 4% higher than in April 2003. Smelter production, at 29,600 t, was 2% higher than the revised March production, and about 29% higher than a year before. Apparent consumption in April, at 102,000 t, increased by about 13% compared with the previous month's consumption and was about 28% higher compared with consumption in April 2003.

The Platts Metals Week composite price for North American Special High Grade zinc in April declined by about 6% to 52.09 cents per pound of zinc metal. Compared with April 2003, the price increased by about 40%.

A strike by the workers at the Sauget, IL, zinc refinery was averted when the unionized workers and the Big River Zinc Corp. agreed to extend the existing labor agreement. The current 3-year agreement that was to expire at the end of April was extended by 1 year (Metal-Pages, 2004a§¹).

With the increasing zinc price, the U.S. Zinc Corp. (a subsidiary of Imco Recycling Inc.), usually the minor component of Imco's recycling enterprise, has gained importance in 2004. In the first quarter it provided an unusual 22% (\$3.9 million) of Imco's earnings although the six domestic zinc plants accounted for only 7% of all metal recycled by Imco and operated at only 68% of their combined capacity. Imco, headquartered in Irving, TX, began zinc recycling in 1992 in a small way, but with purchase of Houston-based U.S. Zinc Corp. has increased its zinc recycling capacity to 150,000 metric tons per year (t/yr) (American Metal Market, 2004a).

Zinc mine production in Canada has declined in recent years following numerous mine closures, although not all closures affect that country's total refined zinc production. For example, Polaris and Nanisivik Mines, both located in Northwest Territories, owned by Teck Cominco Ltd. and Breakwater Resources Ltd., respectively, did not supply Canadian smelters, but instead the entire production was shipped to Europe. Before it closed in December 2001, Teck Cominco's Sullivan Mine

shipped all of its 100,000-t/yr zinc concentrate production to Trail smelter in British Columbia. Closure of BHP Billiton Ltd.'s Selbai Mine (Quebec) this year deprived Kidd Creek smelter in Ontario of about 30,000 t/yr of zinc concentrate, which had to be replaced by concentrate from Agnico Eagle Mines Ltd. from its LaRonde Mine (Quebec). An additional three mines in Quebec are scheduled to close by the end of 2005: Bell Allard Mine by the end of 2004 and the Louvicort and Bouchard-Hebert Mines during 2005. These closures will leave Quebec with just LaRonde as a sole producer of zinc concentrate. Because of the decline in local mine production, Valleyfield (CEZ) smelter in Quebec will have to increase its imports of zinc concentrate. However, mine production could improve significantly if Breakwater reopens its Langlois Mine (Quebec) and Noranda Ltd. reopens the Matagami mill (Quebec) and develops the Perseverance deposit (Quebec). These two mines and mill in Quebec could add about 125,000 t/yr of zinc in concentrate to the Canadian production (CRU International Ltd., 2004).

Leading Bulgarian zinc and lead smelter OTZK (Olovno-tzinkov kompleks) had a significantly improved first quarter owing to increased output and higher zinc prices. The company, which generates about one-third of Bulgarian zinc output, still operated at a loss, but the loss was only \$0.6 million compared with \$2.2 million in the first quarter of 2003. Increased output was the result of modernization that was begun in 2003 and will be completed by September of 2004 (Metal-Pages, 2004b§).

China is expected to export about 300,000 t of zinc in 2004, down from 450,000 t in 2003, as lower export rebates and higher domestic prices are making exports less profitable. Exports by Chinese zinc giant Huludao Nonferrous Metals Co. Ltd. in 2004 are expected to be 30% lower than the 45,000 t it exported in 2003 (Platts Metals Week, 2004a).

Namibia's Rosh Pinah Zinc Corp. increased its zinc concentrate production in 2003 by 39%, from 77,600 t/yr in 2002, and increased zinc concentrate grade to 54% from 53% the previous year. Skorpion Zinc, another Namibian zinc producer, produced 47,400 t of special high grade zinc in 2003, all of it exported (Platts Metals Week, 2004b).

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

Update

The Red Dog Mine will likely begin shipments of zinc concentrates in early July, according to Teck Cominco Ltd. The exact date will be affected by the local inhabitants who engage in subsistence hunting near the port site usually until early summer. The expected shipments to the company's Trail, BC, facility will total about 290,000 t. The remaining production will be shipped to a variety of consumers mainly in Asia and Europe (American Metal Market, 2004b).

Tara Mines Ltd. of Ireland has declared *force majeure* on shipments of zinc concentrate until the work stoppage involving underground miners is resolved. The mine is the largest zinc mine in Europe producing about 200,000 t/yr of zinc in concentrate. Management at the zinc mine, which is owned by Boliden AB of Sweden, agreed to meet union representatives on June 3 after laying off some 240 workers, who have been on strike since June 1. A prolonged strike will likely exacerbate the tight concentrate market in Europe and will be particularly detrimental to Xstrata plc whose Belgian and Spanish smelters are Tara's main consumers (Metal Bulletin, 2004).

References Cited

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Internet References Cited

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TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

	2003	2004			
	January- December	February	March	April	January- April
Production:					
Mine, zinc content of concentrate	768,000	55,300	57,900 ^r	58,500	232,000
Mine, recoverable zinc	738,000	53,100	55,600 ^r	56,400	223,000
Smelter, refined zinc	272,000	26,900	28,900 ^r	29,600	112,000 ^e
Consumption:					
Refined zinc, reported	423,000	36,200	36,600	36,700	145,000
Ores ^c (zinc content)	727	61	61	61	242
Zinc-base scrap ^e (zinc content)	191,000	15,900	15,900	15,900	63,500
Copper-base scrap ^e (zinc content)	176,000	14,700	14,700	14,700	58,700
Aluminum-and magnesium-base scrap ^e (zinc content)	1,430	120	120	120	478
Total ^e	791,000	66,900	67,300	67,400	268,000
Apparent consumption, metal ²	1,050,000	99,100	90,500	102,000 ³	390,000 ³
Stocks of refined (slab) zinc, end of period:					
Producer ⁴	XX	5,230	5,960	7,300	XX
Consumer ⁵	XX	55,000	54,800	55,700	XX
Merchant	XX	9,460	9,890	9,910	XX
Total	XX	69,700	70,700	72,900	XX
Shipments of zinc metal from Government stockpile	13,600	--	3,220	3,680	10,200
Imports for consumption:					
Refined (slab) zinc	758,000	59,500	71,100	NA	201,000 ⁶
Oxide (gross weight)	98,300	8,940	9,870	NA	27,000 ⁶
Ore and concentrate (zinc content)	164,000	--	52,900	NA	92,500 ⁶
Exports:					
Refined (slab) zinc	1,680	170	261	NA	591 ⁶
Oxide (gross weight)	12,100	987	1,700	NA	3,590 ⁶
Ore and concentrate (zinc content)	841,000	15,700	8,970	NA	25,600 ⁶
Waste and scrap (gross weight)	50,200	4,690	6,110	NA	15,600 ⁶
Price:					
London Metal Exchange, average, dollars per metric ton	\$827.32	\$1,087.26	\$1,105.37	\$1,032.28	\$1,060.38
Platts Metals Week North American Special High Grade, average, cents per pound	40.63	53.84	55.25	52.09	52.78

^eEstimated. ^rRevised. NA Not available. XX Not applicable. -- Zero.

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

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

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

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

⁵Includes an estimate for companies that report annually.

⁶Includes data through March only.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES¹

(Metric tons)

Month	Beginning stocks ²	Production	Shipments	Ending stocks ²
2003:				
April	6,110	23,000	20,700	8,340
May	8,340	22,400	23,500	7,300
June	7,300	24,200	23,700	7,770
July	7,770	22,100	21,500	8,360
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 ^r	28,200	5,960
April	5,960 ^e	29,600	28,300	7,300
January-April	XX	112,000	113,000	XX

^eEstimated. ^rRevised. XX Not applicable.

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

²Includes 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 PRODUCT¹

(Metric tons)

Industry and product	2003	2004			January-April ²
	January-December	February	March	April ²	
Galvanizing:					
Sheet and strip	442,000	40,100	37,000	41,200	159,000
Other	146,000	14,400	12,400	14,900	56,100
Total	588,000	54,500	49,500	56,100	215,000
Brass and bronze	167,000	16,800	15,500	17,300	65,200
Zinc-base alloy	222,000	20,600	18,800	21,100	81,100
Other uses ³	70,700	7,200	6,800	7,300	28,600
Grand total	1,050,000	99,100	90,500	102,000	390,000

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

²Data based on reported consumption, stocks and estimated trade data.

³Includes 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 PRICES¹

Period	North	LME cash	
	American ¢/lb.	¢/lb.	\$/t
2003:			
April	37.23	34.21	754.30
May	38.18	35.17	775.33
June	38.87	35.85	790.31
July	40.54	37.52	827.19
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
January-April	52.78	48.10	1,060.38

¹Special High Grade.

Source: Platts Metals Week.

TABLE 5
U.S. EXPORTS OF ZINC¹

Material	2003		2004 ²			
	Quantity (metric tons)	Value (thousands)	March		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	1,680	\$1,760	261	\$303	591	\$685
Ore and concentrate (zinc content)	841,000	337,000	8,970	3,950	25,600	8,550
Waste and scrap (gross weight)	50,200	32,600	6,110	5,460	15,600	13,600
Powders, flakes, dust (zinc content)	6,550	9,090	816	1,480	2,000	3,580
Oxide (gross weight)	12,100	15,200	1,700	2,350	3,590	5,130
Chloride (gross weight)	1,470	1,650	242	247	511	597
Sulfate (gross weight)	2,310	1,440	375	206	1,090	610
Compounds, other (gross weight)	183	472	1	3	40	121

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

²Data for April 2004 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

Material	2003		2004 ²			
	Quantity (metric tons)	Value (thousands)	March		Year to date	
			Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
Refined (slab) zinc	758,000	\$647,000	71,100	\$77,600	201,000	\$216,000
Ore and concentrate (zinc content)	164,000	60,000	52,900	16,500	92,500	28,000
Waste and scrap (gross weight)	10,300	5,740	1,450	1,020	3,130	2,120
Powders, flakes, dust (zinc content)	27,400	41,200	2,370	3,940	6,060	9,750
Oxide (gross weight)	98,300	72,200	9,870	7,650	27,000	21,100
Chloride (gross weight)	663	914	107	114	155	207
Sulfate (gross weight)	25,800	11,700	2,390	1,240	7,370	3,410
Compounds, other (gross weight)	1,010	951	191	177	391	444

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

²Data for April 2004 were not available at time of publication.

Source: U.S. Census Bureau.

TABLE 7
SHIPMENTS OF ZINC METAL FROM THE NATIONAL
DEFENSE STOCKPILE¹

(Metric tons)

Period	Beginning inventory	Shipments	Ending inventory
2003:			
April	108,000	200	108,000
May	108,000	997	107,000
June	107,000	--	107,000
July	107,000	3,530	104,000
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	3,220	89,000
April	89,000	3,680	85,600
January-April	XX	10,200	XX

XX Not applicable. -- Zero.

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

Source: Defense Logistics Agency.

TABLE 8
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY¹

(Metric tons)

Material and country	General imports			Imports for consumption		
	2003	2004		2003	2004	
		March	Year to date		March	Year to date
Ore and concentrate (zinc content):						
Australia	43,400	19,300	19,300	43,400	19,300	19,300
Ireland	36,500	3,730	3,730	36,500	3,730	3,730
Mexico	9,400	2,890	2,890	9,400	2,890	2,890
Peru	74,600	26,500	66,200	74,600	26,500	66,200
Other	--	501	501	--	501	501
Total	164,000	52,900	92,500	164,000	52,900	92,500
Blocks, pigs, or slab:						
Australia	22,000	7,940	7,940	14,400	10,600	19,500
Brazil	27,600	--	4,880	22,400	--	4,890
Canada	498,000	39,000	122,000	498,000	39,000	122,000
China	23,800	--	--	48	980	2,260
Japan	50	--	--	--	196	196
Kazakhstan	19,700	--	2,310	19,700	--	2,310
Korea, Republic of	34,000	7,730	7,730	1,340	6,180	9,870
Mexico	141,000	10,800	33,400	141,000	10,800	33,400
Peru	43,400	1,710	2,830	42,900	3,300	4,870
Poland	1,600	--	--	1,600	--	--
Other	17,100	--	1,660	16,200	1	1,660
Total	829,000	67,200	183,000	758,000	71,100	201,000
Dross, ashes, fume (zinc content)	14,100	1,580	3,960	14,100	1,580	3,960
Grand total	1,010,000	122,000	279,000	936,000	126,000	297,000
Oxide (gross weight):						
Canada	47,300	4,070	11,700	47,300	4,070	11,700
China	575	--	83	575	--	83
Italy	770	1,440	2,560	770	1,440	2,560
Japan	965	82	254	965	82	254
Mexico	40,500	3,880	11,100	40,500	3,880	11,100
Netherlands	4,820	363	1,030	4,820	363	1,030
Other	3,420	33	254	3,420	33	254
Total	98,300	9,870	27,000	98,300	9,870	27,000
Other (gross weight):						
Waste and scrap	10,300	1,450	3,130	10,300	1,450	3,130
Sheets	1,790	121	290	1,790	121	290
Powders, flakes, dust (zinc content)	27,500	2,370	6,060	27,400	2,370	6,060

-- Zero.

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

²Data for April 2004 were not available at time of publication.

Source: U.S. Census Bureau.