

17 January 2025 ASX Release

## **Amendment to ASX Announcement**

Argent Minerals Limited (ASX: ARD) ("Argent" or "the Company") wishes to advise of amendments to the announcement titled "Further Gold Mineralisation Located at Trunkey Creek Project" (Announcement) released on 14 January 2025, amendments are included in the attached revised announcement.

Investors can refer to an updated Competent Persons Statement, the inclusion of details on the Company's Kempfield resource estimate included in the "About Kempfield Resource Estimation" section on page 11 and additional informational references added on page 6.

This announcement was authorised for release by the Board of Argent Minerals Limited.

-ENDS-

## For further information, please contact:

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17 January 2025 ASX Release

# FURTHER HIGH-GRADE ROCK CHIP ASSAYS RETURN UP TO 63.1 G/T GOLD AT TRUNKEY CREEK GOLD PROJECT IN NSW

High-grade gold rock chips within quartz veins over historical workings highlight new drill target zones

#### **HIGHLIGHTS**

- Additional gold mineralisation confirmed by Argent's second rock chip reconnaissance program over the Trunkey Creek Project Gold Project in NSW, situated approximately 9km SE of the Kempfield Polymetallic Project.
- Rock chip sampling program returned high-grade **gold assays up to 63.1 g/t Au,** including highlights of:
  - 63.1g/t Au in sample 3001227
  - 55.8 g/t Au in sample 3001131
  - 35.7 g/t Au in sample 3001273
  - 20.4 g/t Au in sample 3001269
  - 16.35 g/t Au in sample 3001242
  - 14.95 g/t Au in sample 3001280
- Trunkey Creek Mineral Field consists of extensive historical gold workings across several NNE trending quartz veins over a zone of 5.5 km in length by 500 m wide, which historically produced over 2,900 oz of gold.
- Re-interpretation of historical Induced Polarisation (IP) traverse over the Trunkey Creek Project has identified significant chargeable (detects sulphides) and resistive (detects quartz/silica zones) IP anomalies.
- Sub-parallel main quartz reefs have been mapped **30m to 50m apart over a 2km strike length.** The distribution of shafts along the reef indicates <u>two main centres of mineralisation</u>.
- Ground IP survey has delineated high resistivity zones within a **3.8 km length by 500m wide** area with anomalies coinciding with historical gold workings.
- The resistive trends may represent silica rich veins, prospective for gold mineralisation. The gold mineralisation is reportedly associated with sulphides in the quartz veins which should return chargeable responses where present.

Argent Minerals Limited (ASX: ARD) ("Argent" or "the Company") is pleased to announce gold assay results from the rock chip sampling programme at its 100%-owned Trunkey Creek Gold Project in NSW, which provide further confirmation of surface gold mineralisation.

## **Argent Managing Director Mr Pedro Kastellorizos commented:**

"We are extremely pleased to have received further high-grade geochemical results, highlighting significant gold mineralisation potential at Trunkey Creek. These gold rock chip assays, returning grades up to 63.1g/t Au, in conjunction with locating historical mine workings, demonstrate the project's exploration upside. The detailed ground IP interpretation has clearly defined extensive high resistivity zones (potential quartz veins)



and chargeability zones (potential sulphides) which have excellent potential for hosting gold mineralisation. These zones have been defined as "stand up" targets and will be systematically tested by drilling.

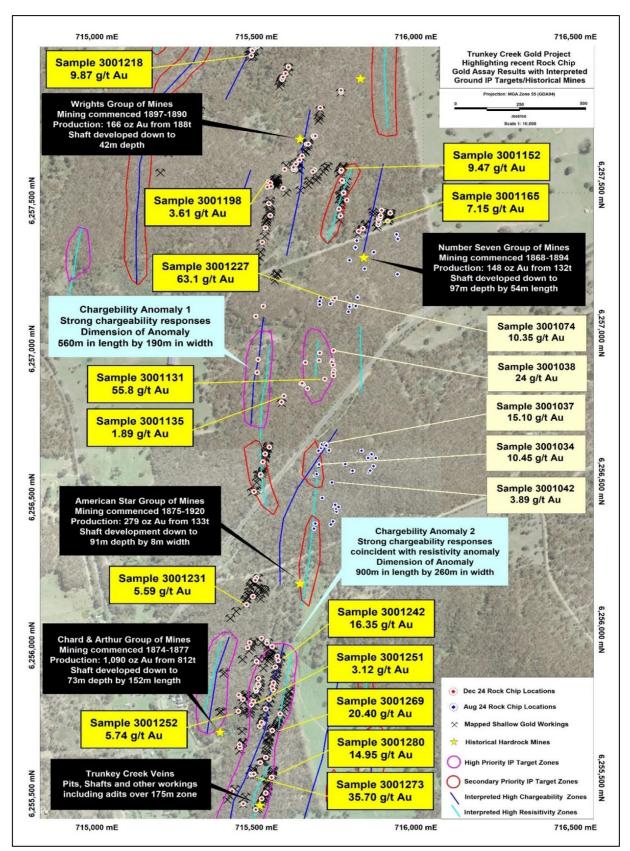


Figure 1 – Trunkey Creek highlighting the December 2024 high-grade gold rock chip results within untested IP Anomalies

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#### **Gold Mineralisation**

The Trunkey Creek mineral field extends for approximately **5.5km in length and varies in width, generally around 250m** but widening to 500m in areas. Hard rock workings predominantly strike north, and are hosted in bedding and/or cleavage parallel structures. The quartz veins host the gold mineralisation at Trunkey Creek.

The recent reconnaissance program concentrated on verifying the accuracy of the historical gold workings across a 2km strike zone along geological mapping of the main quartz reefs exposure over the whole strike length. The distribution of historical shafts along the reef indicates two main centres of mineralisation.

During the fieldwork programme, 160 rock chip samples were collected within various lithological units, quartz veins and mined out mullock dumps. Notable high-grade gold mineralisation in the central portion of Trunkey Creek includes 63.1g/t Au in sample 3001227, 55.8 g/t Au in sample 3001131, 35.7 g/t Au in sample 3001273, 20.4 g/t Au in sample 3001269 and 16.35 g/t Au in sample 3001242.

The mineralised structures/veins, hosted in slate, are steeply dipping to the west and exhibit arkosic and chloritic alteration. There are multiple veins/structures side by side even within one set or workings. The sample location and summary of high-grade results are illustrated in Figure 1. Table 1 contains location and assay data for all 160 samples collected.



**Figure 2** – Gold mineralisation within ferruginous rusty quartz vein yielding **63.10g/t Au** from sample 3001227

**Figure 3** – Gold mineralisation within chloritic- quartz vein yielding **55.80** g/t Au from sample 3001131

Gold mineralisation occurs with pyrite in the quartz and patchy trace arsenopyrite and galena. The historical working are generally shallow, extending less than 30m deep and typically not worked below the water table. The stamper battery was seen suggesting free-milling gold, but its use may have been limited to the oxidised zone only. The worked veins appear to be limonitic stained and fractured vein quartz. In many cases solution

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cavities and box work textures indicate that the mineralised veins were quartz-carbonate-sulphide veins. Almost all hard rock workings strike just east of north and are hosted in bedding parallel structures. Workings are often continuous along strike for up to 500m.

#### **IP Re-Interpretation Work**

As part of the evaluation of Trunkey Creek, Core Geophysics Pty Ltd was engaged to complete a reinterpretation of the Gradient Array IP survey originally conducted by Golden Cross Operation Pty Ltd in 1996. The survey was centred over the historic Trunkey Creek mining field over a 4km by 1.3km area. Resistivity readings were carried out on 100m spaced lines and 20m stations, with chargeability collected on 200m spaced lines and 20m stations (ASX Announcement 31 May 2022: New Gold Drill Targets Identified at Trunkey Creek).

One of the strongest chargeability responses is semi-coincident with the resistivity anomaly which lies immediately east of the township (Refer to Figure 1 – Chargeability Anomaly 2). Another 2 strong chargeability responses are evident at the southern boundary and in the north-west of the survey area also (Refer to Figure 1). Several discrete linear resistivity trends are evident which provide some correlation to the historical mining operations. The resistive trends may represent silica rich veins prospective for gold mineralisation at Trunkey Creek. The gold mineralisation is reportedly associated with sulphides in the quartz veins which should return chargeable responses where present.

Coincident resistive and chargeable anomalies and trends represent priority targets for follow up investigations. A total of 6 high priority IP targets have a good correlation to historical workings and have been delineated for drill testing.

## **Trunkey Gold Project Area**

The Trunkey Creek Project is located over the township of Trunkey Creek approximately 38km southwest of Bathurst and approximately 9km south-east of the Kempfield Project in NSW. The areas were first discovered in 1851 and worked from 1852 to 1880, and then again from 1887 to 1908. By 1873 there were 2,500 people at Trunkey Creek and nearby Tuena with many rich veins being mined for gold.



Figure 4 - Trunkey Creek Historical Shallow Gold Workings



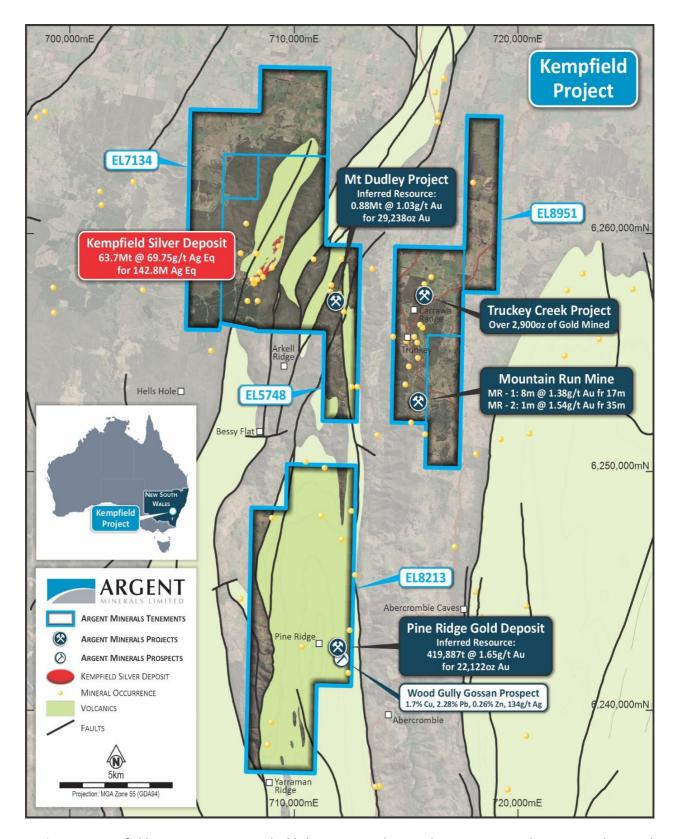


Figure 5 – Kempfield Project Location Map highlighting surrounding nearby Resources in relation to Trunkey Creek

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

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#### 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 Gillam 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





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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 31 May 2022: New Gold Drill Targets Identified at Trunkey Creek
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 2 October 2024: Rock Chip Assays Return 24 g/t Gold at Trunkey Creek Project
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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.



Table 1: Trunkey Creek Project rock chip locations and results

Sample ID	MGA55_E	MGA55_N	Au (ppm)
3001124	715718	6256968	0.47
3001125	715714	6256934	0.01
3001126	715713	6256929	0.53
3001127	715717	6256919	0.03
3001128	715719	6256901	1.58
3001129	715717	6256893	0.02
3001130	715718	6256883	0.02
3001131	715691	6256872	55.8
3001132	715637	6256840	0.31
3001133	715623	6256854	0.47
3001134	715616	6256857	1.02
3001135	715620	6256858	1.89
3001136	715673	6256935	0.01
3001137	715675	6256960	0.22
3001138	715498	6257118	0.02
3001139	715475	6257084	0.08
3001140	715482	6256938	0.57
3001141	715479	6256894	0.04
3001142	715469	6256493	0.62
3001143	715490	6256547	0.02
3001144	715490	6256550	0.01
3001145	715497	6256593	0.01
3001146	715504	6256620	0.04
3001147	715517	6256643	0.01
3001148	715555	6256794	0.03
3001149	715563	6256815	<0.01
3001150	715630	6256928	0.01
3001151	715741	6257573	0.07
3001152	715743	6257577	9.47
3001153	715747	6257538	0.16
3001154	715745	6257542	<0.01
3001155	715751	6257501	0.20
3001156	715750	6257500	1.42
3001157	715760	6257475	1.20
3001158	715735	6257446	0.61
3001159	715740	6257422	0.02
3001160	715797	6257370	0.04
3001161	715810	6257378	0.08
3001162	715810	6257380	1.28
3001163	715861	6257395	6.43
3001164	715858	6257393	1.27
3001165	715858	6257401	7.15
3001166	715860	6257401	0.15
3001167	715860	6257413	0.08
3001168	715865	6257416	0.05
3001169	715866	6257423	0.30
3001170	715869	6257441	0.98
3001171	715896	6257432	0.82
3001172	715888	6257405	0.01
3001173	715599	6257579	0.07
3001174	715597	6257583	0.03
3001175	715592	6257579	0.12
3001176	715593	6257586	0.01
3001177	715600	6257597	0.35
3001177	715609	6257609	0.05
3001179	715612	6257611	0.05
3001170	715620	6257624	0.14

Sample ID	MGA55_E	MGA55 N	Au (ppm)
3001181	715634	6257664	0.2
3001182	715639	6257665	0.01
3001183	715656	6257688	0.29
3001184	715655	6257692	0.13
3001185	715661	6257692	0.78
3001186	715677	6257787	0.99
3001187	715742	6257839	0.01
3001188	715742	6257846	0.03
3001189	715577	6257927	5.36
3001190	715577	6257924	1.46
3001191	715568	6257903	0.01
3001192	715560	6257890	0.04
3001193	715557	6257883	0.03
3001194	715565	6257579	0.01
3001195	715514	6257537	0.04
3001196	715514	6257538	2.94
3001197	715520	6257534	0.65
3001198	715511	6257519	3.61
3001199	715522	6257522	0.37
3001200	715560	6257515	0.02
3001201	715516	6257464	0.01
3001202	715520	6257424	0.05
3001203	715505	6257382	0.02
3001204	715495	6257334	0.82
3001205	715238	6257761	0.57
3001206	715237	6257762	0.25
3001207	715237	6257747	0.01
3001208	715237	6257748	0.38
3001209	715659	6257578	0.02
3001210	715654	6257572	0.01
3001211	715264	6257738	0.91
3001212	715267	6257731	0.6
3001213	715268	6257727	0.14
3001214	715251	6257740	0.09
3001215	715460	6257962	0.04
3001216	715460	6257963	0.12
3001217	715509	6258039	2.69
3001218	715486	6258012	9.87
3001219	715479	6258002	0.05
3001220	715470	6257987	0.01
3001221	715468	6257985	0.88
3001222	715479	6257994	11.20
3001223	715462	6257982	0.09
3001224	715464	6257980	0.05
3001225	715715	6257138	0.77
3001226	715717	6257138	1.24
3001227	715722	6257145	63.10
3001228	715477	6256202	0.03
3001229	715473	6256194	0.03
3001230	715466	6256139	0.65
3001231	715446	6256111	5.59
3001232	715449	6255966	0.01
3001233	715455	6255983	0.02
3001234	715455	6255983	0.01
3001235	715493	6255998	0.04
3001236	715510	6255988	0.01
3001237	715525	6255971	0.01



Sample ID	MGA55_E	MGA55_N	Au (ppm)
3001238	715526	6255970	0.01
3001239	715510	6255982	0.19
3001240	715541	6255936	0.67
3001241	715542	6255937	0.02
3001242	715545	6255923	16.35
3001243	715536	6255901	0.14
3001244	715530	6255848	<0.01
3001245	715531	6255845	0.1
3001246	715527	6255835	0.07
3001247	715529	6255823	<0.01
3001248	715551	6255743	0.75
3001249	715516	6255792	0.02
3001250	715467	6255785	0.03
3001251	715461	6255774	3.12
3001251	715434	6255792	5.74
3001252	715423	6255803	0.03
3001253	715421	6255807	0.03
3001255	715421	6255821	0.01
3001256	715480	6255835	0.03
3001250	715480	6255839	0.04
3001257	715484	6255839	1.89
-		6255843	0.11
3001259 3001260	715482 715483		_
3001260		6255862	0.68
	715478	6255918	0.88
3001262	715477	6255920	0.05
3001263	715474	6255828	0.03
3001264	715420	6255752	1.73
3001265	715506	6255760	0.04
3001266	715497	6255712	0.11
3001267	715493	6255714	0.83
3001268	715487	6255701	0.12
3001269	715526	6255687	20.4
3001270	715506	6255596	0.03
3001271	715489	6255579	0.04
3001272	715525	6255530	1.40
3001273	715524	6255529	35.70
3001274	715506	6255476	2.70
3001275	715493	6255457	0.09
3001276	715475	6255420	1.17
3001277	715435	6255440	0.34
3001278	715400	6255483	0.03
3001279	715460	6255537	0.02
3001280	715460	6255539	14.95
3001281	715468	6255540	0.02
3001282	715425	6255629	0.05
3001283	715424	6255639	0.01



#### 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)





## **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.

	Table 2 – Kempfield Silver Deposit Mineral Resource Estimate by Classification as at July 2024 (at a >15 g/t Ag cut-off & >0.9% Zn)								
Category	Million Tonnes (Mt)	Volume (m³)	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

	Table 3 – Kempfield Silver Deposit Mineral Resource Estimate by Weathering Zone as at July 2024										
		_		(>15 g/t	Ag cut-off	, Zn 0.9%	Zn cut-off	)			
				Grade					Contained Me	etal	
Weathering Zone	Million Tonnes (Mt)	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, >Zn 0.9% 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: U\$\$22.02/oz silver, U\$\$1,776.93/oz gold, U\$\$2,774.16/t zinc, U\$\$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.
- 3. 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: Ag Eq  $(g/t) = g/t Ag + g/t Au \times 85.4$ 

Transitional Zone silver equivalent: Ag Eq (g/t) = g/t Ag + g/t Au x 85.4 + % Zn x 30.53 + % Pb x 7.13 Primary Zone silver equivalent: Ag Eq (g/t) = g/t Ag + g/t Au x 85.4 + % Zn x 41.92 + % Pb x 17.99





- 4. 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.
- 5. Variability of summation may occur due to rounding and refer to Appendices for full details.



#### JORC Code, 2012 Edition - Table 1 report

#### **Section 1 Sampling Techniques and Data**

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code explanation	Commentary
Sampling techniques	Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement	160 rock chip samples were collected in during the reconnaissance field trip over Trunkey Creek areas.
	tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc).	Rock chip samples representative of outcrops with samples collected from mineralised and non-mineralised rocks.
	These examples should not be taken as limiting the broad meaning of sampling.  Include reference to measures taken to ensure sample representivity and the	All rock chip samples weight varies from 1 kg to 2 kg based on various outcrops.
	appropriate calibration of any measurement tools or systems used. Aspects of the determination of	ALS used industry standard method using Fire Assay (AA26 Fire Assay method) using a 25g charge is used to analyse gold.
	mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple	All samples were collected by geologists on site with samples dispatched to ALS Labs in Orange.
	(e.g., 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire	Individual samples were bagged in calcio bags and sent to ALS Labs with all samples photographed and documented.
	assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g., submarine nodules) may warrant disclosure of detailed	Samples completed is appropriate for early-stage exploration.
Drilling	information.  Drill type (e.g., core, reverse circulation,	N/A – No drilling was undertaken.
techniques	open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g., core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.  Measures taken to maximise sample recovery and ensure representative nature of the samples.  Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	N/A – No drilling was undertaken.
Logging	Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate	N/A – No drilling was undertaken.  All rock chip samples were logged for a combination of
	Mineral Resource estimation, mining studies and metallurgical studies.  Whether logging is qualitative or	geological and geotechnical attributes in their entirety including as appropriate major & minor lithologies, alteration, vein minerals, vein percentage, sulphide type and percentage, fractures, shears, colour, weathering, hardness, grain size.
	quantitative in nature. Core (or costean, channel, etc) photography.	The Project areas is currently classified as early stage of exploration and no Mineral Resource estimation is appliable.





Criteria	JORC Code explanation	Commentary
	The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	The rock chip samples were collected from outcrop in the field.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	No field duplicates for rock chip samples were collected during this sampling exercise and no sub-sampling is needed for compositing.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.  Quality control procedures adopted for all	
	sub-sampling stages to maximise representivity of samples.	
	Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.	
	Whether sample sizes are appropriate to the grain size of the material being sampled.	
Quality of assay data and laboratory tests	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.	The samples were collected by a highly experienced geologist in which the samples were selected based on geological observation in the field.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	Gold Analysis was undertaken by AA26 Fire Assay method which included drying and pulverising to 85% passing 75um with detection limit of 0.01 ppm  Acceptable levels of accuracy for all data referenced in this ASX announcement have been achieved given the purpose of the analysis (first pass exploration).
	Nature of quality control procedures adopted (e.g., standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e., lack of bias) and precision have been established.	
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative	Rock chip samples areas were documented in the field by qualified geologist with photos taken from each site.
	company personnel. The use of twinned holes.	All samples were collected by GPS and validated through aerial photography.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All field data was collected then transferred into a computer database.
	Discuss any adjustment to assay data.	
Location of data points	Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.	All rock chip locations were recorded with a handheld GPS with +/- 5m accuracy GDA94, Zone 55 was used
	Specification of the grid system used.	
	Quality and adequacy of topographic	



Criteria	JORC Code explanation	Commentary
	control.	
Data spacing and distribution	Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied.	No Mineral Resource is being considered in this report.  Data spacing and distribution was dependant on the identification of mineralisation observed in outcrops. This was not a systematic rock chip sampling program based on a grid.  The locations of the samples are provided in Table 1 and illustrated in Figure 2.  There is insufficient data to determine any economic
		parameters or mineral resources.
Orientation of data in relation to geological structure	Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.  If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	Rock chip sampling has been conducted in selective manner targeting precious mineralisation from outcrops.  Based on the early stage of exploration, the surface grab sampling across the mineralisation over the quartz veins, and slates from the Kangaloolah Volcanics achieves an unbiases sampling of possible structures.
Sample security	The measures taken to ensure sample security.	Sub-samples will be stored on site prior to being transported to the laboratory for analysis. The sample pulps will be stored at the laboratory and will be returned to the Company and stored in a secure location.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been undertaken

## **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	Exploration Licence Trunkey Creek, NSW held by Argent (Kempfield) Pty. Ltd. is located approximately 9 kilometres south-west of the township of Trunkey and 65 kilometres south from Bathurst. The tenement was granted on the 12 December 2013 and is a 100% wholly owned subsidiary of Argent Minerals Limited. There are no overriding royalties other than the standard government royalties for the relevant minerals.  The Company's Exploration Licences is in good standing and expires 12 December 2022.  There are no other material issues affecting the tenements. All granted tenements are in good standing and there are no impediments to operating in the area.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	The area was first discovered in 1851 and worked from 1852-1880 and then again from 1887 to 1908. A number of companies have held exploration licences over the area since then, the most significant being CRA who held EL2682 and completed detailed mapping and sampling over part of the area.



Criteria	JORC Code explanation	Commentary
		Plutonic Operations Ltd drilled 6 RC holes between 1994 – 1995 for a total of 481m. From 1991-1999, Golden Cross Operations worked on the current tenure with literature reviews and base map compilation including soil geochemical surveys and a VLF EM survey completed in 1993. This established that anomalous gold values are largely contained by the area of known workings. Detail mapping of the old workings and rock chip sampling was undertaken in 1995.
		In 1996, a 26-line km grid expanded the mapping and conducted an IP and resistivity survey over the area which highlighted a number of anomalies and trends as outlined in the announcement
Geology	Deposit type, geological setting, and style of mineralisation.	The deposit is considered to be of Orogenic gold - quartz vein hosted gold type placing it with the Hill End, Hargraves, Trunkey Creek and Mt Dudley group of deposits. The deposit model is consistent with Slate Belt Gold Type Deposits similar to Tuena and Hill End in NSW.
		Trunkey Creek is situated in the Hill End Synclinorial Zone which is bounded nearby to the west by the Copperhania Thrust. Along with the underlying Crudine and Mumbil Groups these rocks are folded into the Trunkey Creek Syncline.
		The gold mineralisation is in the form of near vertical to steep westerly dipping quartz veining along faults parallel to bedding surfaces within schistose carbonaceous shales and phyllites.
Drill hole Information	A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:	No drilling has been undertaken over Trunkey Creek by Argent Minerals Ltd  The announcement is highlighting areas rock chip locations and assay results.  No Drilling results are reported in this announcement
	<ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level –</li> </ul>	
	elevation above sea level in metres) of the drill hole collar     dip and azimuth of the hole	
	<ul> <li>down hole length</li> <li>and interception depth</li> <li>hole length.</li> </ul>	
	If the exclusion of this information is justified on the basis that the information is not Material and this	
	exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	
Data aggregation methods	In reporting Exploration	No averaging or aggregating of rock chip results was undertaken.
	Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g., cutting of high grades)	All individual results have been reported.





Criteria	JORC Code explanation	Commentary
	and cut-off grades are usually Material and should be stated.  Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.  The assumptions used for any reporting of metal equivalent values should be clearly stated.	
Relationship between mineralisation widths and intercept lengths	These relationships are particularly important in the reporting of Exploration Results.  If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g., 'down hole length, true width not known').	All reported rock chip values are not true width as this is considered grass roots exploration.  The nature and dip of the mineralisation are still being evaluated and is currently unknown.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Figure 1 and Tables 1 have been presented within the announcement outlining locations of rock chip samples sites.
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All assays result for significant economic elements for samples are included in Table 1 of the announcement.  The reporting balances is considered as early exploration results.
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples — size and method of treatment; metallurgical test results;	Metallurgical, groundwater, and geotechnical studies have not commenced as part of the assessment of the project.





Criteria	JORC Code explanation	Commentary
	bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).  Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	At this stage, RAB or RC drilling programme may be implemented during the next quarter.