

Mineral Industry Surveys

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IRON ORE IN AUGUST 2016

U.S. mine production and shipments of iron ore in August 2016 were 3.10 million metric tons (Mt) and 4.26 Mt, respectively (fig. 1, table 1). Average daily production of iron ore was 99,900 metric tons (t), 17% less than that of July, and 8% greater than that of August 2015. Average daily shipments of iron ore were 138,000 t, 4% less than those in July, and 6% less than in August 2015. Mine stocks at the end of August 2016 were 13% less than those held at the end of July and 5% less than those held at the end of August 2015.

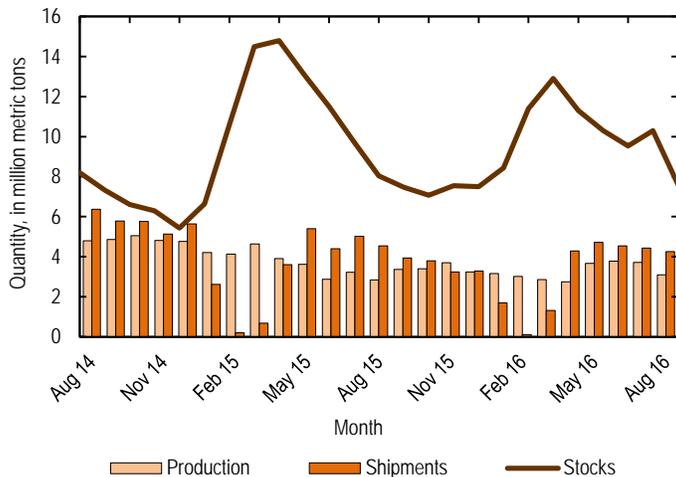


Figure 1. Monthly domestic production, shipments, and stocks of iron ore from August 2014 through August 2016. Source: U.S. Geological Survey.

Monthly iron ore data are reported as gross weight unless otherwise noted and do not include iron metallics such as pig iron, direct-reduced iron, hot-briquetted iron, or iron nuggets. Data for iron metallics can be found in the Iron Ore chapter in the U.S. Geological Survey Minerals Yearbook, volume I, Metals and minerals.

U.S. exports of iron ore totaled 996,000 t in August 2016, nearly double those in July and 3% less than those in August 2015. U.S. imports of iron ore totaled 385,000 t in August 2016,

34% greater than those in July and 33% less than those in August 2015 (fig. 2).

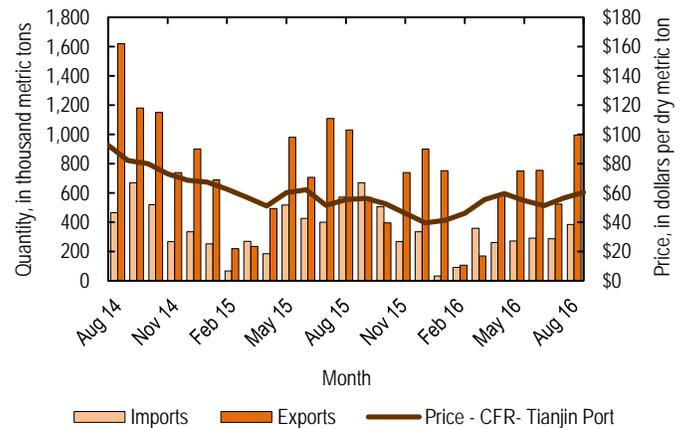


Figure 2. Monthly domestic imports and exports of iron ore and spot prices for iron ore import fines, 62% iron content CFR, at Tianjin Port, from August 2014 through August 2016. Source: U.S. Census Bureau and Index Mundi, undated.

Industry News

According to a filing with the U.S. Department of Labor, Magnetation Inc. could make the decision to close its iron ore concentrate facility in Grand Rapids, MN, and pellet plant in Reynolds, IN, by the end of September 2016. The company filed for bankruptcy in May 2015 and shut down two concentrate facilities, one in 2015 and another in 2016. Magnetation Inc.'s operations had a 3-million-metric-ton-per-year (Mt/yr) iron ore production capacity and had employed approximately 500 people as of yearend 2015 (DePass, 2016).

Cliffs Natural Resources Inc.'s Empire Mine, in Ishpeming, MI, ceased production of iron ore in early August, with the facility to be permanently shut down by the end of the month. The mine had previously been set for final shutdown at yearend 2015, however, the closure was postponed owing to an extended contract. The company reported that the mine was effectively out of high-value ore. Empire Mine, operating since 1963, maintained a 5.4-Mt/yr production capacity and produced 3 Mt

of ore during 2015 (Cliffs Natural Resources Inc., 2016, p. 33; Myers, 2016).

Cliffs began a \$65 million expansion at its United Taconite plant, in Forbes, MN, to upgrade production capabilities to produce a specialty iron ore pellet to satisfy contract requirements with ArcelorMittal USA, previously produced at the Empire Mine. United Taconite recalled approximately 450 employees to resume operations at the facility following a nearly yearlong idling that was the result of unfavorable market conditions (Kraker, 2016).

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Reference Cited

- Cliffs Natural Resources Inc., 2016, 2015 annual report: Cleveland, OH, Cliffs Natural Resources Inc., February 11, 2016 p. (Accessed November 18, 2016, at http://s1.q4cdn.com/345331386/files/doc_financials/annual/clf_2015_annualrport.pdf.)
- DePass, Dee, 2016, Magnetation could close its final Minnesota plant in Grand Rapids: Star Tribune[Minneapolis, MN] August 31. (Accessed November 18, 2016, at <http://www.startribune.com/magnetation-could-close-its-final-minnesota-plant-in-grand-rapids/391924301/>.)
- Kraker, Dan, 2016, Cliffs breaks new ground on the Iron Range: Minnesota Public Radio News, August 11. (Accessed November 18, 2016, at <https://www.mprnews.org/story/2016/08/11/cliffs-breaks-new-ground-iron-range-plant> .)
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TABLE 1
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE^{1,2}

(Thousand metric tons, usable ore)

Period	Production		Shipments ³		Stocks
	Monthly	Year to date	Monthly	Year to date	End of Month
2015:					
August	2,840	29,400	4,540	26,400	8,040
September	3,360	32,800	3,940	30,400	7,460
October	3,400	36,200	3,790	34,200	7,070
November	3,700	39,900	3,230	37,400	7,550
December	3,230	43,100	3,290	40,700	7,490
2016:					
January	3,150	3,150	1,700	1,700	8,440
February	3,020	6,160	106	1,810	11,400
March	2,850	9,010	1,310	3,120	12,900
April	2,740	11,800	4,290	7,410	11,300
May	3,660	15,400	4,710	12,100	10,300
June	3,740	19,200	4,540	16,700	9,490
July	3,720	22,900	4,430	21,100	8,770
August	3,100	26,000	4,260	25,400	7,600

¹Data are rounded to no more than three significant digits.

²Excludes byproduct ores and iron metallics.

³Includes rail and vessel.

TABLE 2
U.S. PRODUCTION OF PIG IRON AND RAW STEEL, BY TYPE OF FURNACE¹

(Thousand metric tons)

Period	Pig iron production,		Raw steel production			
	Basic oxygen furnace		Blast furnace		Electric furnace	
	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date
2015:						
August	2,690	20,500	2,330	17,600	4,240	33,400
September	2,390	22,900	2,090	19,700	4,170	37,600
October	2,270	25,200	1,990	21,700	4,270	41,900
November	2,120	27,300	1,780	23,500	3,710	45,600
December	2,110	29,400	1,930	25,400	3,860	49,400
2016:						
January	2,200	2,200	1,910	1,910	4,250	4,250
February	2,260	4,460	2,010	3,920	4,170	8,420
March	2,380	6,840	2,040	5,960	4,390	12,800
April	2,150	8,980	1,860	7,820	4,460	17,300
May	1,910	10,900	2,210	10,000	4,770	22,000
June	2,280	13,200	1,950	12,000	4,550	26,600
July	2,220	15,400	1,890	13,900	4,480	31,100
August	1,860	17,200	2,160	16,000	4,490	35,600

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

Source: American Iron and Steel Institute.

TABLE 3
U.S. EXPORTS OF IRON ORE, BY COUNTRY AND TYPE^{1,2}
(Exclusive of ore containing 20% or more manganese)

Country and type of product	2015			2016		
	January–August Thousand metric tons	August		January–August		
		Thousand metric tons	Value ³ (thousand dollars)	Thousand metric tons	Value ³ (thousand dollars)	Value ³ (dollars per ton)
Canada	4,830	792	\$53,900	4,370	\$307,000	\$70.17
China	44	178	6,220	178	6,220	34.94
Mexico	840	26	2,720	78	6,730	86.32
Other	38	(4)	30	8	979	122.38
Total	5,760	996	62,900	4,640	321,000	69.17
Concentrates	220	14	1,810	33	4,330	131.24
Fine ores	16	17	1,540	17	1,620	95.35
Pellets	4,870	965	59,500	4,550	313,000	68.8
Other	648	(4)	20	34	1,630	47.88
Total	5,760	996	62,900	4,640	321,000	69.17

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

²All countries with less than 5,000 metric tons of exports per month included in "Other."

³Free alongside ship (FAS) value.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4
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	2015			2016		
	January–August Thousand metric tons	August		January–August		
		Thousand metric tons	Value ³ (thousand dollars)	Thousand metric tons	Value ³ (thousand dollars)	Value ³ (dollars per ton)
Brazil	1,210	183	\$12,000	1,150	\$83,800	\$73.16
Chile	105	7	469	62	3,410	54.95
Peru	22	28	8,390	66	19,800	299.59
South Africa	47	43	3,340	43	3,340	77.58
Sweden	42	83	6,940	324	25,800	79.68
Trinidad and Tobago	--	14	797	14	797	56.93
Venezuela	--	28	1,510	28	1,510	54.07
Other	1,260	(4)	26	393	29,100	74
Total	2,690	385	33,500	2,070	167,000	80.76
Concentrates	444	133	6,870	515	26,400	51.33
Fine Ores	130	70	10,700	185	30,500	164.79
Pellets	2,080	182	15,900	1,350	108,000	80.25
Other	42	--	--	22	2,080	94.32
Total	2,690	385	33,500	2,070	167,000	80.76

-- Zero.

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

²All countries with less than 5,000 metric tons of imports per month included in "Other."

³Customs value. Excludes international freight and insurance charges.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
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.)	Pellets			Total, all products		
	January–August		August	January–August		August
	2015	2016	2016	2015	2016	2016
Chicago, IL (39)	--	5	--	384	383	126
Houston–Galveston (53)	--	32	22	(3)	173	64
New Orleans, LA (20)	1,200	1,320	160	1,380	1,450	195
Other	876	--	--	930	71	(3)
Total	2,080	1,350	182	2,690	2,070	385

-- Zero.

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

²Customs Districts with less than 5,000 metric tons of imports per month included in "Other."

³Less than ½ unit.

Source: U.S. Census Bureau.