

# Copper & Gold - USA

Advanced High-grade Discoveries in Nevada and Alaska

**July 2022** 





## **Project Overview**



#### **Humboldt Range (Nevada)**

- > Bonanza grades: 9.1m @ 124g/t Au + 49g/t Ag in drilling at Star Canyon
- > Tier 1 fiscal and geological jurisdiction
- Lies between the 5Moz Florida Canyon Gold Mine, and the 400Moz Rochester Silver mine (which also contains 3.5Moz gold), same geology
- > Outcropping quartz veins and historical mines show numerous assays over 10g/t gold, with peak values of 3,384g/t gold 4,800g/t silver, 22.9% lead, 3.1% Zn

#### Alaska Range: Stellar Property (100% PXX)

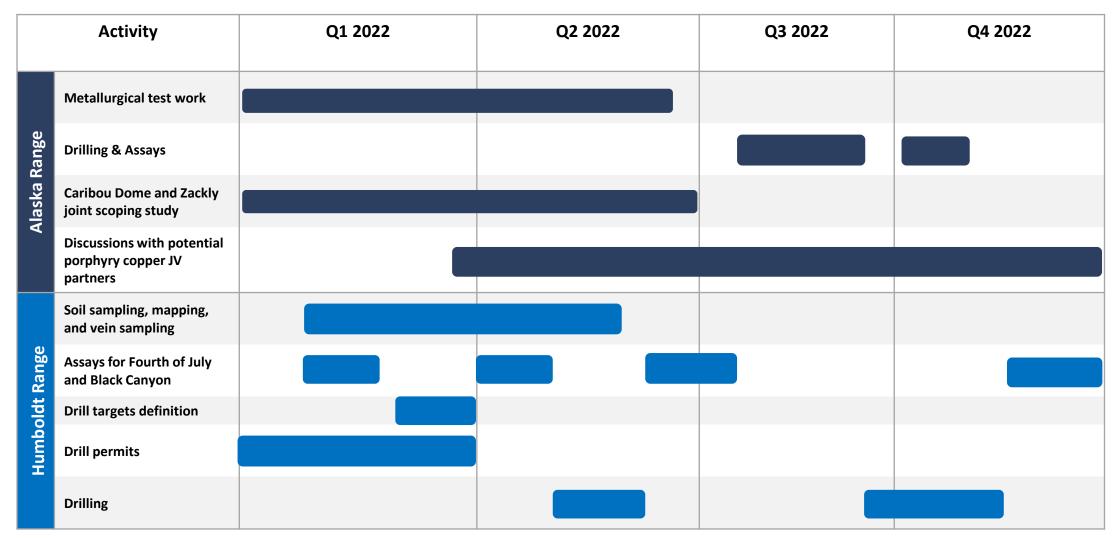
- 3.4Mt @ 1.2% Cu + 2g/t Au + 14g/t Ag JORC at Zackly Project, open in all directions.
- New 2.6km long target confirmed in 2020 drilling.
- Highly prospective for bulk tonnage porphyry copper-gold deposits with maiden discovery (102m @ 0.22% Cu + 0.1g/t Au) at the Mars prospect
- Metallurgical test work underway on Zackly to assess gold recovery and copper sulphide flotation
- Potential joint co-processing options being assessed in a mining scoping study.

#### Alaska Range: Caribou Dome Property (PXX earning up to 90%)

- **2.8Mt @ 3.1% Cu JORC** at Caribou Dome deposit, high grade surface zones up to 7% Cu.
- Mineralization open in all directions, and numerous untested IP/geochemical targets.
- > Open at depth with 19m drilled at 7.1% Cu.



# Strong News Flow in 2022







## Strong management backed by strong investors

#### **KEY EXECUTIVES AND MANAGEMENT:**



Mr. Mark Bojanjac (Executive Chairman) is a Chartered Accountant with >25 years experience in the resource sector. Has led many successful mining developments, including the discovery and development of the East Kundana goldfield near Kalgoorlie, development of the Boroo gold mine in Mongolia and the Nzema gold mine in Ghana.



**Dr. Jason Berton (Managing Director)** is a Structural Geologist with >20 years experience, including working for Homestake, Barrick, BHP Billiton and SRK Consulting. He also has experience in private equity and is the former managing director of ASX-listed Estrella Resources.



Dr. Frazer Tabeart (Non-Executive Director) is an economic geologist with >30 years international experience. Spent 15 years with WMC Resources, prior to leading several ASX-listed exploration companies through discovery, resource delineation and feasibility studies in copper-gold, uranium and coal in North America and Africa.





Mitchell River Group: Technical, permitting

Peter Nesveda: International Investor Relations and Corporate Affairs

**Read Corporate: PR and corporate communications** 

30 June 2022:

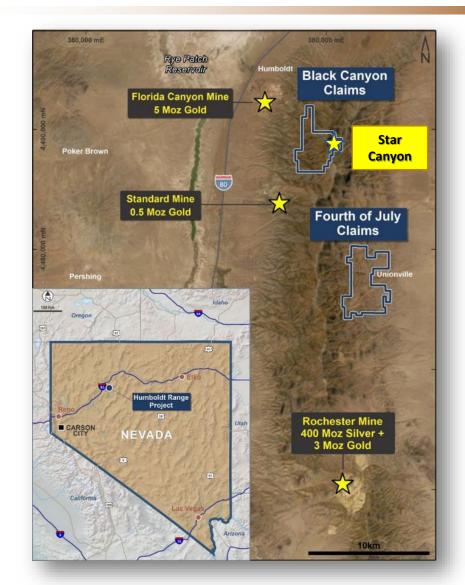
**A**\$14M **MKT CAP:** ~A\$2.0M **CASH: DEBT:** Nil

MAJOR SHAREHOLDERS	%
Ruffer Gold Fund (UK)	13.2
U.S. Global (US)	8.1
Lundin Mining Corporation (Can)	6.1
Management/Directors/MRG	5.4
Golden Hill Investments (Singapore)	4.1
Adam Hajek (Aus)	1.8





## Nevada - Humboldt Range: high-grade Gold/Silver



#### **Project Highlights**

- USA's Best mining jurisdiction
- ➤ Close to active multi million-ounce gold and silver mines
- 2 claim blocks: Black Canyon and Fourth of July
- Very high grades of Au and Ag in drilling, outcrop and historic workings (pre-1927)
- ➤ Low-cost Mine Lease Agreement over 333 lode claims with royalty of 2.5% NSR (3.75% NSR if grade> 15.6g/t Au) payable to claim owners once mining starts

#### **Exploration Program**

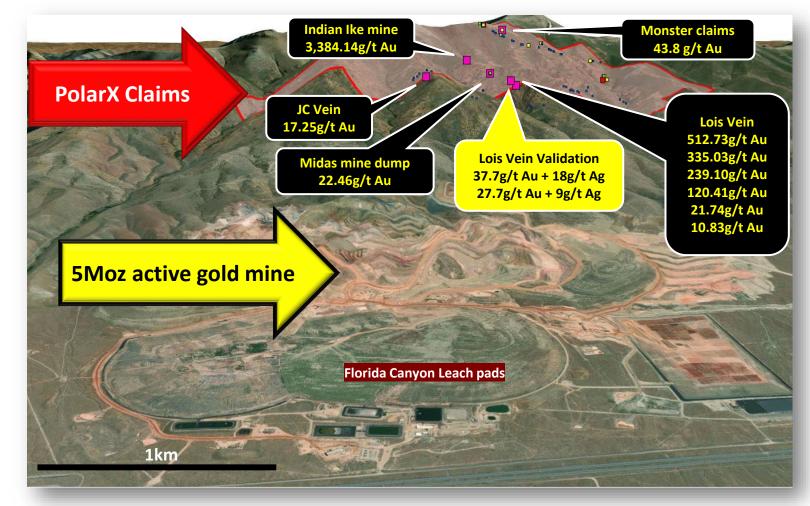
- ✓ Very successful maiden RC drilling program at Star Canyon: 9.1m @ 124g/t Au + 49g/t Ag
- ✓ Over 2,200 soil samples and >150 rock-chip samples collected since April 2021
- ✓ Initial rock-chip sampling confirms high silver and gold grades and similar geology to the nearby mines
- ✓ Ultra-high-resolution drone images collected for geological mapping and drill planning
- Rock-chip and channel sampling confirms mine-grade material at surface
- ✓ multiple drill targets





## Humboldt Range: Black Canyon Claims

- Claims owned by same family since 1950
- Limited exploration since mining ceased in 1927
- High-grade assays from previous rock-chip sampling of outcropping veins and grab sampling from the dumps of old mine workings with peak values up to:
  - 3,384g/t gold,
  - > 2,837g/t silver,
  - 22.9% lead and
  - > 3.1% zinc
- ➤ Gold occurs in swarms of 5cm to 1.5m wide epithermal quartz veins and silicified alteration haloes
- Structural corridors between 30m and 275m wide contain numerous (in some cases hundreds of) mineralised quartz veins at mine grades
- Potential bulk mining targets being drilled

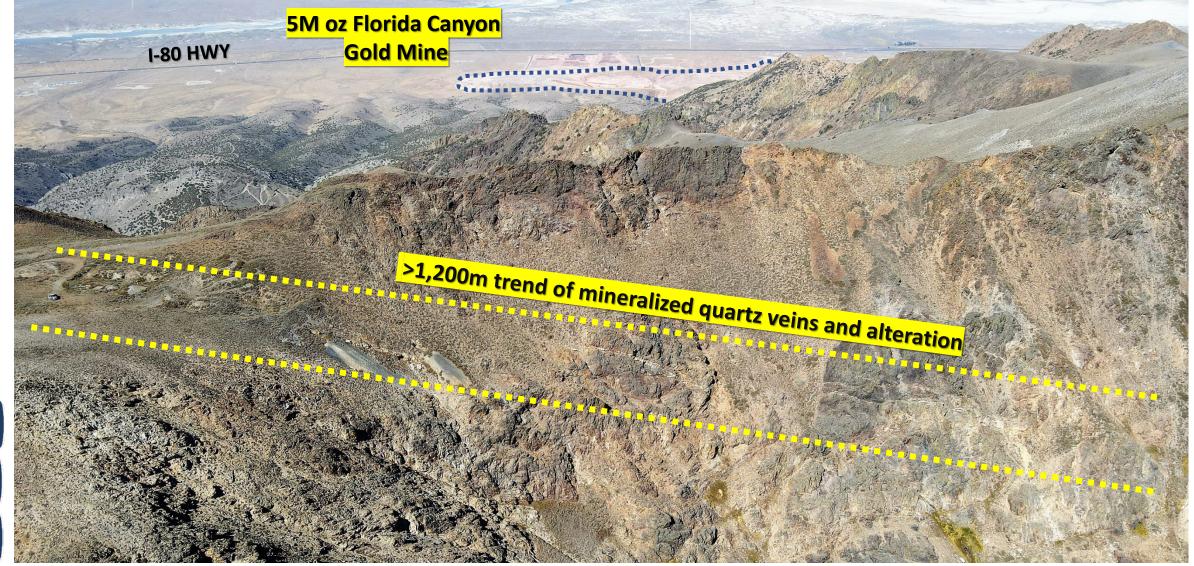








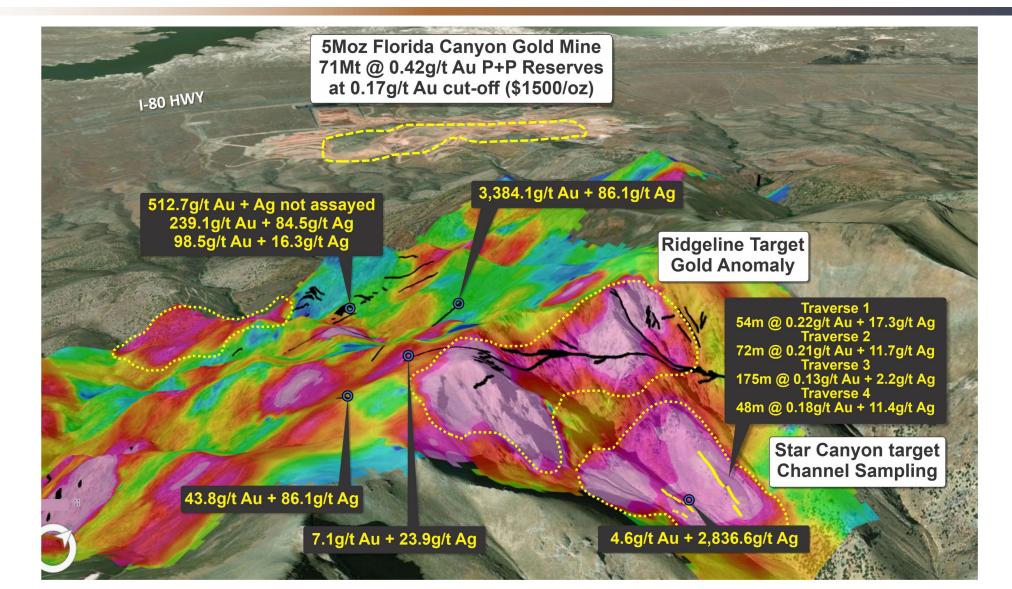
# Black Canyon - Scale and Proximity to a 5Moz operating gold mine







## Star Canyon Channel Samples = surface mine grades

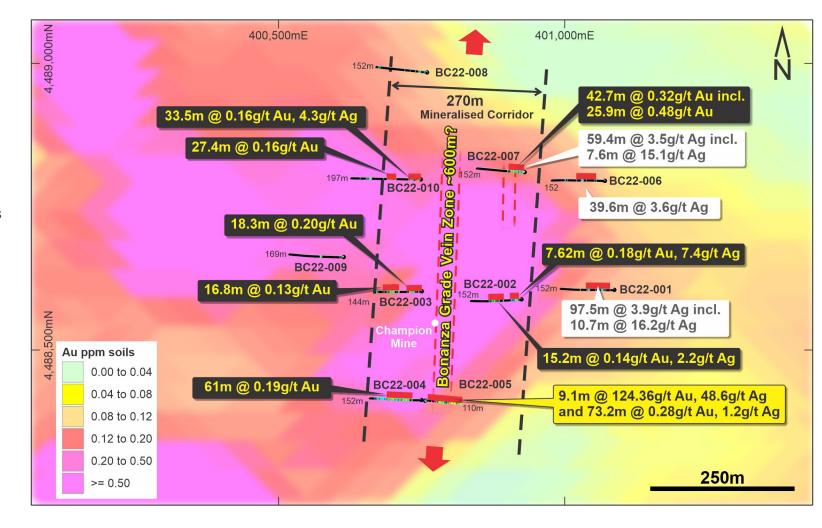






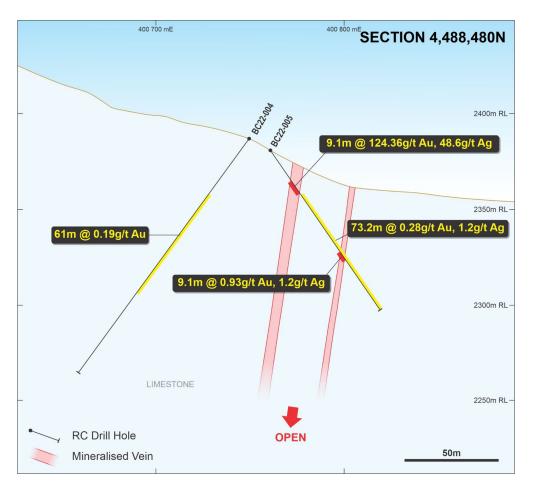
## Spectacular first drilling = Bonanza veins AND Carlin-style

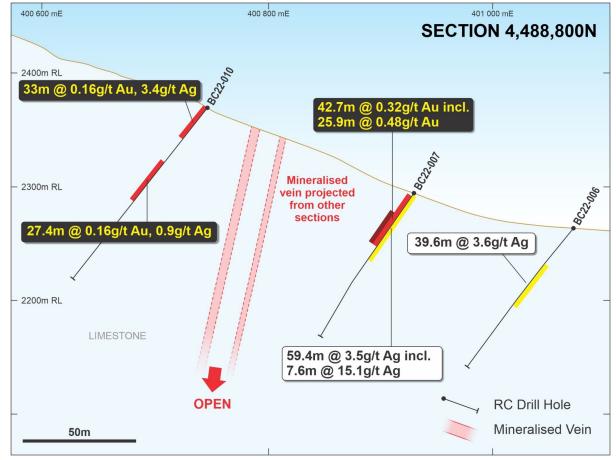
- Bonanza grades in quartz veins seen in BC22-005
- 9.1m @ 124g/t Au + 49g/t Ag
- Immediately overlies 73.2m @ 0.3g/t Au + 1.2g/t Ag
- The lower grade mineralisation is in Carlin-style silicified limestones with sulphide alteration
- > Structural corridor over 275m wide contain numerous (hundreds of) mineralised quartz veins at mine grades
- Potential for open pit bulk mining and more targeted underground mining on the bonanza veins at depth
- Very broad initial drill spacing highlights scale of opportunity





# 200m spaced drilling demonstrates Scale and Grade









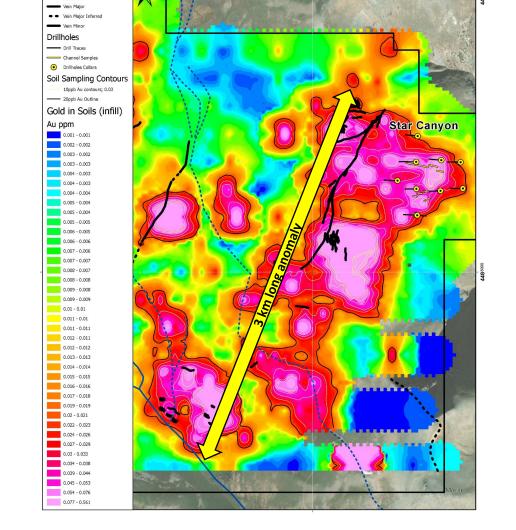




# Soil sampling highlights scale of opportunity

- Detailed soil sampling outlined a 3km long gold anomaly
- Contains outcropping high grade veins such as the Monster Vein system
- Also contains the Star Canyon area where Carlin-style mineralisation outcrops
- ➤ Wide spaced RC drilling undertaken in Star Canyon
- > Successfully discovered both bonanza veins and Carlin-style Au+Ag mineralisation
- ➤ This broad spaced drilling only covers ~15% of the 3km long soil anomaly
- ➤ Huge upside potential from drilling the entire soil anomaly









# Numerous Other Vein Systems – Never Drilled

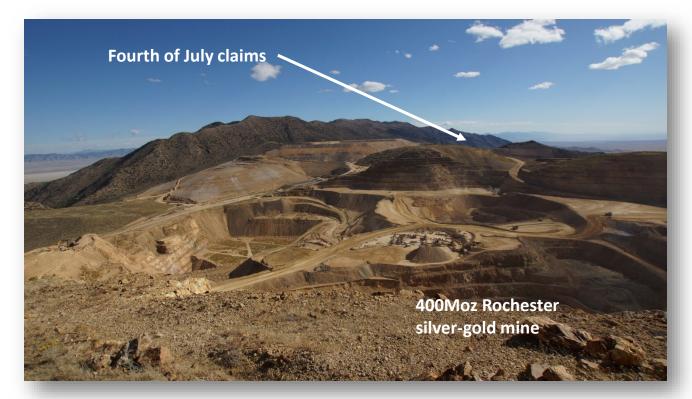


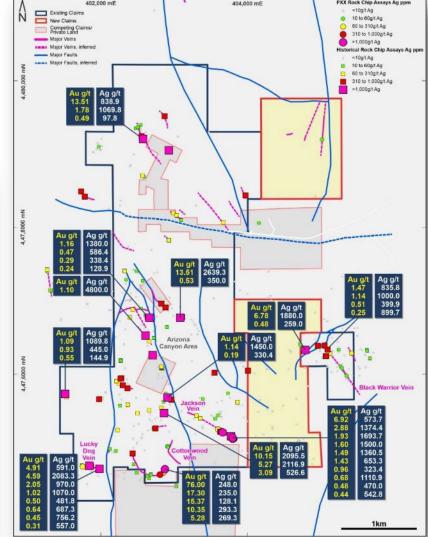




## Humboldt Range: Fourth of July Claims

- Metal zonation from silver-rich veins with strong gold credits at southern part of Fourth of July (closest to the Rochester silver mine) to gold-rich veins in Black Canyon (close to Florida Canyon gold mine)
- ➤ Individual veins up to 700m long (e.g. Jackson Vein)
- Massive silver and gold anomaly defined by PXX soil sampling in the Arizona Canyon area
- Drilling NOW









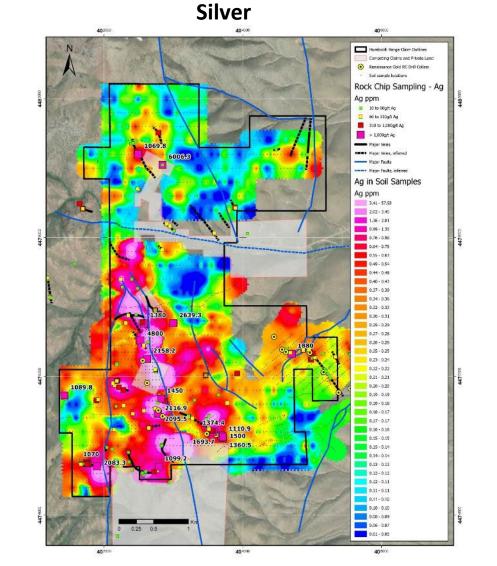
# Fourth of July +3km long Silver/Gold Target

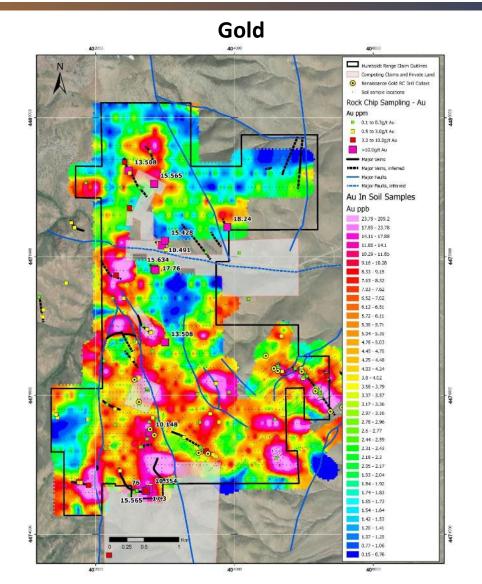






## Fourth of July Claims – very strong Silver/Gold anomalism



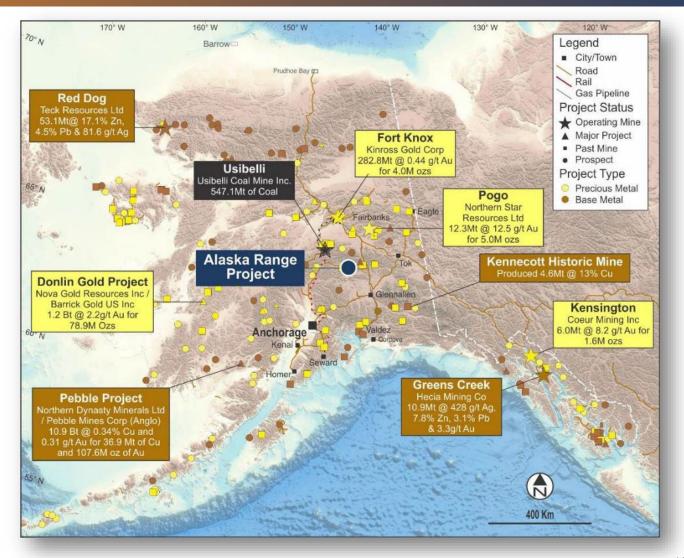




#### Alaska: USA's Mineral Frontier

- > TIER 1 Geology: One of the world's great mineral provinces:
  - Over 40Moz Au mined to date
  - More than 200Moz Au under development/feasibility study
  - ➤ In the world's most productive copper belt, >50Mt Cu in feasibility/permitting stage
  - ➤ World's highest grade giant zinc deposit
- **Considerably under-explored** vs. other **TIER 1** provinces:
  - Many new discoveries made in last decade
  - New opportunities are near-surface, accessible
- > Global Top 10 mining investment destination:
  - > Transparent regulatory regime for exploration + mining
  - > Strong local support for job creation
  - > Home of major players
- **Evidenced by strong Australian presence** in major projects:
  - ☐ Northern Star acquisition of Pogo (Au)
  - ☐ South32 investment in Trilogy (Cu, Co)







## Alaska Range Projects – Overview

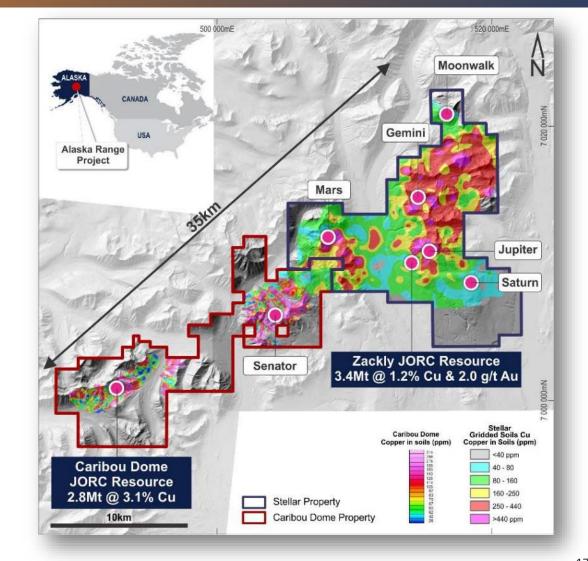
Large land-holding (all State Mining Claims) covering ~261km<sup>2</sup>

#### **Stellar Property**

- > 100% owned and includes Zackly Au-Cu skarn and numerous porphyry Cu-Au targets
- Zackly deposit is high grade (3.4Mt @ 1.2% Cu JORC) and open at depth and along several km's of strike
- Prospectivity for larger porphyry copper-gold deposits in the Stellar property is confirmed by the presence of the Zackly skarn mineralisation:
  - Porphyry copper-gold mineralisation discovered at Mars in 2019, intersected 102m @ 0.22% Cu, 0.1g/t Au, hole ended in mineralisation
  - ➤ High-grade Cu and Au in rock-chip sampling and soils at Jupiter and Gemini
  - ➤ Intense alteration in drilling and associated geophysical anomalies at the blind Saturn porphyry prospect

#### **Caribou Dome Property**

- Earn-In JV Agreement at Caribou Dome (PXX earning 80%) and Senator (PXX can earn 90%)
- Massive sulphides open at depth and along strike
- > Recent discovery of native copper mineralisation over considerable area





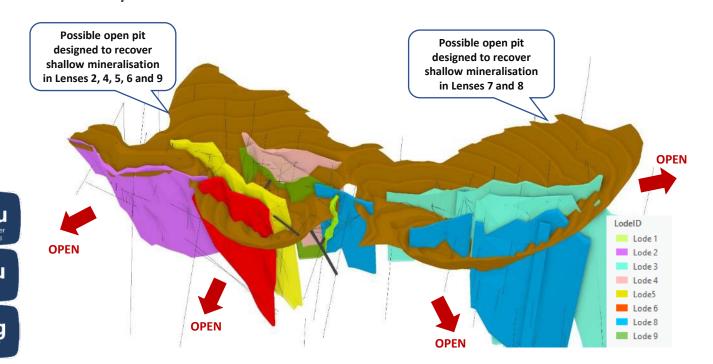


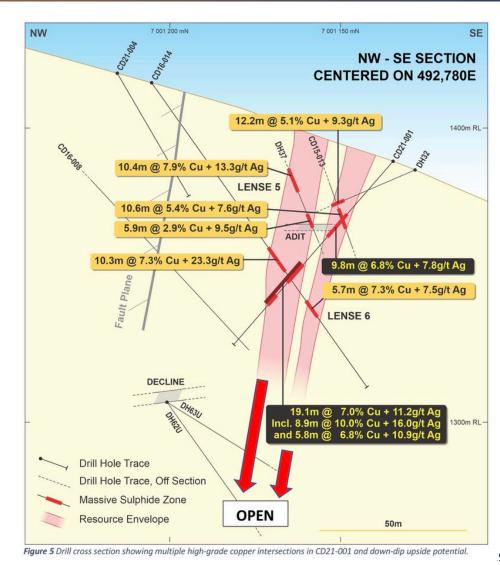




## Caribou Dome: Very high-grade surface copper

- 2.8Mt at 3.1% copper (0.5% lower-cut) for 86,000t of contained Copper (JORC 2012)
- 60% in the top 150m including 935,000t @ 4.4%
- > Drill intersections over >800m strike-length
- Open in all directions
- Many un-tested 3D-IP and soil anomalies within 1km of mineral resource
- Earning 80% by June 2024 by spending US \$1.6M or completing a feasibility study
- Additional metallurgical test work and scoping study evaluating potential to combine CD and Zackly

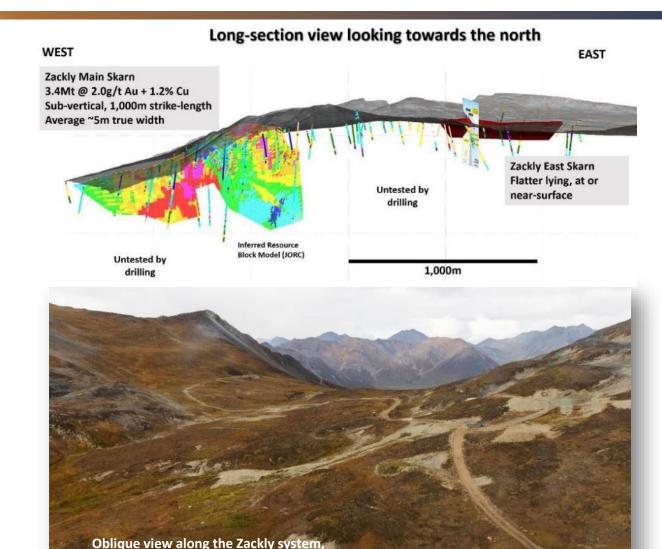






# High-grade Copper/Gold Zackly deposit

- Zackly is a 5km long skarn system with high-grade gold, copper and silver from surface and open to at least ~400m depth
- Zackly Main Skarn hosts 3.4Mt averaging 2.0g/t Au + 1.2% Cu + 14.0g/t Ag JORC inferred resources over the western end.
  - Subvertical Cu-Au-Ag mineralization could be mined by conventional underground mining methods
- Zackly East mineralisation is generally thicker and may be more suitable for open pit mining
- Substantial exploration upside over 2.5km of untested strikelength on known, mineralised structures
- Further upside on identification of the source porphyry system feeding Zackly
- ➤ Metallurgical test work commenced in late Q2 2021 to evaluate:
  - Gravity separation of coarse free-milling gold
  - > Flotation of copper sulphides from gravity circuit residues
- Scoping study commenced in Q3 2021 to evaluate combined mining and processing options at Zackly and Caribou Dome

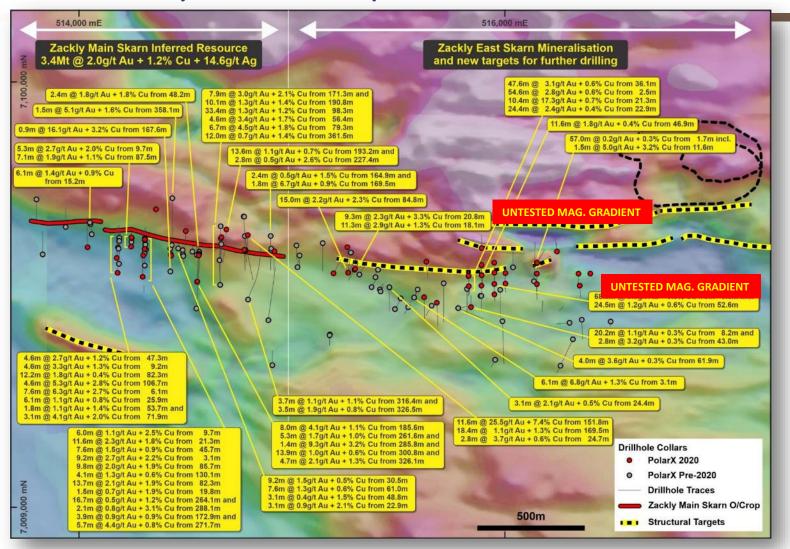


View looking towards the west, Mars porphyry deposit on the far horizon





## Stellar: Zackly has 5km of potential mineralized strike



- Zackly Main deposit is 1km long and occurs along a structure with a strong magnetic gradient
- Mineralisation now confirmed over >800m at Zackly East, taking total mineralised strike-length to 2.5km (Zackly Main + Zackly East)
- 2.5km of untested strong magnetic gradient to the north and east of current drilling
- Possible porphyry Cu-Au targets to north and east of current drilling
- Current Steps:
  - Metallurgical test-work evaluating processing options for Zackly Au/Cu co-processing with Caribou Dome's Cu
  - Scoping study to evaluating combined mining and processing of Zackly East, Caribou Dome and Zackly Main









# Porphyry Copper/Gold Potential

➢ Broad spaced (500m) soil sampling shows two highly significant copper anomalies, both >250ppm, up to 11km x 6km in size

#### MARS (Porphyry, skarn)

- > 2km x 1.5km soil anomaly with visible copper oxides at surface, up to 3,510ppm Cu and 1.1g/t Au in soils
- Rock-chip samples up to 6.9g/t Au and 7.4% Cu
- > Co-incident ground geophysics (IP) anomaly
- Discovery hole 19MAR001: 102m @ 0.22% Cu + 0.1g/t Au

#### **JUPITER (Porphyry)**

2km x 1km soil anomaly at Jupiter with up to 3,850ppm Cu,0.78 g/t Au, no drilling, and very limited IP

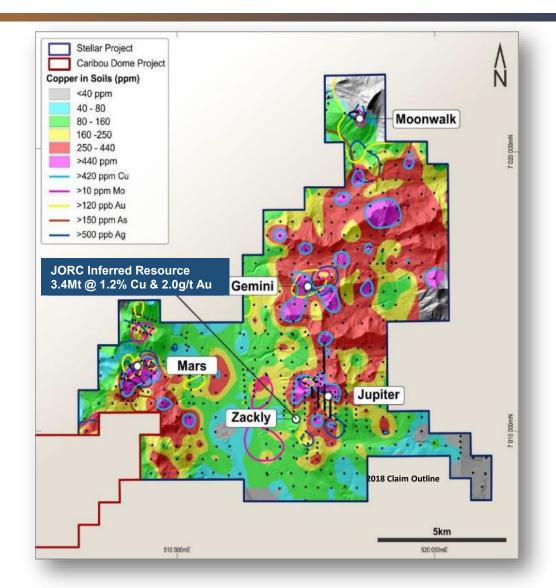
#### **GEMINI (Porphyry)**

2km x 2km soil anomaly with up to 1,130ppm Cu, 0.25g/t
Au, no IP or drilling, high-grade copper in sporadic rock-chips

#### **MOONWALK (Tintina-style Au)**

➤ 1km x 1km Au, As, W anomaly in soils, Tintina style Au mineralisation in outcrop with multiple samples >1g/t Au in rock-chips





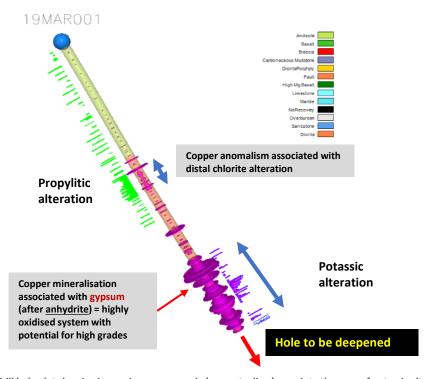


# Stellar Property: Mars porphyry Cu-Au discovery

- Porphyry Cu-Au discovered in first (and only) drill hole 19MAR001: 102m @ 0.22% Cu + 0.1g/t Au below a 1200m x 800m Cu-Au-As-Mo soil anomaly
- Associated with porphyry B-Veins in potassic alteration (anhydrite and biotite), hole ended in mineralisation, but not yet in best part of system
- Potentially higher-grade core of the intrusion not yet drilled
- Seeking a Major Miner JV earn-in for porphyry exploration / development







3-D drill hole plot showing increasing copper grade (magenta discs) once into the zone of potassic alteration



#### **Cautionary Statements**

This presentation has been prepared by PolarX Limited ("PolarX") to assist in informing interested parties about the Company and its progress. It should not be considered as an offer or invitation to subscribe for or purchase any securities in PolarX or as an inducement to make an offer or invitation with respect to securities in the Company. No agreement to subscribe for securities in either Company will be entered into on the basis of this presentation.

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The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the 'JORC Code') sets out minimum standards, recommendations and guidelines for Public Reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. The information contained in this announcement has been presented in accordance with the JORC Code and references to "Measured Resources" and "Indicated Resources" are to those terms as defined in the JORC Code.

Information in this presentation relating to Exploration results is based on information compiled by Dr Jason Berton (an employee and shareholder of PolarX Limited), who is a member of the Australa. Dr Berton has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Berton consents to the inclusion of the data in the form and context in which it appears.

There is information in this presentation relating to:

- the Mineral Resource estimate for the Zackly deposit, which was previously announced on 20 March 2018;
- the Mineral Resource estimate for the Caribou Dome deposit, which was previously announced on 6 April 2017; and
- Exploration Results which were previously announced on 15 August 2018, 25 September 2018, 5 November 2018, 12 November 2019, 29 January 2019, 25 March 2019, 5 August 2019, 1 and 21 October 2019, 19 November 2019, 20 January 2020, 14 September 2020, 9 and 21 October 2020, 17 November 2020, 17 December 2020, 11 January 2021, 2 and 4 February 2021, 6 May 2021, 22 June 2021, 19 and 31 August 2021, 31 August 2021, 5 October 2021, 16 and 23 February 2022, 21 April 2022, 3 May 2022 and 5 July 2022.

Other than as disclosed in those announcements, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements, and that all material assumptions and technical parameters have not materially changed. The Company also 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.







#### Alaska Range Project Resource Estimates (JORC 2012), 0.5% Cu cut-off grade

	Category	Million Tonnes	Cu %	Au g/t	Ag g/t	Contained Cu (t)	Contained Cu (M lb)	Contained Au	Contained Ag
								(oz)	(oz)
ZACKLY	Inferred	3.4	1.2	2.0	14.0	41,200	91	213,000	1,500,000
CARIBOU	Measured	0.6	3.6	-		20,500	45	-	-
DOME	Indicated	0.6	2.2	-		13,000	29	-	-
	Inferred	1.6	3.2	-		52,300	115	-	-
					TOTAL	127,000	280	213,000	1,500,000







- > Tier 1 copper, gold and silver assets
- ➤ Alaska and Nevada = within world's top 5 mining exploration and investment precincts
- ➤ Top 40 shareholders own 60% of PolarX including management
- > Scoping study to assess combining Zackly and Caribou Dome
- > Imminent assays from Nevada
- World-class management with a record of delivering increased shareholder value





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