

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:

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

PLATINUM-GROUP METALS IN MARCH 2023

Imports for consumption of platinum-group metals (PGMs), including waste and scrap, were 17,000 kilograms (kg) in March 2023, an increase of 15% compared with imports in February 2023, and unchanged compared with imports in March 2022 (table 1). The leading import sources for PGMs into the United States in March 2023 were, in descending order of quantity, South Africa, Germany, and Russia (tables 3, 4).

In March 2023, exports of PGM scrap increased by 48% and by 17% for platinum compared with those in February 2023 whereas exports of palladium decreased by 46% and by 28% for rhodium. The leading destinations for PGM exports were, in descending order of quantity, Italy, Germany, and Canada (tables 1, 5).

The Engelhard average March 2023 prices decreased by 22% for rhodium and by 7% for palladium and were unchanged for iridium, platinum, and ruthenium, each, compared with the average prices in February 2023. Compared with average prices in March 2022, the March 2023 average price decreased by 54% for rhodium, by 45% for platinum, by 23% for ruthenium, by 7% for platinum, and by 5% for iridium (fig. 1; tables 1, 2).

Industry News

Sibanye-Stillwater Ltd. (South Africa) reported an incident occurred in March at its Stillwater West mine in Montana. The incident occurred during non-routine maintenance and resulted in structural damage to equipment in the vertical shaft that accesses deeper levels of the mine. The shaft headgear, winder house, and winder rope were damaged, but no one was hurt during the incident. Production from the Stillwater West mine was suspended below the 50-meter level until repairs could be made. As a result, Sibanye-Stillwater estimated a 780- to 930-kg decrease in annual palladium and platinum production (Sibanye-Stillwater Ltd., 2023).

The International Precious Metals Institute formed a committee, known as the Preventing Auto Catalyst Theft Committee, to help combat growing problems with catalytic converter thefts. The committee will work together to propose realistic solutions to prevent catalytic converter theft as well as ways to protect legitimate recyclers that recover PGMs from

end-of-life catalysts (International Precious Metals Institute, 2023).

Camston Wrather LLC, an electronic scrap (e-scrap) recycler located in Carlsbad, CA, announced plans to expand its business in the Midwest and along the East Coast. The aggregation sites would process approximately 11,000 million kilograms of e-scrap in 2023, with plans to triple that amount in 2024. Camston Wrather would process the e-scrap into concentrates that contain gold, palladium, silver, and other metal mixes. These concentrates would then be shipped to precious metal refiners to produce pure metals (Paben, 2023).

References Cited

- International Precious Metals Institute, 2023, Catalytic converter recycling leaders unite to combat growing theft problem: New York City, NY, International Precious Metals Institute news release, March 8. (Accessed May 18, 2023, at <https://www.prnewswire.com/news-releases/catalytic-converter-recycling-leaders-unite-to-combat-growing-theft-problem-301765358.html>.)
- Paben, Jared, 2023, 'Green smelter' company plans US expansion: Portland, OR, Resource Recycling, Inc., March 22. (Accessed May 5, 2023, at <https://resource-recycling.com/e-scrap/2023/03/22/green-smelter-company-plans-u-s-expansion/>.)
- Sibanye-Stillwater Ltd., 2023, Production from Stillwater West mine temporarily affected following damage to shaft infrastructure: Johannesburg, South Africa, Sibanye-Stillwater Ltd. press release, March 13. (Accessed May 5, 2023, at https://thevault.exchange/?get_group_doc=245/1678717493-ssw-USPGM-operations-stillwater-west-shaft-incident-13Mar2023.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>.

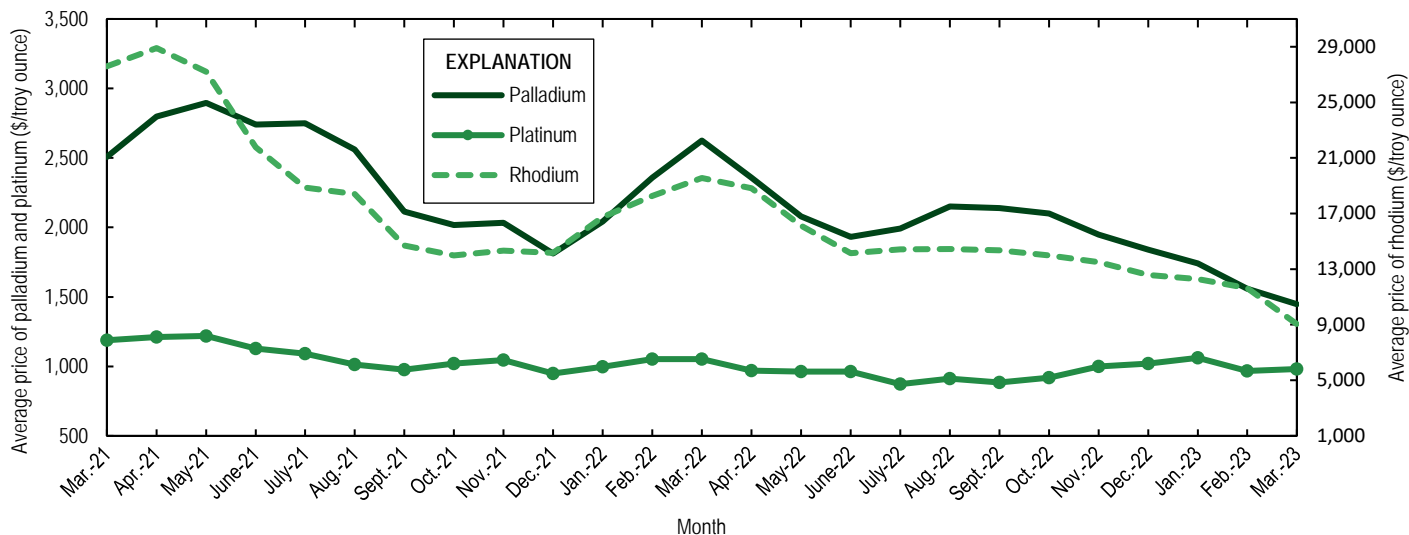


Figure 1. Engelhard unfabricated average monthly prices for palladium, platinum, and rhodium in dollars per troy ounce from March 2021 through March 2023. Source: S&P Global Platts Metals Week.

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

(Kilograms metal content, unless otherwise specified)

	2022	2023			
	January– December	January	February	March	January– March
Mine production: ²					
Palladium	10,100	797 ^r	797 ^r	797	2,390
Platinum	3,000	247 ^r	247 ^r	247	741
Total	13,100	1,040 ^r	1,040 ^r	1,040	3,130
Imports for consumption: ³					
Palladium	65,200	5,560	5,540	6,320	17,400
Platinum	64,200	4,120	5,350	5,980	15,500
Iridium	1,610	76	214	179	468
Osmium	1	--	--	--	--
Rhodium	13,200	889	896	1,140	2,930
Ruthenium	13,300	809	880	934	2,620
Waste and scrap ⁴	44,700	2,580	1,890	2,410	6,890
Total	202,000	14,000	14,800	17,000	45,800
Exports: ³					
Palladium	42,200	1,330	3,170	1,700	6,200
Platinum	23,200	1,080	806	940	2,830
Iridium, osmium, ruthenium	905	22	9	51	82
Rhodium	677	58	7	5	70
Waste and scrap ⁴	35,000	1,140	657	972	2,770
Total	102,000	3,630	4,650	3,670	12,000
Price, average (dollars per troy ounce): ⁵					
Palladium	2,133.81	1,741.50	1,559.63	1,447.61	1,576.74
Platinum	966.54	1,061.20	967.95	981.43	1,003.03
Iridium	4,581.93	4,615.00	4,600.00	4,600.00	4,604.84
Rhodium	15,585.00	12,290.00	11,639.47	9,041.30	10,885.48
Ruthenium	577.02	484.00	466.05	465.00	471.45

^rRevised. -- Zero.

¹Data 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.

⁴Includes waste and scrap for all platinum-group elements. Previously included within platinum.

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
February:					
Low:					
Price	1,410.00	920.00	4,600.00	9,600.00	465.00
Date	Feb. 24	Feb. 16 and 17	Feb. ²	Feb. 28	Feb. ²
High:					
Price	1,700.00	1,042.00	4,600.00	12,100.00	485.00
Date	Feb. 1	Feb. 2	Feb. ²	Feb. ²	Feb. 2
Price, average	1,559.63	967.95	4,600.00	11,639.47	466.05
March:					
Low:					
Price	1,375.00	950.00	4,600.00	7,850.00	465.00
Date	Mar. 9	Mar. 8	Mar. ²	Mar. 31	Mar. ²
High:					
Price	1,525.00	1,010.00	4,600.00	10,100.00	465.00
Date	Mar. 14	Mar. 22	Mar. ²	Mar. 6	Mar. ²
Price, average	1,447.61	981.43	4,600.00	9,041.30	465.00
January–March:					
Low:					
Price	1,375.00	920.00	4,600.00	7,850.00	465.00
Date	Mar. 9	Feb. 16 and 17	Jan.–Mar. ²	Mar. 31	Jan.–Mar. ²
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 and Feb. 2
Price, average	1,576.74	1,003.03	4,604.84	10,885.48	471.45

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, January–December	1,300	\$41,600	47,900	\$1,500,000	2,350	\$146,000	12,100	\$529,000	642	\$21,000
2023:										
January	78	2,530	3,190	106,000	177	6,390	562	25,600	110	3,870
February	76	2,450	3,900	126,000	86	3,460	1,250	51,100	38	1,250
March:										
Australia	--	--	--	--	--	--	(2)	19	(2)	3
Austria	--	--	--	--	--	--	3	89	--	--
Barbados	--	--	--	--	--	--	(2)	3	--	--
Belgium	--	--	293	9,600	--	--	--	--	--	--
Canada	23	748	--	--	8	190	54	1,780	82	2,690
Colombia	--	--	--	--	23	707	--	--	--	--
Costa Rica	--	--	--	--	--	--	168	6,720	--	--
Czechia	--	--	--	--	--	--	7	262	--	--
France	--	--	--	--	--	--	23	739	--	--
Germany	--	--	294	9,350	81	6,340	423	20,700	(2)	7
India	--	--	261	7,220	--	--	--	--	--	--
Italy	--	--	480	15,000	--	--	(2)	4	--	--
Japan	--	--	30	930	23	1,330	12	504	--	--
Korea, Republic of	--	--	218	6,810	--	--	(2)	6	(2)	7
Russia	--	--	200	6,040	--	--	--	--	--	--
Samoa	--	--	--	--	--	--	--	--	(2)	7
Singapore	--	--	--	--	3	196	9	354	(2)	27
South Africa	--	--	1,450	44,200	--	--	--	--	--	--
Switzerland	58	1,950	54	1,740	--	--	1,600	50,300	--	--
Taiwan	--	--	--	--	--	--	6	225	--	--
United Kingdom	--	--	59	1,890	(2)	24	28	1,040	1	22
Total	81	2,700	3,340	103,000	138	8,790	2,340	82,700	84	2,760
January–March	236	7,680	10,400	335,000	401	18,600	4,150	159,000	232	7,880

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

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, 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	5,560	314,000	76	10,100	--	--	889	369,000	809	11,900	2,580	63,100
February	5,540	303,000	214	29,700	--	--	896	364,000	880	12,100	1,890	85,900
March: ⁴												
Australia	--	--	--	--	--	--	--	--	--	--	31	2,150
Belgium	256	13,000	--	--	--	--	73	24,400	--	--	105	3,230
Bolivia	--	--	--	--	--	--	--	--	--	--	26	722
Brazil	--	--	--	--	--	--	--	--	--	--	30	2,240
Canada	638	31,600	(5)	5	--	--	(5)	4	--	--	243	12,400
France	--	--	--	--	--	--	--	--	--	--	53	2,000
Germany	148	7,510	12	1,800	--	--	549	218,000	486	7,550	1,010	32,800
Guatemala	--	--	--	--	--	--	--	--	--	--	60	1,950
Italy	303	14,500	7	1,010	--	--	55	17,700	--	--	173	5,640
Japan	141	2,850	22	2,840	--	--	3	982	10	127	--	--
Korea, Republic of	311	14,200	--	--	--	--	12	4,950	--	--	--	--
Lithuania	--	--	--	--	--	--	--	--	--	--	110	3,490
Malaysia	--	--	--	--	--	--	--	--	--	--	33	1,130
Mexico	--	--	--	--	--	--	--	--	--	--	144	4,930
Russia	2,460	114,000	--	--	--	--	50	17,900	--	--	--	--
Singapore	--	--	--	--	--	--	--	--	--	--	33	1,410
South Africa	1,970	100,000	86	10,600	--	--	397	142,000	438	6,210	--	--
Switzerland	57	2,650	--	--	--	--	--	--	--	--	--	--
Thailand	--	--	--	--	--	--	--	--	--	--	28	4,240
United Kingdom	38	1,930	50	7,430	--	--	2	854	--	--	237	7,760
Other	1	15	1	18	--	--	--	--	--	--	91	3,120
Total	6,320	303,000	179	23,700	--	--	1,140	427,000	934	13,900	2,410	89,200
January–March	17,400	920,000	468	63,500	--	--	2,930	1,160,000	2,620	38,000	6,890	238,000

-- 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, January–December	42,200	\$2,770,000	23,200	\$885,000	905	\$36,500	677	\$355,000	35,000	\$2,990,000
2023:										
January	1,330	76,700	1,080	62,400	22	2,840	58	22,800	1,140	108,000
February	3,170	169,000	806	46,000	9	1,350	7	3,070	657	110,000
March: ⁵										
Australia	3	172	15	749	7	654	--	--	--	--
Belgium	33	1,860	18	553	--	--	5	1,760	117	9,200
Brazil	74	3,690	5	615	--	--	--	--	--	--
Canada	457	25,200	11	400	--	--	(6)	16	142	4,810
China	9	592	26	1,410	1	85	--	--	--	--
Costa Rica	7	512	56	2,670	(6)	38	--	--	--	--
France	7	497	6	224	--	--	--	--	--	--
Germany	36	2,160	195	7,150	(6)	14	--	--	434	75,300
Hong Kong	5	329	3	468	22	2,220	(6)	3	--	--
India	8	441	13	3,120	--	--	--	--	--	--
Ireland	1	44	44	1,550	(6)	4	--	--	--	--
Italy	574	30,500	10	3,120	--	--	--	--	110	6,160
Japan	8	635	348	19,400	14	2,100	--	--	51	2,500
Korea, Republic of	103	5,300	4	142	--	--	--	--	--	--
Mexico	8	551	21	888	(6)	41	--	--	--	--
Spain	(6)	6	1	69	--	--	--	--	11	383
Switzerland	333	21,900	2	356	--	--	--	--	50	1,510
Taiwan	21	1,310	3	87	1	131	--	--	--	--
Thailand	7	458	2	126	--	--	--	--	--	--
United Kingdom	1	45	153	4,670	4	376	--	--	55	3,100
Other	9	525	3	312	2	290	--	--	2	440
Total	1,700	96,700	940	48,100	51	5,950	5	1,780	972	103,000
January–March	6,200	343,000	2,830	156,000	82	10,100	70	27,700	2,770	321,000

-- Zero.

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

²Unwrought and other forms.

³Gross weight.

⁴Includes waste and scrap for all platinum-group elements. Previously categorized as “Platinum waste and scrap.”

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.