

DETAILED ROCK CHIP RECONNAISSANCE PROGRAM COMPLETED WITHIN KEMPFIELD PROJECT

Three New Potential Mineralised Zones will be Drill Tested in 2024

HIGHLIGHTS

- First detailed geochemical reconnaissance program has been completed over the Sugar Loaf Prospect, Rock Bridge Creek and Golden Wattle Trends proximal to the Kempfield and Mt Dudley Deposits.
- 223 rock chip samples have been submitted to ALS with results expected shortly.
- The program was designed to delineate new mineralised zones which could act as additional feed material to any future centralised processing plant at Kempfield.
- Limited exploration has been conducted over these areas which have extensive historical workings in the form of deep shafts, extensive shallow pits, and open stopes.

Argent Minerals Limited (ASX: ARD) (“Argent” or “the Company”) is pleased to announce the completion of ground geochemical sampling around its 100%-owned Kempfield Polymetallic Deposit in New South Wales.

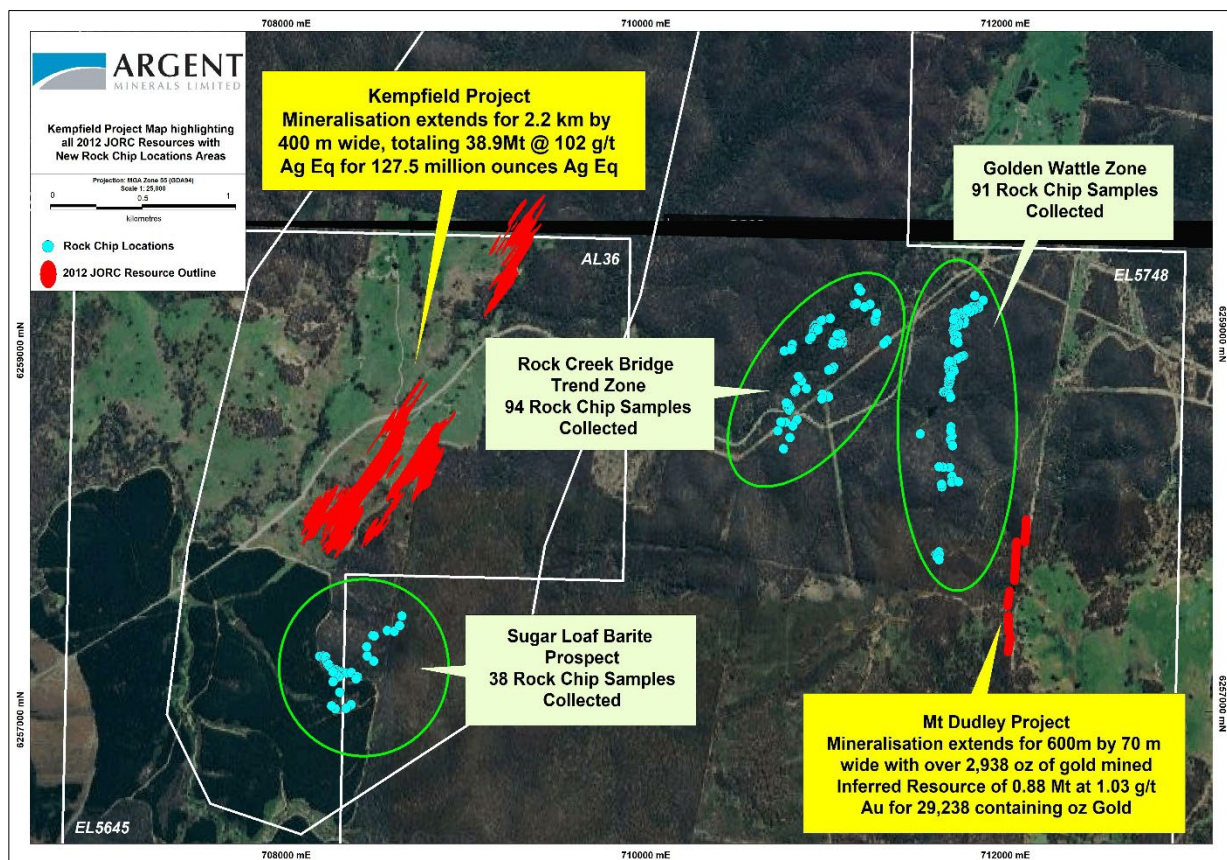


Figure 1 – Kempfield Project highlighting New Geochemical Target Zones

Based on the extensive historical mining, Argent highlighted these zones as priority targets to generate new drilling targets for upcoming 2024 drilling programs. These areas lie in between both the Kempfield and the Mt Dudley Deposits where very little to no modern-day exploration has previously been undertaken.

The potential style of mineralisation targeted over the Sugar Loaf prospect is Volcanic-Hosted Massive Sulphides (VHMS) deposit based on the stratiform barite-rich mineralisation lithologies delineated. The exploration target at the Bridge Creek and Golden Wattle trends is shallow orogenic gold and base-metal deposits.

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

-ENDS-

For further information, please contact:

Pedro Kastellorizos
Managing Director/Chief Executive Officer
Argent Minerals Limited
info@argentminerals.com.au

Competent Persons Statement

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.

ARGENT MINERALS LIMITED

Level 2, 7 Havelock Street, West Perth WA 6005, PO Box 308, West Perth WA 6872

T: +61 8 6311 2818 | E: info@argentminerals.com.au

ABN: 89 124 780 276

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*
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 13 September 2023: *Updated Mineral Resource Estimate for Kempfield*

Cas, R. A. F., 1983. Timing of deformation, plutonism and cooling in the western Lachlan fold belt, southeastern Australia. PhD thesis. La Trobe Univ. Melbourne, Australia.

Crawford, A. J., 2015a. Petrographic Report – 46 Rocks from Drillholes AKDD178 and AKDD179 on the Kempfield Ag-Barite Deposit, NSW, for Argent Minerals Ltd (Sydney) 24/06/2015. *Internal Unpublished Report.*

Crawford, A. J., 2015b. Petrographic Report – 17 Rocks from Drillholes AKDD177, AKDD178 and AKDD159, Kempfield Ag-Barite Deposit, NSW, for Argent Minerals Ltd (Sydney) 26/09/2015. *Internal Unpublished Report.*

David, V. 2013. *Geology of the Kempfield silver-barite and base metal (Pb-Zn) Volcanic hosted massive sulphide deposit, Lachlan Orogen, Eastern Australia. AIG Bulletin 55. Mines and Wines 2013.*

David, V, 2009. Exploration Licence 7134 Kempfield & Exploration Licence 5748 Kempfield & Exploration Licence 5645 Kempfield Group 2 & PLL 519, Joint Annual Report 2009. Unpublished Company Report.

David, V and Mischler, P, 2013. Exploration Licence 5748, 5645, 7134, 5645, 5645 & PLL 517, 519, 727, 728, Combined Annual Report 2013. Unpublished Company Report.

Edwards, A, McLean, G and Torrey, C, 2001. Exploration Licences EL 5748 & EL 5645 Kempfield & Kempfield Group 2, Annual Report 2001. Unpublished Company Report.

Herrmann, W., 2015. Notes on reconnaissance geological mapping north of Kempfield Quarry Zone – 28/10/2015. *Internal Unpublished Report*

McGilvray, C. T., 2016. Joint Annual Report to 27/06/2016 – Exploration Licences 5748-7134 and PLL 517-519-727-728 – Kempfield - Trunkey, NSW.

McGilvray, C T and Busch, D, 2016. Exploration Licence 5748, 5645, 7134, 5645, 5645 & PLL 517, 519, 727, 728 Kempfield/Trunkey, NSW, Joint Annual Report 2014. Unpublished Company Report.

McLean, G, 2003. Exploration Licence 5748 Kempfield & Exploration Licence 5645 Kempfield Group 2, Annual Report 2003. Unpublished Company Report.

McLean, G and Hee, R, 1998. Exploration Licences EL 5448 & 5390 Kempfield & Kempfield North, Annual Report 1998. Unpublished Company Report.

ARGENT MINERALS LIMITED

Level 2, 7 Havelock Street, West Perth WA 6005, PO Box 308, West Perth WA 6872

T: +61 8 6311 2818 | E: info@argentminerals.com.au

ABN: 89 124 780 276

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, 1,038km² in Western Australia and 104km² in Tasmania, totalling 2,876 km² within 3 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 **38.9Mt @ 102 g/t** silver equivalent for **127.5 million ounces Ag Eq**, containing of **42.8Moz silver, 149,200 oz gold, 181,016t lead & 426,900t zinc** (ASX Announcement 6 September 2023: Updated Mineral Resource Estimate for Kempfield).

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 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 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)



ARGENT MINERALS LIMITED

Level 2, 7 Havelock Street, West Perth WA 6005, PO Box 308, West Perth WA 6872

T: +61 8 6311 2818 | E: info@argentminerals.com.au

ABN: 89 124 780 276