

# Mineral Industry Surveys

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## IRON ORE IN MARCH 2008

U.S. mine production of iron ore in March 2008, on a daily average basis, was 12% greater than that for the prior month, according to the U.S. Geological Survey (USGS). Average daily production, at 154,000 metric tons (t), was 17,000 t more than that of February 2008.

Average daily shipments in March 2008, at 71,000 t, were 33,000 t greater than those of February. Mine stocks at the end of March 2008 were 2.6 million metric tons (Mt) greater than stocks held on February 29, a 26% increase. U.S. imports of iron ore in February 2008 were 31% greater than exports, with net imports of 56,000 t.

**Prices.**—Companhia Vale do Rio Doce (Vale) of Rio de Janeiro, Brazil, and Italian steelmaker ILVA S.p.A. agreed on a blast furnace pellet price increase of 86.67%. The new Vale price was 220.2 U.S. cents per dry metric ton unit, free on board Tubarao. This represented the first settlement price for pellets in the 2008 annual contract negotiations (*Metal Bulletin*, 2008).

Australian iron ore giants—BHP Billiton Limited (BHPB) and Rio Tinto plc—continued to hold out for significantly higher contract prices in spite of boycotts enforced by the China Iron & Steel Association and other Chinese trade entities. Chinese iron ore importers reportedly could have their import licenses suspended for purchasing BHPB or Rio Tinto iron ore on the spot market (Koch, 2008).

**Domestic Production.**—Cleveland-Cliffs Inc (Cleveland, OH) announced production for the first quarter of 2008 for their North American operations. Mine production was as follows (United States, unless otherwise specified): Empire, 1.2 Mt; Hibbing Taconite, 2.0 Mt; Northshore, 1.3 Mt; Tilden, 1.6 Mt; United Taconite, 1.2 Mt; and Wabush (Canada), 1.0 Mt. Cliffs' share of the total production of 8.4 Mt was 5.3 Mt (Cleveland-Cliffs Inc, 2008, p. 2).

**World Production.**—Rio Tinto plc announced first quarter production for 2008. Rio Tinto's share of saleable iron ore plus pellets worldwide for the calendar year through March was 37.4 Mt—a 16% increase compared with that of the same period in 2007. Rio Tinto's Hope Downs Mine produced over 1 Mt in the quarter and continued to ramp up toward a planned capacity of 30 million metric tons per year (Mt/yr) in 2009. Rio Tinto

approved plans to invest \$475 million to expand capacity at its partially-owned Iron Ore Company of Canada facilities to 22 Mt/yr of concentrates (Rio Tinto plc, 2008, p. 2, 3, 12).

BHPB announced that its share of first quarter iron ore (wet) worldwide production for 2008 was 28.0 Mt—a 23% increase compared with that of the corresponding period in 2007 (BHP Billiton Limited, 2008, p. 6).

In calendar year 2008 through March, Vale reported iron ore production of 74.5 Mt (including Vale's Samarco joint venture)—an increase of 11% compared with that of the same period in 2007. Vale pellet production for calendar year 2008 through March was 8.7 Mt—a slight increase compared with that of the first quarter of 2007. Blast furnace pellet production accounted for 5.6 Mt and pellets for making direct reduced iron comprised 3.1 Mt (Companhia Vale do Rio Doce, 2008, p. 1, 2).

**Mergers and Acquisitions.**—In late March, ArcelorMittal confirmed that the court-appointed divestiture trustee had entered into an agreement to sell the company's Sparrows Point steel mill in Maryland to Russia's OAO Severstal. The sale was required to comply with an anti-trust ruling related to the merger in 2006 between Mittal Steel and Arcelor SA. The agreed sale price was \$810 million net of debt (ArcelorMittal, 2008).

## References Cited

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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
2007:				
March	3,800	11,400	2,110	5,490
April	4,330	15,700	5,150	10,600
May	4,740	20,500	5,450	16,100
June	4,610	25,100	5,120	21,200
July	4,690	29,800	5,210	26,400
August	4,450	34,200	5,090	31,500
September	4,350	38,600	5,100	36,600
October	4,820	43,400	5,130	41,700
November	4,280	47,700	4,830	46,600
December	4,320	52,000	4,960	51,500
2008:				
January	4,170	4,170	3,730	3,730
February	3,990	8,160	1,090	4,830
March	4,780	12,900	2,190	7,020

<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 MARCH<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2008	2007	2008	2007	2008	2007
Michigan	1,100	884	692	766	2,990	2,520
Minnesota	3,680	2,920	1,500	1,340	9,430	9,300
Total	4,780	3,800	2,190	2,110	12,400	11,800

<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 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<sup>1,2</sup>

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2007:				
February	874	571	6	1,450
March	1,030	867	8	1,910
April	1,210	1,450	5	2,660
May	1,720	1,650	8	3,380
June	1,650	1,310	7	2,960
July	2,070	1,340	7	3,420
August	2,150	1,150	6	3,310
September	1,410	1,400	6	2,820
October	1,860	1,600	6	3,460
November	2,110	1,470	7	3,590
December	1,180	1,450	5	2,640
Year total	17,900	14,900	75	32,800
2008:				
January	1,210	816	6	2,030
February	1,120	833	4	1,950

<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
2007:						
February	2,610	5,450	2,940	6,040	4,690	9,140
March	3,040	8,490	3,450	9,490	4,880	14,000
April	3,010	11,500	3,370	12,900	4,840	18,900
May	3,130	14,600	3,530	16,400	5,000	23,900
June	3,120	17,800	3,470	19,900	4,770	28,600
July	3,080	20,800	3,420	23,300	4,860	33,500
August	3,010	23,800	3,370	26,600	4,970	38,400
September	3,010	26,900	3,370	30,000	4,600	43,000
October	3,200	30,100	3,540	33,500	4,940	48,000
November	2,940	33,000	3,280	36,800	4,920	52,900
December	3,160	36,200	3,550	40,400	4,900	57,800
2008:						
January	2,900	2,900	3,550	3,550	5,100	5,100
February	3,110	6,010	3,470	7,020	4,750	9,850

<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	2007				2008	
	3rd quarter	4th quarter	December	Total	January	February
Algeria	332	25	--	570	--	--
Canada	1,910	2,190	828	7,340	1,110	138
China	762	81	3	1,130	7	12
Colombia	--	(3)	--	7	1	(3)
Japan	(3)	7	6	7	--	--
Mexico	64	82	59	148	38	28
Peru	--	(3)	--	5	--	--
Romania	--	--	--	87	--	--
Sweden	2	--	--	2	--	1
Other	2	1	(3)	8	(3)	3
Total	3,070	2,390	896	9,310	1,160	182
Pellets	3,010	2,340	877	9,170	1,150	174
Concentrates	31	9	7	51	4	5
Briquettes	--	1	--	1	--	--
Sinter	(3)	21	11	22	--	(3)
Direct shipping ores - coarse	1	2	(3)	6	1	1
Direct shipping ores - fines	29	5	1	51	(3)	2
Roasted pyrites	(3)	10	(3)	11	--	--
Total	3,070	2,390	896	9,310	1,160	182

-- 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	2008					2007
	February		Year to date			January-February 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)	
Brazil	66	3,430	351	20,600	58.73	290
Canada	168	12,600	391	28,600	73.10	320
Chile	--	--	44	2,600	58.60	84
Finland	3	106	3	106	39.26	--
Mexico	--	--	--	--	--	3
Peru	--	--	18	774	42.29	1
Sweden	1	22	1	22	18.00	24
United Kingdom	--	--	--	--	--	(4)
Total	238	16,200	809	52,700	65.17	723
Concentrates	--	--	44	2,610	58.72	166
Coarse ores	--	--	--	--	--	--
Fine ores	67	3,450	206	10,600	51.30	73
Pellets	168	12,600	555	39,400	70.98	479
Other agglomerates	--	--	--	--	--	3
Roasted pyrites	3	106	4	145	41.28	1
Total	238	16,200	809	52,700	65.17	723

-- 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 FEBRUARY 2008<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	--	--	66	--	--	--	66
Canada	--	--	--	168	--	--	168
Finland	--	--	--	--	--	3	3
Sweden	--	--	1	--	--	--	1
Total	--	--	67	168	--	3	238

-- 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.

Source: U.S. Census Bureau.

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

Country of origin	2008					2007
	February		Year to date			January-February Thousand metric tons
	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)	
Brazil	--	--	147	10,100	68.67	217
Canada	168	12,600	391	28,600	73.13	238
Peru	--	--	18	736	40.89	--
Sweden	--	--	--	--	--	24
Total	168	12,600	555	39,400	71.03	479

-- 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.)	February	January-February	
	2008	2008	2007
Baltimore, MD (13)	208	525	144
Charleston, SC (16)	--	1	2
Chicago, IL (39)	26	45	109
Cleveland, OH (41)	--	26	140
Mobile, AL (19)	--	18	--
New Orleans, LA (20)	--	191	301
Nogales, AZ (26)	--	--	3
Ogdensburg, NY (07)	--	(3)	--
Philadelphia, PA (11)	3	3	--
Port Arthur, TX (21)	--	--	24
Total	238	809	723

-- 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.)	February	January-February	
	2008	2008	2007
Baltimore, MD (13)	142	320	71
Chicago, IL (39)	26	45	28
Cleveland, OH (41)	--	26	140
Mobile, AL (19)	--	18	--
New Orleans, LA (20)	--	147	217
Port Arthur, TX (21)	--	--	24
Total	168	555	479

-- 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.