



U.S. Bureau of Mines



MINERAL INDUSTRY SURVEYS

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Iron Ore, Monthly

IRON ORE IN JULY 1988

U.S. mine production of iron ore was 17% more than that of June, according to the Bureau of Mines, U.S. Department of the Interior. Production increases were reported by five of the eight active pelletizing operations in the Lake Superior district. All of the monthly data reflected the improved outlook for pellets in the eastern United States. Shipments from U.S. loading docks on the upper Great Lakes totaled 6.4 million long tons and were up 11% from the previous month. Imports rose 16%, with 85% of the material entering through mid-Atlantic or Gulf ports. Exports to Canada, in contrast, leveled off at 672,000 tons. Monthly consumption of ore and agglomerates rose from 5.6 million tons to 6.0 million tons as the result of a 6% increase in pig iron production. On July 31, 51 blast furnaces were in operation, 1 more than on June 30.

At the end of July, the State of Minnesota renewed its efforts to find a buyer for the defunct operations of the Reserve Mining Co. The Peter Mitchell Mine near Babbitt and the E.W. Davis pelletizing plant at Silver Bay have been shut down since July 1986 when LTV Corp., the parent company of one of the partners in Reserve, filed for bankruptcy. At the time of the shutdown, the mining complex employed about 800 workers and had a designed annual production capacity of 8.4 million tons of acid pellets. However, during the past 2 years, the trustee has sold some of the silica flotation cells and other equipment so that the effective capacity of the cannibalized operation is now only about 4 million tons per year.

On August 5, the Governor of Minnesota and other state officials met in Denver with executives of Cyprus Minerals Co. to explore ways of reopening the mining complex. Cleveland-Cliffs Inc., Northfield Mining Inc., and at least two other parties also have expressed an interest in acquiring or managing Reserve. However, potential buyers have been discouraged by several obstacles, including:

- Liabilities for the sprawling Milepost 7 tailings basin and related environmental problems,
- Concerns about the economic viability of the mining operation if demand for pellets in North America should drop back to 1986 levels,
- Problems in satisfying Reserve's creditors and the accompanying legal quagmire created by bankruptcy, and
- The deterioration, cannibalization, and sale of machinery and other equipment over the last 2 years.

Prepared in the Branch of Ferrous Metals, December 7, 1988.

Update: On November 18, Cyprus began pumping water from the Peter Mitchell pit under a cost-sharing agreement with Reserve's bondholders and the State of Minnesota. Since the shutdown, the water level has risen more than 80 feet in the deeper parts of the pit. Cyprus will also heat the mine's primary crusher throughout the winter to prevent ice from forming inside the unit and seriously damaging critical components. The winterizing effort will cost \$24,000 per day over the 4-month period, but would allow Reserve to be reopened by late spring if an agreement can be negotiated within the next few months.

U.S. IRON ORE

MONTHLY PRODUCTION AND SHIPMENTS

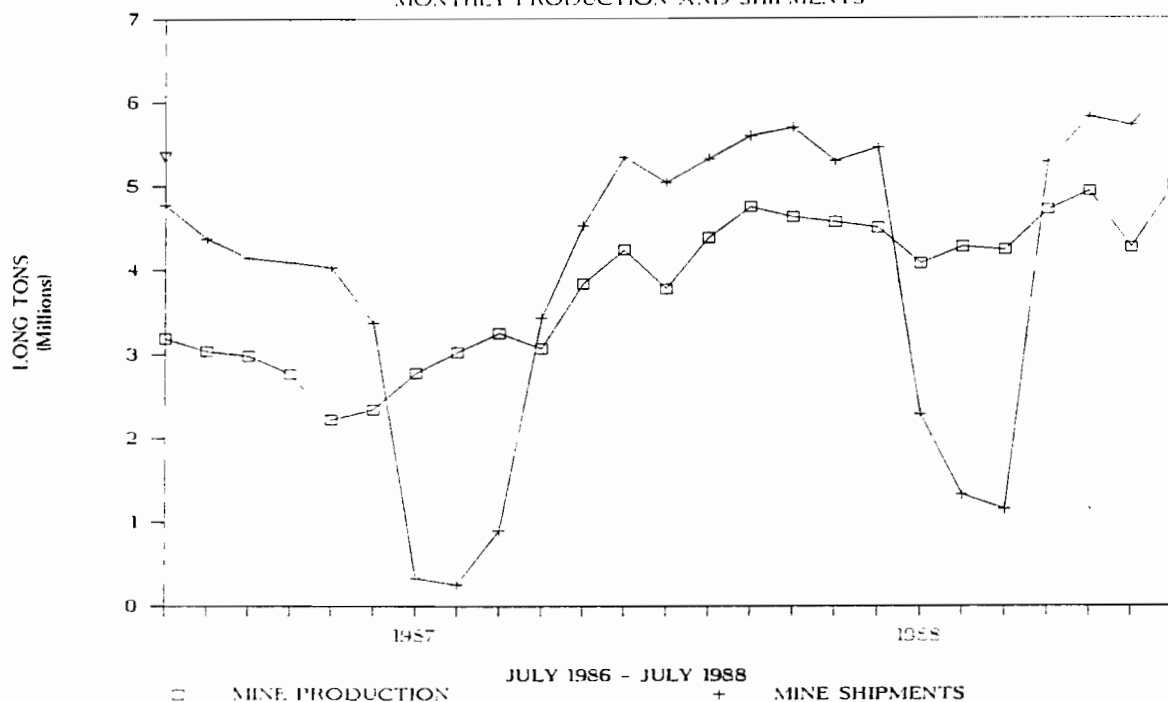


Table 1. - U.S. production and shipments of iron ore, by districts 1/
 (Exclusive of ore containing 5% or more manganese)
 (Thousand long tons)

Period	Lake Superior	Other U.S.	Total <u>2/</u>	
			1988	1987
Production:				
1987 p/-----	46,194	700	--	46,894
1988:				
1st Quarter-----	12,396	211	12,607	9,069
2nd Quarter-----	13,736	196	13,932	11,174
July-----	4,965	50	5,015	<u>r/3,784</u>
Shipments:				
1987 p/-----	46,523	734	--	47,257
1988:				
1st Quarter-----	4,557	212	4,769	1,484
2nd Quarter-----	16,641	190	16,830	13,325
July-----	6,262	68	6,329	<u>r/5,052</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 July		Shipments July		Mine Stocks July 31	
	1988	1987	1988	1987	1988	1987
Lake Superior:						
Michigan-----	1,436	1,100	1,847	742	1,303	2,840
Minnesota-----	3,528	<u>r/2,634</u>	4,415	<u>r/4,243</u>	4,725	<u>r/3,993</u>
Other U.S.-----	50	50	68	67	198	242
Total <u>2/</u> -----	5,015	<u>r/3,784</u>	6,329	<u>r/5,052</u>	6,226	<u>r/7,074</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
2nd Quarter-----	1,585	3	1,588	1,873
July-----	672	2	674	413

p/ Preliminary.

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

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 <u>p/</u> -----	18,368	15,621	3,184	33	--	37,206
1988:						
1st Quarter---	2,710	3,413	812	6	6,941	6,081
2nd Quarter---	5,592	4,170	608	13	10,383	9,990
July-----	2,066	1,475	296	6	3,843	<u>r/</u> 2,899

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	July 1988		Year to date 1988			Year to date 1987
	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)	(thousand long tons)
Australia-----	1	13	503	8,066	16.03	32
Brazil-----	580	9,055	2,619	45,682	17.44	2,296
Canada-----	993	31,731	5,374	174,775	32.52	3,458
Chile-----	--	--	83	1,779	21.32	383
Liberia-----	--	--	126	1,460	11.58	574
Mauritania-----	--	--	191	2,990	15.65	132
Peru-----	23	497	128	2,122	16.55	63
Spain-----	--	--	--	--	--	1
Sweden-----	--	--	1	15	28.52	55
Venezuela-----	675	14,401	1,702	35,751	21.01	1,107
Other <u>2/</u> -----	<u>3/</u> 23	<u>3/</u> 295	193	4,114	21.27	87
Total <u>4/</u> -----	2,295	55,991	10,921	276,754	25.34	8,187

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

2/ 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.

3/ Iron ore fines from Greece. Shipment was verified by the Foreign Trade Division of the Bureau of the Census.

4/ Data may not add to totals shown because of independent rounding. Unit values shown above are calculated from unrounded data.

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	
	July	Year to date		July 31	
	1988	1988	1987	1988	1987
Alabama, Kentucky, Tennessee, Texas, and Missouri-----	300	2,229	2,230	916	936
California, Colorado, and Utah- Delaware, Maryland, and West Virginia-----	NA	NA	--	NA	--
Illinois and Indiana-----	715	4,997	4,216	1,633	1,776
Michigan and Minnesota-----	2,559	16,477	13,252	4,756	4,635
New York, Ohio, Pennsylvania, New Jersey, and Rhode Island-	486	3,450	3,245	1,725	1,570
	1,938	13,469	10,200	3,234	2,434
Total 1/-----	5,998	40,622	33,143	12,265	11,350
Stocks at U.S. receiving/transfer docks-----				1,662	1,120

Consuming Sector	Consumption by process			Pig iron produced		
	July	Year to date		July	Year to date 2/	
	1988	1988	1987	1988	1988	1987
Blast furnaces-----	5,407	36,239	29,483	4,252	29,337	23,920
Steel furnaces-----	22	154	50	--	--	--
Agglomerating plants 3/-----	569	4,208	3,596	--	--	--
Miscellaneous 4/-----	(5/)	21	13	--	--	--
Total 1/-----	5,998	40,622	33,143	4,252	29,337	23,920

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	July 1988	Year to date	
		1988	1987
Baltimore-----	610	4,471	2,574
Buffalo-----	--	--	(<u>1</u> /)
Charleston, SC-----	96	264	179
Chicago-----	143	750	1,003
Cleveland-----	108	494	672
Detroit-----	91	271	203
Houston-----	--	30	(<u>1</u> /)
Los Angeles-----	--	--	--
Mobile-----	222	850	697
New Orleans-----	258	<u>2</u> /981	971
New York-----	--	1	(<u>1</u> /)
Philadelphia-----	767	2,767	1,887
San Juan, PR-----	--	(<u>1</u> /)	1
Seattle-----	--	26	--
Wilmington, NC-----	--	--	(<u>1</u> /)
Other-----	--	16	--
Total <u>3</u>/-----	2,295	10,921	8,187

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.