

Mineral Industry Surveys

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PLATINUM-GROUP METALS IN JANUARY 2023

Imports for consumption of platinum-group metals (PGMs), including waste and scrap, were 14,000 kilograms (kg) in January 2023, a decrease of 21% compared with imports in December 2022, and a slight increase compared with imports in January 2022 (table 1). The leading import sources for PGMs into the United States in January 2023 were, in descending order of quantity, South Africa, Russia, and Mexico (tables 3, 4).

In January 2023, exports of platinum increased by 98% and by 11% for rhodium compared with those in December 2022; exports of PGM scrap decreased by 46% and palladium decreased by 29%. The leading destinations for PGM exports were, in descending order of quantity, Germany, Canada, and the United Kingdom (tables 1, 5).

The Engelhard average January 2023 prices increased by 4% for platinum and by 3% for iridium compared with the average prices in December 2022. Prices decreased by 6% for ruthenium, by 5% for palladium, and slightly for rhodium. Compared with average prices in January 2022, the January 2023 average price increased by 11% for iridium and by 6% for platinum whereas prices decreased by 27% for rhodium and by 15%, each, for palladium and ruthenium (fig. 1; tables 1, 2).

Industry News

Excir, an electronic-scrap (e-scrap) company based in Canada, received \$2.5 million Canadian (approximately \$1.9 million U.S.) in funding to develop a hydrometallurgical leaching plant designed to remove precious metals, including PGMs, from catalytic converters and e-scrap. The funding was granted by the Prairies Economic Development Canada's Jobs and Growth Fund (Government of Canada, 2023; Heffernan, 2023).

Barplats Mine (Pty) Ltd, a subsidiary of Eastern Platinum Ltd. (Canada), and Impala Platinum Ltd. (South Africa) extended the terms of the Crocodile River Tailings Concentrate processing agreement until December 21, 2023. The original agreement was signed on September 29, 2020, wherein Barplats would deliver PGM tailing concentrate from its Crocodile River PGM Mine in South Africa to Impala for further processing (Eastern Platinum Ltd., 2023).

References Cited

- Eastern Platinum Ltd., 2023, Terms extended for Crocodile River platinum group metals tailings concentrate with Impala Platinum Ltd.: Vancouver, British Columbia, Canada, Eastern Platinum Ltd. press release, January 25. (Accessed March 13, 2023, at <https://www.eastplats.com/investors/news-releases/2023/terms-extended-for-crocodile-river-platinum-group-metals-tailings-concentrate-with-impala-platinum-limited/>.)
- Government of Canada, 2023, Jobs and Growth Fund (JGF) in the Prairie Provinces: Ottawa, Ontario, Canada, Government of Canada website, March 8. (Accessed March 13, 2023, at <https://www.canada.ca/en/prairies-economic-development/services/funding/jobs-growth-fund.html>.)
- Heffernan, Marissa, 2023, Canadian government invests \$1.9M in e-scrap recycler Excir: Portland, OR, Resource Recycling, Inc., January 25. (Accessed March 13, 2023, at <https://resource-recycling.com/e-scrap/2023/01/25/canadian-government-invests-1-9m-in-e-scrap-recycler-excir/>.)

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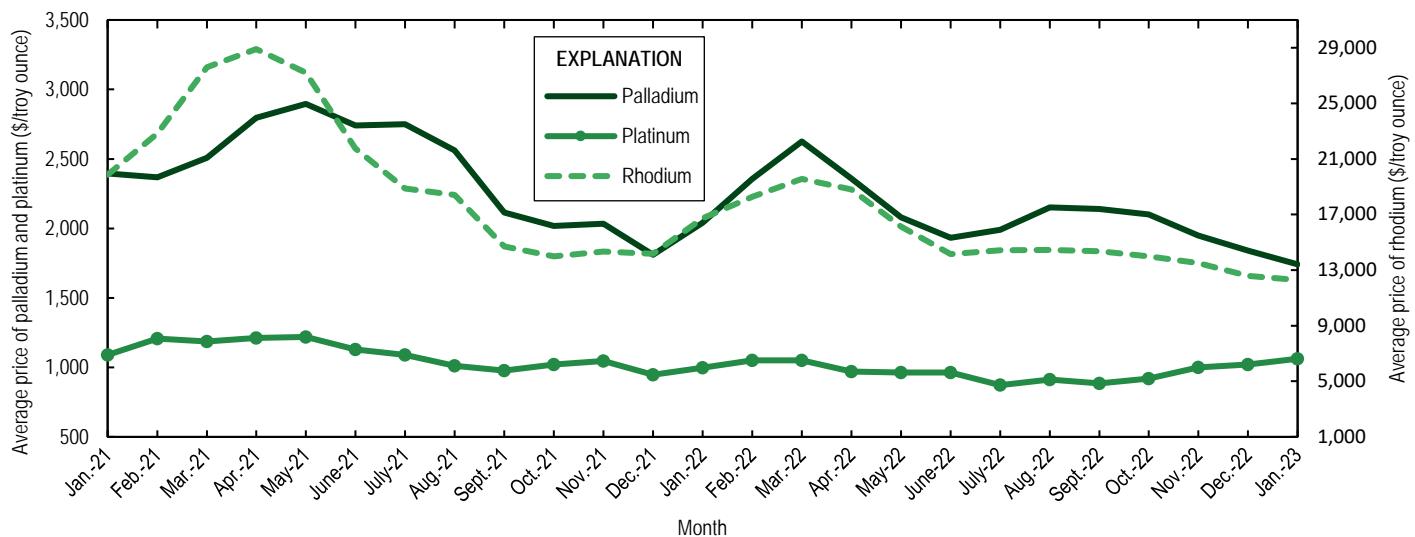


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium in dollars per troy ounce from January 2021 through January 2023.
Source: S&P Global Platts Metals Week.

TABLE 1
U.S. SALIENT PLATINUM-GROUP METALS STATISTICS¹

(Kilograms metal content, unless otherwise specified)

	2022		2023	
	November	December	January–December	January
Mine production:²				
Palladium	841 r	841 r	10,100 r	841
Platinum	249 r	249 r	3,000 r	249
Total	1,090 r	1,090 r	13,100 r	1,090
Imports for consumption:³				
Palladium	6,510	5,790	65,200	5,560
Platinum	5,620	7,170	64,200	4,120
Iridium	132	165	1,610	76
Osmium	--	--	1	--
Rhodium	956	1,120	13,200	889
Ruthenium	453	1,590	13,300	809
Waste and scrap ⁴	4,300	2,010	44,700	2,580
Total	18,000	17,800	202,000	14,000
Exports:³				
Palladium	3,320	1,880	42,200	1,330
Platinum	910	548	23,200	1,080
Iridium, osmium, ruthenium	18	28	905	22
Rhodium	54	52	677	58
Waste and scrap ⁴	3,360	2,100	35,000	1,140
Total	7,670	4,610	102,000	3,630
Price, average (dollars per troy ounce):⁵				
Palladium	1,948.30	1,839.65	2,133.81	1,741.50
Platinum	1,000.50	1,021.10	966.54	1,061.20
Iridium	3,812.50	4,478.95	4,581.93	4,615.00
Rhodium	13,507.50	12,582.50	15,585.00	12,290.00
Ruthenium	525.00	512.50	577.02	484.00

¹Revised. -- Zero.

²Data are rounded to no more than three significant digits; may not add to totals shown.

²Annual data are based on publicly available annual reports. Monthly and year-to-date data are estimated based on publicly reported quarterly data.

³Source: U.S. Census Bureau.

⁴Reported in platinum content, but waste and scrap includes other platinum-group metals. No data are available on the content of the other platinum-group metals. Previously included with platinum total.

⁵Source: S&P Global Platts Metals Week.

TABLE 2
PLATINUM-GROUP METALS PRICES¹

(Dollars per troy ounce)

	Palladium	Platinum	Iridium	Rhodium	Ruthenium
2022:					
Low:					
Price	1,690.00	834.00	3,750.00	12,250.00	475.00
Date	Dec. 20	Jul. 14	Nov. ² –Dec. ²	Dec. ²	Dec. 21
High:					
Price	3,050.00	1,155.00	5,000.00	20,250.00	625.00
Date	Mar. 8	Mar. 8	Mar.–Jul. ²	Feb. ²	Mar.–Jul. ²
Price, average	2,133.81	966.54	4,581.93	15,585.00	577.02
2023, January					
Low:					
Price	1,630.00	1,012.00	4,600.00	12,000.00	465.00
Date	Jan. 31	Jan. 31	Jan. ²	Jan. 30 and 31	Jan. 31
High:					
Price	1,820.00	1,108.00	4,700.00	12,400.00	485.00
Date	Jan. 10	Jan. 11	Jan. 3–5	Jan. ²	Jan. ²
Price, average	1,741.50	1,061.20	4,615.00	12,290.00	484.00

¹Quotes from Engelhard.

²Occurred multiple days in month(s) listed.

Source: S&P Global Platts Metals Week.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM METAL, BY COUNTRY OR LOCALITY¹
(Kilograms metal content, unless otherwise specified)

Country or locality	Platinum grain and nuggets		Platinum sponge		Other unwrought platinum		Platinum, other		Platinum coins	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2022:										
November	90	\$2,800	5,030	\$164,000	102	\$4,910	335	\$15,400	57	\$1,960
December	23	773	4,760	150,000	73	2,610	2,310	87,300	13	450
January–December	1,300	41,600	47,900	1,500,000	2,350	146,000	12,100	529,000	642	21,000
2023, January:										
Australia	--	--	--	--	--	--	1	21	(2)	4
Austria	--	--	--	--	--	--	2	58	--	--
Belgium	--	--	295	9,770	--	--	--	--	--	--
Canada	15	519	--	--	--	--	43	1,500	109	3,830
Costa Rica	--	--	--	--	--	--	99	5,010	--	--
Czechia	--	--	--	--	--	--	5	146	--	--
France	--	--	19	548	--	--	8	214	--	--
Germany	--	--	137	5,190	131	4,640	237	12,600	(2)	9
Hong Kong	--	--	--	--	--	--	1	18	--	--
India	--	--	--	--	--	--	53	2,030	--	--
Ireland	--	--	--	--	(2)	10	(2)	5	--	--
Italy	--	--	275	9,420	8	273	--	--	--	--
Japan	--	--	82	2,830	15	698	8	285	--	--
Korea, Republic of	--	--	220	7,460	--	--	--	--	--	--
Netherlands	--	--	--	--	--	--	--	--	(2)	8
Portugal	--	--	--	--	--	--	2	17	--	--
Russia	--	--	232	7,600	--	--	--	--	--	--
Singapore	--	--	--	--	(2)	8	6	280	--	--
South Africa	--	--	1,780	56,500	--	--	--	--	--	--
Switzerland	--	--	97	4,430	2	107	38	1,280	--	--
Taiwan	--	--	--	--	--	--	7	251	--	--
United Kingdom	64	2,010	60	2,050	19	654	53	1,880	1	26
Venezuela	--	--	--	--	(2)	5	--	--	--	--
Total	78	2,530	3,190	106,000	177	6,390	562	25,600	110	3,870

-- Zero.

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

²Less than ½ unit.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY¹
(Kilograms metal content, unless otherwise specified)

Country or locality	Palladium ²		Iridium ²		Osmium ²		Rhodium ²		Ruthenium ²		Waste and scrap ³	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2022:												
November	6,510	\$372,000	132	\$14,300	--	--	956	\$471,000	453	\$6,190	4,300	\$134,000
December	5,790	347,000	165	17,900	--	--	1,120	525,000	1,590	23,600	2,010	85,800
January–December	65,200	4,370,000	1,610	195,000	1	3	13,200	6,780,000	13,300	226,000	44,700	1,360,000
2023, January:⁴												
Belgium	266	15,100	--	--	--	--	103	41,300	--	--	--	--
Bolivia	--	--	--	--	--	--	--	--	--	--	19	634
Brazil	--	--	--	--	--	--	--	--	--	--	36	2,560
Canada	330	18,600	--	--	--	--	--	--	--	--	160	12,000
Colombia	--	--	--	--	--	--	--	--	--	--	18	504
France	--	--	--	--	--	--	--	--	--	--	27	330
Germany	7	355	1	49	--	--	304	134,000	442	6,900	(5)	11
Hungary	--	--	--	--	--	--	--	--	--	--	32	1,010
Italy	44	2,250	2	235	--	--	46	18,400	--	--	127	4,130
Japan	455	22,200	--	--	--	--	12	4,760	--	--	--	--
Korea, Republic of	313	17,600	--	--	--	--	25	10,300	--	--	(5)	11
Malaysia	--	--	--	--	--	--	--	--	--	--	29	862
Mexico	--	--	--	--	--	--	--	--	--	--	1,380	13,600
Poland	--	--	--	--	--	--	--	--	--	--	18	139
Russia	2,460	140,000	--	--	--	--	50	19,700	5	71	--	--
Singapore	--	--	--	--	--	--	--	--	--	--	165	3,750
South Africa	1,620	94,300	53	6,750	--	--	346	138,000	362	4,960	25	2,930
Spain	--	--	--	--	--	--	--	--	--	--	61	1,990
Taiwan	--	--	--	--	--	--	--	--	--	--	94	5,150
United Kingdom	50	2,660	20	3,090	--	--	3	1,630	(5)	3	313	10,500
Other	22	958	--	--	--	--	(5)	3	--	--	76	2,990
Total	5,560	314,000	76	10,100	--	--	889	369,000	809	11,900	2,580	63,100

-- Zero.

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

²Unwrought and other forms.

³Includes waste and scrap for all platinum-group elements.

⁴The 20 countries and (or) localities with the greatest total platinum-group metal imports are listed. All others are included in the "Other" category.

⁵Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF PLATINUM-GROUP METALS, BY COUNTRY OR LOCALITY¹
(Kilograms metal content, unless otherwise specified)

Country or locality	Palladium ²		Platinum ²		Iridium, osmium and ruthenium ^{2,3}		Rhodium ²		Waste and scrap ⁴	
	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)	Quantity	Value (thousands)
2022:										
November	3,320	\$212,000	910	\$46,500	18	\$2,240	54	\$26,400	3,360	\$167,000
December	1,880	116,000	548	26,400	28	4,000	52	23,800	2,100	157,000
January–December	42,200	2,770,000	23,200	885,000	905	36,500	677	355,000	35,000	2,990,000
2023, January: ⁵										
Australia	2	133	10	339	6	562	--	--	--	--
Belgium	38	2,130	18	610	--	--	5	1,890	80	2,470
Brazil	43	2,400	3	901	--	--	--	--	--	--
Canada	563	32,500	45	1,710	--	--	(6)	29	115	3,910
China	6	402	28	943	(6)	9	--	--	--	--
Costa Rica	1	71	69	2,520	2	199	--	--	--	--
France	5	334	4	182	--	--	--	--	--	--
Germany	152	8,580	438	21,700	(6)	3	21	8,130	628	89,400
Hong Kong	11	621	5	251	--	--	31	12,300	--	--
Ireland	4	222	29	1,080	--	--	--	--	--	--
Israel	11	719	2	60	--	--	--	--	--	--
Italy	22	1,260	18	6,070	(6)	29	--	--	150	5,100
Japan	17	1,270	40	9,930	8	1,350	(6)	75	78	2,830
Korea, Republic of	152	8,960	4	401	--	--	--	--	--	--
Mexico	14	929	42	1,800	(6)	34	--	--	--	--
Singapore	(6)	28	17	1,640	--	--	--	--	--	--
Switzerland	257	14,200	(6)	9	--	--	--	--	--	--
Taiwan	6	369	(6)	19	1	167	--	--	--	--
United Arab Emirates	--	--	--	--	--	--	--	--	28	950
United Kingdom	13	739	308	11,900	2	174	1	384	61	3,250
Other	12	762	3	326	3	305	(6)	34	(6)	6
Total	1,330	76,700	1,080	62,400	22	2,840	58	22,800	1,140	108,000

-- Zero.

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

²Unwrought and other forms.

³Gross weight.

⁴Reported in platinum content, but waste and scrap includes other platinum-group metals. No data are available on the content of the other platinum-group metals. Previously included with platinum total.

⁵The 20 countries and (or) localities with the greatest total platinum-group metal exports are listed. All others are included in the "Other" category.

⁶Less than ½ unit.

Source: U.S. Census Bureau.