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Mineral Industry Surveys

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ZINC IN MARCH 2007

Domestic mine production (recoverable) of zinc in March 2007 was 63,500 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in March was 2,050 t, 3% higher than that in February 2007 and March 2006. Year-to-date mine production for 2007 was 5% higher than that of 2006.

The Platts Metals Week average price for North American Special High Grade Zinc for the month of March was 158.48 cents per pound, 2% lower than the February average price and an increase of 36% from the March 2006 average price. The average London Metal Exchange Ltd. (LME) cash price of zinc for March decreased to $3,270.82 per metric ton, 1% lower than the average price in February and a 35% increase compared with the average price in March 2006. During March 2007, global LME zinc stocks rose by 12,575 t to 106,100 t.

On March 2, Apollo Gold Corporation announced that production had restarted at the Montana Tunnels Mine, MT. Products include gold and silver doré, lead-silver-gold concentrate, and zinc-silver-gold concentrate. Concentrates will be sent to Teck Cominco's facility in Trail, British Columbia, Canada, and doré will be sent to Johnson Matthey, Inc. refineries in Salt Lake City, UT. Total reserves at the mine equal 35.69 million metric tons of ore containing approximately 188,000 metric tons of zinc (414 million pounds) (Apollo Gold Corporation, 2007).

In Australia, Xstrata Plc. announced plans to increase concentrator capacity at the MacArthur River Mine. Two fine grinding mills will be installed, expanding concentrator throughput capacity from 1.8 million metric tons per year (Mt/yr) of ore to 2.5 Mt/yr and increasing production capacity from 320,000 metric tons per year (t/yr) to 430,000 t/yr of zinc-lead concentrate. The capacity expansion will be operational in third quarter 2008 and will result in a reduction of McArthur River's mine life from 25 years to 21 years (Xstrata Plc., 2007).

In China, the National Development and Reform Commission on March 6 released a new set of criteria for lead and zinc mines and smelters. The new standards specify minimum production capacities and recovery rates, as well as maximum energy consumption. Zinc and lead mines must have a minimum production capacity of 30,000 t/yr and a mine life of at least 15 years. For mines classified as "medium" sized, the mine production capacity should be at least 300,000 t/yr. New zinc smelters must have an annual output of at least 100,000 t. Existing zinc smelters producing below 100,000 t/yr will have to upgrade their facility in order to reach the guideline (Beijing Antaike Information Development Co., Ltd., 2007).

In 2007, Korea Zinc plans to slightly increase zinc production at its Onsan zinc refinery in the Republic of Korea. Production in 2007 is forecast to be 435,300 t of zinc, an increase of 0.9% from 431,528 t produced in 2006 (Platts Metals Week, 2007).

In Russia, Chelyabinsk Zinc Plant (CZP) commissioned its new Waelz Kiln Facility #5 on March 16. The Waelz Kiln will process 85,000 t/yr of secondary material that is about 22% zinc, increasing CZP's zinc metal output by 18,500 t/yr. The new facility is part of a larger investment program at CZP to increase efficiency and raise zinc metal production to 200,000 t/yr by 2010. Other projects within the investment program include constructing a 100,000-t/yr sulfuric acid plant, refurbishing the roasting and leaching plants, and replacing various processing equipment (Interfax Ltd., 2007).

The Defense National Stockpile Center aggregated cash disposal (sale) of zinc in March, under the monthly Basic Ordering Agreement DLA-Zinc-004, was approximately 429 t (473 short tons), with an approximate value of $1.4 million (Defense National Stockpile Center, 2007).

References Cited

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TABLE 1
SALIENT ZINC STATISTICS[1]

(Metric tons, unless otherwise specified)

	2006	2007		
	January-December	February	March	January-March
Production:				
Mine, zinc content of concentrate	727,000 r	58,000 r	66,000	187,000
Mine, recoverable zinc	699,000 r	55,800 r	63,500	180,000
Smelter, refined zinc[e,2]	248,000	19,000	22,100	62,400
Consumption:				
Refined zinc, reported	404,000	23,100 r	20,200	68,400
Ores[e] (zinc content)	732	61	61	183
Zinc-base scrap[e] (zinc content)	191,000	15,900	15,900	47,600
Copper-base scrap[e] (zinc content)	176,000	14,700	14,700	44,000
Aluminum-and magnesium-base scrap[e] (zinc content)	1,440	120	120	360
Total[e]	773,000	53,800	50,900	156,000
Apparent consumption, metal[3]	1,130,000	78,800 r	NA	NA
Stocks of refined (slab) zinc, end of period:				
Producer[e,4]	XX	7,620	8,670	XX
Consumer[5]	XX	46,100 r	46,300	XX
Merchant	XX	10,200	10,200	XX
Total	XX	63,900 r	65,200	XX
Shipments of zinc metal from Government stockpile	33,000	590	375	1,440
Imports for consumption:				
Refined (slab) zinc	851,000	53,900	NA	125,000 [6]
Oxide (gross weight)	125,000	8,460	NA	26,300 [6]
Ore and concentrate (zinc content)	383,000	85,700	NA	175,000 [6]
Exports:				
Refined (slab) zinc	2,530	656	NA	661 [6]
Oxide (gross weight)	28,800	2,400	NA	6,030 [6]
Ore and concentrate (zinc content)	825,000	21,500	NA	29,600 [6]
Waste and scrap (gross weight)	88,300	8,320	NA	16,300 [6]
Price:				
London Metal Exchange, average, dollars per metric ton	3,274.42	3,308.59	3,270.82	3,455.21
Platts Metals Week North American Special High Grade, average, cents per pound	158.88	161.17	158.48	173.32

[e]Estimated. [r]Revised. NA Not available. XX Not applicable.
[1]Data are rounded to no more than three significant digits; except prices; may not add to totals shown.
[2]Includes zinc metal used to manufacture zinc oxide.
[3]Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.
[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 February only.

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

(Metric tons)

Month	Beginning stocks[3]	Production[e]	Shipments[e]	Ending stocks[3]
2006:				
March	5,530	22,100	21,100	6,580
April	6,580	19,300	18,800	7,150
May	7,150	19,100	19,900	6,300
June	6,300	19,200	19,000	6,510
July	6,510	22,100	22,300	6,340
August	6,340	19,200	19,100	6,450
September	6,450	24,100	23,400	7,110
October	7,110	23,800	23,700	7,160
November	7,160	19,000	19,500	6,750
December	6,750	20,200	19,300	7,660
January-December	XX	248,000	246,000	XX
2007:				
January	7,660	21,200	20,100	8,810
February	8,810	19,000	20,200	7,620
March	7,620	22,100	21,100	8,670
January-March	XX	62,400	61,300	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 zinc metal used to manufacture zinc oxide.
[3]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)

Industry and product	2006	2007		
	January-December	January	February	January-February
Galvanizing:				
Sheet and strip	468,000	37,400	30,800	68,200
Other	160,000	20,100	16,500	36,600
Total	627,000	57,500	47,300	105,000
Brass and bronze	173,000	15,300	12,600	28,000
Zinc-base alloy	240,000	18,400	15,100	33,600
Other uses[3]	85,800	4,630	3,810	8,440
Grand total	1,130,000	95,900	78,800	175,000

[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 ZINC PRICES[1]

Period	North American ¢/lb.	LME[2] cash ¢/lb.	LME[2] cash $/t
2006:			
March	116.80	109.61	2,416.44
April	148.56	139.88	3,083.75
May	172.59	161.68	3,564.51
June	157.93	146.27	3,224.66
July	163.73	151.45	3,338.80
August	163.83	151.77	3,346.00
September	166.60	154.32	3,402.25
October	186.07	173.37	3,822.07
November	210.78	198.73	4,381.27
December	211.83	199.79	4,404.51
January-December	158.88	148.53	3,274.42
2007:			
January	183.47	171.74	3,786.21
February	161.17	150.08	3,308.59
March	158.48	148.36	3,270.82
January-March	167.71	156.72	3,455.21

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

Source: Platts Metals Week.

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

Material	2006 Quantity (metric tons)	2006 Value (thousands)	2007 February Quantity (metric tons)	2007 February Value (thousands)	2007 Year to date Quantity (metric tons)	2007 Year to date Value (thousands)
Refined (slab) zinc	2,530	$3,800	656	$692	661	$698
Ore and concentrate (zinc content)	825,000	1,060,000	21,500	23,000	29,600	32,000
Waste and scrap (gross weight)	88,300	103,000	8,320	8,960	16,300	16,600
Powders, flakes, dust (zinc content)	16,400	33,300	1,610	3,230	3,060	6,640
Oxide (gross weight)	28,800	47,900	2,400	4,070	6,030	11,700
Chloride (gross weight)	1,510	1,930	314	384	493	586
Sulfate (gross weight)	42,800	22,500	45	157	60	178
Compounds, other (gross weight)	706	2,200	414	777	1,230	2,030

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

Source: U.S. Census Bureau.

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

Material	2006 Quantity (metric tons)	2006 Value (thousands)	2007 February Quantity (metric tons)	2007 February Value (thousands)	2007 Year to date Quantity (metric tons)	2007 Year to date Value (thousands)
Refined (slab) zinc	851,000	$2,050,000	53,900	$177,000	125,000	$450,000
Ore and concentrate (zinc content)	383,000	183,000	85,700	18,000	175,000	44,100
Waste and scrap (gross weight)	14,200	18,700	1,220	2,020	3,230	4,820
Powders, flakes, dust (zinc content)	30,100	107,000	2,030	10,100	432	21,800
Oxide (gross weight)	125,000	243,000	8,460	23,600	26,300	68,400
Chloride (gross weight)	1,260	1,780	39	213	55	356
Sulfate (gross weight)	44,400	34,100	3,020	3,130	5,470	5,670
Compounds, other (gross weight)	4,970	4,000	686	713	1,450	1,730

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

Source: U.S. Census Bureau.

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

(Metric tons)

Period	Shipments	Ending inventory[2]
2006:		
March	4,500	37,100
April	3,590	33,500
May	4,640	28,800
June	3,380	25,500
July	994	24,500
August	3,690	20,800
September	5,460	15,300
October	1,900	13,400
November	NA [3]	15,500
December	237	15,300
January-December	34,000	XX
2007:		
January	472	14,800
February	590	14,200
March	375	13,900
January-March	1,060	XX

NA Not available. XX Not applicable.

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

[2]Includes excess material and material committed for sale/pending shipment.

[3]Monthly shipments are not reflected by changes in inventory due to an inventory adjustment or shipment delay.

Source: Defense National Stockpile Center.

TABLE 8
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY[1]

(Metric tons)

Material and country	General imports			Imports for consumption		
		2007			2007	
	2006	February	Year to date	2006	February	Year to date
Ore and concentrate (zinc content):						
Australia	2,850	--	--	2,850	--	--
Canada	2,750	31	31	2,750	31	31
Ireland	17,000	49,800	49,800	17,000	49,800	49,800
Mexico	88,100	232	370	88,100	232	370
Peru	273,000	35,500	124,000	273,000	35,500	124,000
Total	383,000	85,700	175,000	383,000	85,700	175,000
Blocks, pigs, or slab:						
Australia	15,000	--	7,000	47,100	--	7,000
Brazil	8,790	--	1,000	13,000	--	1,000
Canada	535,000	35,300	70,300	535,000	35,300	70,300
China	2,000	817	2,800	57,300	817	3,620
India	12,200	644	2,580	12,200	644	2,580
Japan	251	--	--	6,200	--	--
Kazakhstan	6,000	7,500	21,000	6,000	7,500	21,000
Korea, Republic of	--	--	--	66,800	579	801
Mexico	103,000	8,990	18,300	103,000	8,990	18,300
Norway	--	--	--	1,160	--	25
Peru	1,080	--	--	1,360	--	--
Other	21	--	--	1,790	--	--
Total	683,000	53,300	123,000	851,000	53,900	125,000
Dross, ashes, fume (zinc content)	31,100	2,220	4,630	31,100	2,220	4,630
Grand total	1,100,000	141,000	302,000	1,270,000	142,000	304,000
Oxide (gross weight):						
Canada	49,100	3,760	7,470	49,100	3,760	7,470
China	277	38	75	277	38	75
Italy	24,500	--	5,050	24,500	--	5,050
Japan	1,290	13	91	1,290	13	91
Mexico	31,900	2,720	5,570	31,900	2,720	5,570
Netherlands	7,820	1,520	7,280	7,820	1,520	7,280
Other	10,100	408	822	10,100	408	822
Total	125,000	8,460	26,300	125,000	8,460	26,300
Other (gross weight):						
Waste and scrap	14,200	1,220	3,230	14,200	1,220	3,230
Sheets	2,050	43	156	2,050	43	156
Powders, flakes, dust (zinc content)	30,100	2,030	4,320	30,100	2,030	4,320

-- Zero.

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

Source: U.S. Census Bureau.