

## **Mineral Industry Surveys**

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#### **IRON ORE IN MAY 2010**

U.S. mine production of iron ore in May 2010, on a daily average basis, was 17% greater than that for the prior month and was more than 5 times that of May 2009, according to the U.S. Geological Survey (USGS). Average daily production, at 147,000 metric tons (t), was 20,900 t greater than that of April 2010

Average daily shipments in May 2010, at 169,000 t, were 9,200 t more than those of the prior month and more than double those of May 2009. Mine stocks at the end of May 2010 were 677,000 t less than the stocks held on April 30, an 11% decrease. U.S. net exports of iron ore in April 2010 were 267,000 t, with exports 38% greater than imports.

Prices.—Chinese Iron and Steel Association (CISA) and ArcelorMittal confirmed the end to the benchmarking system, and many steelmakers indicated that an iron ore surcharge on steel sales might result. BHP Billiton Ltd. (Melbourne, Australia), Rio Tinto plc (London, United Kingdom), and Vale S.A. (Rio de Janeiro, Brazil) settled annual iron ore contracts with a quarterly pricing mechanism. Vale indicated it would allow customers to select an index to use as the basis of a pricing formula. BHP and Rio Tinto did not reveal its pricing formula but indicated that quarterly prices would be based on indices from the previous quarter (Antonioli, 2010; Metal Bulletin, 2010a).

# World Exploration and Development.—Australian development of iron ore and other mineral reserves reportedly may be threatened by imposition of a resources super-profits tax. BHP Billiton estimated that such a 40% federal tax would mean its overall tax burden would increase to 57% from 43%. Several companies indicated that such a tax increase would cause them to cancel projects or move investments overseas. BHP Billiton, Fortescue Metals Group Ltd. (East Perth, Australia), and Rio Tinto have placed Australian projects on hold to evaluate the effects of the new taxes on project economics (Creagh, 2010; Metal Bulletin, 2010b).

The board of directors of the Iron Ore Company of Canada

(IOC) (59% owned by Rio Tinto) approved a new investment of \$401 million to increase annual iron ore concentrate capacity in 2012 to 22 million metric tons (Mt) from 18 Mt. The original project expansion was cancelled in 2008 owing to the global economic downturn. The revised total project cost for the IOC first stage expansion was \$497 million, of which some costs had been spent prior to the earlier suspension of the project (Rio Tinto plc, 2010).

**World Production.**—Iran increased its annual iron ore and iron ore concentrate exports by 270% compared with those of fiscal year 2009. In the fiscal year ending April 20, 2010, its exports of iron ore and concentrates were 1.19 Mt, of which over 97% was delivered to China (Metal Bulletin, 2010c).

Mergers and Acquisitions.—Vale agreed to sell 30% of Vale Oman Pelletizing Company LLC (VOPC) to Oman Oil Company S.A.O.C., which is wholly owned by the Government of Oman. The VOPC pelletizing plant was scheduled to begin production in the latter half of the year with a production capacity of 9 Mt of direct reduction pellets (Vale S.A., 2010).

#### **References Cited**

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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
2009:				
May	850	10,400	2,470	6,380
June	811	11,200	2,440	8,810
July	1,480	12,700	3,080	11,900
August	1,780	14,500	3,190	15,100
September	2,560	17,100	3,120	18,200
October	3,080	20,100	3,370	21,600
November	3,140	23,300	4,380	26,000
December	3,180	26,500	3,960	29,900
2010:				
January	3,040	3,040	2,400	2,400
February	3,270	6,300	943	3,340
March	3,630	9,930	2,630	5,970
April	3,780	13,700	4,790	10,800
May	4,560	18,300	5,230	16,000

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

 $\label{eq:table 2} \text{U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN MAY}^{1,2}$ 

#### (Thousand metric tons)

	Produ	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
State	2010	2009	2010	2009	2010	2009	
Michigan	1,050	650	795	962	1,810	3,410	
Minnesota	3,500	200	4,440	1,510	3,550	7,230	
Total	4,560	850	5,230	2,470	5,360	10,600	

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

<sup>&</sup>lt;sup>2</sup>Excludes byproduct ores.

<sup>&</sup>lt;sup>2</sup>Excludes byproduct ore.

<sup>&</sup>lt;sup>3</sup>Includes rail and vessel.

<sup>&</sup>lt;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.

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

#### (Thousand dry metric tons)

	Newfoundland		British	
Period	and Labrador	Quebec	Columbia	Total
2009:				
April	1,630	871	8	2,510
May	2,090	1,260	7	3,350
June	820	1,080	10	1,910
July	1,360	1,430	10	2,800
August	1,480	1,570	8	3,060
September	1,540	1,580	8	3,130
October	2,060	1,510	7	3,580
November	2,010	1,000	8	3,020
December	1,660	1,320	(3)	2,980
Year total	17,100	14,500	73	31,700
2010:				
January	1,300	1,090	3	2,390
February	1,130	872	3	2,000
March	1,390	1,100	6	2,500
April	1,500	1,510	7	3,020

<sup>&</sup>lt;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 PRODUCTION OF PIG IRON AND RAW STEEL IN THE UNITED STATES, BY TYPE OF  $${\rm FURNACE}^1$$ 

#### (Thousand metric tons)

•	Pig iron	production,	Raw steel production				
	blast	furnace	Basic oxygen furnace Electric fu		ic furnace		
Period	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date	
2009:							
April	1,410	5,990	1,230	5,170	2,390	9,800	
May	1,370	7,360	1,070	6,240	2,760	12,600	
June	1,380	8,740	1,210	7,440	2,980	15,500	
July	1,840	10,600	1,630	9,070	3,200	18,700	
August	2,090	12,700	1,810	10,900	3,460	22,200	
September	1,930	14,600	2,230	13,100	3,540	25,700	
October	2,510	17,100	2,080	15,200	3,480	29,200	
November	2,240	19,400	2,000	17,200	3,470	32,700	
December	2,410	21,800	2,120	19,300	3,450	36,100	
2010:							
January	2,350	2,350	1,830	1,830	3,890	3,890	
February	2,530	4,870	1,960	3,790	3,720	7,610	
March	2,870	7,740	2,560	6,350	4,240	11,800	
April	2,030	9,770	2,820	9,170	4,140	16,000	

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

Source: American Iron and Steel Institute.

 $<sup>^2 \</sup>mbox{Includes}$  production from steel plant waste oxides.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

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

#### (Thousand metric tons)

Country of destination	2009	)		20	10	
and type of product	4th quarter	Total	February	March	1st quarter	April
Belgium	150	194			1	27
Canada	877	3,060	129	225	918	545
China	(3)	99				55
Colombia	_ 3	19	1	1	4	2
France	(3)	179		25	25	55
Germany	153	234				209
Mexico		70	81	38	151	11
Serbia						44
South Africa	25	52				
Spain						28
Other <sup>4</sup>	3	10	(3)	(3)	(3)	
Total	1,270	3,910	211	289	1,100	976
Concentrates		123	1	1	6	2
Coarse ores	4	5				
Fine ores	_ 2	24	(3)	(3)	(3)	44
Pellets	1,260	3,760	209	287	1,090	930
Briquettes		3			(3)	(3)
Other agglomerates	(3)	(3)				
Roasted pyrites	(3)	1	(3)		(3)	
Total	1,270	3,910	211	289	1,100	976

<sup>--</sup> Zero

 $<sup>^{1}\</sup>mbox{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes agglomerates.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

 $<sup>^4</sup>$ Includes all countries receiving less than 5,000 metric tons in any month during the 2-year period.

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

			2009			
	Aı	oril		Year to date		January-April
	Thousand	Value <sup>3</sup>	Thousand	Value <sup>3</sup>	Value <sup>3</sup>	Thousand
Country of origin	metric	(thousand	metric	(thousand	(dollars	metric
and type of product	tons	dollars)	tons	dollars)	per ton)	tons
Brazil			37	3,780	102.16	38
Canada	472	42,800	1,500	126,000	83.95	507
Chile	46	3,270	46	3,270	71.02	47
Finland						3
France	(4)	4	(4)	4	4,480.00	
Mexico	48	3,980	48	3,980	83.00	26
Norway	1	18	2	31	15.50	1
Peru			7	315	45.00	5
Russia	141	13,500	401	39,500	98.52	
Spain	1	29	3	114	38.00	
Sweden						4
Trinidad and Tobago			(4)	11	187.50	
Turkey	(4)	3	(4)	3	91.51	
United Kingdom						8
Venezuela			21	1,390	66.29	
Total	709	63,600	2,070	179,000	86.36	639
Concentrates	94	7,250	95	7,260	76.43	72
Coarse ores						8
Fine ores	2	33	152	15,300	100.85	166
Pellets	612	56,300	1,820	156,000	85.74	389
Briquettes	1	29	3	114	38.00	
Other agglomerates						2
Roasted pyrites	(4)	4	(4)	4	4,480.00	3
Total	709	63,600	2,070	179,000	86.36	639

<sup>--</sup> Zero

<sup>&</sup>lt;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>&</sup>lt;sup>2</sup>Includes agglomerates.

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

<sup>&</sup>lt;sup>4</sup>Less than ½ unit.

### TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN APRIL $2010^{1,2}$ (Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

	Type of product									
					Briquettes					
		Coarse	Fine		and other	Roasted				
Country of origin	Concentrates	ores	ores	Pellets	agglomerates	pyrites	Total			
Canada			1	471			472			
Chile	46						46			
France						(3)	(3)			
Mexico	48						48			
Norway			1				1			
Russia				141			141			
Spain					1		1			
Turkey			(3)				(3)			
Total	94		2	612	1	(3)	709			

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

 $\label{eq:table 8} \text{U.s. IMPORTS FOR CONSUMPTION OF PELLETS}, \ \ \text{BY COUNTRY}^1$ 

			2010			2009
	AĮ	oril		Year to date		January-April
Country	Thousand metric	Value <sup>2</sup> (thousand	Thousand metric	Value <sup>2</sup> (thousand	Value <sup>2</sup> (dollars	Thousand metric
of origin	tons	dollars)	tons	dollars)	per ton)	tons
Brazil			37	3,780	102.16	38
Canada	471	42,700	1,360	111,000	81.82	346
Peru						5
Russia	141	13,500	401	39,500	98.52	
Venezuela			21	1,390	66.29	
Total	612	56,300	1,820	156,000	85.74	389

<sup>--</sup> Zero

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

<sup>&</sup>lt;sup>2</sup>Includes agglomerates.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

<sup>&</sup>lt;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>&</sup>lt;sup>2</sup>Customs value. Excludes international freight and insurance charges.

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

(Exclusive of ore containing 20% or more manganese)

#### (Thousand metric tons)

	April	January-April		
Customs district (code no.)	2010	2010	2009	
Baltimore, MD (13)	288	1,330	130	
Charleston, SC (16)			4	
Chicago, IL (39)			15	
Cleveland, OH (41)	326	378	202	
El Paso, TX (24)	3	3		
Houston-Galveston, TX (53)		37	38	
Minneapolis, MN (35)	(3)	(3)		
Mobile, AL (19)			5	
New Orleans, LA (20)	92	316	228	
New York, NY (10)	(3)	(3)		
Nogales, AZ (26)			2	
Norfolk, VA (14)		1		
Ogdensburg, NY (07)	1	2	4	
Philadelphia, PA (11)			3	
Port Arthur, TX (21)			8	
Total	709	2,070	639	

<sup>--</sup> Zero

Source: U.S. Census Bureau.

 $\label{eq:table 10} \mbox{U.S. IMPORTS FOR CONSUMPTION OF PELLETS,} \\ \mbox{BY CUSTOMS DISTRICT}^{1}$ 

#### (Thousand metric tons)

	April	January-April	
Customs district (code no.)	2010	2010	2009
Baltimore, MD (13)	288	1,330	130
Chicago, IL (39)			15
Cleveland, OH (41)	324	375	201
Houston - Galveston, TX (53)		37	38
Mobile, AL (19)			5
New Orleans, LA (20)		76	
Total	612	1,820	389

<sup>--</sup> Zero.

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

<sup>&</sup>lt;sup>2</sup>Includes agglomerates.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

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