



# MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
WASHINGTON, D.C. 20241



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Platinum, Quarterly

## PLATINUM-GROUP METALS IN THE FOURTH QUARTER 1987

Stocks, sales, and imports of platinum-group metals (PGM) increased, while exports decreased in the fourth quarter, according to the Bureau of Mines, U.S. Department of the Interior. Refined production changed very little compared with the third quarter. Monthly average dealer prices for platinum and palladium were lower in the fourth quarter.

According to Roskill's Letter From Japan, December 1987 issue, Japan's Association of Used Catalyst Recyclers reported the value of materials extracted from automobile catalysts in 1986 in Japan was \$17 million (¥ 2,220 million), a 200% increase over the previous year. According to the report, the top Japanese producer of recycled precious metals, Nippon Engelhard, toll refined 330 metric tons of used material from the United States in 1986, and plans to treat 350 tons of material in 1987. The Bureau of Mines estimates that well over half of the automobile catalyst scrap produced annually in the United States is exported to Japan and Belgium for processing. Beginning in early 1989, the Royston refinery in the United Kingdom, owned by Johnson Matthey PLC, will begin treating automobile catalyst scrap.

Johnson Matthey PLC reportedly plans to build a new automobile catalyst manufacturing plant in Evere, Belgium, to complement the company's existing facility in Royston, United Kingdom. The plant will have a capacity of 4.5 million exhaust catalysts per year, possibly one of the largest plants in Europe. The new plant will help meet an European Economic Community directive requiring all new car models with engines larger than 2 liters to be fitted with converters after October 1988.

Impala Platinum, the Republic of South Africa's second largest platinum producer, announced plans to establish a new platinum mine near Rustenburg, to be known as Karee Mine. Both the Merensky and UG-2 reefs will be mined, with an annual production of 100,000 troy ounces beginning in 1990, eventually increasing to 300,000 ounces per year, and will replace anticipated declining output from Impala's existing mines.

Table 1. - Platinum-group metals 1/ refined in the United States  
(Troy ounces)

Period	Platinum	Palladium	Iridium	Osmium	Rhodium	Ruthenium	Total
<b>1986:</b>							
Nontoll-refined:							
First quarter--	7,761	9,872	48	---	321	7	18,009
Second quarter--	14,484	28,488	131	---	311	370	43,784
Third quarter--	18,839	50,937	66	---	1,753	895	72,490
Fourth quarter--	12,159	32,318	52	---	486	31	45,046
Total 2/-----	58,117	172,660	297	---	2,999	1,313	235,386
=====							
Toll-refined:							
First quarter--	123,740	88,165	1,646	---	9,986	---	223,537
Second quarter--	129,289	109,645	1,068	150	10,607	4,569	255,328
Third quarter--	93,720	67,935	153	665	4,857	4,215	171,545
Fourth quarter--	146,856	109,012	717	600	12,591	5,862	275,638
Total 2/-----	493,748	376,091	3,584	1,415	38,041	19,646	932,525
=====							
<b>1987:</b>							
Nontoll-refined:							
First quarter--	r/40,360	r/74,341	31	---	414	160	r/115,306
Second quarter--	r/36,635	r/52,252	49	281	2,637	224	r/92,078
Third quarter--	r/38,555	r/48,983	5	125	471	750	r/88,889
Fourth quarter--	40,534	46,978	25	150	1,161	445	89,293
Total-----	156,084	222,554	110	556	4,683	1,579	385,566
=====							
Toll-refined:							
First quarter--	200,049	90,992	5,605	380	10,846	8,070	315,942
Second quarter--	162,616	149,460	393	6	12,842	12,443	337,760
Third quarter--	166,508	138,143	1,154	220	11,859	5,505	323,389
Fourth quarter--	169,821	136,007	1,011	190	9,623	10,912	327,564
Total-----	698,994	514,602	8,163	796	45,170	36,930	1,304,655

r/Revised.

1/Typically, about 99.8% of the platinum and 99% of the palladium are secondary metal; the other metals are entirely secondary.

2/Includes data for companies reporting annually; quarterly figures not adjusted.

Table 2. - Stocks of platinum-group metals held by refiners, importers,  
and dealers in the United States 1/  
(Troy ounces)

Period	Platinum	Palladium	Iridium	Osmium	Rhodium	Ruthenium	Total
1986:							
Mar. 31-----	605,925	408,104	17,260	112	44,587	26,773	1,102,761
June 30-----	651,825	375,005	17,332	265	40,092	22,860	1,107,379
Sept. 30-----	647,538	404,044	19,412	350	42,731	74,724	1,188,799
Dec. 31-----	911,640	596,962	22,118	438	66,549	75,987	1,673,694
Yearend 2/----	948,468	638,746	22,147	438	68,294	76,360	1,754,453
=====							
1987:							
Mar. 31-----	1,181,803	841,211	25,110	234	94,872	82,682	2,225,912
June 30-----	1,389,715	1,030,991	24,896	242	116,734	r/103,705	r/2,666,283
Sept. 30-----	1,682,419	1,253,937	27,753	113	156,518	126,756	3,247,496
Dec. 31-----	1,944,124	1,421,634	29,495	49	189,402	155,527	3,740,231

r/Revised.

1/Includes metals in depositories of the New York Mercantile Exchange; on Dec. 28, 1987 this comprised 291,000 ounces of platinum and 61,800 ounces of palladium.

2/Includes data from companies reporting annually; quarterly figures not adjusted.

Table 3. - Platinum-group metals sold to consuming industries in the United States  
(Troy ounces)

Period and industry	Platinum	Palladium	Iridium	Osmium	Rhodium	Ruthenium	Total
1986:							
Automotive 1/---	625,000	165,000	193	---	67,000	1,000	858,193
Chemical-----	77,696	44,485	929	17	5,083	24,910	153,120
Dental and							
medical-----	22,619	401,760	372	672	611	98	426,132
Electrical-----	103,506	316,390	1,630	---	6,813	61,489	489,828
Glass-----	15,973	---	93	---	2,952	20	19,038
Jewelry and							
decorative---	11,908	6,521	1,089	---	3,194	737	23,449
Petroleum-----	30,566	60,959	---	---	---	---	91,525
Miscellaneous---	96,143	61,182	8,132	---	7,775	15,202	188,434
Total-----	983,411	1,056,297	12,438	689	93,428	103,456	2,249,719
=====							
1987:							
First quarter:							
Automotive 1/---	125,000	62,700	41	---	15,579	260	203,580
Chemical-----	14,354	r/7,673	68	---	686	901	r/23,682
Dental and							
medical-----	4,430	88,163	57	310	53	21	93,034
Electrical-----	14,728	69,871	245	---	426	5,631	90,901
Glass-----	1,968	---	14	---	315	6	2,303
Jewelry and							
decorative---	1,060	754	180	---	153	90	2,237
Petroleum-----	3,046	8,879	---	---	---	---	11,925
Miscellaneous---	6,925	18,090	375	---	798	576	26,764
Total-----	171,511	r/256,130	980	310	18,010	7,485	r/454,426
=====							
Second quarter:							
Automotive 1/---	118,750	59,565	35	---	14,800	260	193,410
Chemical-----	16,685	8,672	206	---	1,028	538	27,129
Dental and							
medical-----	4,829	96,003	36	359	108	21	101,356
Electrical-----	17,718	73,116	226	---	721	7,139	98,920
Glass-----	2,748	---	8	---	594	7	3,357
Jewelry and							
decorative---	r/1,746	r/794	108	---	159	38	r/2,845
Petroleum-----	3,904	10,036	---	---	---	---	13,940
Miscellaneous---	14,990	32,372	229	---	1,660	33	49,284
Total-----	r/181,370	r/280,558	848	359	19,070	8,036	r/490,241

Table 3. - Platinum-group metals sold to consuming industries in the United States (continued)  
(Troy ounces)

Period and industry	Platinum	Palladium	Iridium	Osmium	Rhodium	Ruthenium	Total
1987:							
Third quarter:							
Automotive 1/--	91,000	46,000	45	---	11,000	260	148,305
Chemical-----	14,754	8,099	318	---	955	371	24,497
Dental and							
medical-----	4,400	88,313	74	76	102	22	92,987
Electrical-----	15,757	82,221	212	---	704	5,748	104,642
Glass-----	2,052	---	18	---	555	6	2,631
Jewelry and							
decorative---	r/1,045	r/961	190	---	164	124	r/2,484
Petroleum-----	8,676	11,972	---	---	---	---	20,648
Miscellaneous--	10,805	24,490	463	---	1,591	13	37,362
Total-----	r/148,489	r/262,056	1,320	76	15,071	6,544	r/433,556
Fourth quarter:							
Automotive 1/--	112,000	56,000	42	---	14,000	260	182,302
Chemical-----	15,926	10,238	292	---	777	432	27,665
Dental and							
medical-----	4,317	88,304	67	174	51	23	92,936
Electrical-----	16,175	82,246	202	---	492	6,301	105,416
Glass-----	2,389	---	15	---	308	5	2,717
Jewelry and							
decorative---	1,156	858	172	---	211	39	2,436
Petroleum-----	8,147	10,457	---	---	---	---	18,604
Miscellaneous--	11,576	21,194	436	---	773	5	33,984
Total-----	171,686	269,297	1,226	174	16,612	7,065	466,060
Year-to-date-----	673,056	1,068,041	4,374	919	68,763	29,130	1,844,283

r/Revised.

1/Platinum, palladium, and rhodium sales to the automotive industry are estimated based on U.S. light truck sales and U.S. automobile production.

Table 4. - U.S. imports for consumption of platinum-group metals  
(Troy ounces and thousand dollars)

Period and country	Unwrought										PGM from precious metal ores
	Platinum grains and nuggets	Platinum sponge	Palla- dium	Iri- dium	Os- mium	Osmiri- dium	Rho- dium	Ruthe- nium	Unspecified combinations		
1986:											
First quarter-----	2,407	480,334	340,361	12,199	709	---	43,511	48,813	8,591	417	
Second quarter-----	3,613	426,322	326,195	6,621	407	---	37,982	58,847	768	71	
Third quarter-----	1,377	382,420	397,482	6,387	927	---	43,177	56,893	8,609	180	
Fourth quarter-----	3,068	424,895	323,093	5,161	3,733	4,500	54,398	12,027	1,896	1,202	
Total-----	10,465	1,713,971	1,387,131	30,368	5,776	4,500	179,068	176,580	19,864	1,870	
1987:											
First quarter-----	11	328,761	391,072	2,728	394	5,800	54,665	17,264	1,645	139	
Second quarter-----	419	213,759	347,020	1,439	1,043	---	38,512	26,249	3,007	818	
Third quarter-----	62	266,949	368,861	5,033	370	---	60,375	16,947	644	120	
Fourth quarter:											
Australia-----	203	---	2,804	---	---	---	---	---	---	---	
Belgium-Luxembourg-----	---	2,401	24,814	---	---	---	528	---	---	---	
Canada-----	14	40	14,000	---	---	---	---	---	---	712	
Germany, Federal Republic of-----	---	2,785	18,122	---	---	---	2	130	---	---	
Hong Kong-----	---	---	7,533	---	---	---	---	---	---	---	
Italy-----	---	10,161	5,460	---	---	---	71	---	---	---	
Japan-----	---	696	2,124	---	---	---	---	---	---	---	
Mexico-----	---	---	10	---	---	---	---	---	---	---	
Netherlands-----	---	600	40,459	---	---	---	3,536	---	2,101	---	
Norway-----	---	---	---	---	---	---	---	---	---	---	
South Africa, Republic of-----	---	264,584	168,947	1,991	200	---	28,884	18,424	275	---	
Sweden-----	---	---	---	---	---	---	---	---	---	---	
Taiwan-----	---	---	8,124	---	---	---	---	---	---	---	
U.S.S.R-----	---	5,314	64,074	317	---	---	17,308	---	---	---	
United Kingdom-----	---	27,646	65,415	200	41	---	7,330	5,385	311	---	
Other-----	112	322	322	106	---	---	255	---	---	---	
Total-----	329	314,549	422,208	2,614	241	---	57,914	23,939	2,687	712	

See footnotes at the end of table.

Table 4. - U.S. imports for consumption of platinum-group metals (continued)  
(Troy ounces and thousand dollars)

Period and country	Unwrought Sweepings, waste and scrap	Semimanufactured					PGM in materials not elsewhere specified	Total	
		Plati- num	Palla- dium	Iri- dium	Rho- dium	Unspecified combinations		Quantity	Value
1986:									
First quarter	219,398	14,208	22,251	---	---	---	138	1,193,337	\$318,762
Second quarter	137,094	28,521	23,165	---	---	---	375	1,049,981	292,955
Third quarter	145,678	21,733	39,715	4	1	2	---	1,104,585	344,271
Fourth quarter	234,779	30,193	29,465	---	---	---	---	1,128,410	390,253
Total	736,949	94,655	114,596	4	1	2	513	4,476,313	1/1,346,238
1987:									
First quarter	173,381	7,194	33,917	---	---	3,875	20	1,020,866	336,397
Second quarter	99,024	13,522	31,011	36	669	---	208	776,736	252,309
Third quarter	181,954	13,739	27,358	---	160	3	---	942,575	330,535
Fourth quarter:									
Australia	---	---	---	---	---	---	---	3,007	485
Belgium-Luxembourg	874	---	---	---	---	---	---	28,617	5,140
Canada	89,556	696	---	---	---	---	29	105,047	8,806
Germany, Federal Republic of	10,055	---	---	---	---	---	---	31,094	8,281
Hong Kong	11,674	---	---	---	---	---	---	19,207	2,798
Italy	---	---	---	---	---	---	---	15,692	5,696
Japan	---	---	---	---	---	---	---	2,820	770
Mexico	44,066	---	---	---	---	---	---	44,076	338
Netherlands	---	---	52	---	---	---	---	46,748	9,603
Norway	2,596	---	---	---	---	---	---	2,596	68
South Africa, Republic of	---	---	---	---	---	---	---	483,305	196,684
Sweden	3,397	---	---	---	---	---	---	3,397	2,418
Taiwan	3,307	---	1,000	---	---	---	---	12,431	1,331
U.S.S.R.	---	974	28,646	---	---	---	---	116,633	34,022
United Kingdom	4,209	7,879	29,515	29	---	---	---	147,960	42,334
Other	823	1,800	---	---	---	---	---	3,740	2,069
Total	170,557	11,349	59,213	29	---	---	29	1,066,370	320,843

1/Data do not add to total shown because of independent rounding.

Source: Bureau of the Census.

Table 5. - U.S. imports for consumption of platinum-group metals in January-December 1987  
(Troy ounces and thousand dollars)

Period and country	Unwrought										PGM from precious metal ores
	Platinum grains and nuggets	Platinum sponge	Palla- dium	Iri- dium	Os- mium	Osmiri- dium	Rho- dium	Ruthe- nium	Unspecified combinations		
1987:											
Argentina-----	87	---	---	---	---	---	---	---	---	---	
Australia-----	203	195	5,786	---	---	---	---	---	34	---	
Belgium-Luxembourg-----	12	30,894	120,947	---	---	---	1,254	---	---	---	
Botswana-----	---	---	2,000	---	---	---	---	3,000	---	---	
Canada-----	396	4,075	48,099	---	---	---	76	2,000	50	1,165	
China-----	81	1,043	977	---	---	---	255	---	280	---	
Colombia-----	28	---	---	---	---	---	---	---	---	---	
Denmark-----	---	---	2,344	---	---	---	---	---	---	---	
Finland-----	---	---	2,253	---	---	---	---	---	664	---	
France-----	---	2,160	14	106	---	---	---	---	300	---	
Germany, Federal Republic of-----	---	9,173	44,114	2,309	449	---	273	1,140	---	---	
Hong Kong-----	---	611	24,436	224	---	---	690	---	---	---	
Italy-----	---	22,544	20,448	---	---	---	462	---	---	---	
Japan-----	---	696	9,635	---	---	---	---	138	---	---	
Mexico-----	---	---	10	---	---	---	---	---	---	139	
Netherlands-----	---	1,883	126,985	---	---	5,800	25,487	---	2,101	---	
Norway-----	---	500	---	---	---	---	---	---	---	---	
Salvador-----	---	---	---	---	---	---	---	---	---	---	
South Africa, Republic of-----	---	882,433	696,182	8,339	1,530	---	108,856	55,611	1,475	---	
Sweden-----	---	---	---	---	---	---	---	---	---	---	
Taiwan-----	---	---	15,103	---	---	---	---	---	---	---	
U.S.S.R-----	---	13,957	224,427	317	---	---	42,529	822	---	---	
United Kingdom-----	11	145,201	185,401	519	69	---	30,769	21,688	432	---	
Venezuela-----	3	---	---	---	---	---	---	---	2,647	---	
Other-----	---	8,653	---	---	---	---	815	---	---	485	
Total-----	821	1,124,018	1,529,161	11,814	2,048	5,800	211,466	84,399	7,983	1,789	



Table 5. - U.S. imports for consumption of platinum-group metals in January-December 1987  
(Continued)  
(Troy ounces and thousand dollars)

Period and country	Unwrought Sweepings, waste and scrap	Semimanufactured					PGM in materials not elsewhere specified	Quantity	Value
		Plati- num	Palla- dium	Iri- dium	Rho- dium	Unspecified combinations			
1987:									
Argentina-----	3,468	---	---	---	---	---	---	3,555	\$2,001
Australia-----	109,225	---	---	---	---	---	---	115,443	2,734
Belgium-Luxembourg-----	2,027	---	---	---	---	---	---	155,134	35,330
Botswana-----	---	---	---	---	---	---	---	5,000	498
Canada-----	130,111	1,857	11	---	---	---	49	187,889	35,568
China-----	310	---	---	---	---	---	---	2,946	1,715
Colombia-----	---	1,960	---	---	---	---	208	2,196	1,083
Denmark-----	---	---	---	---	---	---	---	2,344	399
Finland-----	88	---	---	---	---	---	---	6,880	1,536
France-----	---	---	---	---	---	3,875	---	2,580	1,613
Germany, Federal Republic of-----	12,404	---	1,992	---	---	---	---	71,854	17,770
Hong Kong-----	182,755	289	659	---	---	---	---	209,664	13,357
Italy-----	---	---	---	---	---	---	---	43,454	14,976
Japan-----	69	490	1	---	---	---	---	11,029	2,368
Mexico-----	57,440	---	---	---	---	---	---	57,589	1,414
Netherlands-----	---	---	52	---	---	---	---	162,308	49,756
Norway-----	22,789	---	---	---	---	---	---	23,289	445
Salvador-----	2,129	---	---	---	---	---	---	2,129	320
South Africa, Republic of-----	---	---	5,000	---	---	---	---	1,759,426	727,085
Sweden-----	15,703	---	---	---	---	---	---	15,703	10,181
Taiwan-----	20,436	---	2,244	---	---	---	---	37,783	4,743
U.S.S.R-----	---	7,978	90,620	---	160	---	---	380,810	101,456
United Kingdom-----	62,342	32,583	50,680	65	669	---	---	530,429	205,064
Venezuela-----	77	---	---	---	---	---	---	2,727	905
Other-----	3,543	647	240	---	---	3	---	14,386	7,763
Total-----	624,916	45,804	151,499	65	829	3,878	257	3,806,547	1,240,080

Source: Bureau of the Census.

Table 6. - U. S. exports of platinum-group metals  
(Troy ounces and thousand dollars)

Period	Ores and concentrates	Waste, scrap, and sweepings	Metal not rolled			Metal rolled		Total		
			Platinum	Palladium	Other platinum-group	Platinum	Other platinum-group	Quantity	Value	
1986:										
First quarter	1,419	147,247	21,767	32,988	19,135	600	5,091	228,247	\$60,348	
Second quarter	4,747	66,989	21,824	56,033	19,656	1,228	4,609	175,086	42,980	
Third quarter	21,483	56,932	23,423	45,531	24,923	893	3,190	176,375	48,708	
Fourth quarter	1,726	68,205	26,098	41,053	22,760	8,322	2,803	170,967	49,771	
Total	29,375	339,373	93,112	175,605	86,474	11,043	15,693	750,675	201,807	
1987:										
First quarter	1,111	50,532	12,873	23,535	30,231	4,491	10,642	133,415	41,458	
Second quarter	266	82,861	13,765	46,814	49,223	1,861	3,260	198,050	71,841	
Third quarter	1,343	87,732	16,016	65,818	27,050	427	2,189	200,575	54,381	
Fourth quarter:										
Belgium-Luxembourg	---	4,785	---	919	216	---	---	5,920	2,146	
Canada	1,510	3,953	15,086	3,006	9,682	430	488	34,155	15,201	
China	---	---	1,056	1,152	2,845	---	---	5,053	1,248	
Germany, Federal Republic of	---	1,031	5	2,001	4,176	---	76	7,289	1,760	
Italy	---	12,865	---	---	526	---	200	13,591	2,409	
Japan	---	199	18,130	14,695	5,149	69	---	38,242	14,285	
Netherlands	---	---	23	4,160	104	17	5	4,309	648	
Sweden	---	1,567	---	25	2,047	---	---	3,639	1,264	
Switzerland	1,000	5,220	---	338	2,868	---	---	9,426	2,967	
United Kingdom	---	19,344	5,248	17,778	2,850	370	50	45,640	12,430	
Other	300	1,108	147	3,756	3,142	194	346	8,993	2,927	
Total	2,810	50,072	39,695	47,830	33,605	1,080	1,165	176,257	57,285	

Source: Bureau of the Census.

Table 7. - U.S. exports of platinum-group metals in January-December 1987  
(Troy ounces and thousand dollars)

Period	Ores and concentrates	Waste, scrap, and sweepings	Metal not rolled			Metal rolled		Total	
			Platinum	Palladium	Other platinum-group	Platinum	Other platinum-group	Quantity	Value
1987:									
Australia	---	---	---	2,893	---	---	---	2,893	\$165
Belgium-Luxembourg	---	17,346	---	2,386	5,664	---	---	25,396	10,046
Brazil	---	593	---	474	1,971	---	44	3,082	1,229
Canada	2,092	15,230	25,158	19,144	26,857	2,028	11,028	101,537	38,369
China	724	---	6,813	2,276	7,772	---	---	17,585	5,392
France	---	3,992	---	424	986	205	904	6,511	1,397
Germany, Federal Republic of	---	4,592	41	8,676	10,391	474	2,027	26,201	6,884
Israel	---	---	15	55	1,513	---	---	1,583	387
Italy	---	46,482	374	---	2,259	238	200	49,553	12,137
Japan	170	16,087	42,747	52,716	20,907	4,147	231	137,005	47,755
Korea, Republic of	1,244	---	12	861	109	110	3	2,339	296
Mexico	---	115	166	121	1,863	198	344	2,807	1,379
Netherlands	---	---	23	22,096	497	17	1,084	23,717	3,851
Norway	---	---	---	684	661	---	---	1,345	497
Singapore	---	---	350	3,576	513	---	---	4,439	1,170
South Africa, Republic of	---	---	---	---	3,422	---	---	3,422	1,223
Sweden	---	13,544	---	141	5,245	---	---	18,930	4,383
Switzerland	1,000	9,574	98	6,238	13,616	---	---	30,526	9,388
Taiwan	---	---	183	5,021	82	---	---	5,286	1,155
United Kingdom	---	143,642	6,209	55,295	31,333	370	1,293	238,142	75,803
Other	300	---	160	920	4,448	72	98	5,998	2,063
Total	5,530	271,197	82,349	183,997	140,109	7,859	17,256	708,297	224,969

Source: Bureau of the Census.

# FIRST CLASS

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

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Table 8.- Monthly average producer and dealer prices of platinum-group metals 1/  
(Dollars per troy ounce)

	Platinum		Palladium		Rhodium		Iridium		Ruthenium 2/	Osmium 2/
	Pro- ducer	Dealer	Pro- ducer	Dealer	Pro- ducer	Dealer	Pro- ducer	Dealer	Dealer	Dealer
1986:										
January-----	475	365	120	102	1,150	1,149	600	422	70	874
February-----	475	373	120	101	1,150	1,104	600	425	71	854
March-----	475	413	120	110	1,150	1,140	600	440	75	850
April-----	475	417	120	107	1,150	1,132	600	427	72	687
May-----	475	411	120	108	1,150	1,144	600	407	69	633
June-----	475	432	120	110	1,150	1,156	600	399	70	650
July-----	475	439	120	111	1,150	1,163	600	396	69	650
August-----	505	537	127	128	1,169	1,202	600	406	70	650
September-----	600	595	150	140	1,300	1,317	600	414	70	650
October-----	600	571	150	135	1,364	1,205	600	414	79	650
November-----	600	510	150	122	1,267	1,101	600	408	78	650
December-----	600	474	150	117	1,200	1,075	600	407	77	650
Average-----	519	461	131	116	1,196	1,157	600	414	73	704
1987:										
January-----	600	515	150	123	1,200	1,124	600	397	74	650
February-----	600	515	150	120	1,200	1,180	600	394	71	650
March-----	600	525	150	123	1,200	1,157	600	384	71	650
April-----	600	585	150	136	1,200	1,201	600	375	72	626
May-----	600	605	150	145	1,200	1,245	600	384	72	625
June-----	600	565	150	137	1,220	1,225	600	379	72	625
July-----	600	568	150	140	1,275	1,230	507	345	67	632
August-----	600	608	150	140	1,275	1,273	600	350	68	650
September-----	600	586	150	137	1,275	1,272	420	354	68	650
October-----	600	564	150	129	1,275	1,270	420	332	68	650
November-----	600	494	150	111	1,275	1,246	420	330	67	600
December-----	600	500	150	121	1,275	1,243	420	335	67	590
Average-----	600	553	150	130	1,239	1,222	532	363	70	633

1/Average prices calculated at the low end of the range and rounded to the nearest dollar.

2/Producer prices suspended in 1984.

Source: Metals Week.