

*“THE BEST PLACE TO FIND A GOLD MINE
IS NEXT TO A GOLD MINE”*



TSX-V: AMO

Investor Presentation
RIU Explorers Conference
February 2022



FORWARD LOOKING STATEMENTS

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All technical and scientific information contained in this presentation has been reviewed and approved by Neal Leggo, a “Qualified Person” as such term is defined in NI 43-101 of the Canadian Securities Administrators. Mr. Leggo is a Member of the Australian Institute of Geoscientists and is a Principal Geologist with CSA Global Pty Ltd, Mining Industry Consultants, an ERM Group Company.

On the cover – PILOT Mine – Southern Cross Western Australia



IMMEDIATE EXPLORATION UPSIDE

Q1 2022 RC PROGRAM / DIAMOND PROGRAM

- 2,400M RC Drilling Underway
- Evaluate both Open Pit and Underground Potential
- Results used to Calculate maiden Resource.

IMMEDIATE OPPORTUNITY TO FAST TRACK MINING

- Marvel Loch Mill available under Joint Mining Agreement
- Fast track to cashflow

DRIVE SHAREHOLDER VALUE & PRICE

- Company will trade on much higher valuations as a producer
- Vision to have 2-3 operating mines in the Southern Cross region producing +100Toz pa.

SIMPLE MODEL

- Drill immediately under known shallow Resources
- All planning and Survey work complete to accurately target high Grade zones
- Economic resources can be extracted and trucked to nearby Mill at Marvel Loch.

CORRECT PRICE

- Company Valued at placement price CAD \$12M
- Opportunity to make many multiples on invested funds

COMMODITY PRICE STRONG AND INCREASING

- Current gold price extremely attractive for an expanded Open Pit mine
- Infrastructure in place from 1990's operations.

CORPORATE OVERVIEW – SHARE STRUCTURE

Altan Rio

Current Price
 12 Month High
 Shares on Issue (m)
 Options On issue (m)
 Warrants On issue (m)
 Market Capitalization (\$m)
 Cash (\$T)¹
 Debt (\$A)

AMO

C\$0.12
 C\$0.23
 100.9m
 5.7
 14.3
 C\$12.1
 C\$ 100K
 A\$ 350K

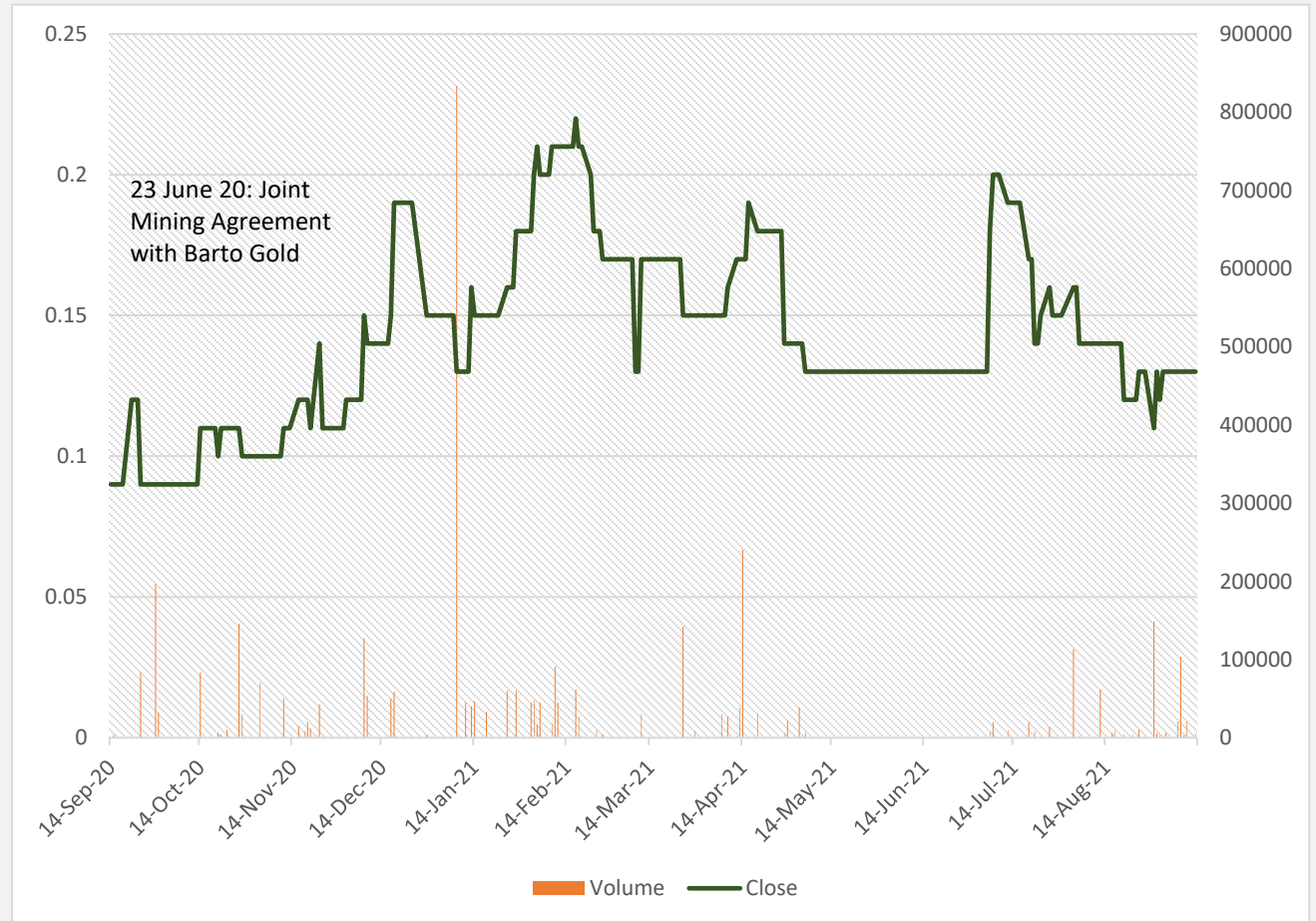
Top Shareholders

Surveyor Resources 9.99%
 John Jones 9.14%
 Verite Trust 8.67%
 Double Dragon 4.94%
 UT International Pty Ltd 4.44%
 Andrew Barclay 2.91%

1- As at Sept 30th 2021



Share Price & Volumes (Past 12 Months)



EXPERIENCED BOARD & MANAGEMENT



John L.C. Jones
Chairman

- Prominent player in the international mining sector for over thirty years.
- Chairman and Director of Altan Nevada Minerals Limited and Altan Rio Minerals Ltd.
- Former Director & Chairman of Troy Resources NL & Chairman of Anglo Australian Resources NL since 1990.
- Formerly Chairman & Director of North Kalgurli Mines Ltd and a founding director of Jones Mining NL.



Paul Stephen
CEO

- Held directorships across ASX and London publicly listed companies and has a strong knowledge of operations and compliance across multiple jurisdictions.
- Co-founder and Executive Director of Crusader Resources Ltd
- Extensive operational experience in mine site servicing and contracting as a founder and Managing Director of Integrated Fuel Services.



Jim Harris
Director

- Experienced executive in management of construction & engineering projects in Australia and overseas.
- Exec Director of Swanline Developments Pty Ltd - property development and investment, project management and business investment.
- 10 years' experience at both Alcoa of Australia Ltd and United Group Ltd.
- Former MD & Chairman of Silver Swan Group Ltd and Non-Exec Director of Caravel Minerals Ltd.



Kerry Griffin
Director

- 24 years' experience in mining geology, resource development and exploration in Australia and overseas with +18 years in senior roles with Newcrest Mining, Sons of Gwalia, Consolidated Minerals, Ivanhoe Mines, Aspire Mining, Haranga Resources, Lindian Resources & Latin Resources
- 5 years with Ivanhoe Mines as Senior Development Geologist during the discovery and development of the world class Oyu Tolgoi Project.
- Both a Competent Person under JORC and a Qualified Person for 43-101 reporting.



Evan Jones
Director

- Non-Executive Director of Altan Nevada Minerals and Altan Rio Minerals.
- Previously Commercial Manager of Troy Resources Brasil Participacoes, a subsidiary of Troy Resources NL
- Previously Exec Advisor with Westchester Corporate Finance in Australia.
- 12 years' experience in corporate advisory and commercial management in the mining industry, including 6 years based in developing countries.



Keith Ross
VP Ops

- GM for +10 years. Managed open cut and underground operations at Marra Mamba, Nevoria, Western Queen, Sandstone, Orient Well with good safety record & good relationship with local community.
- Corporate head office business management for +10 years with Western Reefs company's representative in charge of JV with Equigold at the Dalgaranga and Western Queen mines
- Established the 'Indigenous Students Action Group'



Greg Wilson
Head of Geology

- Highly experienced geologist with a proven track record in discovery and development of mineral deposits.
- Expertise in Archaean lode/orogenic gold and litho-structural analysis has resulted in identification of in excess of 4.0 million ounces of gold.
- Previously Exploration Manager at Integra Mining - instrumental in discovery of Salt Creek and Majestic deposits in the Mt Monger Area
- Discovered the +500Koz Strezlecki deposit now forms part of the 5Moz Kundana gold camp owned by Northern Star.

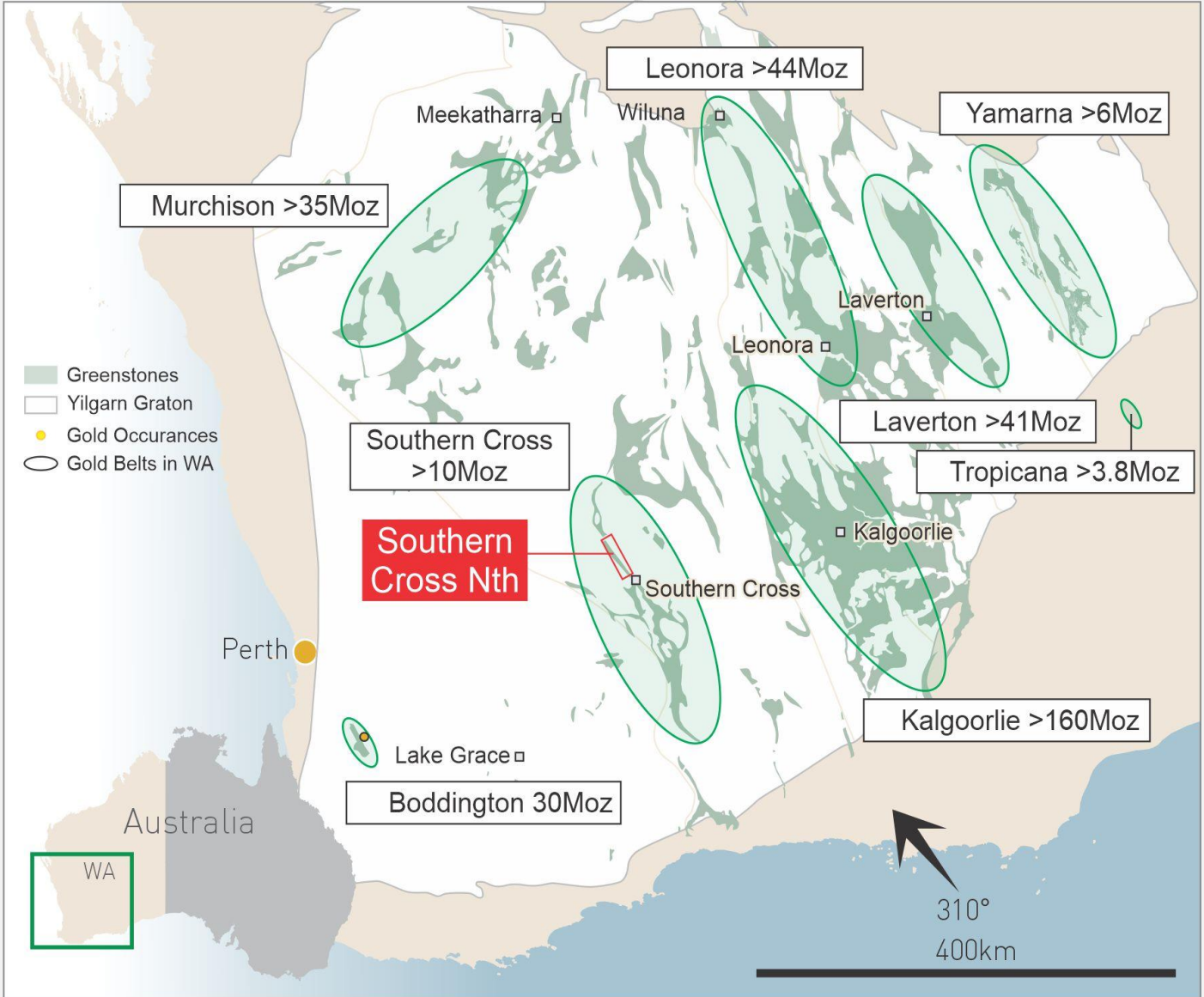


David Talbot
Strategic Advisor US

- A Mining Engineer with experience in South Africa, Australia & Europe
- Held roles in global investment banks Deutsche and BNP Paribas.
- Led institutional energy sales business at leading oil & gas research firm John S. Herold.
- 10 years with McKinley Capital as Director of Investments.

SOUTHERN CROSS: A PREMIER GOLD REGION

- Yilgarn Craton is Australia's premier gold province with major Archean greenstone-hosted deposits
- Altan Rio holds rights to 16 granted Prospecting & Exploration Licenses covering 139.6 km² - 2nd largest tenure over the proven gold hosting structure, Frasers-Corinthian Shear Zone (FCSZ).
- Targeting large brownfield discovery within trucking distance of two operating gold mills (Marvel Loch & Edna May).
- Targeting Brown field +1M oz discoveries - highly prospective and accessible (under Salt Lakes and Farmland) terrain which is untested at depth.



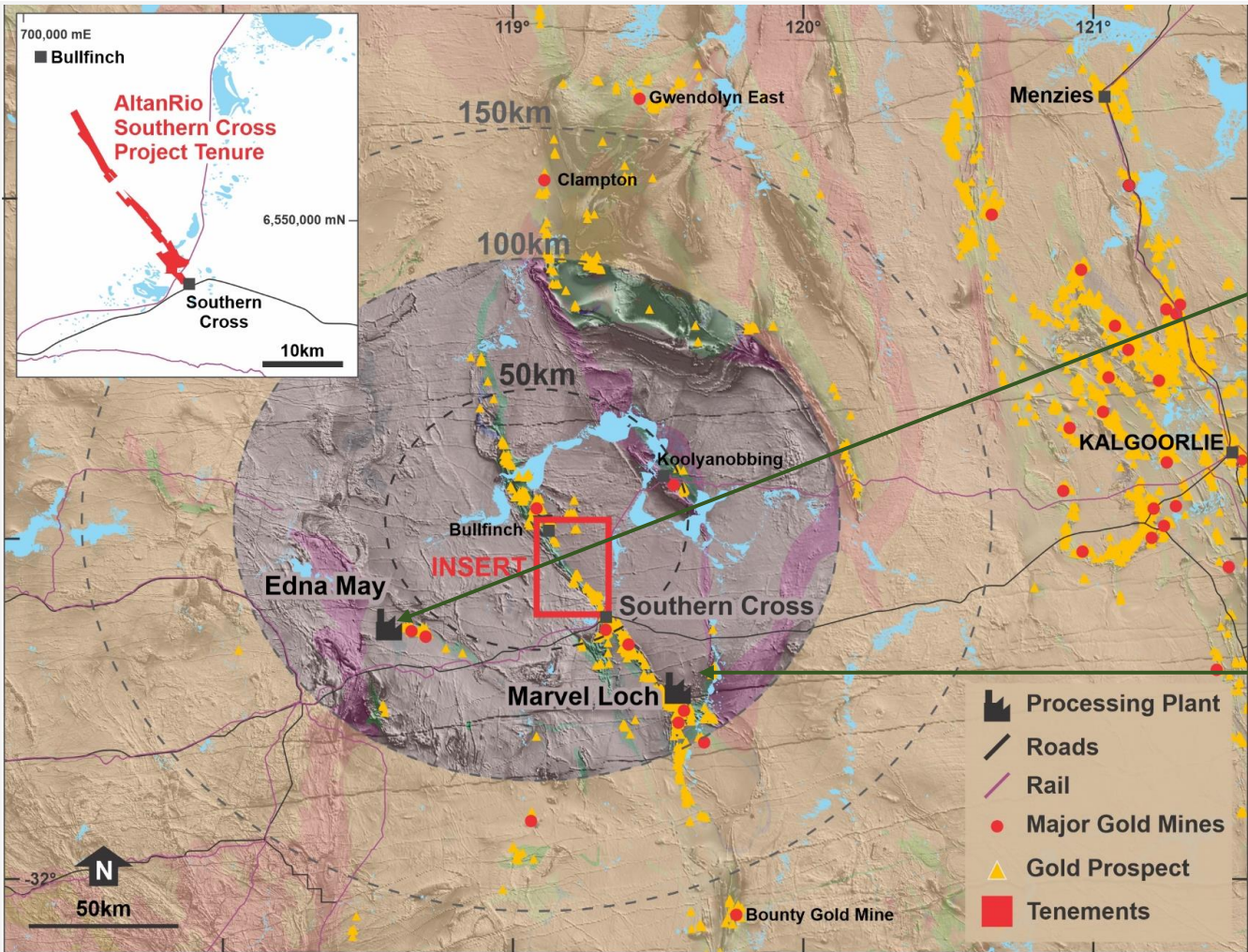
1 Geoscience Australia



** Government of Western Australia Department of Mines, Industry Regulation and Safety.

SOUTHERN CROSS: A PREMIER GOLD REGION

Targeting multi-million ounce gold discoveries in close proximity to 2 operating gold mines in a region that has recorded gold production of 12.3 Moz. from 1900 to 2019



RAMELIUS RESOURCES' EDNA MAY MINE & PROCESSING PLANT



BARTO GOLD'S MARVEL LOCH MINE & PROCESSING PLANT

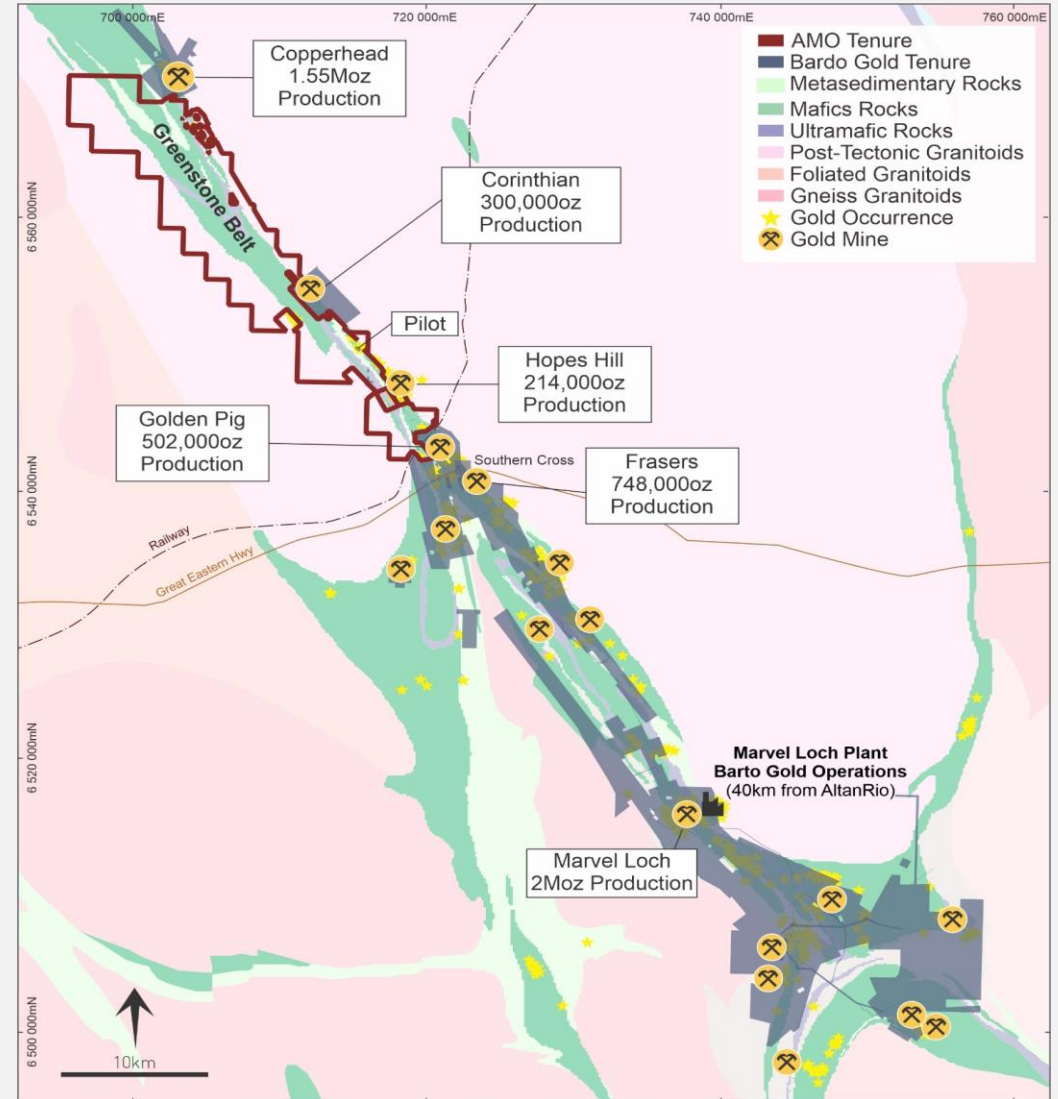


FRASERS CORINTHIAN SHEAR ZONE (FCSZ) DEFINED GOLD RICH BEARING STRUCTURE

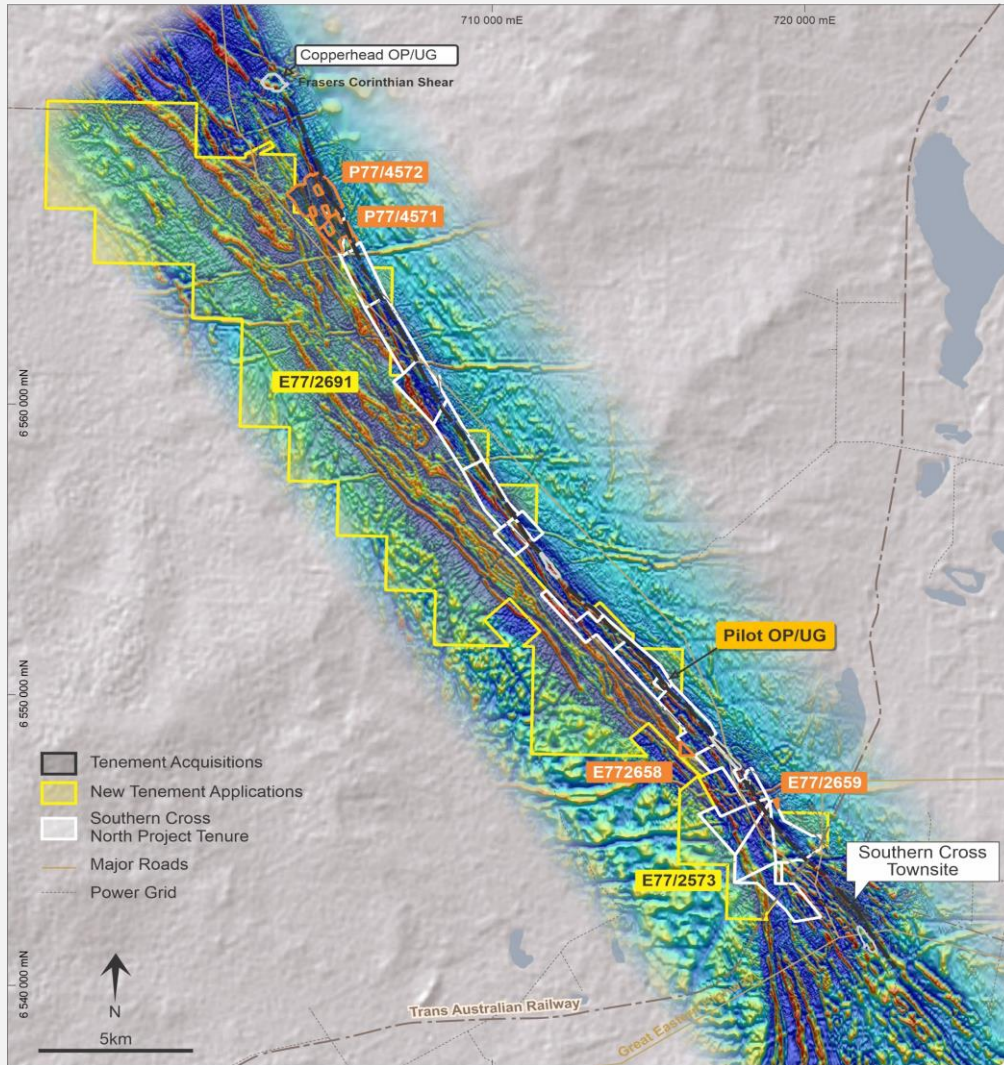
- FCSZ is host to gold mineralization along its entire length, including multiple high-grade ore bodies including:

- Frasers (1.2 Moz.)
- Golden Pig (640Koz)
- Hopes Hill (214 Koz)
- Pilot (54 Koz)
- Corinthia (190 Koz)
- Copperhead (1.5 Moz.)

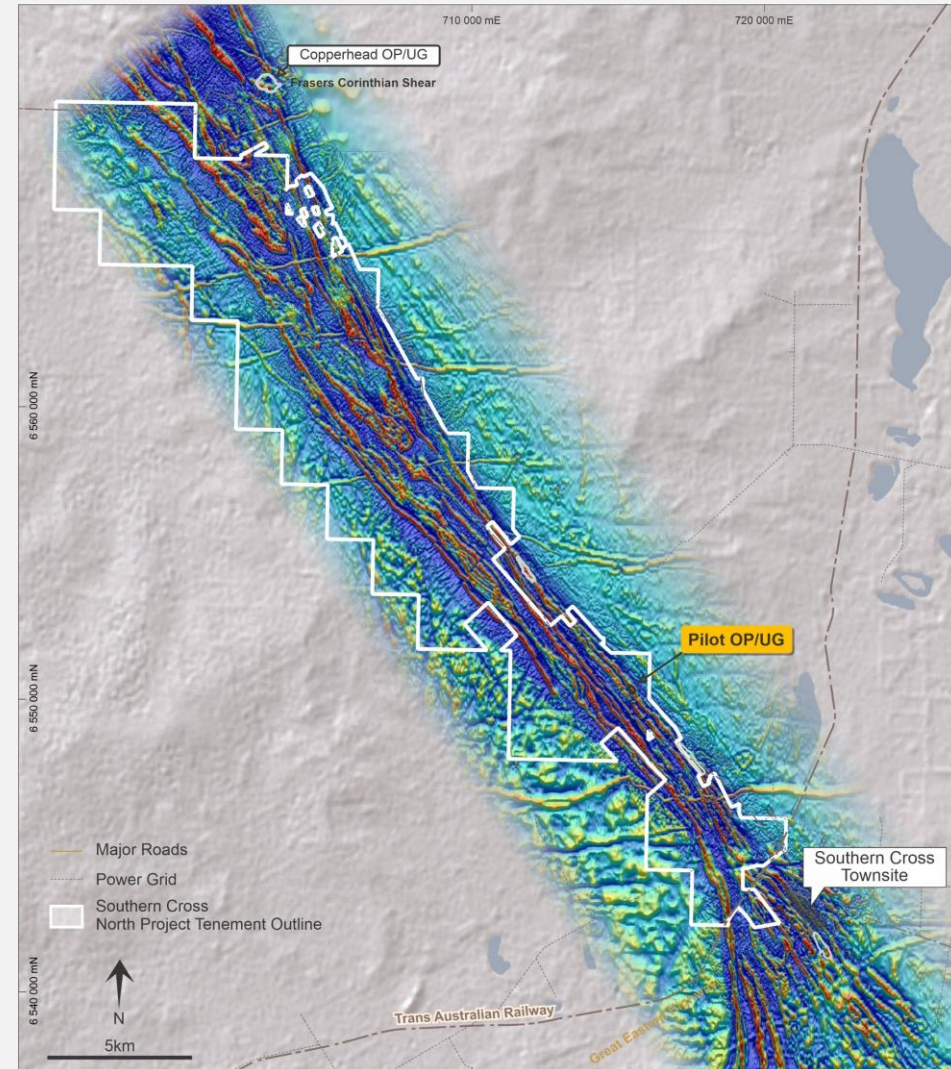
- Along strike and dip extensions of Frasers and Golden Pig Mines extend into Southern Cross North tenure
- Thick lacustrine sediments (Salt Lakes) obscuring the extension of the Golden Pig and Frasers mines
- Known drill targets** - highlight the potential for virgin discovery under the Lake Koorkoordine salt lake system and surrounding farmland



Altan Rio has a binding option agreement to acquire 90% of “E” tenement (E77/2691) covering a strategic ~115.9km² land position – Altan controls 139.6km² of continuous tenements.

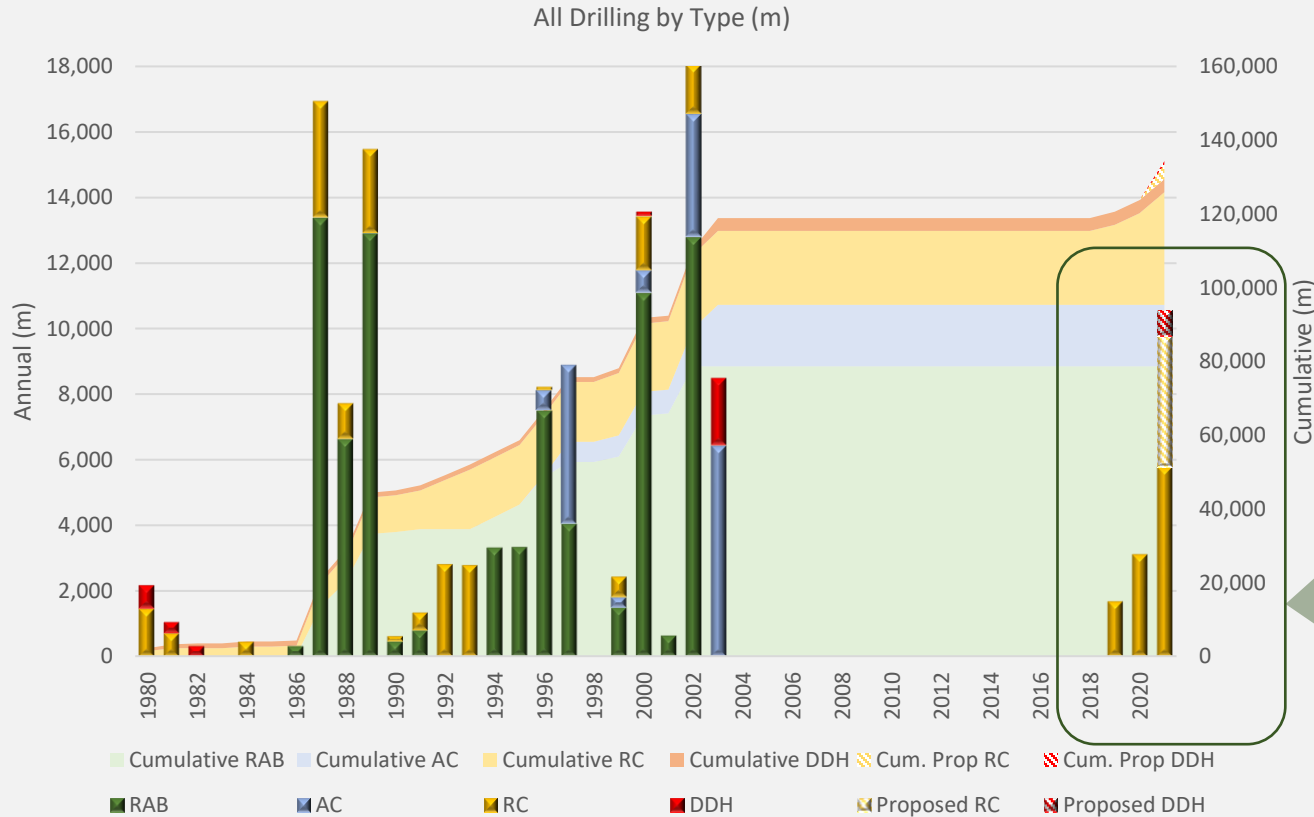


Altan Rio 16 Tenements

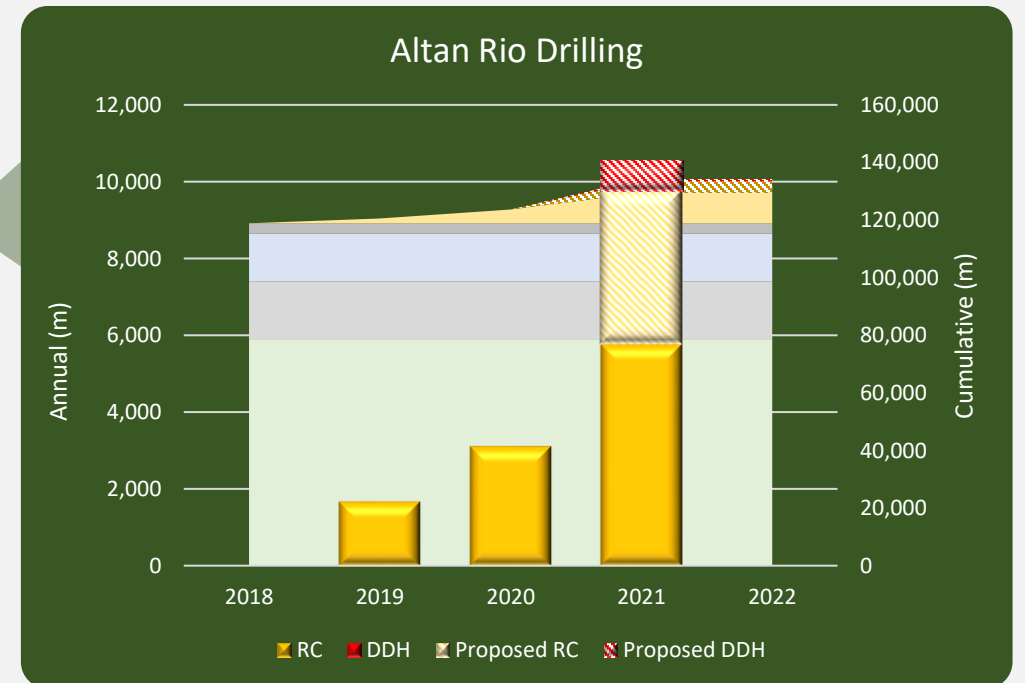


Altan Rio – Combined over greenstone belt

LEVERAGING SIGNIFICANT HISTORIC DRILLING



- FCSZ a well understood mineralised trend but all drilling is shallow
- Approximately 130,290m of combined historic RAB, AC, RC and Diamond Drilling

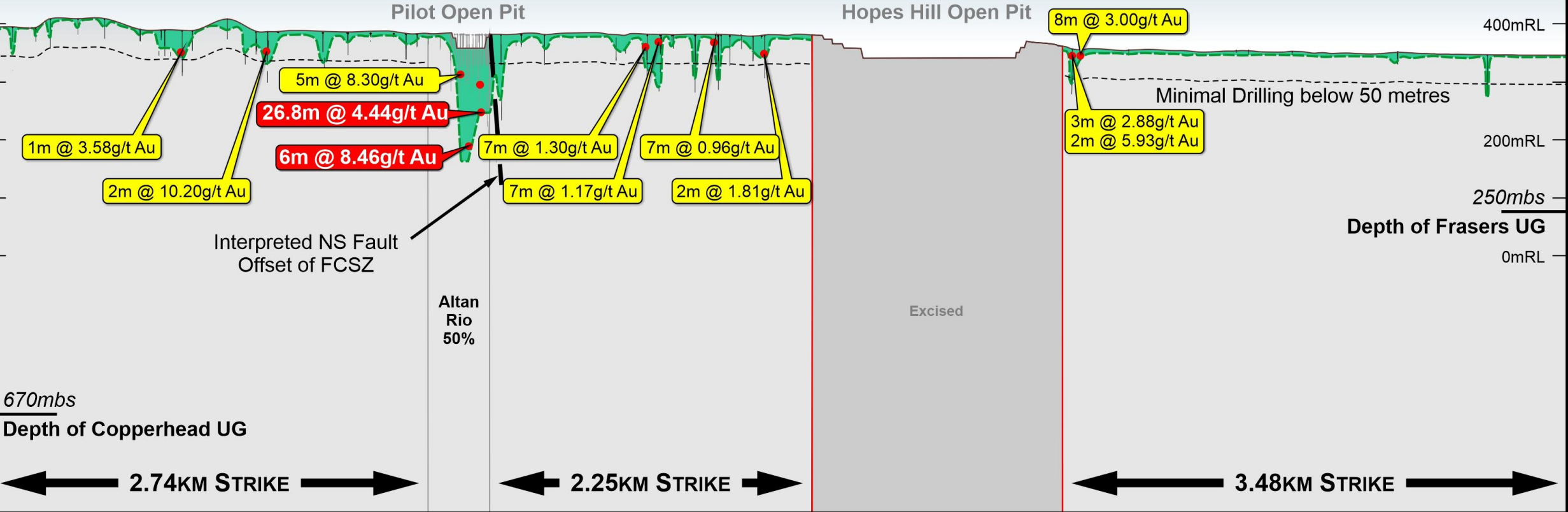


- Equates to ~A\$9m worth of drilling already conducted
- Provides a highly detailed database of results to inform deeper drilling

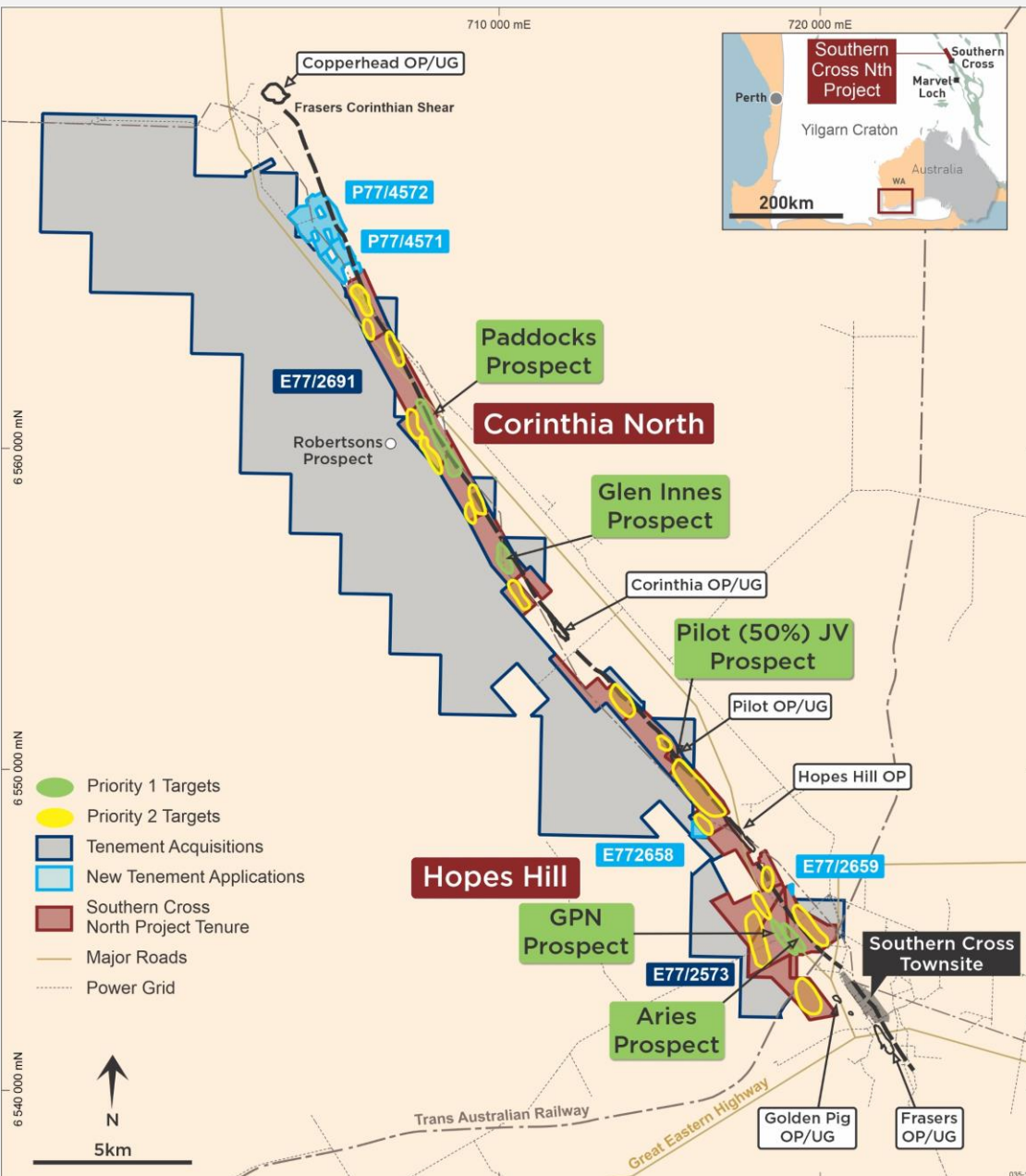
FCSZ LONG SECTION: VERY FEW DRILL HOLES +50M

FCSZ Long Section Hopes Hill Tenements

(vertical exaggeration x3.8)



HIGH PRIORITY GOLD TARGETS IDENTIFIED



Hopes Hill

Corinthia North

Pilot - 50% Exploration and Mining JV – Barto Gold

Aries - 80% Earn in Joint Venture - Surveyor Resources Pty Ltd²

GPN - 80% Earn in Joint Venture - Surveyor Resources Pty Ltd²

Glen Innes
80% Earn in Joint Venture - Surveyor Resources Pty Ltd²

Paddocks - 80% Earn in Joint Venture - Surveyor Resources Pty Ltd²

- Resource / Reserve definition
- High grade
- Near term cashflow potential
- EIS - WA Government co-funded drilling completed. Assays in progress
- Historical drilling of 12m @ 4.51g/t
- Extension of the Golden Pig Mine (640 K0z)
- Golden Pig Underground working extend towards Altan Tenements.

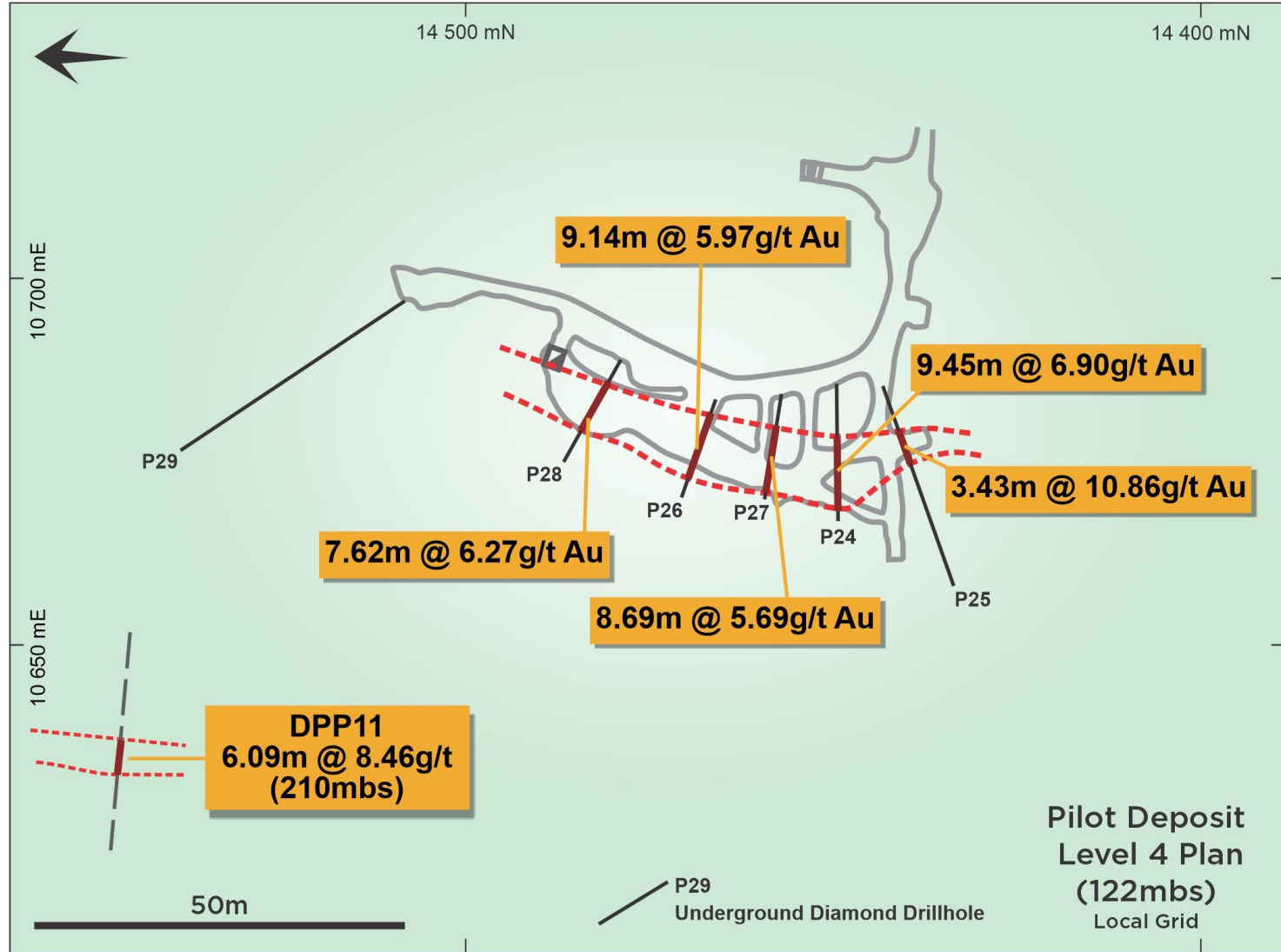
- Altan Drilling in 2019 successfully discovered mineralisation North of the Corinthian Mine
- Follow up drilling 2021

JV Terms:

1. www.altanrio.com/news/pilot-exploration-mining-agreement/
2. www.altanrio.com/news/17924/

Pilot: Underground & Open Pit Mine Last mined 1994 - Au ~ 350/oz

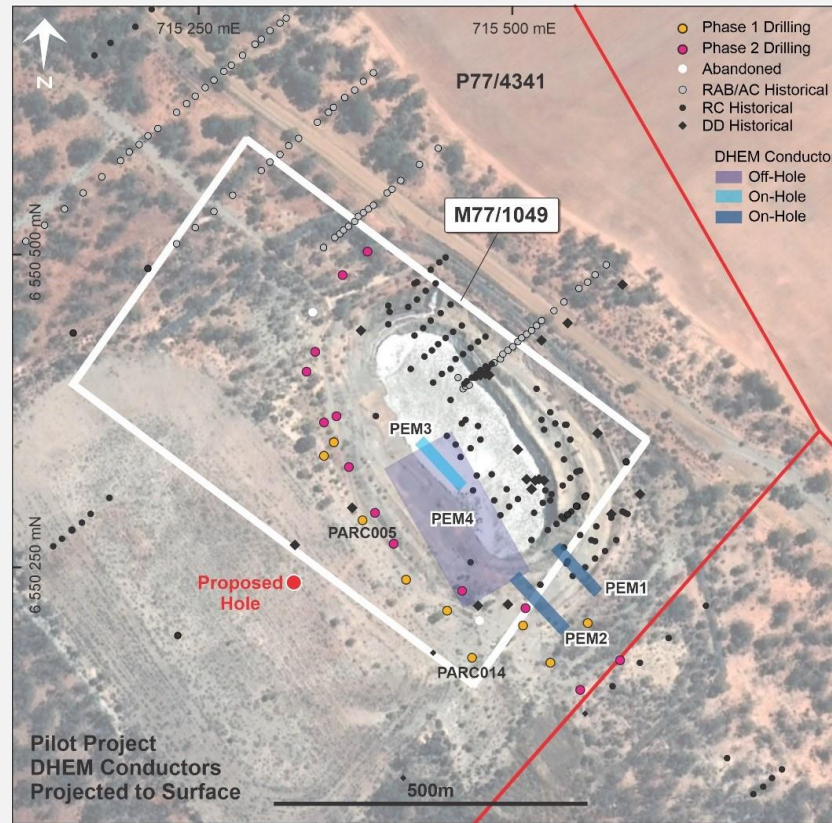
- Historical production (open pit – 1994): 0.56 Mt @ 3.03 g/t for 54,554 oz Au.
- Mineralisation occurs in three lode systems, West, Main and East, which merge and split along strike.
- Open pit mining was completed to 65 m below surface, with stopes immediately below pit floor estimated to be 15 m in width and 40 m in length.
- Underground sampling and drilling by Greater Western Consolidated (c. 1961) determined mineralisation extended to depths of 150 m below surface (Troy Resources, 1994).



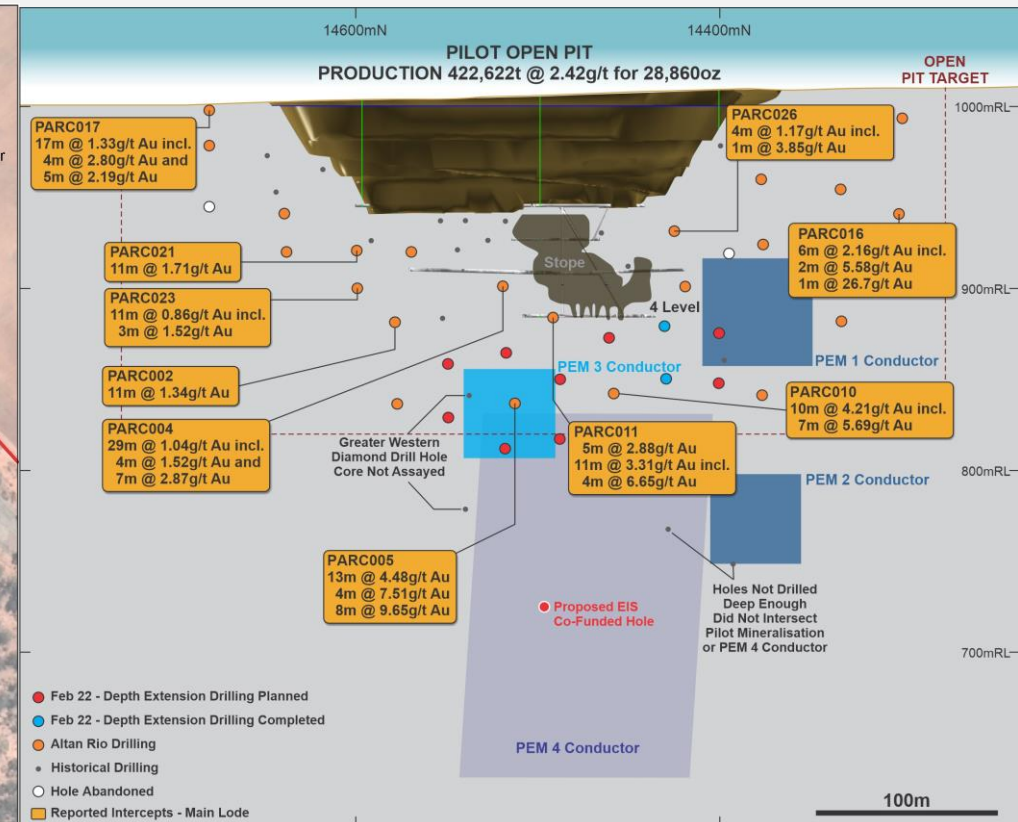
PILOT: SIGNIFICANT EXPLORATION OPPORTUNITY

Downhole EM (DHEM) Identifies Potential For Extensions to High Grade Mineralisation

- Identifies on-hole conductor (PEM 3) in PARC005 coincident with reported mineralisation of 13m @ 4.48 g/t from 159m.
- Identifies significant off-hole conductor (PEM 4) at depth below PARC005.
- PEM 4 conductor interpreted to be associated with sulphide rich zone intersected in PARC005 with reported mineralisation of 8m @ 9.65 g/t from 199m.



Drill Collar Plan with DHEM Conductors projected to Surface.



Pilot – Longitudinal Section

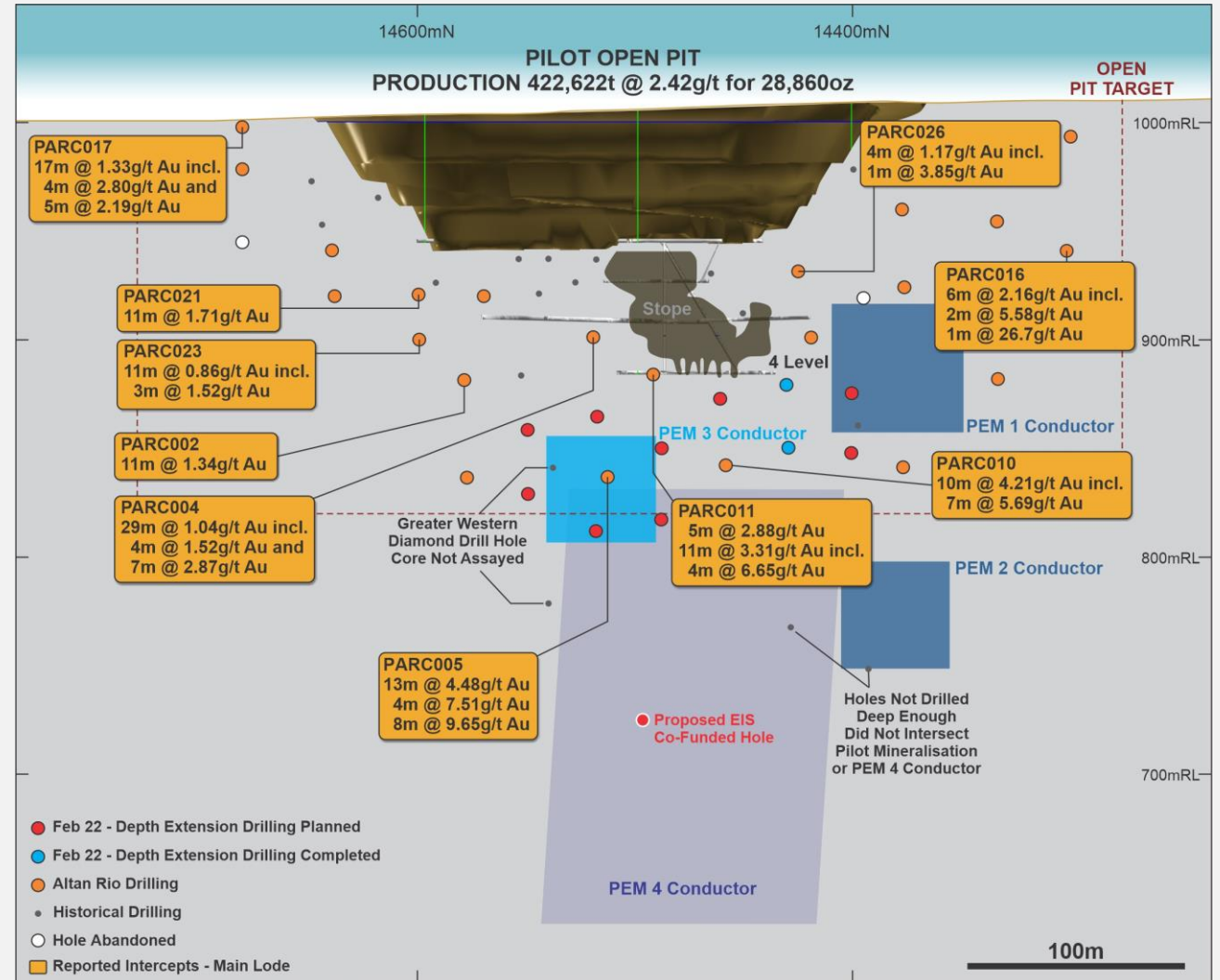
PILOT: GOLD EXTENSIONS CONFIRMED BELOW MINE

INITIAL RC PROGRAM (10 holes)

- Assay results confirmed High Grade gold mineralisation at depth:
 - PARC010: 10m grading 4.21 g/t from 182m, including 7m @ 5.69 g/t
 - PARC005: 12m grading 4.41 g/t from 160m, 4m grading 7.51 g/t from 176m, including 1m @ 19.14 g/t, 8m grading 9.65 g/t from 199m including 5m @ 13.93 g/t
- Results confirm the near vertical dip of the mineralising system with up to three +1g/t gold zones within the mineralised envelope

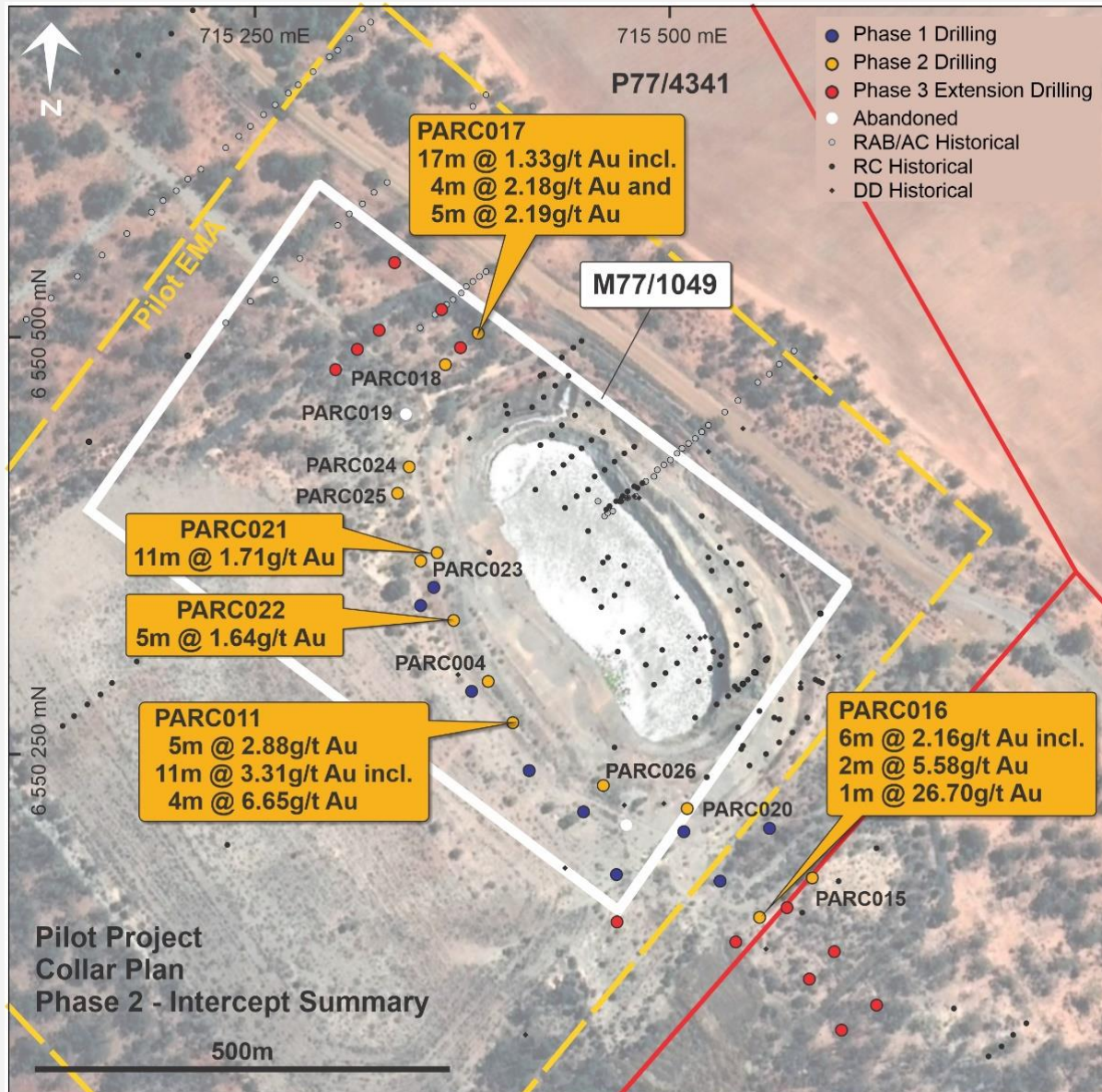
PHASE 2 RC PROGRAM (9 holes)

- High Grade gold mineralisation further confirmed at depth:
 - PARC004: 7m @ 2.87g/t from 140m within a broad gold anomalous zone of 29m @ 1.04g/t, and
 - PARC011: 4m @ 6.65g/t from 159m within an overall intercept of 11 m grading 3.31g/t, and
 - PARC021: 6m @ 2.32g/t from 138m within an overall intercept of 11 m grading 1.71 g/t.



Pilot Long Section – Open Pit & Underground Targets

PILOT: STRIKE EXTENSIONS TO MINE CONFIRMED



- Phase 2 Drilling Program (5 RC holes for 734m) targeted strike extensions north (PARC017) and south (PARC016) of the existing pit. Mineralisation confirmed with intercepts of:

- PARC017:** 17m @ 1.33g/t from surface

Mineralisation interpreted to be associated with a splay off the main trend of the Pilot mineralisation. Significance and extent of this mineralised zone is unknown.

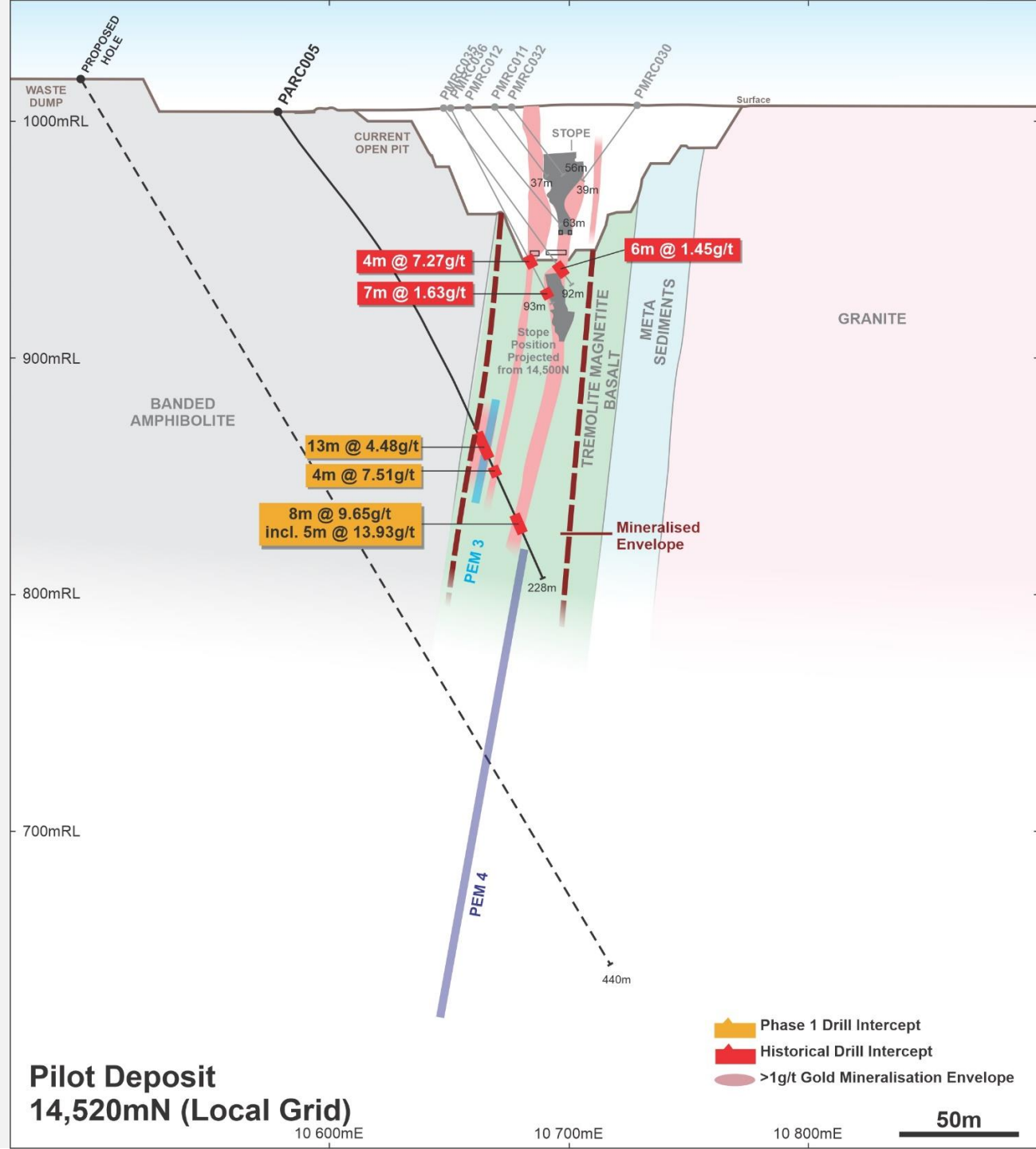
- PARC016:** 1m @ 26.70g/t from 70m within broad gold anomalous zone of 9m @ 3.15g/t, 6m @ 2.16g/t from 53m

Mineralisation interpreted to be extensions to the main trend of the Pilot mineralisation and to be open along strike to the south

- Phase 3 RC drill program targeting Pilot strike extensions completed with assay results pending.
- Moving Loop EM geophysical survey to be undertaken to evaluate extensions of the Pilot mineralisation along strike to the north and south

PILOT: NEAR-TERM DRILLING CAMPAIGNS

- A two-hole diamond drill program targeting the PEM 4 conductor is planned to commence in late-July/early-August.
- The two holes are co-funded by WA Government's EIS program
- Drill program is designed to evaluate a modelled strong "off hole" DHEM conductor at Pilot.
- Gold mineralisation at Pilot occurs within a highly sheared tremolite, chlorite, magnetite volcanic sequence. Individual mineralised lodes can vary in width from 1 to 12 metres and be traced over a 250 metre strike length.
- Confirmation of a new mineralised zone identified by DHEM will greatly enhance the overall prospectivity of the Pilot area and potential extensions to the north and south.



2021 – Excellent Drilling Results

PARC005

13 m grading 4.48 g/t from 159 metres



Depth To	160	161	162	163	164	165	166	167	168	169	170	171	172
Grade	5.27	4.62	1.37	7.07	1.98	1.67	8.02	7.03	1.40	1.40	8.81	5.13	4.44
% Sulphide Logged	Trace	2.0	2.0	Trace	Trace	2.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0

PARC005

4 m grading 7.51 g/t from 176 metres



Depth To	177	178	179	180
Grade	2.65	1.58	19.14	6.66
% Sulphide Logged	2.0	1.0	1.0	3.0

PARC005

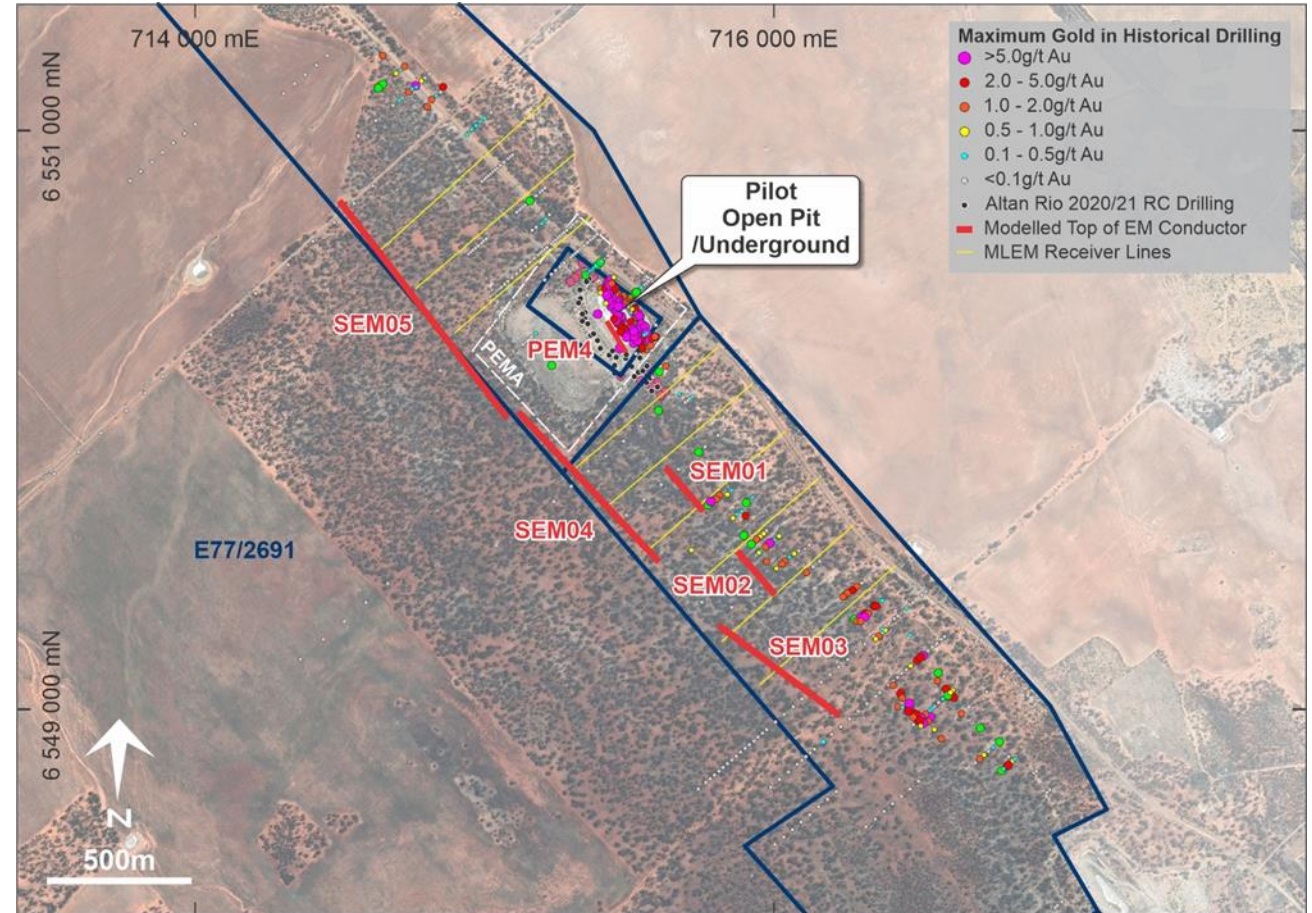
8 m grading 9.65 g/t from 199 metres



Depth To	200	201	202	203	204	205	206	207
Grade	4.02	1.96	12.13	10.24	5.30	29.32	12.65	1.60
% Sulphide Logged	1.0	1.0	20.0	30.0	12.0	15.0	12.0	3.0

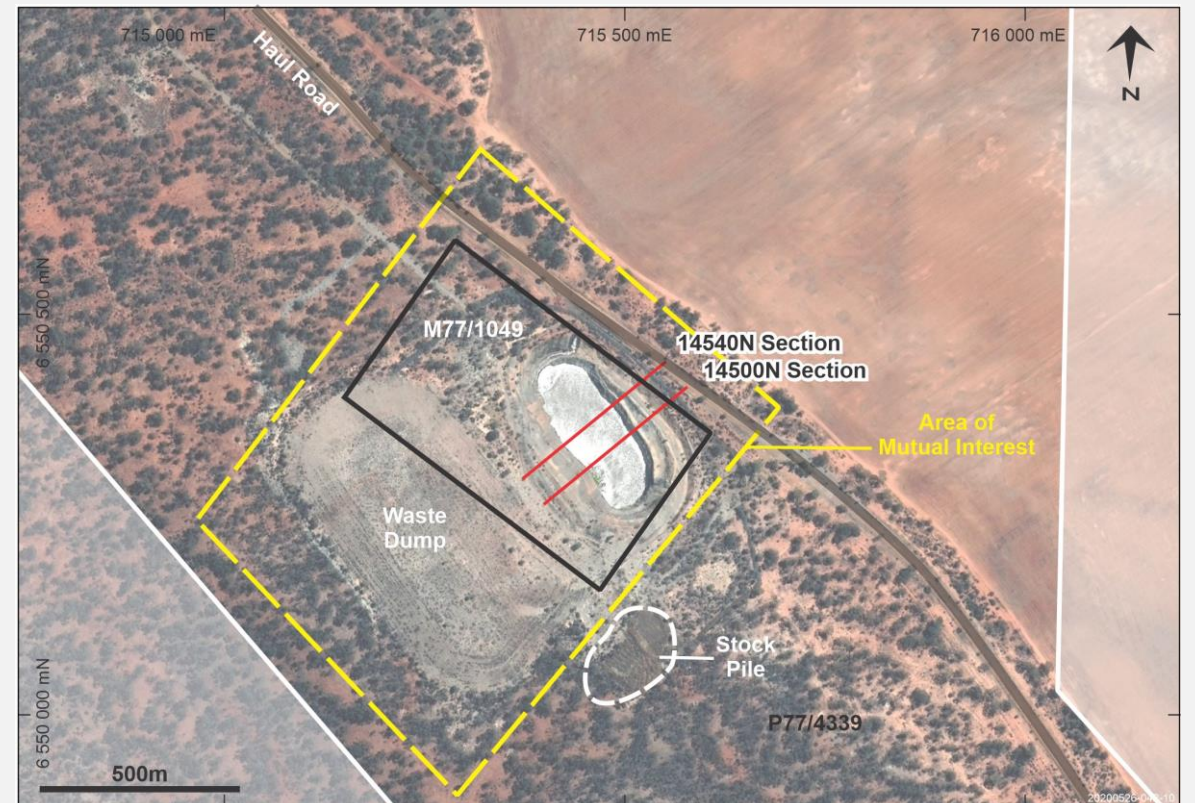
Moving Loop EM Identifies Five Conductors

- Processing of the MLEM data has identified five EM conductor responses varying in distance from 450m to 1,300m from the Pilot open pit.
- Three conductors (SEM03, SEM04 and SEM05) are considered strong bedrock conductors.
- Conductor SEM03 is significant as it is modelled to cross cut stratigraphy and is interpreted to be a sulphide rich structure.
- Conductors are not constrained requiring additional MLEM work prior to drill planning and evaluation.

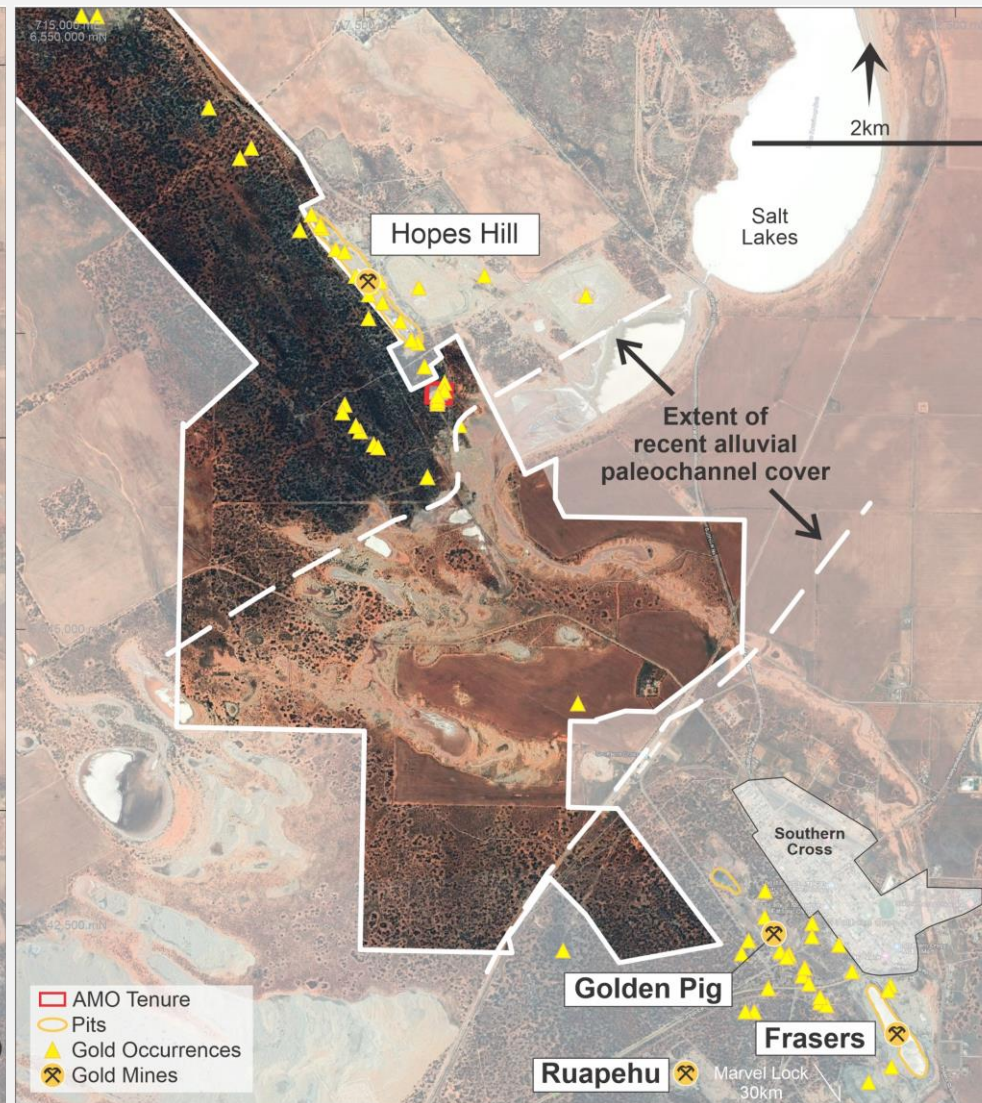
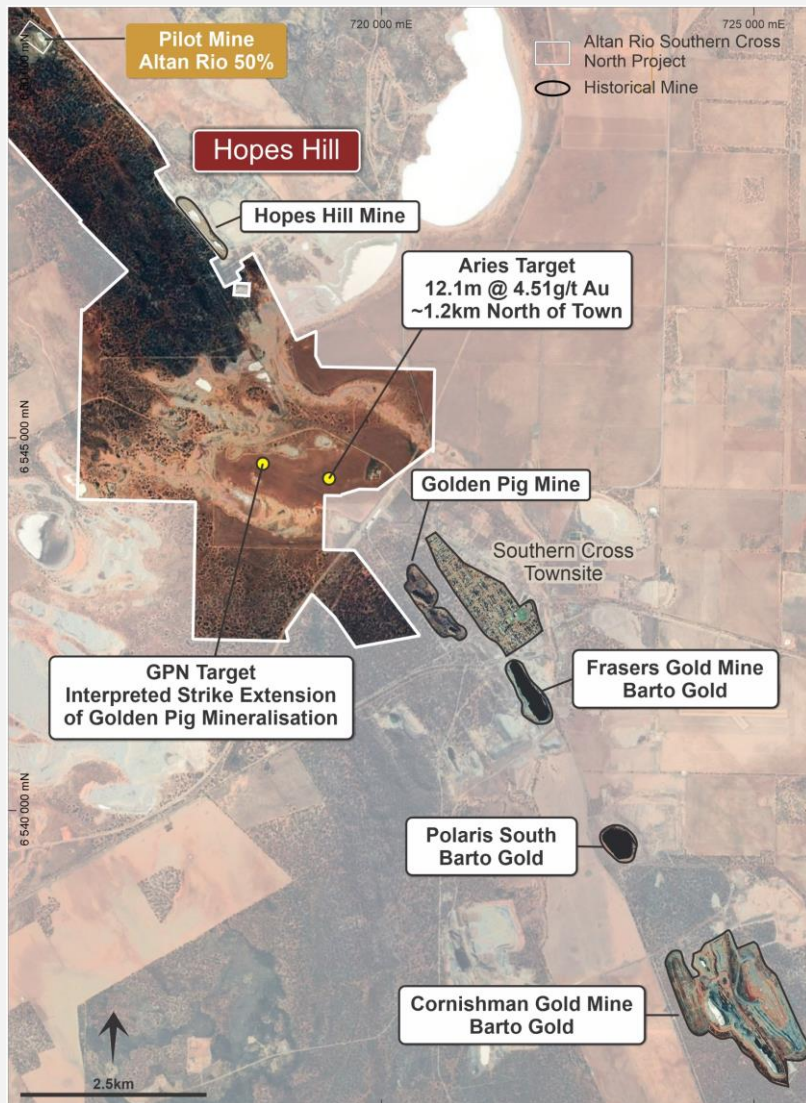


PILOT: CASHFLOW TO FUND EXPLORATION

- Pilot mine provides potential for near-term cashflow to fund significant drilling of entire Shear Zone Southern Cross to Bullfinch ~ 30 km
- Joint mining agreement with Barto Gold, owner of nearby Marvel Loch milling facility which is currently undergoing a major upgrade - economic trucking distance ~ 40km



GOLDEN PIG NORTH & FRASERS EXTENSION



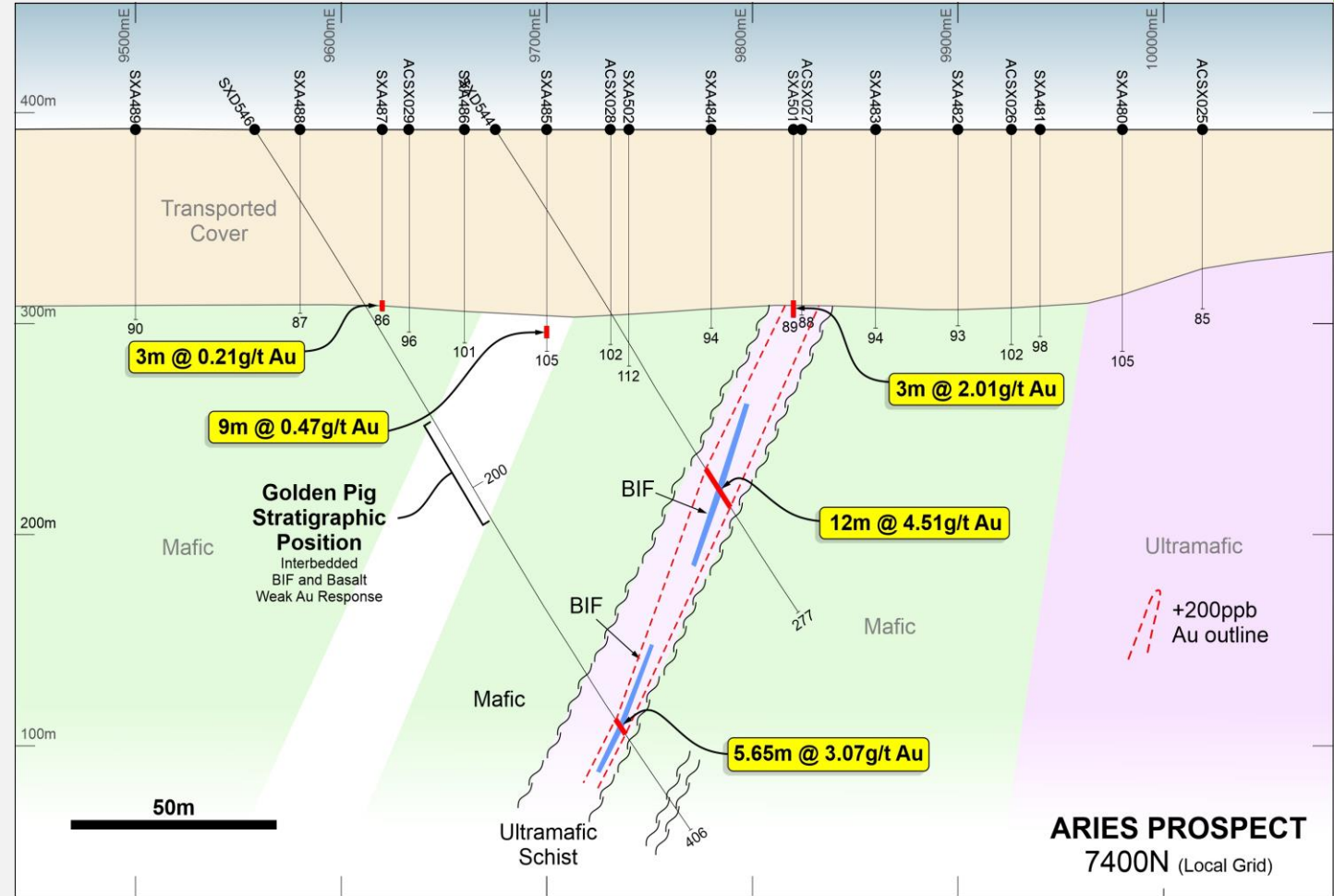
- 3km gap in drilling between three Major Gold Mines – Hopes Hill mine, Golden Pig mine & Frasers mine
- Targets include the Northern strike extension of the Frasers mine trending under the Lake Koorkoordinate salt lake along with the continuation of the Golden Pig trend into the SW corner of the tenement package.
- The Fraser/Golden Pig mineralised complex can be traced north using both the aeromagnetic and existing drill data directly into Altan Rio Tenements.
- The Aries prospect is considered to have similar characteristics to the mineralisation observed at Golden Pig

ARIES: DIAMOND DRILLING CAMPAIGN

- Two, 400m diamond holes at Aries to follow up historical diamond drilling of **12m @ 4.51g/t Au** have been completed
- Holes co-funded by WA Government's EIS program
- Core processing, logging and assaying in progress

HISTORICAL DRILLING

- Regional aircore drilling on 400m x 80m with infill to 200m x 40m spacing defined a 1,000m x 400m gold in bedrock gold anomaly (>0.1 g/t Au) beneath deep (50-100m) transported cover under agricultural lands.
- A five-hole diamond drilling program targeted the anomaly - best intercept of **12m @ 4.51g/t Au** from **201m** (SXD 544) highlighting potential of the area



Aries Co Funded Diamond Drilling

Altan Rio Minerals have safely and successfully completed two 400m+ diamond drillholes (ARD001 408.5m E.O.H. & ARD002 401.9m E.O.H.) following ten days of round-the-clock drilling at the Aires Prospect north of Southern Cross, WA.

Technically, drilling successfully tested the target with excellent core recoveries and orientation surveys which will enable valuable and accurate structural measurement to guide future drill targeting.

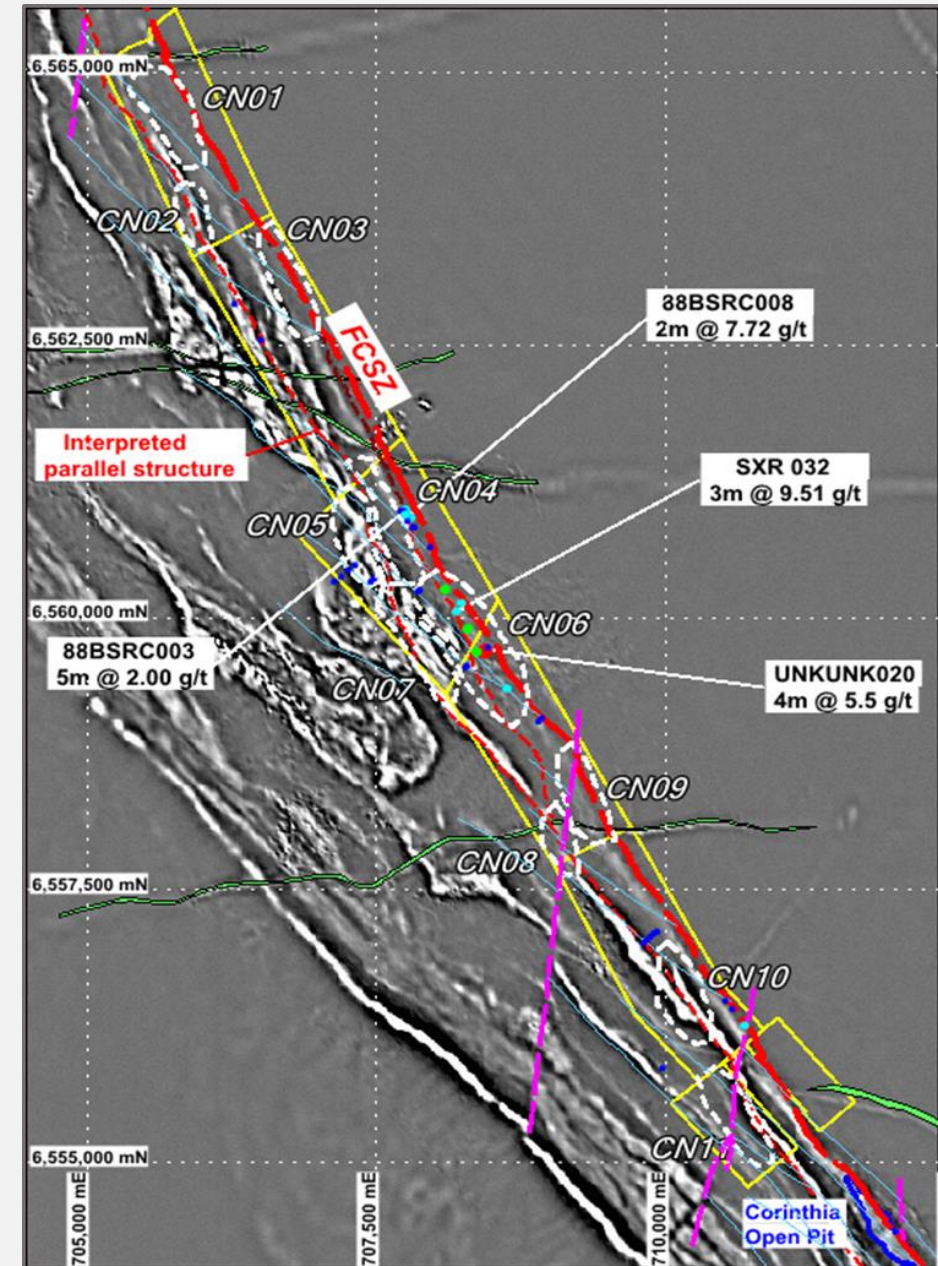
Initial geological observations reveal both Aires holes successfully intersected targeted Banded Iron Formations (BIFs) which have been associated with gold mineralisation in nearby/neighbouring gold-producing deposits (Golden Pig). Further observations reveal the presence of quartz diopside veining with proximal amphibole and pyrrhotite sulphide alteration assemblages developed in places.

PVC linings are prepared for Downhole Electro-Magnetic surveying planned to map out conductors and improve geological knowledge while drill core continues to be logged and prepared for laboratory assaying in coming weeks.



REGIONAL GEOLOGY: NORTHERN TENEMENTS

- Covers 11.5km of the FCSZ.
- Several structures, subparallel to the FCSZ, identified using geophysical and geochemical datasets.
- All structures considered highly prospective for gold with strong auger geochemical gold anomalism and near surface drill intersections.
- 12 discrete geophysical and/or geochemical targets have been identified (CN01-CN12).
- CN06 - structural complexity/disruption of magnetic units evident in the aeromagnetic image / significant near surface drill intercepts:
 - 3m @ 9.51g/t from 48 meters in drill hole SXR032 and 4m @ 5.5g/t from 18m in drill hole UNKUNK020.
- CN04 - interpreted magnetic destruction adjacent to the FCSZ with drill intercepts of :
 - 2m @ 7.72g/t from 53m in drill hole 88BSRC008 and 5m @ 2.0g/t from 23m in drill hole 88BSRC003.



THE INVESTMENT OPPORTUNITY

The background image shows a mining operation in a dry, hilly landscape. A large white and red drilling rig is the central focus, with its mast extended upwards. Several white trucks are visible, including one with 'IMPACT DRILLING' written on its side. Workers in orange safety gear are positioned around the equipment. The terrain is rocky and sparsely vegetated under a clear blue sky.

1. Strategic landholding in a top 5 Australian gold production province

2. Numerous defined drill-ready exploration targets

3. Major opportunity to identify additional high-grade gold

4. Strong management to oversee project development



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