

# Mineral Industry Surveys

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# **IRON ORE IN JULY 2005**

U.S. mine production of iron ore in July 2005, on a daily average basis, was 12% greater than that of the prior month, according to the U.S. Geological Survey. Average daily production was 167,000 metric tons per day (t/d), 17,300 t/d greater than the figure for June 2005.

Shipments in July 2005, on a daily basis, were 2% greater than those of June 2005. Mine stocks at the end of July were 53,000 metric tons (t) greater than the corresponding stocks figure on June 30, a slight increase.

U.S. imports of iron ore in June 2005 were 38% of exports, with exports exceeding imports by 1,000 t.

**Exploration and Development.**—Palladon Ventures Ltd. announced a contract to sell 1.0 million metric tons (Mt) of iron ore over the next year to a Chinese purchaser. Beginning in September, ore was to be mined and concentrated at the Comstock/Mountain Lion Iron project in Utah and shipped by rail to California for shipment to China (Palladon Ventures Ltd., 2005§¹).

Chile's Compañía Minera del Pacífico S.A. (CMP), a subsidiary of Compañía de Aceros del Pacífico, planned to spend \$160 million to expand its export business. CMP currently ships 7 million metric tons per year (Mt/yr) of pellets and iron ore and is in the last stages of approval for a 3-Mt/yr pellet plant to process magnetite-rich tailings from Phelps Dodge Corporation's Candaleria copper mine (Harris, 2005).

**Domestic Production Update.**—Recent operating cost increases are negatively impacting U.S. iron ore operations. Fuel costs are substantially higher than projected in an industry that is very fuel-intensive. Iron ore mines in Minnesota consumed more than 24 million gallons of diesel fuel in 2003, and prices as high as 55 cents greater than projected are having serious effects (Bloomquist, 2005b§).

Overall production may also be affected by a worldwide shortage of heavy-equipment tires, which could impact mining equipment availability. All of the large tires used on large mining trucks are manufactured by only three manufacturers.

Tire shortages have been exacerbated by recent expansions in the mining industry and increased demand for large tires by China (Bloomquist, 2005a§).

World Production Update.—The acquisitions of five iron ore producers—Belém - Administrações e Participações Ltda., Caemi Mineração e Metalurgica S.A., Ferteco Mineração S.A., Mineração Socoimex Ltda., and Samitri S.A.—by Companhia Vale do Rio Doce (CVRD) was approved by Brazil's Administrative Council for Economic Defense (CADE) after 5 years of investigation. CADE has placed an important caveat on maintaining the acquisition of Ferteco. CVRD must relinquish its right of first refusal on Companhia Siderúrgica Nacional's surplus iron ore produced at the Casa de Pedra Mine within 30 days (Metal Bulletin, 2005).

**Transportation.**—China's Qingdao port in Shandong Province handled over 24 Mt of iron ore imports in the first half of 2005. In 2004, Quindao surpassed Rotterdam (Netherlands) as the world's leading importer of iron ore (Yahoo! Asia News, 2005§).

#### **References Cited**

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<sup>&</sup>lt;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  $^{1,2}$  (Exclusive of ore containing 5% or more of manganese)

## (Thousand metric tons)

	Pro	Production		pments
Period	Monthly	Year to date	Monthly	Year to date
2004:				
July	4,950	31,500	5,550	29,800
August	4,500	36,000	5,670	35,500
September	4,420	40,400	5,420	40,900
October	5,110	45,500	4,780	45,700
November	4,730	50,200	5,110	50,800
December	4,450	54,700	5,150	55,900
2005:				
January	4,420	4,420	3,350	3,350
February	3,870	8,290	1,150	4,500
March	4,240	12,500	2,610	7,110
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

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

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

## (Thousand metric tons)

	Produ	Production		Shipments <sup>3</sup>		cks <sup>4</sup>
State	2005	2004	2005	2004	2005	2004
Michigan	1,340	1,230	1,250	1,350	2,100	1,590
Minnesota	3,820	3,720	3,860	4,200	5,320	4,080
Total	5,160	4,950	5,110	5,550	7,420	5,670

<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 mines, plants, and loading docks.

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

## (Thousand dry metric tons)

			British	
Period	Newfoundland	Quebec	Columbia	Total
2004:				
June	1,970	981	8	2,960
July	1,710	1,380	10	3,110
August	698	1,120	8	1,830
September	124	1,220	5	1,350
October	635	1,570	7	2,210
November	1,390	958	10	2,360
December	1,370	944	9	2,330
Year total	14,900	13,200	87	28,300
2005:				
January	1,210	1,070	8	2,280
February	928	748	8	1,680
March	1,160	873	10	2,040
April	1,690	967	7	2,660
May	1,940	588	10	2,540
June	1,460	399	8	1,860
ln				

<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 <sup>2</sup>		Electr	ic furnace	
Period	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date	
2004:							
June	3,390	20,400	3,790	22,900	4,340	25,400	
July	3,370	23,700	3,800	26,700	5,010	30,400	
August	3,490	27,200	3,830	30,500	4,620	35,100	
September	3,400	30,600	3,020	33,500	5,370	40,400	
October	3,570	34,200	3,030	36,600	5,630	46,100	
November	2,140	36,300	5,520	42,100	2,580	48,600	
December	4,270	40,600	3,810	45,900	4,390	53,000	
2005:							
January	3,420	3,420	3,890	3,890	4,390	4,390	
February	3,260	6,680	3,710	7,590	3,930	8,320	
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	

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

Source: American Iron and Steel Institute.

<sup>&</sup>lt;sup>2</sup>Includes production from steel plant waste oxides.

<sup>&</sup>lt;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.

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

# (Thousand metric tons)

Country of destination				2005		
and type of product	2004	1st quarter	April	May	June	2nd quarter
Canada	7,830	1,280	1,440	1,250	1,610	4,300
China	297		1	(3)	(3)	1
Mexico	4	1	(3)	(3)	(3)	1
Slovakia	187			26		26
Trinidad and Tobago	29		(3)			(3)
Other	53	(3)	(3)	2	1	4
Total	8,400	1,280	1,440	1,280	1,610	4,330
Pellets	8,100	1,280	1,440	1,270	1,610	4,320
Concentrates	25	2	1	2	1	4
Direct shipping ores	264	(3)	1	(3)	2	4
Other	6	2	(3)	(3)	(3)	1
Total	8,400	1,280	1,440	1,280	1,610	4,330

<sup>--</sup> Zero.

 $<sup>^{1}\</sup>mathrm{Data}$  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 1/2 unit.

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

			2005			2004
	Ju	ne		Year to date		January-June
Country of origin	Thousand metric	Value <sup>3</sup> (thousand	Thousand metric	Value <sup>3</sup> (thousand	Value <sup>3</sup> (dollars	Thousand metric
and type of product	tons	dollars)	tons	dollars)	per ton)	tons
Australia						(4)
Brazil	208	9,140	2,120	84,700	40.00	2,450
Canada	352	12,800	2,330	87,200	37.37	2,790
Chile	49	2,270	221	8,470	38.34	107
China			(4)	2	26.13 <sup>r</sup>	
Finland			6	266	43.09	4
Greece			13	243	18.80	
Mexico	1	37	7	177	24.99	26
Paraguay			4	68	16.80	
Peru			18	589	31.95	15
Russia			99	8,550	86.00 5	
South Africa						104
Spain			1	25	18.00	(4)
Trinidad and Tobago			375	11,000	29.45	
Venezuela			87	4,560	52.18	21
Total	610	24,300	5,280	206,000	38.97	5,520
Concentrates	49	2,270	338	11,000	32.48	407
Coarse ores			21	710	34.21	(4)
Fine ores	162	4,760	1,900	54,200	28.61	1,450
Pellets	398	17,200	2,960	137,000	46.34	3,640
Briquettes						21
Other agglomerates	1	37	63	2,560	40.43	(4)
Roasted pyrites			3	122	37.01	4
Total	610	24,300	5,280	206,000	38.97	5,520

<sup>&</sup>lt;sup>r</sup>Revised. -- Zero.

Source: U.S. Census Bureau.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN JUNE  $2005^1$  (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	
Brazil			133	74			208	
Canada			28	323			352	
Chile	49						49	
Mexico					1		1	
Total	49		162	398	1		610	

<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 1/2 unit.

<sup>&</sup>lt;sup>5</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

<sup>&</sup>lt;sup>1</sup>Includes agglomerates.

 ${\bf TABLE~8}$  U.S. IMPORTS FOR CONSUMPTION OF PELLETS, BY COUNTRY  $^1$ 

			2005			2004
	Ju	ne		Year to date		January-June
	Thousand	Value <sup>2</sup>	Thousand	Value <sup>2</sup>	Value <sup>2</sup>	Thousand
Country	metric	(thousand	metric	(thousand	(dollars	metric
of origin	tons	dollars)	tons	dollars)	per ton)	tons
Brazil	74	5,540	1,300	64,400	49.62	1,330
Canada	323	11,700	1,560	64,300	41.11	2,310
Russia			99	8,550	86.00 <sup>3</sup>	
Total	398	17,200	2,960	137,000	46.34	3,640

<sup>--</sup> Zero.

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)

·	June	January	-June
Customs district (code no.)	2005	2005	2004
Baltimore, MD (13)		1,290	1,970
Buffalo, NY (09)		6	3
Chicago, IL (39)	162	429	303
Cleveland, OH (41)	297	877	1,130
Detroit, MI (38)	27	80	99
Great Falls, MT (33)			(3)
Houston-Galveston, TX (53)		36	28
Los Angeles, CA (27)		(3)	
Mobile, AL (19)		61	21
New Orleans, LA (20)	123	2,480	1,960
Nogales, AZ (26)	1	7	(3)
Philadelphia, PA (11)		3	4
San Francisco, CA (28)		4	
San Juan, PR (49)		6	
Total	610	5,280	5,520
7			

<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>Customs value. Excludes international freight and insurance charges.

 $<sup>^3\</sup>mbox{All}$  or part of these data have been referred to the U.S. Census Bureau for verification.

<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 1/2 unit.

TABLE 10  $\mbox{U.S. IMPORTS FOR CONSUMPTION OF PELLETS,} \\ \mbox{BY CUSTOMS DISTRICT}^{\mbox{l}}$ 

## (Thousand metric tons)

	June	January	-June
Customs district (code no.)	2005	2005	2004
Baltimore, MD (13)		655	741
Chicago, IL (39)		53	87
Cleveland, OH (41)	297	876	1,090
Detroit, MI (38)	27	80	99
Houston-Galveston, TX (53)		36	28
Mobile, AL (19)		61	
New Orleans, LA (20)	74	1,200	1,590
Total	398	2,960	3,640

<sup>--</sup> Zero.

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