

15 July 2025

ASX Release

ARGENT TARGETS MINERALISED DEPTH EXTENSIONS OVER KEMPFIELD DEPOSIT

Accelerated Diamond Drilling Results to support Metallurgical Testwork for Heap Leach/CIL over the Kempfield Deposit

HIGHLIGHTS

- **Argent accelerates development at Kempfield initiating diamond drilling to determine the true extensive vertical depth of Lodes 100 and 200.**
- Diamond drilling is anticipated to commence over Company's flagship Kempfield Polymetallic Project in New South Wales within 2 weeks.
- Planning for two diamond drill holes (totalling ~ 700m of drilling) over Lode 100 and Lode 200 following NSW regulatory approvals. These drill holes are designed to delineate the depth of the mineralised zones and to generate material for metallurgical testwork supporting both Heap Leach and Carbon-In-Leach (CIL)/Flotation processing routes.
- BHM Process Consultants Pty Ltd is currently undertaking a detailed metallurgical review of historical data, including recovery verification and evaluation of proposed processing pathways. The outcomes of this work are expected to inform a Preliminary Economic Assessment, providing early insight into potential revenues, operating costs, and project-level economics. The upcoming metallurgical drilling program aims to generate material for testwork that will underpin a **Project Scoping Study**.
- This next phase of activity is a key step in progressing the Kempfield Project toward potential development and demonstrates Argent's commitment to realising the value of its high-quality polymetallic asset.

Argent Minerals Limited (**ASX: ARD**) ("Argent" or "the **Company**") is pleased to advise of its plans to accelerate development at its flagship Kempfield Polymetallic Project in New South Wales, initiating a key phase of diamond drilling and metallurgical testwork aimed at a Project Scoping Study. This strategy is designed to assess early production opportunities and lay the groundwork for full-scale development.

Argent Managing Director Mr Pedro Kastellorizos commented:

"This work program represents a major milestone in advancing the Kempfield Project toward development and underscores Argent's commitment to de-risking the project through detailed technical and economic evaluation. The Company is currently assessing the potential to generate early cash flow through a heap leachable product, which would support the development of future hard rock mining operations and the construction of a CIL plant to process the existing 46.6Mt of primary ore".

"With a significant Mineral Resource of 63.7Mt already defined at Kempfield, Argent is now entering a transformational phase as we de-risk the project through detailed technical and economic evaluation and progress toward development. This next stage of metallurgical testwork and targeted drilling is a critical step in a Scoping Study that will assess early cash flow opportunities via a heap leach operation, while also establishing the foundation for long-term hard rock mining and CIL processing. We believe the scale and quality of the resource supports a clear path to production, and we remain firmly focused on creating value through both near-mine drilling and ongoing regional exploration across our broader Kempfield".

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Development Plan

The Company plans to generate representative material for metallurgical testwork with two deep diamond drill holes, totalling approximately 700 metres, to be completed over Lode 100 and Lode 200. Drilling is expected to commence within the next two weeks, following receipt of NSW regulatory approvals.

The testwork will evaluate multiple processing pathways, including Heap Leach and Carbon-In-Leach (CIL)/Flotation options. BHM Process Consultants Pty Ltd has recently completed a detailed metallurgical review and due diligence on the historical data, providing a preliminary economic assessment of various processing routes based on revenue potential, operating costs, and indicative project profitability.

The metallurgical samples will now be processed by Auralia Metallurgy Pty Ltd in Western Australia, with the program expected to deliver a comprehensive set of technical outputs, including:

- Development of Process Flow Diagrams (PFDs)
- Establishment of Process Design Criteria (PDC)
- Mass Balance Reports
- Capital and Operating Cost Models ($\pm 35\%$ accuracy)
- A Process Development Report (PDR) to guide future engineering decisions

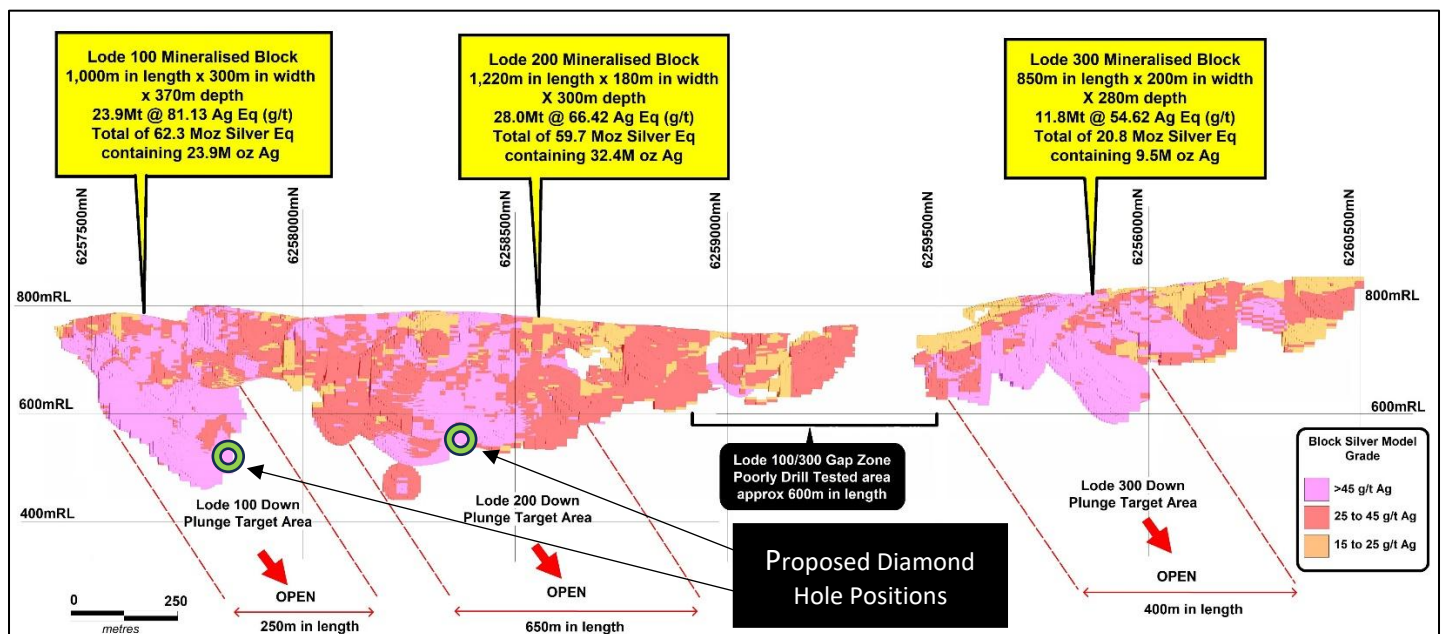


Figure 1 –Kempfield Project Long Section showing the position of the Proposed Diamond Drill Holes

The findings of the metallurgical testing will form the basis for a Scoping Study, which will assess the potential for early-stage production and to define the development pathway for Kempfield. The study will also support the long-term case for a CIL plant to process the project's 46.6Mt of primary ore.

Importantly, while advancing this near-term development strategy, Argent will continue to progress exploration activities across its broader Kempfield and regional portfolio. The Company remains committed to expanding its resource base and creating long-term value for shareholders by establishing Kempfield as a scalable, multi-deposit development hub in one of New South Wales most prospective mining regions.

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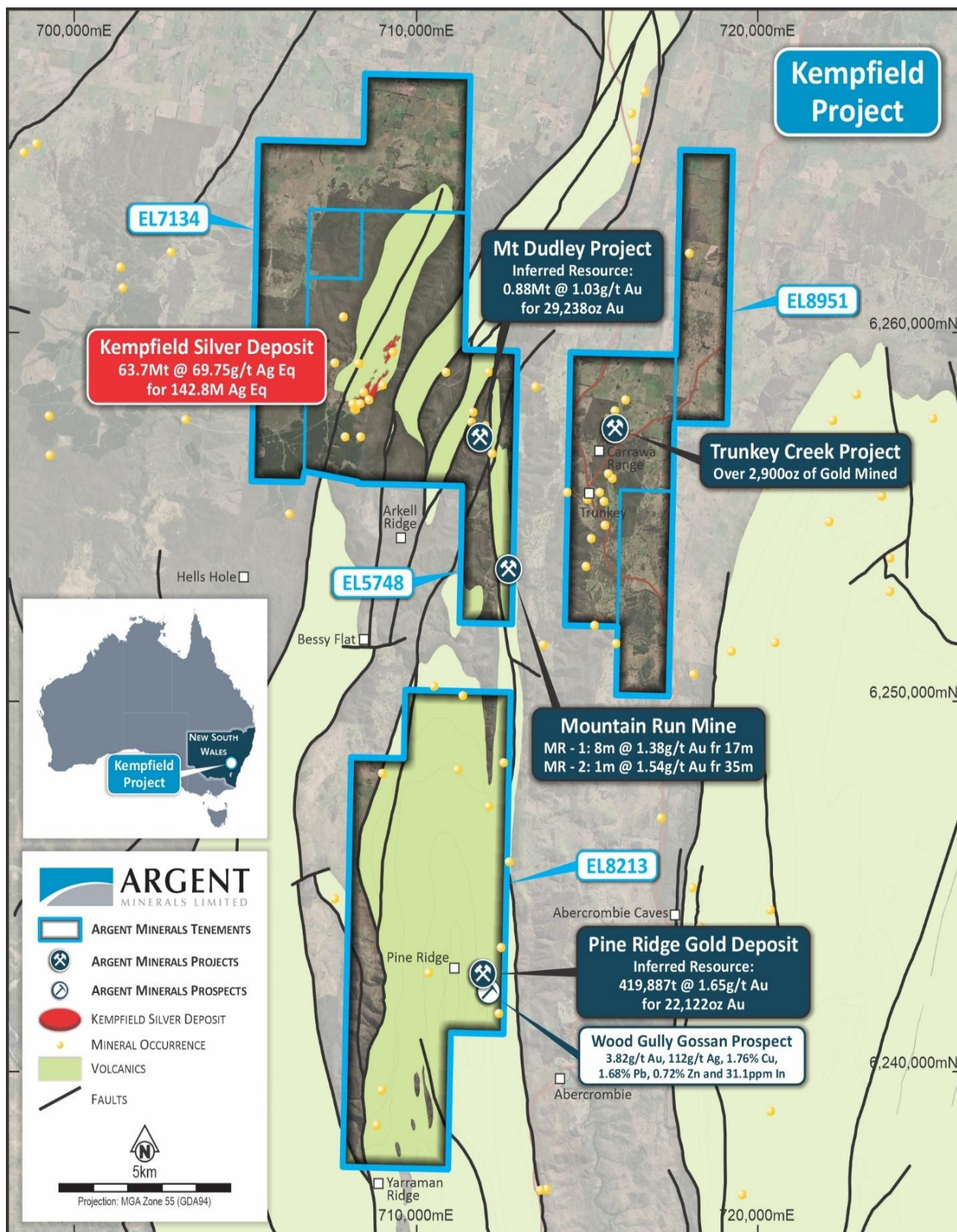


Figure 2 –Kempfield Project Location Map highlighting surrounding nearby Resources in relation to Trunkey Creek

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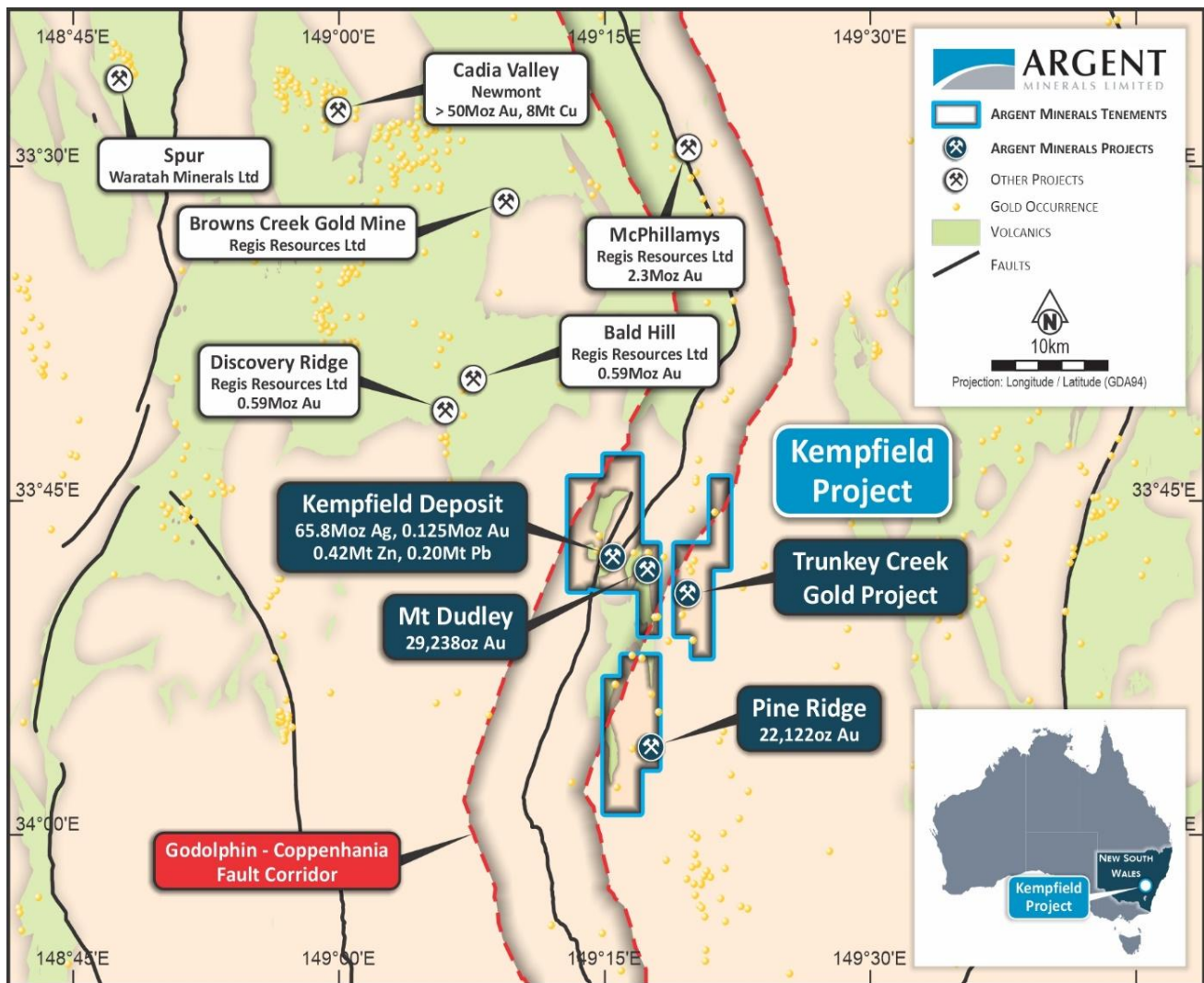


Figure 3 – Argent Minerals NSW Project Location Map highlighting surrounding nearby Resources

About Kempfield Resource Estimation

The Kempfield Silver Deposit Mineral Resource estimate for all categories was upgraded to **63.7Mt @ 69.75 g/t** silver equivalent for **142.8 million ounces Ag Eq**, containing of **65.8Moz silver, 125,192 oz gold, 207,402t lead & 420,373t zinc** (ASX Announcement 25 July 2024: *Significant Silver Resource Upgrade over Kempfield Deposit*). Table 2 shows the **July 2024** Resource Estimation tonnes/grade by Indicated and Inferred categories.

Category	Million Tonnes (Mt)	Volume (m ³)	Silver Eq. (g/t)	Silver (g/t)	Gold (g/t)	Lead (%)	Zinc (%)	Million Ounces Silver	Million Ounces Silver Eq.
Indicated	23.7	8,051,549	79.61	40.04	0.08	0.36	0.67	30.5	60.6
Inferred	40.0	13,589,739	63.92	27.49	0.05	0.31	0.64	35.4	82.3
Total	63.7	21,641,287	69.75	32.15	0.06	0.33	0.66	65.8	142.8

Table 3 is a summary of the updated Kempfield mineral resource as of July 2024 based on the weathering zones, and Table 4 summarises the Mineral Resource by Lodes.

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Table 3 – Kempfield Silver Deposit Mineral Resource Estimate by Weathering Zone as at July 2024
(>15 g/t Ag cut-off, >0.9% Zn cut-off)

Weathering Zone	Million Tonnes (Mt)	Grade					Contained Metal				
		Silver Eq. (g/t)	Silver (g/t)	Gold (g/t)	Lead (%)	Zinc (%)	Million Ounces Silver	Thousand Ounces Gold	Thousand tonnes Zinc	Thousand tonnes Lead	Million Ounces Silver Eq.
Oxide	8.3	45.14	38.48	0.08			10.3	20.9			12.1
Transitional	8.8	60.27	38.87	0.09	0.38	0.37	11.0	24.6	32.5	33.6	17.1
Fresh	46.6	75.93	29.75	0.05	0.37	0.83	44.5	79.7	387.9	173.8	113.7
Total	63.7	69.75	32.15	0.06	0.33	0.66	65.8	125.2	420.4	207.4	142.8

Table 4 – Kempfield Silver Deposit Mineral Resource Estimate by Lode as at July 2024
(>15 g/t Ag cut-off, > 0.9% Zn cut-off)

Lode	Million Tonnes (Mt)	Silver Eq. (g/t)	Silver (g/t)	Gold (g/t)	Lead (%)	Zinc (%)	Million Ounces Silver	Million Ounces Silver Eq
100	23.9	81.13	31.19	0.12	0.49	0.79	23.9	62.3
200	28.0	66.42	36.03	0.03	0.21	0.57	32.4	59.7
300	11.8	54.62	24.93	0.01	0.26	0.61	9.50	20.8
Total	63.7	69.75	32.15	0.06	0.33	0.66	65.8	142.8

Notes:

- The silver equivalent formulas were determined using the following metal prices based on a five-year monthly average: US\$22.02/oz silver, US\$1,776.93/oz gold, US\$2,774.16/t zinc, US\$2,066.73/t lead.
- The silver equivalent formulas were determined using different metallurgical recoveries for each weathering zone from test work commissioned by Argent Minerals Limited. For oxide zone metallurgical recoveries of 86% silver and 90% gold. For transitional zone metallurgical recoveries of 86% silver, 67% zinc and 21% lead, 90% gold. For primary zone metallurgical recoveries of 86% silver, 92% zinc and 53% lead, 90% gold.
- The silver equivalent formulas were determined using the metal prices and recoveries listed in Notes 1 & 2 for each weathering zone:
Oxide Zone silver equivalent: $\text{Ag Eq (g/t)} = \text{g/t Ag} + \text{g/t Au} \times 85.4$
Transitional Zone silver equivalent: $\text{Ag Eq (g/t)} = \text{g/t Ag} + \text{g/t Au} \times 85.4 + \% \text{Zn} \times 30.53 + \% \text{Pb} \times 7.13$
Primary Zone silver equivalent: $\text{Ag Eq (g/t)} = \text{g/t Ag} + \text{g/t Au} \times 85.4 + \% \text{Zn} \times 41.92 + \% \text{Pb} \times 17.99$
- In the Company's opinion, the silver, gold, lead and zinc included in the metal equivalent calculations have a reasonable potential to be recovered and sold.
- Variability of summation may occur due to rounding and refer to Appendices for full details.

The Company is not aware of any new information or data that materially affects the information included in the original market announcement and all material assumptions and technical parameters underpinning the Mineral Resource for Kempfield, announced on 25 July 2024, continue to apply and have not materially changed.

This ASX announcement has been authorised for release by the Board of Argent Minerals Limited.

-ENDS-

For further information, please contact:

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Competent Persons Statement

The information in this report / ASX release that relates to Mineral Resources Estimation is based on information compiled and reviewed by Mr. Alfred Gillman, Director of independent consulting firm, Odessa Resource Pty Ltd. Mr. Gillman, a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy (the AusIMM) and has sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets and Mineral Resources. Mr Gillman is a full-time employee of Odessa Resource Pty Ltd, who specialises in mineral resource estimation, evaluation, and exploration. Neither Mr Gillman nor Odessa Resource Pty Ltd holds any interest in Argent Minerals Ltd, its related parties, or in any of the mineral properties that are the subject of this announcement. Mr Gillman consents to the inclusion in this report / ASX release of the matters based on information in the form and context in which it appears. Additionally, Mr Gillman confirms that the entity is not aware of any new information or data that materially affects the information contained in the ASX releases referred to in this report. Mr Gillman has completed all the Mineral Resource Estimations for Kempfield, Mt Dudley and Pine Ridge.

The information in this report that relates to Exploration Targets and Exploration Results is based on information compiled by Pedro Kastellorizos. Mr. Kastellorizos is the Managing Director/CEO of Argent Minerals Limited and is a Member of the AusIMM of whom have sufficient experience relevant to the styles of mineralisation under consideration and to the activity being reported 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. Kastellorizos has verified the data disclosed in this release and consent to the inclusion in this release of the matters based on the information in the form and context in which it appears.

Forward Statement

This news release contains "forward-looking information" within the meaning of applicable securities laws. Generally, any statements that are not historical facts may contain forward-looking information, and forward looking information can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget" "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or indicates that certain actions, events or results "may", "could", "would", "might" or "will be" taken, "occur" or "be achieved." Forward-looking information is based on certain factors and assumptions management believes to be reasonable at the time such statements are made, including but not limited to, continued exploration activities, commodity prices, the estimation of initial and sustaining capital requirements, the estimation of labour costs, the estimation of mineral reserves and resources, assumptions with respect to currency fluctuations, the timing and amount of future exploration and development expenditures, receipt of required regulatory approvals, the availability of necessary financing for the project, permitting and such other assumptions and factors as set out herein.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the actual results, level of activity, performance or achievements of the Company to be materially different from those expressed or implied by such forward-looking information, including but not limited to: risks related to changes in commodity prices; sources and cost of power and water for the Project; the estimation of initial capital requirements; the lack of historical operations; the estimation of labour costs; general global markets and economic conditions; risks associated with exploration of mineral deposits; the estimation of initial targeted mineral resource tonnage and grade for the project; risks associated with uninsurable risks arising during the course of exploration; risks associated with currency fluctuations; environmental risks; competition faced in securing experienced personnel; access to adequate infrastructure to support exploration activities; risks associated with changes in the mining regulatory regime governing the Company and the Project; completion of the environmental assessment process; risks related to regulatory and permitting delays; risks related to potential conflicts of interest; the reliance on key personnel; financing, capitalisation and liquidity risks including the risk that the financing necessary to fund continued exploration and development activities at the project may not be available on satisfactory terms, or at all; the risk of potential dilution through the issuance of additional common shares of the Company; the risk of litigation.

Although the Company has attempted to identify important factors that cause results not to be as anticipated, estimated or intended, there can be no assurance that such forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such information. Accordingly, readers should not place undue reliance on forward-looking information. Forward looking information is made as of the date of this announcement and the Company does not undertake to update or revise any forward-looking information this is included herein, except in accordance with applicable securities laws.

References

For further information please refer to previous ASX announcement from Argent Minerals Ltd

ASX Announcement 2008: *Further significant intersections at Kempfield*
ASX Announcement 2009: *Kempfield BJ Zone drilling continues with promising results.*
ASX Announcement 2009: *Argent to Drill Gold Targets at Kempfield*
ASX Announcement 2009: *Significant Results from Kempfield Extension Drilling*
ASX Announcement 2009: *Drilling Results from Kempfield and West Wyalong*
ASX Announcement 2010: *Highest recorded silver grades at Kempfield*
ASX Announcement 2011: *Significant Deep Intersections at Kempfield*
ASX Announcement 2012: *Resource upgrade – Kempfield Silver Project*
ASX Announcement 2013: *Exploration Advances for Kempfield Massive Sulphide Targets*
ASX Announcement 2013: *Resource upgrade – Kempfield Silver Project*
ASX Announcement 2013: *Conductor Targets Identified at Kempfield Silver Project*
ASX Announcement 2013: *Sulphides Intercepted at Kempfield Causeway Target*
ASX Announcement 2013: *Argent Minerals Advances Exploration for Kempfield Massive Sulphide Targets*

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ASX Announcement 2013: *Argent Set to Drill Massive Sulphide Targets – Dec Start 2013*
 ASX Announcement 2014: *Geophysics Breakthrough in Kempfield Lead/Zinc Detection*
 ASX Announcement 2014: *Kempfield Resource Statement Upgraded to JORC 2012 Standard*
 ASX Announcement 2014: *Assays confirm third VMS Len group at Kempfield*
 ASX Announcement 2015: *IP Survey confirms Large Copper Gold Target at Kempfield*
 ASX Announcement 2015: *Significant Intersections at Kempfield – Including Copper and High-Grade Gold*
 ASX Announcement 2016: *Kempfield Drilling Update*
 ASX Announcement 2016: *High grade Zinc Lead Silver and Gold Added to Kempfield*
 ASX Announcement 2016: *Diamond Drilling Results in Major Breakthrough at Kempfield*
 ASX Announcement 2017: *Significant Ag Pb Zn Intersections*
 ASX Announcement 18 March 2018: *Significant Kempfield Milestone Achieved Separate Commercial Grade Zinc and Lead Concentrates Produced Substantial Boost to Project Economics*
 ASX Announcement 30 March 2018: *Significant Kempfield Resource Update Contained Metal Eq Signal Boost to Economic Potential*
 ASX Announcement 20 April 2022: *Pine Ridge Inferred Resource*
 ASX Announcement 13 September 2022: *Maiden JORC Resource Over Mt Dudley Prospect*
 ASX Announcement 1 February 2023: *High-grade copper confirmed at Gascoyne Copper Project*
 ASX Announcement 1 March 2023: *Extensive New High-Grade Silver-Lead-Zinc at Kempfield*
 ASX Announcement 13 April 2023: *Further Extensive New High-Grade Mineralisation over Kempfield*
 ASX Announcement 6 September 2023: *Updated Mineral Resource Estimate for Kempfield*
 ASX Announcement 29 January 2024: *Kempfield Exploration Update*
 ASX Announcement 12 February 2024: *Extensive Mineralisation Confirmed over Sugarloaf Prospect*
 ASX Announcement 1 February 2023: *High-grade copper confirmed at Gascoyne Copper Project*
 ASX Announcement 1 March 2023: *Extensive New High-Grade Silver-Lead-Zinc at Kempfield*
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 ASX Announcement 29 January 2024: *Kempfield Exploration Update*
 ASX Announcement 12 February 2024: *Extensive Mineralisation Confirmed over Sugarloaf Prospect*
 ASX Announcement 21 February 2024: *Outstanding Gold-Silver Grades Uncovered at Henry Prospect*
 ASX Announcement 28 February 2024: *Golden Wattle delivers Gold-Silver-Lead Mineralisation*
 ASX Announcement 18 March 2024: *Second Rock Chip Program completed over Kempfield*
 ASX Announcement 27 March 2024: *Massive Silver-Base Metal Discovery NE of Kempfield Deposit*
 ASX Announcement 8 April 2024: *Massive Silver Mineralisation Delineated at Sugarloaf Hill*
 ASX Announcement 10 April 2024: *Completed RC drilling Program over Kempfield*
 ASX Announcement 17 April 2024: *High-Grade Gold & Silver Mineralisation at East of Kempfield*
 ASX Announcement 30 April 2024: *New Exceptional High-Grade Drill Results over Kempfield*
 ASX Announcement 13 June 2024: *Further Silver-Base Metal Mineralisation Hits at Kempfield*
 ASX Announcement 25 July 2024: *Significant Silver Resource Upgrade over Kempfield Deposit*
 ASX Announcement 18 September 2024: *Kempfield NW/NE Zones Delivers More High-grade Assay Results*
 ASX Announcement 14 October 2024: *Exceptional Drilling Results from Kempfield NW Zone*
 ASX Announcement 14 January 2025: *Further Gold Mineralisation Located at Trunkey Creek Project*
 ASX Announcement 5 February 2025: *Volcanogenic Massive Sulphide (VMS) Mineralisation Extended at Kempfield NW Zone*
 ASX Announcement 6 March 2025: *Expansion of Mineralisation at Kempfield NW Zone*
 ASX Announcement 31 March 2025: *Bonanza Gold Grades up to 1,930 g/t Gold at Trunkey*
 ASX Announcement 3 April 2025: *Update – Trunkey Creek Rock Chip Results*
 ASX Announcement 10 June 2025: *Update – Extensive Untested EM trends Located at Kempfield*
 ASX Announcement 19 June 2025: *Investor Presentation*
 ASX Announcement 9 July 2025: *Gold Mineralisation Confirmed over 4.7km at Trunkey Creek*

Hartcliff, P G., 1997. Sixth Annual report EL 4078, 4199 & 4131 Trunkey Creek and Wilson Reef[™] Reporting period 14th October 1997. Golden Cross Operation Pty Limited GS1997_121.

Stevens, B.P. Mine data Sheets to accompany Metallogenic map – Bathurst 1:250,000 Sheet. NSW Geological Survey, Sydney.

About Argent Minerals Ltd (ASX: ARD)

Argent Minerals Limited is an ASX listed public company focused on creating shareholder wealth through the discovery, extraction, and marketing of precious and base metals. Currently, Argent has over 1,734km² of exploration ground in NSW and 1,038km² in Western Australia, totalling 2,772 km² within 2 Australian States.



Kempfield Project EL5645, EL5748 (100% ARD) NSW

The Kempfield Project is located 60km SSW of Cadia Newcrest Gold and Copper Mining Operations in Central West New South Wales, 250 kilometres west of Sydney. This is the Company's flagship project and is registered as a New South Wales State Significant Development Project. Kempfield Silver Deposit Mineral Resource estimate for all categories has been upgraded **63.7Mt @ 69.75 g/t silver equivalent for 142.8 million ounces Ag Eq**, containing of **65.8 Moz silver, 125,192 oz gold, 207,402t lead & 420,373t zinc** (ASX Announcement 25 July 2024: Significant Silver Resource Upgrade over Kempfield Deposit)

Trunkey Creek Project EL5748 (100% ARD) NSW

The Trunkey Creek Gold Project is located 5 kms east of the Kempfield in Central West region New South Wales. The Project lies within the Trunkey Creek Mineral Field which extends for 5.5 km by 500 m wide with over 2,900 oz of gold extracted from small scale mining. New IP model has delineated three distinct resistive/chargeable zones. Sub-parallel main quartz reefs are spaced 30m to 50m apart over a strike length of 2 km (ASX Announcement 31 May 2022: New Gold Drill Targets Identified at Trunkey Creek).

Pine Ridge Project EL8213 (100% ARD), NSW

The Project is located in the Central Tablelands in New South Wales approximately 65 kilometres south of the township of Bathurst and 10 km south-west of Trunkey. Gold mining commenced in 1877 and continued sporadically until 1948, producing a total of 6,864t ore with variable gold grades. Current 2012 JORC Resource (**Inferred Category Only**) is **416,887t @ 1.65 g/t Au containing 22,122 oz Gold** (ASX Announcement 20 April 2022: Pine Ridge Inferred Resource)

Mt Dudley Project EL5748 (100% ARD), NSW

The Project is located 5 km northwest of the township of Trunkey, near Blayney NSW. The Mt Dudley mine was worked between 1913-1922 and 1928-1931, with the mine's records indicating an average mined grade of approximately 25 g/t of gold. Current 2012 JORC Resource (**Inferred Category Only**) is **882,636t @ 1.03 g/t Au containing 29,238 oz Gold** (ASX Announcement 13 September 2022: Maiden JORC Resource Over Mt Dudley Prospect)

Copperhead Project (100% ARD), WA

The Copperhead Project is located NE of Carnarvon and SW of Karratha in Western Australia Gascoyne Region. The project is proximal to major REE deposits and is considered Elephant country based on its untapped potential.

Helicopter rock-chip sample program has confirmed the extensive copper mineralisation over the Mount Palgrave Prospect. High-grade stratiform copper assays include 2.42%, 4.14%, 5.92%, 8.8%, 14.96% and 21.1% Cu.

The Project is also considered highly prospective for potential ironstone/carbonatite Rare Earth mineralisation. Over Fifty (50) high priority potential ironstone/carbonatite rare earth targets have been delineated and are currently being assessed (ASX Announcement 1 February 2023: High-grade copper confirmed at Gascoyne Copper Project)



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