

Mineral Industry Surveys

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IRON ORE IN MARCH 2007

U.S. mine production of iron ore in March 2007, on a daily average basis, was 2% more than that for the prior month, according to the U.S. Geological Survey. Average daily production, at 123,000 metric tons per day (t/d), was 2,930 t/d more than that of February 2007.

Average daily shipments in March 2007, at 67,900 t/d, were over 3 times greater than those of February. Mine stocks at the end of March were 1.7 million metric tons (Mt) greater than the stocks held on February 28, a 17% increase.

U.S. imports of iron ore in February 2007 were 80% greater than exports, with net imports at 100,000 metric tons (t).

Exploration and Development.—The Environmental Protection Authority of Western Australia released a report blocking Rio Tinto plc's planned \$10 billion iron ore expansion in the Pilbara region. Five species of rare underground troglobites (spider-like invertebrates less than 5 millimeters in length) were found to inhabit the planned mining zone. Rio Tinto has appealed the decision (*Mining Journal*, 2007).

World Trade.—While Chinese imports of iron ore for the first quarter 2007 increased 23% compared with those of the first quarter 2006, exports of pig iron and spiegeleisen, iron and non-alloy steel in ingots and other primary forms, and flat carbon steel product increased 664%, 269%, and 88%, respectively, during the same periods (*Metal Bulletin*, 2007).

Brazil's MMX Mineração e Metálicos S.A. (See Iron Ore in October 2006) announced a doubling of the contract offtake by Gulf Industrial Investment Co., a producer of direct reduction grade iron oxide pellets in Bahrain. This represents an annual offtake agreement of 13 million metric tons per year (Mt/yr) of iron ore fines (MMX Mineração e Metálicos S.A., 2007).

World Production.—For the first quarter of 2007, Rio Tinto's share of total world iron ore mine production was 32.2 Mt, a 12% increase compared with the same period for 2006 (Rio Tinto plc, 2007). BHP Billiton Limited's share of total world mine production (including ownership share of Samarco in Brazil) for the quarter was 23.0 Mt, a 2% increase from that of the first quarter of 2006. Rapid Growth Project 3 tie-in activities and cyclones negatively affected production during the first quarter of 2007 (BHP Billiton Limited, 2007). For the first quarter of 2007, Companhia Vale do Rio Doce of Brazil

produced 65.6 Mt of iron ore and 4.2 Mt of pellets—increases of 8% and 21% compared with those of the first quarter of 2006, respectively. Pellet output in 2006 was affected by a temporary shutdown at the São Luís plant. Iron ore production increased with the ramp-up of the Brucutu Mine and the expansion at the Carajás Mine in 2007 (Companhia Vale do Rio Doce, 2007).

Domestic Production.—Cleveland-Cliffs Inc announced iron ore production for the first quarter of 2007 for its North American operations (includes Wabush in Canada), as 4.9 Mt. This represents a decrease of 6% compared with that of the same period in 2006 (Cleveland-Cliffs Inc, 2007b).

Cliffs completed the purchase of a 30% interest in MMX's Amapá iron ore mine in Brazil for \$133 million. An additional \$350 million was expected to be required to bring the 6.5-Mt/yr project into production by late 2007. The project includes development of the iron ore deposit and construction of a 192-kilometer railway to an existing port on the Amazon River (Cleveland-Cliffs Inc, 2007a).

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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
2006:				
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
September	4,610	40,500	5,280	38,200
October	4,440	45,000	4,420	42,600
November	3,920	48,900	4,430	47,000
December	3,970	52,900	4,800	51,800
2007:				
January	4,260	4,260	2,810	2,810
February	3,350	7,610	574	3,380
March	3,800	11,400	2,110	5,490

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 MARCH^{1,2}

(Thousand metric tons)

State	Production		Shipments ³		Stocks ⁴	
	2007	2006	2007	2006	2007	2006
Michigan	884	1,080	766	612	2,510	2,820
Minnesota	2,920	3,520	1,340	1,720	9,300	9,060
Total	3,800	4,600	2,110	2,330	11,800	11,900

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
2006:				
February	951	730	10	1,690
March	1,210	730	7	1,950
April	1,840	1,180	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
August	1,740	1,740	8	3,490
September	949	1,340	8	2,300
October	2,280	963	10	3,250
November	2,590	1,010	8	3,610
December	1,960	1,250	6	3,220
Year total	19,800	13,600	105	33,600
2007:				
January	609 ^r	616	6	1,230 ^r
February	874 ^r	571	6	1,450 ^r

^rRevised.

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
2006:						
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
August	3,200	26,200	3,620	29,400	4,840	38,200
September	3,220	29,400	3,670	33,100	4,750	43,000
October	3,090	32,500	3,460	36,500	4,640	47,600
November	2,780	35,300	3,080	39,600	4,330	51,900
December	2,640	37,900	2,860	42,500	4,180	56,100
2007:						
January	2,850	2,850	3,090	3,090	4,450	4,450
February	2,610	5,450	2,940	6,040	4,690	9,140

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	2006				2007	
	3rd quarter	4th quarter	December	Total	January	February
Algeria	252	88	24	340	--	--
Canada	2,410	1,830	545	7,610	580 ^f	123
China	--	--	--	100	1 ^f	(3)
Mexico	10	180	10	215	(3)	(3)
Other	2	3	--	10	--	1
Total	2,670	2,110	579	8,270	582	125
Pellets	2,640	2,080	576	8,060	581	123
Concentrates	2	2	1	59	(3)	1
Direct shipping ores	20	17	1	47	1	1
Other	7	7	(3)	103	(3)	(3)
Total	2,670	2,110	579	8,270	582	125

^fRevised. -- 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	2007					2006
	February		Year to date			January-February
	Thousand metric tons	Value ³ (thousand dollars)	Thousand metric tons	Value ³ (thousand dollars)	Value ³ (dollars per ton)	Thousand metric tons
Australia	--	--	--	--	--	8
Brazil	150	8,530	290	18,800	64.97	786
Canada	28	1,090	320	16,800	52.51	521
Chile	44	2,300	84	4,450	52.95	46
Greece	--	--	--	--	--	15
Mexico	1	30	3	67 ⁴	22.33	2
Peru	1	70	1	70	70.00	38
Sweden	--	--	24	1,870	77.75	--
Trinidad and Tobago	--	--	--	--	--	284
United Kingdom	(5)	7	(5)	15 ⁴	227.88	--
Total	225	12,000	723	42,100	58.25	1,700
Concentrates	44	2,310	166	7,980 ⁴	48.09	327
Fine ores	73	3,490	73	3,490	47.77	777
Pellets	105	6,130	479	30,500 ⁴	63.68	594
Other agglomerates	1	30	3	67 ⁴	22.33	2
Roasted pyrites	1	70	1	70	70.00	--
Total	225	12,000	723	42,100	58.25	1,700

-- 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.

⁴Includes revisions to prior months data.

⁵Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN FEBRUARY 2007^{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	--	--	73	77	--	--	150
Canada	--	--	--	28	--	--	28
Chile	44	--	--	--	--	--	44
Mexico	--	--	--	--	1	--	1
Peru	--	--	--	--	--	1	1
United Kingdom	(3)	--	--	--	--	--	(3)
Total	44	--	73	105	1	1	225

-- 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	2007					2006
	February		Year to date			January-February
	Thousand metric tons	Value ² (thousand dollars)	Thousand metric tons	Value ² (thousand dollars)	Value ² (dollars per ton)	Thousand metric tons
Brazil	77	5,050	217	15,400	70.76	348
Canada	28	1,090	238 ³	13,300	55.82	246
Sweden	--	--	24	1,870	77.75	--
Total	105	6,130	479	30,500	63.68	594

-- 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.

³Includes revisions to prior months data.

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.)	February	January-February	
	2007	2007	2006
Baltimore, MD (13)	73	144	715
Charleston, SC (16)	1	2	--
Chicago, IL (39)	28	109	--
Cleveland, OH (41)	--	140	--
Detroit, MI (38)	--	--	25
Houston-Galveston, TX (53)	--	--	15
Mobile, AL (19)	--	--	5
New Orleans, LA (20)	121	301	930
Nogales, AZ (26)	1	3	9
Port Arthur, TX (21)	--	24	--
Total	225	723	1,700

-- Zero.

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

²Includes agglomerates.

Source: U.S. Census Bureau.

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

(Thousand metric tons)

Customs district (code no.)	February	January-February	
	2007	2007	2006
Baltimore, MD (13)	--	71	292
Chicago, IL (39)	28	28	--
Cleveland, OH (41)	--	140	--
Detroit, MI (38)	--	--	25
New Orleans, LA (20)	77	217	277
Port Arthur, TX (21)	--	24	--
Total	105	479	594

-- Zero.

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

Source: U.S. Census Bureau.