

Mineral Industry Surveys

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ZINC IN MAY 2007

Domestic mine production (recoverable) of zinc in May 2007 was 56,500 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in May was 1,820 t, 3% lower than that in April 2007 but 4% higher than that in May 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 May was 182.45 cents per pound, 7% higher than the April average price and an increase of 6% from the May 2006 average price. The average London Metal Exchange Ltd. (LME) cash price of zinc for May increased to \$3,829.39 per metric ton, 8% higher than the average price in April and a 7% increase compared with the average price in May 2006. During May 2007, global LME zinc stocks fell by 19,650 t to 75,500 t.

The International Lead and Zinc Study Group forecast that the zinc market will remain in deficit by approximately 40,000 t in 2007. Global demand for zinc metal was forecast to rise by 4%. Regionally, demand in China was forecast to increase by 8.4%; Europe, 1.5%. On the supply side, concentrate production was forecast to rise by 9.4% owing to significant increases in output from Australia, Bolivia, Canada, China, Kazakhstan, Peru, Russia, and the United States. Refined production was forecast to rise by 6.9%. Most notably, refined production in China was forecast to increase by 14.7%. Significant increases in refined metal production were also anticipated in Australia, Belgium, Germany, Mexico, Poland, Russia, and Spain (International Lead and Zinc Study Group, 2007).

On May 21, China announced that a 10% export tax would be imposed on unwrought zinc of less than 99.99% purity and refined lead, effective June 1, 2007. China reportedly imposed the new tax in order to protect available reserves and to extend greater control over exports from industries that the country considered to be energy- and pollution-intensive. The export tax

is an increase over the existing 5% tax on unwrought zinc, whereas refined lead previously had no export tax. Some analysts believe that the tax will have a more significant impact on lead exports, resulting in an increase in lead exports on the short term followed by a long term fall after the new tax goes into force (Mok, 2007).

Acadian Gold Corporation (Halifax, Nova Scotia, Canada) announced that operations had begun on May 7 at the Scotia zinc-lead mine located along the Gays River in Nova Scotia, Canada. The mill should be operating at planned capacity—2,000 t of ore per day—by mid-July. Targeted production for 2007 was 10,600 t [23.4 million pounds (Mlbs)] of recoverable zinc and 3,540 t (7.8 Mlbs) of recoverable lead. In 2008, annual production was expected to increase to 20,200 t (44.6 Mlbs) of recoverable zinc and 8,660 t (19.1 Mlbs) of recoverable lead (Acadian Gold Corporation, 2007).

The Defense National Stockpile Center aggregated cash disposal (sale) of zinc in May, under the monthly Basic Ordering Agreement DLA-Zinc-004, was approximately 987 t (1,088 short tons), with an approximate value of \$4 million (Defense National Stockpile Center, 2007).

References Cited

- Acadian Gold Corporation, 2007, Acadian Gold Corporation announces operations commenced at Scotia zinc-lead mine: Halifax, Nova Scotia, Canada, Acadian Gold Corporation news release, May 7, 2 p.
- Defense National Stockpile Center, 2007, Stockpile announces BOA sales for May 2007: Fort Belvoir, VA, Defense National Stockpile Center news release, June 7, 1 p.
- International Lead and Zinc Study Group, 2007, ILZSG Spring 2007 meetings/forecast: Lisbon, Portugal, International Lead and Zinc Study Group news release, May 14, 5 p.
- Mok, Yuen Cheng, 2007, China hits lead and zinc with 10% export tax: Platts Metals Week, v. 78, no. 22, May 28, p. 1.

TABLE 1
SALIENT ZINC STATISTICS¹

(Metric tons, unless otherwise specified)

| | 2006 | 2007 | | |
|---|----------------------|------------------------|---------------------|----------------------|
| | January- December | April | May | January- May |
| Production: | | | | |
| Mine, zinc content of concentrate | 727,000 | 58,800 | 58,700 | 309,000 |
| Mine, recoverable zinc | 699,000 | 56,600 | 56,500 | 294,000 |
| Smelter, refined zinc ^{e, 2} | 248,000 | 19,300 | 19,100 | 101,000 |
| Consumption: | | | | |
| Refined zinc, reported | 418,000 ^r | 23,100 ^r | 22,600 | 129,000 |
| Ores ^e (zinc content) | 732 | 61 | 61 | 305 |
| Zinc-base scrap ³ (zinc content) | 187,000 ^r | 15,600 ^{r, e} | 15,600 ^e | 77,900 ^e |
| Copper-base scrap ³ (zinc content) | 159,000 ^r | 13,300 ^{r, e} | 13,300 ^e | 66,300 ^e |
| Aluminum- and magnesium-base scrap ^{3, 4} (zinc content) | 520 ^r | 43 ^{r, e} | 43 ^e | 215 ^e |
| Total ^c | 766,000 ^r | 52,100 ^r | 51,500 | 274,000 |
| Apparent consumption, metal ⁵ | 1,130,000 | 74,300 ^r | NA | 327,000 ⁶ |
| Stocks of refined (slab) zinc, end of period: | | | | |
| Producer ^{e, 7} | XX | 9,240 | 8,390 | XX |
| Consumer ⁸ | XX | 51,400 ^r | 51,200 | XX |
| Merchant | XX | 10,200 | 10,200 | XX |
| Total | XX | 70,900 ^r | 69,800 | XX |
| Shipments of zinc metal from Government stockpile | 33,000 | 516 | 957 | 2,910 |
| Imports for consumption: | | | | |
| Refined (slab) zinc | 851,000 | 54,600 | NA | 247,000 ⁶ |
| Oxide (gross weight) | 125,000 | 12,900 | NA | 46,200 ⁶ |
| Ore and concentrate (zinc content) | 383,000 | -- | NA | 184,000 ⁶ |
| Waste and scrap (gross weight) | 14,200 | 2,910 | NA | 7,950 ⁶ |
| Exports: | | | | |
| Refined (slab) zinc | 2,530 | 571 | NA | 6,320 ⁶ |
| Oxide (gross weight) | 28,800 | 2,830 | NA | 11,400 ⁶ |
| Ore and concentrate (zinc content) | 825,000 | 30,600 | NA | 83,200 ⁶ |
| Waste and scrap (gross weight) | 88,300 | 7,470 | NA | 32,200 ⁶ |
| Price: | | | | |
| London Metal Exchange, average, dollars per metric ton | 3,274.42 | 3,556.53 | 3,829.39 | 3,550.31 |
| Platts Metals Week North American Special High Grade, average, cents per pound | 158.89 | 170.47 | 161.04 | 171.21 |

^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.

²Includes zinc metal used to manufacture zinc oxide.

³Monthly estimates are based on reported annual data from the prior year.

⁴Aluminum- and magnesium-base scrap data have fallen due to a change in assumption on the estimated zinc content of magnesium-base scrap.

⁵Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

⁶Includes data through April only.

⁷Data from U.S. Geological Survey and American Bureau of Metal Statistics.

⁸Includes an estimate for companies that report annually.

TABLE 2
REFINED ZINC PRODUCED IN THE UNITED STATES^{1,2}

(Metric tons)

| Month | Beginning | | Shipments ^e | Ending |
|------------------|---------------------|-------------------------|------------------------|--------|
| | stocks ³ | Production ^e | | |
| 2006: | | | | |
| 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 |
| April | 8,670 | 19,300 | 18,800 | 9,240 |
| May | 9,240 | 19,100 | 19,900 | 8,390 |
| January-May | XX | 101,000 | 100,000 | XX |

^eEstimated. XX Not applicable.

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

²Includes zinc metal used to manufacture zinc oxide.

³Includes 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 | 2006 | 2007 | | |
|-------------------------|----------------------|--------|--------|-------------------|
| | January- December | March | April | January- April |
| Galvanizing: | | | | |
| Sheet and strip | 468,000 | 34,200 | 32,500 | 143,000 |
| Other | 160,000 | 12,100 | 11,100 | 48,800 |
| Total | 627,000 | 46,300 | 43,600 | 192,000 |
| Brass and bronze | 173,000 | 13,800 | 13,300 | 54,600 |
| Zinc-base alloy | 240,000 | 11,100 | 10,500 | 52,800 |
| Other uses ² | 85,800 | 7,100 | 7,000 | 27,900 |
| Grand total | 1,130,000 | 78,300 | 74,300 | 327,000 |

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

²Includes 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 PRICES¹

| Period | North American | LME ² cash | |
|------------------|----------------|-----------------------|----------|
| | ¢/lb. | ¢/lb. | \$/t |
| 2006: | | | |
| 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 | 158.89 | 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 |
| April | 170.47 | 161.32 | 3,556.53 |
| May | 182.45 | 173.70 | 3,829.39 |
| January-May | 171.21 | 161.04 | 3,550.31 |

¹Special High Grade.

²London Metal Exchange.

Source: Platts Metals Week.

TABLE 5
U.S. EXPORTS OF ZINC¹

| Material | 2006 | | 2007 | | | |
|--|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | April | | Year to date | |
| | | | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Refined (slab) zinc | 2,530 | \$3,800 | 571 | \$593 | 6,320 | \$4,660 |
| Ore and concentrate (zinc content) | 825,000 | 1,060,000 | 30,600 | 33,800 | 83,200 | 108,000 |
| Waste and scrap (gross weight) | 88,300 | 103,000 | 7,470 | 8,540 | 32,200 | 32,600 |
| Powders, flakes, dust (zinc content) | 16,400 | 33,300 | 1,590 | 3,200 | 6,290 | 13,000 |
| Oxide (gross weight) | 28,800 | 47,900 | 2,830 | 6,090 | 11,400 | 22,300 |
| Chloride (gross weight) | 1,510 | 1,930 | 141 | 163 | 773 | 916 |
| Sulfate (gross weight) | 42,800 | 22,500 | -- | -- | 69 | 194 |
| Compounds, other (gross weight) ² | 1,740 | 3,750 | 407 | 600 | 2,260 | 3,430 |

-- Zero.

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

²Includes zinc sulfide (Schedule B 2830.90.1000 and 2830.90.1500), chromates of zinc of lead (Schedule B 2841.90.4500), and lithopone and other pigments and preparations based on zinc sulfide (Schedule B 3206.42.0000).

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF ZINC¹

| Material | 2006 | | 2007 | | | |
|--|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
| | Quantity (metric tons) | Value (thousands) | April | | Year to date | |
| | | | Quantity (metric tons) | Value (thousands) | Quantity (metric tons) | Value (thousands) |
| Refined (slab) zinc | 851,000 | \$2,050,000 | 54,600 | \$162,000 | 247,000 | \$826,000 |
| Ore and concentrate (zinc content) | 383,000 | 183,000 | -- | -- | 184,000 | 67,300 |
| Waste and scrap (gross weight) | 14,200 | 18,700 | 2,910 | 4,150 | 7,950 | 12,100 |
| Powders, flakes, dust (zinc content) | 30,100 | 107,000 | 2,540 | 11,400 | 9,420 | 44,700 |
| Oxide (gross weight) | 125,000 | 243,000 | 12,900 | 29,000 | 46,200 | 119,000 |
| Chloride (gross weight) | 1,260 | 1,780 | 82 | 482 | 160 | 1,040 |
| Sulfate (gross weight) | 44,400 | 34,100 | 2,250 | 2,410 | 10,300 | 10,800 |
| Compounds, other (gross weight) ² | 7,980 | 9,620 | 616 | 939 | 2,910 | 3,900 |

-- Zero.

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

²Includes zinc sulfide (HTS 2830.90.1000 and 2830.90.1500), chromates of zinc of lead (HTS 2841.90.4500), and lithopone and other pigments and preparations based on zinc sulfide (HTS 3206.42.0000).

Source: U.S. Census Bureau.

TABLE 7
SHIPMENTS OF ZINC METAL FROM THE NATIONAL
DEFENSE STOCKPILE¹

(Metric tons)

| Period | Shipments | Ending inventory ² |
|------------------|-----------------|----------------------------------|
| 2006: | | |
| 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 | 33,000 | XX |
| 2007: | | |
| January | 472 | 14,800 |
| February | 590 | 14,200 |
| March | 375 | 13,900 |
| April | 516 | 13,300 |
| May | 957 | 12,400 |
| January-May | 2,910 | XX |

NA Not available. XX Not applicable.

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

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

³Monthly 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 COUNTRY¹

(Metric tons)

| Material and country | General imports | | | Imports for consumption | | |
|--|-----------------|--------|--------------|-------------------------|--------|--------------|
| | 2006 | 2007 | | 2006 | 2007 | |
| | | April | Year to date | | April | Year to date |
| Ore and concentrate (zinc content): | | | | | | |
| Australia | 2,850 | -- | -- | 2,850 | -- | -- |
| Canada | 2,750 | -- | 31 | 2,750 | -- | 31 |
| Ireland | 17,000 | -- | 49,800 | 17,000 | -- | 49,800 |
| Mexico | 88,100 | -- | 452 | 88,100 | -- | 452 |
| Peru | 273,000 | -- | 133,000 | 273,000 | -- | 133,000 |
| Total | 383,000 | -- | 184,000 | 383,000 | -- | 184,000 |
| Blocks, pigs, or slab: | | | | | | |
| Australia | 15,000 | -- | 7,000 | 47,100 | -- | 7,920 |
| Brazil | 8,790 | -- | 1,000 | 13,000 | -- | 1,000 |
| Canada | 535,000 | 47,300 | 157,000 | 535,000 | 47,300 | 157,000 |
| China | 2,000 | 15 | 2,820 | 57,300 | 15 | 7,920 |
| Finland | -- | -- | -- | 51 | -- | 374 |
| India | 12,200 | 68 | 4,150 | 12,200 | 68 | 4,150 |
| Japan | 251 | -- | -- | 6,200 | -- | -- |
| Kazakhstan | 6,000 | -- | 28,000 | 6,000 | -- | 28,000 |
| Korea, Republic of | -- | -- | -- | 66,800 | -- | 9,120 |
| Mexico | 103,000 | 7,220 | 32,100 | 103,000 | 7,220 | 32,100 |
| Norway | -- | -- | -- | 1,160 | -- | 25 |
| Peru | 1,080 | -- | -- | 1,360 | -- | -- |
| Other | 21 | -- | -- | 1,740 | -- | -- |
| Total | 683,000 | 54,600 | 232,000 | 851,000 | 54,600 | 247,000 |
| Dross, ashes, fume (zinc content) | 31,100 | 1,610 | 8,320 | 31,100 | 1,610 | 8,320 |
| Grand total | 1,100,000 | 56,200 | 424,000 | 1,270,000 | 56,200 | 439,000 |
| Oxide (gross weight): | | | | | | |
| Canada | 49,100 | 4,000 | 15,600 | 49,100 | 4,000 | 15,600 |
| China | 277 | 102 | 195 | 277 | 102 | 195 |
| Germany | 800 | 194 | 485 | 800 | 194 | 485 |
| Italy | 24,500 | -- | 5,050 | 24,500 | -- | 5,050 |
| Japan | 1,290 | 229 | 350 | 1,290 | 229 | 350 |
| Mexico | 31,900 | 3,130 | 10,700 | 31,900 | 3,130 | 10,700 |
| Netherlands | 7,820 | 890 | 8,610 | 7,820 | 890 | 8,610 |
| Spain | 1,150 | 201 | 979 | 1,150 | 201 | 979 |
| Sweden | 7,500 | 3,800 | 3,800 | 7,500 | 3,800 | 3,800 |
| Other | 618 | 343 | 494 | 618 | 343 | 494 |
| Total | 125,000 | 12,900 | 46,200 | 125,000 | 12,900 | 46,200 |
| Other (gross weight): | | | | | | |
| Waste and scrap | 14,200 | 2,910 | 7,950 | 14,200 | 2,910 | 7,950 |
| Sheets | 2,050 | 68 | 328 | 2,050 | 68 | 328 |
| Powders, flakes, dust (zinc content) | 30,100 | 2,540 | 9,420 | 30,100 | 2,540 | 9,420 |

-- Zero.

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

Source: U.S. Census Bureau.