Platinum Group Metals Ltd. Announces Positive Independent Definitive Feasibility Study for the Waterberg Palladium Mine

24.09.2019 | Newsfile

IRR Post Tax of 20.7% at Spot Metal Prices Including an Estimated Smelter Discount (September 4, 2019)

Proven and Probable Mineral Reserves Estimated at
19.5 Million Ounces of Palladium, Platinum, Gold and Rhodium for a Life of Mine Plan of 45 years

Annual Steady State Production of 420,000 Ounces of Palladium, Platinum Gold and Rhodium plus 16.7 million Pounds of Nickel and Copper

Fully Mechanised, Shallow, Decline-Accessed Mine would be
One of the Largest and Lowest
Cash Cost Underground PGM Mines Globally

Vancouver, September 24, 2019 - Platinum Group Metals Ltd. (TSX: PTM) (NYSE American: PLG) ("Platinum Group" or the "Company") announces positive results from an Independent Definitive Feasibility Study ("DFS") on the Waterberg Project (the "Project") completed by international and South African engineering firms Stantec Consulting International LLC ("Stantec") and DRA Projects SA (Pty) Ltd. ("DRA") along with a large team of specialists. The DFS was managed by Waterberg JV Resources (Pty) Ltd. ("Waterberg JV") representing the owners of Platinum Group, Impala Platinum Holdings Ltd. ("Implats"), Japan Oil, Gas and Metals National Corporation ("JOGMEC"), Hanwa Co. Ltd. ("Hanwa") and Mnombo Wethu Consultants (Pty) Ltd. ("Mnombo"). All of the partners contributed actively to the Project through the technical committee and the Board of Waterberg JV.

Highlights of the DFS include:

- A significant increase in Mineral Reserves from the Project's 2016 Pre-Feasibility Study ("PFS") for a large-scale, shallow, decline-accessible, mechanised, palladium, platinum, gold and rhodium ("4E") mine. Use of backfill in the DFS design lowers risk and increases mined ore extraction rates.
- Annual Steady State production rate of 420,000 4E ounces, which is a lower production rate than in the PFS. This result is by careful design in order to reduce capital costs and simplify construction and ramp-up.
- After-tax Net Present Value ("NPV") of US$ 982 million, at an 8% real discount rate, using spot metal prices as at September 4, 2019 (Incl. US$ 1,546 Pd/oz) ("Spot Prices").
- After-tax NPV of US$ 333 million, at an 8% real discount rate, using three-year trailing average metal prices up until September 4, 2019 (Incl. US$ 1,055 Pd/oz) ("Three Year Trailing Prices").
- After-tax Internal Rate of Return ("IRR") of 20.7% at Spot Prices and 13.3% at Three Year Trailing Prices.
- Estimated project capital of approximately US$ 874 million, including US$ 87 million in contingencies. Peak project funding estimated at US$ 617 million.
- On site Life of Mine (LOM) average cash cost (inclusive of by-product credits and smelter discounts) for the Spot Metal Price scenario equates to US$ 640 per 4E ounce.

- Updated Measured and Indicated Mineral Resources of 242 million tonnes at 3.38g/t 4E for 26.4 million 4E ounces (using 2.5 g/t 4E cut-off) and the deposit remains open on strike to the north and below an arbitrary depth cut-off of 1,250-meters.
- Proven and Probable Mineral Reserves of 187 million tonnes at 3.24 g/t 4E for 19.5 million 4E ounces (using 2.5 g/t 4E cut-off).

R. Michael Jones, CEO and co-founder of Platinum Group said, "The DFS provides a clear outline of the world-class nature of the Waterberg Palladium deposit and concludes that it can be one of the largest fully mechanised, low cost platinum group metals mines in the world. A large global team of approximately 100 independent professionals and specialists as well as excellent participation from our partner Implats, have contributed to an optimized mining plan that reduced capital from the earlier plan and significantly increased the Mineral Reserves for a 45 year life, 420,000 4E ounce per year steady state mine plan".

The Waterberg Project will create approximately 1,100 new highly skilled jobs and a significant investment in local training and business opportunities is part of the benefits to stakeholders including local communities, shareholders, provincial and national governments. The Project includes an upgrade to the local water infrastructure under a current co-operation agreement with the municipality and a connection to the Eskom power grid.

Figure 1: Total Ounces Produced - Life of Mine

To view an enhanced version of Figure 1, please visit:
https://orders.newsfilecorp.com/files/1497/48054_c88a9367f4160aa5_001full.jpg

MINERAL RESOURCES AND RESERVE UPDATES

The Mineral Resources for the Waterberg Project have been updated and have increased slightly based on recent in-fill drilling. The Mineral Resources have been estimated based on 441 diamond drill holes and 583 deflections and has been stated at a 2.5 g/t 4E cut-off (the base-case). In the DFS, a 2.5 g/t 4E cut-off grade has been applied to the Mineral Resource model as an input into the mine design. At the 2.5 g/t 4E cut-off grade, the total Measured and Indicated Mineral Resources are estimated at 242 million tonnes grading 3.38 g/t 4E for an estimated 26.4 million ounces 4E. Total Mineral Reserves at a 2.5 g/t 4E grade cut-off are estimated at 187 million tonnes for 19.5 million ounces 4E. Waterberg is effectively estimated in four zones and three complexes, each with twin declines from surface. The South Complex has T Zone and F Zone Mineral Resources and Reserves. The Central Complex currently has just F Zone Mineral Resources and Reserves, is the largest part of early production and also has potential for expansion on the T Zone Mineral Resources. The North Complex just has F Zone Mineral Resources and Reserves and is planned for the later part of the mine life from 2044 out to 2066. Future drilling from surface and underground is expected to result in the delineation of additional Mineral Reserves, thereby extending the Project mine life. The Mineral Resources are estimated in the two zones with the T Zone approximately 350 meters above the F Zone with both zones striking northeast and dipping at approximately 38 degrees to the west. An arbitrary depth cut-off of 1,250-meters has been applied in all zones.

The Mineral Reserves are a subset of the Mineral Resource envelope at a 2.5 g/t 4E cut-off and they include only Measured and Indicated Mineral Resources with dilution and stope shapes considered. A minimum mining thickness of 2.4 meters and sublevel planning of 20 meters to 40 meters was considered in the mine plan for Mineral Reserves.

The Mineral Resources for the Waterberg Project are categorised and reported in terms of the National Instrument for the Standards of Disclosure for Mineral Projects within Canada, 2011 ("NI 43-101") and are tabulated below.

Mineral Resource Estimate at 2.5 g/t 4E cut-off,
effective September 4, 2019 on 100% Project basis

T Zone at 2.5 g/t (4E) Cut-off

Mineral Resource Category	Cut-off 4E	Tonnage	Grade							Metal	
			Pt	Pd	Rh	Au	4E	Cu	Ni	4E	
	g/t	Tonnes	g/t	g/t	g/t	g/t	g/t	%	%	kg	Moz
Measured	2.5	4,443,483	1.17	2.12	0.05	0.87	4.20	0.150	0.080	18,663	0.600
Indicated	2.5	17,026,142	1.37	2.34	0.03	0.88	4.61	0.200	0.094	78,491	2.524
M+I	2.5	21,469,625	1.34	2.29	0.03	0.88	4.53	0.189	0.091	97,154	3.124
Inferred	2.5	21,829,698	1.15	1.92	0.03	0.76	3.86	0.198	0.098	84,263	2.709

F Zone at 2.5 g/t (4E) Cut-off

Mineral Resource Category	Cut-off 4E	Tonnage	Grade							Metal	
			Pt	Pd	Rh	Au	4E	Cu	Ni	4E	
	g/t	Tonnes	g/t	g/t	g/t	g/t	g/t	%	%	kg	Moz
Measured	2.5	54,072,600	0.95	2.20	0.05	0.16	3.36	0.087	0.202	181,704	5.842
Indicated	2.5	166,895,635	0.95	2.09	0.05	0.15	3.24	0.090	0.186	540,691	17.384
M+I	2.5	220,968,235	0.95	2.12	0.05	0.15	3.27	0.089	0.190	722,395	23.226
Inferred	2.5	44,836,851	0.87	1.92	0.05	0.14	2.98	0.064	0.169	133,705	4.299

Waterberg Aggregate Total 2.5 g/t (4E) Cut-off

Mineral Resource Category	Cut-off 4E	Tonnage	Grade							Metal	
			Pt	Pd	Rh	Au	4E	Cu	Ni	4E	
	g/t	Tonnes	g/t	g/t	g/t	g/t	g/t	%	%	kg	Moz
Measured	2.5	58,516,083	0.97	2.19	0.05	0.21	3.42	0.092	0.193	200,367	6.442
Indicated	2.5	183,921,777	0.99	2.11	0.05	0.22	3.37	0.100	0.177	619,182	19.908
M+I	2.5	242,437,860	0.98	2.13	0.05	0.22	3.38	0.098	0.181	819,549	26.350
Inferred	2.5	66,666,549	0.96	1.92	0.04	0.34	3.27	0.108	0.146	217,968	7.008

Prill Split Waterberg Project Aggregate

Mineral Resource Category	Pt	Pd	Rh	Au
	%	%	%	%
Measured	28.2	64.4	1.5	5.9
Indicated	29.4	62.6	1.5	6.5
M+I	29.1	63.0	1.5	6.4
Inferred	29.5	58.9	1.2	10.4

Notes:

1. 4E elements are platinum, palladium, rhodium and gold.
2. Cut-offs for Mineral Resources were established by a QP after a review of potential operating costs and other factors.
3. Conversion factor used for kilograms ("kg") to ounces ("oz") is 32.15076
4. A 5% and 7% geological loss was applied to the Measured/Indicated and Inferred Mineral Resources categories, respectively.
5. The Mineral Resources are classified in accordance with the National Instrument for the Standards of Disclosure for Mineral projects within Canada, 2011 ("NI 43-101"). Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability and Inferred Mineral Resources have a high degree of uncertainty.
6. The Mineral Resources are provided on a 100% Project basis, Inferred and Indicated categories are separate and the estimates have an effective date of 4 September 2019.
7. Mineral Resources were completed by Mr. CJ Muller of CJM Consulting.
8. Mineral Resources were estimated using kriging methods for geological domains created in Datamine from 441 mother holes and 583 deflections. A process of geological modelling and creation of grade shells using indicating kriging was completed in the estimation process.
9. The Mineral Resources may be materially affected by metal prices, exchange rates, labour costs, electricity supply issues or many other factors detailed in the Company's 2018 Annual Information Form.
10. The data that formed the basis of the Mineral Resources estimate are the drill holes drilled by Platinum Group as project operator, which consist of geological logs, drill hole collars surveys, downhole surveys and assay data. The area where each layer was present was delineated after examination of the intersections in the various drill holes.
11. Numbers may not add due to rounding.

Proven Mineral Reserve Estimate at 2.5 g/t 4E cut-off,
effective September 4, 2019 on 100% Project basis.

Proven Mineral Reserve Estimate at 2.5 g/t 4E cut-off

Zone	Tonnes	Pt (g/t)	Pd (g/t)	Rh (g/t)	Au (g/t)	4E (g/t)	Cu (%)	Ni (%)	4E Metal Kg	4E Metal Moz
T Zone	3,963,694	1.02	1.84	0.04	0.73	3.63	0.13	0.07	14,404	0.463
F Central	17,411,606	0.94	2.18	0.05	0.14	3.31	0.07	0.18	57,738	1.856
F South	-	-	-	-	-	-	-	-	-	-
F North	16,637,670	0.85	2.03	0.05	0.16	3.09	0.10	0.20	51,378	1.652
F Boundary North	4,975,853	0.97	2.00	0.05	0.16	3.18	0.10	0.22	15,847	0.509
F Boundary South	5,294,116	1.04	2.32	0.05	0.18	3.59	0.08	0.19	19,020	0.611
F Zone Total	44,319,244	0.92	2.12	0.05	0.16	3.25	0.09	0.20	143,982	4.629
Waterberg Project Total	48,282,938	0.93	2.10	0.05	0.20	3.28	0.09	0.19	158,387	5.092

Probable Mineral Reserve Estimate at 2.5 g/t 4E cut-off,
effective September 4, 2019 on 100% Project basis

Probable Mineral Reserve Estimate at 2.5 g/t 4E cut-off

Zone	Tonnes	Pt (g/t)	Pd (g/t)	Rh (g/t)	Au (g/t)	4E (g/t)	Cu (%)	Ni (%)	4E Metal Kg	4E Metal Moz
T Zone	12,936,870	1.23	2.10	0.02	0.82	4.17	0.19	0.09	53,987	1.736
F Central	52,719,731	0.86	1.97	0.05	0.14	3.02	0.07	0.18	158,611	5.099
F South	15,653 ,961	1.06	2.03	0.05	0.15	3.29	0.04	0.13	51,411	1.653
F North	36,984,230	0.90	2.12	0.05	0.16	3.23	0.09	0.20	119,450	3.840
F Boundary North	13,312,581	0.98	1.91	0.05	0.17	3.11	0.10	0.23	41,369	1.330
F Boundary South	7,616,744	0.92	1.89	0.04	0.13	2.98	0.06	0.18	22,737	0.731
F Zone Total	126,287,248	0.91	2.01	0.05	0.15	3.12	0.08	0.18	393,578	12.654
Waterberg Project Total	139,224,118	0.94	2.02	0.05	0.21	3.22	0.09	0.18	447,564	14.390

Proven & Probable Mineral Reserve Estimate at 2.5 g/t 4E cut-off,
effective September 4, 2019 on 100% Project basis

Total Estimated Mineral Reserve at 2.5 g/t 4E cut-off

Zone	Tonnes	Pt (g/t)	Pd (g/t)	Rh (g/t)	Au (g/t)	4E (g/t)	Cu (%)	Ni (%)	4E Metal Kg	4E Metal Moz
T Zone	16,900,564	1.18	2.04	0.03	0.80	4.05	0.18	0.09	68,391	2.199
F Central	70,131,337	0.88	2.02	0.05	0.14	3.09	0.07	0.18	216,349	6.956
F South	15,653,961	1.06	2.03	0.05	0.15	3.29	0.04	0.13	51,411	1.653
F North	53,621,900	0.88	2.09	0.05	0.16	3.18	0.10	0.20	170,828	5.492
F Boundary North	18,288,434	0.98	1.93	0.05	0.17	3.13	0.10	0.23	57,216	1.840
F Boundary South	12,910,859	0.97	2.06	0.05	0.15	3.23	0.07	0.19	41,756	1.342
F Zone Total	170,606,492	0.91	2.04	0.05	0.15	3.15	0.08	0.19	537,560	17.283
Waterberg Project Total	187,507,056	0.94	2.04	0.05	0.21	3.24	0.09	0.18	605,951	19.482

Notes:

1. The estimated Mineral Reserves have an effective date of September 4, 2019.
2. A 2.5 g/t 4E stope cut-off grade was used for mine planning for the T Zone and the F Zone Mineral Reserves estimate. The cut-off grade considered April 2018 metal spot prices.
3. Tonnes and grade estimates include planned dilution, geological losses, external overbreak dilution, and mining losses.
4. 4E elements are platinum, palladium, rhodium and gold.
5. Numbers may not add due to rounding.

MINING PLAN OUTPUTS

The DFS mine plan models production at 4.8 million tonnes of ore per annum and 420,000 4E ounces per year in concentrate. The mine initially accesses the orebody using two sets of twin decline tunnels with mining by fully mechanised long hole stoping methods with paste backfill. Paste backfill allows for a high mining extraction ratio as mining can be completed next to backfilled stopes without leaving internal pillars. Maintaining safety and reliability were key mine design criteria. As a result of the scale of the orebody, bulk mining on 20 to 40 meter sublevels with large underground equipment and conveyors for ore and waste

transport provides high efficiency. Many of the larger successful underground mines in the world use the same method of mining with backfill and estimated costs were benchmarked against many of these operations.

METALLURGICAL RECOVERY AND SMELTER ASSUMPTIONS

Following extensive test work at the PFS and DFS level, DRA, an experienced South African engineering and EPCM firm, based the plant designs, metallurgical recoveries and costing on a standard South African flotation MF-2 (Mill - Float - Mill - Float) circuit. Additional metallurgical checks on mineral types and potential recoveries were completed at XPS Labs in Sudbury, Ontario. The detailed design is based on this metallurgical test work. Modelled recoveries were completed for the different recovered elements and zones within the Waterberg mining complex over the 45-year LOM and an average 4E recovery of 78.9% is estimated. Copper recoveries are forecast at 83% and nickel recovery is modelled at 48%. Net payability after smelter discount is estimated to be 85% on the 4E metal, 73% for copper and 68% for nickel, based on an 80 g/t 4E target concentrate grade sold to a South African smelter. The discounts on metal values have been calculated and included as a cost per 4E ounce for an estimate of financial returns.

The Waterberg Project is planned to produce a sulphide concentrate at a grade that is attractive to the current operating smelters in South Africa, with no significant penalty elements. Implats holds a first right of refusal for smelter offtake and Hanwa of Japan holds the rights to market the final refined metal at market prices.

PROJECT TIMELINE

The DFS project timeline includes a formal construction decision to be taken following the granting of the Mining Right, expected in Q1 2020 with first production 3.5 years later. The planned decline access provides for rapid and low-cost access to the shallow orebody. Under the DFS mine plan, first production is estimated in late 2023 with ramp-up to steady state by 2027. The LOM on current Mineral Reserves extends to 2066 and the deposit remains open at depth and on strike.

CAPITAL COSTS AND INFRASTRUCTURE, INCLUDING POWER AND WATER

Capital costs to full production and peak funding of the Project are estimated predominantly in South African Rand (ZAR), with all cost estimates expressed in ZAR real July 2019 terms. Peak funding is estimated at US$ 617 million (ZAR 9.26 billion). Modelled costs are converted to US Dollars at a long-term real exchange rate of 15.00 (ZAR/US$). The real escalation of costs (in Rand terms) is estimated to be offset, over time, by the future devaluation of the Rand against the US Dollar.

Regional infrastructure in the DFS capital cost estimate includes road upgrades to access the mine area, a 74km power line to connect to the Eskom power utility grid and water pipelines to drilled water resources with associated servitudes. Waterberg JV has executed a water co-operation agreement with the Capricorn Municipality that surrounds the mine and has drill tested, studied and assessed available water resources together with community needs in detail. Improvement in service delivery of water to the region is included in the DFS capital cost estimate and plans. Eskom has agreed to both a 'self-build' plan for the electrical infrastructure to an existing substation and the power allocation for the Project. Servitude work for the power lines is well advanced.

Estimated Project Capital expenditure and anticipated Peak Funding are shown below.

Project Capital Breakdown

Cost Area	ZAR Total (ZAR million Real)	USD Total (US$ million Real)
Underground Mining	6,097	406
Concentrator	2,580	172
Shared Services and Infrastructure	682	45
Regional Infrastructure	1,229	82

Cost Area	ZAR Total (ZAR million Real)	USD Total (US$ million Real)
Site Support Services	234	16
Project Delivery Management	654	44
Other Capitalised Costs	331	22
Provisions	1,298	87
Total Project Capital (excl. Capitalised OpEx)	13,105	874
Capitalised Operating Costs	3,453	230
Total Project Capital (incl. Capitalised OpEx)	16,559	1,104
Peak Funding (Spot Prices)	9,255	617

Notes:

1. Project Capital is defined as all required capital expenditure until the Project achieves 70% of planned steady-state production. This is projected to occur from January 2020 to December 2025.
2. A US$/ZAR exchange rate of 15.00 is used in all cost conversions
3. Post December 2025, the DFS estimates stay-in-business or sustaining capital for the LOM at US$ 1.44 billion (ZAR 21.6 billion).
4. The DFS estimates peak funding at US$ 617 million (ZAR 9.26 billion) at Spot Prices, and US$ 667 million (ZAR 10.26 billion) at Three Year Trailing Prices. This includes all spend offset by revenue.

ENVIRONMENTAL, PERMITTING AND COMMUNITIES

A program of public consultation as part of the formal Mining Right and Environmental Authorisation applications for the Project was completed in August 2019. The process was undertaken in a climate of mutual respect with good community interaction and comment. The Environmental Impact Assessment and Environmental Management Programme was filed on August 15, 2019 and government feedback is expected before the end of 2019. A formal Mining Right Application, including a Social and Labour Plan, was accepted by the South African Department of Mineral Resources and Energy ("DMR") on September 14, 2018. The Company held local public meetings on numerous occasions in advance of the Mining Right Application and these meetings also had a good spirit of co-operation and mutual respect. All of this work forms part of the Mining Right Application and a decision by the DMR is expected in early 2020. The Project plan in the DFS assumes a positive decision during calendar Q1 2020. Training for a new mechanised mining workforce is an important part of the DFS and planning has been undertaken with the assistance of global mine training leader, Norcat, of Sudbury, Ontario. The DFS modelled a significant investment in training, focussed on the immediate area of the Project, working in co-operation with local colleges and facilities.

METALS MARKETS AND PRICE DECK ASSUMPTIONS

The Project financial performance has been estimated both at Spot Prices and at Three Year Trailing Average Prices as set out in the table below. The long-term real US$/ZAR exchange rate for the Spot Price scenario is set at 15.00, which is based on an intra-day traded spot rate as of September 4, 2019. The US$/ZAR exchange rates for the Three Year Trailing Price scenario, is based on Bloomberg's nominal consensus forward-curve as at June 2019, which translates into a long-term real US$/ZAR rate of 15.95. The price deck assumptions for each scenario are tabled below.

Price Deck Assumptions

Parameter	Unit	Spot Prices (Sept 4, 2019)	Three Year Trailing Prices (Sept 4, 2019)
US$ / ZAR (Long-term Real)	US$/ZAR (Real July 2019)	15.00	15.95
Platinum	US$/oz (Real July 2019)	980	931
Palladium	US$/oz (Real July 2019)	1,546	1,055
Gold	US$/oz (Real July 2019)	1,548	1,318
Rhodium	US$/oz (Real July 2019)	5,036	1,930
Basket Price (4E)	US$/oz (Real July 2019)	1,425	1,045
Copper	US$/lb (Real July 2019)	2.56	2.87
Nickel	US$/lb (Real July 2019)	8.10	5.56

Parameter	Unit	Spot Prices (Sept 4, 2019)	Three Year Trailing Prices (Sept 4, 2019)
US$ / ZAR (Long-term Real)	US$/ZAR (Real July 2019)	15.00	15.95
Smelter Payability: 4E Metal	% Gross Sale Value	85%	85%
Smelter Payability: Copper	% Gross Sale Value	73%	73%
Smelter Payability: Nickel	% Gross Sale Value	68%	68%

ESTIMATED FINANCIAL RETURNS

At Spot Metal Prices, the Waterberg Project DFS estimates a 20.7% IRR (after-tax), which includes the 15% smelter 4E payability discount as a cost. The peak funding for the Project is estimated at US$ 617 million (ZAR 9.26 billion). The payback period on the investment is estimated at 8.4 years, measured from the start of first capital spend (January 2020).

At the Three Year Trailing Average Prices (approximately 27% below the current Waterberg 4E basket price) the Project generates a 13.3% IRR (after-tax), also inclusive of the 15% smelter discount as a cost.

The cash cost per 4E ounce is estimated at US$ 640 (Spot Prices) and US$ 554 (Three Year Trailing Prices) respectively. The cash cost includes the smelter discount as a cost, as well as by-product credits from copper and nickel sales. Comparing these cash costs to their respective 4E basket prices of US$ 1,425 / 4E oz (Spot) and US$ 1,045 / 4E oz (Three Year Trailing Average), indicates healthy operating margins of 55% (Spot) and 47% (Three Year Trailing). At Steady State the Mine is estimated to produce, on 100% project basis, an average of approximately US$ 210 million of after-tax positive cash flow per annum at Spot Prices.

A summary of the estimated LOM average Operating Expenditure is provided below.

On-Site Operating Cost Rates per Area in ZAR and US$

Cost Area	LOM Average (ZAR/t milled Real)	LOM Average (US$/t milled Real)
Mining	345	23.01
Milling and Processing	132	8.79
Engineering and Infrastructure	116	7.76
General and Administration	19	1.25
Total On-site Operating Costs	612	40.80

Total Cash Cost Rates in US$/4E Ounce

Cost Area	Spot Prices (US$/4E oz Real)	3-Year Trailing Average Prices (US$/4E oz Real)
On-Site Costs	487	457
Smelting, Refining and Transport Costs	302	227
Royalties & Production Taxes	88	54
less By-Product Credits	(236)	(184)
Total Project Operating Costs	640	554

The sensitivity of the Project NPV to movements in the discount rate is shown in the table below.

NPV Sensitivity Analysis: Discount Rate

Metric	Discount Rate	Unit of Measure	Spot Prices	Three Year Trailing Prices
Net Present Value US$ (Post-Tax)	Undiscounted	US$ million	6,613	3,489
	4%	US$ million	2,390	1,106
	6%	US$ million	1,516	623
	8%	US$ million	982	333
	10%	US$ million	641	152
	12%	US$ million	415	35

Metric	Discount Rate	Unit of Measure	Spot Prices	Three Year Trailing Prices
Net Present Value ZAR (Post-Tax)	Undiscounted	ZAR million	99,201	56,021
	4%	ZAR million	35,857	17,979
	6%	ZAR million	22,747	10,259
	8%	ZAR million	14,736	5,616
	10%	ZAR million	9,618	2,710
	12%	ZAR million	6,220	829

The table below illustrates the robustness of the business case against movements in key profitability drivers. The analysis documents the discrete impact on the Project NPV, IRR and Payback Period, utilising the Spot Metal Price scenario as a basis.

Sensitivity Analysis (Spot Prices)

Parameters	Increase/ (Decrease)	NPV @ 8% (US$ million)	NPV @ 8% (ZAR million)	IRR (% Real)	Payback Period[1] (years)
Metal Prices	(20%)	408	6,122	13.7	11.0
	(10%)	695	10,423	17.3	9.4
	-	982	14,736	20.7	8.4
	10%	1,272	19,079	23.9	7.8
	20%	1,564	23,458	27.0	7.4
4E Head Grade	(20%)	437	6,550	14.1	10.8
	(10%)	709	10,630	17.5	9.3
	-	982	14,736	20.7	8.4
	10%	1,257	18,857	23.7	7.8
	20%	1,533	22,991	26.6	7.5
Project CapEx	(20%)	1,141	17,114	26.4	7.4
	(10%)	1,062	15,925	23.3	7.8
	-	982	14,736	20.7	8.4
	10%	903	13,547	18.6	9.0
	20%	824	12,358	16.9	9.7
OpEx	(20%)	1,273	19,098	23.3	7.9
	(10%)	1,128	16,917	22.1	8.1
	-	982	14,736	20.7	8.4
	10%	837	12,555	19.3	8.7
	20%	692	10,374	17.8	9.1

Note:

1. From the date of first construction.

QUALIFIED PERSONS

The following Qualified Persons have completed work in preparation of the DFS and are responsible for the contents:

Independent Engineering Qualified Person:
Mr. Michael K. Murphy, B.Sc. Engineering (mining), P. Eng.
Stantec International Consulting LLC.

Independent Geological Qualified Person:
Mr. Charles J. Muller, B.Sc. (Hons) Geology, Pr. Sci. Nat. SACNASP
CJM Consulting (Pty) Ltd.

Independent Engineering Qualified Person:
Mr. Gordon I. Cunningham, B. Eng. (Chemical), Pr. Eng. (ECSA), FSAIMM
Turnberry Projects (Pty) Ltd.

This press release has been reviewed and approved by R. Michael Jones, P.Eng., a non-independent Qualified Person and CEO of the Company. He has verified the technical information for disclosure in this press release by reviewing the work of the QPs on a test basis, visiting the site and meeting with the Project QPs through the development of the DFS.

DATA VERIFICATION, QUALITY ASSURANCE AND CONTROL

Scientific and Technical Information in this Press Release related to Mineral Resources has been reviewed and approved by Charles J. Muller, BSc. (Hons) Geology; Pri. Sci. Nat. (Reg. No 400201/04), an independent consulting geologist and resource estimator of CJM Consulting; an independent qualified person as defined in National Instrument 43-101 -Standards of Disclosure for Mineral Projects ("NI 43-101"). He has verified the data by reviewing the detailed assay and geological information on the Waterberg deposit. He is satisfied that the data is appropriate for the Mineral Resource estimate by reviewing the core, assay certificates and quality control information as well as reviewing the procedures on sampling, chain of custody and data base records of the Platinum Group exploration team.

Base metals and other major elements were determined by multi acid digestion with Inductively Coupled Plasma ("ICP") finish and PGEs were determined by conventional fire assay and ICP finish. Setpoint Laboratories is an experienced ISO 17025 SANAS accredited laboratory in assaying and have utilised a standard quality control system including the use of standards. Bureau Veritas South Africa and Genalysis of Australia with similar standards and approaches have been used for assays and umpire checks. Platinum Group utilised a well-documented system of inserting blanks and standards into the assay stream, has a strict chain of custody and independent laboratory re-check system for quality control. Details are available in the NI 43-101 reports on the Project at www.sedar.com and www.platinumgroupmetals.net

The independent QPs for the DFS (CJ Muller, GI Cunningham and MK Murphy) have visited the Waterberg property for personal inspection. Mr. Murphy last visited the site on October 1, 2018, Mr. Cunningham on October 13, 2016 and Mr. Muller on December 13, 2018. They all have undertaken due diligences with respect to the Waterberg Project data. Other than as specified below they jointly take responsibility for the report.

The QPs have verified the data sufficiently for the reporting of the Mineral Resources, Mineral Reserves and this DFS. The QPs have reviewed and approved their relevant section of this press release.

OPPORTUNITIES

The Project has a good operating margin and a very long life, to 2066 at the current scale of operations. If the operation does well and prices are robust, the North Complex, planned to be mined later but with Mineral Reserves included in the current mine plan, could be brought forward potentially enhancing performance and making greater use of infrastructure. The Mineral Resources are open-ended and significant Inferred Mineral Resources are not included in the mine plan. An expansion could be considered if this material was converted to Mineral Reserves or the Mineral Resources extended. The mine plan for the North Complex currently has an independent decline infrastructure at significant sustaining capital cost. If this Mineral Resource was accessed directly from underground mining areas it may lower future capital costs. Optimization of the total Mineral Resource represents a significant opportunity given the scale of the mining complexes and Mineral Resources.

Production rates have been benchmarked against global and African operations and are within comparable ranges. Specific programs are planned and budgeted for to ensure that the workforce is well trained and developed to world class standards.

RISKS

Permitting timing and conditions are beyond Waterberg JV control and may result in delays or increased costs. The application for the Mining Right has been submitted and is yet to be granted. The area is somewhat underdeveloped, and the construction of considerable infrastructure is required.

Skills development is a key to the large-scale production with efficient modern international mining methods. The mitigation to this risk is the investment in training early in the Project construction and this has been planned and costed.

The palladium market appears to be strong and in deficit. The Project has a considerable ramp up period and a long-life and the metals markets are difficult to predict 10 -20 years in the future. Although Implats holds a right of first refusal to smelt and refine Waterberg concentrate, Waterberg JV does not presently have a smelter agreement to sell its product, although the concentrate appears to be attractive and production is shrinking in other parts of the market.

NEXT STEPS

A contractual process follows the publication of the DFS, enabling Implats the opportunity to review all the elements and the outcomes of the DFS and to formally accept the study as well as to decide their level of participation in the Project's implementation phase. Waterberg JV will continue with work on environmental, community and government interactions and approvals for the grant of the Mining Right and required permits.

On behalf of the Board of
Platinum Group Metals Ltd.

R. Michael Jones
President and CEO

For further information, contact:
R. Michael Jones, President; or
Kris Begic, VP, Corporate Development
Platinum Group Metals Ltd., Vancouver
Tel: (604) 899-5450 / Toll Free: (866) 899-5450
www.platinumgroupmetals.net

Disclosure

The Toronto Stock Exchange and the NYSE American have not reviewed and do not accept responsibility for the accuracy or adequacy of this news release, which has been prepared by management.

This press release contains forward-looking information within the meaning of Canadian securities laws and forward-looking statements within the meaning of U.S. securities laws (collectively "forward-looking statements"). Forward-looking statements are typically identified by words such as: believe, expect, anticipate, intend, estimate, plans, postulate and similar expressions, or are those, which, by their nature, refer to future events. All statements that are not statements of historical fact are forward-looking statements. Forward-looking statements in this press release include, without limitation, statements regarding the projections and assumptions relating to the DFS, including, without limitation NPV, IRR, costs, mine life, payback periods, margins, exchange rates, inflation, recoveries, grades, potential production of the Waterberg Project and other operational and economic projections with respect to the Waterberg Project; Waterberg Project's potential to be a bulk mineable, low cost, dominantly palladium mine producing platinum and palladium based on a fully mechanized mine plan; the Waterberg Project's potential to be one of the largest and lowest cash cost underground platinum group metals mines globally; the projected receipt of the Mining Right in Q1 2020, first production in late 2023 and steady state production by 2027; the expected creation of 1,100 new highly skilled jobs; the potential for future drilling to convert mineral resources into reserves, extending mine life; and the potential for underground mining of the North Mine to lower future capital costs. Mineral resource and reserve estimates are also forward-looking statements because such estimates involve estimates of mineralization that may be encountered in the future if a production decision is made, as well as estimates of future costs and values. Although the Company believes the forward-looking statements in this press release are reasonable, it can give no assurance that the expectations and assumptions in such statements will prove to be correct. The Company cautions investors that any forward-looking statements by the Company are not guarantees of future results or performance and that actual results may differ materially from those in forward-looking statements as a result of various factors, including the Company's inability to generate sufficient cash flow or raise sufficient additional capital to make

payment on its indebtedness, and to comply with the terms of such indebtedness; additional financing requirements; the Company's credit facility (the "Sprott Facility") with Sprott Resource Private Lending II (Collector), LP ("Sprott") and the other lenders party thereto is, and any new indebtedness may be, secured and the Company has pledged its shares of Platinum Group Metals (RSA) Proprietary Limited ("PTM RSA"), and PTM RSA has pledged its shares of Waterberg JV Resources (Pty) Limited ("Waterberg JV Co.") to Sprott, under the Sprott Facility, which potentially could result in the loss of the Company's interest in PTM RSA and the Waterberg Project in the event of a default under the Sprott Facility or any new secured indebtedness; the Company's history of losses and negative cash flow; the Company's ability to continue as a going concern; the Company's properties may not be brought into a state of commercial production; uncertainty of estimated production, development plans and cost estimates for the Waterberg Project; discrepancies between actual and estimated mineral reserves and mineral resources, between actual and estimated development and operating costs, between actual and estimated metallurgical recoveries and between estimated and actual production; fluctuations in the relative values of the U.S. Dollar, the Rand and the Canadian Dollar; volatility in metals prices; the failure of the Company or the other shareholders to fund their pro rata share of funding obligations for the Waterberg Project; any disputes or disagreements with the other shareholders of Waterberg JV Co., Mnombo Wethu Consultants (Pty) Ltd. or Maseve; the ability of the Company to retain its key management employees and skilled and experienced personnel; conflicts of interest; litigation or other administrative proceedings brought against the Company; actual or alleged breaches of governance processes or instances of fraud, bribery or corruption; the Company may become subject to the U.S. Investment Company Act; exploration, development and mining risks and the inherently dangerous nature of the mining industry, and the risk of inadequate insurance or inability to obtain insurance to cover these risks and other risks and uncertainties; property and mineral title risks including defective title to mineral claims or property; changes in national and local government legislation, taxation, controls, regulations and political or economic developments in Canada and South Africa; equipment shortages and the ability of the Company to acquire necessary access rights and infrastructure for its mineral properties; environmental regulations and the ability to obtain and maintain necessary permits, including environmental authorizations and water use licences; extreme competition in the mineral exploration industry; delays in obtaining, or a failure to obtain, permits necessary for current or future operations or failures to comply with the terms of such permits; risks of doing business in South Africa, including but not limited to, labour, economic and political instability and potential changes to and failures to comply with legislation; the Company's common shares may be delisted from the NYSE American or the TSX if it cannot maintain or regain compliance with the applicable listing requirements; and other risk factors described in the Company's most recent Form 20-F annual report, annual information form and other filings with the U.S Securities and Exchange Commission ("SEC") and Canadian securities regulators, which may be viewed at www.sec.gov and www.sedar.com, respectively. Proposed changes in the mineral law in South Africa if implemented as proposed would have a material adverse effect on the Company's business and potential interest in projects. Any forward-looking statement speaks only as of the date on which it is made and, except as may be required by applicable securities laws, the Company disclaims any intent or obligation to update any forward-looking statement, whether as a result of new information, future events or results or otherwise.

Estimates of mineralization and other technical information included herein have been prepared in accordance with National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101"). The definitions of proven and probable reserves used in NI 43-101 differ from the definitions in SEC Industry Guide 7. Under SEC Industry Guide 7 standards, mineralization may not be classified as a "reserve" unless the mineralization can be economically and legally extracted or produced at the time the "reserve" determination is made. As a result, the reserves reported by the Company in accordance with NI 43-101 may not qualify as "reserves" under SEC Industry Guide 7. In addition, the terms "mineral resource", "measured mineral resource", "indicated mineral resource" and "inferred mineral resource" are defined in and required to be disclosed by NI 43-101; however, these terms are not defined terms under SEC Industry Guide 7 and historically have not been permitted to be used in reports and registration statements filed with the SEC pursuant to SEC Industry Guide 7. Mineral resources that are not mineral reserves do not have demonstrated economic viability. Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves. In particular, "inferred mineral resources" have a great amount of uncertainty as to their existence and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an "inferred mineral resource" will ever be upgraded to a higher category. Disclosure of "contained ounces" in a resource is permitted disclosure under NI 43-101; however, SEC Industry Guide 7 normally only permits issuers to report mineralization that does not constitute "reserves" by SEC Industry Guide 7 standards as in-place tonnage and grade without reference to unit measures. Accordingly, descriptions of the Company's mineral deposits in this press release may not be comparable to similar information made public by U.S. companies subject to the reporting and disclosure requirements of SEC Industry Guide 7.

To view the source version of this press release, please visit https://www.newsfilecorp.com/release/48054

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