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ASX:SPD, JSE:SDL

ACN: 646 399 891

Corporate Directory

Executive Chairman Roger Baxter

Managing Director Johan Odendaal

Non-Executive Directors

Mike Stirzaker Rob Thomson Daan van Heerden Lindi Nkosi-Thomas

Company Secretary Andrew Cooke

Top 5 Shareholders

Nicolas Daniel Resources Pty ltd Nurinox Investments Pty Ltd Robert Napier Keith Legacy Platinum Corporation HSBC Custody Nominees (Aus) Ltd

Company Overview

Dual-listed platinum group metal (PGM) company developing the advanced, shallow, high grade Bengwenyama PGM project, located in South Africa's prolific Bushveld Complex.

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Optimised Prefeasibility Study: Project NPV of US\$857m with Improved Fundability Through Staged Development

Key Study Parameters

- An optimised Pre-Feasibility Study (OPFS) has been completed for the 70%owned Bengwenyama Platinum Group Metals (PGM) Project, resulting in a new staged development approach with lower capital expenditure estimates and significantly improving the project's funding attractiveness.
- Several OPFS scenarios were presented by the company's consultants, Minxcon. The SPD Board has evaluated these scenarios and believes that a staged production option, provides the best balance between unlocking project value and allowing the Company to fund project development with minimal future dilution for shareholders.
- Key parameters of the OPFS are set out below:
 - Project level NPV₈ (after tax, 100% basis) for the OPFS is estimated at US\$857m (A\$1.3bn) and an internal rate of return of 26.4%.
 - A staged production proposal, assuming an initial Stage 1 production rate of 100ktpa expanding after 4 years to 200ktpa.
 - Peak funding requirement of US\$279m representing a 38% reduction (US\$173m) to the peak funding total set out in the PFS with Stage 2 expansion capital to be funded through cashflow.
 - Importantly, Stage 1 is expected to be a strongly cash generative project in its own right, meaning that it should be able to attract traditional market-related debt project financing
 - Cash costs for both Stage 1 and Stage 2 remain attractive and lie within the lowest quartile for PGM projects globally.
- The above valuations were done on the Prefeasibility Study ("PFS") (*refer ASX Announcement 28 October2024*) basket price of US\$1,557/6Eoz which is 6% below the current basket price (7 July 2025) of US\$1,662/6Eoz.
- The option to utilise existing mineral processing infrastructure in the area which could result in further significant reductions to peak funding requirements is being evaluated.
- Near-term catalysts: Issue of Mining Right anticipated in the near term. Fullyfunded infill drilling and metallurgical test work program, to be incorporated with OPFS results into planned Definitive Feasibility Study (DFS).

Note in this document:

- **7E or 6E+Au** in this document refers to platinum, palladium, rhodium, ruthenium, iridium, osmium and gold.
- **6E or 5E+Au** refers to platinum, palladium, rhodium, ruthenium, iridium and gold and; **4e or 3E+Au** refers to platinum, palladium, rhodium and gold

Southern Palladium (ASX: SPD; JSE: SDL, "Southern Palladium" or the "Company") Southern Palladium announced the results of the Optimised Prefeasibility Study ("OPFS") for its 70%-owned Bengwenyama Project, located on the Eastern Limb of the Bushveld Complex in South Africa, which contains approximately 72% of the world's platinum group metals ("PGM") resources. The OPFS builds on the October 2024 Prefeasibility Study ("PFS") (refer ASX Announcement 28 October2024), which has confirmed highly attractive economics, and supported the advancement of the project.

The Managing Director, Johan Odendaal, said: "We are pleased to announce the results of the Optimised Prefeasibility Study for the Tier 1 Bengwenyama Project where our primary aim has been to reduce the initial capital requirement. The Board and its consultants have evaluated a number of options and believes that a staged development provides a pragmatic and value-driven path forward. While the full-scale design outlined in the original PFS remains technically and economically compelling, the substantial upfront capital required could pose a funding challenge. A staged development approach for Bengwenyama, reducing peak funding requirements by US\$173 million (38%) to US\$279 million compared to the original PFS, presents a highly attractive option for shareholders.

Importantly, the staged approach also improves our ability to further de-risk key geological, technical, and operational assumptions. Stage 1 of the project, designed to deliver over 200koz per year of PGMs in concentrate will provide valuable insights into ground conditions, and metallurgical performance, supporting more informed mine planning and optimised design for subsequent stages. It also allows us to align project development with infrastructure roll-out and community readiness, ensuring a more sustainable and inclusive growth trajectory.

Stage 2 of the project is designed to deliver PGM production at levels forecast in the earlier study, averaging over 400koz per year for an aggregate mine life of over 20 years from Year 4 or possibly sooner.

Cash costs for both options are attractive and lie within the lowest cost quartile for the global PGM industry. Stage 1 cash costs are estimated at US\$875/oz reducing to US\$750/oz for Stage 2.

The Bengwenyama Project

The Project Area is located in the Greater Tubatse and Sekhukhune District Municipalities, in the Limpopo Province of South Africa, covering 5,280 hectares on the farms Nooitverwacht 324 KT ('Nooitverwacht') and Eerstegeluk 327 KT ('Eerstegeluk), the Project has the potential to stimulate economic growth and development in rural areas with high unemployment rates by creating significant job opportunities (*Figure 1*).



Figure 1: Strategic Positioning of the Bengwenyama Project Amidst Major Platinum Mining Operations

The Bengwenyama Project is strategically located near existing mining operations with established infrastructure, including processing plants, power supply, water supply and well-maintained access roads. This proximity has opened the door to early-stage discussions with third parties regarding the potential shared use of such infrastructure, reducing upfront capital requirements. These discussions, while still preliminary, present a compelling opportunity to accelerate project development timelines, lower capital intensity, and enhance overall project economics through strategic partnerships.

Key Optimised PFS Outcomes and Assumptions

The original detailed October 2024 PFS (*refer ASX Announcement 28 October2024*) outlined a mining strategy for the UG2 reef only using underground mining techniques, with a focus on efficiently exploiting the shallow eastern portion of the orebody. This approach emphasised the rapid commencement of full-capacity production of 2.4Mtpa through two declines — the North Decline and the South Decline.

The Optimised Prefeasibility Study (OPFS) completed by Minxcon as an addendum to the PFS: *M2025-006a: Southern Palladium Limited Pre-Feasibility Study Addendum on the Bengwenyama PGM Project, Issue Date 9 July 2025,* considered as a Stage 1 option where production begins at 1.2 Mtpa from the South Decline only, increasing to 2.4 Mtpa in Stage 2 with the introduction of the North Decline.



Figure 2: Orebody Access in relation to the total Tenement Area.

Mining

Mining will involve a strong focus on rapidly achieving full production capacity. The south decline provides faster access to the orebody, allowing earlier extraction and optimising the development timeline. This supports a faster production ramp-up and better use of infrastructure and resources. Mining begins with the pre-development of blocks using off-reef twin haulages, drives, and centre gulleys (raises), enabling the advancement of infrastructure. Twin haulages are only utilised in the early stages of mining until enough ground is opened for steady state production build-up.

The difference between the 1.2 Mtpa ore production ramp-up to 2.4 Mtpa scenario and the original PFS case is illustrated in *Figure 3*. This figure shows that a steady-state production rate of Stage 1 at 1.2 Mtpa can be achieved from the South Decline alone. A further ramp-up to Stage 2 - 2.4 Mtpa becomes possible once the North Decline is brought into the schedule, enabling increased access to ore and higher production volumes.





Ore production over the first five years is sourced 83% from JORC Measured and Indicated resource classifications, increasing to 92% over the first 10 years. Overall, JORC Measured and Indicated resources account for 70% of the total Life-of-Mine (LoM) ore production.

Processing

A well-established, standard processing technology has been adopted and optimised using current state-of-theart MF2 (two-stage Mill and Float) infrastructure. The average 6E recovery over the Life-of-Mine (LoM) is 85%, with a recovered 6E grade averaging 5.08 g/t during Stage 1, and 5.56 g/t across both Stages 1 and 2.





There is a well-established downstream refining process and terms in place for PGM concentrate within South Africa. Most smelters processing the concentrate from the Eastern and Western Limbs are situated in Rustenburg, with almost all the concentrator product in the area being transported by truck to Rustenburg. The Project PGM concentrates are expected to be processed at one of these facilities. Initial talks have been undertaken with smelters owners.

A production breakdown of the tonnes during Stage 1 and thereafter, are displayed in *Table 1*

Item	Unit	Stage 1	Staged 1 and 2 production	
Ore Tonnes Mined	kt	13,895	41,911	
Total 6E Oz in Mine Plan	koz	2,667.6	8,817.8	
Platinum Recovered	koz	858.8	2,838.8	
Palladium Recovered	koz	856.5	2,831.1	
Rhodium Recovered	koz	177.4	586.3	
Gold Recovered	koz	27.1	89.5	
Ruthenium Recovered	koz	288.2	952.7	
Iridium Recovered	koz	59.5	196.7	
6E Grade Delivered to Plant	g/t	5.97	6.54	
6E Recovered grade	g/t	5.08	5.56	
6E Recovery	%	85%	85%	
Total 6E Oz Recovered	ΟZ	2,267.5	7,495.1	
Copper Recovered	t	2,048	7,808	
Nickel Recovered	t	4,761	15,578	
Chrome Ore Concentrate 42% Produced	kt	1,876	6,046	

Table 1: Production Breakdown in Life of Mine

OPERATIONAL COST ESTIMATE

Costs reported for the Project are displayed per milled tonne, per recovered 4E ounce and per recovered 6E ounce in *Table* 2. It should be noted that costs are inclusive of contingencies.

Description	Unit	Stage 1	Stage 1 and 2
Revenue	ZAR/Milled tonne	4,738	5,178
Mine Cost	ZAR/Milled tonne	1,414	1,312
Plant Costs	ZAR/Milled tonne	479	428
Other Costs	ZAR/Milled tonne	703	589
Royalties	ZAR/Milled tonne	195	288
Adjusted Operating Cost	ZAR/Milled tonne	2,790	2,616
Sustaining Capex	ZAR/Milled tonne	235	225
Rehabilitation	ZAR/Milled tonne	6	2
Off-Mine Overheads	ZAR/Milled tonne	65	31
All-in Sustaining Cost (AISC)	ZAR/Milled tonne	3,096	2,874
Non-Sustaining Capex	ZAR/Milled tonne	339	242
Non-Current Costs	ZAR/Milled tonne	-	-
All-in Cost (AIC)	ZAR/Milled tonne	3,435	3,116
EBITDA*	ZAR/Milled tonne	1,878	2,529
EBITDA Margin	%	40%	49%

Table 2: Project Cost Indicators (Weighted Average over Life of Mine)

Description	Unit	Stage 1	Stage 1 and 2
6E oz Recovered	OZ	2.27m	7.50m
Revenue	USD/6E oz	1,484	1,479
Mine Cost	USD/6E oz	443	375
Plant Costs	USD/6E oz	150	122
Other Costs	USD/6E oz	220	168
Royalties	USD/6E oz	61	82
Adjusted Operating Cost	USD/6E oz	874	747
Sustaining Capex	USD/6E oz	73	64
Reclamation	USD/6E oz	2	1
Off-Mine Overheads	USD/6E oz	20	9
All-in Sustaining Cost (AISC)	USD/6E oz	969	821
Non-Sustaining Capex	USD/6E oz	106	69
All-in Cost (AIC)	USD/6E oz	1,076	890
EBITDA	USD/6E oz	588	723

Table 3: Project Cost Indicators (Weighted Average over Life of Mine)

Infrastructure

While the PFS mining and infrastructure plans formed the basis, reduced processing capacity and initial access via the South decline eliminated the need for several major components, particularly those tied to the North decline. Stage 1 updates include the removal of infrastructure related to the North decline, such as box cuts, conveyors, ventilation, and dewatering systems, with associated reductions in power, water, and compressed air needs. The TSF was downsized and staged, with only the first two stages required and the dewatering plant resized accordingly.

The Company is also exploring off-site processing for Stage 1, which would eliminate the requirement to build a Stage 1 plant, defer tailings storage and significantly reduce water and power demand. If successful, off-site processing for Stage 1 will significantly reduce the Stage 1 funding requirement.

Waste rock will be placed on the TSF footprint, designed for co-disposal. Stage 2, which includes the North decline and a processing plant, will see the reinstatement and expansion of mining, processing, and support infrastructure, including roads, power and water supply, TSF expansion, slurry systems, and a tailings dewatering plant, all scaled to support full production.

The estimate includes all costs associated with access; bulk services (power and water); surface and underground mining infrastructure and facilities; process plant and supporting infrastructure, TSF, general supporting infrastructure, and engineering procurement, construction management ("EPCM").

The capital expenditure for the Project over the LoM is sub-divided into mining, plant and shared infrastructure capital, as indicated in *Table 4*.

	Stage 1	Stage 2	Total
Capital Expenditure	USDm		
Initial Capital			
Direct Mining Capital	27		27
Capitalised Development	4		4
Plant Capital	87		87
TSF Capital	30		30
Shared Infrastructure Capital	39		39
Contingency	31		31
Total Initial Capital	219		219
Ongoing / Expansion Capital			
Direct Mining Capital	3	71	74
Capitalised Development	5	39	44
Plant Capital		87	87
TSF Capital	11	25	36
Ongoing Shared Capital	0	17	17
Contingency	3	38	41
Total Ongoing Capital	22	278	300

Table 4: Project Capital Expenditure

Initial Capital is defined as direct Project capital up to and including first plant production. Ongoing Capital is defined as direct Project capital after Initial Capital. Stay in business capital or sustaining capital consists of renewals and replacement costs over the LoM. The study capital costs estimates are assessed to have an accuracy of ±15 - 25%. A 20% contingency has been applied on all mining and shared infrastructure capital (initial and ongoing) and 15% on plant and TSF capital.

Economic Input Parameters

Table 5 shows the forecasts, which is the same forecast used in the PFS, up to 2028 along with the long-term forecast utilised in the financial model in real terms used in the financial model.

Commodity	Unit	Basis	2025	2026	2027	2028	Long-term
Platinum	USD/oz	Real	1,114	1,147	1,143	1,151	1,200
Palladium	USD/oz	Real	1,020	975	922	978	1,100
Rhodium	USD/oz	Real	5,468	5,515	5,333	5,803	6,190
Gold	USD/oz	Real	2,440	2,263	2,163	2,073	1,950
Ruthenium	USD/oz	Real	450	450	450	450	450
Iridium	USD/oz	Real	4,650	4,650	4,650	4,650	4,650
Chrome Conc.	USD/t	Real	225	225	225	225	225
Copper	USD/t	Real	9,585	9,526	9,287	9,211	8,708
Nickel	USD/t	Real	17,025	17,284	17,615	17,805	18,249
Exchange Rate	ZAR/USD	Real	18.51	18.86	19.22	19.58	19.58

Table 5: Macro-economic Forecasts and Commodity Prices over the Life of Project

Sources: Consensus Economics, Minxcon

The positive PGM market fundamentals have also fed through to higher prices. Towards the end of June 2025, platinum reached a 10-year high of just over US\$1420/oz, after a prolonged decade period of being rangebound between \$900-1100/oz.

Structural deficits in platinum, including a >900 koz deficit in 2025, caused by declining new mine supply (down 6% to 5,4 moz) and limited scrap recovery growth (3% up to 1,6 moz) while also seeing strong growth in jewellery demand especially in China, along with stable auto-catalyst and industrial demand and growing investment demand, has resulted in rapidly dwindling above ground stocks for platinum.

Jewellery demand now exceeds 2,1moz, autocats 3.1 moz, industrial applications 2.1 moz and investment demand 600 koz. Platinum is expected to remain in structural deficit for the next five years. The rapid growth of demand for platinum jewellery in China in the first half of 2025, has been a very positive development.

In 2025, palladium new mine supply is also expected to decline to 6.4 moz, but growth in recycling to 3 moz, means a slight uptick in palladium supply to 9,4moz. Demand for palladium declined marginally to just under 10 moz, resulting in a 531 koz deficit in 2025, the fourth consecutive year of deficits. Palladium demand in autocats at 8.3 moz and industrial applications at 1.4 moz, provided continued stable demand. The slowdown in global BEV sales to single digit levels, combined with consumer preferences supporting growth in demand for hybrid vehicles has resulted in continued support for PGMs in autocats.

The deficit between supply and demand and the drawdown and elimination of aboveground stocks for rhodium has also been positive for fundamentals. The hydrogen economy opportunity for PGMs also continues to expand, especially in heavy duty transport applications (trucking, shipping, locomotives) and will comprise a material portion of the PGM market in 5-years' time.



The current basket price (7 July 2025) of US\$1,662 is 7% higher than the price used in the Optimised PFS study of US\$1,557/6Eoz, however some of the gains are is offset by a stronger ZAR/USD exchange rate.

Cash Flow

The capital expenditure, cash flow, and cumulative cash flow for Stage 1 is displayed in *Figure 7*, on an annual basis USD term. The peak funding requirement USD279 million (inclusive of contingencies), with a pay-back period of 5.5 years from start of mining or 6.0 years from start of construction.



Figure 7: Stage 1 Annual and Cumulative Cash Flow - USD (Real Terms)

Key PFS Outcomes and Assumptions

The following table summarises the results of the optimised PFS, with results presented for the options.

Project Value	Unit	Stage 1	Stage 1 and 2
NPV @ 0%	ZARm	13,093	63,047
NPV @ 5%	ZARm	7,292	27,075
NPV @ 8%	ZARm	5,011	16,781
NPV @ 10%	ZARm	3,828	12,262
NPV @ 15%	ZARm	1,699	5,500
NPV @ 20%	ZARm	358	2,136
NPV @ 0%	USDm	669	3,221
NPV @ 5%	USDm	373	1,383
NPV @ 8%	USDm	256	857
NPV @ 10%	USDm	196	627
NPV @ 15%	USDm	87	281
IRR	%	21.8%	26.4%
AISC Cost Margin	%	35%	44%
Peak Funding Requirement	USDm	279	279
Description	Unit		
LoM	Years	23	33
Undiscounted Cash over Investment	Ratio	3.4	12.5
Breakeven 6E Basket Price (Excluding Capex)	USD/oz	896	757
Breakeven 6E Basket Price (Including Capex)	USD/oz	1,076	891

Table 6: Key PFS Outcomes and Assumptions

Peak funding refers to the amount required before net cash flow from operations becomes sufficient to fund further capital and operating costs. The staged project approach is expected to significantly reduce the peak funding requirement when compared to the original PFS large project approach. Whilst the staged approach will require significant capital expenditure to be sourced from operating cash flows (and/or new debt) to fund Stage II, the Company considers this to be a much-improved outlook in terms of risk and return to shareholders.

The peak funding figures are made up as per the table below.

Table 7: Peak Funding Requirement	(USD	millions)
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	Stage 1 and 2
Capital expenditure:	
Mining	40
Plant	138
Other	47
Stay-in-business	1
Sub-total Capex:	226
Ramp up period:	
Operating costs + working cap. changes	123
Less Revenue	(69)
Sub-total Opex:	53
Peak funding required	279

In addition, the Company is examining the possibility of trucking ROM ore (as mined ore) from the Project site to an existing third party owned PGM processing plant (or plants) in the vicinity. The Company has commenced discussions with various third parties to assess the potential for such an arrangement. If successful, this will further significantly reduce the peak funding amount as no plant capital expenditure will need to be included in that total – refer Table 7 above for the indicative reduction.

SENSITIVITY ANALYSIS

Based on the real cash flow calculated in the financial model, consultants and Minxcon performed singleparameter sensitivity analyses to ascertain the impact on the NPV. The bars represent various inputs into the model; each being increased or decreased by 15%. The left-hand side of the graph indicates a negative 15% change in the input while the right-hand side of the graph indicating a positive 15% change in the input. A negative effect to the NPVs represented by red bars and a positive effect represented by blue bars. Exchange rate, grade and PGM prices have the largest impact on the Project's NPV, followed by the mining operating costs. The Project is least sensitive to the base metal prices, capital and processing operating costs.



Figure 8: Project Sensitivity USD (NPV8.0%)

NEXT STEPS

A preliminary development schedule has been compiled for the Project. The main activities forming part of the schedule includes:-

- Issue of Mining Right;
- Completion of required drilling (resource infill, metallurgical testwork, geotechnical and hydrogeological);
- Completion of a Definitive Feasibility Study;
- Final investment decision;
- Mine development;
- Construction; and
- Commissioning and ramp-up

Conclusion

A staged development strategy balances risk and reward by protecting capital, improving operational readiness, and aligning growth with market and community dynamics. It positions the Bengwenyama project for long-term success by creating a foundation of real-world performance and stakeholder alignment, before scaling to full capacity.

JORC Competent Persons Statement

Uwe Engelmann

The information in this report that relates to Exploration Targets, Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Uwe Engelmann (BSc (Zoo. & Bot.), BSc Hons (Geol.), Pr.Sci.Nat. No. 400058/08, FGSSA). Mr. Engelmann is a director of Minxcon (Pty) Ltd and a member of the South African Council for Natural Scientific Professions. Minxcon provides geological consulting services to Southern Palladium Limited. Mr. Engelmann has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Engelmann consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Mr Engelmann has a beneficial interest in Southern Palladium through a shareholding in Nicolas Daniel Resources Proprietary Limited.

Daan van Heerden

The scientific and technical information contained in this announcement has been reviewed, prepared, and approved by Mr Daan van Heerden (B Eng (Min.), MCom (Bus.Admin.), MMC, Pr.Eng. No. 20050318, AMMSA, FSAIMM). Mr van Heerden is a director of Minxcon (Pty) Ltd and a Registered Professional Engineer with the Engineering Council of South Africa, a Member of the Association of Mine Managers South African Council, as well as a Fellow Member of the South African Institute of Mining and Metallurgy. Minxcon provides geological consulting services to Southern Palladium Limited. Mr van Heerden has sufficient experience that is relevant to the styles of mineralisation and activities being undertaken to qualify as a Competent Person, as such term is defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. van Heerden consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Mr. van Heerden has a beneficial interest in Southern Palladium through a shareholding in Nicolas Daniel Resources Proprietary Limited.

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Forward Looking Information and Cautionary Statements

This prefeasibility study contains "forward-looking information" and "forward-looking statements" (collectively, "forward-looking information") within the meaning of applicable securities laws. This forward-looking information includes, but is not limited to, statements concerning the expected future performance of the Bengwenyama Project, anticipated production rates, resource estimates, mine life, financial projections, capital and operating costs, timelines, economic viability, and other similar statements.

Forward-looking information is based on various assumptions, estimates, and expectations of future performance, which are inherently subject to significant uncertainties and risks, including but not limited to those associated with the mining industry. These include:-

- variability in mineral resource estimates;
- the timing and successful completion of development and construction activities;
- risks related to fluctuations in commodity prices;
- political and regulatory changes in the jurisdictions where we operate;
- potential operational difficulties, including environmental and safety risks; and
- availability of financing and unforeseen financial requirements.

Although the company believes that the forward-looking information in this report is reasonable based on information currently available, actual results may differ materially from those anticipated in the statements. Readers are cautioned not to place undue reliance on forward-looking information, as it is not a guarantee of future performance.

The company disclaims any intention or obligation to update or revise forward-looking statements, whether as a result of new information, future events, or otherwise, except as required by applicable law.