

# Mineral Industry Surveys

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## IRON ORE IN APRIL 2006

U.S. mine production of iron ore in April 2006, on a daily average basis, was 5% 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 7,800 t/d less than that of March 2006.

Average daily shipments in April 2006, at 167,000 t/d, were 122% more than those of March, owing to the first full month of shipping following the winter shutdown. Mine stocks at the end of April were 806,000 metric tons (t) less than those on March 31, a 7% decrease.

U.S. imports of iron ore in March 2006 were more than double exports, with imports exceeding exports by 241,000 t.

**Price Update.**—By the end of May, all of the major importers of iron ore had settled their 2006-07 contract prices, with the exception of the Chinese steel producers (AFX News Limited, 2006<sup>§1</sup>). In mid-May, several major ore producers reached agreement with their steelmaking customers, after Brazil's Companhia Vale do Rio Doce came to terms with Germany's ThyssenKrupp AG. Most agreements settled on a 19% increase in fine ore prices and a 3% decrease in pellet price (The TEX Report, 2006).

**Exploration and Development Update.**—India's Jindal Steel and Power Limited was the sole remaining bidder for Bolivia's El Mutun prospect (See Iron Ore in January 2005.)—a potential \$2.3 billion mine concession for one of the world's leading iron ore deposits (Outlook India.com, 2006<sup>§</sup>). Venezuelan officials indicated that if problems arose in the bid negotiations, they would be willing to help Bolivia develop El Mutun and other natural resource projects (Harris, 2006). Meanwhile, Brazil's EBX Siderurgica Boliviana, threatened with expulsion from Bolivia, began dismantling its partially constructed pig iron furnaces near El Mutun. EBX, prohibited from participating in the auction of El Mutun, was unable to obtain environmental and operating permits for the 800,000

metric-ton-per-year, four-furnace pig iron project from the new Bolivian Government (Kinch, 2006).

**World Production.**—Russia's JSC Severstal, which has been attempting to merge with Luxembourg's Arcelor Group, plans to increase output at its existing iron ore mines over the next 3 years. An investment of \$300 to \$400 million per year would be used to expand current pellet output of 9 million metric tons per year (Mt/yr) by more than 2 Mt/yr at Karelsky Okatysh in Karelia, and will add 1 Mt/yr to existing 4 Mt/yr concentrate capacity at Olenegorsk GOK in the Murmansk region (Metal Bulletin, 2006).

**North American Production.**—A recent independent assessment of the iron ore reserves of Wabush Mines, managed and 26.8%-owned by Cleveland-Cliffs Inc of the United States, confirms the mine operator's reserve estimates. The report by Strathcona Mineral Services Ltd. of Toronto concluded that reserves at the Scully Mine are sufficient to operate the Canadian mine until 2013. Construction of a manganese reduction plant at a capital cost of approximately \$40 million could extend mine life to 2021 (Skillings Mining Review, 2006<sup>§</sup>).

## References Cited

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Kinch, Diane, 2006, Bolivia threatens to seize EBX assets as Batista pulls out: Metal Bulletin, no. 8942, May 1, p. 25.  
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The TEX Report, 2006, 2006 iron ore pricing negotiations almost wound up: TEX Report, v. 38, no. 9006, May 25, p. 2-3.

## Internet References Cited

- AFX News Limited, 2006 (May 28), China says iron ore talks could drag into June, accessed June 5, 2006, at URL <http://www.forbes.com/feeds/afx/2006/05/28/afx2777949.html>.  
Outlook India.com, 2006 (June 1), Bolivia nears deal with India's Jindal on mega-mine, accessed June 1, 2006, via URL <http://www.outlookindia.com>.  
Skillings Mining Review, 2006 (May 31), Wabush resource reviewed, accessed June 8, 2006, via URL <http://www.skillings.com>.

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

TABLE 1  
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE<sup>1,2</sup>  
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments	
	Monthly	Year to date	Monthly	Year to date
2005:				
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
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

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Excludes byproduct ores.

TABLE 2  
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN APRIL<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2006	2005	2006	2005	2006	2005
Michigan	1,010	1,100	1,110	1,030	2,720	1,970
Minnesota	3,200	3,120	3,910	3,910	8,350	5,720
Total	4,220	4,220	5,020	4,940	11,100	7,690

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

<sup>2</sup>Excludes byproduct ore.

<sup>3</sup>Includes rail and vessel.

<sup>4</sup>Includes mines, concentrators, pelletizing plants, and loading docks.

TABLE 3  
CANADA: SHIPMENTS OF IRON ORE<sup>1,2</sup>

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2005:				
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	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	1,450	705	10	2,160
February	1,230	730	10	1,970
March	1,440	730	7	2,180

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

<sup>2</sup>Includes 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  
FURNACE<sup>1</sup>

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
	Monthly	Year to date	Basic oxygen furnace <sup>2</sup>		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2005:						
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
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

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

<sup>2</sup>Raw 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<sup>1,2</sup>

(Thousand metric tons)

Country of destination and type of product	2005		2006			
	4th quarter	Total	January	February	March	1st quarter
Canada	2,560	11,200	648	126	224	998
China	86	282	--	--	--	--
Mexico	27	30	(3)	(3)	12	13
Slovakia	--	237	--	--	--	--
Trinidad and Tobago	--	(3)	--	--	--	--
United Kingdom	78	78	--	--	--	--
Other	3	8	1	(3)	(3)	2
Total	2,760	11,800	649	126	236	1,010
Pellets	2,670	11,600	645	124	155	925
Concentrates	80	89	1	(3)	1	2
Direct shipping ores	5	60	1	--	1	2
Other	6	11	2	2	79	83
Total	2,760	11,800	649	126	236	1,010

-- Zero.

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

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

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

Country of origin and type of product	2006					2005
	March		Year to date			January-March
	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Value <sup>3</sup> (dollars per ton)	Thousand metric tons
Australia	--	--	8	135	18.00	--
Brazil	288	15,700	1,070	53,800	50.07	1,200
Canada	136	10,200	657	44,600	67.84	669
Chile	50	2,210	96	4,270	44.30	131
China	--	--	--	--	--	(4)
Finland	--	--	--	--	--	3
Greece	--	--	15	386	25.00	13
Mexico	2	51	4	98	25.00	3
Paraguay	--	--	--	--	--	4
Peru	--	--	38	1,200	31.44	(4)
Russia	--	--	--	--	--	99
Trinidad and Tobago	--	--	284	5,900	20.80	368
Venezuela	--	--	--	--	--	14
Total	477	28,200	2,180	110,000	50.70	2,510
Concentrates	123	5,580	450	18,500	41.12	140
Coarse ores	--	--	--	--	--	21
Fine ores	73	2,650	850	31,600	37.13	953
Pellets	279	19,900	873	60,200	68.98	1,360
Other agglomerates	2	51	4	98	25.00	33
Total	477	28,200	2,180	110,000	50.70	2,510

-- Zero.

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

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Customs value. Excludes international freight and insurance charges.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN MARCH 2006<sup>1</sup>  
(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	--	73	143	--	--	288
Canada	--	--	--	136	--	--	136
Chile	50	--	--	--	--	--	50
Mexico	--	--	--	--	2	--	2
Total	123	--	73	279	2	--	477

-- Zero.

<sup>1</sup>Includes agglomerates.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY<sup>1</sup>

Country of origin	2006				2005	
	March		Year to date		January-March	
	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Value <sup>2</sup> (dollars per ton)	Thousand metric tons
Brazil	143	9,690	491	31,000	63.14	840
Canada	136	10,200	381	29,200	76.50	421
Russia	--	--	--	--	--	99
Total	279	19,900	873	60,200	68.98	1,360

-- Zero.

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

<sup>2</sup>Customs 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<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	March	January-March	
	2006	2006	2005
Baltimore, MD (13)	281	996	870
Buffalo, NY (09)	--	--	3
Chicago, IL (39)	--	--	26
Cleveland, OH (41)	--	--	23
Detroit, MI (38)	--	25	--
Houston-Galveston, TX (53)	--	15	--
Los Angeles, CA (27)	--	--	(3)
Mobile, AL (19)	--	5	61
New Orleans, LA (20)	193	1,120	1,520
Nogales, AZ (26)	2	11	3
San Francisco, CA (28)	--	--	4
St. Louis, MO (45)	(3)	(3)	--
Total	477	2,180	2,510

-- Zero.

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

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10  
U.S. IMPORTS FOR CONSUMPTION OF PELLETS,  
BY CUSTOMS DISTRICT<sup>1</sup>

(Thousand metric tons)

Customs district (code no.)	March	January-March	
	2006	2006	2005
Baltimore, MD (13)	136	428	470
Chicago, IL (39)	--	--	26
Cleveland, OH (41)	--	--	23
Detroit, MI (38)	--	25	--
Mobile, AL (19)	--	--	61
New Orleans, LA (20)	143	420	779
Total	279	873	1,360

-- Zero.

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

Source: U.S. Census Bureau.