

# Mineral Industry Surveys

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## SILVER IN MARCH 2017

U.S. mines produced 103,000 kilograms (kg) of silver in March, a 10% increase compared with February’s revised production and a 5% increase compared with that in March 2016 (table 1). Based on unrounded data, the average daily silver production in March was 3,320 kg, a slight decrease compared with 3,360 kg in February and 5% more than 3,160 kg for March 2016. The average daily silver production in the first quarter of 2017 was 3,370 kg. This was a 7% increase from the average daily silver production in the first quarter of 2016, which was 3,140 kg.

per troy ounce, a slight increase from that in the previous quarter and a 17% increase from the first quarter average price in 2016. The trends in monthly silver prices (high, low, and average) from March 2015 through March 2017 are shown in figure 1.

The daily price in March ranged between a high of \$18.30 per troy ounce on March 2 and a low of \$16.92 per ounce on March 15 (table 2).

**Prices**

The average monthly Engelhard silver price decreased slightly for the first time in 2 months to \$17.63 per troy ounce in March 2017. The first quarter average monthly price was \$17.45

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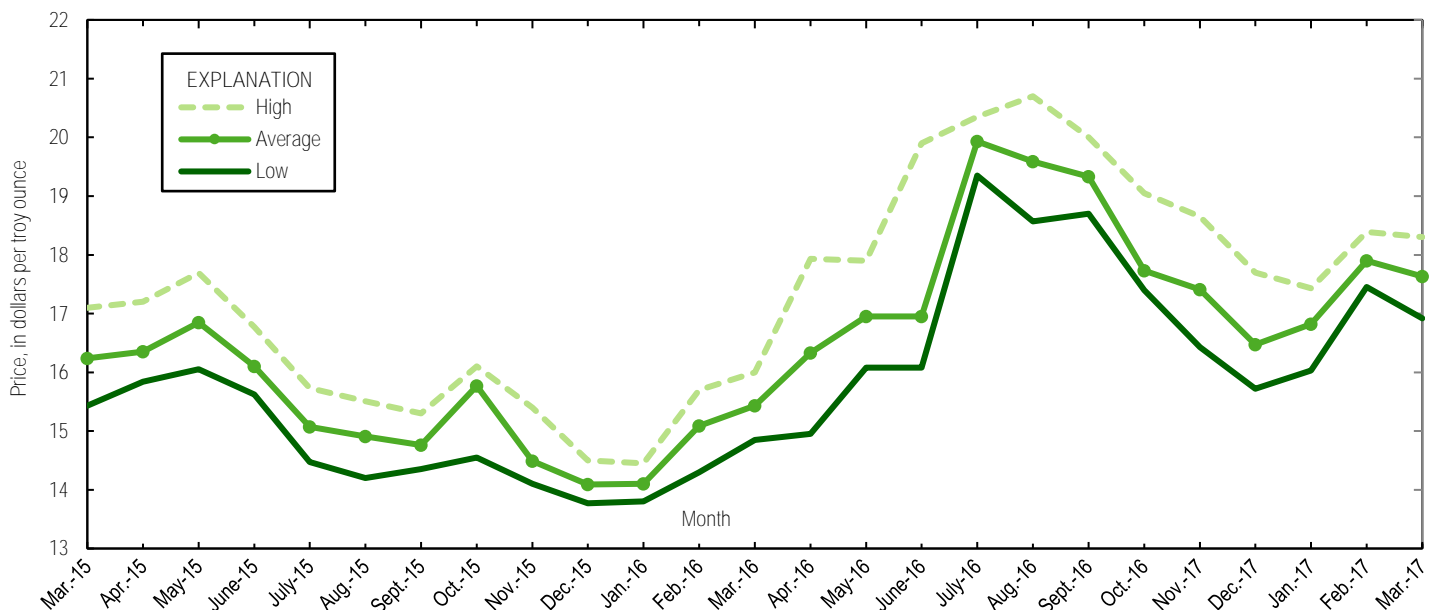


Figure 1. Engelhard monthly silver prices for March 2015 through March 2017. Source: Platts Metals Week.

TABLE 1  
MINE PRODUCTION OF RECOVERABLE SILVER  
IN THE UNITED STATES, BY STATE<sup>1</sup>

(Kilograms)

|                           | Nevada               | Other<br>States <sup>2</sup> | Total                  |
|---------------------------|----------------------|------------------------------|------------------------|
| <b>2016: <sup>p</sup></b> |                      |                              |                        |
| March                     | 21,600 <sup>r</sup>  | 76,500                       | 98,000 <sup>r</sup>    |
| April                     | 22,600 <sup>r</sup>  | 69,600                       | 92,200 <sup>r</sup>    |
| May                       | 22,900 <sup>r</sup>  | 70,900                       | 93,800 <sup>r</sup>    |
| June                      | 22,000 <sup>r</sup>  | 68,600                       | 90,600 <sup>r</sup>    |
| July                      | 23,500 <sup>r</sup>  | 67,500                       | 91,000 <sup>r</sup>    |
| August                    | 24,300 <sup>r</sup>  | 79,700                       | 104,000 <sup>r</sup>   |
| September                 | 23,600 <sup>r</sup>  | 74,900                       | 98,500 <sup>r</sup>    |
| October                   | 23,900 <sup>r</sup>  | 76,200                       | 100,000 <sup>r</sup>   |
| November                  | 24,500 <sup>r</sup>  | 70,200                       | 94,600 <sup>r</sup>    |
| December                  | 25,800 <sup>r</sup>  | 70,300                       | 96,100 <sup>r</sup>    |
| January–December          | 276,000 <sup>r</sup> | 871,000                      | 1,150,000 <sup>r</sup> |
| <b>2017:</b>              |                      |                              |                        |
| January <sup>f</sup>      | 25,500               | 80,700                       | 106,000                |
| February <sup>f</sup>     | 26,000               | 68,000                       | 94,000                 |
| March                     | 25,700               | 77,300                       | 103,000                |
| January–March             | 77,200               | 226,000                      | 303,000                |

<sup>p</sup>Preliminary. <sup>r</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 Alaska, Arizona, California, Colorado, Idaho, Missouri, Montana, New Mexico, South Dakota, and Utah.

TABLE 2  
SILVER PRICES

(Dollars per troy ounce)

|                                  | Price | Date    |
|----------------------------------|-------|---------|
| <b>Engelhard:</b>                |       |         |
| 2016:                            |       |         |
| Low                              | 13.80 | Jan. 14 |
| High                             | 20.70 | Aug. 2  |
| Average                          | 17.20 | XX      |
| 2017:                            |       |         |
| January:                         |       |         |
| Low                              | 16.03 | Jan. 3  |
| High                             | 17.43 | Jan. 31 |
| Average                          | 16.82 | XX      |
| February:                        |       |         |
| Low                              | 17.45 | Feb. 3  |
| High                             | 18.39 | Feb. 24 |
| Average                          | 17.90 | XX      |
| March:                           |       |         |
| Low                              | 16.92 | Mar. 15 |
| High                             | 18.30 | Mar. 2  |
| Average                          | 17.63 | XX      |
| Year to date:                    |       |         |
| Low                              | 16.03 | Jan. 3  |
| High                             | 18.39 | Feb. 24 |
| Average                          | 17.45 | XX      |
| <b>Handy and Harman:</b>         |       |         |
| 2016, Average                    | 18.00 | XX      |
| 2017:                            |       |         |
| January                          | 16.90 | XX      |
| February                         | 17.93 | XX      |
| March                            | 17.62 | XX      |
| Year to date                     | 17.48 | XX      |
| <b>London Final:<sup>1</sup></b> |       |         |
| 2016, Average                    | 17.98 | XX      |
| 2017:                            |       |         |
| January                          | 16.81 | XX      |
| February                         | 17.87 | XX      |
| March                            | 17.59 | XX      |
| Year to date                     | 17.42 | XX      |

XX Not applicable.

<sup>1</sup>Reported as "London Spot/US Equiv."

Source: Platts Metals Week.

TABLE 3  
U.S. IMPORTS OF SILVER<sup>1</sup>

| Period and country | Bullion                       |                      | Doré                          |                      | Ores and concentrates <sup>2</sup><br>Ash and residues |                      | Total                         |                      |
|--------------------|-------------------------------|----------------------|-------------------------------|----------------------|--|----------------------|-------------------------------|----------------------|
|                    | Silver content<br>(kilograms) | Value<br>(thousands) | Silver content<br>(kilograms) | Value<br>(thousands) | Silver content<br>(kilograms)                          | Value<br>(thousands) | Silver content<br>(kilograms) | Value<br>(thousands) |
| 2016               | 4,870,000                     | \$2,680,000          | 1,290,000                     | \$1,090,000          | 172  | \$46                 | 6,160,000                     | \$3,770,000          |
| 2017:              |                               |                      |                               |                      |  |                      |                               |                      |
| January            | 409,000                       | 215,000              | 85,300                        | 78,700               | --   | --                   | 494,000                       | 294,000              |
| February           | 413,000                       | 236,000              | 70,200                        | 62,000               | 1,130  | 377                  | 484,000 <sup>r</sup>          | 299,000 <sup>r</sup> |
| March:             |                               |                      |                               |                      |  |                      |                               |                      |
| Argentina          | 500                           | 260                  | 5,560                         | 5,630                | --   | --                   | 6,060                         | 5,890                |
| Bolivia            | --                            | --                   | 12,800                        | 7,280                | --   | --                   | 12,800                        | 7,280                |
| Canada             | 105,000                       | 58,800               | --                            | --                   | 375  | 125                  | 105,000                       | 58,900               |
| Colombia           | --                            | --                   | 485                           | 246                  | --   | --                   | 485                           | 246                  |
| Ecuador            | --                            | --                   | 539                           | 298                  | --   | --                   | 539                           | 298                  |
| Guatemala          | --                            | --                   | 11,500                        | 14,400               | --   | --                   | 11,500                        | 14,400               |
| Italy              | --                            | --                   | 257                           | 145                  | --   | --                   | 257                           | 145                  |
| Mexico             | 168,000                       | 95,200               | 51,200                        | 52,800               | --   | --                   | 219,000                       | 148,000              |
| Peru               | 9,920                         | 5,630                | 23,900                        | 25,300               | --   | --                   | 33,800                        | 30,900               |
| Poland             | 20,200                        | 11,300               | --                            | --                   | --   | --                   | 20,200                        | 11,300               |
| Switzerland        | --                            | --                   | 251                           | 138                  | --   | --                   | 251                           | 138                  |
| Other              | 49                            | 29                   | 136                           | 136                  | --   | --                   | 185                           | 165                  |
| Total              | 304,000                       | 171,000              | 107,000                       | 106,000              | 375  | 125                  | 411,000                       | 278,000              |
| January–March      | 1,130,000                     | 623,000              | 262,000                       | 247,000              | 1,500  | 502                  | 1,390,000                     | 871,000              |

<sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>Includes silver content of base metal ores and concentrates.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS OF REFINED SILVER<sup>1</sup>

| Period and country | Other unwrought silver<br>(gross weight) |                      | Metal powder<br>(gross weight) |                      | Silver nitrate<br>(gross weight) |                      | Semi manufactured forms <sup>2</sup><br>(gross weight) |                      | Waste and scrap<br>(gross weight) |                      |
|--------------------|--|----------------------|--------------------------------|----------------------|----------------------------------|----------------------|--|----------------------|-----------------------------------|----------------------|
|                    | Quantity<br>(kilograms)                  | Value<br>(thousands) | Quantity<br>(kilograms)        | Value<br>(thousands) | Quantity<br>(kilograms)          | Value<br>(thousands) | Quantity<br>(kilograms)                                | Value<br>(thousands) | Quantity<br>(kilograms)           | Value<br>(thousands) |
| 2016               | 343,000                                  | \$164,000            | 356,000                        | \$52,500             | 3,390                            | \$731                | 692,000  | \$357,000            | 6,650,000                         | \$260,000            |
| 2017:              |  |                      |                                |                      |                                  |                      |  |                      |                                   |                      |
| January            | 47,300                                   | 24,300               | 13,000                         | 4,030                | 286                              | 55                   | 57,900   | 31,400               | 632,000                           | 20,800               |
| February           | 37,600                                   | 17,900               | 37,700                         | 2,430                | 719                              | 79                   | 7,270  | 4,180                | 334,000                           | 26,000               |
| March              |  |                      |                                |                      |                                  |                      |  |                      |                                   |                      |
| Belgium            | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 30,200                            | 250                  |
| Brazil             | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 14,400                            | 418                  |
| Canada             | 20,100                                   | 10,600               | 1,700                          | 81                   | 48                               | 28                   | 19,000   | 11,000               | 62,000                            | 7,050                |
| Chile              | --                                       | --                   | --                             | --                   | --                               | --                   | 31,300   | 17,900               | --                                | --                   |
| China              | --                                       | --                   | 4,860                          | 198                  | --                               | --                   | --   | --                   | 95,200                            | 8,140                |
| Costa Rica         | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 583                               | 190                  |
| Dominican Republic | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 368                               | 293                  |
| France             | --                                       | --                   | 88                             | 87                   | --                               | --                   | --   | --                   | 9,710                             | 32                   |
| Germany            | 435                                      | 288                  | 977                            | 587                  | 844                              | 64                   | 1,160  | 540                  | 148,000                           | 11,900               |
| Honduras           | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 3,670                             | 10                   |
| Hong Kong          | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 34                                | 16                   |
| Hungary            | --                                       | --                   | 3,560                          | 174                  | --                               | --                   | --   | --                   | --                                | --                   |
| Italy              | 581                                      | 246                  | --                             | --                   | --                               | --                   | 13   | 29                   | --                                | --                   |
| Jamaica            | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 640                               | 36                   |
| Japan              | 5  | 5                    | 18,300                         | 2,630                | --                               | --                   | 8  | 5                    | 96                                | 39                   |
| Korea, Republic of | --                                       | --                   | --                             | --                   | --                               | --                   | 18,300   | 9,890                | 4                                 | 3                    |
| Mexico             | 26,700                                   | 14,800               | --                             | --                   | --                               | --                   | 7,330  | 4,240                | 33,300                            | 562                  |
| Netherlands        | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 6,080                             | 26                   |
| Peru               | 2,900                                    | 1,610                | --                             | --                   | --                               | --                   | --   | --                   | 1,090                             | 52                   |
| Singapore          | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 18                                | 19                   |
| South Africa       | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 717                               | 153                  |
| Spain              | --                                       | --                   | --                             | --                   | --                               | --                   | 15   | 9                    | 226                               | 5,620                |
| Sweden             | --                                       | --                   | 50                             | 19                   | --                               | --                   | --   | --                   | 3,340                             | 10                   |
| Taiwan             | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 180                               | 81                   |
| Vietnam            | --                                       | --                   | --                             | --                   | --                               | --                   | --   | --                   | 8,510                             | 182                  |
| Other              | 9  | 12                   | 186                            | 111                  | 42                               | 26                   | 20.00  | 12.00                | 14,600                            | 729                  |
| Total              | 50,800                                   | 27,600               | 29,700                         | 3,880                | 934                              | 118                  | 77,200   | 43,600               | 433,000                           | 35,900               |
| January–March      | 136,000                                  | 69,700               | 80,400                         | 10,300               | 1,940                            | 251                  | 142,000  | 79,100               | 1,400,000                         | 82,600               |

-- Zero.

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

<sup>2</sup>Containing 99.5% or more by weight of silver.

Source: U.S. Census Bureau.

TABLE 5  
U.S. EXPORTS OF SILVER<sup>1</sup>

| Period and country   | Bullion                    |                   | Doré                       |                   | Ores and concentrates <sup>2</sup> |                   | Total                      |                   |
|----------------------|----------------------------|-------------------|----------------------------|-------------------|------------------------------------|-------------------|----------------------------|-------------------|
|                      | Silver content (kilograms) | Value (thousands) | Silver content (kilograms) | Value (thousands) | Silver content (kilograms)         | Value (thousands) | Silver content (kilograms) | Value (thousands) |
| 2016                 | 237,000                    | \$139,000         | 35,800                     | \$21,300          | 15,900                             | \$27,500          | 289,000                    | \$188,000         |
| 2017:                |                            |                   |                            |                   |                                    |                   |                            |                   |
| January              | 14,200                     | 9,250             | 8,290                      | 6,860             | 1,220                              | 3,440             | 23,800                     | 19,600            |
| February             | 3,320                      | 2,190             | 10,200                     | 8,110             | 2,680                              | 3,090             | 16,200                     | 13,400            |
| March:               |                            |                   |                            |                   |                                    |                   |                            |                   |
| Australia            | 543                        | 296               | 189                        | 108               | --                                 | --                | 732                        | 404               |
| Canada               | 2,950                      | 1,740             | --                         | --                | --                                 | --                | 2,950                      | 1,740             |
| Germany              | 1,580                      | 755               | 475                        | 277               | --                                 | --                | 2,060                      | 1,030             |
| Hong Kong            | 41                         | 32                | 188                        | 179               | --                                 | --                | 229                        | 211               |
| India                | 5                          | 9                 | 473                        | 307               | --                                 | --                | 478                        | 316               |
| Italy                | 286                        | 263               | 400                        | 225               | --                                 | --                | 686                        | 488               |
| Korea, Republic of   | --                         | --                | --                         | --                | 1,000                              | 1,040             | 1,000                      | 1,040             |
| Mexico               | 350                        | 201               | 19                         | 17                | --                                 | --                | 369                        | 218               |
| Singapore            | 73                         | 31                | 237                        | 138               | --                                 | --                | 310                        | 169               |
| Sweden               | 422                        | 388               | --                         | --                | --                                 | --                | 422                        | 388               |
| Switzerland          | --                         | --                | 309                        | 230               | --                                 | --                | 309                        | 230               |
| United Arab Emirates | 3                          | 5                 | 245                        | 136               | --                                 | --                | 248                        | 141               |
| United Kingdom       | 186                        | 89                | 1,480                      | 912               | --                                 | --                | 1,660                      | 1,000             |
| Other                | 154                        | 98                | 144                        | 91                | --                                 | --                | 298                        | 189               |
| Total                | 6,600                      | 3,900             | 4,160                      | 2,620             | 1,000                              | 1,040             | 11,800                     | 7,560             |
| January–March        | 24,200                     | 15,400            | 22,600                     | 17,600            | 4,910                              | 7,560             | 51,700                     | 40,500            |

-- Zero.

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

<sup>2</sup>Includes silver content of base metal ores and concentrates.

Source: U.S. Census Bureau.

TABLE 6  
U.S. EXPORTS OF REFINED SILVER<sup>1</sup>

| Period and country | Other unwrought silver<br>(gross weight) |                      | Metal powder<br>(gross weight) |                      | Silver nitrate<br>(gross weight) |                      | Semi manufactured forms <sup>2</sup><br>(gross weight) |                      | Waste and scrap<br>(gross weight) |                      |
|--------------------|--|----------------------|--------------------------------|----------------------|----------------------------------|----------------------|--|----------------------|-----------------------------------|----------------------|
|                    | Quantity<br>(kilograms)                  | Value<br>(thousands) | Quantity<br>(kilograms)        | Value<br>(thousands) | Quantity<br>(kilograms)          | Value<br>(thousands) | Quantity<br>(kilograms)                                | Value<br>(thousands) | Quantity<br>(kilograms)           | Value<br>(thousands) |
| 2016               | 231,000                                  | \$166,000            | 772,000                        | \$468,000            | 43,600                           | \$4,040              | 702,000  | \$427,000            | 13,400,000                        | \$1,460,000          |
| 2017:              |  |                      |                                |                      |                                  |                      |  |                      |                                   |                      |
| January            | 8,110                                    | 4,340                | 65,000                         | 38,200               | 3,840                            | 270                  | 57,600   | 32,700               | 942,000                           | 116,000              |
| February           | 8,260                                    | 4,060                | 74,500                         | 43,400               | 5,380                            | 313                  | 35,900   | 19,700               | 1,310,000                         | 107,000              |
| March:             |  |                      |                                |                      |                                  |                      |  |                      |                                   |                      |
| Australia          | 1  | 3                    | --                             | --                   | --                               | --                   | 248  | 129                  | --                                | --                   |
| Belgium            | --                                       | --                   | 569                            | 365                  | --                               | --                   | --   | --                   | 61,000                            | 2,140                |
| Brazil             | --                                       | --                   | 193                            | 193                  | --                               | --                   | 248  | 121                  | 1                                 | 3                    |
| Canada             | 7,660                                    | 4,680                | 1,190                          | 1,130                | 1,390                            | 76                   | 18,500   | 10,800               | 135,000                           | 32,900               |
| China              | 50                                       | 35                   | 6,280                          | 4,260                | --                               | --                   | 746  | 461                  | 381                               | 942                  |
| Costa Rica         | 140                                      | 72                   | --                             | --                   | 271                              | 91                   | 87   | 51                   | --                                | --                   |
| France             | 11                                       | 7                    | 4,110                          | 2,660                | --                               | --                   | 755  | 430                  | --                                | --                   |
| Germany            | 18                                       | 11                   | 2,240                          | 1,470                | --                               | --                   | 383  | 411                  | 166,000                           | 12,600               |
| Hong Kong          | 354                                      | 222                  | 1,210                          | 806                  | --                               | --                   | 219  | 172                  | 1,060                             | 880                  |
| India              | 3,260                                    | 1,500                | --                             | --                   | --                               | --                   | 709  | 430                  | (3)                               | 33                   |
| Ireland            | --                                       | --                   | --                             | --                   | --                               | --                   | 2,120  | 1,030                | --                                | --                   |
| Italy              | --                                       | --                   | 1,280                          | 1,290                | --                               | --                   | --   | --                   | 182,000                           | 49,800               |
| Japan              | --                                       | --                   | 4,000                          | 2,760                | --                               | --                   | 75   | 43                   | 204,000                           | 10,700               |
| Korea, Republic of | --                                       | --                   | 2,930                          | 1,850                | 18                               | 3                    | 1,360  | 872                  | 35,000                            | 3,090                |
| Malaysia           | --                                       | --                   | 16                             | 13                   | --                               | --                   | 401  | 203                  | --                                | --                   |
| Mexico             | 452                                      | 327                  | 870                            | 1,120                | 697                              | 112                  | 5,800  | 3,160                | 18,200                            | 2,670                |
| Netherlands        | --                                       | --                   | 1,460                          | 928                  | --                               | --                   | --   | --                   | --                                | --                   |
| Phillippines       | --                                       | --                   | --                             | --                   | 3                                | 3                    | 331  | 371                  | --                                | --                   |
| Singapore          | --                                       | --                   | 21,000                         | 13,100               | 120                              | 49                   | 528  | 262                  | --                                | --                   |
| Spain              | --                                       | --                   | --                             | --                   | --                               | --                   | 1,150  | 577                  | --                                | --                   |
| Sweden             | --                                       | --                   | --                             | --                   | --                               | --                   | 105  | 56                   | 221,000                           | 5,230                |
| Switzerland        | 55                                       | 83                   | --                             | --                   | --                               | --                   | 233  | 132                  | --                                | --                   |
| Taiwan             | --                                       | --                   | 6,920                          | 4,550                | --                               | --                   | 97   | 60                   | 27                                | 12                   |
| Thailand           | 331                                      | 171                  | 1                              | 7                    | --                               | --                   | 222  | 149                  | --                                | --                   |
| United Kingdom     | 5  | 3                    | 2,190                          | 1,640                | 206                              | 8                    | 1,880  | 1,050                | 52,700                            | 7,120                |
| Other              | 389                                      | 206                  | 146                            | 103                  | 35                               | 10                   | 1,770  | 1,080                | 278                               | 108                  |
| Total              | 12,700                                   | 7,320                | 56,600                         | 38,300               | 2,740                            | 352                  | 37,900   | 22,100               | 1,080,000                         | 128,000              |
| January–March      | 29,100                                   | 15,700               | 196,000                        | 120,000              | 12,000                           | 935                  | 131,000  | 74,500               | 3,330,000                         | 350,000              |

-- Zero.

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

<sup>2</sup>Containing 99.3% or more by weight of silver.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.