

Mineral Industry Surveys

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IRON AND STEEL SCRAP IN NOVEMBER 2021

In November 2021, purchased steel scrap receipts decreased slightly, recirculating scrap production decreased by 5%, and iron and steel scrap consumption decreased by 5% compared with those in October 2021. Stocks of purchased and home scrap decreased slightly from those at the end of October 2021. In November 2021, pig iron production decreased by 14% and consumption decreased by 15% from those in October 2021 (table 1, fig. 1). Direct-reduced iron receipts increased slightly and consumption was essentially unchanged.

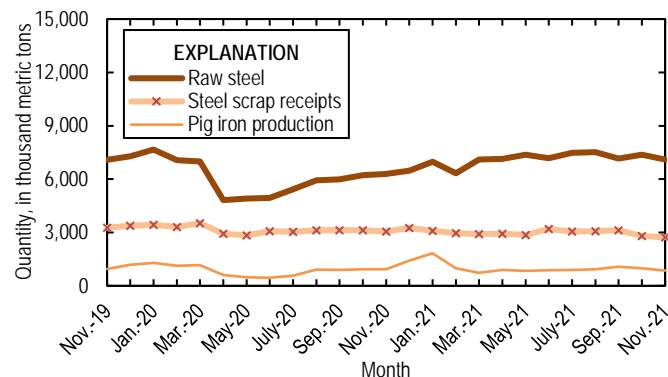


Figure 1. Monthly domestic production of raw steel, receipts of iron and steel scrap, and production of pig iron from November 2019 through November 2021. Sources: U.S. Geological Survey and American Iron and Steel Institute.

Exports of iron and steel scrap in November 2021 decreased by 9% from those in October 2021 (fig. 2, table 4). Turkey was the leading destination for exports, accounting for 26% of the total tonnage, followed by Mexico (12%) and Taiwan (9%) (table 4). New York, NY, was the leading U.S. Customs district by tonnage of exports, accounting for 18% of the total, followed by Los Angeles, CA, (15%) and San Francisco, CA, (11%) (table 5).

Imports of iron and steel scrap in November 2021 increased by 9% from those in October 2021 (fig. 2, table 7). Canada was the leading country of origin, accounting for 78% of the total tonnage of imports, followed by Mexico (13%) and the Netherlands (8%) (table 7). Detroit, MI, was the leading U.S.

Customs district by tonnage of imports, accounting for 46% of the total, followed by Seattle, WA, (17%) and Laredo, TX, and Charleston, SC, (8% each) (table 8).

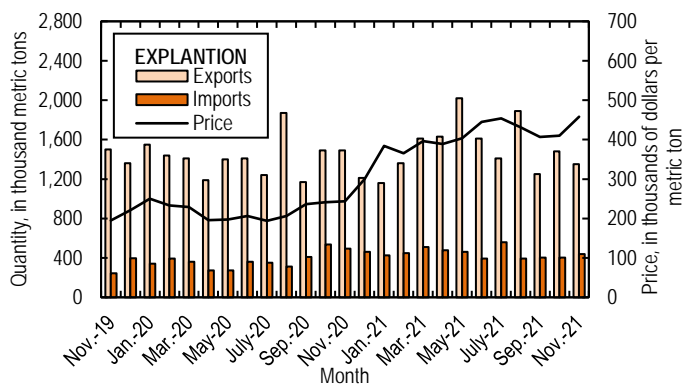


Figure 2. Monthly domestic imports and exports of iron and steel scrap and price for No. 1 heavy melting steel scrap from November 2019 through November 2021. Sources: U.S. Census Bureau and Fastmarkets AMM.

The daily average domestic raw steel production for November, as calculated from the American Iron and Steel Institute’s monthly production data, was 237,000 metric tons, essentially unchanged from that in October 2021 and a 13% increase from that in November 2020. Raw steel production capability utilization was 82.7% in November 2021, down from 83.2% in October 2021 and up from 73.3% in November 2020 (table 10). Increases in capability utilization and steel production were attributed to the industry’s recovery from the effects of the global COVID-19 pandemic that caused lower rates of iron and steel consumption in mid-2020.

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TABLE 1
 IRON AND STEEL SCRAP, PIG IRON, AND DIRECT-REDUCED IRON STATISTICS
 FOR STEEL PRODUCERS, IN NOVEMBER 2021^{1,2}

(Thousand metric tons)

	November	January–November ³
Scrap:		
Receipts:		
From outside sources	2,730	32,500
From other own company plants	153	1,860
Production:		
Recirculating scrap	312	3,650
Obsolete scrap	12	121
Consumption (by type of furnace):		
Blast furnace	112	1,330
Basic oxygen process	262	3,380
Electric furnace	2,650	31,600
Other	55	868
Total consumption	3,080	37,100
Shipments	82	510
Stocks, end of period	3,540	3,540
Pig iron (includes hot metal):		
Receipts	106	2,210
Production	851	1,090
Consumption	992	12,200
Stocks, end of period	286	286
Direct-reduced iron: ⁴		
Receipts	249	2,640
Consumption	235	2,590
Stocks, end of period	253	253

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

²Includes manufacturers of raw steel that also produce steel castings. November 2021 data are based on surveys, representing 53% of scrap consumption during this month, and estimates for nonrespondents of this survey.

³May include revisions to previously published data.

⁴Includes direct-reduced iron, hot-briquetted iron, and iron carbide. Domestic production data are included in "Receipts."

TABLE 2
 RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, CONSUMPTION, AND STOCKS OF IRON AND STEEL SCRAP, BY GRADE, FOR STEEL PRODUCERS, IN NOVEMBER 2021^{1,2}

(Thousand metric tons)

Item	November				January–November ³		
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴	Ending stocks	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴
Carbon steel:							
Low-phosphorus plate and punchings	14	W	15	W	149	W	164
Cut structural and plate	230	W	247	303	2,740	365	3,120
No. 1 heavy melting steel	234	46	271	134	2,630	429	3,070
No. 2 heavy melting steel	324	20	364	241	3,530	220	4,030
No. 1 and electric furnace bundles	101	--	100	98	1,200	--	1,210
No. 2 and all other bundles	68	W	66	36	753	W	760
Electric furnace 1 foot and under (not bundles)	3	W	W	W	W	W	W
Railroad rails	18	7	18	96	183	W	186
Turnings and borings	141	W	140	194	1,590	W	1,630
Slag scrap	26	22	50	74	318	327	596
Shredded and fragmentized	834	W	891	1,460	10,200	W	11,000
No. 1 busheling	267	W	281	221	3,810	W	3,980
Steel cans (post consumer)	W	W	W	W	W	W	W
All other carbon steel scrap	199	98	302	187	2,230	1,110	3,490
Stainless steel scrap	55	27	82	38	599	293	906
Alloy steel scrap	24	8	32	55	262	89	353
Ingot mold and stool scrap	W	W	3	2	W	W	34
Machinery and cupola cast iron	2	--	2	W	W	--	W
Cast iron borings	12	W	12	5	129	W	134
Motor blocks	W	--	W	--	W	--	W
Other iron scrap	50	14	56	75	599	145	649
Other mixed scrap	119	W	133	17	1,410	34	1,700
Total	2,730	312	3,080	3,540	32,500	3,650	37,100

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

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

²Includes manufacturers of raw steel that also produce steel castings.

³May include revisions to previously published data.

⁴Includes recirculating scrap and home-generated obsolete scrap.

TABLE 3
 RECEIPTS FROM OUTSIDE SOURCES, PRODUCTION, AND CONSUMPTION OF IRON AND STEEL SCRAP,
 BY REGION AND STATE, FOR STEEL PRODUCERS, IN NOVEMBER 2021^{1,2}

(Thousand metric tons)

Region and State	November			January–November ³		
	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴	Receipts of scrap from outside sources	Production of recirculating scrap	Consumption ⁴
Mid-Atlantic and New England:						
New Jersey, New York, Pennsylvania	236	40	282	2,590	440	3,100
North Central:						
Illinois and Indiana	362	74	460	4,230	815	5,310
Iowa, Minnesota, Nebraska, Wisconsin	215	5	226	2,380	77	2,540
Michigan	38	4	44	559	160	631
Ohio	396	89	437	4,240	842	4,960
Total	1,010	173	1,170	11,400	1,890	13,400
South Atlantic:						
Georgia, North Carolina, South Carolina	257	W	257	3,030	W	3,180
Virginia, West Virginia	100	W	110	1,120	W	1,300
Total	357	12	367	4,150	174	4,480
South Central:						
Alabama, Kentucky, Mississippi, Tennessee	501	55	579	6,510	693	7,490
Arkansas and Texas	353	18	409	4,860	285	5,520
Total	854	73	988	11,400	978	13,000
Mountain and Pacific:						
California, Colorado, Oregon, Utah, Washington	269	15	275	2,940	165	3,110
Grand total	2,730	312	3,080	32,500	3,650	37,100

W Withheld to avoid disclosing company proprietary data; included in "Total."

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

²Includes manufacturers of raw steel that also produce steel castings.

³May include revisions to previously published data.

⁴Includes recirculating scrap and home-generated obsolete scrap.

TABLE 4
U.S. EXPORTS OF IRON AND STEEL SCRAP BY SELECTED REGION AND COUNTRY
OR LOCALITY, IN NOVEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Region and country or locality	November		January–November ³	
	Quantity	Value	Quantity	Value
Australia	--	--	33	15,600
Bangladesh	97	43,800	1,290	557,000
Belgium	1	762	7	6,990
Brazil	(4)	58	98	37,600
Canada	49	17,500	780	247,000
Cayman Islands	(4)	177	2	2,560
China	22	4,820	139	54,900
Ecuador	33	14,700	190	84,000
Egypt	--	--	437	175,000
Germany	1	390	12	6,650
Greece	27	11,400	245	88,000
Hong Kong	2	2,150	33	37,200
India	47	50,100	591	399,000
Indonesia	2	917	52	21,800
Italy	(4)	144	229	105,000
Japan	1	1,520	25	22,800
Korea, Republic of	101	49,800	633	291,000
Kuwait	--	--	12	4,170
Malaysia	92	43,700	1,370	489,000
Mexico	164	51,400	2,940	1,020,000
Netherlands	1	916	5	5,290
Pakistan	58	34,800	682	369,000
Peru	77	35,000	447	201,000
Philippines	2	3,350	34	26,200
Portugal	--	--	6	2,300
Russia	(4)	180	3	2,010
Saudi Arabia	--	--	195	78,300
Singapore	(4)	47	2	1,430
Spain	(4)	62	39	3,310
Sweden	(4)	166	3	7,090
Switzerland	--	--	47	23,900
Taiwan	119	50,500	1,320	533,000
Thailand	26	19,900	285	194,000
Turkey	350	147,000	3,220	1,350,000
United Arab Emirates	(4)	281	13	6,950
United Kingdom	(4)	255	2	1,770
Vietnam	80	34,700	1,330	556,000
Other ⁵	1	1,610	23	15,100
Total	1,350	622,000	16,800	7,050,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

⁵Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF IRON AND STEEL SCRAP BY REGION AND
SELECTED CUSTOMS DISTRICT, IN NOVEMBER 2021^{1, 2}

(Thousand metric tons and thousand dollars)

Region and customs district	November		January–November ³	
	Quantity	Value	Quantity	Value
Canada–United States border:				
Buffalo, NY	12	5,030	105	53,100
Chicago, IL	(4)	37	3	1,470
Detroit, MI	7	4,100	211	59,300
Duluth, MN	(4)	288	34	8,630
Great Falls, MT	2	627	27	8,170
Ogdensburg, NY	2	455	24	4,650
Pembina, ND	13	5,280	221	89,500
Other	10	1,450	112	14,300
Total	46	17,300	738	239,000
East coast:				
Baltimore, MD	16	11,200	446	224,000
Boston, MA	144	65,100	1,290	559,000
Charleston, SC	15	11,200	175	98,100
Miami, FL	37	18,100	401	186,000
New York City, NY	243	116,000	2,940	1,180,000
Norfolk, VA	34	28,000	369	247,000
Philadelphia, PA	89	34,000	958	392,000
Portland, ME	2	594	82	33,700
Providence, RI	25	10,800	378	156,000
Savannah, GA	16	13,700	186	129,000
St. Albans, VT	1	401	20	4,430
Wilmington, NC	(4)	151	3	1,670
Total	621	310,000	7,250	3,210,000
Gulf coast and Mexico–United States border (includes Caribbean territories):				
El Paso, TX	17	7,270	278	106,000
Houston–Galveston, TX	32	25,000	343	210,000
Laredo, TX	101	26,100	1,390	383,000
Mobile, AL	1	674	41	6,630
New Orleans, LA	1	699	101	27,400
Nogales, AZ	(4)	87	2	778
San Juan, PR	29	12,600	162	59,200
Tampa, FL	17	9,340	474	172,000
U.S. Virgin Islands	--	--	6	2,300
Total	197	81,700	2,800	967,000
West coast and Hawaii:				
Columbia–Snake, OR	63	30,900	914	417,000
Honolulu, HI, and Anchorage, AK	35	15,200	135	55,600
Los Angeles, CA	208	88,600	2,350	1,070,000
San Diego, CA	22	7,120	272	86,300
San Francisco, CA	151	65,700	1,560	669,000
Seattle, WA	10	5,840	746	330,000
Total	490	213,000	5,980	2,630,000
Grand total	1,350	622,000	16,800	7,050,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Export valuation is on a free-alongside-ship basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN NOVEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Item	November		January–November ³	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	428	186,000	5,030	2,130,000
No. 2 heavy melting steel	59	27,200	659	299,000
No. 1 bundles	71	7,580	330	55,000
No. 2 bundles	2	181	37	4,410
Shredded steel scrap	420	189,000	5,180	2,270,000
Borings, shovelings and turnings	2	547	21	6,850
Cut plate and structural	58	25,500	579	255,000
Tinned iron or steel	9	2,010	108	39,100
Remelting scrap ingots	7	824	25	2,880
Cast iron	38	34,500	1,700	459,000
Other iron and steel	168	73,700	2,050	850,000
Total carbon steel and cast iron	1,260	546,000	15,700	6,370,000
Stainless steel	26	37,700	282	309,000
Other alloy steel	66	37,900	764	366,000
Total stainless and alloy steel	92	75,600	1,050	674,000
Total carbon, stainless, alloy steel and cast iron	1,350	622,000	16,800	7,050,000
Ships, boats, and other vessels for breaking up (for scrapping)	--	--	(4)	77
Used rails	(4)	13	1,460	2,830
Used rails for rerolling and other uses	--	--	779	550
Total scrap exports	1,350	622,000	19,000	7,050,000
Exports of manufactured ferrous products,				
Pig iron < or = 0.5% phosphorus	1	1,380	4	3,150
Pig iron > or = 0.5% phosphorus	(4)	43	1	85
Alloy pig iron	--	--	(4)	8
Total pig iron	2	1,420	5	3,250
Direct-reduced iron (DRI)	4	98	19	1,140
Spongy iron products, not DRI	1	713	442	225,000
Granules for abrasive cleaning and other uses	2	3,390	18,700	32,000
Powders of alloy steel	1	6,230	15,500	74,600
Other ferrous powders	4	6,730	73	95,600
Total DRI, granules, powders	12	17,200	34,700	428,000
Grand total	1,370	641,000	53,700	7,480,000

-- Zero.

¹Export valuation is on a free-alongside-ship basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
 U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
 BY SELECTED COUNTRY OR LOCALITY, IN NOVEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Country or locality	November		January–November ³	
	Quantity	Value	Quantity	Value
Bahamas	(4)	14	1	229
Belgium	(4)	6	48	15,300
Brazil	--	--	3	951
Canada	345	168,000	3,450	1,580,000
Cayman Islands	1	162	5	1,410
China	(4)	234	6	2,220
Colombia	(4)	55	3	3,770
Dominican Republic	(4)	79	2	1,190
Ecuador	--	--	1	2,130
Germany	1	305	63	23,000
Japan	5	72	36	871
Mexico	55	34,800	514	297,000
Netherlands	33	17,100	281	136,000
New Zealand	--	--	30	16,900
Poland	--	--	52	28,500
Russia	--	--	2	3,470
Singapore	--	--	3	374
Spain	--	--	28	10,800
Sweden	(4)	2	105	54,100
United Kingdom	(4)	24	273	142,000
Other ⁵	1	573	13	11,200
Total	440	222,000	4,920	2,330,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats, and other vessels for scrapping. Import valuation is on a Customs basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

⁵Includes countries with quantities of less than 500 metric tons for the current year.

Source: U.S. Census Bureau.

TABLE 8
U.S. IMPORTS FOR CONSUMPTION OF IRON AND STEEL SCRAP
BY SELECTED CUSTOMS DISTRICT, IN NOVEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Customs district	November		January–November ³	
	Quantity	Value	Quantity	Value
Baltimore, MD	--	--	2	1,990
Buffalo, NY	23	20,200	357	234,000
Charleston, SC	33	17,200	371	180,000
Chicago, IL	(4)	8	36	9,190
Cleveland, OH	5	1,230	18	3,510
Columbia–Snake, OR	(4)	3	7	2,260
Detroit, MI	203	105,000	1,820	922,000
Duluth, MN	13	5,750	160	66,600
El Paso, TX	7	3,040	49	22,100
Great Falls, MT	1	389	14	4,040
Houston–Galveston, TX	(4)	510	12	10,700
Laredo, TX	33	21,400	323	202,000
Miami, FL	1	333	14	4,500
Minneapolis, MN	--	--	1	194
Mobile, AL	6	6,260	132	83,800
New Orleans, LA	5	217	485	210,000
New York City, NY	(4)	196	2	3,470
Nogales, AZ	3	1,590	25	10,400
Ogdensburg, NY	1	853	13	10,100
Pembina, ND	22	11,400	216	100,000
Portland, ME	(4)	3	1	911
San Diego, CA	6	2,490	56	20,200
Seattle, WA	75	23,100	789	222,000
St. Albans, VT	2	659	16	5,830
Other	(4)	53	2	1,390
Total	440	222,000	4,920	2,330,000

-- Zero.

¹Includes tinplate and terneplate; excludes used rails for rerolling and other uses and ships, boats and other vessels for scrapping. Import valuation is on a Customs basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 9
U.S. IMPORTS OF IRON AND STEEL SCRAP AND OTHER
FERROUS PRODUCTS BY GRADE, IN NOVEMBER 2021^{1,2}

(Thousand metric tons and thousand dollars)

Item	November		January–November ³	
	Quantity	Value	Quantity	Value
No. 1 heavy melting steel	16	6,240	182	60,300
No. 2 heavy melting steel	11	4,410	112	38,800
No. 1 bundles	101	57,100	1,430	742,000
No. 2 bundles	5	2,390	80	32,100
Shredded steel scrap	71	28,800	593	221,000
Borings, shovelings and turnings	5	1,940	82	28,100
Cut plate and structural	13	4,170	187	69,200
Tinned iron or steel	23	10,800	231	102,000
Remelting scrap ingots	(4)	251	1	1,370
Cast iron	14	4,450	169	61,100
Other iron and steel	98	37,000	955	345,000
Total carbon steel and cast iron	357	158,000	4,030	1,700,000
Stainless steel	22	34,300	249	340,000
Other alloy steel	61	29,700	645	292,000
Total stainless and alloy steel	83	64,000	894	632,000
Total carbon, stainless, alloy steel and cast iron	440	222,000	4,920	2,330,000
Ships, boats, and other vessels for breaking up (for scrapping)	--	--	5	33,800
Used rails	(4)	36	1,070	508
Used rails for rerolling and other uses	--	--	1,060	997
Used rails nonalloys	(4)	18	65	18
Used rails other	(4)	45	1,110	2,100
Total scrap imports	440	222,000	8,230	2,370,000
Imports of manufactured ferrous products:				
Pig iron < or = 0.5% phosphorus	--	--	(4)	638
Pig iron > or = 0.5% phosphorus	605	315,000	5,760	3,150,000
Alloy pig iron	(4)	65	1	695
Total pig iron	605	316,000	5,760	3,160,000
Direct-reduced iron (DRI)	181	82,300	2,880	1,130,000
Spongy iron products, not DRI	1	770	3	5,670
Granules for abrasive cleaning and other uses	2	3,880	24,500	36,400
Powders of alloy steel	5	10,100	55,900	113,000
Other ferrous powders	4	8,530	40	77,800
Total DRI, granules, powders	192	106,000	83,300	1,370,000
Grand total	1,240	643,000	97,300	6,890,000

-- Zero.

¹Import valuation is on a Customs basis.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³May include revisions to previously published data.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10
U.S. RAW STEEL PRODUCTION, RAW STEEL CAPABILITY UTILIZATION,
AND CONTINUOUS CAST STEEL PRODUCTION¹

Period	Raw steel production, thousand metric tons		Raw steel capability utilization, percent		Continuous cast steel production, percent	
	Monthly	Year to date ²	Monthly	Year to date ²	Monthly	Year to date ²
2020:						
November	6,300	66,300	73.3	67.7	99.8	99.8
December	6,480	72,700	72.9	68.1	99.8	99.8
2021:						
January	6,970	6,970	76.6	76.6	99.8	99.8
February	6,320	13,300	76.8	76.7	99.8	99.8
March	7,100	20,400	78.0	77.1	99.8	99.8
April	7,130	27,500	80.8	78.0	99.8	99.8
May	7,370	34,900	81.0	78.7	99.8	99.8
June	7,170	42,100	83.0	79.4	99.8	99.8
July	7,480	49,500	84.4	80.1	99.8	99.8
August	7,520	57,100	84.8	80.7	99.8	99.8
September	7,150	64,200	83.3	81.0	99.8	99.8
October	7,380	71,600	83.2	81.2	99.8	99.8
November	7,100	78,700	82.7	81.3	99.8	99.8

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

²May include revisions to previously published data.

Source: American Iron and Steel Institute.

TABLE 11
COMPOSITE PRICES FOR STEEL SCRAP AND PIG IRON

Period	Steel Scrap ¹		Pig Iron ²	
	\$/lt	\$/t	\$/lt	\$/t
2020:				
November	248.28	244.36	333.35	328.09
December	304.43	299.62	333.35	328.09
Average, January–December	231.28	227.62	313.73	308.78
2021:				
January	390.18	384.02	537.00	528.52
February	371.23	365.37	508.08	500.06
March	401.96	395.61	423.17	416.49
April	394.84	388.60	479.13	471.56
May	410.08	403.60	568.14	559.17
June	452.46	445.31	568.14	559.17
July	461.67	454.38	500.00	492.10
August	438.33	431.41	581.71	572.52
September	413.33	406.80	631.97	621.99
October	416.67	410.09	621.36	611.55
November	465.00	457.66	525.36	517.06

¹Prices are for No. 1 heavy melting steel scrap. Source: Fastmarkets AMM.

²Basic pig iron (HTS 7201.00.0000), average unit value, free on board, from Brazil received at New Orleans, LA. Source: U.S. Census Bureau.

Note: Long tons = lt; metric tons = t.