



U.S. Bureau of Mines



MINERAL INDUSTRY SURVEYS

T S Ary, Director

Washington, DC 20241

For information call Peter H. Kuck
Telephone: (202) 634-1023

Iron Ore, Monthly

IRON ORE IN MAY 1988

U.S. mine production of iron ore was 5% more than that of April, according to the Bureau of Mines, U.S. Department of the Interior. This modest increase in monthly production reflects a growing, but guarded, optimism on the part of domestic mine operators, who have seen a gradual strengthening of demand for their pellets over the last year and a half. Several long-term indicators suggest that the U.S. iron ore industry finally has begun to recover from the depressed levels of 1982-86. Mine shipments for the first 5 months of 1988 totaled 15.9 million long tons and were 68% greater than those for the corresponding period of 1987. Shipments from U.S. loading docks on the upper Great Lakes reached 6.1 million tons in May, up 19% from April. Imports remained at the 1.6 million ton level, while exports, primarily to Canada, dropped by one-third to 362,000 tons. Consumption of ore and agglomerates rose 7% during the month to 6.1 million tons, offsetting domestic shipments down the Lakes. Year-to-date consumption was up 24% from that of 1987. On May 31, 49 blast furnaces were in operation, 1 less than on April 30.

According to officials of the LTV Steel Co., reserves of natural ore at the company's Donora pit will be exhausted by 1993 if mining continues at the present rate of 800,000 tons per year. The 1,200-acre pit is the principal orebody of the McKinley Extension Mine, 3 miles north of Aurora, MN. The McKinley Extension is the only active natural ore operation left in the U.S. part of the Lake Superior Region, and has 79 hourly and 20 salaried employees. The mine, operated by LTV's Northwest Ore Division under a lease from USX Corp., shipped 1,166,276 tons of beneficiated sinter fines and 17,562 tons of 1 by 4-in. coarse ore in 1987. ^{1/} The bulk of the sinter fines contained 54.3% Fe on a wet basis and went to either LTV's steelworks at Indiana Harbor or USX's steelworks at Gary, IN. The Donora pit was reopened by LTV in the spring of 1983 when reserves at the adjacent Stephens pit became depleted. The Stephens pit has produced more than 51 million tons of natural ore from 1903 to date, but only 20,000 tons remain. LTV was planning to remove these last few ore pockets and clean up the Stephens before the end of the year.

Excess stocks of sinter fines overshadowed annual price negotiations in Japan and Western Europe for the third consecutive year. At least two Australian suppliers found themselves in a difficult position at the start of the 1988 negotiations, and moved quickly to set prices. Hamersley Iron Pty. Ltd. was the first to settle, signing with Japanese steelmakers on December 22 and with British Steel Corp. 2 days later. Hamersley had several reasons to be concerned:

- The company's ore stockpile at the port of Dampier had grown excessively to 17 million tons.

Prepared in the Branch of Ferrous Metals, September 13, 1988.

- Ocean freight rates had been trending upward since February 1987, making Australian ore less competitive in Western Europe than ore from Canada, Sweden and other nearer suppliers.
- The Australian dollar was strengthening against the U.S. dollar.
- State-operated mines in some of the lesser developed countries were becoming more competitive.

Hamersley agreed to cut the price of its fines in the Japanese market by 4.01%, and several smaller competitors immediately followed suite. By mid-April, Japanese steelmakers had settled essentially all of their contracts for fines and lump ore, winning f.o.b. price cuts of 4.0% to 5.9% for most fines. Lump ore prices were largely unchanged, with the premium over fines widening because of the drop in prices for fines. Prices negotiated under Japanese contracts for fiscal 1988 were reported as follows (f.o.b., in U.S. cents per dry metric ton unit of iron):

Producer	Ore type	Prices	
		FY 1988	FY 1987
Hamersley Iron Pty. Ltd.	lump ore	28.33	28.33
Robe River Iron Associates	fines	20.19	21.16
Companhia Vale do Rio Doce (CVRD)	fines	20.89	21.89
Mineracoes Brasileiras Reunidas S.A.	fines	21.39	22.40
Iron Ore Co. of Canada	Carol concentrates	19.93	20.92
Cia. de Acero del Pacifico S.A.	Romeral fines	16.18	17.03
National Mineral Development Corp. Ltd.	Bailadila fines	22.39	23.33
Iron & Steel Corp. of South Africa Ltd.	fines	18.03*	19.15*

* After penalties for alkali impurities.

Pellet prices moved in the opposite direction, rising between 7.5% and 12.6%, because of growing demand worldwide and a shortage of modern sintering facilities in the European Communities. Eleven of the prices negotiated under West German or British contracts are shown below (f.o.b., in U.S. cents per dry metric ton unit of iron):

Producer	Ore type	Prices	
		CY 1988	CY 1987
Robe River Iron Associates	fines	12.75	14.10
Companhia Vale do Rio Doce (CVRD)	pellets	40.35	36.70
Companhia Vale do Rio Doce (CVRD)	Itabira fines	23.50	24.50
Companhia Vale do Rio Doce (CVRD)	Carajas fines	24.30	25.30
Samarco Mineracao S.A.	pellets	39.08	35.55
Iron Ore Co. of Canada	pellets	39.95	37.15
Iron Ore Co. of Canada	fines	23.68	24.03
Quebec Cartier Mining Co.	fines	23.68	24.03
LAMCO Joint Venture	fines	21.00	22.75
Soc. Nationale Industrielle et Miniere	Tazadit fines	25.10	26.00
Luossavaara-Kiirunavaara AB	Malmberget fines	26.70	25.95

Source: TEX Report (Tokyo), v. 20, Nos. 4664 and 4682, Apr. 20 and May 20, 1988.

1/ Skillings, D. N., Jr. North American Iron Ore Industry in Major Recovery in 1988 to Reach Seven-Year Production Peak of 97.6 Million Gross Tons. Skillings' Min. Rev. V. 77, No. 31, July 30, 1988, pp. 23-24.

U.S. IRON ORE

MONTHLY PRODUCTION AND SHIPMENTS

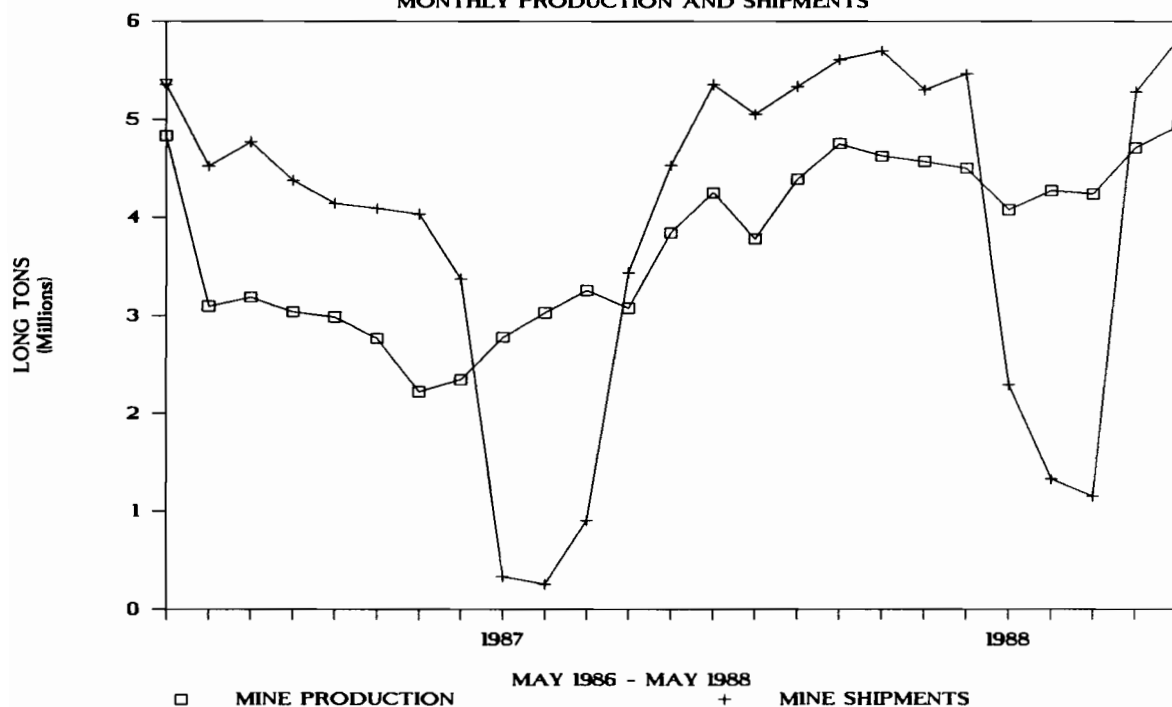


Table 1. - U.S. production and shipments of iron ore, by districts 1/
(Exclusive of ore containing 5% or more manganese)
(Thousand long tons)

Period	Lake Superior	Other U.S.	Total 2/	
			1988	1987
Production:				
1987 p/-----	46,194	700	--	46,894
1988:				
1st Quarter-----	12,396	211	12,607	9,069
April-----	4,655	63	4,718	3,076
May-----	4,859	82	4,941	<u>r/3,845</u>
Shipments:				
1987 p/-----	46,523	734	--	47,257
1988:				
1st Quarter-----	4,557	212	4,769	1,484
April-----	5,225	57	5,282	3,437
May-----	5,755	71	5,826	<u>r/4,535</u>

r/ Revised.

p/ Preliminary.

1/ Excludes byproduct ore, except where noted.

2/ Data may not add to totals shown because of independent rounding.

Table 2. - U.S. mine production, shipments, and stocks of iron ore 1/
(Exclusive of ore containing 5% or more manganese)
(Thousand long tons)

District	Production May		Shipments May		Mine Stocks May 31	
	1988	1987	1988	1987	1988	1987
Lake Superior:						
Michigan-----	1,170	947	1,373	1,509	2,086	2,498
Minnesota-----	3,688	<u>r/2,840</u>	4,382	<u>r/2,965</u>	6,637	<u>r/6,676</u>
Other U.S.-----	82	58	71	61	226	261
Total <u>2/</u> -----	4,941	<u>r/3,845</u>	5,826	<u>r/4,535</u>	8,949	<u>r/9,435</u>

r/ Revised.

1/ Excludes byproduct ore.

2/ Data may not add to totals shown because of independent rounding.

Table 3. - U.S. exports of iron ore
(Thousand long tons)

Period	Canada	Other	Total <u>1/</u>	
			1988	1987
1987 <u>p/</u> -----	5,011	2	--	5,013
1988:				
1st Quarter-----	334	1	335	92
April-----	548	(<u>2/</u>)	548	440
May-----	360	2	362	911

p/ Preliminary.

1/ Data may not add to totals shown because of independent rounding.

2/ Less than one-half unit.

Source: Bureau of the Census.

Table 4. - Canada: Shipments of iron ore
(Thousand dry long tons)

Period	Newfound- land	Quebec	Ontario	British Columbia	1988 Total <u>1/</u>	1987 Total <u>1/</u>
1987 p/-----	18,368	15,621	3,184	33	--	37,206
1988:						
1st Quarter---	2,710	3,413	812	6	6,941	6,081
April-----	1,656	1,418	123	2	3,200	3,115
May-----	1,930	1,443	212	5	3,590	<u>r/</u> 3,072

p/ Preliminary.

r/ Revised.

1/ Data may not add to totals shown because of independent rounding.

Source: Energy, Mines, and Resources Canada.

Table 5. - U.S. imports for consumption of iron ore, by country
(Exclusive of ore containing 10% or more manganese)

Country of origin	May 1988		Year to date 1988			Year to date 1987 (thousand long tons)
	Thousand long tons	Value <u>1/</u> (thousand dollars)	Thousand long tons	Value <u>1/</u> (thousand dollars)	Value <u>1/</u> (dollars per ton)	
Australia-----	--	--	366	6,235	17.04	--
Brazil-----	493	8,211	1,714	30,903	18.03	1,666
Canada-----	729	21,654	3,211	106,912	33.29	1,578
Chile-----	--	--	54	1,235	23.00	329
Liberia-----	--	--	126	1,460	11.58	373
Mauritania-----	--	--	131	2,076	15.90	66
Peru-----	--	--	78	1,308	16.76	41
Spain-----	--	--	--	--	--	1
Sweden-----	(<u>2/</u>)	6	(<u>2/</u>)	9	28.96	55
Venezuela-----	351	7,094	856	17,535	20.48	899
Other <u>3/</u> -----	60	1,303	115	2,640	22.92	58
Total <u>4/</u> ----	1,632	38,268	6,651	170,313	25.61	5,066

1/ Customs value. Excludes international freight, insurance, and other c.i.f. charges.

2/ Less than one-half unit.

3/ Excludes 28,466 tons of crude iron sulfate crystals reported in March from the Federal Republic of Germany. The material had a customs value of \$318,651.

4/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census data reported under item 601.24 of the Tariff Schedules of the United States.

Table 6. - U.S. consumption and stocks of iron ore and agglomerates
at consuming plants and production of pig iron
(Thousand long tons)

State or Region	Consumption			Stocks		
	May	Year to date		May 31		
	1988	1988	1987	1988	1987	
Alabama, Kentucky, Tennessee, Texas, and Missouri-----	292	1,581	1,581	699	812	
California, Colorado, and Utah- Delaware, Maryland, and West Virginia-----	NA	NA	--	NA	--	
Illinois and Indiana-----	764	3,554	3,106	1,357	1,341	
Michigan and Minnesota-----	2,486	11,721	9,140	3,719	4,041	
New York, Ohio, Pennsylvania, New Jersey, and Rhode Island-	488	2,476	2,391	2,214	1,010	
	2,088	9,650	7,207	2,146	1,823	
Total 1/-----	6,118	28,982	23,425	10,136	9,027	
Stocks at U.S. receiving/transfer docks-----				1,022	716	
Consuming Sector	Consumption by process			Pig iron produced		
	May	Year to date		May	Year to date 2/	
	1988	1988	1987	1988	1988	1987
Blast furnaces-----	5,524	25,772	20,590	4,404	21,070	16,497
Steel furnaces-----	24	112	30	--	--	--
Agglomerating plants 3/--	569	3,097	2,791	--	--	--
Miscellaneous 4/-----	(5/)	(5/)	13	--	--	--
Total 1/-----	6,118	28,982	23,425	4,404	21,070	16,497

NA Not available.

1/ Data may not add to totals shown because of independent rounding.

2/ Includes revisions for previous months.

3/ Iron ore and iron ore concentrates consumed in agglomerating plants not located at the mine site.

4/ Sold to nonreporting companies or used for purposes not listed.

5/ Less than one-half unit.

Source: American Iron Ore Association (consumption of iron ore).
American Iron and Steel Institute (production of pig iron).

Table 7. - U.S. imports for consumption of iron ore, by customs district
(Exclusive of ore containing 10% or more manganese)
(Thousand long tons)

Customs district	May 1988	Year to date	
		1988	1987
Baltimore-----	751	3,197	1,443
Buffalo-----	--	--	(1/)
Charleston, SC-----	50	168	134
Chicago-----	131	357	515
Cleveland-----	103	253	404
Detroit-----	1	32	78
Houston-----	30	30	(1/)
Los Angeles-----	--	--	--
Mobile-----	107	449	406
New Orleans-----	181	2/655	737
New York-----	(1/)	(1/)	(1/)
Philadelphia-----	278	1,507	1,350
San Juan, PR-----	--	(1/)	1
Wilmington, NC-----	--	--	(1/)
Other-----	--	5	--
Total 3/-----	1,632	6,651	5,066

1/ Less than one-half unit.

2/ Excludes 28,466 tons of crude iron sulfate reported for March.

3/ Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census.