MOLYBDENUM IN JULY 2023

Domestic production of molybdenum in concentrate in July 2023 was 6% more than the output in the previous month and 8% more than the output in July 2022 (fig. 1, table 1).

Prices
According to CRU Group, the monthly average price range for U.S. ferromolybdenum (FeMo) was $24.000 to $25.000 per pound of molybdenum content in both June and July 2023. FeMo monthly average prices in Europe ranged from $50.000 to $52.000 per kilogram ($22.680 to $23.587 per pound) of molybdenum content in July 2023 compared with $50.000 to $53.000 per kilogram ($22.680 to $24.040 per pound) in June 2023. U.S. molybdic oxide (MoO₃) prices ranged from $21.625 to $22.625 per pound of molybdenum content in July 2023 compared with $20.833 to $21.833 per pound of molybdenum content in June 2023 (fig. 2).

Figure 1. Monthly domestic production of molybdenum (Mo) in concentrate from July 2021 through July 2023 (may include revisions to previously published data).

Figure 2. Average monthly prices for U.S. ferromolybdenum and molybdic oxide from July 2021 through July 2023. Source: CRU Group.
### TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS\(^1,2\)

(Metric tons, contained molybdenum)

<table>
<thead>
<tr>
<th>Period</th>
<th>Production</th>
<th>Shipments(^3,4)</th>
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</thead>
<tbody>
<tr>
<td><strong>2022:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>3,020</td>
<td>3,100</td>
</tr>
<tr>
<td>February</td>
<td>2,760</td>
<td>2,760</td>
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<tr>
<td>March</td>
<td>3,050</td>
<td>3,080</td>
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<tr>
<td>April</td>
<td>2,520</td>
<td>2,540</td>
</tr>
<tr>
<td>May</td>
<td>2,610</td>
<td>2,620</td>
</tr>
<tr>
<td>June</td>
<td>2,550</td>
<td>2,530</td>
</tr>
<tr>
<td>July</td>
<td>2,740</td>
<td>2,700</td>
</tr>
<tr>
<td>August</td>
<td>2,640</td>
<td>2,680</td>
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<tr>
<td>September</td>
<td>2,530</td>
<td>2,550</td>
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<tr>
<td>October</td>
<td>3,470</td>
<td>3,390</td>
</tr>
<tr>
<td>November</td>
<td>3,350</td>
<td>3,360</td>
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<tr>
<td>December</td>
<td>3,400</td>
<td>3,350</td>
</tr>
<tr>
<td>January–December</td>
<td>34,600</td>
<td>34,700</td>
</tr>
<tr>
<td><strong>2023:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>January</td>
<td>2,750</td>
<td>2,610</td>
</tr>
<tr>
<td>February</td>
<td>2,570</td>
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<td>March</td>
<td>2,830</td>
<td>2,900</td>
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<td>April</td>
<td>2,730</td>
<td>2,720</td>
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<td>May</td>
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<td>June</td>
<td>2,800</td>
<td>2,790</td>
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<td>July</td>
<td>2,960</td>
<td>2,930</td>
</tr>
<tr>
<td>January–July</td>
<td>19,500</td>
<td>19,400</td>
</tr>
</tbody>
</table>

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

\(^2\)Includes annual or quarterly published data from Freeport-McMoran Inc. (2022–2023) that has been adjusted by USGS to reflect estimated monthly

\(^3\)As reported by producers.

\(^4\)Shipments include sales to domestic customers, sales for export, and transfers to other company plants.
### TABLE 2
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY OR LOCALITY\(^1\)

(Kilograms, contained molybdenum)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>87,800</td>
<td>--</td>
<td>87,000</td>
<td>--</td>
<td>--</td>
<td>87,000</td>
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<tr>
<td>Belgium</td>
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<td>1,320,000</td>
<td>--</td>
<td>87,000</td>
<td>72,000</td>
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<td>88,700</td>
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<td>176,000</td>
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<td>--</td>
<td>5,000</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Canada</td>
<td>408,000</td>
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<td>230,000</td>
<td>36,300</td>
<td>62,800</td>
<td>572,000</td>
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<td>98,400</td>
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<td>19,100</td>
<td>65,900</td>
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<td>--</td>
<td>5,700</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Hong Kong</td>
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<td>--</td>
<td>1,680</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>India</td>
<td>499,000</td>
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<td>260,000</td>
<td>42,000</td>
<td>23,100</td>
<td>215,000</td>
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<td>--</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td>Japan</td>
<td>3,460,000</td>
<td>318,000</td>
<td>2,120,000</td>
<td>205,000</td>
<td>266,000</td>
<td>2,030,000</td>
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<td>Korea, Republic of</td>
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<td>413,000</td>
<td>22,300</td>
<td>118,000</td>
<td>509,000</td>
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<td>--</td>
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<td>1,070,000</td>
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<td>--</td>
<td>92,900</td>
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<tr>
<td>Netherlands</td>
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<td>2,310,000</td>
<td>18,200,000</td>
<td>3,640,000</td>
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<td>--</td>
<td>11,000</td>
<td>11,000</td>
<td>55,000</td>
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<td>--</td>
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<td>--</td>
<td>330</td>
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<td>2,550</td>
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<td>Thailand</td>
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<td>--</td>
<td>14,900</td>
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<td>4,290,000</td>
<td>635,000</td>
<td>254,000</td>
<td>4,120,000</td>
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<td>1,130,000</td>
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<td>481,000</td>
<td>305,000</td>
<td>56,900</td>
<td>638,000</td>
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<td><strong>Total</strong></td>
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<td><strong>3,690,000</strong></td>
<td><strong>28,700,000</strong></td>
<td><strong>5,140,000</strong></td>
<td><strong>3,330,000</strong></td>
<td><strong>27,500,000</strong></td>
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</tbody>
</table>

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

Source: U.S. Census Bureau.
<table>
<thead>
<tr>
<th>Country or locality</th>
<th>2022</th>
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<th>2023</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Jan-Dec</td>
<td>July</td>
<td>Jan-July</td>
<td>June</td>
<td>July</td>
<td>Jan-July</td>
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<td>462</td>
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<tr>
<td>Australia</td>
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<td>1,700</td>
<td>--</td>
<td>--</td>
<td>1,060</td>
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<tr>
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<td>9,000</td>
<td>84,600</td>
<td>22,400</td>
<td>27,200</td>
<td>134,000</td>
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<td></td>
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<tr>
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<td>--</td>
<td>880</td>
<td>474</td>
<td>--</td>
<td>1,060</td>
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</tr>
<tr>
<td>India</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td>92,600</td>
<td>--</td>
<td>31,500</td>
<td>10,000</td>
<td>--</td>
<td>103,000</td>
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</tr>
<tr>
<td>Total</td>
<td>190,000</td>
<td>9,000</td>
<td>119,000</td>
<td>32,900</td>
<td>27,200</td>
<td>257,000</td>
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</tbody>
</table>

-- Zero.

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

Source: U.S. Census Bureau.
TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS¹

(Kilograms, unless otherwise specified)

<table>
<thead>
<tr>
<th>Material</th>
<th>2022 January–December</th>
<th>2022 July</th>
<th>2023 January–July</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Gross weight</td>
<td>Contained molybdenum</td>
<td>Value³ (thousands)</td>
</tr>
<tr>
<td>Ore and concentrates, roasted</td>
<td>3,240,000</td>
<td>2,000,000</td>
<td>$74,600</td>
</tr>
<tr>
<td>Ore and concentrates, other</td>
<td>28,800,000</td>
<td>13,700,000</td>
<td>511,000</td>
</tr>
<tr>
<td>Molybdenum chemicals:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oxides and hydroxides</td>
<td>3,660,000</td>
<td>NA</td>
<td>106,000</td>
</tr>
<tr>
<td>Molybdates of ammonium</td>
<td>1,360,000</td>
<td>773,000</td>
<td>33,700</td>
</tr>
<tr>
<td>Molybdates (all others)</td>
<td>360,000</td>
<td>144,000</td>
<td>5,980</td>
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<tr>
<td>Molybdenum orange</td>
<td>174,000</td>
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<td>Ferromolybdenum</td>
<td>10,600,000</td>
<td>7,260,000</td>
<td>311,000</td>
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<td>Molybdenum powders</td>
<td>238,000</td>
<td>232,000</td>
<td>13,400</td>
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<tr>
<td>Molybdenum unwrought</td>
<td>318,000</td>
<td>317,000</td>
<td>14,300</td>
</tr>
<tr>
<td>Molybdenum waste and scrap</td>
<td>1,910,000</td>
<td>1,540,000</td>
<td>68,000</td>
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<tr>
<td>Molybdenum wire</td>
<td>15,800</td>
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<td>1,950</td>
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<tr>
<td>Molybdenum other</td>
<td>192,000</td>
<td>NA</td>
<td>24,700</td>
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<tr>
<td>Total</td>
<td>50,900,000</td>
<td>XX</td>
<td>1,160,000</td>
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¹Data are rounded to no more than three significant digits; may not add to totals shown.
²Customs value.

Source: U.S. Census Bureau.