

21 February 2023

DRILLING SET TO COMMENCE AT 100%-OWNED PICKLE LAKE GOLD PROJECT

HIGHLIGHTS

- ✓ COMMENCEMENT OF 2023 DRILL PROGRAM IMMINENT: Planning is complete for a 24-hole diamond drilling program at the 100%-owned Dorothy Prospect. Drilling will target broad, anomalous mineralised zones that were intercepted in secondary and tertiary parallel structures during the 2022 drill program. These holes will target the wide, low to medium grade mineralisation halo identified at both the Dorothy and Dobie prospects.
- TECHNICAL ECOLOGICAL KNOWLEDGE STUDY (TEK) UNDERWAY: Appointment of CE Strategies (CES) to lead an initial TEK for the benefit of Slate Falls First Nation, Cat Lake First Nation and Mishkeegogamang Ojibway First Nation. The aim is to preserve and boost the knowledge base used by First Nations to enhance effective decision making for the benefit of all parties.
- ✓ FULLY FUNDED FOR GOLD EXPLORATION INTO 2024: Sale of remaining 20% interest in the Lithium Joint Venture to joint venture partner, Green Technology Metals (ASX: GT1) late last year, sees Ardiden fully funded for exploration programs through 2024.

Ardiden Limited ('Ardiden' or 'the Company') (ASX: ADV) is pleased to advise that drilling is set to commence in the coming weeks at the 100%-owned, fully permitted, highly prospective Dorothy prospect of the Pickle Lake Gold Project in northwest Ontario, Canada (Figure 1). The fully funded 2023 program will focus on first stage drilling of the anomalous broad zones at the Dorothy prospect identified in the 2022 campaign. These targets are supported by historical drilling results and logs. The Company is initially targeting a total of 24 drill holes covering 3,250m over a strike length of 2.5km.

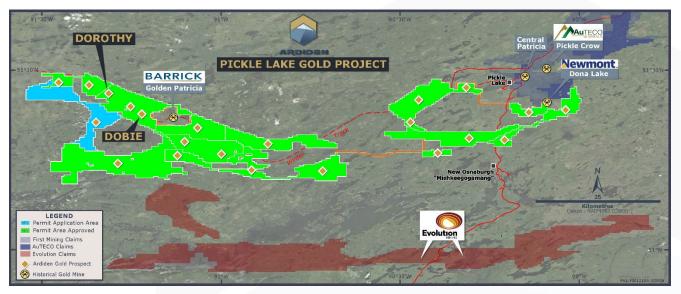


Figure 1 – Status of Permitting at the District-Scale Pickle Lake Gold Project, Green areas are permitted, Blue are in circulation with the Mines Department, Ontario

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The Pickle Lake Gold Project is a continuous District-Scale landholding, located east of Red Lake in the wellendowed Uchi Geological sub-province of northwestern Ontario, Canada. Ontario is host to a number of large low to medium grade operations with significant gold ounce Mineral Resource endowments (Figure 2). These low to medium grade projects are either in production, under construction or currently being assessed including the Great Bear project acquired by Kinross Gold Corporation (NYSE: KGC) for CAD\$1.6 billion in 2022. Kinross reported a maiden resource of 5MOZ Au on 13 February 2023.

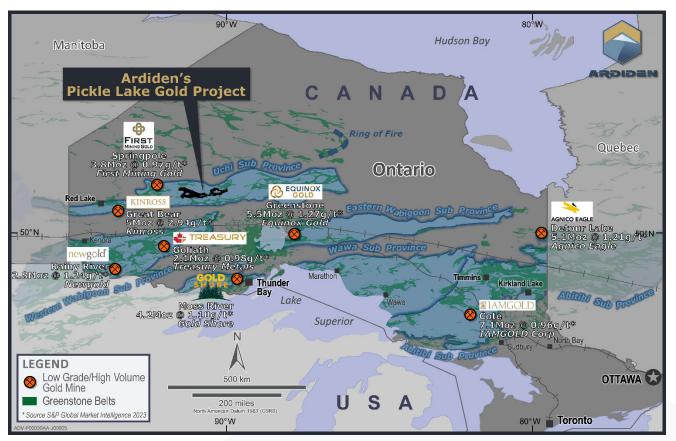


Figure 2– Location of Ardiden's Pickle Lake Gold project within the Uchi Belt of northwest Ontario¹.

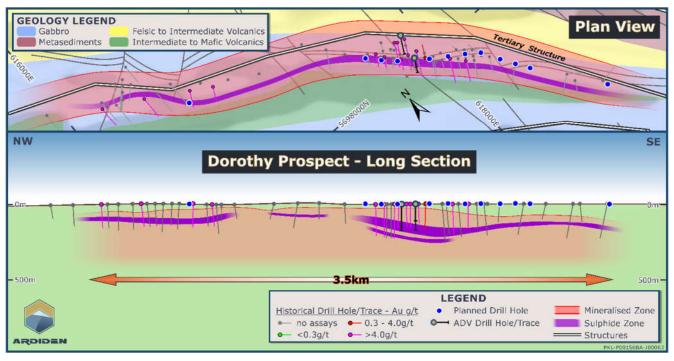
2023 Exploration Programme

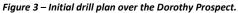
The fully funded 2023 program will begin by focusing on the anomalous broad zones at the **Dorothy prospect** identified in the 2022 drill campaign and from historical drilling results. The Company is initially targeting a total of 24 drill holes covering 3,250m over a strike length of 2.5km to test the large mineralisation halo and semi massive to massive sulphide sequence, identified at both the Dorothy and Dobie prospects in the successful 2022 drill program (Figure 3 and Figure 4). The holes at the Dorothy prospect have been planned at 100m spacings up to 150m deep targeting confirmation of the recently interpreted geological model. Dorothy has been ranked first priority due to the width of the drilled anomalous zones and large number of cross cutting structures which have been interpreted as potential fluid feeders from the primary structure into these board secondary and tertiary structures which run parallel to, and through the project tenements.

Drilling is set to commence in the coming weeks and will once again be undertaken by Cyr Drilling. The proposed assessable costs for the drill program are estimated to be A\$2.8 million for this phase of drilling.

¹ * Source S&P Global Market Intelligence 2023







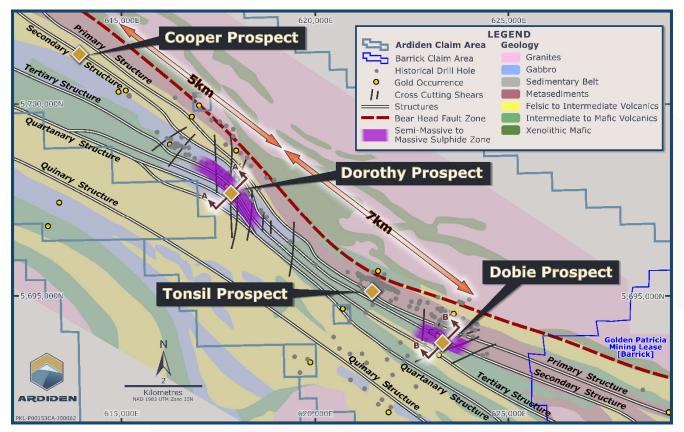


Figure 4 – Zones of semi-massive to massive sulphides at Ardiden's structurally complex Western Hub, Pickle Lake Gold Project.

Refer to ADV ASX release 18 Feb 2020, 17 Aug 2022, and 15 Dec 2022.



A 3D interpretation model of the Dorothy prospect (Figure 5 and Figure 6) represents the interpreted and modelled extent of a broad mineralisation halo (gold) with a consistent sulphide zone which displays a semi massive to massive texture in drill core (green). A video of the interpretation model can be found on the company's website <u>www.ardiden.com.au</u> that has been modeled from the 2022 drill campaign and historical drilling. Historical drilling from the 1980's and 1990's at Dorothy support ADV's modelled continuity of these broad parallel structures to the primary structure. A detailed review of these historical drill logs (combined with selective sampling) supports the view that previous owners were targeting narrow high grade, gold mineralisation. A number of these historical drill holes have either no reported assays or geological logs (grey).

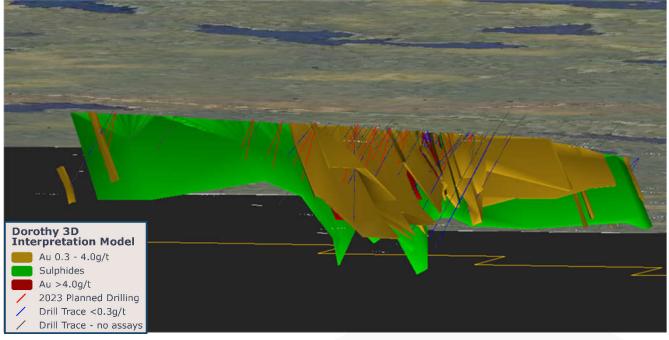


Figure 5 3D Geological Interpretations

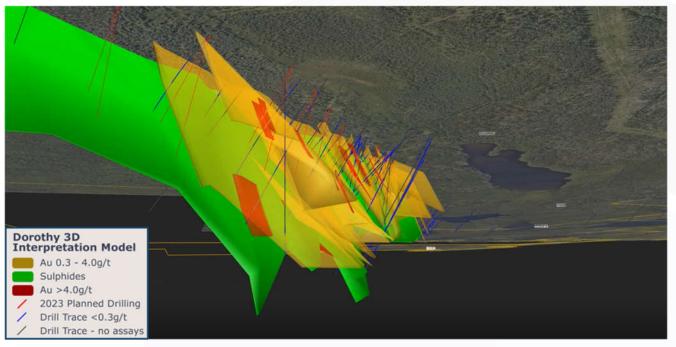


Figure 6 3D Geological interpretations



Background

The 2022 exploration program tested four gold prospects along a 20 km strike length of the **Western Hub**. The majority of the 43 holes were targeting the **primary structure** that hosts the Golden Patricia geological sequence found in the historical Golden Patricia mine. While the drill results derived from the primary structure confirm the Golden Patricia geological style, it is the results from the 3 holes which targeted the **secondary and tertiary structures** at **Dorothy and Dobie** (only 3 from 43 holes) which will form the basis for the 2023 program.

The results of those 3 holes indicate the secondary and tertiary structures could remain open at depth and along strike, with over 30km of untested ground and include the following assay results:

- DR22-01 30.65m @ 1.57 g/t Au from 31.85m (Dorothy ASX 17 Aug 2022)
 - Including 14.5m @ 2.59 g/t
- DR22-02 38.48m @ 0.97 g/t Au from 50.52m (Dorothy ASX 26 Sept 2022)
 Including 19.0m @ 1.39 g/t
 - DB22-01 26.51m @ 2.1g/t Au from 77.8m (Dobie ASX 26 Sept 2022)
 - Including 8.05m @ 4.05 g/t

These results prompted a review of the structural model which was led by Exploration Manager (Haydn Daxter), with industry experts from Geointerp (Leigh Rankin), Southern Geoscience (Anne Tomlinson), and Optiro-Snowden (Christine Standing) to determine how to best target the broad mineralisation zones of the **secondary and tertiary structures** at the Company's Dorothy and Dobie Prospects.

The structural review indicated a significantly deformed region at Dorothy hosting the secondary, tertiary, and three other untested structures, that runs parallel to the Bear Head Shear Zone. Along with these parallel structures along the property, a high accumulation of cross cutting dilation shear zones was defined, which are considered to possibly be the conduit of mineralised fluids from the Bear Head Shear Zone (Figure 7).

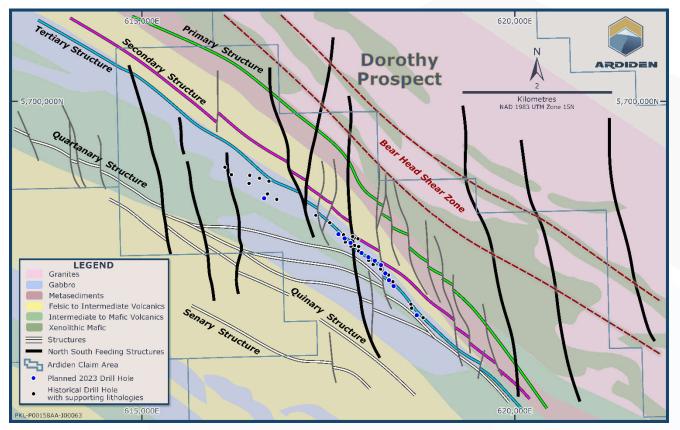


Figure 7 – Structural setting at Ardiden's Dorothy Prospect, planned drill collars in blue testing the tertiary structure, cross cutting dilation shears in black.



The technical structural review also revealed the presence of a large mineralisation halo at both Dorothy and Dobie consistent with a massive parallel sulphide zone, in line with a possible hydrothermal flooding event (Figure 4 and 7). Modelling of the interpreted drill data from both prospects informs the view of a broad low to medium grade gold mineralisation halo, with a semi-massive to massive sulphide lens within this mineralisation zone. High grade gold inflections displayed an affinity to the northern region of the sulphide lens as the Company continues to interpret and understand this mineralisation event at both prospects. Interestingly, the 2022 drill campaign and historical drilling at both Dorothy and Dobie prospects (and between) informs the structural interpretation that these broad low to medium grade zones could extend over many kilometres between and beyond these prospects.

The Company has reviewed several historical drill logs at both the Dorothy and Dobie prospects that display similar lithologies and continuity with semi massive to massive sulphides occurring in these structurally complex zones. The historical work conducted at the Dorothy and Dobie prospects is important because it appears they were also been targeting narrow high grade mineralisation styles. Understanding these lower and medium grade, broad mineralisation zones at Dorothy and Dobie prospects is the key focus for the Company in 2023 (Figure 8).

The Company has identified a number of low to medium grade gold projects in Ontario as highlighted in Figure 2 above, that are either in production producing more than 200,000 oz eq/yr or are under assessment or construction and scheduled to produce over 300,000 oz/yr when operational. Ontario has traditionally produced high-grade gold projects and now appears to be identifying the potential for large low to medium grade gold operations.

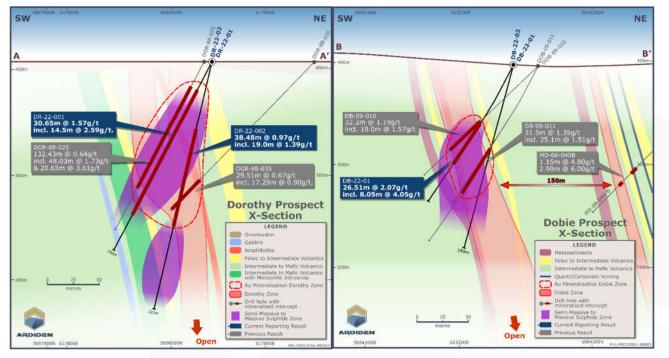


Figure 8 – Cross section at Ardiden's Dorothy and Dobie prospects highlighting the relevance to broad sulphide and gold mineralisation from historical and recent drilling. Refer to ADV ASX release 18 Feb 2020, 17 Aug 2022, and 15 Dec 2022.



First Nations – ESG

The Company has engaged CE Strategies to undertake a Technical Ecological Knowledge Study (TEK) over the Western Hub. The TEK is an important tool aimed at bolstering lands and resources knowledge to facilitate positive communications and respectful consultation processes with First Nation stakeholders.

CE Strategies has been a local source of professional expertise for many communities and organisations throughout Ontario and Manitoba for over 10 years, providing the services and tools that promote informed decision-making and strong, beneficial consultation practices.

Funding

The Company is fully funded through 2024 to target the broad anomalous zones across the Dorothy and Dobie Prospects from the sale of the final 20% of the Lithium Joint Venture to GT1 in November 2022. The Company had a strong cash balance at 31 December 2022 of **A\$8.35 million**. A further A\$8 million remains in trust, subject to Canadian withholding tax requirements. Ardiden expects the residual A\$8M, less a nominal tax payable, to be remitted back to the Company following the filing of its tax return and receipt of a tax clearance certificate from Canada Revenue in the second half of the financial year.

Corporate

The search is progressing for the recruitment of a CEO in North America.

Ardiden will be attending the Prospector& Developers Association of Canada (PDAC) in Toronto in early March. Our booth number is 2128.

This information is authorised for ASX release by the Board.

ENDS

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For more information including modelling parameters and details, the ASX announcements pertaining to Exploration Results and Mineral Resources are available from the Company's website: <u>www.ardiden.com.au</u>

Competent Person's Statement

The Company confirms that it is not aware of any other new information or data that materially affects the information included in the original market announcements referred to above, and in the case of estimates of mineral resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.



Future Performance

Future performance: This announcement contains certain forward-looking statements and opinion, which may be identified by the use of words such as "expect", "anticipate", "likely", "intend", "should", "could", "may", "predict", "plan", "propose", "will", "believe", "forecast", "estimate", "target" "outlook", "continue", "guidance" and other similar expressions. The forward-looking statements, opinion and estimates provided in this presentation are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions. Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties and other factors, many of which are outside the control of the Company. There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. A number of important factors could cause actual results or performance to differ materially from the forward-looking statements, including the risk factors set out in this presentation. Investors should consider the forward-looking statements contained in this presentation in light of those risks and disclosures. The forward-looking statements are based on information available to the Company as at the date of this presentation. Except as required by law or regulation (including the ASX Listing Rules), the Company undertakes no obligation to supplement, revise or update forward-looking statements or to publish prospective financial information in the future, regardless of whether new information, future events or results or other factors affect the information contained in this presentation.

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About Ardiden

Ardiden is focused on systematic gold exploration at its Pickle Lake Gold Project in the well-endowed Uchi Geological Subprovince of north-west Ontario, Canada. The Company's District-Scale Gold Project is the largest continuous gold land holding in the Uchi Belt, where Barrick, Newmont Kinross and Evolution all hold significant gold mine and exploration assets. Ardiden's strategic landholding is situated on the same geological belt as Red Lake, the 'Uchi' Subprovince, which has produced over 30M oz of gold to date and where new Tier-1 gold discoveries are still being made, such as Great Bear Resources' Dixie Project, which is now under new ownership following the successful CAD\$1.6 billion acquisition by Kinross. In addition to its Pickle Lake Gold Project, Ardiden has retained ~13 million shares in Green Technology Metals (ASX:GT1) which it acquired as part proceeds from the sale of Ardiden's lithium assets.