

Mineral Industry Surveys

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IRON ORE IN DECEMBER 2005

U.S. mine production of iron ore in December 2005, on a daily average basis, was 11% less than that of the prior month, according to the U.S. Geological Survey. Average daily production, at 141,000 metric tons per day (t/d), was 16,700 t/d less than the figure for November 2005. In 2005, total U.S. mine production of iron ore was 54.5 million metric tons (Mt), a slight reduction from that of 2004.

Shipments in December 2005, on an average daily basis, were 9% greater than those of November 2005. Mine stocks at the end of December were 503,000 metric tons (t) less than the corresponding stocks figure on November 30, an 8% decrease.

U.S. imports of iron ore in November 2005 were 27% greater than exports, with imports exceeding exports by 272,000 t.

Update

Mergers and Acquisitions.—The bidding war for Dofasco Inc. (Canada) concluded with Dofasco's directors recommending that shareholders accept the C\$5.6 billion dollar offer from Luxembourg's Arcelor S.A. (See Iron Ore in November 2005.) Germany's ThyssenKrupp AG apparently lost its bid, although a current hostile takeover of Arcelor by Mittal Steel NV may result in the sale of Dofasco to ThyssenKrupp in the long-run (Mining Journal, 2006a; b).

World Production.—Rio Tinto plc (Australia) announced full-year production figures for 2005. Rio Tinto's share of saleable quantities of iron ore plus pellets were as follows—Channar (60% owned), 5.2 Mt; Corumba, Brazil, 1.4 Mt; Eastern Range, 6.6 Mt; Hamersley, 74.4 Mt; Iron Ore Company of Canada (59% owned), 9.2 Mt; and Robe River (53% owned), 27.8 Mt. Rio Tinto's share of total world mine production was 124.5 Mt, a 15% increase from that of 2004 (Rio Tinto plc, 2006§¹).

BHP Billiton announced full-year production figures for 2005. BHP Billiton's share of saleable quantities of iron ore (wet) were as follows—Area C Joint Venture (JV) (85%

owned), 18.5 Mt; Goldsworthy JV (85% owned), 5.7 Mt; Jimblebar, 6.0 Mt; Mt. Newman JV (85% owned), 25.4 Mt; Samarco, Brazil, (50% owned), 7.5 Mt; and Yandi JV (85% owned), 34.4 Mt. BHP Billiton's share of total world mine production was 97.5 Mt, a greater than 9% increase from that of 2004 (BHP Billiton Limited, 2006§).

Domestic Production.—Cleveland-Cliffs Inc approved an investment to obtain a 23% share of the Mesabi Nugget project to be built near Hoyt Lakes, MN. The \$50 million investment will include about \$21 million for the construction and operation of the plant to produce high-quality iron nuggets, \$25 million to expand iron ore concentrate production at the company's Northshore Mine, and \$4 million to construct rail facilities for concentrate transport to the nugget plant (Mining Engineering, 2006).

Cleveland-Cliffs Inc announced that 2005 operating income had tripled compared with that of 2004. Cliffs' share of 2005 production from its North American operations, including Wabush operations in Canada, was 23.3 Mt, an increase of 2% over that of 2004 (Cleveland-Cliffs Inc, 2006§).

References Cited

Mining Engineering, 2006, Cliffs ok's investment in Mesabi Nugget: Mining Engineering, v. 58, no. 2, February, p. 19.

Mining Journal, 2006a, Mittal bids to consolidate steel industry: Mining Journal, February 3, p. 1, 15.

Mining Journal, 2006b, Steel battle concludes: Mining Journal, January 27, p. 17.

Internet References Cited

BHP Billiton Limited, 2006 (January 24), BHP Billiton production report for the quarter ended 31 December 2005, accessed February 17, 2006, via URL http://www.bhpbilliton.com.

Cleveland-Cliffs Inc, 2006 (February 15), Cleveland-Cliffs reports 2005 fourthquarter and full-year results, accessed February 17, 2006, via URL http://www.cleveland-cliffs.com.

Rio Tinto plc, 2006 (January 19), Fourth quarter 2005 operations review, accessed February 17, 2006, via URL http://www.riotinto.com/media/downloads/pressreleases.

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)

	Pro	Production		pments
Period	Monthly	Year to date	Monthly	Year to date
2004:				
December	4,450	54,700	5,150	55,900
2005:				
January	4,420	4,420	3,350	3,350
February	3,870	8,290	1,150	4,500
March	4,240	12,500	2,610	7,110
April	4,220	16,800	4,940	12,100
May	5,250	22,000	5,210	17,300
June	4,480	26,500	4,840	22,100
July	5,160	31,600	5,110	27,200
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

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

 ${\it TABLE~2} \\ {\it U.S.~PRODUCTION,~SHIPMENTS,~AND~STOCKS~OF~IRON~ORE~in~DECEMBER}^{1,\,2}$

(Thousand metric tons)

	Produ	Production		Shipments ³		cks ⁴
State	2005	2004	2005	2004	2005	2004
Michigan	968	1,130	1,090	1,240	1,670	1,450
Minnesota	3,410	3,320	3,790	3,910	4,080	1,540
Total	4,380	4,450	4,880	5,150	5,740	2,990

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

²Excludes byproduct ores.

²Excludes byproduct ore.

³Includes rail and vessel.

⁴Includes mines, concentrators, pelletizing plants, and loading docks.

 $\label{eq:table 3} {\sf CANADA: \ SHIPMENTS \ OF \ IRON \ ORE}^{1,\,2}}$

(Thousand dry metric tons)

-	Newfoundland		British	
Period	and Labrador	Quebec	Columbia	Total
2004:	<u></u>			
November	1,600 ^r	958	10	2,570 °
December	1,710 ^r	944	9	2,660 ^r
Year total	15,300 ^r	13,200	84 ^r	28,600 ^r
2005:				
January	1,210	1,070	8	2,280
February	928	748	8	1,680
March	1,160	873	10	2,040
April	1,690	967	7	2,660
May	1,940	588	10	2,540
June	1,620	399	8	2,030
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 r	927	10	2,930 ^r
November	1,920	1,320	10	3,250

rRevised.

Source: Natural Resources Canada.

TABLE 4 PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF $${\rm FURNACE}^1$$

(Thousand metric tons)

	Pig iron	production,		Raw stee	el production	
	blast	furnace	Basic oxy	gen furnace ²	Electric furnace	
Period	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date
2004:						_
November	2,140	36,300	5,520	42,100	2,580	48,600
December ³	4,270	42,300	3,810	47,700	4,390	52,000
2005:	_					
January	3,420	3,420	3,890	3,890	4,390	4,390
February	3,260	6,680	3,710	7,590	3,930	8,320
March	3,660	10,300	4,040	11,600	4,150	12,500
April	3,080	13,400	3,500	15,100	4,440	16,900
May	3,080	16,500	3,430	18,600	4,320	21,200
June	2,690	19,200	3,000	21,600	4,110	25,300
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

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

Source: American Iron and Steel Institute.

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

²Includes production from steel plant waste oxides.

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.

³December year-to-date figures revised based on the American Iron and Steel Institute annual publication.

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

(Thousand metric tons)

Country of destination		2005						
and type of product	2004	1st quarter	2nd quarter	3rd quarter	October	November		
Canada	7,830	1,280	4,300	3,010	1,180	888		
China	297		1	196	86			
Mexico	4	1	1	1	(3)	26		
Slovakia	187		26	210				
Trinidad and Tobago	29		(3)					
United Kingdom	(3)					78		
Other	53	(3)	4	1	2	1		
Total	8,400	1,280	4,330	3,420	1,270	993		
Pellets	8,100	1,280	4,320	3,360	1,260	911		
Concentrates	25	2	4	3	(3)	78		
Direct shipping ores	264	(3)	4	52	2	2		
Other	6	2	1	2	2	2		
Total	8,400	1,280	4,330	3,420	1,270	993		

¹Data are rounded to no more than three significant digits; may not add to totals shown.
²Includes agglomerates.
³Less than ½ unit.

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

			2005			2004
	Nove	ember		Year to date		January-November
	Thousand	Value ³	Thousand	Value ³	Value ³	Thousand
Country of origin	metric	(thousand	metric	(thousand	(dollars	metric
and type of product	tons	dollars)	tons	dollars)	per ton)	tons
Australia			1	11	18.00	(4)
Bahamas, The ⁵			140	4,850	34.70	
Brazil	262	11,600	3,810	160,000	41.94	4,530
Canada	949	36,300	6,680	255,000	38.18	4,980
Chile			270	10,700	39.56	197
China			(4)	2	263.13	
Finland			9	383	41.03	76
Greece			23	493	21.51	
Italy	(4)	15	(4)	15	48.00	(4)
Mexico	1	32	40	1,580	39.68	49
Norway			3	96	36.60	4
Paraguay			4	68	16.80	1
Peru	1	46	33	1,060	32.48	32
Russia			99	8,550	86.00 5	
South Africa						104
Spain			1	25	18.00	(4)
Sweden	51	2,140	133	6,710	50.42	111
Trinidad and Tobago			375	11,000	29.45	
Uruguay						(4)
Venezuela			148	7,890	53.43	199
Total	1,260	50,200	11,800	468,000	39.79	10,300
Concentrates	177	5,470	1,180	33,900	28.74	950
Coarse ores			56	2,030	36.37	4
Fine ores	441	12,200	4,390	128,000	29.07	2,710
Pellets	645	32,400	6,070	302,000	49.74 5	6,500
Briquettes						56
Other agglomerates	1	32	73	2,800	38.42	59
Roasted pyrites	1	62	8	335	39.61	8
Total	1,260	50,200	11,800	468,000	39.79	10,300

⁻⁻ 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.

⁵All or part of these data have been referred to the U.S. Census Bureau for verification.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN NOVEMBER $2005^{1,2}$ (Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

			Type of	f product			
					Briquettes		
		Coarse	Fine		and other	Roasted	
Country of origin	Concentrates	ores	ores	Pellets	agglomerates	pyrites	Total
Brazil			194	68			262
Canada	125		247	577			949
Italy						(3)	(3)
Mexico					1		1
Peru						1	1
Sweden	51						51
Total	177		441	645	1	1	1,260

⁻⁻ Zero.

Source: U.S. Census Bureau.

 ${\bf TABLE~8}$ U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY 1

			2005			2004
	Nove	ember		Year to date		January-November
	Thousand	Value ²	Thousand	Value ²	Value ²	Thousand
Country	metric	(thousand	metric	(thousand	(dollars	metric
of origin	tons	dollars)	tons	dollars)	per ton)	tons
Brazil	68	4,660	1,720	94,600	54.97	2,430
Canada	577	27,700	4,250	199,000	46.77	4,000
Finland						65
Russia			99	8,550	86.00 ³	
Total	645	32,400	6,070	302,000	49.74	6,500

⁻⁻ Zero

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

²Includes agglomerates.

³Less than 1/2 unit.

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.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

 $\label{eq:table 9} \mbox{U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,} \\ \mbox{BY CUSTOMS DISTRICT}^{1,\,2}$

(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

	November	January-November	
Customs district (code no.)	2005	2005	2004
Baltimore, MD (13)	281	3,160	3,210
Boston, MA (04)			(3)
Buffalo, NY (09)	(3)	6	7
Charleston, SC (16)	1	2	(3)
Chicago, IL (39)	179	1,320	1,280
Cleveland, OH (41)	381	2,760	2,170
Detroit, MI (38)	54	235	148
Great Falls, MT (33)		(3)	(3)
Houston-Galveston, TX (53)		46	57
Laredo, TX (23)			8
Los Angeles, CA (27)		(3)	
Miami, FL (52)			(3)
Mobile, AL (19)		63	84
New Orleans, LA (20)	367	4,130 4	3,270
New York City, NY (10)		1	
Nogales, AZ (26)	1	17	(3)
Ogdensburg, NY (07)		(3)	
Philadelphia, PA (11)		22	58
San Francisco, CA (28)		4	1
San Juan, PR (49)		6	
Total	1,260	11,800	10,300
7			

⁻⁻ Zero.

Source: U.S. Census Bureau.

TABLE 10 ${\rm U.S.\ IMPORTS\ FOR\ CONSUMPTION\ OF\ PELLETS,}$ BY CUSTOMS DISTRICT $^{\rm I}$

(Thousand metric tons)

	November	January-No	ovember
Customs district (code no.)	2005	2005	2004
Baltimore, MD (13)	141	1,300	1,270
Chicago, IL (39)		53	232
Cleveland, OH (41)	381	2,760	2,130
Detroit, MI (38)	54	235	148
Houston-Galveston, TX (53)		36	52
Laredo, TX (23)			8
Mobile, AL (19)		61	
New Orleans, LA (20)	68	1,620	2,660
Total	645	6,070	6,500

⁻⁻ Zero.

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

²Includes agglomerates.

³Less than ½ unit.

⁴All or part of these data have been referred to the U.S. Census Bureau for verification.

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