

# Mineral Industry Surveys

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# **IRON ORE IN MAY 2023**

Data are reported as gross weight unless otherwise noted and do not include iron metallics such as direct-reduced iron, hot-briquetted iron, iron nuggets, or pig iron. Production, shipments, and trade were impacted from January through March owing to seasonal closures of the Soo Locks, the primary shipping route for iron ore in the Great Lakes region.

U.S. mine production and shipments of iron ore in May 2023 were estimated to be 3.50 million metric tons (Mt) and 4.60 Mt, respectively (fig. 1, table 1). Average daily production of iron ore was 113,000 metric tons (t), a 4% decrease from that in April and a 3% increase from that in May 2022. Average daily shipments of iron ore were 148,000 t, a 10% increase from those in April and a 14% increase from those in May 2022.

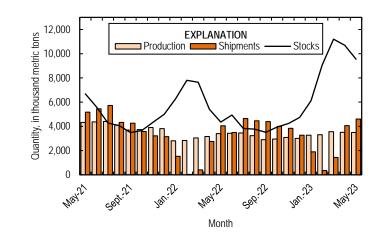


Figure 1. Monthly domestic production, shipments, and stocks of iron ore from May 2020 through May 2023.

Mine stocks were estimated to be 9.55 Mt at the end of May 2023, a 10% decrease from those held at the end of April, and more than double those held at the end of May 2022 (fig. 1, table 1).

U.S. exports of iron ore were 1.05 Mt in May 2023, essentially unchanged from those in April and a 27% decrease from those in May 2022 (fig. 2, tables 3, 6). U.S. imports of iron ore were 359,000 t in May 2023, more than double those in April and a 45% increase from those in May 2022 (fig. 2, tables 4, 6).

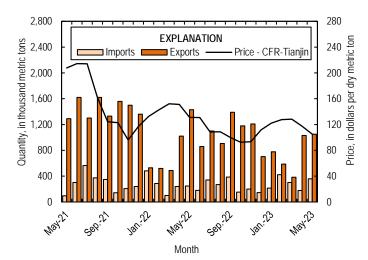


Figure 2. Monthly domestic imports and exports of iron ore and spot prices for imported iron ore fines, 62% iron content, cost and freight (CFR), at Tianjin Port, China, from May 2020 through May 2023. Source: U.S. Census Bureau and IndexMundi, undated.

The spot price for imported iron ore fines, 62% iron content, cost and freight, at Tianjin Port, China, was \$105.15 per dry metric ton in May 2023, a 10% decrease from \$117.39 per dry metric ton in April (fig. 2).

### **Industry News**

Cleveland-Cliffs Inc. received approval for state mineral leases that were expected to supplement the ore that would supply the Hibbing Taconite plant, formerly expected to idle in 2025, for at least 20 years. The Minnesota Executive Council approved the leases from the former Nashwauk Mine site, a 2,600-acre iron ore deposit in Itasca County, MN (Cleveland-Cliffs Inc., 2023).

Fortescue Metals Group announce that the 22 million-metrictons-per-year-capacity Iron Bridge Magnetite operation in Pilbara, Western Australia, Australia, commenced production in late May. The initial magnetite achieved a 68% Fe grade, a high-grade product for the Pilbara region, that will be shipped from Port Hedland using a wet concentrate and slurry pipeline (Jamasmie, 2023).

# **References Cited**

Cleveland-Cliffs Inc., 2023, Cleveland-Cliffs gains Minnesota Executive Council approval of iron ore mineral leases at Nashwauk: Cleveland-Cliffs Inc. press release, Cleveland, OH, May 25. (Accessed August 16, 2023, at https://www.clevelandcliffs.com/news/news-releases/detail/592/cleveland-cliffs-gains-minnesota-executive-council-approval).

Jamasmie, Cecilia, 2023: Fortescue Metals begins magnetite production at Iron Bridge: Mining.com, Durango, CO, May 2. (Accessed August 16, 2023, at https://www.mining.com/fortescue-metals-begins-magnetite-production-atiron-bridge/). 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 <a href="https://www.usgs.gov/centers/national-minerals-information-center/minerals-information-publication-list-services">https://www.usgs.gov/centers/national-minerals-information-center/minerals-information-publication-list-services</a>

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

# (Thousand metric tons, usable ore)

	Proc	duction	Shipments <sup>3</sup> Sto		Stocks	
Period	Monthly	Year to date	Monthly	Year to date	End of Month	
2022:						
May	3,400	15,300	4,050	8,780	4,350	
June	3,430	18,700	3,500	12,300	4,930	
July	3,460	22,100	4,640	16,900	3,820	
August	3,230	25,400	4,460	21,400	3,770	
September	2,900	28,300	4,390	25,800	3,510	
October	2,950	31,200	4,000	29,800	3,950	
November	3,080	34,300	3,840	33,600	4,240	
December	3,010	37,300	3,270	36,900	4,740	
2023:						
January	3,270	3,270	1,900	1,900	6,110	
February	3,310	6,580	350	2,250	9,070	
March	3,560	10,100	1,430	3,680	11,200	
April	3,510 <sup>r</sup>	13,700 <sup>r</sup>	4,060 <sup>r</sup>	7,740 <sup>r</sup>	10,650 <sup>r</sup>	
May	3,500	17,200	4,600	12,300	9,550	

rRevised.

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

<sup>&</sup>lt;sup>2</sup>Data are estimated based on publicly reported data, employment hours, and historical ratios. Excludes byproduct ores and iron metallics.

<sup>&</sup>lt;sup>3</sup>Includes rail and vessel.

 $\label{eq:table 2} \textbf{U.S. PRODUCTION OF PIG IRON AND RAW STEEL}^1$ 

# (Thousand metric tons)

	Pig iron j	production <sup>2</sup>	uction <sup>2</sup> Raw steel production		
Period	Monthly	Year to date	Monthly	Year to date	
2022:					
May	1,960	9,430	7,120	34,300	
June	1,860	11,300	6,760	41,000	
July	1,900	13,200	6,910	47,900	
August	1,900	15,100	6,910	54,900	
September	1,800	16,900	6,550	61,400	
October	1,820	18,700	6,610	68,000	
November	1,700	20,400	6,200	74,200	
December	1,740	22,200	6,330	80,500	
2023:					
January	1,740 <sup>r</sup>	1,740 <sup>r</sup>	6,550	6,550	
February	1,620 <sup>r</sup>	3,360 <sup>r</sup>	6,120	12,700	
March <sup>3</sup>	1,800	5,160 <sup>r</sup>	6,800	19,500	
April	1,770 °	6,930 <sup>r</sup>	6,690	26,200	
May	1,830	8,760	6,900	33,100	

rRevised.

Source: American Iron and Steel Institute, U.S. Geological Survey estimates.

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

<sup>&</sup>lt;sup>2</sup>Pig iron data are estimated based on historical ratios.

<sup>&</sup>lt;sup>3</sup>Pig iron data production reported by the American Iron and Steel Institute for the reported month.

 $\label{eq:table 3} \text{U.S. EXPORTS OF IRON ORE, BY COUNTRY OR LOCALITY AND TYPE} \ ^{1,2}$ 

	2022	2023					
	January-May	Ma	ıy	January–May			
	Quantity	Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	Value <sup>3</sup>	
Country or locality	(thousand	(thousand	(thousand	(thousand	(thousand	(dollars	
and type of product	metric tons)	metric tons)	dollars)	metric tons)	dollars)	per ton)	
Canada	2,090	763	75,300	2,360	225,000	95.40	
China	604	149	20,700	598	72,300	120.94	
Finland		30	4,440	30	4,440	148.00	
Iceland		10	1,520	10	1,520	152.00	
Japan	360 <sup>r</sup>	66	5,810	250	22,800	91.29	
Sweden		29	4,350	29	4,350	150.33	
Other	1,010 <sup>r</sup>	(4)	121	553	41,000	74.10	
Total	4,060 <sup>r</sup>	1,050	112,000	3,830	372,000	97.02	
Concentrates	822	150	20,900	663	77,800	117.32	
Fine ores	1	(4)	47	1	188	188.00	
Pellets	3,100 <sup>r</sup>	898	91,200	3,070	290,000	94.51	
Other	139	(4)	66	100	3,740	37.41	
Total	4,060 <sup>r</sup>	1,050	112,000	3,830	372,000	97.02	

Revised. -- Zero.

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

<sup>&</sup>lt;sup>2</sup>All countries with quantities less than 5,000 metric tons for the month included in "Other."

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

<sup>&</sup>lt;sup>4</sup>Less than ½ unit.

<sup>&</sup>lt;sup>5</sup>Value thought to be erroneous based on individual country value(s) in excess of normal value range, included in "Total."

TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY OR LOCALITY AND  $\mathsf{TYPE}^{1,2}$ 

	2022	2023					
	January-May	May		January-May			
	Quantity	Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	Value <sup>3</sup>	
Country or locality of origin	(thousand	(thousand	(thousand	(thousand	(thousand	(dollars	
and type of product	metric tons)	metric tons)	dollars)	metric tons)	dollars)	per ton)	
Australia		40	1,420	40	1,420	35.38	
Brazil	713	231	40,900	901	153,000	169.42	
Canada	391	10	1,690	253	42,800	169.18	
Sweden	77	79	13,700	219	35,500	162.12	
Other	175 <sup>r</sup>	(4)	3	62	5,910	95.27	
Total	1,360	359	57,700	1,480	238,000	161.43	
Concentrates	61	(4)	42	61	5,630	92.82	
Fine Ores	35	40	1,450	64	3,950	61.67	
Pellets	1,260	319	56,200	1,350	229,000	169.16	
Other	1						
Total	1,360	359	57,700	1,480	238,000	161.43	

Revised. -- Zero.

<sup>&</sup>lt;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 quantities less than 5,000 metric tons for the month included in "Other."

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

<sup>&</sup>lt;sup>4</sup>Less than ½ unit.

 ${\it TABLE~5}$  U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY CUSTOMS DISTRICT  $^{1,\,2}$ 

# (Thousand metric tons)

		Pellets		Total,	all products	
	January-N	May	May	January–M	lay	May
Customs district (code no.)	2022	2023	2023	2022	2023	2023
Columbia-Snake, OR (29)					40	40
New Orleans, LA (20)	1,220	1,290	318	1,310	1,370	318
Other	43 <sup>r</sup>	61	1	52 <sup>r</sup>	62	1
Total	1,260	1,350	319	1,360	1,480	359

Revised. -- Zero.

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

 $\label{eq:table 6} \text{U.S. IRON ORE TRADE SUMMARY}^1$ 

# (Thousand metric tons and thousand dollars)

	Expo	orts	Imports		
Period	Quantity	Value <sup>2</sup>	Quantity	Value <sup>3</sup>	
2022:					
January–May	4,060 r	383,000 <sup>r</sup>	1,360	279,000	
May	1,430	128,000	248	47,500	
June	860	92,100	181	36,700	
July	1,100	124,000	342	64,400	
August	908	94,700	270	57,200	
September	1,390	141,000	387	84,500	
October	1,180	115,000	154	34,300	
November	1,210	122,000	199	31,900	
December	704	72,200	145	25,400	
January-December	11,400	1,140,000	3,040	613,000	
2023:					
January	779	68,400	214	32,400	
February	586	57,400	423	69,300	
March	383	36,300	302	51,200	
April	1,030	97,300	177	27,700	
May	1,050	112,000	359	57,700	
January–May	3,830	372,000	1,480	238,000	

Revised.

<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>Free alongside ship (FAS) value.

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