

# Mineral Industry Surveys

## For information, contact:

John D. Jorgenson, Iron Ore Commodity Specialist  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4912, Fax: (703) 648-7757  
E-mail: [jjorgenson@usgs.gov](mailto:jjorgenson@usgs.gov)

Frederic de Haas (Data)  
Telephone: (703) 648-7978  
Fax: (703) 648-7975  
E-mail: [fdehaas@usgs.gov](mailto:fdehaas@usgs.gov)

**Internet:** <http://minerals.usgs.gov/minerals>

## IRON ORE IN MAY 2004

U.S. mine production of iron ore in May 2004, on a daily average basis, was slightly higher than that of the prior month, according to the U.S. Geological Survey. Average daily production was 155,000 metric tons per day (t/d), about 400 t/d greater than in April 2004.

Shipments on a daily basis were 2% lower compared with those of April 2004. Mine stocks at the end of May 2004 were 6% lower than the corresponding stock figures at the end of the previous month.

**Exploration.**—Aztec Resources Ltd has received additional drilling results from exploration efforts on the Koolan Island iron ore property located on an island off the northwest coast of Western Australia. Extensions to three of the five deposits have been identified and feasibility work is expected to begin in 2004 (Mining Journal, 2004). Preliminary estimates show resources of 24.8 million metric tons (Mt) of 67% iron beneath and adjacent to the former BHP Billiton plant (The TEX Report, 2004). BHP mined iron ore on the island from 1965 to 1993.

**Domestic Production.**—International Steel Group Inc. (ISG) acquired the assets of Weirton Steel and assumed the pellet purchase contract with Cleveland-Cliffs Inc. (Cliffs) with some modifications. The contract terms are for 15 years, with Cliffs supplying all pellet requirements for the ISG-Weirton facility after 2006. Cliffs sold 2.8 Mt of pellets to Weirton in 2003 (Cleveland-Cliffs Inc., 2004<sup>1</sup>).

Special legislation passed the Minnesota senate to fast track the world's first 500,000-metric-ton-per-year (t/yr) iron nugget plant, to be situated at the Cliffs Erie (LTV) site near Hoyt Lakes in St. Louis County. The speed-up of the permitting process should allow ground to be broken for this project within a few months (Hohnstadt, 2004).

Polymet Mining Corp. has selected engineering firms to redesign and obtain permits for idled parts of existing Erie processing facilities. The renovation of former Cliffs Erie

facilities will be used for the NorthMet project, a planned precious and base metals operation (Skillings Mining Review, 2004).

**World Production.**—Cliffs announced the sale of its partially owned hot briquette iron (HBI) facility in Trinidad and Tobago to ISG. The facility has a capacity of 500,000 t/yr, but never shipped more than 130,000 t/yr of HBI when in operation (Skillings Mining Review, 2004§).

Western Australia's Tallering Peak iron ore mine was officially opened in early May by Mount Gibson Iron Ltd. It is expected that 20 Mt of hematite ore from Tallering Peak will be exported through the port of Geraldton over the next decade (MineBox, 2004§).

Brazil's Companhia Vale do Rio Doce (CVRD) has signed agreements worth \$5 billion to supply iron ore, alumina, and steel to Chinese plants. In return, Chinese firms will help build a steel plant and an alumina refinery in Brazil (McCloskey's Coal News, 2004§).

## References Cited

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The TEX Report, 2004, Western Australian iron ore industry developments and prospects in 2003: TEX Report, v. 36, no. 8546, June 22, p. 18.

## Internet References Cited

- Cleveland-Cliffs Inc., 2004 (May 18), Cliffs announces assumption of Weirton sales contract by ISG, accessed July 7, 2004, at URL <http://www.cleveland-cliffs.com>.  
McCloskey's Coal News, 2004 (May 25), Brazil miner CVRD signs \$5bn in China deals, accessed May 25, 2004, at URL <http://www.globalcoal.com>.  
MineBox, 2004 (May 17), Tallering Peak a mid-west boon, accessed May 17, 2004, at URL <http://www.minebox.com>.  
Skillings Mining Review, 2004 (May 13), Cliffs to sell idled HBI plant, accessed May 17, 2004, at URL <http://www.skillings.net>.

<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
2003:				
May	4,010	20,900	5,340	16,000
June	3,740	24,700	4,840	20,800
July	3,920	28,600	4,450	25,200
August	3,950	32,500	4,330	29,600
September	3,870	36,400	4,220	33,800
October	4,190	40,600	4,370	38,200
November	4,140	44,700	4,540	42,700
December	3,740	48,500	5,170	47,900
2004:				
January	4,270	4,270	3,920	3,920
February	4,230	8,500	1,190	5,100
March	4,130	12,600	2,710	7,810
April	4,630	17,300	5,260	13,100
May	4,800	22,100	5,300	18,400

<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 MAY<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2004	2003	2004	2003	2004	2003
Michigan	1,130	678	1,090	1,240	2,010	1,870
Minnesota	3,670	3,340	4,210	4,100	5,650	6,320
Total	4,800	4,010	5,300	5,340	7,660	8,180

<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, plants, and loading docks.

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

(Thousand dry metric tons)

Period	Newfoundland	Quebec	British Columbia	
			Columbia	Total
2003:				
April	1,800	1,120	5	2,930
May	1,960	1,540	4	3,510
June	2,090	1,260	5	3,360
July	2,140	1,460	8	3,610
August	1,530	1,100	6	2,630
September	1,710	1,240	7	2,950
October	2,080	1,500	6	3,580
November	2,260	1,190	5	3,450
December	1,740	1,060	6	2,800
Year total	19,800	13,300	69	33,200
2004:				
January	1,150	839	5	1,990
February	1,070	589	7	1,660
March	1,250	1,030	6	2,290
April	1,740	858	5	2,610

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

Source: Natural Resources Canada.

TABLE 4  
CONSUMPTION AND STOCKS OF IRON ORE AND BLAST FURNACE PRODUCTION OF  
HOT METAL AT U.S. IRON AND STEEL PLANTS<sup>1, 2</sup>

(Thousand metric tons)

Consumption by source	Consumption of ores and agglomerates			
	January			
	2004	2003		
United States ores	4,670	3,780		
Canadian ores	401	428		
Foreign ores	439	707		
Total	5,510	4,920		
Consumption by process				
Blast furnaces	5,010	4,370		
Steel furnaces	3	39		
Agglomerating plants <sup>3</sup>	492	510		
Miscellaneous <sup>4</sup>	--	--		
Total	5,510	4,920		
Stocks of ores and agglomerates, January 31				
Storage point	2004	2003		
Furnace yards	NA	11,100		
Receiving/transfer docks	NA	1,430		
Total consumer	11,700	12,600		
Blast furnace production of hot metal				
	March		January - March	
	2004	2003	2004	2003
Hot metal and pig iron produced in blast furnaces	3,650	3,540	10,200 <sup>5</sup>	10,300
No. of blast furnaces operating on the last day of the month	NA	31	XX	XX

<sup>6</sup>Estimated. NA Not available. XX Not applicable. -- 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>Iron ore and iron ore concentrates consumed in agglomerating plants not located at the mine or plant site.

<sup>4</sup>Sold to nonreporting companies or used for purposes not listed.

<sup>5</sup>Includes revised data.

Sources: American Iron Ore Association (consumption of iron ore 2003) and American Iron and Steel Institute (production of hot metal and pig iron).

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	2003	2004			
	4th quarter	February	March	1st quarter	April
Canada	1,700	141	212	958 <sup>r</sup>	1,020
China	74	18	11	59	57
Mexico	1	(3)	(3)	1 <sup>r</sup>	(3)
Other	2 <sup>r</sup>	(3) <sup>r</sup>	(3) <sup>r</sup>	1 <sup>r</sup>	(3)
Total	1,780	159	224	1,020	1,080
Pellets	1,780	158	223	1,020	1,020
Other	6	1	1	3	58
Total	1,780	159	224	1,020	1,080

<sup>r</sup>Revised.

<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 1/2 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	2004					2003
	April		Year to date			January-April Thousand metric tons
	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)	
Australia	--	--	(4)	24	54.15	128
Brazil	391	10,200	1,570	40,200	25.56	1,630
Canada	493	15,700	1,120	36,700	33.37	1,160
Chile	--	--	59	1,560	26.46	46
Finland	--	--	4	190	47.50	3
Mexico	--	--	26	548	21.08	--
Peru	(4)	5	15	271	18.00	(4)
South Africa	104	4,090	104	4,100	39.42	--
Spain	--	--	(4)	3	39.91	--
Venezuela	--	--	21	822	39.14	--
Total	989	30,000	2,920	84,300	28.92	2,970
Concentrates	36	564	163	3,640	22.30	244
Coarse ores	--	--	(4)	11	226.70	--
Fine ores	302	7,880	843	18,300	21.70	464
Pellets	651	21,500	1,890	61,400	32.56	2,090
Briquettes	--	--	21	822	39.14	--
Other agglomerates	--	--	(4)	3	39.91	166
Roasted pyrites	--	--	4	193	48.25	4
Total	989	30,000	2,920	84,300	28.92	2,970

-- 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 1/2 unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN APRIL 2004<sup>1,2</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	--	--	170	221	--	--	391
Canada	36	--	28	430	--	--	493
Other	(3)	--	104	--	--	--	104
Total	36	--	302	651	--	--	989

-- 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 1/2 unit.

Source: U.S. Census Bureau.

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

Country of origin	2004					2003
	April		Year to date			January-April
	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	221	6,740	897	27,200	30.26	1,180
Canada	430	14,800	988	34,200	34.65	915
Total	651	21,500	1,890	61,400	32.56	2,090

<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.)	April	January-April	
	2004	2004	2003
Baltimore, MD (13)	385	1,270	1,090
Buffalo, NY (09)	1	1	2
Charleston, SC (16)	--	--	106
Chicago, IL (39)	54	54	104
Cleveland, OH (41)	300	323	400
Detroit, MI (38)	27	27	--
Great Falls, MT (33)	(3)	(3)	--
Houston - Galveston, TX (53)	--	28	37
Los Angeles, CA (27)	--	--	(3)
Mobile, AL (19)	--	21	59
New Orleans, LA (20)	221	1,190	1,170
Nogales, AZ (26)	--	(3)	--
Ogdensburg, NY (07)	--	--	1
Philadelphia, PA (11)	--	4	3
Total	989	2,920	2,970

-- 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 1/2 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.)	April	January-April	
	2004	2004	2003
Baltimore, MD (13)	138	457	364
Charleston, SC (16)	--	--	105
Cleveland, OH (41)	265	288	400
Detroit, MI (38)	27	27	--
Houston-Galveston, TX (53)	--	28 <sup>2</sup>	37
Mobile, AL (19)	--	--	59
New Orleans, LA (20)	221	1,090	1,130
Total	651	1,890	2,090

-- Zero.

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

<sup>2</sup>Includes revised data.

Source: U.S. Census Bureau.