

# Mineral Industry Surveys

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## ZINC IN FEBRUARY 2010

Domestic mine production (recoverable) of zinc in February 2010 was 56,500 metric tons (t), according to the U.S. Geological Survey. Average daily mine production in February was 2,020 t, 5% higher than that in January 2010 and 5% higher than that in February 2009.

The Platts Metals Week average price for North American Special High Grade (SHG) zinc for February 2010 was 100.69 cents per pound, 11% lower than the January 2010 average price

but 88% higher than the February 2009 average price. The average London Metal Exchange Ltd. (LME) cash price of SHG zinc for February 2010 decreased to \$2,156.49 per metric ton, 11% lower than the average price in January 2010 but a 94% increase compared with the average price in February 2009. During February 2010, global LME stocks of SHG zinc increased by 44,250 t to 541,375 t.

TABLE 1  
SALIENT ZINC STATISTICS<sup>1</sup>

(Metric tons, unless otherwise specified)

|   | 2009                 | 2010                |          |                      |
|---|----------------------|---------------------|----------|----------------------|
|   | January-<br>December | January             | February | January-<br>February |
| <b>Production:</b>  |                      |                     |          |                      |
| Mine, zinc content of concentrate <sup>2</sup>  | 736,000              | 61,500              | 58,500   | 120,000              |
| Mine, recoverable zinc <sup>2</sup>   | 710,000              | 59,400              | 56,500   | 116,000              |
| Smelter, refined zinc <sup>e,3</sup>  | 203,000              | 20,200 <sup>r</sup> | 20,200   | 40,400               |
| <b>Consumption of refined zinc:</b>   |                      |                     |          |                      |
| Apparent <sup>4</sup>   | 891,000              | 79,100 <sup>r</sup> | 72,700   | 152,000              |
| Reported  | 215,000              | 19,700              | 19,100   | 38,800               |
| Reported stocks of refined zinc, end of period,<br>producer and consumer <sup>5</sup> | XX                   | 27,500              | 27,400   | XX                   |
| Shipments of zinc metal from Government stockpile                                     | 1                    | --                  | --       | --                   |
| <b>Imports for consumption:</b>   |                      |                     |          |                      |
| Refined zinc  | 686,000              | 58,500              | 52,600   | 111,000              |
| Oxide (gross weight)  | 69,200               | 6,010               | 6,330    | 12,300               |
| Ore and concentrate (zinc content)  | 74,200               | --                  | 9,610    | 9,610                |
| Waste and scrap (gross weight)  | 9,100                | 751                 | 707      | 1,460                |
| <b>Exports:</b>   |                      |                     |          |                      |
| Refined zinc  | 2,960                | 395                 | 170      | 565                  |
| Oxide (gross weight)  | 17,300               | 880                 | 1,090    | 1,970                |
| Ore and concentrate (zinc content)  | 785,000              | 6,980               | 14,300   | 21,300               |
| Waste and scrap (gross weight)  | 47,100               | 2,880               | 6,700    | 9,580                |
| <b>Price:<sup>6</sup></b>   |                      |                     |          |                      |
| London Metal Exchange cash, average,<br>dollars per metric ton                        | 1,654.69             | 2,434.11            | 2,156.49 | 2,295.30             |
| Platts Metals Week North American, average,<br>cents per pound                        | 77.91                | 113.28              | 100.69   | 106.99               |

<sup>e</sup>Estimated. <sup>r</sup>Revised. XX Not applicable. -- Zero.

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

<sup>2</sup>Reported zinc content in both zinc and lead concentrates.

<sup>3</sup>Includes zinc metal used to manufacture zinc oxide.

<sup>4</sup>Smelter production plus imports minus exports plus shipments from Government stockpile plus stock change.

<sup>5</sup>Does not include an estimate for companies that report annually.

<sup>6</sup>Special High Grade Zinc.

TABLE 2  
MINE PRODUCTION OF ZINC IN THE UNITED STATES<sup>1, 2</sup>

(Metric tons)

| Period           | Zinc content | Recoverable |
|------------------|--------------|-------------|
| 2009:            |              |             |
| February         | 55,900       | 54,000      |
| March            | 57,200       | 55,200      |
| April            | 60,500       | 58,400      |
| May              | 58,200       | 56,100      |
| June             | 60,700       | 58,600      |
| July             | 59,400       | 57,300      |
| August           | 64,600       | 62,400      |
| September        | 63,200       | 61,000      |
| October          | 68,300       | 65,900      |
| November         | 51,700       | 49,900      |
| December         | 64,300       | 62,100      |
| January-December | 736,000      | 710,000     |
| 2010:            |              |             |
| January          | 61,500       | 59,400      |
| February         | 58,500       | 56,500      |
| January-February | 120,000      | 116,000     |

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

<sup>2</sup>Includes the zinc content in both lead and zinc concentrates.

TABLE 3  
APPARENT CONSUMPTION OF REFINED ZINC ACCORDING  
TO INDUSTRY USE AND PRODUCT<sup>1</sup>

(Metric tons)

|                         | 2009                 | 2010                 |          |                      |
|-------------------------|----------------------|----------------------|----------|----------------------|
|                         | January-<br>December | January <sup>f</sup> | February | January-<br>February |
| Galvanizing:            |                      |                      |          |                      |
| Sheet and strip         | 402,000              | 36,400               | 34,000   | 70,400               |
| Other                   | 152,000              | 13,300               | 11,400   | 24,700               |
| Total                   | 554,000              | 49,700               | 45,400   | 95,100               |
| Brass and bronze        | 153,000              | 13,000               | 12,100   | 25,100               |
| Zinc-base alloy         | 134,000              | 11,800               | 10,700   | 22,500               |
| Other uses <sup>2</sup> | 49,600               | 4,540                | 4,480    | 9,020                |
| Grand total             | 891,000              | 79,100               | 72,700   | 152,000              |

<sup>f</sup>Revised.

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

<sup>2</sup>Includes zinc used in making zinc dust, desilvering lead, powder, alloys, anodes, chemicals, casting, light metal alloys, rolled zinc, and miscellaneous uses not elsewhere specified.

TABLE 4  
SHIPMENTS OF ZINC METAL FROM THE NATIONAL  
DEFENSE STOCKPILE<sup>1</sup>

(Metric tons)

| Period           | Shipments      | Ending inventory <sup>2</sup> |
|------------------|----------------|-------------------------------|
| 2009:            |                |                               |
| February         | --             | 7,490                         |
| March            | 1 <sup>3</sup> | 7,490                         |
| April            | --             | 7,490                         |
| May              | --             | 7,490                         |
| June             | --             | 7,490                         |
| July             | --             | 7,490                         |
| August           | --             | 7,490                         |
| September        | --             | 7,490                         |
| October          | --             | 7,490                         |
| November         | --             | 7,490                         |
| December         | --             | 7,490                         |
| January-December | 1              | XX                            |
| 2010:            |                |                               |
| January          | --             | 7,490                         |
| February         | --             | 7,490                         |
| January-February | --             | XX                            |

XX Not applicable. -- Zero.

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

<sup>2</sup>Includes only uncommitted inventory.

<sup>3</sup>Inventory reconciliation.

Source: Defense National Stockpile Center.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF ZINC<sup>1</sup>

(Gross weight, unless otherwise specified)

| Material                           | 2009                      |                      | 2010                      |                      |                           |                      |
|------------------------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
|                                    | Quantity<br>(metric tons) | Value<br>(thousands) | February                  |                      | Year to date              |                      |
|                                    |                           |                      | Quantity<br>(metric tons) | Value<br>(thousands) | Quantity<br>(metric tons) | Value<br>(thousands) |
| Ore and concentrate (zinc content) | 74,200                    | \$68,200             | 9,610                     | \$12,000             | 9,610                     | \$12,000             |
| Unwrought:                         |                           |                      |                           |                      |                           |                      |
| Refined (slab) zinc                | 686,000                   | 1,080,000            | 52,600                    | 123,000              | 111,000                   | 262,000              |
| Zinc alloys                        | 4,900                     | 8,980                | 369                       | 875                  | 1,020                     | 2,410                |
| Wrought:                           |                           |                      |                           |                      |                           |                      |
| Bars, rods, profiles, wire         | 1,900                     | 4,730                | 226                       | 704                  | 532                       | 1,570                |
| Plates, sheets, strip, foil        | 3,010                     | 13,500               | 208                       | 872                  | 687                       | 2,910                |
| Other:                             |                           |                      |                           |                      |                           |                      |
| Dross, ashes, fume (zinc content)  | 8,610                     | 7,760                | 2,090                     | 2,140                | 2,900                     | 2,780                |
| Powders, flakes, dust              | 20,400                    | 44,300               | 1,940                     | 5,650                | 3,430                     | 10,400               |
| Waste and scrap                    | 9,100                     | 8,800                | 707                       | 869                  | 1,460                     | 1,850                |
| Chemicals:                         |                           |                      |                           |                      |                           |                      |
| Oxide                              | 69,200                    | 98,500               | 6,330                     | 11,900               | 12,300                    | 24,000               |
| Chloride                           | 249                       | 964                  | 31                        | 140                  | 55                        | 219                  |
| Sulfate                            | 31,700                    | 23,000               | 2,840                     | 2,290                | 4,760                     | 3,950                |
| Compounds, other <sup>2</sup>      | 3,160                     | 4,610                | 183                       | 347                  | 721                       | 1,020                |

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Includes zinc sulfide (HTS 2830.90.1000 and 2830.90.1500), chromates of zinc or 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 6  
U.S. IMPORTS OF ZINC, BY TYPE OF MATERIAL AND COUNTRY<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

| Material and country                       | General imports |          |              | Imports for consumption |          |              |
|--|-----------------|----------|--------------|-------------------------|----------|--------------|
|  | 2009            | 2010     |              | 2009                    | 2010     |              |
|  |                 | February | Year to date |                         | February | Year to date |
| <b>Ore and concentrate (zinc content):</b> |                 |          |              |                         |          |              |
| Canada                                     | 1,550           | --       | --           | 1,550                   | --       | --           |
| Ireland                                    | 11,600          | --       | --           | 11,600                  | --       | --           |
| Mexico                                     | 5,410           | --       | --           | 5,410                   | --       | --           |
| Peru                                       | 55,600          | 9,610    | 9,610        | 55,600                  | 9,610    | 9,610        |
| Total                                      | 74,200          | 9,610    | 9,610        | 74,200                  | 9,610    | 9,610        |
| <b>Refined (slab) zinc:</b>                |                 |          |              |                         |          |              |
| Brazil                                     | 2,060           | 1,960    | 1,960        | 2,060                   | 1,960    | 1,960        |
| Canada                                     | 551,000         | 44,400   | 93,200       | 551,000                 | 44,400   | 93,200       |
| China                                      | 318             | 1        | 1            | 318                     | 1        | 37           |
| Germany                                    | 1               | --       | --           | 1                       | --       | --           |
| Japan                                      | 696             | 194      | 432          | 696                     | 194      | 432          |
| Kazakhstan                                 | 493             | --       | --           | 493                     | --       | --           |
| Korea, Republic of                         | --              | --       | --           | 32                      | --       | 36           |
| Malaysia                                   | (2)             | --       | --           | (2)                     | --       | --           |
| Mexico                                     | 85,600          | 5,320    | 12,800       | 85,600                  | 5,320    | 12,800       |
| Peru                                       | 44,800          | 660      | 2,150        | 45,000                  | 660      | 2,150        |
| South Africa                               | 897             | 79       | 508          | 897                     | 79       | 508          |
| Sweden                                     | (2)             | --       | --           | (2)                     | --       | --           |
| Taiwan                                     | 8               | 4        | 5            | 8                       | 4        | 5            |
| Total                                      | 686,000         | 52,600   | 111,000      | 686,000                 | 52,600   | 111,000      |
| <b>Dross, ashes, fume (zinc content)</b>   |                 |          |              |                         |          |              |
|  | 8,610           | 2,090    | 2,900        | 8,610                   | 2,090    | 2,900        |
| Grand total                                | 769,000         | 64,300   | 124,000      | 769,000                 | 64,300   | 124,000      |
| <b>Oxide:</b>                              |                 |          |              |                         |          |              |
| Australia                                  | 384             | 19       | 19           | 384                     | 19       | 19           |
| Belgium                                    | 857             | 5        | 47           | 857                     | 5        | 47           |
| Canada                                     | 33,500          | 3,350    | 7,210        | 33,500                  | 3,350    | 7,210        |
| China                                      | 379             | 45       | 99           | 379                     | 45       | 99           |
| France                                     | 1               | --       | --           | 1                       | --       | --           |
| Germany                                    | 344             | 19       | 86           | 344                     | 19       | 86           |
| India                                      | 1               | 1        | 1            | 1                       | 1        | 1            |
| Italy                                      | 2,110           | 1        | 1            | 2,110                   | 1        | 1            |
| Japan                                      | 1,520           | 243      | 405          | 1,520                   | 243      | 405          |
| Mexico                                     | 24,400          | 2,160    | 3,950        | 24,400                  | 2,160    | 3,950        |
| Netherlands                                | 3,890           | 453      | 453          | 3,890                   | 453      | 453          |
| Norway                                     | 1,110           | --       | --           | 1,110                   | --       | --           |
| Peru                                       | 199             | --       | 18           | 199                     | --       | 18           |
| Spain                                      | 487             | --       | --           | 487                     | --       | --           |
| Trinidad and Tobago                        | --              | 4        | 17           | --                      | 4        | 17           |
| Turkey                                     | 80              | 20       | 20           | 80                      | 20       | 20           |
| United Kingdom                             | 62              | 10       | 26           | 62                      | 10       | 26           |
| Total                                      | 69,200          | 6,330    | 12,300       | 69,200                  | 6,330    | 12,300       |

-- Zero.

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

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF ZINC<sup>1</sup>

(Gross weight, unless otherwise specified)

| Material                           | 2009                      |                      | 2010                      |                      |                           |                      |
|------------------------------------|---------------------------|----------------------|---------------------------|----------------------|---------------------------|----------------------|
|                                    | Quantity<br>(metric tons) | Value<br>(thousands) | February                  |                      | Year to date              |                      |
|                                    |                           |                      | Quantity<br>(metric tons) | Value<br>(thousands) | Quantity<br>(metric tons) | Value<br>(thousands) |
| Ore and concentrate (zinc content) | 785,000                   | \$656,000            | 14,300                    | \$13,700             | 21,300                    | \$19,500             |
| Unwrought:                         |                           |                      |                           |                      |                           |                      |
| Refined (slab) zinc                | 2,960                     | 3,070                | 170                       | 170                  | 565                       | 562                  |
| Zinc alloys                        | 6,280                     | 14,300               | 919                       | 2,200                | 1,610                     | 3,920                |
| Wrought:                           |                           |                      |                           |                      |                           |                      |
| Bars, rods, profiles, wire         | 16,600                    | 28,500               | 1,680                     | 3,030                | 3,300                     | 5,670                |
| Plates, sheets, strip, foil        | 6,160                     | 17,700               | 481                       | 1,500                | 895                       | 2,930                |
| Other:                             |                           |                      |                           |                      |                           |                      |
| Dross, ashes, fume (zinc content)  | 13,500                    | 11,000               | 989                       | 1,200                | 2,350                     | 1,930                |
| Powders, flakes, dust              | 12,100                    | 24,800               | 1,150                     | 2,670                | 1,860                     | 4,240                |
| Waste and scrap                    | 47,100                    | 54,300               | 6,700                     | 7,760                | 9,580                     | 11,200               |
| Chemicals:                         |                           |                      |                           |                      |                           |                      |
| Oxide                              | 17,300                    | 31,100               | 1,090                     | 2,930                | 1,970                     | 5,050                |
| Chloride                           | 1,800                     | 2,750                | 104                       | 148                  | 335                       | 482                  |
| Sulfate                            | 1,030                     | 1,610                | 182                       | 246                  | 305                       | 455                  |
| Compounds, other <sup>2</sup>      | 5,240                     | 12,000               | 871                       | 1,630                | 1,480                     | 2,640                |

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Includes zinc sulfide (Schedule B 2830.90.1000 and 2830.90.1500), chromates of zinc or 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 8  
AVERAGE PRICES FOR SPECIAL HIGH GRADE ZINC

| Period           | North<br>American <sup>1</sup> | London Metal Exchange<br>cash <sup>2</sup> |          |
|------------------|--------------------------------|--|----------|
|                  | ¢/lb.                          | ¢/lb.                                      | \$/t     |
| 2009:            |                                |  |          |
| February         | 53.44                          | 50.43                                      | 1,111.75 |
| March            | 58.03                          | 55.17                                      | 1,216.31 |
| April            | 65.30                          | 62.53                                      | 1,378.44 |
| May              | 70.05                          | 67.28                                      | 1,483.16 |
| June             | 73.39                          | 70.62                                      | 1,556.92 |
| July             | 74.36                          | 71.59                                      | 1,578.21 |
| August           | 85.38                          | 82.60                                      | 1,821.06 |
| September        | 88.22                          | 85.44                                      | 1,883.66 |
| October          | 96.82                          | 93.95                                      | 2,071.19 |
| November         | 102.34                         | 99.47                                      | 2,193.02 |
| December         | 110.62                         | 107.75                                     | 2,375.49 |
| January-December | 77.91                          | 75.06                                      | 1,654.69 |
| 2010:            |                                |  |          |
| January          | 113.28                         | 110.41                                     | 2,434.11 |
| February         | 100.69                         | 97.82                                      | 2,156.49 |
| January-February | 106.99                         | 104.11                                     | 2,295.30 |

<sup>1</sup>Platts Metals Week North American price. Based on the London Metal Exchange cash price plus premiums or discounts, depending on market conditions.

<sup>2</sup>Average of the cash buyer price and the cash seller and settlement price.

Source: Platts Metals Week.