

Mineral Industry Surveys

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IRON ORE IN FEBRUARY 2009

U.S. mine production of iron ore in February 2009, on a daily average basis, was slightly less than that for the prior month, and was 33% less than that of February 2008, according to the U.S. Geological Survey (USGS). Average daily production, at 94,900 metric tons (t), was 1,500 t less than that of January 2009.

Average daily shipments in February 2009, at 15,700 t, were 12,500 t less than those of the prior month, and 23,300 t less than those of February 2008. Mine stocks at the end of February 2009 were 2.2 million metric tons (Mt) greater than the revised stocks held on January 31, a 26% increase. U.S. net exports of iron ore in January 2009 were 64,000 t, with exports 44% greater than imports.

Price.—The China Iron & Steel Association (CISA) for the first time included a representative in the Chinese delegation discussing annual iron ore price contracts. CISA reportedly wanted to strengthen coordination among Chinese steel producers and would need to agree to any benchmarks established by China's major producers (*Metal Bulletin*, 2009).

Domestic Production.—U.S. Steel Corp. planned to lay off 500 union employees, as well as 90 management employees at its Minntac operations (Mountain Iron, MN). In December, U.S. Steel had already halted production at its Keetac operation (Keewatin, MN). Lack of new steel orders forced the steel company to reduce production from its upstream operations (Bowen, 2009).

World Exploration and Development.—Shougang Group (China), the parent company of Shougang Hierro Peru S.A., announced plans to invest \$1 billion to double iron ore capacity at its Peruvian iron ore operations by 2010. The iron ore production capacity will be raised to 10 million metric tons per year (Mt/yr) (*Skilling's Mining Review*, 2009).

London Mining Plc (London, United Kingdom) in a recent feasibility study reported 157 Mt of ore resources with an average grade of 41.1% iron at the Wadi Sawawin prospect in Saudi Arabia. The study suggested a run-of-mine production rate of 11.6 Mt/yr with an ability to produce 5.5 Mt/yr of direct-

reduction iron pellets. The initial capital costs were estimated to be \$1.8 billion. London Mining would develop the project with Saudi Arabia's National Mining Co. (*Mining Journal*, 2009b).

In Liberia, members of the country's parliament raised concerns related to the \$2.6 billion agreement approving the development of the Bong iron ore deposit by China Union Holdings Ltd. (Shenzhen, China). Final approval was being withheld until issues relating to the basis for some tax exemptions were clarified (*Mining Journal*, 2009a).

Mergers and Acquisitions.—Aluminum Corp. of China (Chinalco), a Chinese state-owned enterprise, proposed a \$19.5 billion investment in Rio Tinto plc (London, United Kingdom). Approximately \$7.2 billion of the investment would be in convertible bonds, which when exercised would give Chinalco 18% ownership of Rio Tinto (Wilson and others, 2009). Australia's Foreign Investment Review Board (FIRB) was facing an inquiry by state representatives into the announced bid by Chinalco, as well as the recent bid by another Chinese state-run enterprise (Hunan Valin Iron and Steel Group Co. Ltd.) for 16.5% interest in Fortescue Metals Group Ltd. FIRB regulates foreign ownership in Australian companies and restricts control of natural resources by foreign entities (Wilshaw, 2009).

References Cited

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reduction iron pellets. The initial capital costs were estimated to

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
2008:				
February	3,990	8,160	1,090	4,830
March	4,780	12,900	2,190	7,020
April	4,130	17,100	5,220	12,200
May	4,860	21,900	6,230	18,500
June	4,870	26,800	5,450	23,900
July	4,960	31,800	6,160	30,100
August	4,840	36,600	6,100	36,200
September	4,310	40,900	5,500	41,700
October	4,540	45,400	4,860	46,500
November	3,940	49,400	3,910	50,400
December	3,570	53,000	2,820	53,300
2009:				
January	2,990	2,990	874	874
February	2,660	5,650	440	1,310

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 FEBRUARY^{1, 2}

(Thousand metric tons)

State	Production		Shipments ³		Stocks ⁴	
	2009	2008	2009	2008	2009	2008
Michigan	641	878	99	471	3,430	2,570
Minnesota	2,020	3,110	341	621	7,470	7,250
Total	2,660	3,990	440	1,090	10,900	9,820

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.

Note: Stocks at end of January 2009 for Minnesota have been revised to 5,790 thousand metric tons.

TABLE 3
CANADA: SHIPMENTS OF IRON ORE^{1,2}

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2008:				
January	1,210	816	6	2,030
February	1,120	833	4	1,950
March	1,140	855	4	2,000
April	1,680	984	4	2,670
May	2,670	1,330	7	4,010
June	1,580	1,380	9	2,970
July	1,820	1,370	8	3,200
August	2,270	1,200	9	3,470
September	1,310	1,050	9	2,370
October	1,760	984	8	2,750
November	1,370	687	6	2,060
December	749	618	3	1,370
Year total	18,700	12,100	76	30,800
2009, January	1,030	600	3	1,640

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	Monthly	Year to date
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
March	3,280	9,290	3,700	10,700	4,900	14,800
April	3,240	12,500	3,560	14,300	4,820	19,600
May	3,210	15,700	3,650	17,900	5,080	24,700
June	3,020	18,800	3,450	21,400	4,930	29,600
July	3,090	21,800	3,460	24,800	5,060	34,600
August	3,290	25,100	3,680	28,500	4,990	39,600
September	2,900	28,000	3,290	31,800	4,560	44,200
October	2,770	30,800	2,330	34,100	3,990	48,200
November	2,040	32,800	1,980	36,100	2,660	50,800
December	1,690	34,500	1,390	37,500	2,220	53,100
2009, January	1,450	1,450	1,320	1,320	2,630	2,630

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	2008						2009
	1st quarter	2nd quarter	3rd quarter	December	4th quarter	Total	January
Algeria	--	28	52	--	--	80	--
Belgium	57	161	(3)	(3)	(3)	218	(3)
Canada	1,460	2,290	3,160	566	2,120	9,030	206
China	24	8	5	--	54	91	2
Colombia	1	3	2	1	5	11	1
Czech Republic	--	83	--	--	--	83	--
France	--	--	54	105	156	210	(3)
Germany	1	79	(3)	--	76	156	--
Malaysia	24	1	--	--	--	25	1
Mexico	67	100	93	(3)	68	328	(3)
Peru	--	--	103	--	(3)	103	--
Romania	--	76	52	--	--	128	--
Serbia	--	--	51	--	--	51	--
Slovakia	--	50	--	135	455	505	--
Spain	(3)	77	25	--	--	102	--
Sweden	1	--	2	--	1	4	--
Other	2	6	4	(3)	2	14	(3)
Total	1,630	2,960	3,610	809	2,940	11,100	211
Concentrates	21	39	23	2	59	142	2
Coarse ores	2	5	14	--	25	46	(3)
Fine ores	28	9	78	(3)	21	136	2
Pellets	1,570	2,910	3,490	807	2,840	10,800	207
Briquettes	--	--	--	--	(3)	(3)	--
Other agglomerates	16	3	1	(3)	(3)	20	--
Roasted pyrites	--	(3)	(3)	--	(3)	(3)	--
Total	1,630	2,960	3,610	809	2,940	11,100	211

-- 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	2009					2008
	January		Year to date			January
	Thousand metric tons	Value ³ (thousand dollars)	Thousand metric tons	Value ³ (thousand dollars)	Value ³ (dollars per ton)	Thousand metric tons
Brazil	--	--	--	--	--	285
Canada	147	20,000	147	20,000	135.95	223
Chile	--	--	--	--	--	44
Peru	--	--	--	--	--	18
Total	147	20,000	147	20,000	135.95	571
Concentrates	--	--	--	--	--	44
Coarse ores	--	--	--	--	--	--
Fine ores	1	24	1	24	24.00	139
Pellets	146	20,000	146	20,000	136.73	387
Briquettes	--	--	--	--	--	--
Other agglomerates	--	--	--	--	--	--
Roasted pyrites	--	--	--	--	--	1
Total	147	20,000	147	20,000	135.95	571

-- 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.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN JANUARY 2009^{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	
Canada, Total	--	--	1	146	--	--	147

-- Zero.

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

²Includes agglomerates.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY¹

Country of origin	2009					2008
	January		Year to date			January
	Thousand metric tons	Value ² (thousand dollars)	Thousand metric tons	Value ² (thousand dollars)	Value ² (dollars per ton)	Thousand metric tons
Brazil	--	--	--	--	--	147
Canada	146	20,000	146	20,000	136.73	223
Peru	--	--	--	--	--	18
Total	146	20,000	146	20,000	136.73	387

-- 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.

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.)	January	
	2009	2008
Baltimore, MD (13)	130	317
Charleston, SC (16)	--	1
Chicago, IL (39)	15	18
Cleveland, OH (41)	--	26
Mobile, AL (19)	--	18
New Orleans, LA (20)	--	191
Ogdensburg, NY (07)	1	(3)
Total	147	571

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

(Thousand metric tons)

Customs district (code no.)	January	
	2009	2008
Baltimore, MD (13)	130	179
Chicago, IL (39)	15	18
Cleveland, OH (41)	--	26
Mobile, AL (19)	--	18
New Orleans, LA (20)	--	147
Total	146	387

-- Zero.

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

Source: U.S. Census Bureau.