

Mineral Industry Surveys

For information, contact:

Patricia J. Loferski, PGM Commodity Specialist U.S. Geological Survey 989 National Center Reston, VA 20192

Telephone: (703) 648-7708, Fax: (703) 648-7757

E-mail: ploferski@usgs.gov

Shonta Osborne (Data) Telephone: (703) 648-7960 Fax: (703) 648-7792 E-mail: sosborne@usgs.gov

Internet: http://minerals.usgs.gov/minerals

PLATINUM-GROUP METALS IN NOVEMBER 2008

According to Platts Metals Week, the average November prices of platinum and rhodium dropped by 8% and 43%, respectively, as compared with the average prices in October. The average November price of palladium increased by 10%, the first such increase in 5 months. The average price of ruthenium decreased by 16% and that of iridium fell by 2% over the same time period. Prices of platinum and palladium were volatile throughout the month, whereas prices of rhodium and ruthenium fell continuously from the beginning to the end of the month. The average rhodium price dropped by more than \$1,000 from October to November. From their high points of last spring, the average monthly prices of platinum, palladium, and rhodium have plummeted by 59%, 57%, and 86%, respectively. An analyst from Johnson Matthey concluded that, although the drop in United States and global auto sales contributed, the main cause of the precipitous price drop of platinum was heavy investor fund sales (Creamer, 2008).

Stillwater Mining Co. (SMC) (Billings, MT) reduced its workforce by around 21%, largely at the East Boulder Mine, as a result of metal price drops. The workforce reduction and concomitant restructuring of operations were expected to result in a 5% to 7% drop in production for 2008, to 15,000 kilograms (kg) of platinum-group metals (PGMs) (Stillwater Mining Co., 2008a). SMC reported third quarter production of 3,700 kg of platinum and palladium, a nearly 7% decrease compared with third quarter 2007 production (Stillwater Mining Co., 2008b). SMC and Pacific North West Capital Corp. (Vancouver, British Columbia, Canada) terminated their exploration agreement on the Goodnews Bay platinum property in Alaska. The drilling program resulted in no significant identification of platinumpalladium lode mineralization (Pacific North West Capital Corp., 2008). North American Palladium Ltd. (Toronto. Ontario, Canada) reported third quarter production of 1,980 kg of palladium, an 8% drop relative to production in the same quarter of 2007 (North American Palladium Ltd., 2008).

Anglo Platinum, Ltd.'s (Johannesburg, South Africa) Polokwane smelter was shut down on November 5 as a result of fire. The shutdown was expected to last 6 weeks, and 2008 platinum production was expected to decrease by 4,670 to 6,220 kg as a result (Anglo Platinum, Ltd., 2008). Aquarius Platinum

Ltd. (South Perth, Australia) lowered its 2008 production forecast by 4.2% to 17,900 kg of PGMs, as a result of the global financial crisis (Johnson Matthey Plc, 2008a). Lonmin plc (London, United Kingdom) suspended open cast operations at its Marikana Mine and announced plans to downsize and restructure the company owing to the global financial crisis (Kruger, 2008). Lonmin reported refined production of 41,400 kg of PGMs for the year ended September 30, a 3% drop relative to production in 2007 (Lonmin plc, 2008, p. 18). Northam Platinum Ltd. (Johannesburg, South Africa) expected its smelter rebuild at the Northam Mine to be completed in December 2008 as planned and within budget. Northam's production of PGMs in concentrate was 3,520 kg for the quarter ending in October, a 14.3% increase relative to that of the same quarter in 2007 (Northam Platinum Ltd.).

MMC Norilsk Nickel (Moscow, Russia) announced third quarter production of 4,760 kg of platinum and 20,600 kg of palladium, drops of 20% and 18%, respectively, compared with production in the second quarter (MMC Norilsk Nickel, 2008). Major platinum deposits were being developed in the Kievei field on Russia's Kola Peninsula, the first such development since the former Soviet Union era. Reserves in the Kievei field were estimated at up to 250,000 kg of platinum (Johnson Matthey Plc, 2008b).

References Cited

Anglo Platinum, Ltd., 2008, Anglo Platinum confirms Polokwane smelter shutdown: Johannesburg, South Africa, Anglo Platinum Ltd. news release, November 5, 1 p.

Creamer, Martin, 2008, Fund, ETF "fire sales" causes of platinum's collapse— Johnson Matthey analyst: Creamer Media's Mining Weekly, November 18, 1 p. (Accessed November 20, 2008, at http://www.miningweekly.com/ print_version.php?a_id=147765.)

Johnson Matthey Plc, 2008a, Aquarius Platinum slashes full-year production target: London, United Kingdom, Johnson Matthey Plc news release, November 4, 1 p.

Johnson Matthey Plc, 2008b, Russian state monopoly on platinum exports ended: London, United Kingdom, Johnson Matthey Plc news release, November 24, 1 p

Kruger, Tessa, 2008, Quick wins in Lonmin's platinum turn-around plans: Mineweb, November 18, 1 p. (Accessed November 19, 2008, at http://www.mineweb.co.za/mineweb/view/mineweb/en/page35?oid=73296&sn=Detail.)

- Lonmin plc, 2008, Final results: London, United Kingdom, Lonmin plc news release, November 18, 30 p.
- MMC Norilsk Nickel, 2008, MMC Norilsk Nickel announces preliminary consolidated production results for 3rd quarter 2008: Moscow, Russia, MMC Norilsk Nickel press release, November 28, 2 p.
- North American Palladium Ltd., 2008, North American Palladium reports third quarter 2008 financial results and strong liquidity position: Toronto, Ontario, Canada, North American Palladium Ltd. press release, November 10, 7 p.
- Northam Platinum Ltd., 2008, Operational update and trading estimate: Johannesburg, South Africa, Northam Platinum Ltd. news release, November 17, 3 p.
- Pacific North West Capital Corp., 2008, Pacific North West Capital and Stillwater Mining complete exploration program—Goodnews Bay platinum project, Alaska: Vancouver, British Columbia, Pacific North West Capital Corp. news release, November 21, 2 p.
- Stillwater Mining Co., 2008a, Stillwater Mining Company completes review of operations—Will restructure operations and reduce workforce: Billings, MT, Stillwater Mining Co. news release, November 17, 3 p.
- Stillwater Mining Co., 2008b, Stillwater Mining reports third quarter results: Billings, MT, Stillwater Mining Co. news release, November 10, 15 p.

TABLE 1 PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Platinum	Palladium	Rhodium	Iridium	Ruthenium
2007:					
Low/date	1,122.00 Jan. 8	322.00 Aug. 22	5,550.00 Jan. ²	400.00 Jan. and Feb. 2	375.00 Jul. ²
High/date	1,547.00 Dec. 27	385.00 Apr. 20	6,850.00 Dec. ²	450.00 Feb.—Dec. ²	870.00 Feb. ²
Average	1,308.40	357.34	6,203.09	444.43	573.74
2008:					
September:					
Low/date	1,010.00/30	204.00/30	4,025.00/30	450.00^2	290.00^2
High/date	1,420.00/4	292.00/4	5,200.00/1	460.00 ²	300.00 ²
Average	1,217.43	248.81	4,459.52	458.10	298.10
October:					
Low/date	760.00/27	170.00^2	$1,600.00^2$	440.00^2	230.00^2
High/date	1,036.00/14	209.00/2	3,775.00/1	450.00 ²	290.00 ²
Average	917.13	193.30	2,456.52	446.96	260.65
November:					
Low/date	820.00 ²	203.00^{2}	$1,000.00^2$	440.00^2	200.00^2
High/date	880.00/10	235.00/6	1,625.00 ²	440.00 ²	230.00 ²
Average	841.22	212.61	1,398.61	440.00	219.44
Year-to-date:					
Low/date	760.00 Oct. 27	170.00 Oct. ²	1,000.00 Nov. ²	440.00 Oct. ² and Nov. ²	200.00 Nov. ²
High/date	2,275.00 Mar. 4	585.00 Mar. 4	10,100.00 June 18	460.00 Aug. ²	440.00 Feb. ² and Mar. ²
Average	1,644.97	371.24	7,016.51	449.72	340.00

Source: Platts Metals Week.

¹Quotes from Engelhard Industries. ²Occurred multiple days in month(s) listed.

 $\label{eq:table 2} \textbf{U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY}^1$

(Kilograms metal content, unless otherwise specified)

		tinum	DI. d			ther	T01 - 1	.1		inum	DI .'	
	grain ai	nd nuggets	Platinu	m sponge	unwroug	ht platinum	Platini	um, other	waste a	nd scrap	Platin	um coins
B 1 1 1	0	Value	0	Value	0	Value	0	Value	0	Value	0	Value
Period and country	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2007	621	\$20,100	65,900	\$2,620,000	3,940	\$145,000	10,200	\$330,000	206,000	\$504,000	58	\$964
2008:	_											
August	_ (2)	14	4,230	237,000	362	16,900	424	15,000	14,300	66,200	713	21,300
September	13	629	3,600	123,000	391	15,600	571	18,000	2,650	44,100	(2)	25
October:	_											
Belgium			101	3,460								
Bolivia									5 3	6		
Brazil			109	4,830			(2)	3				
Canada	(2)	16					31	995	$1,160^{-3}$	993	(2)	43
China							3	138	10	383		
Colombia					111	2,510			10 ³	481		
Czech Republic							3	34	10	125		
France									36	1,750		
Germany			357	12,900	36	1,460	303	6,880	136	7,560		
Greece									5	126		
Hong Kong									305 ³	782		
India	- 		26	1,050								
Indonesia	- 								5	217		
Israel	-				13	335						
Italy	- 		98	2,910			57	1,980				
Japan			95	3,110	4	97	5	118				
Korea, Republic of									29	1,300		
Mexico	- 				4	115	3	182	(2)	3		
Norway	- 		62	2,120								
Panama	- 			,			(2)	5				
Philippines	- 								2	75		
Russia	- 		62	2,360	233	9,110						
Singapore	- 								16	542		
South Africa	- 		2,330	87,000								
Switzerland	- 		2, 000				4	132				
Thailand	- 								118	4,430		
United Kingdom			896	27,300	22	834	34	1,210	1 ³	9	5	134
Venezuela	- 			27,300					119	122		
Total	(2)	16	4,140	147,000	422	14,500	443	11,700	1,970	18,900	5	177
Year to date	- (2) 192	6,300	41,500	2,240,000	3,130	154,000	6,300	263,000	79,700	547,000	733	22,300
Zero.	192	0,500	41,500	4,440,000	3,130	154,000	0,300	203,000	19,100	347,000	133	22,300

⁻⁻ Zero.

Source: U.S. Census Bureau.

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

²Less than ½ unit.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

 ${\it TABLE~3} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~PLATINUM-GROUP~METALS,~BY~COUNTRY}^1$

(Kilograms metal content, unless otherwise specified)

	Unwrought palladium		Palladium, other		Iridium ²		Osmium ²		Ruthenium ²		Rhodium ²	
	-	Value		Value		Value		Value		Value		Value
Period and country	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2007	101,000	\$1,120,000	11,600	\$129,000	3,410	\$41,900	23	\$192	48,700	\$655,000	16,600	\$2,650,000
2008:	-											
August	6,660	96,200	114	1,640	568	7,750			3,760	29,100	1,140	278,000
September	7,610	68,900	462	5,340	80	1,270			3,890	30,700	908	168,000
October:	- ' <u>-</u>											
Belgium			30	228							39	4,850
Canada			399	4,600								
Germany	7	23	25	142	32	489			714	5,200	66	6,750
Italy	98	560	24	309							37 ³	4,750
Japan	110 ³	353	3	49	1	19						
Norway	218	1,490									6	870
Russia	1,170	9,730	219	1,300					1	12	132	18,400
Singapore									12	48		
South Africa	1,700	12,600	16	125	58	735			1,080	9,080	388	43,700
Switzerland			31	374								
United Kingdom	986	8,110	10	166	58	938			584	4,960	53 ³	5,220
Total	4,290	32,800	756	7,290	149	2,180			2,390	19,300	721	84,500
Year to date	77,300	985,000	5,050	74,000	2,220	32,000	11	101	38,500	358,000	10,800	2,370,000

⁻⁻ Zero.

Source: U.S. Census Bureau.

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

²Unwrought and other forms.

³All or part of these data have been referred to the U.S. Census Bureau for verification.

 $\label{eq:table 4} \text{U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY}^{\text{I}}$

(Kilograms of metal content, unless otherwise specified)

	T	. 2		num	5.11	2		n, osmium,	-	2
	Platinum ²		waste and scrap		Palladium ²		and rut	henium ^{2, 3}	Rhodium ²	
D 1 1 1	0 "	Value	0 "	Value	0	Value	0 "	Value	0 "	Value
Period and country	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)	Quantity	(thousands)
2007	28,900	\$763,000	54,400	\$924,000	41,800	\$298,000	8,190	\$145,000	2,210	\$401,000
2008:	_									
August	633	19,700	1,810	59,400	1,760	10,500	1,690	24,300	33	9,080
September	1,050	40,600	2,230	66,300	1,980	13,100	225	2,280	76 ^r	5,060
October:										
Australia	1 4				46	380	1	8		
Austria	7	173			3	41	1	19		
Belgium	62 4	918	18	1,070	2	15			(5)	3
Canada	41	1,120	80 4	2,380	278	2,150			(5)	48
Chile					(5)	4				
China	64	1,780	36	128	10	80				
Colombia	(5) 4	5			5	72				
Costa Rica					4	16	31	135		
Czech Republic					71 4	67				
Denmark	(5) 4	3			9 4	87				
France	16	464			20 4	139	7	30		
Germany		4,060	2,400 4	25,300	261	1,640	(5) 4	3	(5)	6
Hong Kong	2 4				48	526				
India		86			5	24	15	141	2	274
Ireland	31	824			15 4	25	1	3		
Israel					171 4	380				
Italy	_ 1 ⁴	64			99	1,080	2	41	3	438
Japan	379	9,920	493 4	16,100	108	622			22	3,810
Korea, Republic of	9	171			71 4	320				
Mexico	53	1,830			44	181	24 4	705	(5)	34
Norway	8 4	144			5	76				
Singapore	(5) 4				8	70	181	1,600		
Sweden	2 4	112			1	8				
Switzerland		619			13	136				
Taiwan	103	1,130			315 ⁴	880				
United Kingdom	_ 79 ⁴		1,370	27,600	305 ⁴	1,410	1	4		
Other	- 11 ⁴		2	86	44 4	482	1	6	(5)	6
Total	1,040	26,100	4,390	72,600	1,960	10,900	265	2,700	27	4,620
Year to date	11,200	460,000	46,800	1,090,000	23,900	181,000	5,510	72,200	1,890	297,000
Pevised Zero	11,200	400,000	+0,000	1,070,000	23,700	101,000	3,310	72,200	1,070	277,000

^rRevised. -- Zero.

Source: U.S. Census Bureau.

 $^{^{1}\}mathrm{Data}$ are rounded to no more than three significant digits; may not add to totals shown.

²Unwrought and other forms.

³Gross weight.

⁴All or part of these data have been referred to the U.S. Census Bureau for verification.

⁵Less than ½ unit.