U.S. Department of the Interior • Bureau of Mines

MINERAL INDUSTRY **SURVEYS**

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Iron Ore, Monthly

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IRON ORE IN OCTOBER 1989

U.S. mine production of iron ore in October was only slightly less than that of September, according to the Bureau of Mines, U.S. Department of the Interior. Mine shipments, on the other hand, increased by more than 5%. Shipments from U.S loading docks on the upper Great Lakes totaled 5.4 million metric tons and were up 4% from the previous month. Monthly consumption of ore and agglomerates rose 7% to 6.2 million tons. On October 31, 48 blast furnaces were in operation, 1 less than on September 30.

On November 23, NL Chemicals Inc. shut down its magnetite concentrating operation at Tahawus in Essex County, New York. The company and its predecessor, NL Industries, Inc. had been producing heavy-medium quality concentrate from crude magnetite stockpiled at the MacIntyre Mine. There has been no mining at the site since 1982. The bulk of the concentrate was being railed to Eastern coal mines for coal washing.

The MacIntyre Mine was opened by the National Lead Co., the grandparent of NL Chemicals, in July 1942 to provide ilmenite (FeTiO₃) for the titanium dioxide (TiO₂) pigment industry. At the time, the ilmenite was desperately needed to replace supplies of beach sands from India, which had been cut off by the war. Crude magnetite was recovered as a byproduct of the ilmenite operation. During the 40year period, National Lead recovered 12 million tons of ilmenite and 18 million tons of magnetite from 60 million tons of crude ore. The ilmenite was shipped to National Lead's TiO₂ plants in Sayreville, NJ, and St. Louis, MO. National Lead dominated the titanium pigment market for many years, accounting for as much as 60% of the country's output of TiO2, but lost ground when its sulfate process became uncompetitive with the newer, more economical chloride process. Officials of NL Chemicals estimate that 31 million tons of ilmenite and 21 million tons of magnetite still remain in the deposit.

NL Chemicals will maintain an active presence at the mine and has initiated a voluntary reclamation program that goes beyond requirements set by the New York State Department of Environmental Conservation. The company will keep its State mining permit in force, continue to ship concentrate from existing stockpiles, and is planning to sell crushed stone to contractors. In August, NL Chemicals acquired a 72-year lease on the 33-mile long track that runs from the mine to the trunk line of the Delaware & Hudson Railway at North Creek. The lease was obtained at a public auction from the General Services Administration for \$950,000. The rail line was built by the Federal Government in 1943.

Prepared in the Branch of Ferrous Metals, January 19, 1990.

Changes to the Mineral Industry Surveys for Iron Ore: Congress enacted the Omnibus Trade and Competitiveness Act (Public Law 100-418) on August 23, 1988, to enhance the competitiveness of the Nation's industries and to improve the management of U.S. trade strategy. This comprehensive act, included among other items, provisions modifying U.S. customs laws and tariff schedules. Subtitle B of the new law requires that all tariff schedules after January 1, 1989, conform to the nomenclature of the internationally established Harmonized System. All of the iron ore trade statistics collected by the Bureau of the Census are now being compiled and published in metric units. To avoid confusion, the Bureau of Mines has decided to also present all of its iron ore production and consumption statistics in metric units. To convert from metric tons to long tons, multiply the published number by 0.984207.

U.S. IRON ORE

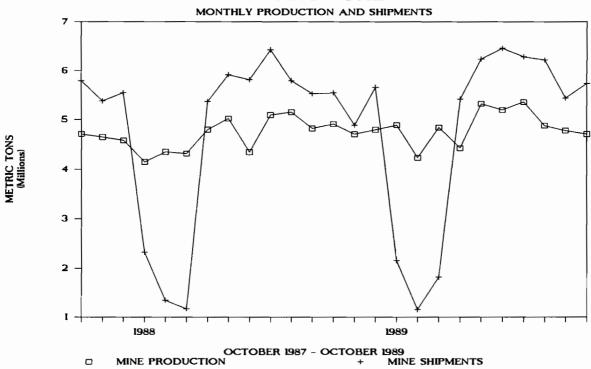


Table 1. - U.S. production and shipments of iron ore, by districts $\underline{1}/$ (Exclusive of ore containing 5% or more manganese) (Thousand metric tons)

	Lake		Total	. 2/
Period	Superior	Other U.S.	1989	1988
Production:				
1988	56,038	1,477		57,515
1989:				
1st Quarter	13,750	210	13,960	12,809
2nd Quarter	14,664	282	14,946	14,156
3rd Quarter	14,730	278	15,009	15,069
October	4,624	80	4,703	4,910
Shipments:			<u> </u>	
1988	55,358	1,755		57,113
1989:	•	·		
1st Quarter	4,957	174	5,131	4,846
2nd Quarter	17,757	364	18,121	17,100
3rd Quarter	17,653	292	17,945	17,755
October	5,643	92	5,735	5,551

^{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 $\underline{1}/$ (Exclusive of ore containing 5% or more manganese) (Thousand metric tons)

District	Product October		Shipmer October		Mine S Octobe	
	1989	1988	1989	1988	1989	1988
Lake Superior:						
Michigan	997	1,253	1,334	1,493	1,459	871
Minnesota	3,627	3,583	4,309	3,976	3,406	3,312
Other U.S	80	75	92	81	110	173
Total <u>2</u> /	4,703	4,910	5,735	5,551	4,976	4,356

^{1/} Excludes byproduct ore.

Table 3. - Canada: Shipments of iron ore (Thousand dry metric tons)

Period	Newfound- land	Quebec	Ontario	British Columbia	<u>Tot</u> 1989	al 1/ 1988
1988 р/	20,395	16,446	2,941	59		39,840
1989:						
1st Quarter	2,679	2,448	870	11	6,008	7,052
2nd Quarter	•	3,936	929	20	11,230	10,550
3rd Quarter		4,703	779	15	11,355	10,777
October	1,558	1,558	273	7	3,396	3,852

 $[\]overline{2}$ / Data may not add to totals shown because of independent rounding.

 $[\]underline{p}/$ Preliminary. $\underline{1}/$ Data may not add to totals shown because of independent rounding.

[&]quot;ource: Energy, Mines, and Resources Canada.

Table 4. - U.S. consumption and stocks of iron ore and agglomerates at consuming plants and production of pig iron (Thousand metric tons)

Chaha am Danian		(Consumpti	.on	S	tocks
State or Region		September 1989	<u>Year</u> 1989	to date 1/ 1988	Sept 1989	ember 30 1988
Alabama, Kentucky, Tenness	ee.					
Texas, and Missouri		490	4,291	3,080	1,400	1,176
California, Colorado, and Delaware, Maryland, and		183	1,642	NA	87	NA
West Virginia		458	6,066	6,548	2,255	1,828
Illinois and Indiana		2,317	21,318	21,507	5,564	6,693
Michigan and Minnesota		601	5,427	4,486	1,993	1,989
New York, Ohio, Pennsylvan			- ,	,	_,	_,
New Jersey, and Rhode Is		1,715	17,257	17,112	3,482	3,768
Total <u>2</u> /		5,764	56,001	52,733	14,781	15,455
Stocks at U.S. receiving/t	ransfer o	docks			1,804	<u>r</u> /2,419
Stocks at U.S. receiving/t		docks			1,804	
Stocks at U.S. receiving/t	Const	umption by	y process	Pi	g iron p	roduced
Stocks at U.S. receiving/t	Const	umption by	y process	Pi / Septembe	g iron p	
Consuming Sector	Consu Septembe 1989	umption by Year 1989	y process to date 1 1988	Pi / Septembe 1989	g iron p er <u>Year</u> 1989	roduced to date 1,
Consuming Sector Blast furnaces	Consus September 1989	umption by 1989 49,762	y process to date 1 1988 46,629	Pi / Septembe 1989	g iron p er <u>Year</u> 1989	roduced
Consuming Sector Blast furnaces Steel furnaces	Consu Septembe 1989 5,337	Year 1989 49,762	y process to date 1 1988 46,629 204	Septembe 1989 3,994	g iron p er <u>Year</u> 1989	roduced to date 1,
Consuming Sector Blast furnaces	Consus September 1989	umption by 1989 49,762	y process to date 1 1988 46,629	Pi / Septembe 1989 3,994	g iron p er <u>Year</u> 1989	roduced to date 1,

NA Not available.

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

r/ Revised.

 $[\]underline{1}$ / May include revisions for previous month.

^{2/} Data may not add to totals shown because of independent rounding.
3/ Iron ore and iron ore concentrates consumed in agglomerating plants not located at the mine site.

 $[\]underline{4}/$ Sold to nonreporting companies or used for purposes not listed. $\underline{5}/$ Less than one-half unit.

Table 5. - U.S. exports of iron ore and agglomerates, by country of destination (Thousand metric tons)

Period	Canada	Mexico	Other	Total	1/
				1989	1988
1988	5,277	1	7		5,285
1989: 1st Quarter	346	(<u>2</u> /)	2	348	340
2nd Quarter	1,990	$(\underline{2}/)$	2	1,991	1,613
July	393		(<u>2</u> /)	393	685
August	590	(<u>2</u> /)	1	592	430
September	715	(2/)	(<u>2</u> /)	715	363

 $[\]underline{1}$ / Data may not add to totals shown because of independent rounding.

Source: Bureau of the Census data reported under heading 2601 of the export classification system (Schedule B).

Table 6. - U.S. exports of iron ore and agglomerates, by type (Thousand metric tons)

Period	Pellets	Concentrates	Direct shipping ores	Other	Total <u>1</u> /
1988 1989:	NA	NA	NA	NA	5,285
1st Quarter	1	347	(2/)	(2/)	348
2nd Quarter	1,158	824	<u>r</u> /1	9	1,991
July	341	52		(<u>2</u> /)	393
August	292	151	144	6	592
September	201	514	(<u>2</u> /)		715

NA Not Available.

Source: Bureau of the Census data reported under heading 2601 of the export classification system (Schedule B).

 $[\]frac{1}{2}$ / Less than one-half unit.

r/ Revised.

 $[\]overline{1}$ / Data may not add to totals shown because of independent rounding.

^{2/} Less than one-half unit.

Table 7. - U.S. imports for consumption of iron ore and agglomerates, by country (Exclusive of ore containing 20% or more manganese)

	Septemb	September 1989		Year to date 1989			
Country of origin	Thousand metric tons	Value <u>1</u> / (thousand dollars)	Thousand metric tons	Value <u>1</u> / (thousand dollars)	Value <u>l</u> / (dollars per ton)	1988 (thousand metric tons)	
Australia	59	664	303	3,912	12.92	719	
Brazil	486	8,417	4,167	73,880	17.73	4,012	
Canada	614	20,095	6,156	210,282	34.16	7,083	
Chile			61	1,200	19.74	139	
India	59	1,037	59	1,037	17.58	62	
Liberia			200	2,950	14.77	128	
Mauritania			460	7,820	16.99	329	
Norway			40	693	17.24		
Peru	(<u>2</u> /)	1	104	2,245	21.49	153	
Philippines $3/$			66	1,622	24.49	173	
Sweden						46	
Venezuela	302	8,089	3,361	85,818	25.54	2,564	
Other	(<u>2</u> /)	7	4/2	•	61.47	91	
	1,520	38,310	14,980	391,569	26.14	15,499	

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

Source: Bureau of the Census data reported under heading 2601 of the Harmonized Tariff Schedules of the United States.

^{2/} Less than one-half unit.

 $[\]underline{3}$ / Sinter made from raw materials supplied by Australia, Brazil, and other countries.

^{4/} Part being questioned.

⁵/ Data may not add to totals shown because of independent rounding. Unit values shown above are calculated from unrounded data.

Table 8. - U.S. imports for consumption of iron ore and agglomerates, by type (Exclusive of ore containing 20% or more manganese)

	Septemb	er 1989 	Year ———	89 	Year to date	
Type of product	Thousand metric tons	Value <u>l</u> / (thousand dollars)	Thousand metric tons	Value <u>1</u> / (thousand dollars)	(dollars	1988 (thousand metric tons)
Concentrates	27	540	313	6,643	21.22	NA
Coarse ores			462	10,839	23.48	NA
Fine ores	908	22,507	8,954	225,075	25.14	NA
Pellets	489	13,650	<u>2</u> /4,196	<u>2</u> /128,309	30.58	NA.
Briquettes Other						NA
agglomerates	95	1,606	935	18,657	19.95	NA
Roasted pyrites	(<u>3</u> /)	7	121	2,045	16.97	NA
Total <u>4</u> /	1,520	38,310	14,980	391,569	26.14	15,499

NA Not Available.

Bureau of the Census data reported under heading 2601 of the Harmonized Source: Tariff Schedules of the United States.

 $[\]underline{1}$ / Customs value. Excludes international freight, insurance, and other c.i.f. charges.

^{2/} Part being questioned.3/ Less than one-half unit.

 $[\]underline{4}$ / Data may not add to totals shown because of independent rounding. shown above are calculated from unrounded data.

Table 9. - U.S. imports for consumption of iron ore and agglomerates in September 1989 (Exclusive of ore containing 20% or more manganese) (Thousand metric tons)

			Type of	Product			
Country of origin	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	Total <u>1</u> /
Australia			59				59
Brazil			366	24	95		486
Canada	27		423	164			614
India				59			59
Peru						(2/)	(2/)
Venezuela			59	243			302
Other	(<u>2</u> /)					(<u>2</u> /)	(<u>2</u> /)
Total <u>l</u> /	27		908	489	95	(2/)	1,520

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

Bureau of the Census data reported under heading 2601 of the Harmonized Source: Tariff Schedules of the United States.

Table 10. - U.S. imports for consumption of pellets, by country

	Septemb	er 1989	Ye	Year to date		
Country of origin	Thousand metric tons	Value <u>l</u> / (thousand dollars)	Thousand metric tons	Value <u>1</u> / (thousand dollars)	Value <u>l</u> / (dollars per ton)	1988 (thousand metric tons)
Brazil	24	793	355	10,322	29.10	NA
Canada	164	4,623	2,187	71,399	32.65	NA
India	59	1,037	59	1,037	17.58	NA
Peru			78	1,894	24.18	NA
Venezuela	243	7,197	1,515	43,568	28.75	NA
Other			<u>2</u> /2	<u>2</u> /89	54.01	NA
Total <u>3</u> /	489	13,650	4,196	128,309	30.58	NA

NA Not Available.

Source: Bureau of the Census data reported under item 2601.12.00.30 of the Harmonized Tariff Schedules of the United States.

^{2/} Less than one-half unit.

 $[\]underline{1}$ / Customs value. Excludes international freight, insurance, and other c.i.f. charges.

 $[\]underline{2}/$ Being questioned. $\underline{3}/$ Data may not add to totals shown because of independent rounding. Unit values shown above are calculated from unrounded data.

Table 11. - U.S. imports for consumption of iron ore and agglomerates, by customs district

(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district	September 1989	Year to date		
		1989	1988	
Baltimore	392	4,836	6,089	
Charleston, SC	24	354	315	
Chicago	268	2,209	1,356	
Cleveland	133	1,084	851	
etroit	132	478	422	
louston		(<u>1</u> /)	31	
lobile	62	1,455	992	
Wew Orleans	208	1,452	1,358	
New York	(<u>1</u> /)	<u>2</u> /2	1	
Philadelphia	302	3,037	4,043	
San Juan, PR		(<u>1</u> /)	$(\underline{1}/)$	
Seattle			26	
ther	(<u>1</u> /)	<u>2</u> / 72	16	
Total <u>3</u> /	1,520	14,980	15,499	

 $[\]underline{1}$ / Less than one-half unit.

Source: Bureau of the Census data reported under heading 2601 of the Harmonized Tariff Schedules of the United States.

^{2/} Part being questioned.

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

Table 12. - U.S. imports for consumption of pellets, by customs district (Thousand metric tons)

Customs district	September 1989	Year to date		
dustoms district	September 1909	1989	1988	
Baltimore	60	628	NA	
Charleston, SC	24	270	NA	
Chicago	25	562	NA	
Cleveland	79	343	NA	
Philadelphia	302	2,391	NA	
Other		<u>1</u> /2	NA	
Total <u>2</u> /	489	4,196	NA	

NA Not available.

Source: Bureau of the Census data reported under item 2601.12.00.30 of the Harmonized Tariff Schedules of the United States.

^{1/} Being questioned.
2/ Data may not add to totals shown because of independent rounding.