#### Sombrero Butte Copper Project



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This Power Point presentation contains certain forward-looking statements within the meaning of the Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and forward-looking information within the meaning of the Canadian securities laws (collectively, "forward-looking information"). This forward-looking information includes statements relating to management's expectations with respect to our projects based on the beliefs, estimates and opinions of the Company's management or its independent professional consultants on the date the statements are made.

Forward-looking information in this presentation includes statements about the potential growth and exploration of Copper Fox's investments; expected supply and demand for copper in the years to come; the copper refined balance forecast; potential economic enhancements to the Sombrero Butte project; the future activities of the Sombrero Butte project; and the interpretation of data from the Mineral Mountain project. Information concerning exploration results and mineral resource estimates may also be deemed to be forward-looking statements, as it constitutes a prediction of what might be found to be present when and if a project is actually developed.

With respect to the forward-looking statements contained in this presentation, Copper Fox has made numerous assumptions regarding, among other things: metal price assumptions used in mineral reserve estimates; the continued availability of project financing; the geological, metallurgical, engineering, financial, and economic advice that Copper Fox has received is reliable, and is based upon practices and methodologies which are consistent with industry standards; the availability of necessary permits; and the stability of environmental, economic, and market conditions. While Copper Fox considers these assumptions to be reasonable, these assumptions are inherently subject to significant business, economic, competitive, market and social uncertainties and contingencies.

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Elmer B. Stewart, MSc. P. Geol., President of Copper Fox, is the Company's non-independent nominated Qualified Person pursuant to Section 3.1 of National Instrument 43-101, *Standards for Disclosure for Mineral Projects*, and has reviewed and approved the technical information disclosed in this presentation.

## Sustainability Policy



- Committed to sustainability best practices as a responsible mineral exploration and development company
- > Work programs meet or exceed environmental regulations
- Early engagement with stakeholders is the best approach
- Preservation of wildlife and aquatic habitat fundamental to our philosophy
- Transparency, inclusivity, and respect, to enhance social and economic benefits for communities and stakeholders
- Corporate Governance Mandate and Corporate Management System in





place

#### **Project Location**



#### **Former BHP Copper Smelter**

Kalamazoo Copper Mine (BHP) San Manuel Copper Mine (BHP)

#### **Sombrero Butte Project**

#### **Copper Creek Deposit (2023 Pit Outlines)**

Source for Copper Creek Deposit 2023 Pit Outlines: *Copper Creek Project, NI* 43-101 Technical Report and Preliminary Economic Assessment. Pg 213. Ausenco and SRK, May 3<sup>rd</sup>, 2023.

>25 mrad Chargeability Outline (@ 200m depth)

## **Project Overview**





- Objective: Disciplined exploration approach targeting large scale Laramide Cu-Mo mineralization and chargeability/resistivity anomalies.
- Multiple targets with Laramide age mineralization over 4 km strike length.
- Located at intersection of NW & NE trending porphyry copper belts.
- Covers 3430.8 acres.
- 3 km south of the Copper Creek copper porphyry deposit.
- Year around road access.

## Arizona Porphyry Copper Belts





## **Technical Overview**



- Regional Setting: Laramide copper province, Arizona
- Structural Setting: Located at intersection of NW & NE trending Porphyry copper belts including the Ray, Christmas, Chilito and San Manuel/Kalamazoo deposits
- Laramide Age: 62.9 +/- 0.01 Ma to 63.1 +/- 0.01 Ma (U/Pb zircon)
- Country rocks: Laramide-age Gloryhole Volcanics and composite Copper Creek Granodiorite stock.
- Large copper porphyry target exhibiting
  - > Positive chargeability/resistivity anomalies are consistent with potassic and phyllic alteration
  - > MT results show potential for a deep-rooted conductive zone
  - > Alteration: Localized potassic zones. Widespread sericitic, propylitic, and sporadic advanced argillic.
  - ➤ Large areas of overlapping Cu-Mo mineralization on the SE edge of the Copper Creek granodiorite.
  - > Multiple mineralized magmatic and magmatic hydrothermal breccias.
- Exploration Model: Copper Creek Copper Porphyry deposit, Arizona

### Sombrero Butte Project Summary



- Located in the Laramide (62.9 +/- 0.01 Ma to 63.1 +/- 0.01 Ma (U/Pb zircon) Porphyry Copper Arc, Arizona.
- Located at intersection of NW & NE trending Porphyry copper belts including the Ray, Christmas, Chilito and San Manuel/Kalamazoo deposits.
- 4,800m long porphyry footprint containing a large positive Induced Polarization/Resistivity anomaly.
- Mineralized magmatic and magmatic hydrothermal breccia pipes located within positive chargeability anomaly.
- Multiple mineral associations copper-molybdenum-gold-silver, copper-silver and copper.
- Chargeability anomaly dips west.

## **Exploration Model**





## **Structural Setting**





# Project Geology Map





- Project covers southern half of the Laramide age Copper Creek granodiorite stock
- PreCambrian age Pinal Schist overlain by Laramide age Glory Hole Volcanics
- Stock and plugs of Copper Creek granodiorite intrude Glory Hole Volcanics.
- Copper Creek granodiorite multi-phase composite intrusive consisting of dioritic, biotite-hornblende granodiorite, biotite granodiorite, granodioritic and quartz monzonite phases.
- Multiple late-stage porphyritic dikes.
- Breccias are hosted in the Copper Creek granodiorite and the Glory Hole volcanics. Breccia clasts are comprised of granodiorite or volcanics or both when traversing the Glory Hole Volcanics.

# **Copper Distribution**





- Three large areas of anomalous copper geochemistry over 4,800m strike length.
- Strong correlation between copper mineralization and higher chargeability signature (>25 mrad at 200 m depth and >200 ppm Cu at surface, shown left).
- Coincident Cu-Mo mineralization along SE edge of granodiorite/volcanic contact.
- Copper mineralization hosted in quartz veins, fractures and mineralized breccia pipes. Chalcopyrite occurs disseminated in the Copper Creek granodiorite near the southeastern edge of the intrusion.
- All Cu concentrations capped at 7,000 ppm for modelling purposes.
- See Pathfinder Element slide for spatial correlation with distal/proximal elements.

# Molybdenum Distribution





- Higher Mo concentration indicates higher temperature portion (core) of the system.
- Surface Mo >10 ppm correlates with the >25 mrad contour at 200 m depth.
- Strong correlation between Cu and Mo along the SE edge of the Copper Creek Granodiorite/Glory Hole Volcanic contact.
- Sporadic Mo anomalies in NW end of project associated with mineralized breccias (focus of previous drilling).
- > Occurs in quartz-molybdenite veinlets.
- Mo concentrations capped at 50 ppm for modelling purposes.
- See Pathfinder Element slide for spatial correlation with distal/peripheral elements.

#### Pathfinder Elements





- Zinc, lead, and arsenic distribution considered a peripheral pathfinder element in porphyry-Cu systems, notably enriched in the sericitic zone. (SEG Newsletter 100, January 2015, pg. 14, Table 1. Typical Pathfinder Elemental Ranges (ppm))
- Crude outline of distal Zn, Pb and As in the Glory Hole volcanics package surrounding the 25 mrad chargeability signature at depth implies a possible porphyry center "capped" by the Glory Hole volcanics.

#### **Breccia Distribution**





- Approximately 120 mineralized and non-mineralized hydrothermal magmatic breccias
- Cu + Mo, Au, Ag and Cu + As-Sb mineralized breccias in NW corner of the property. SE portion of project characterized by trace Cu exhibiting moderate to intense limonite and localized strong clay alteration.
  - Breccia element associations are: Au-Cu, Cu, Cu-Ag, Cu-Mo, Cu-Mo-Ag, Mo
  - Cu with Mn-W-As-Ba geochemical association.
- Dickite (Al2Si2O5(OH)4) is a phyllosilicate clay mineral indicative of initially high temperature, acidic fluids in porphyry copper systems
- Dickite is an indicator of advanced argillic alteration (Sillitoe, 2010).

#### **Breccia Pipe Characteristics**



- Three phases of breccia formation, two mineralized (see below) and one non-mineralized.
- ➢ i) Copper-molybdenum-gold-silver, ii) copper-silver and iii) copper with high As-Sb geochemical association.
- > Copper-molybdenum-gold silver mineralization correlates with positive chargeability anomaly.
- Several breccia pipes contain strongly mineralized Copper Creek granodiorite boulders that yielded 1.6% copper, 0.029% molybdenum and 0.056 ppm gold. Indicating that a mineralized source exists at depth.

Pipe	DDH	From (m)	To (m)	Int. (m)	Cu (%)	Mo (%)	Au (ppm)	Ag (ppm)
Magna	SB-02	280	356	76	0.61	0.007	tr	0.51
Campstool	SB-03	466	492	26	1.19	0.013	0.08	4.83
Sunset	SB-05	18	40	22	4.38	0.001	tr	5.03
		86	104	18	1.37	tr	tr	tr
Audacious	SB-14	24	86	62	1.43	tr	tr	tr
Magna	SB-23	276	306	30	0.68	0.001	tr	tr
		306	358	52	0.82	0.004	0.03	0.69
		458	506	48	1.27	0.040	0.09	3.81

Mineralized core intervals do not represent true width of the mineralization.

#### **Breccia Characteristics**





## **Feldspar Alteration Diagram**





- > 2019 rock sample chemistry
- Intrusive samples exhibit dominantly phyllic to propylitic alteration
- Volcanic samples exhibit less phyllic and dominantly argillic/sodic alteration
- > 2024 whole rock sample chemistry
- Drill core samples exhibit dominantly moderate-weak potassic alteration.
- Outcrop samples exhibit moderate to strong potassic alteration (with subsequent overprinting).
- Phyllic alteration open along strike

### **Potassic Alteration Examples**







SB-51-24



SB-12-24

- 12 surface samples

   (among 71 for petrographic analysis) exhibit potassic alteration
- Chemical analysis, petrographic analysis and visual observation of stained blocks (with sodium cobaltinitrite) carried out to support this determination.
- K-feldspar staining is more obvious in samples such as SB-51-24 (shown top left), rather than in SB-12-24 (shown bottom left).
- Thin-section, SB-12-24 exhibits a plagioclase to Kfeldspar transition.

## **Propylitic Alteration Examples**







SB-33-24



SB-34-24

- Chemical analysis, petrographic analysis and visual observation of stained blocks (with sodium cobaltinitrite) carried out to support this determination.
- Both SB-33-24 (intrusive) and SB-34-24 (volcanic) show classic epidote replacement of plagioclase grains in a propylitic environment.
- Hornblende alteration to tremolite-actinolite (shown in sample SB-34-24, left) is indicative of the inner propylitic zone (Wilkinson, et al. 2020)

Wilkinson, et al. 2020. Exploration Targeting in Porphyry Cu Systems Using Propylitic Mineral Chemistry: A Case Study of the El Teniente Deposit, Chile. SEG Economic Geology, Volume 115, page 772, Figure 1.



## **Phyllic Alteration Examples**







SB-57-24



SB-18-24

- Chemical analysis, petrographic analysis and visual observation of stained blocks (with sodium cobaltinitrite) carried out to support this determination.
- SB-57-24 shows classic sericite replacement of plagioclase grains in a phyllic environment (top left).
- Muscovite in the vein selvages shown on SB-18-24 represents the multiple use of vein pathways during phyllic overprinting (bottom left).
- Hematite and pyrite in the center of the vein was presumably magnetite prior to alteration.

## **Argillic Alteration Examples**







SB-41-24



SB-25-24

- Argillic alteration, dickite breccia content (SB-41-24 example).
- Dickite (Al<sub>2</sub>Si<sub>2</sub>O<sub>5</sub>(OH)<sub>4</sub>) is a phyllosilicate clay mineral indicative of initially high temperature, acidic fluids in porphyry copper systems which are then rapidly cooled and acidic compounds are dissociated.
- Dickite is often an indicator of advanced argillic alteration (Sillitoe, 2010).
- Silica "flooding" as seen in SB-25-24 is also a feature of an argillic zone. This sample also geochemically plots in the argillic field in feldspar alteration diagrams.

# Pyrite Shell Proxy / Limonite Zone





- Limonite veining (including some pyrite within the veins) are present in both the Copper Creek granodiorite and Glory Hole volcanics.
- The presence of these veins suggest a possible pyrite shell at Sombrero Butte, which represents an overall phyllic overprint.
- The northern zone represents the area where historical drilling was focused, on several mineralized breccias.
- The southeastern limonitic zone along the granodiorite and volcanic contact, as well as into the Glory Hole volcanics suggest porphyry system capped by the overlain package.
- Potential for more veining, though data is limited to creek exposure/access.
- Vein locations are enlarged to display orientation.

# **Copper Occurrences**





- Copper bearing veins and fractures are dominantly in the northwestern corner where the historical drilling was focused.
- Chalcopyrite is disseminated in the Copper Creek granodiorite, the Glory Hole volcanics, as well as in breccias.
- Chalcopyrite, and malachite are found in both veins and fractures.
- Chalcocite is seen in the Copper Creek granodiorite, occasionally replaced by hematite.
- Southeastern edge along the granodiorite and volcanic contact exhibit copper showings, though a decreased amounts of veins bearing copper.
- Veins enlarged to display orientation.

#### Alteration





#### Interpreted Potassic Zone

- Potassium feldspar veining/envelopes occasionally have associated biotite (dark pink lines).
- Magnetite veining (black lines) in the Copper Creek granodiorite and Glory Hole volcanics (+/- biotite), often with sericitic envelopes.
- Gypsum veins/fractures (light pink lines) occur in proximity to magnetite veins.

#### Interpreted Propylitic Zone

 Epidote veining/fractures (light green lines) are peripheral to the interpreted potassic zone

#### Interpreted Phyllic Zone

- Limonite zone (i.e. weathered quartzsericite-pyrite veining) represents the phyllic overprint.
- Vein lengths are exaggerated to display orientation.

## TAS Diagram





Total Alkalis vs Silica Diagram IUGS Classification Intrusive Rocks

- Calc-alkaline affinities
- Multiple intrusive phases includes multiple late-stage porphyritic dikes:
- Presence of magnetite and hornblende suggests oxidized-hydrous melt
- Increased La/Yb and V/Sc ratios indicate increased water content in melt

## TAS Diagram/Porphyry Type



Na2O + K2O vs SiO2 Calc-Alkalic and Alkalic Porphyry Types



## **Alumina Saturation Diagram**





## **Fertility Indicators**





## **Regional Geology and Chargeability**









- 3D DCIP survey revealed a large >25 mrad chargeability anomaly that includes the Laramide-age Glory Hole Volcanics as well as the Copper Creek Granodiorite (largely at depth).
- Strongest chargeability is local to the Glory Hole Volcanics, particularly near surface.
- Review of the regional geology cross-section suggests chargeability anomaly may have been introduced by subsequent hydrothermal activity following emplacement of the Laramide Granodiorite stock.
- Chargeability signature bifurcates at depth to suggest two "roots" of the zone. Depth slice shown represents the signature at 200 m depth (approximately 1150 m ASL).

Regional geology map background source: Gootee B.F., Spencer J.E., Ferguson, C.A., Richard S.M. Cook, J.P., and MacFarlane, B.J., 2009, Geologic Map of the Clark Ranch 7 ½' Quadrangle and the west half of the Rhodes Peak 7 ½' Quadrangle, Pinal and Graham Counties, Arizona: Arizona Geological Survey Digital Geologic Map DGM-68, scale 1:24,000.



## Chargeability at Depth





- Chargeability (>25 mrad) is shown at depth. Each depth slice is superimposed on the surface topography. From left to right, at surface, 200 m depth (1150 m ASL), to a depth of about 450 m (900 m ASL), respectively.
- > >25 mrad represents approximately 11.9 mV/V when observing data corroboration.
- Both the Copper Creek granodiorite and Glory Hole volcanics is interpreted to act as the host for the chargeability anomaly.

## **MT Results and Interpretation**





- MT resistivity section L2000E shown left, (looking northeast), and bottom left (looking west). highlights a potential feeder zone of chargeability from depth. Regional geology section has been integrated into the model for demonstration purposes.
- Red lines outline the interpreted shape of the potential feeder zone. Lower left image includes sections L2400E, L2000E, and L1600E.



#### **Corporate Information**



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