

Mineral Industry Surveys

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IRON ORE IN AUGUST 2006

U.S. mine production of iron ore in August 2006, on a daily average basis, was 2% more than that of the prior month, according to the U.S. Geological Survey. Average daily production, at 154,000 metric tons per day (t/d), was 2,400 t/d more than that of July 2006.

Average daily shipments in August 2006, at 173,000 t/d, were 2% less than those of July. Mine stocks at the end of August were 597,000 metric tons (t) less than those held on July 31, a 6% decrease.

U.S. imports of iron ore in July 2006 were 30% greater than exports, with imports exceeding exports by 242,000 t.

Exploration and Development.—Fortescue Metals Group Ltd. (FMG) (See Iron Ore in April 2005.) announced settlement for the raising of Aus\$3.2 billion (\$2.43 billion) for its iron ore project in Western Australia's Pilbara region. The investment included \$1.65 billion in U.S.-denominated bonds, 315 million euros of European bonds, and \$400 million invested by Leucadia National Corporation in exchange for 9.99% of the company's capital shares and repayment of a \$100 million note due in August 2019 (Fortescue Metals Group Ltd., 2006b§¹).

FMG outlined construction progress for the project, with port dredging 22% complete and several equipment and structure contracts signed or under negotiation. The project reportedly was on time and within budget: the first ore was expected on ship in January 2008 and commissioning of the mine by March 2008 (Fortescue Metals Group Ltd., 2006a§).

A revised agreement was signed between India's Jindal Steel and Power Limited and the Bolivian Government for development of the Mutún iron ore deposit (See Iron Ore in April 2006.) and a steel production complex. Earlier in August, the government suspended the contract previously awarded to Jindal. The current contract will require an initial investment of \$2 billion, up from the \$1.5 billion foreseen in the earlier contract (Mining Journal, 2006).

World Production.—C.V.G. Ferrominera Orinoco, C.A. (FMO) resumed production at Puerto Ordaz, Venezuela, following a month shutdown owing to technical problems at its

3.3-million-metric-ton-per-year pelletizing plant. The shutdown, along with pellet shortages, caused Venezuela's hot briquette iron (HBI) producers to reduce operations to 70% of full capacity. The HBI producers hoped to offset these shortages with pellet imports from Brazil or pellet production from a new plant envisaged with Chinese collaboration (Metal Bulletin, 2006a, b).

Domestic Production.—Palladon Ventures Ltd. (See Iron Ore in January 2006.) announced the first sale of iron ore from its Iron Mountain project near Cedar City, UT. The 500-t shipment from an existing 100,000-t stockpile, grading an average of 56% iron, was made to a cement industry customer. Palladon also announced the successful completion of process testing and continued testing in both Minnesota and Utah for the sizing of plant equipment (Palladon Ventures Ltd., 2006§).

Transportation Update.—On October 22, Panamanians voted to expand the Panama Canal by doubling capacity to allow more traffic and larger ships. The expansion was expected to cost \$5.25 billion, which would be paid for through graduated toll increases (Panama Canal Authority, 2006).

References Cited

- Metal Bulletin, 2006a, Chávez to sign up for pellet project with China's MCC: Metal Bulletin, no. 8959, August 28, p. 26.
Metal Bulletin, 2006b, FMO resumes pellet output after closure: Metal Bulletin, no. 8958, August 21, p. 21.
Mining Journal, 2006, Mutún update: Mining Journal, August 18, p. 7.
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Internet References Cited

- Fortescue Metals Group Ltd., 2006a (September 21), Final ratification of Mining State Agreement., accessed November 15, 2006, via URL <http://www.fmgl.com.au>.
Fortescue Metals Group Ltd., 2006b (August 21), Settlement of A\$3.2 billion capital raising., accessed November 15, 2006, via URL <http://www.fmgl.com.au>.
Palladon Ventures Ltd., 2006 (August 28), Palladon announces first iron sale, accessed November 15, 2006, via URL <http://www.palladonmining.com>.

¹References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE^{1,2}
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

| Period | Production | | Shipments | |
|-----------|------------|--------------|-----------|--------------|
| | Monthly | Year to date | Monthly | Year to date |
| 2005: | | | | |
| August | 4,840 | 36,500 | 5,020 | 32,200 |
| September | 4,460 | 40,900 | 5,150 | 37,400 |
| October | 4,480 | 45,400 | 5,190 | 42,600 |
| November | 4,740 | 50,200 | 4,330 | 46,900 |
| December | 4,380 | 54,500 | 4,880 | 51,800 |
| 2006: | | | | |
| January | 4,600 | 4,600 | 3,600 | 3,600 |
| February | 3,820 | 8,420 | 953 | 4,550 |
| March | 4,600 | 13,000 | 2,330 | 6,880 |
| April | 4,220 | 17,200 | 5,020 | 11,900 |
| May | 4,750 | 22,000 | 5,020 | 16,900 |
| June | 4,450 | 26,400 | 5,120 | 22,000 |
| July | 4,710 | 31,100 | 5,490 | 27,500 |
| August | 4,780 | 35,900 | 5,370 | 32,900 |

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

²Excludes byproduct ores.

TABLE 2
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN AUGUST^{1,2}

(Thousand metric tons)

| State | Production | | Shipments ³ | | Stocks ⁴ | |
|-----------|------------|-------|------------------------|-------|---------------------|-------|
| | 2006 | 2005 | 2006 | 2005 | 2006 | 2005 |
| Michigan | 1,090 | 1,100 | 1,310 | 1,260 | 2,050 | 1,940 |
| Minnesota | 3,680 | 3,740 | 4,060 | 3,760 | 6,710 | 5,300 |
| Total | 4,780 | 4,840 | 5,370 | 5,020 | 8,760 | 7,240 |

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

²Excludes byproduct ore.

³Includes rail and vessel.

⁴Includes usable (marketable) material at mines, concentrators, pelletizing plants, and loading docks. Excludes stocks of crude ore at mine and concentrates at agglomerating complexes.

TABLE 3
CANADA: SHIPMENTS OF IRON ORE^{1,2}

(Thousand dry metric tons)

| Period | Newfoundland and Labrador | Quebec | British Columbia | Total |
|------------|------------------------------|--------|---------------------|--------|
| 2005: | | | | |
| July | 1,500 | 1,050 | 7 | 2,550 |
| August | 1,430 | 708 | 10 | 2,150 |
| September | 1,800 | 1,160 | 9 | 2,960 |
| October | 2,000 | 927 | 10 | 2,930 |
| November | 1,920 | 1,320 | 10 | 3,250 |
| December | 1,900 | 1,130 | 9 | 3,040 |
| Year total | 19,100 | 10,900 | 106 | 30,100 |
| 2006: | | | | |
| January | 1,010 | 705 | 10 | 1,720 |
| February | 951 | 730 | 10 | 1,690 |
| March | 1,210 | 730 | 7 | 1,950 |
| April | 1,840 | 1,170 | 8 | 3,030 |
| May | 1,670 | 1,610 | 12 | 3,280 |
| June | 1,550 | 1,180 | 10 | 2,740 |
| July | 2,040 | 1,220 | 8 | 3,270 |

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

²Includes production from steel plant waste oxides.

Source: Natural Resources Canada.

TABLE 4
PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF
FURNACE¹

(Thousand metric tons)

| Period | Pig iron production, blast furnace | | Raw steel production | | | |
|-----------|---------------------------------------|--------------|-----------------------------------|--------------|------------------|--------------|
| | Monthly | Year to date | Basic oxygen furnace ² | | Electric furnace | |
| | | | Monthly | Year to date | Monthly | Year to date |
| 2005: | | | | | | |
| July | 2,630 | 21,800 | 2,920 | 24,500 | 4,210 | 29,500 |
| August | 2,890 | 24,700 | 3,180 | 27,700 | 4,370 | 33,900 |
| September | 2,840 | 27,500 | 3,330 | 31,000 | 4,440 | 38,400 |
| October | 2,940 | 30,500 | 3,470 | 34,500 | 4,810 | 43,200 |
| November | 3,000 | 33,500 | 3,170 | 37,700 | 4,660 | 47,800 |
| December | 2,840 | 36,300 | 3,380 | 41,000 | 4,420 | 52,300 |
| 2006: | | | | | | |
| January | 3,190 | 3,190 | 3,560 | 3,560 | 4,530 | 4,530 |
| February | 3,100 | 6,300 | 3,470 | 7,030 | 4,250 | 8,780 |
| March | 3,420 | 9,710 | 3,800 | 10,800 | 5,070 | 13,900 |
| April | 3,280 | 13,000 | 3,640 | 14,500 | 4,870 | 18,700 |
| May | 3,460 | 16,500 | 3,850 | 18,300 | 5,060 | 23,800 |
| June | 3,330 | 19,800 | 3,790 | 22,100 | 4,790 | 28,600 |
| July | 3,210 | 23,000 | 3,660 | 25,800 | 4,800 | 33,400 |

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

²Raw steel production figures for the basic oxygen process are usually greater than the corresponding pig iron production figures because scrap is routinely melted in the basic oxygen furnace together with the molten pig iron.

Source: American Iron and Steel Institute.

TABLE 5
 U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND TYPE^{1,2}

(Thousand metric tons)

| Country of destination and type of product | 2005 | 2006 | | |
|---|---------------|--------------|--------------|------------|
| | | 1st quarter | 2nd quarter | July |
| Canada | 11,200 | 998 | 2,370 | 705 |
| China | 282 | -- | 100 | -- |
| Mexico | 30 | 13 | 11 | (3) |
| Slovakia | 237 | -- | -- | -- |
| Trinidad and Tobago | (3) | -- | -- | -- |
| United Kingdom | 78 | -- | -- | -- |
| Other | 8 | 2 | 6 | 101 |
| Total | 11,800 | 1,010 | 2,480 | 806 |
| Pellets | 11,600 | 925 | 2,420 | 800 |
| Concentrates | 89 | 2 | 53 | (3) |
| Direct shipping ores | 60 | 2 | 8 | 4 |
| Other | 11 | 83 | 6 | 2 |
| Total | 11,800 | 1,010 | 2,480 | 806 |

-- Zero.

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

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE^{1,2}
 (Exclusive of ore containing 20% or more manganese)

| Country of origin and type of product | 2006 | | | | | 2005 |
|--|----------------------------|---|----------------------------|---|--|----------------------------|
| | July | | Year to date | | | January-July |
| | Thousand metric tons | Value ³ (thousand dollars) | Thousand metric tons | Value ³ (thousand dollars) | Value ³ (dollars per ton) | Thousand metric tons |
| Australia | -- | -- | 8 | 135 | 16.88 | -- |
| Bahamas, The | -- | -- | -- | -- | -- | 71 |
| Brazil | 395 | 21,500 | 2,520 | 125,000 | 49.82 | 2,690 |
| Canada | 578 | 31,600 | 3,380 | 196,000 | 58.04 | 3,750 |
| Chile | 48 | 2,600 | 190 | 8,930 | 47.01 | 221 |
| China | -- | -- | -- | -- | -- | (4) |
| Finland | 3 | 116 | 6 | 222 | 37.00 | 6 |
| Greece | -- | -- | 15 | 386 | 25.73 | 13 |
| India | -- | -- | (4) | 6 | 5,607.00 | -- |
| Mexico | 2 | 53 | 8 | 216 | 27.00 | 32 |
| Norway | -- | -- | -- | -- | -- | 3 |
| Paraguay | -- | -- | -- | -- | -- | 4 |
| Peru | -- | -- | 38 | 1,210 | 31.71 | 19 |
| Russia | -- | -- | -- | -- | -- | 99 |
| Spain | -- | -- | -- | -- | -- | 1 |
| Sweden | -- | -- | (4) | 6 | 342.88 | -- |
| Trinidad and Tobago | -- | -- | 284 | 5,900 | 20.79 | 375 |
| United Kingdom | (4) | 5 | (4) | 5 | 32.00 | -- |
| Venezuela | 23 | 439 | 23 | 439 | 19.09 | 148 |
| Total | 1,050 | 56,300 | 6,470 | 339,000 | 52.40 | 7,430 |
| Concentrates | 172 | 7,610 | 1,240 | 46,500 | 37.56 | 531 |
| Coarse ores | -- | -- | -- | -- | -- | 21 |
| Fine ores | 142 | 6,760 | 1,680 | 69,700 | 41.42 | 2,950 |
| Pellets | 728 | 41,800 | 3,530 | 222,000 | 62.91 | 3,860 |
| Other agglomerates | 2 | 53 | 8 | 216 | 27.00 | 65 |
| Roasted pyrites | 3 | 116 | 6 | 227 | 37.83 | 4 |
| Total | 1,050 | 56,300 | 6,470 | 339,000 | 52.40 | 7,430 |

-- Zero.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Includes agglomerates.

³Customs value. Excludes international freight and insurance charges.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN JULY 2006^{1,2}
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

| Country of origin | Type of product | | | | | | Total |
|-------------------|-----------------|-------------|-----------|---------|-----------------------------------|-----------------|-------|
| | Concentrates | Coarse ores | Fine ores | Pellets | Briquettes and other agglomerates | Roasted pyrites | |
| Brazil | 55 | -- | 142 | 198 | -- | -- | 395 |
| Canada | 70 | -- | -- | 508 | -- | -- | 578 |
| Chile | 48 | -- | -- | -- | -- | -- | 48 |
| Finland | -- | -- | -- | -- | -- | 3 | 3 |
| Mexico | -- | -- | -- | -- | 2 | -- | 2 |
| United Kingdom | (3) | -- | -- | -- | -- | -- | (3) |
| Venezuela | -- | -- | -- | 23 | -- | -- | 23 |
| Total | 172 | -- | 142 | 728 | 2 | 3 | 1,050 |

-- Zero.

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

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY¹

| Country of origin | 2006 | | | | | 2005 |
|-------------------|----------------------|---------------------------------------|----------------------|---------------------------------------|--------------------------------------|----------------------|
| | July | | Year to date | | | January-July |
| | Thousand metric tons | Value ² (thousand dollars) | Thousand metric tons | Value ² (thousand dollars) | Value ² (dollars per ton) | Thousand metric tons |
| Brazil | 198 | 12,800 | 985 | 63,600 | 64.58 | 1,510 |
| Canada | 508 | 28,600 | 2,530 | 158,000 | 62.65 | 2,250 |
| Russia | -- | -- | -- | -- | -- | 99 |
| Venezuela | 23 | 439 | 23 | 439 | 19.09 | -- |
| Total | 728 | 41,800 | 3,530 | 222,000 | 62.91 | 3,860 |

-- Zero.

¹Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

²Customs value. Excludes international freight and insurance charges.

Source: U.S. Census Bureau.

TABLE 9
 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,
 BY CUSTOMS DISTRICT^{1,2}
 (Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

| Customs district (code no.) | July | January-July | |
|-----------------------------|-------|--------------|-------|
| | 2006 | 2006 | 2005 |
| Baltimore, MD (13) | 216 | 2,280 | 2,000 |
| Buffalo, NY (09) | -- | (3) | 6 |
| Charleston, SC (16) | (3) | (3) | 1 |
| Chicago, IL (39) | 163 | 742 | 563 |
| Cleveland, OH (41) | 410 | 1,450 | 1,230 |
| Detroit, MI (38) | -- | 102 | 128 |
| Houston-Galveston, TX (53) | 35 | 50 | 36 |
| Los Angeles, CA (27) | -- | -- | (3) |
| Mobile, AL (19) | -- | 5 | 63 |
| New Orleans, LA (20) | 219 | 1,820 | 3,380 |
| Nogales, AZ (26) | 2 | 16 | 9 |
| Ogdensburg, NY (07) | -- | (3) | (3) |
| Philadelphia, PA (11) | 3 | 6 | 3 |
| San Francisco, CA (28) | -- | -- | 4 |
| San Juan, PR (49) | -- | -- | 6 |
| St. Louis, MO (45) | -- | (3) | -- |
| Total | 1,050 | 6,470 | 7,430 |

-- Zero.

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

²Includes agglomerates.

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
 U.S. IMPORTS FOR CONSUMPTION OF PELLETS,
 BY CUSTOMS DISTRICT¹

(Thousand metric tons)

| Customs district (code no.) | July | January-July | |
|-----------------------------|------|--------------|-------|
| | 2006 | 2006 | 2005 |
| Baltimore, MD (13) | 73 | 997 | 942 |
| Chicago, IL (39) | 39 | 65 | 53 |
| Cleveland, OH (41) | 410 | 1,450 | 1,230 |
| Detroit, MI (38) | -- | 102 | 128 |
| Houston-Galveston, TX (53) | 35 | 35 | 36 |
| Mobile, AL (19) | -- | -- | 61 |
| New Orleans, LA (20) | 171 | 886 | 1,410 |
| Total | 728 | 3,530 | 3,860 |

-- Zero.

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

Source: U.S. Census Bureau.