

# Mineral Industry Surveys

## For information, contact:

Candice C. Tuck, Iron Ore Commodity Specialist  
National Minerals Information Center  
U.S. Geological Survey  
989 National Center  
Reston, VA 20192  
Telephone: (703) 648-4912, Fax: (703) 648-7757  
Email: ctuck@usgs.gov

Michelle B. Blackwell (Data)  
Telephone: (703) 648-7943  
Fax: (703) 648-7975  
Email: mblackwell@usgs.gov

Internet: <http://minerals.usgs.gov/minerals/>

## IRON ORE IN DECEMBER 2016

U.S. mine production and shipments of iron ore in December 2016 were 3.51 million metric tons (Mt) and 4.14 Mt, respectively (fig. 1, table 1). Average daily production of iron ore was 113,000 metric tons (t), 4% less than that of November and 9% greater than that of December 2015. Average daily shipments of iron ore were 133,000 t, 5% less than those in November and 26% greater those in December 2015. Mine stocks at the end of December 2016 were 7% less than those held at the end of November and 19% less than those held at the end of December 2015.

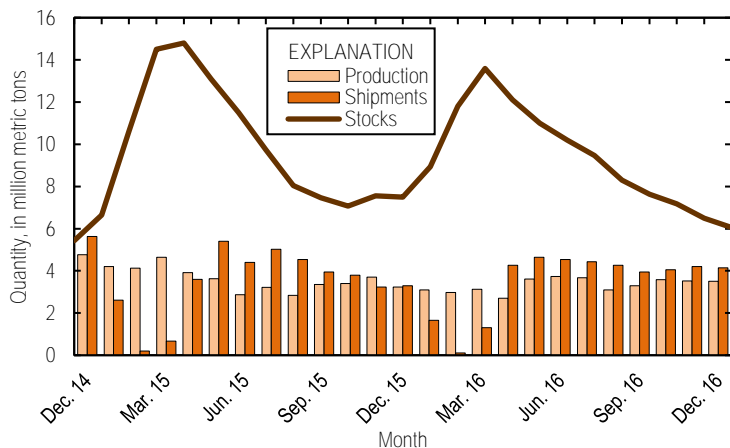


Figure 1. Monthly domestic production, shipments, and stocks of iron ore from December 2014 through December 2016.

Monthly iron ore data are reported as gross weight, unless otherwise noted, and do not include iron metallics such as cold pig iron, direct-reduced iron, hot-briquetted iron, or iron nuggets.

U.S. exports of iron ore totaled 927,000 in December 2016, 28% less than those in November and 31% greater than those in December 2015. U.S. imports of iron ore totaled 107,000 t in December 2016, less than one-half those in November and nearly one-quarter of those in December 2015 (fig. 2).

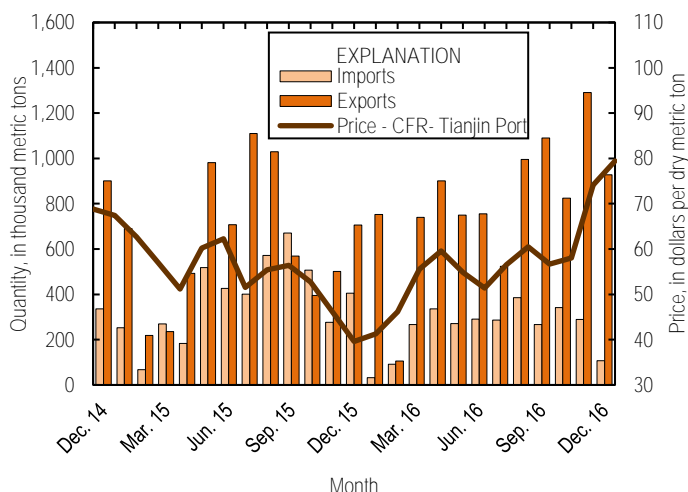


Figure 2. Monthly domestic imports and exports of iron ore and spot prices for iron ore import fines, 62% iron content CFR, at Tianjin Port, from December 2014 through December 2016. Source: U.S. Census Bureau and Index Mundi, undated.

## Annual Review

On an annual basis for 2016, preliminary iron ore production for the United States totaled 39.9 Mt, a 7% decrease from preliminary production of 43.1 Mt in 2015. Preliminary iron ore shipments for the United States totaled 41.5 Mt in 2016, slightly greater than preliminary shipments of 40.7 Mt in 2015. Stocks were 6.1 Mt at yearend 2016, 19% less than those in 2015.

Sustained decreases in domestic iron ore production and shipments were a result of the idling or decreased production of 6 of the 11 primary iron ore mines throughout 2016. Decreased levels of iron ore production were attributed to decreased domestic steel consumption. In 2014, the United States imported nearly 40 Mt of steel products, an increase of more than 10 Mt from that in 2013. Despite steel product imports decreasing to the pre-2014 level in recent years, decreased rates of raw steel production were sustained at around 80 Mt. This created a lag effect that impacted iron ore production in 2015 and 2016.

The average spot price for iron ore fines at 62% iron content (cost and freight Tianjin port) was \$57.84 per dry metric ton in 2016, calculated using average monthly prices, 5% greater than the 2015 average of \$55.21 and 40% less than the average 2014 of \$96.84 (Index Mundi, undated).

### Industry News

U.S. Steel Corp. announced that it will restart the Keetac Mine in Keewatin, MN, in March 2017. The plant was idled in May 2015 owing to decreased consumption of pig iron and steel, cited as a result of increased steel imports. The company has signed an agreement to supply iron ore pellets to third-party customers, without specifying the customers. Keetac Mine will begin calling employees back to the 6-million-metric-ton-per-year (Mt/yr) capacity pelletizing facility in January (U.S. Steel Corp., 2016).

The Itasca [MN] County Board of Commissioners has approved the transfer of lease agreements to ERP Iron Ore, LLC, and FerroMagnetica, LLC, prospective buyers of Magnetation LLC. Magnetation owned and operated multiple iron ore tailings reclamation facilities in Minnesota and one pelletizing operation in Indiana. The Board had until December 30 to approve the sale, however, a Federal bankruptcy judge continued the hearings until at least January 6, 2017 (Arendt, 2016; Burnes, 2016).

Essar Steel Minnesota LLC., the company that filed for bankruptcy in 2016 while constructing a 7-Mt/yr iron ore mine and pelletizing facility, won approval from a bankruptcy court

to change the company's name to Mesabi Metallics. The company, now controlled by the investment firm SPL Advisors, is attempting to broker a deal to secure \$1.8 billion for a combination of paying debt and completing construction. SPL Advisors has until April to secure a deal (Myers, 2016).

### Reference Cited

- Arendt, Britta, 2016, County gives green light for Magnetation's future: Herald Review, Grand Rapids, MN, December 17. (Accessed May 12, 2017, at [http://www.grandrapidsmn.com/news/county-gives-green-light-for-magnetation-s-future/article\\_3faa3936-c3dc-11e6-a179-e7f745db912b.html](http://www.grandrapidsmn.com/news/county-gives-green-light-for-magnetation-s-future/article_3faa3936-c3dc-11e6-a179-e7f745db912b.html).)
- Burnes, Jerry, 2016, Hearing to finalize sale of Magnetation continued: Mesabi Daily News, Virginia, MN, December 27. (Accessed May 12, 2017, at [http://www.virginiamn.com/news/local/hearing-to-finalize-sale-of-magnetation-continued/article\\_0e8af886-cca6-11e6-8a5f-d381b9ddfb36.html](http://www.virginiamn.com/news/local/hearing-to-finalize-sale-of-magnetation-continued/article_0e8af886-cca6-11e6-8a5f-d381b9ddfb36.html).)
- Myers, Jon, 2016, No more Essar Steel—it's now Mesabi Metallics: Duluth [MN] News Tribune, December 15. (Accessed May 12, 2017, at <http://www.duluthnewstribune.com/business/4180774-no-more-essar-steel-its-now-mesabi-metallics>.)
- U.S. Steel Corp, 2016, United States Steel announces third-party iron ore pellet sales agreements: U.S. Steel Corp press release, Pittsburgh, PA, December 26. (Accessed May 12, 2017, at <https://www.ussteel.com/newsroom/united-states-steel-announces-third-party-iron-ore-pellet-sales-agreements>.)

*List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <http://minerals.usgs.gov/minerals/>.*

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, usable ore)

Period	Production		Shipments <sup>3</sup>		Stocks
	Monthly	Year to date	Monthly	Year to date	End of Month
2015:					
December	3,230	43,100	3,290	40,700	7,490
2016:					
January	3,100	3,100	1,650	1,650	8,940
February	2,970	6,070	104	1,760	11,800
March	3,120	9,190	1,300	3,060	13,600
April	2,700	11,900	4,260	7,320	12,100
May	3,610	15,500	4,640	12,000	11,000
June	3,740	19,200	4,540	16,500	10,200
July	3,670	22,900	4,430	20,900	9,470
August	3,100	26,000	4,270	25,200	8,300
September	3,290	29,300	3,950	29,100	7,630
October	3,580	32,900	4,050	33,200	7,170
November	3,520	36,400	4,200	37,400	6,500
December	3,510	39,900	4,140	41,500	6,050 <sup>4</sup>

<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.

<sup>4</sup>Adjusted based on information reported by mines.

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		Raw steel production			
	Basic oxygen furnace		Blast furnace		Electric furnace	
	Monthly	Year to date	Monthly	Year to date	Monthly	Year to date
2015:						
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
September	1,770	19,000	2,070	18,100	4,120	39,700
October	1,610	20,600	1,940	20,000	4,290	44,000
November	1,660	22,300	1,920	22,000	4,260	48,200
December	1,810	24,100	2,090	24,100	4,370	52,600

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

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–December	December		January–December		
	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)
Canada	6,250	562	37,600	7,060	484,000	68.58
China	756	312	12,600	1,260	48,500	38.44
Mexico	938	52	5,300	352	31,500	89.54
Other	113	(4)	15	91	5,330	58.60
Total	8,060	927	55,500	8,760	569,000	64.97
Concentrates	279	(4)	40	78	9,900	126.91
Fine ores	29	10	676	119	7,680	64.56
Pellets	7,000	896	52,500	8,350	535,000	64.09
Other	756	21	2,300	214	16,500	76.93
Total	8,060	927	55,500	8,760	569,000	64.97

<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–December	December		January–December		
	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)
Brazil	2,050	94	7,760	1,830	135,000	74.15
Honduras	6	2	1,930	2	1,930	967.00
South Africa	87	12	810	82	6,070	74.00
Other	2,410	(4)	2	1,170	103,000	87.75
Total	4,550	107	10,500	3,080	246,000	79.89
Concentrates	861	27	1,510	818	40,000	48.95
Fine Ores	156	2	1,940	265	38,500	145.20
Pellets	3,220	78	7,060	1,980	165,000	83.75
Other	309	--	--	22	2,080	94.32
Total	4,550	107	10,500	3,080	246,000	79.89

-- 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.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5  
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.)	Pellets			Total, all products		
	January–December		December	January–December		December
	2015	2016		2015	2016	
Chicago, IL (39)	13	5	--	976	686	27
New Orleans, LA (20)	1,720	1,940	78	2,010	2,150	80
Other	1,490	32	--	1,560	244	(3)
Total	3,220	1,980	78	4,550	3,080	107

-- 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."

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.