

# Mineral Industry Surveys

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## IRON ORE IN MAY 2013

U.S. mine production of iron ore in May 2013 was 4.28 million metric tons (Mt), 24% greater than that in April. Daily average production was 138,000 metric tons (t) in May, 20% greater than that of April 2013 and 3% less than that of May 2012. U.S. iron ore shipments were 5.68 Mt in May 2013, 21% greater than those in April 2013. Daily average shipments were 183,000 t, 18% greater than those of April and slightly less than those of May 2012.

Mine stocks at the end of May 2013 were 1.48 Mt less than those at the end of April and nearly the same as those at the end of May 2012. U.S. imports of iron ore were 284,000 t in May 2013, 30% greater than those in April 2013 and 54% less than those of May 2012. U.S. exports of iron ore were 836,000 t in May 2013, 28% less than those in April 2013 and 43% less than those of May 2012.

Pig iron produced by blast furnaces in May 2013 was slightly higher than that in April, and 13% lower than that in May 2012. Raw steel produced using basic oxygen furnaces was 6% higher than that in April but 8% lower than that in May 2013, and production from electric furnaces was 3% higher than that in April and slightly lower than that in May 2013 (table 4).

Wisconsin's Department of Natural Resources approved a mineral exploration license for Gogebic Taconite, LLC to begin drilling in Ashland and Iron Counties. The license originally approved 13 drill holes, but following site visits, the license was amended to allow only 8 exploratory drill holes. Agency officials also requested more information detailing the potential effects of drilling on wetlands and storm water runoff (Bergquist, 2013).

Carbontec Energy Corp.'s subsidiary E-Nugget North Dakota LLC announced plans to construct a \$60 million iron nugget plant, which would use concentrates supplied by Magnetation LLC (Nashwuak, MN). Construction of the plant was expected to begin in 2014, with production beginning in 2015. The plant planned to use readily available sugar beet residue in place of coking coal. E-Nugget expected initially to produce 100,000 metric tons per year (t/yr) of iron nuggets and planned to expand production to 300,000 t/yr. The 96%-iron-content nuggets were planned to be used in domestic minimills and electric arc furnaces (Myers, 2013b).

Magnetation secured \$375 million in financing to fund the construction of a pellet plant in Reynolds, IN. The plant was expected to begin production during the fourth quarter of 2014 (AK Steel Holding Corp., 2013). Magnetation received permission from the Minnesota Pollution Control Agency to build a fourth plant in Itasca County, MN. The \$120 million facility was expected to begin producing 2 million metric tons per year (Mt/yr) of concentrate by early 2015 (Minnesota Public Radio News, 2013).

Lack of dredging at Great Lakes ports and shipping lanes combined with low water levels in the Great Lakes were causing iron ore freighters to transport loads below capacity. In a recent case, a 1,000-foot freighter from Two Harbors, MN, was loaded at 15% below capacity (Myers, 2013a).

Rio Tinto Group announced that it would continue ramping up the second phase of expansion in Western Australia's Pilbara region. An additional \$5 billion in funding required approval by the board of directors to complete the 360-Mt/yr increase by the end of 2015. The first phase, a 290-Mt/yr increase was 70% complete and completion was scheduled for the third quarter of 2013 (Madsen, 2013).

China's average import prices for iron ore fines at 62% iron content spot price (cost and freight Tianjin port) fell to \$124.01 per dry metric ton in May 2013, a 10% decrease from that of April 2013 and 9% lower than that of May 2012 (Index Mundi, undated). Steel mills in Heibing Province, China, shut down owing to power shortages. Other facilities are expected to close to reduce the steel surplus in the region as well as for routine maintenance (Arnsdorf, 2013).

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TABLE 1  
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE<sup>1,2</sup>  
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>
	Monthly	Year to date	Monthly	Year to date	End of Month
2012:					
May	4,430	21,100	5,750	17,600	6,410
June	4,200	25,300	5,270	22,900	5,340
July	4,250	29,600	5,730	28,600	3,850
August	4,350	33,900	5,220	33,800	2,980
September	4,340	38,300	4,670	38,500	2,660
October	4,750	43,000	4,460	42,900	2,970
November	4,580	47,600	4,530	47,500	3,020
December	4,650	52,200	5,500	53,000	2,200
2013:					
January	4,200	4,200	3,110	3,110	3,290
February	3,900	8,100	611	3,720	6,580
March	4,400	12,500	2,020	5,740	8,960
April	3,460	16,000	4,670 <sup>r</sup>	10,400 <sup>r</sup>	7,830
May	4,280	20,200	5,680	16,100	6,350

<sup>r</sup>Revised.

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

<sup>2</sup>Excludes byproduct ores.

<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 2  
CANADA: SHIPMENTS OF IRON ORE<sup>1,2</sup>

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2012:				
May	1,320	1,780	3	3,100
June	1,320	2,290	3	3,620
July	1,390	1,550	3	2,940
August	1,410	1,620	2	3,030
September	1,280	2,040	4	3,330
October	1,210	1,430	3	2,650
November	1,460	1,800	5	3,260
December	1,410	1,970	3	3,380
January–December	15,900	20,400	34	36,300
2013:				
January	1,310	1,600	--	2,910
February	1,240	1,430	--	2,660
March	1,080	1,620	--	2,700
April	1,180	1,730	--	2,910
May	1,290	1,650	--	2,940

-- Zero.

<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 3  
U.S. PRODUCTION OF PIG IRON AND RAW STEEL, 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		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2012:						
May	3,320	15,800	2,900	14,600	4,590	22,900
June	2,970	18,800	2,570	17,200	4,270	27,200
July	2,930	21,700	2,580	19,700	4,390	31,500
August	2,860	24,600	3,180	22,900	4,450	36,000
September	2,440	27,000	2,720	25,600	4,090	40,100
October	2,260	29,300	2,700	28,300	4,090	44,200
November	2,820	32,100	2,480	30,800	3,960	48,100
December	2,900	35,000	2,550	33,400	4,270	52,400
2013:						
January	3,060	3,060	2,740	2,740	4,300	4,300
February	2,760	5,820	2,530	5,280	4,050	8,350
March	3,040	8,860	2,660	7,940	4,300	12,600
April	2,800	11,700	2,510	10,500	4,340	17,000
May	2,880	14,500	2,660	13,100	4,480	21,500

<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.

TABLE 4  
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	2012		2013			
	4th quarter	1st quarter– 4th quarter	March	1st quarter	April	May
Canada	1,640	6,370	126	1,290	724	437
China	458	4,110	314	412	175	173
Colombia	--	1	--	(3)	--	(3)
Germany	3	3	5	5	2	3
Hong Kong	--	3	--	--	164	--
Japan	37	37	--	--	--	--
Mexico	255	641	115	338	30	146
Slovak Republic	--	--	47	47	--	68
Spain	--	(3)	(3)	(3)	--	--
United Kingdom	--	--	198	222	64	10
Other	6	12	(3)	1	--	--
Total	2,400	11,200	807	2,320	1,160	836
Concentrates	320	1,330	262	485	163	254
Coarse ores	148	1,330	9	130	83	--
Fine ores	38	249	212	213	74	17
Pellets	1,870	8,260	324	1,490	773	563
Briquettes	--	(3)	--	--	--	--
Other agglomerates	23	23	--	--	67	3
Roasted pyrites	(3)	3	(3)	(3)	(3)	(3)
Total	2,400	11,200	807	2,320	1,160	836

-- 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 5  
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	2012			2013		
	January–May	May		January–May		
	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)
Argentina	40	--	--	41	7,830	191.02
Brazil	404	9	792	9	795	88.33
Canada	1,860	240	31,600	916	124,000	135.63
Chile	49	--	--	50	5,720	114.32
China	(4)	--	--	--	--	--
Germany	(4)	--	--	--	--	--
Mexico	47	--	--	--	--	--
Norway	(4)	(4)	14	(4)	28	299.89
Peru	8	--	--	(4)	7	1,642.50
South Africa	39	16	2,160	43	6,150	142.98
Sweden	27	18	1,910	18	1,910	106.28
Trinidad and Tobago	--	(4)	10	(4)	21	164.05
Ukraine	(4)	--	--	--	--	--
United Kingdom	76	--	--	(4)	5	4,590.00
Venezuela	33	--	--	--	--	--
Total	2,580	284	36,500	1,080	147,000	135.96
Concentrates	259	26	2,960	103	12,700	123.08
Coarse ores	(4)	16	1,680	19	1,730	91.00
Fine ores	192	2	241	345	48,000	139.26
Pellets	2,130	240	31,600	612	84,200	137.64
Briquettes	--	--	--	--	--	--
Other agglomerates	(4)	--	--	--	--	--
Roasted pyrites	--	--	--	(4)	11	2,232.00
Total	2,580	284	36,500	1,080	147,000	135.96

-- 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 6  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN MAY 2013<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	9	--	--	--	--	--	9
Canada	--	--	--	240	--	--	240
Norway	--	--	(3)	--	--	--	(3)
South Africa	16	--	--	--	--	--	16
Sweden	--	16	2	--	--	--	18
Trinidad and Tobago	(3)	--	--	--	--	--	(3)
Total	26	16	2	240	--	--	284

-- 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 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE PELLETS, BY COUNTRY<sup>1</sup>

Country of origin	2012		2013			
	January–May Thousand metric tons	May		January–May Thousand metric tons	January–May	
		Thousand metric tons	Value <sup>2</sup> (thousand dollars)		Value <sup>2</sup> (thousand dollars)	Value <sup>2</sup> (dollars per ton)
Brazil	284	--	--	--	--	--
Canada	1,770	240	31,600	612	84,200	137.64
United Kingdom	76	--	--	--	--	--
Total	2,130	240	31,600	612	84,200	137.64

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits.

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

Source: U.S. Census Bureau.

TABLE 8  
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.)	January–May		May
	2012	2013	2013
Baltimore, MD (13)	1,440	--	--
Charleston, SC (16)	(3)	--	--
Chicago, IL (39)	111	53	26
Cleveland, OH (41)	495	534	240
Detroit, MI (38)	(3)	(3)	--
Houston-Galveston, TX (53)	--	(3)	(3)
Los Angeles, CA (27)	--	(3)	--
Mobile, AL (19)	--	18	18
New Orleans, LA (20)	513	470	--
New York, NY (10)	(3)	(3)	(3)
Nogales, AZ (26)	--	(3)	--
Philadelphia, PA (11)	(3)	--	--
Port Arthur, TX (21)	27	--	--
St. Albans, VT (02)	--	3	--
Total	2,580	1,080	284

-- 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 9  
 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE PELLETS,  
 BY CUSTOMS DISTRICT<sup>1</sup>

(Thousand metric tons)

Customs district (code no.)	January–May		May
	2012	2013	2013
Baltimore, MD (13)	1,260	--	--
Chicago, IL (39)	28	--	--
Cleveland, OH (41)	495	534	240
Detroit, MI (38)	--	(2)	--
New Orleans, LA (20)	345	78	--
Total	2,130	612	240

-- Zero.

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

<sup>2</sup>Less than ½ unit.

Source: U.S. Census Bureau.