

# Mineral Industry Surveys

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## IRON ORE IN DECEMBER 2023

Data are reported as gross weight unless otherwise noted and do not include iron metalics 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 December 2023 were estimated to be 4.04 million metric tons (Mt) and 4.13 Mt, respectively (fig. 1, table 1). Average daily production of iron ore was 130,000 metric tons (t), a 5% decrease from that in November and a 28% increase from that in December 2022. Average daily shipments of iron ore were 133,000 t, a 4% decrease from those in November and a 46% increase from those in December 2022.

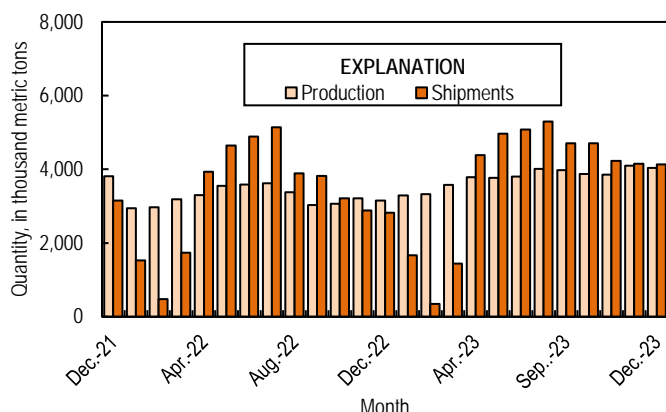


Figure 1. Monthly domestic production and of iron ore from December 2021 through December 2023.

Mine stocks were estimated to be 3.48 Mt at the end of December 2023, a 3% decrease from those held at the end of November, and a 9% increase from those held at the end of December 2022 (table 1).

U.S. exports of iron ore were 1.05 Mt in December 2023, an 88% increase from those in November and a 49% increase from those in December 2022 (fig. 2, tables 3, 6). U.S. imports of iron ore were 262,000 t in December 2023, a 37% increase from those in November and an 81% increase from those in December 2022 (fig. 2, tables 4, 6).

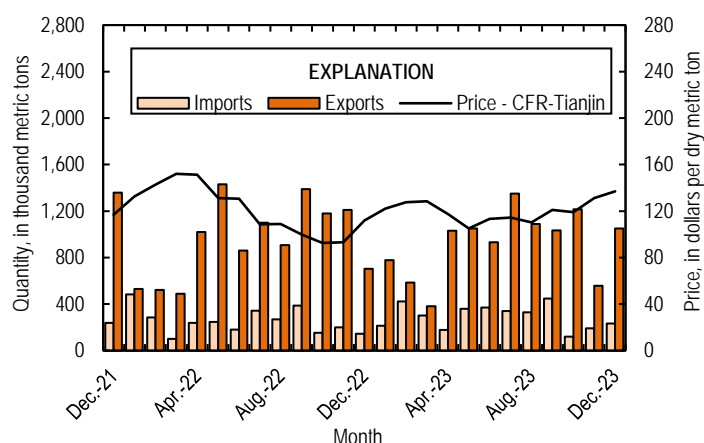


Figure 2. Monthly domestic imports and exports of iron ore and spot prices for imported iron ore fines, 62% iron content, cost and freight (CFR), at Tianjin Port, China, from December 2021 through December 2023. Source: U.S. Census Bureau, INSEE (2024), and IndexMundi (undated).

The spot price for imported iron ore fines, 62% iron content, cost and freight, at Tianjin Port, China, was \$137.10 in December, a 5% increase from \$131.07 in November and a 23% increase from \$111.84 in December 2022 (INSEE, 2024; Index Mundi, undated).

## Annual Review

Total production in 2023 was an estimated 45.4 Mt, a 16% increase from 39.0 Mt in 2022. Shipments in 2023 totaled an estimated 45.1 Mt, a 16% increase from 39.0 Mt in 2022. Stocks at yearend 2023 were 3.48 Mt, a 9% increase from the 3.19 Mt held at yearend 2022 (table 1).

Pig iron production in 2023 was an estimated 21.0 Mt, a 6% increase from 19.8 Mt in 2022. Raw steel production totaled 80.7 Mt in 2023, unchanged from 80.5 Mt in 2022 (table 2).

Iron ore exports totaled 11.1 Mt in 2023, a 3% decrease from 11.3 Mt in 2022, with a total value of \$1.10 billion in 2023 (tables 3, 6). Iron ore imports totaled 3.54 Mt in 2023, a 17% increase from 3.04 Mt in 2022, with a total value of \$564 million in 2023 (tables 4, 5, 6).

## Industry News

A Proclamation was issued by the President of the United States in December, based on a report from the Secretary of Commerce, that extended tariffs and tariff-rate quotas on steel and aluminum products from certain countries, originally enacted in 2018, under the authority of Section 232 of the Trade Expansion Act of 1962. The original Proclamations issued in 2018 established a 25% ad valorem tariff on all countries except Canada and Mexico and has since been modified to allow additional exceptions. In 2022, imports from the European Union were subjected to a tariff-rate quota that removed the 25% ad valorem tariff until the aggregate annual threshold of 3.3 Mt was reached (Executive Office of the President, 2023).

After receiving multiple bids, U.S. Steel Corp. entered into a definitive agreement to be acquired by Nippon Steel Corp, the largest steelmaker in Japan, for a total enterprise value of \$14.9 billion. The deal would include all-cash transactions of \$55 per share and the assumption of debt. The announcement cited benefits that included the shared capability for automotive flat steel and electrical steel product lines, a focus on decarbonization, and the ability to address high-grade steel demand in the United States (U.S. Steel Corp., 2023).

## References Cited

- Executive Office of the President, 2023, A Proclamation on adjusting imports of steel into the United States: The White House [Washington, D.C.], December 28. (Accessed February 2, 2024, at <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/12/28/a-proclamation-on-adjusting-imports-of-steel-into-the-united-states-5/>.)
- IndexMundi, undated, Iron ore monthly price - US dollars per dry metric ton: IndexMundi, Charlotte, NC. (Accessed February 28, 2024, at <https://www.indexmundi.com/commodities/?commodity=iron-ore>).
- INSEE, 2024, International prices of imported raw materials – iron ore – Chinese imports, Tianjin Port – spot price – CIF – 62% Fe type – price in US dollars per tonne: Insee, Institut national de la statistique et des études économiques, Paris, France, February 16. (Accessed February 26, 2024, at <https://www.insee.fr/en/statistiques/serie/010002059>).
- U.S. Steel Corp., 2023, Nippon Steel Corporation (NSC) to acquire U.S. Steel, moving forward together as the ‘best steelmaker with world-leading capabilities’: Pittsburgh, PA, U.S. Steel Corp. press release, December 18. (Accessed February 26, 2024, at <https://investors.ussteel.com/news-events/news-releases/detail/659/nippon-steel-corporation-nsc-to-acquire-u-s-steel>.)

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TABLE 1  
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE<sup>1,2</sup>

(Thousand metric tons, usable ore)

Period	Production		Shipments <sup>3</sup>		Stocks
	Monthly	Year to date	Monthly	Year to date	End of Month
2022:					
December	3,150	39,000	2,820	38,980	3,190
2023:					
January	3,290	3,290	1,670	1,670	4,810
February	3,330	6,620	350	2,020	7,790
March	3,580	10,200	1,440	3,460	9,930
April	3,790 <sup>r</sup>	14,000 <sup>r</sup>	4,390 <sup>r</sup>	7,850 <sup>r</sup>	9,330 <sup>r</sup>
May	3,770 <sup>r</sup>	17,800 <sup>r</sup>	4,970 <sup>r</sup>	12,800 <sup>r</sup>	8,130 <sup>r</sup>
June	3,800 <sup>r</sup>	21,600 <sup>r</sup>	5,080 <sup>r</sup>	17,900 <sup>r</sup>	6,850 <sup>r</sup>
July	4,010 <sup>r</sup>	25,600 <sup>r</sup>	5,300 <sup>r</sup>	23,200 <sup>r</sup>	5,560 <sup>r</sup>
August	3,980 <sup>r</sup>	29,600 <sup>r</sup>	4,710 <sup>r</sup>	27,900 <sup>r</sup>	4,830 <sup>r</sup>
September	3,870 <sup>r</sup>	33,400 <sup>r</sup>	4,710 <sup>r</sup>	32,600 <sup>r</sup>	3,990 <sup>r</sup>
October	3,860 <sup>r</sup>	37,300 <sup>r</sup>	4,230 <sup>r</sup>	36,900 <sup>r</sup>	3,620 <sup>r</sup>
November	4,100 <sup>r</sup>	41,400 <sup>r</sup>	4,150 <sup>r</sup>	41,000 <sup>r</sup>	3,570 <sup>r</sup>
December	4,040 <sup>r</sup>	45,400 <sup>r</sup>	4,130 <sup>r</sup>	45,100 <sup>r</sup>	3,480 <sup>r</sup>

<sup>r</sup>Revised.

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

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

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

TABLE 2  
U.S. PRODUCTION OF PIG IRON AND RAW STEEL<sup>1</sup>

(Thousand metric tons)

Period	Pig iron production <sup>2</sup>		Raw steel production	
	Monthly	Year to date	Monthly	Year to date
2022:				
December	1,560	19,800	6,330	80,500
2023:				
January	1,680	1,680	6,550	6,550
February	1,610	3,290	6,120	12,700
March <sup>3</sup>	1,800	5,090	6,800	19,500
April	1,720	6,810	6,690	26,200
May	1,800	8,610	6,900	33,100
June	1,780	10,400	6,820	39,900
July	1,810	12,200	6,970	46,900
August	1,820	14,000	7,000	53,800
September	1,760	15,800	6,760	60,600
October	1,740	17,500	6,690	67,300 <sup>4</sup>
November	1,700 <sup>r</sup>	19,200	6,560 <sup>r</sup>	73,900 <sup>r,4</sup>
December	1,790	21,000	6,850	80,700

<sup>r</sup>Revised.

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

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

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

<sup>4</sup>Data may have been revised, but not reported and may not add to totals shown.

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

TABLE 3  
U.S. EXPORTS OF IRON ORE, BY COUNTRY OR LOCALITY AND TYPE <sup>1,2</sup>

Country or locality and type of product	2022	2023				
	January-December	December		January-December		
	Quantity (thousand metric tons)	Quantity (thousand metric tons)	Value <sup>3</sup> (thousand dollars)	Quantity (thousand metric tons)	Value <sup>3</sup> (thousand dollars)	Value <sup>3</sup> (dollars per ton)
Canada	7,660 <sup>r</sup>	868	86,200	8,110	800,000	98.67
China	1,470	150	15,800	1,350	165,000	122.57
Iceland	--	31	1,700	42	3,220	76.69
Other	2,290 <sup>r</sup>	(4)	60	1,560	135,000	86.58
Total	11,400 <sup>r</sup>	1,050	104,000	11,100	1,100,000	99.81
Concentrates	1,800	152	16,400	1,450	183,000	126.51
Fine ores	3	(4)	16	2	574	287.00
Pellets	9,420 <sup>r</sup>	898	87,200	9,320	909,000	97.56
Other	197 <sup>r</sup>	(4)	37	290	10,800	37.10
Total	11,400 <sup>r</sup>	1,050	104,000	11,100	1,100,000	99.81

<sup>r</sup>Revised.

<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>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 OR LOCALITY AND TYPE<sup>1,2</sup>

Country or locality of origin and type of product	2022	2023				
	January-December	December		January-December		
	Quantity (thousand metric tons)	Quantity (thousand metric tons)	Value <sup>3</sup> (thousand dollars)	Quantity (thousand metric tons)	Value <sup>3</sup> (thousand dollars)	Value <sup>3</sup> (dollars per ton)
Brazil	1,650	186	28,600	2,100	355,000	168.96
Canada	808	71	11,200	723	120,000	165.75
Other	574	5	549	711	88,600	124.67
Total	3,040	262	40,400	3,540	564,000	159.40
Concentrates	61	5	500	77	7,270	94.44
Fine Ores	187	10	802	287	27,400	95.52
Pellets	2,770	247	39,100	3,090	520,000	168.02
Other	14	--	--	80	9,590	119.85
Total	3,040	262	40,400	3,540	564,000	159.40

-- 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 quantities less than 5,000 metric tons for the 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, BY CUSTOMS DISTRICT<sup>1, 2</sup>

(Thousand metric tons)

Customs district (code no.)	Pellets			Total, all products		
	January–December		December	January–December		December
	2022	2023		2022	2023	
Houston-Galveston, TX (53)	76	128	23	77	148	33
New Orleans, LA (20)	2,700	2,970	224	2,860	3,260	229
Other	(3) <sup>3</sup>	(3)	--	96 <sup>3</sup>	131	(3)
Total	2,770	3,090	247	3,040	3,540	262

<sup>1</sup>Revised. -- 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.

TABLE 6  
U.S. IRON ORE TRADE SUMMARY<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Exports		Imports	
	Quantity	Value <sup>2</sup>	Quantity	Value <sup>3</sup>
2022:				
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
June	933	93,600	370	59,100
July	1,350	137,000	341	56,000
August	1,090	114,000	330	52,600
September	1,030	105,000	449	68,000
October	1,220	122,000	119	19,200
November	558	56,300	191	30,300
December	1,050	104,000	262	40,400
January–December	11,100	1,100,000	3,540	564,000

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

<sup>2</sup>Free alongside ship (FAS) value.

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

Source: U.S. Census Bureau.