

DRILL CORE REVIEW CONFIRMS FENTON SHEAR ZONE AS MAJOR GOLD BEARING STRUCTURE

HIGHLIGHTS

- A review of historical diamond drill core from the Fenton Gold Project has confirmed that the gold bearing intervals correspond to the position of a major shear zone, called the Fenton Shear Zone (FSZ).
- FSZ represents a structurally complex gold target that extends for over 20km and is comparable in scale to the nearby 17Moz¹ Au Pine Creek Shear Zone (Fig. 1).
- Limited and widely spaced historical drilling in the mid-1990's by Homestake Gold Company (now Barrick Gold) intersected 20m @ 1.74g/t Au (FEND18)¹, confirming the potential to host significant gold mineralisation. Historical gold intersections have been correlated between wide spaced holes associated with intensely sheared pyrrhotite-rich zones.
- This historical drilling at Fenton was conducted following a global search by Homestake to find analogous deposits to its +40Moz Lead Gold deposit in South Dakota, the largest gold mine in the United States.
- Maiden diamond drilling program planned to commence in August once ground geophysical targeting is complete.

Commenting on the results, DeSoto Managing Director Chris Swallow:

"We are pleased to report that the Fenton Shear Zone is a large-scale gold-bearing structure. The under-explored Fenton structure mirrors the exposed highly mineralised Pine Creek Shear Zone in scale. The Fenton core review confirms we are in a very prospective place for a significant shear zone-hosted gold discovery."

NEXT STEPS

- Work programs underway following a long wet season that delayed programs in the Northern Territory.
- Line-cutting to be completed at Fenton for the Fixed Loop Electrical Magnetic (FLEM) and Induced Polarisation Pole-Dipole (PDIP) geophysical survey.
- Ground geophysical programs to commence in June to define targets under cover for maiden diamond drilling program at Fenton.

¹DES Announcement: Desoto Prospectus (22nd December 2023)

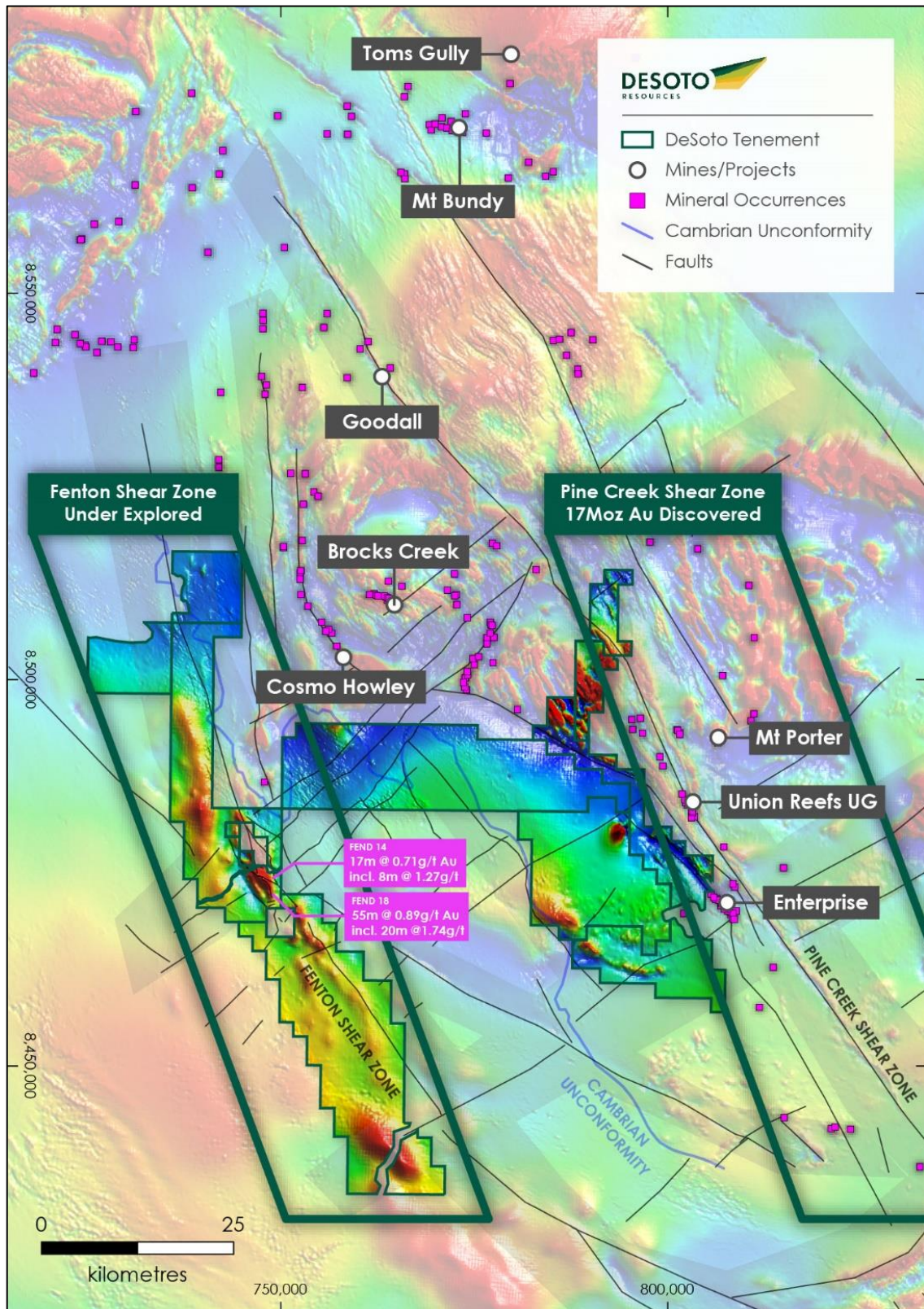


Figure 1 – Fenton Shear Zone, host to the Fenton Gold Project parallel to the 17Moz Pine Creek Shear Zone.

DeSoto Resources Limited (ASX:DES or 'Company') is pleased to provide an update on its 100%-owned Fenton Gold Project, located in the Northern Territory.

The Fenton Gold Project is an under-cover, structurally complex Palaeoproterozoic hosted gold target zone that extends for over 20km along strike by 4km across strike on the western edge of the Pine Creek inlier. It is covered by 50-200m of Cambrian limestones and mudstones of the Daly Basin.

DeSoto's team recently completed a site visit to the Fenton area in Pine Creek and to the NTGS Core Library in Darwin to review historical Fenton diamond holes. The context of mineralisation was evaluated with respect to geophysical detection parameters, magnetic susceptibility and structural observations for 3D modelling.

A major structure, the Fenton Shear Zone (FSZ), is interpreted from regional geophysics (gravity and magnetics) along the eastern edge of the Fenton anticlinorium. It is comparable in scale to the Pine Creek Shear Zone (Fig. 1) through the central part of the Pine Creek Orogen which hosts significant gold resources.

Recent observations on historic Homestake Mining Company (Homestake) drillcore demonstrate the correlation of elevated gold intervals with intensely sheared pyrrhotite-rich zones. Deformation produced a strong foliation in the sulphide enriched rocks (Fig. 2) and was likely a focus for fluid flow and gold mineralisation.

The deformed zones in FEND18 and FEND14 are located towards the end of hole and are interpreted as a continuous shear zone (FSZ). This structure is correlated with high magnetic susceptibility in core and a strong aeromagnetic gradient is detected along the eastern edge of the folded stratigraphy.

The potential ore zones are predicted to have a high conductivity response to Electrical Magnetic surveys and a high resistivity/chargeability response to an Induced Polarisation (IP) geophysical survey.

The Company is now awaiting commencement of a Fixed Loop Electrical Magnetic (FLEM) and Induced Polarisation (IP) ground geophysical survey ahead of the maiden diamond drilling program to better define drill targets under cover.

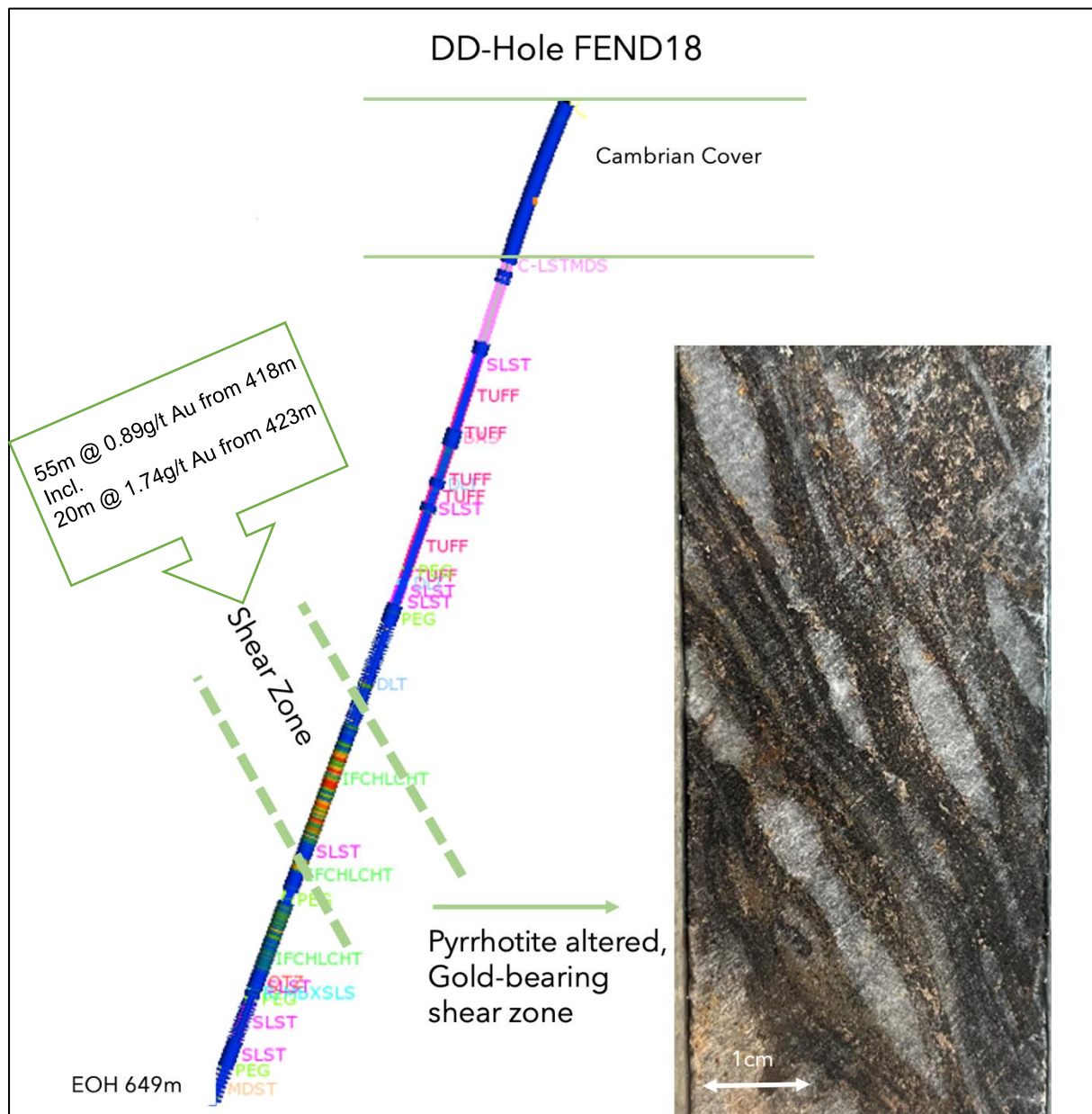


Figure 2 - Down hole plot of Homestake Diamond Drillhole FEND18, coloured by gold content. Gold is elevated in pyrrhotite enriched shear zone showing strong foliation and quartz boudins (core photo at 437m).

Fenton Gold Project Background

For over a century the Pine Creek Orogen (PCO) has produced gold, beginning in the 1870s through to the early 1900s, about 2.3 tonne of gold extracted. Since the 1980's, systematic geological mapping, geochemical surveys and drilling, were conducted around previously known occurrences such as Enterprise, Cosmo Howley and Golden Dyke. These deposits have been mined.

The Pine Creek gold field contains approximately 17 Moz of recorded gold deposits hosted in a 60km-long and 1km-wide, NW-SE trending belt along the Pine Creek Shear Zone (PCSZ), the dominant gold hosting structure in the region.

In the mid-1990's, Homestake Gold (now Barrick Gold), undertook a global search for deposits analogous to the +40Moz Lead Gold deposit in South Dakota. Fenton was identified due to its resemblance to the host rocks and structure found at Lead, particularly within the South Alligator Group. Subsequent drilling by Homestake Gold at Fenton returned good grades including FEND18 (55m at 0.89g/t gold from 418m incl. 20m at 1.74 g/t gold from 423m) and FEND14 (17m at 0.71g/t gold from 610m). The applicability of the Homestake model remains to be determined. However, the regional scale shear zone (historically termed the Fenton or Blue Ant Suture) represents an under-explored region in the PCO.

The first phase of exploration is to develop an integrated geological and structural model for the Project to generate drill targets. This will be based on results from the ground geophysics program that is about to commence in June.

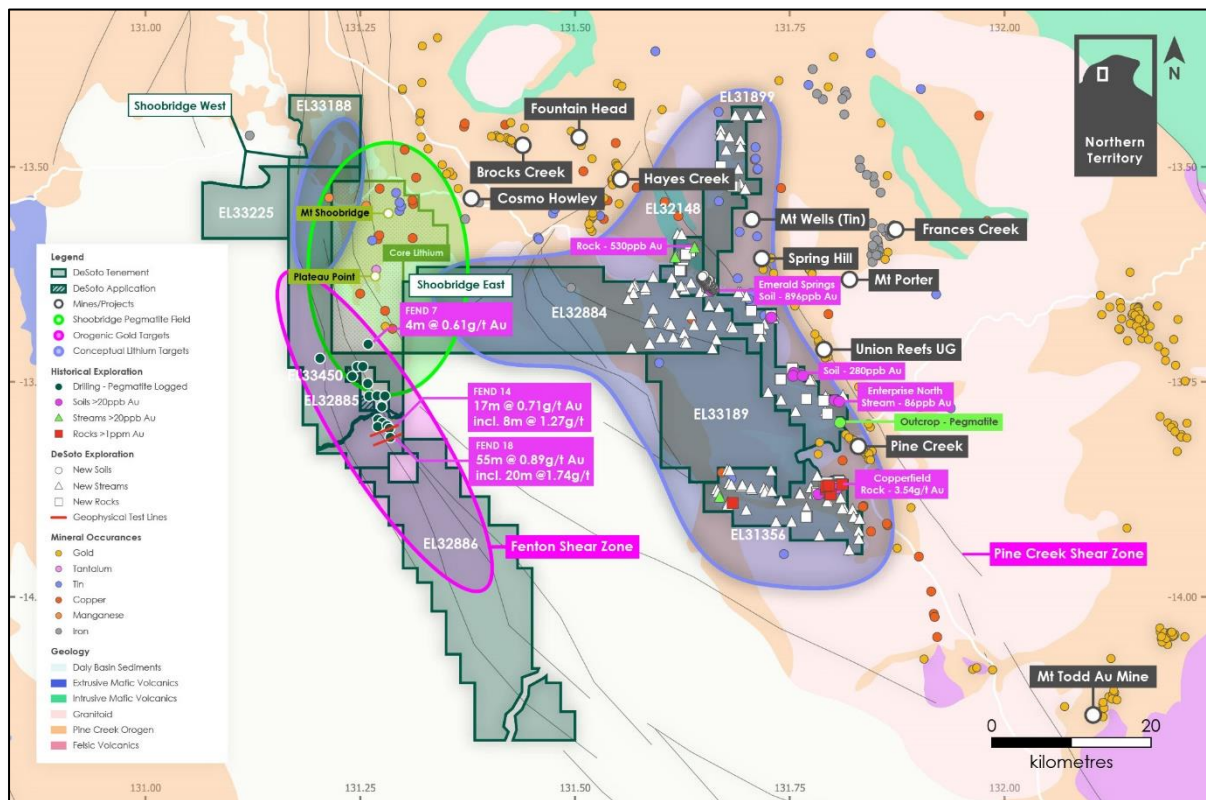


Figure 3 - Fenton and Fenix gold-lithium projects located in the Northern Territory, overlain historic drilling and sampling.

This announcement is authorised by the Board of Directors of DeSoto Resources Limited.

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For further information visit our website at Desotoresources.com or contact:

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ABOUT DES AND PROJECTS

DeSoto is a gold and battery-metal exploration Company with a 1,893km² landholding located in the Northern Territory's prolific Pine Creek gold and pegmatite province. The Company's immediate focus is the ongoing exploration of these exciting assets with an experienced Board that uses a distinctive exploration method and capability which sets us apart from our peers.

With strong mineral-finding capability and a systematic geophysics and geochemical approach to gold exploration, DeSoto is well positioned to make new mineral discoveries. The Company has already identified important indicators of lithium potential in our Northern Territory projects, including pegmatites in some historical core and known tin occurrences.

COMPETENT PERSONS STATEMENT

The information in this report that relates to exploration results is based on and fairly represents information and supporting documentation prepared by Ms Bianca Manzi. Ms Manzi is an employee of the company, is a member of the Australian Institute of Geoscientists and has sufficient experience of relevance to the styles of mineralisation and types of deposits under consideration, and to the activities undertaken to qualify as Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Ms Manzi consents to the inclusion in this report of the matters based on this information in the form and context in which they appear.

COMPLIANCE STATEMENT

DeSoto advises that it is not aware of any new information or data that materially affects the previous exploration results or mineral resource estimate contained in this announcement and all material assumptions and technical parameters underpinning the mineral resource estimate continue to apply and have not materially changed.