

Mineral Industry Surveys

For information, contact:

Ruth F. Schulte, PGM Commodity Specialist
National Minerals Information Center
Telephone: (703) 648-4963
Email: rschulte@usgs.gov

Christine Pisut (Data)
Telephone: (703) 648-7942
Email: cpisut@usgs.gov

Internet: <https://www.usgs.gov/centers/national-minerals-information-center/mineral-industry-surveys>

PLATINUM-GROUP METALS IN JANUARY 2024

Imports for consumption of platinum-group metals (PGMs), including waste and scrap, were 15,500 kg in January 2024, an increase of 9% compared with imports in December 2023, and an increase of 10% compared with imports in January 2023 (table 1). The leading import sources for PGMs into the United States, including waste and scrap, in January 2024 were, in descending order of quantity, South Africa, Germany, and Mexico (tables 3, 4).

In January 2024, exports of palladium more than doubled and exports of rhodium increased by 32% compared with those in December 2023. Exports of PGM scrap decreased by 55% and platinum by 10% compared with those in the previous month. The leading destinations for PGM exports were, in descending order of quantity, Germany, Switzerland, and Italy (tables 1, 5).

The Engelhard average January 2024 price of rhodium was essentially unchanged compared with the average price in December 2023, and the price of iridium was unchanged. The average prices of palladium decreased by 8%, by 3% for ruthenium, and slightly for platinum compared with those in December 2023. Compared with average prices in January 2023, the January 2024 average prices for iridium increased by 8%, but decreased by 63% for rhodium, by 43% for palladium, by 12% for platinum, and by 7% for ruthenium (fig. 1; tables 1, 2).

Industry News

BASF Environmental Catalyst and Metals Solutions [a global division of BASF SE (Germany)] and Heraeus Precious Metals (Germany) began recovering precious metals, including PGMs, at its 50:50 joint venture (JV) recycling facility in Pinghu, China. The JV facility, BASF HERAEUS Metal Resource Co., Ltd., has the capacity to recycle 10,000 metric tons of auto catalysts per year (BASF SE, 2024).

In January, PJSC MMC Norilsk Nickel (Nornickel) (Russia) announced its preliminary production results for 2023 and production outlook for 2024. Palladium production in 2023 decreased by 4% to approximately 83,700 kg compared with production in 2022 and platinum production increased slightly to approximately 20,700 kg during the same period. Nornickel attributed its production results to decreases in mined ore

volumes and changes in the PGM ratio of the processed material. Production guidance from its Russian feedstock, excluding its Trans-Baikal Division, was 71,400–76,300 kg for palladium and 17,600–18,800 kg for platinum (PJSC MMC Norilsk Nickel, 2024, p. 1–2).

References Cited

- BASF SE, 2024, Advancing circular economy—BASF and Hereaus's new JV supports China's supply security and sustainability goals: Pinghu, China, BASF SE press release, January 17. (Accessed March 12, 2024, at https://www.basf.com/cn/en/media/news-releases/cn/2024/01/Circular_Economy_BASF_Heraeus_New_JV.html.)
- PJSC MMC Norilsk Nickel, 2024, Nornickel announces consolidated production results for 2023: Moscow, Russia, PJSC MMC Norilsk Nickel press release, January 29, 3 p. (Accessed March 12, 2024, at https://nornickel.com/upload/iblock/f5e/i2o2rf9s0nffsliymk52v4vnt048fjox/nornickel_production_results_fy2023_eng_full.pdf.)

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to <https://www.usgs.gov/centers/national-minerals-information-center/minerals-information-publication-list-services>.

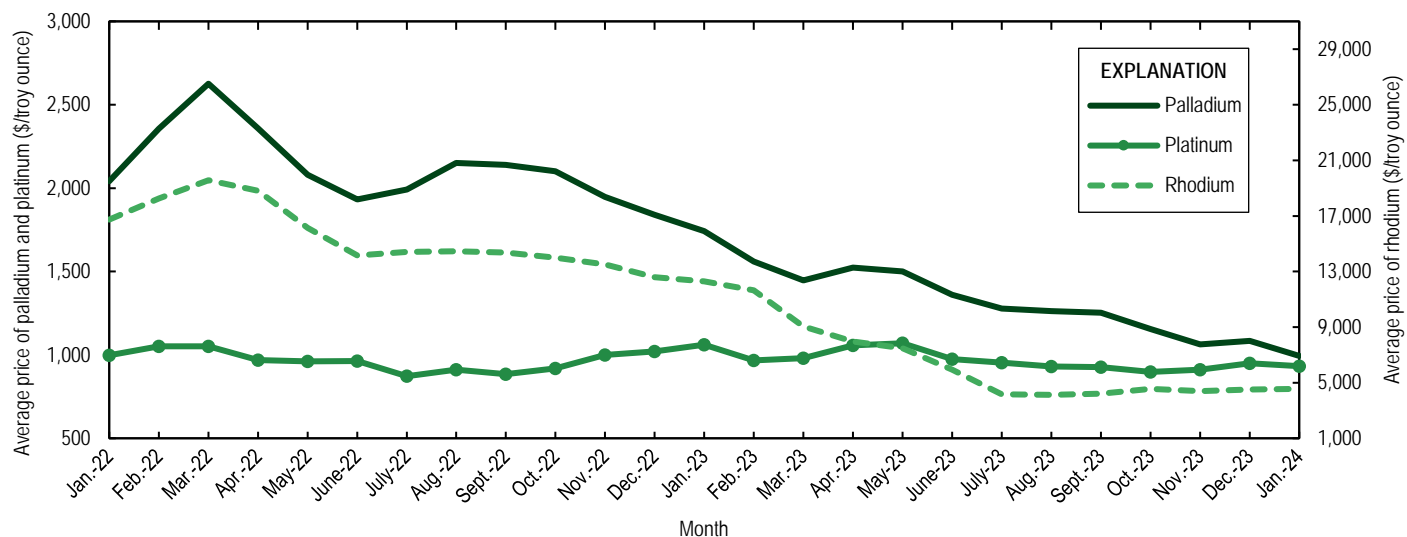


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium in dollars per troy ounce from January 2022 through January 2024.
Source: S&P Global Platts Metals Week.

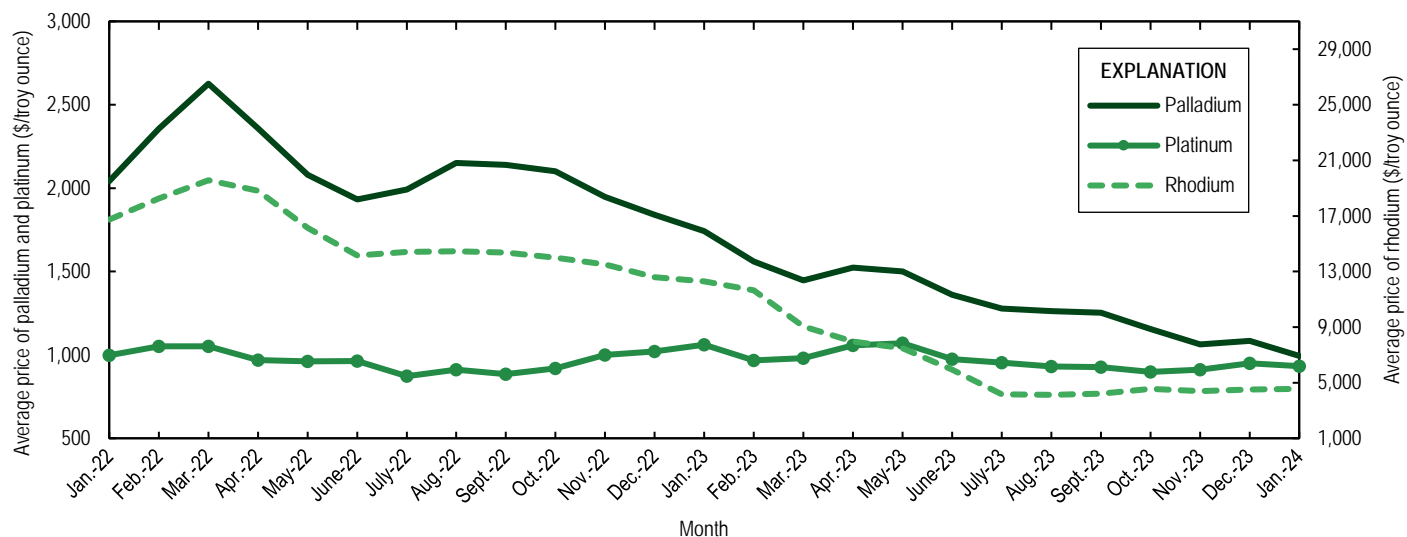


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium in dollars per troy ounce from January 2022 through January 2024.
Source: S&P Global Platts Metals Week.

TABLE 1. U.S. salient platinum-group metals statistics.

[Data are rounded to no more than three significant digits, except prices; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified. Revised data are marked with a superscript "r."]

Platinum-group metals statistics	2023			2024
	November	December	January–December	January
Mine production¹				
Palladium	933 ^r	933 ^r	10,300 ^r	933
Platinum	272 ^r	272 ^r	3,040 ^r	272
Total	1,200 ^r	1,200 ^r	13,300 ^r	1,210
Imports for consumption²				
Palladium	7,990	4,280	67,200	4,470
Platinum	5,140	5,970	67,100	6,240
Iridium	343	138	2,040	75
Osmium	0	0	0	0
Rhodium	1,720	809	12,100	1,430
Ruthenium	1,920	513	10,900	725
Waste and scrap ³	3,140	2,450	32,000	2,500
Total	20,300	14,200	191,000	15,500
Exports²				
Palladium	2,840	2,010	33,600	5,030
Platinum	600	915	11,700	823
Iridium, osmium, ruthenium	102	63	845	92
Rhodium	128	79	446	104
Waste and scrap ³	1,090	1,990	13,900	895
Total	4,760	5,060	60,500	6,940
Price, average (dollars per troy ounce)⁴				
Palladium	1,063.15	1,084.95	1,351.66	993.95
Platinum	911.10	949.95	973.00	931.57
Iridium	4,990.00	5,000.00	4,672.78	5,000.00
Rhodium	4,401.25	4,500.00	6,660.58	4,547.62
Ruthenium	465.00	463.42	466.49	450.00

¹ Annual data are based on publicly available annual reports. Monthly and year-to-date data are estimated based on publicly reported quarterly data.

² Source: U.S. Census Bureau.

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

⁴ Source: S&P Global Platts Metals Week.

TABLE 2. Platinum-group metals prices.

[Quotes from Engelhard. Dollars per troy ounce. Source: S&P Global Platts Metals Week.]

Platinum-group metals prices	Palladium	Platinum	Iridium	Rhodium	Ruthenium
2023					
Low price	965.00	856.00	4,500.00	4,000.00	450.00
Low date	Dec. 6	Nov. 13	Aug.–Sep. ¹	Jul. ¹	Dec. 28 and 29
High price	1,820.00	1,135.00	5,000.00	12,400.00	485.00
High date	Jan. 10	Apr. 21	Dec. ¹	Jan. ¹	Jan. ¹ and Feb. 2
Price, average	1,351.66	973.00	4,672.78	6,660.58	466.49
2024, January					
Low price	935.00	900.00	5,000.00	4,500.00	450.00
Low date	Jan. 22	Jan. 18	Jan. ¹	Jan. ¹	Jan. ¹
High price	1,110.00	993.00	5,000.00	4,600.00	450.00
High date	Jan. 2	Jan. 2	Jan. ¹	Jan. ¹	Jan. ¹
Price, average	993.95	931.57	5,000.00	4,547.62	450.00

¹Occurred multiple days in month(s) listed.

TABLE 3. U.S. imports for consumption of platinum metal, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified. Source: U.S. Census Bureau.]

Country or locality	Platinum grain and nuggets		Platinum sponge		Other unwrought platinum		Platinum, other		Platinum coins	
	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)
2023										
November	30	933	3,870	112,000	512	15,600	669	23,400	56	1,770
December	20	621	5,150	152,000	168	5,500	600	19,800	34	1,270
January–December	616	19,800	53,100	1,660,000	2,500	93,600	10,100	377,000	774	25,200
2024, January										
Australia	0	0	0	0	0	0	0	10	4	172
Austria	0	0	0	0	0	0	143	5,410	0	0
Belgium	0	0	357	11,000	78	2,380	0	0	0	0
Bermuda	0	0	0	0	0	0	(¹)	3	0	0
Canada	21	610	0	0	0	0	12	379	79	2,480
China	0	0	0	0	0	0	(¹)	4	0	0
Colombia	0	0	0	0	17	506	0	0	0	0
Costa Rica	0	0	0	0	0	0	172	4,900	0	0
Czechia	0	0	0	0	0	0	2	90	0	0
Germany	0	0	127	4,040	255	8,500	175	6,000	0	0
India	0	0	132	4,210	0	0	0	0	0	0
Italy	0	0	211	6,490	0	0	0	0	0	0
Japan	2	57	13	387	1	40	24	913	0	0
Korea, Republic of	0	0	218	6,510	0	0	0	0	0	0
Singapore	0	0	0	0	(¹)	4	4	108	0	0
South Africa	69	2,150	4,030	124,000	13	446	0	0	0	0
Switzerland	0	0	54	1,590	2	123	6	255	0	0
United Kingdom	0	0	0	0	0	0	25	789	(¹)	6
Total	91	2,820	5,140	158,000	366	12,000	565	18,900	83	2,650

¹Less than ½ unit.

TABLE 4. U.S. imports for consumption of platinum-group metals, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified. Source: U.S. Census Bureau.]

Country or locality	Palladium ¹		Iridium ¹		Osmium ¹		Rhodium ¹		Ruthenium ¹		Waste and scrap ²	
	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)
2023												
November	7,990	281,000	343	52,800	0	0	1,720	236,000	1,920	25,700	3,140	83,900
December	4,280	147,000	138	20,000	0	0	809	129,000	513	6,980	2,450	59,800
January–December	67,200	2,980,000	2,040	263,000	0	0	12,100	3,030,000	10,900	150,000	32,000	937,000
2024, January³												
Belgium	525	18,000	0	0	0	0	92	12,800	0	0	0	0
Brazil	0	0	0	0	0	0	0	0	0	0	11	346
Canada	138	5,770	0	0	0	0	0	0	0	0	146	6,690
China	0	0	0	0	0	0	0	0	0	0	11	297
Germany	203	6,350	22	3,410	0	0	269	41,800	478	7,040	330	11,000
Guatemala	0	0	0	0	0	0	0	0	0	0	22	711
India	18	782	0	0	0	0	0	0	0	0	0	0
Italy	183	6,100	1	116	0	0	13	1,880	0	0	44	1,430
Japan	85	3,370	0	0	0	0	0	0	0	0	3	371
Korea, Republic of	404	12,900	0	0	0	0	47	6,540	0	0	0	0
Lebanon	0	0	0	0	0	0	0	0	0	0	3	110
Malaysia	0	0	0	0	0	0	0	0	0	0	12	326
Mexico	(⁴)	17	0	0	0	0	0	0	0	0	1,280	9,460
Peru	0	0	0	0	0	0	0	0	0	0	14	407
South Africa	2,700	87,700	37	5,620	0	0	1,010	148,000	247	3,160	17	1,470
Spain	0	0	0	0	0	0	0	0	0	0	22	721
Switzerland	212	6,690	0	0	0	0	0	0	0	0	0	0
Taiwan	0	0	0	0	0	0	0	0	0	0	71	2,680
Thailand	0	0	0	0	0	0	0	0	0	0	353	10,900
United Kingdom	2	124	16	2,200	0	0	0	31	0	0	158	5,140
Other	2	66	0	0	0	0	0	5	0	0	13	580
Total	4,470	148,000	75	11,300	0	0	1,430	211,000	725	10,200	2,500	52,600

¹Unwrought and other forms.²Includes waste and scrap for all platinum-group elements.³The 20 countries and (or) localities with the greatest total platinum-group metal imports are listed. All others are included in the “Other” category.⁴Less than ½ unit.

TABLE 5. U.S. exports of platinum-group metals, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in kilograms metal content, unless otherwise specified. Source: U.S. Census Bureau.]

Country or locality	Palladium ¹		Platinum ¹		Iridium, osmium, and ruthenium ^{1,2}		Rhodium ¹		Waste and scrap ³	
	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)	Quantity	Value (thousand dollars)
2023										
November	2,840	103,000	600	41,800	102	12,700	128	20,000	1,090	63,900
December	2,010	82,000	915	30,700	63	8,740	79	11,800	1,990	82,400
January–December	33,600	1,360,000	11,700	574,000	845	110,000	446	95,600	13,900	971,000
2024, January⁴										
Australia	2	70	9	724	3	352	0	0	0	0
Brazil	61	2,350	1	171	0	0	0	0	0	0
Canada	545	20,700	21	658	(⁵)	7	(⁵)	68	55	1,870
China	8	287	11	499	0	0	0	0	0	0
Costa Rica	1	27	41	2,950	(⁵)	29	0	0	0	0
Germany	1,480	53,300	57	2,300	(⁵)	10	0	0	350	35,100
Hong Kong	14	533	6	278	13	2,440	103	13,600	0	0
India	1	34	120	3,250	0	0	0	0	0	0
Ireland	1	38	48	1,780	0	0	0	0	0	0
Israel	16	644	1	51	0	0	0	0	0	0
Italy	1,040	33,800	194	5,710	1	99	0	0	80	2,710
Japan	359	12,800	108	3,250	4	584	0	0	239	8,110
Korea, Republic of	5	200	4	116	(⁵)	3	0	0	0	0
Mexico	10	370	33	1,210	2	216	0	0	0	0
Sweden	0	0	0	0	0	0	0	0	7	1,160
Switzerland	1,440	27,100	10	454	0	0	0	0	48	1,600
Taiwan	28	1,030	(⁵)	9	0	0	0	0	0	0
Thailand	3	131	3	116	0	0	0	0	0	0
United Arab Emirates	0	0	(⁵)	3	0	0	0	0	14	460
United Kingdom	(⁵)	9	147	4,920	67	10,500	0	0	101	4,490
Other	11	454	9	329	2	208	0	0	2	102
Total	5,030	154,000	823	28,800	92	14,500	104	13,600	895	55,600

¹Unwrought and other forms.²Gross weight.³Includes waste and scrap for all platinum-group elements. Previously categorized as “Platinum waste and scrap.”⁴The 20 countries and (or) localities with the greatest total platinum-group metal exports are listed. All others are included in the “Other” category.⁵Less than ½ unit.