

# Mineral Industry Surveys

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## IRON ORE IN JANUARY 2016

U.S. mine production and shipments of iron ore in January 2016 were 3.15 million metric tons (Mt) and 1.70 Mt, respectively (fig. 1, table 1). Average daily production of iron ore was 101,000 metric tons (t), slightly less than that of December 2015 and 25% less than that of January 2015. Average daily shipments of iron ore were 54,800 t, less than one-half those of December 2015 and 35% less than those in January 2015. Mine stocks at the end of January 2016 were 19% greater than those held in December 2015 and 35% greater than those held in January 2015.

As of January 2016, two iron ore mines were expected to be idled through at least the first quarter of the year, and three mines were idled indefinitely. One iron metallica plant, and its dedicated iron ore mine, were idled with no plans for reopening before May 2017. Five primary pellet operations, one tailings reclamation operation, and two iron metallica facilities were operational as of January 30, 2016.

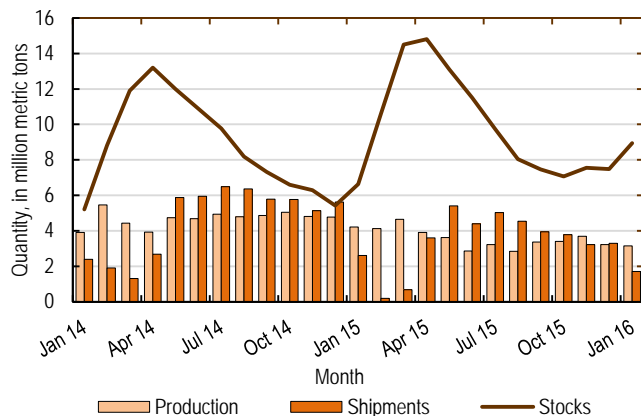


Figure 1. Monthly domestic production, shipments, and stocks of iron ore from January 2014 through January 2016.

Monthly iron ore data are reported as gross weight unless otherwise noted and do not include iron metallica such as pig iron, direct-reduced iron, hot-briquetted iron, or iron nuggets. Data for iron metallica can be found in the Iron Ore chapter in

the United States Geological Survey Minerals Yearbook, volume I, Metals and minerals.

U.S. exports of iron ore totaled 752,000 t in January 2016, 7% greater than those in December and 9% greater than those in January 2015. U.S. imports of iron ore totaled 32,000 t in January 2016, less than 8% of those in December 2015 and 13% of those in January 2015 (fig. 2). Prolonged shutdowns of U.S. iron ore mines and reduced domestic pig iron production during the last 24 months likely resulted in reduced demand for imports in favor of domestically supplied iron ore. Weather also typically contributes to reductions in trade and shipments cyclically during the winter months.

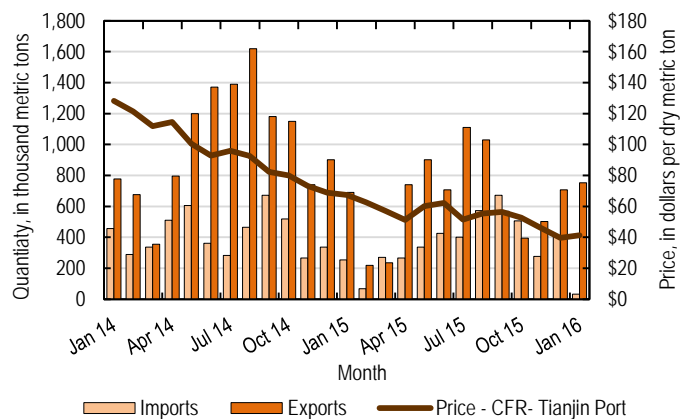


Figure 2. Monthly domestic imports and exports of iron ore and spot prices for iron ore import fines, 62% iron content CFR, at Tianjin Port, from January 2014 through January 2016. Source: U.S. Census Bureau and Index Mundi, undated.

### Industry News

Magnetation LLC's Plant 2, in Bovey, MN, indefinitely curtailed production as of January 1, 2016. Plant 2 is a tailings reclamation operation with a 1.1-Mt/yr capacity, which uses advanced magnetic recovery processes to reclaim iron ore from old stockpiles and tailings basins. Notification of the action was provided to employees, consistent with the U.S. Department of Labor's Worker Adjustment and Retraining

Notification Act, which is required for potential layoffs exceeding 50 employees for a period of more than 6 months (Magnetation LLC, 2016).

Cliffs Natural Resources, Inc., states that slightly improved iron ore market conditions were expected in 2016; however, the Northshore and United Taconite Mines were expected to remain idled through at least March, or until iron ore demand increases, and the mines' stockpiled inventory are depleted. Empire Mine, which had been slated for shutdown at yearend 2016, was expected to cease operations within months. Production of Empire's specific pellet type was planned to transition to the United Taconite Mine within the year. Cliffs intended to continue operating its iron ore mine in Australia after no buyer was found (Myers, 2016).

The Mbalam-Nabeba iron ore project in Cameroon, operated by Sundance Resources, indefinitely postponed development of its 40-million-metric-ton-per-year direct-shipping-ore project until market conditions improve. The \$5 billion project also included a 510-km (317-mile) rail line, a 70-km (44-mile) rail spur in the Congo (Brazzaville), and a dedicated mineral export terminal for bulk iron ore carriers (Mining Review Africa, 2016).

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## References Cited

- Magnetation LLC, 2016, Magnetation LLC announces production curtailment of its Plant 2 iron ore concentrate facility: Grand Rapids, MN, Magnetation LLC news release, January 6. (Accessed April 20, 2016, at <https://www.magnetation.com/home/wp-content/uploads/2016/01/Press-Release-Mag-LLC-Announces-P2-Curtailment-rev1-20160106-.pdf>.)
- Mining Review Africa, 2016, Sundance Resources' infrastructure EPC contract signing postponed: Cape Town, South Africa, Africa Mining Review, January 13. (Accessed April 20, 2016, at <http://www.miningreview.com/news/sundance-resources-infrastructure-epc-contract-signing-postponed/>.)
- Myers, John, 2016, Cliffs hanging on, but waiting to reopen plants: Herald Review [Grand Rapids, MN], January 28. (Accessed April 20, 2016, at [http://www.grandrapidsmn.com/news/cliffs-hanging-on-but-waiting-to-reopen-plants/article\\_ae39f782-c5e1-11e5-b7f5-77b072aa8931.html](http://www.grandrapidsmn.com/news/cliffs-hanging-on-but-waiting-to-reopen-plants/article_ae39f782-c5e1-11e5-b7f5-77b072aa8931.html).)

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
	Monthly	Year to date	Monthly	Year to date	End of Month
2015:					
January	4,210	4,210	2,610	2,610	6,640
February	4,130	8,340	194	2,810	10,600
March	4,640	13,000	670	3,480	14,500
April	3,910	16,900	3,600	7,080	14,800
May	3,620	20,500	5,400	12,500	13,100
June	2,870	23,400	4,400	16,900	11,500
July	3,220	26,600	5,020	21,900	9,740
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	8,940

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

<sup>2</sup>Excludes byproduct ores and iron metallics.

<sup>3</sup>Includes rail and vessel.

TABLE 2  
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
2015:						
January	2,760	2,760	2,380	2,380	4,500	4,500
February	2,310	5,070	1,980	4,370	3,870	8,370
March	2,390	7,460	1,990	6,360	4,050	12,400
April	2,330	9,790	1,990	8,340	4,080	16,500
May	2,530	12,300	2,180	10,500	4,310	20,800
June	2,670	15,000	2,340	12,900	4,180	25,000
July	2,830	17,800	2,460	15,300	4,200	29,200
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

<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 3  
U.S. EXPORTS OF IRON ORE, BY COUNTRY AND TYPE<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

Country and type of product	2015	2016	
	January	January	
	Thousand metric tons	Thousand metric tons	Value <sup>3</sup> (thousand dollars)
Canada	648	752	\$63,000
Other	42	(4)	77
Total	690	752	63,100
Concentrates	6	(4)	19
Fine ores	(4)	(4)	14
Pellets	652	752	63,000
Other	33	(4)	44
Total	690	752	63,100

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

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

<sup>3</sup>Free alongside ship (FAS) value.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 4  
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	2015	2016	
	January	January	
	Thousand metric tons	Thousand metric tons	Value <sup>3</sup> (thousand dollars)
Canada	201	26	\$1,170
Chile	30	6	321
Other	22	--	--
Total	252	32	1,490
Concentrates	30	6	321
Fine ores	22	26	1,170
Pellets	201	--	--
Other	--	--	--
Total	252	32	1,490

-- Zero.

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

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

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

Source: U.S. Census Bureau.

TABLE 5  
 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN JANUARY,  
 BY CUSTOMS DISTRICT<sup>1,2</sup>

(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	Pellets		Total, all products	
	2015	2016	2015	2016
Chicago, IL (39)	--	--	--	26
New Orleans, LA (20)	73	--	124	6
Other	128	--	128	--
Total	201	--	252	32

-- Zero.

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

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

Source: U.S. Census Bureau.