

# Excelsior

MINING CORP

TSX: MIN  
OTCQB: EXMGF  
Frankfurt: 3X3



We make Cu Green

June 2024

# Disclaimers

**Special Note Regarding Forward-Looking Information:** This presentation contains "forward-looking information" concerning anticipated developments and events that may occur in the future. Forward looking information contained in this presentation includes, but is not limited to, statements with respect to: (i) the estimation of mineral resources and mineral reserves; (ii) the robust economics, potential returns associated with the Gunnison Project, (iii) the technical viability of the Gunnison Project; (iv) the market and future price of copper; (v) expected infrastructure requirements; (vi) the updated economics on the Gunnison Project and JCM, (vii) the results of the Gunnison Prefeasibility Study, Johnson Camp PEA and Strong & Harris PEA including statements about future production, future operating and capital costs, the projected IRR, NPV, payback period, construction timelines, permit timelines and production timelines for Strong and Harris; (viii) the potential production from the Johnson Camp mine; (ix) future exploration potential; (x) the permitting process and permitting risk; (xi) the benefits of well stimulation; (xii) the ability to mine the Gunnison Project using in-situ recovery mining techniques; (xiii) the completion of Well Stimulation trials H1 2024; (xiv) progress on integration studies; (xv) completion of Nuton sulfide leaching column tests Q1 2024, (xvi) the Potential Stage 2 Nuton decision and construction H1 2024; (xvii) integrated mining and processing studies in 2024; and (xviii) developing a long-life, multi-asset, mining camp in Arizona

In certain cases, forward-looking information can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur" or "be achieved" suggesting future outcomes, or other expectations, beliefs, plans, objectives, assumptions, intentions or statements about future events or performance. Forward-looking information contained in this presentation is based on certain factors and assumptions regarding, among other things, the estimation of mineral resources and mineral reserves, the realization of resource and reserve estimates, copper and other metal prices, the impact of carbon dioxide gas reducing fluid flows at the Gunnison Project, the success of well stimulation activities, the timing and amount of future exploration and development expenditures, the estimation of initial and sustaining capital requirements, the estimation of labour and operating costs, the availability of necessary financing and materials to continue to explore and develop the Gunnison Project in the short and long-term, the progress of exploration and development activities, the receipt of necessary regulatory approvals, the completion of the permitting process, the estimation of insurance coverage, and assumptions with respect to currency fluctuations, environmental risks, title disputes or claims, and other similar matters. While the Company considers these assumptions to be reasonable based on information currently available to it, they may prove to be incorrect.

Forward looking information involves known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements of the Company to be materially different from any future results, performance or achievements expressed or implied by the forward-looking information. Such factors include risks inherent in the exploration and development of mineral deposits, including risks relating to changes in project parameters as plans continue to be redefined including the possibility that mining operations may not commence at the Gunnison Project, risks relating to variations in mineral resources and reserves, grade or recovery rates resulting from current exploration and development activities, risks relating to the ability to access infrastructure, risks related to the impact of carbon dioxide gas reducing fluid flows at the Gunnison Project, the risk that well stimulation will not be successful, risks relating to changes in copper and other commodity prices and the worldwide demand for and supply of copper and related products, risks related to increased competition in the market for copper and related products and in the mining industry generally, risks related to current global financial conditions, uncertainties inherent in the estimation of mineral resources, access and supply risks, reliance on key personnel, operational risks inherent in the conduct of mining activities, including the risk of accidents, labour disputes, increases in capital and operating costs and the risk of delays or increased costs that might be encountered during the development process, regulatory risks, including risks relating to the acquisition of the necessary licenses and permits, financing, capitalization and liquidity risks, including the risk that the financing necessary to fund the exploration and development activities at the Gunnison Project may not be available on satisfactory terms, or at all, risks related to disputes concerning property titles and interest, environmental risks and the additional risks identified in the "Risk Factors" section of the Company's reports and filings with applicable Canadian securities regulators.

Although the Company has attempted to identify important factors that could cause actual actions, events or results to differ materially from those described in forward-looking information, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Accordingly, readers should not place undue reliance on forward-looking information. The forward-looking information is made as of the date of this presentation. Except as required by applicable securities laws, the Company does not undertake any obligation to publicly update or revise any forward-looking information.

Additional information about the Gunnison Copper Project can be found in the technical report filed on SEDAR at [www.sedar.com](http://www.sedar.com) entitled "Gunnison Copper Project Prefeasibility Study Update and JCM Heap Leach Preliminary Economic Assessment", dated effective February 1, 2023. Additional information on Strong & Harris can be found in the technical report filed on SEDAR at [www.sedar.com](http://www.sedar.com) entitled "Estimated Minerals Resources and Preliminary Economic Analysis, Strong and Harris Copper-Silver-Zinc Project, Cochise County, Arizona", dated effective September 9, 2021.

**Qualified Person:** Excelsior's exploration work on the Gunnison Property and Johnson Camp properties is supervised by Stephen Twyerould, Fellow of AUSIMM, President and CEO of Excelsior and a Qualified Person as defined by National Instrument 43-101. Mr. Twyerould has reviewed and approved the technical information contained in this presentation. The technical information contained in this presentation with respect to Strong & Harris has been reviewed and approved by the following Independent Qualified Persons from MDA, a division of RESPEC: Mr. Jeff Bickel, C.P.G., of MDA, Reno, Nevada (geology and mineral resource); Mr. Michael Gustin, Ph.D., P.Geo, of MDA, Reno, Nevada (geology and mineral resource); Eur. Geol. Robert Bowell, Ph.D. C.Chem, C.Geol, SRK Consulting (UK) Limited, Cardiff, Wales, UK (mineral processing and metallurgical testing, recovery methods) and Mr. Thomas L. Dyer, P.E., of MDA, Reno, Nevada (mining methods, capital and operating costs, and economic analysis).

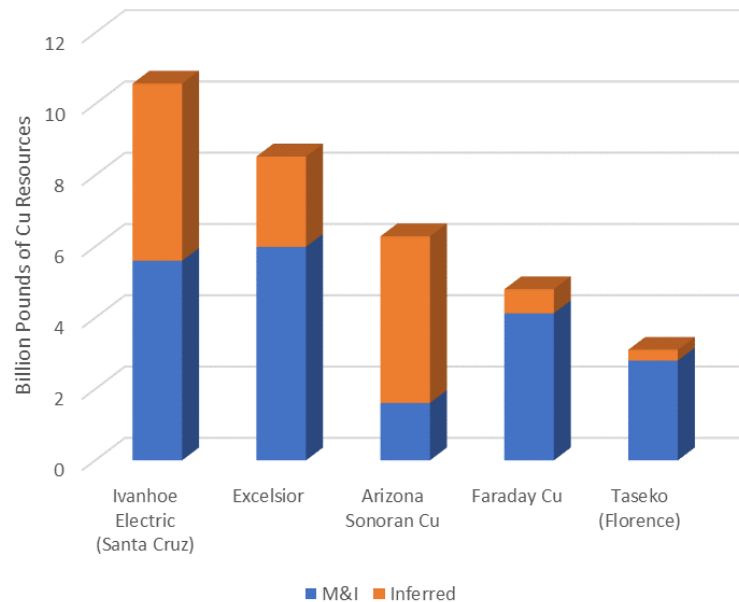
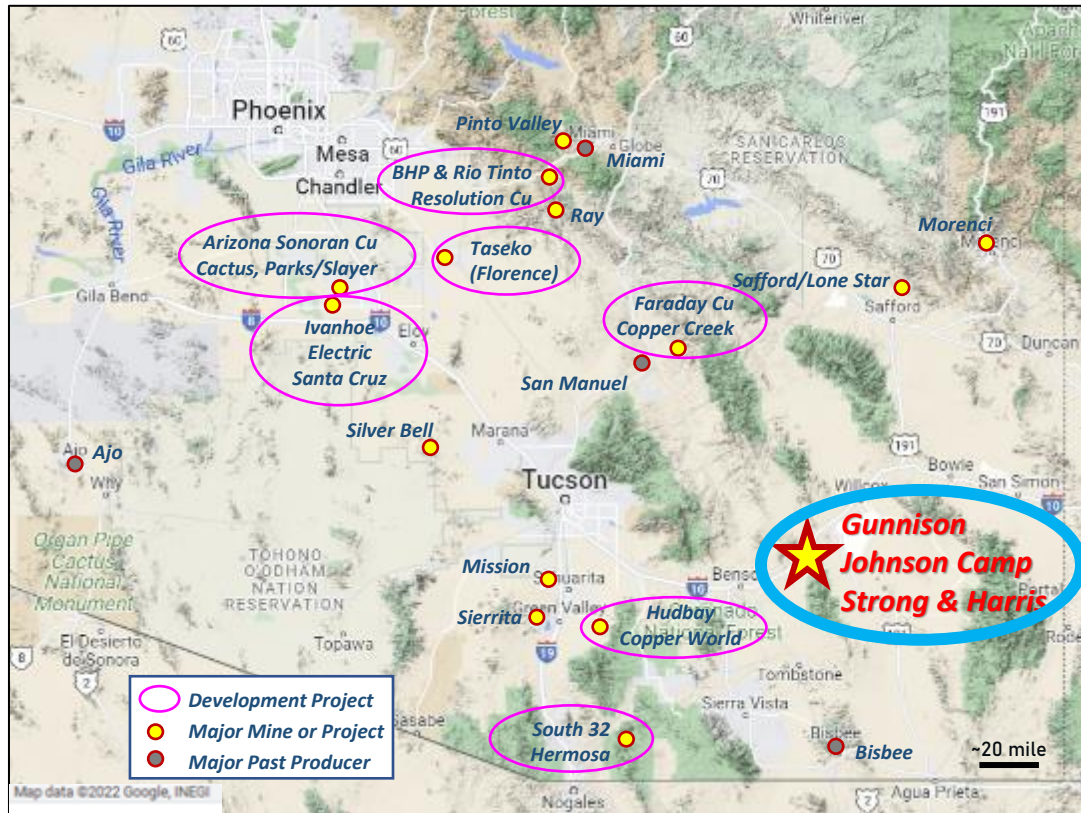
# EXCELSIOR: Value Proposition



- **Tier 1 Jurisdiction in SE Arizona (Cu, Zn, Ag)**
- **Advanced projects with infrastructure & permits**
- **Johnson Camp Mine: Traditional open pit mine**
  - Option to JV with Nuton LLC, a Rio Tinto Venture
  - Processing plant, infrastructure and permitted
  - Nuton Stage 2 commenced (\$5M payment)
  - Construction Q3 2024, Mining Q4 2024, Cu H1 2025
- **Flagship Gunnison Project: In-situ recovery (ISR) mine**
  - One of the largest un-mined Cu resources in the USA
  - Permitting, infrastructure & pilot-mine in place
  - Fracking approved; Success = huge value creation
  - Optionality via a large Open Pit scenario
- **Undervalued with major catalysts in 2024/2025**



# Arizona is the place to be for Cu



**Eight major development projects in the southern half of Arizona and seven of them are copper**  
*See slide 33 for tonnage and grade information on mineral resource estimate.*

# Peer Comparable | Surrounding peers<sup>1</sup> in Arizona, U.S.



Market Capitalization (US\$)	\$50M	\$1.43B	\$100M	>\$239M	\$133M	\$220M
Asset Name	Gunnison / JCM	Santa Cruz	Cu Creek / Contact Cu	Florence	Cactus / Parks Salyer	Kay
Stage	PFS/PEA	Resource	Resource	PFS	PFS	Resource
Measured & Indicated Resource (Mlb Cu)	5,993	6,173	4,126	2,839	5,174	N/A
Inferred Resource (Mlb Cu)	1,392	3,970	673	295	2,208	N/A
Mine Life (Years)	24	N/A	N/A	21	21	N/A
After-Tax IRR (%)	38%	N/A	N/A	47%	15%	N/A
After-Tax NPV (US\$)	\$1.17B / \$1.7B	N/A	N/A	\$930M	\$509M	N/A

## General Assumptions

- \$3.75 & \$4.50 Cu price sensitivities used for Excelsior
- Excelsior without Strong & Harris
- Market data as of May 22<sup>nd</sup> 2024 at closing
- Estimated NAV of Florence inside Taseko
- NPV, IRR and Mine Life are Gunnison Only

## Notes:

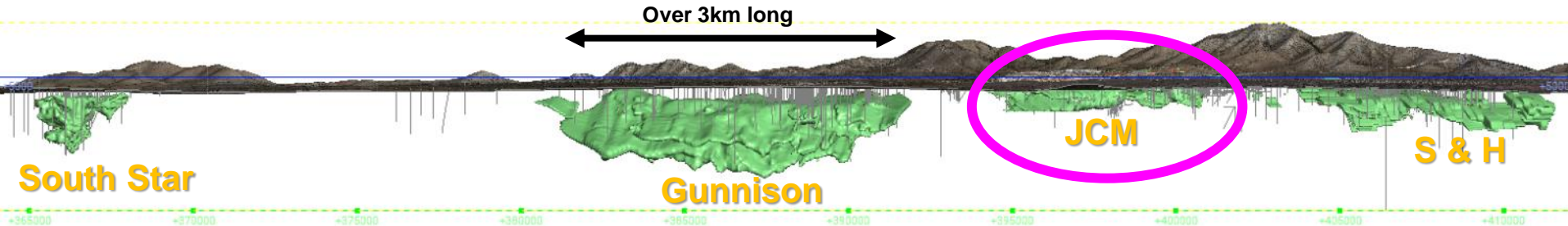
- (1) Junior development or Single-asset copper mining companies.
- (2) This summary is for comparative purposes only and is not an indication that Excelsior's projects or corporate performance will be the same as peer companies
- (3) Refer to slide 33 for mineral resource estimate details

# Location and Permitting Success



- ✓ Biodiversity Surveys
  - ✓ Archeological Surveys
  - ✓ Water management
  - ✓ Land Use
  - ✓ Community Outreach
  - ✓ Population
- ▶ No threatened or endangered species or habitat
  - ▶ No cultural sites, no tribal land or nearby tribes
  - ▶ Very low water use, no active competition for water resources
  - ▶ Predominantly ranching/mining, no National or State Forest land
  - ▶ Substantial engagement = substantial support
  - ▶ Rural with low population density (and we provide good jobs)

# Our Multi-Asset Copper Mining Camp in Arizona



Project	Commodity	Resources (million lb)		After Tax Financial Metrics				Mining & Reporting		
		M&I <sup>(1)</sup>	Inferred	NPV US\$M	IRR	Cu Price	Discount	Type	Date	Life
Gunnison	Cu	5,320	1,070	\$1,697	50.4%	\$4.50	7.50%	ISR	PFS 2023	24
JCM <sup>(1, 2)</sup>	Cu	677	322	\$321	49.2%	\$4.50	7.50%	Open Pit	PEA 2023	21
Strong & Harris <sup>(1)</sup>	Cu, Zn, Ag		794 Cu 858 Zn 9.5mOz Ag	\$260	34%	\$4.50	8.00%	Open Pit	PEA 2021	7

(1) The PEAs are preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the conclusions reached in the PEAs will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability. See slide 26 for tonnage and grade information on mineral resource estimates. (2) The PEA includes estimates of sulfide recovery but not Nuton™ Technologies.



# Johnson Camp Mine (JCM) Process Plant & Infrastructure in Place

Burro Pit &  
Nuton™ Technologies  
Sulfide Leaching





# Nuton LLC: Option to JV & deploy Sulfide Leaching Technology at JCM

## Nuton's key differentiators

### 1 High-performing Technology:

- Outstanding copper recoveries of **up to 85%**
- Multiple applications: Greenfield, Brownfield, waste or tailings
- **30 years** of Research & Development

### 2 Partnership approach:

- Partnering with resource-holders to access copper volumes

### 3 Leading Sustainability credentials:

- Aim to produce world's lowest footprint copper across our five pillars, and stretch to have a Positive Impact in at least one:



Energy



Water



Land



Society



Materials

## Nuton's portfolio today



## Nuton's performance vs. conventional concentrating/smelting\*

CO2 equiv. emissions	up to 60% lower  1.8 -2.6 tonne CO <sub>2</sub> -e/ tonne of copper vs global average emission of 5.2 tonnes (concentration, smelting and refining)
Water consumption (direct)	>80% more efficient  27-36 cubic meters / tonne of copper, vs global average of 200 cubic meters (concentration, smelting, and refining)
Capital intensity	> 40% lower

# Strategic Relationship

- **Simple concept to the relationship**
  - a) Excelsior provides the “ore”, existing plant/infrastructure, permits, people and management
  - b) Nuton provides the expertise, support, specific equipment and the funding
  - c) Excelsior remains the operator and manager
  - d) Nuton gets to rapidly deploy its nature-based technologies at an industrial scale
- **Three-part Structure to the agreement**
  1. **Stage 1:** Drilling, testing and preliminary design (**COMPLETED**)
  2. **Stage 2:** Final design, construction, mining, leaching & Cu production (**COMMENCED**)
    - Leach pad construction and first mining in 2024
    - Copper production early 2025
    - Goal is to keep the SXEW plant full (25Mlb/yr) for approximately 4 years
  3. **Post Stage 2:** Remaining mine life (potentially >15 years)
    - Nuton has the right to form a JV with 49% ownership of JCM to mine the remaining resource **or** allow Excelsior to continue mining (100%) and using Nuton technology under a license

## Stage 2 Commercial Relationship

- **Excelsior always remains manager and operator of the project**
  - Technical committee tracks progress and provides advice as needed
  - Management committee helps manage the relationships and agreements
  - Nuton provides technologies, experience, equipment and expertise
- **Nuton will provide all the funds to complete Stage 2 (CapEx & OpEx)**
  - This includes the \$5M infrastructure fee recently paid to Excelsior
  - All mineralized material processed (oxide, transition & sulfide) contributes to revenue
- **Nuton receives all operating income (less Royalty & Stream obligations) until costs are repaid**
- **After OpEx and CapEx are repaid, Excelsior receives 100% of the net operating income (revenue less costs, sustaining capital, royalties & stream)**
- **Stage 2 is expected to last 4 to 5 years and produce approximately 20 to 25 million pounds of cathode per annum**

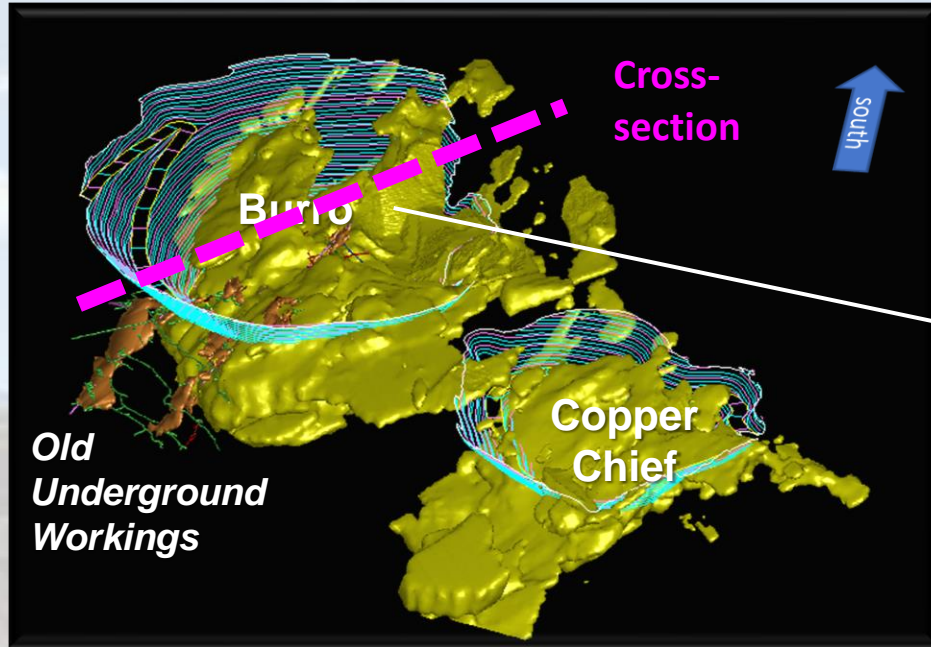
## What does it mean for Excelsior?

- Partnering with a premier organization like Nuton, a Rio Tinto venture
- Unlocking the potential of sulfide mineralization and enhancing overall mine site performance
- Immediate non-dilutive \$5M in cash & majority of “holding costs” covered
- Non dilutive, low risk, re-start of the Johnson Camp Mine
- Construction and capital projects completed at Nuton’s expense
- Potential for solid cash flow from JCM (oxides and sulfides)
- Knowledge and expertise gained
- Potential to extend the mine life for an extra 15 years post Nuton’s industrial scale demonstration
- Potential application to other Excelsior assets

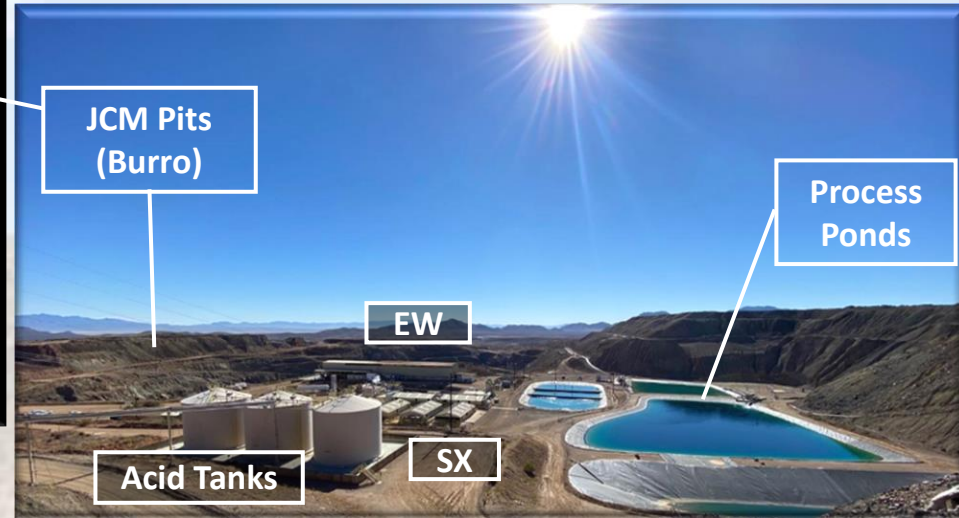


# Johnson Camp Mine (“JCM”) Mineral Resource

- Processing facility fully operational
- Experienced operators (>10 yrs LTI free)
- Nuton Stage 2

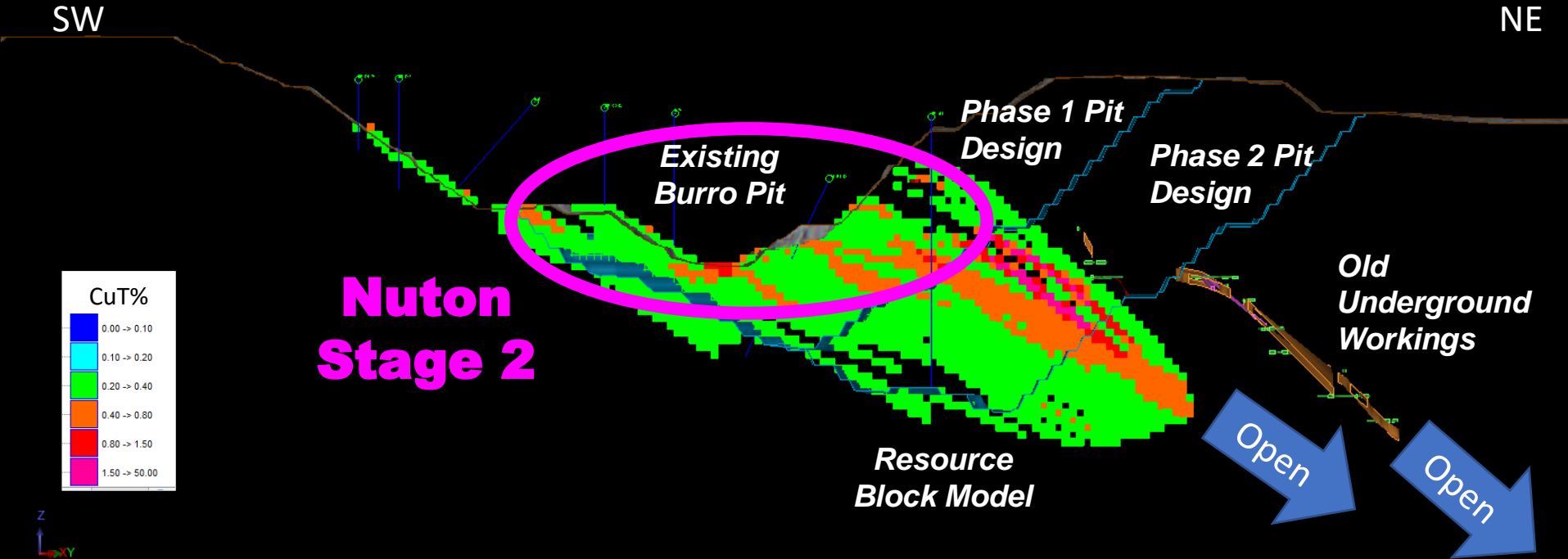


3D view of JCM Mineral Resources at a 0.3% CuT cut-off showing open pit designs and old underground workings

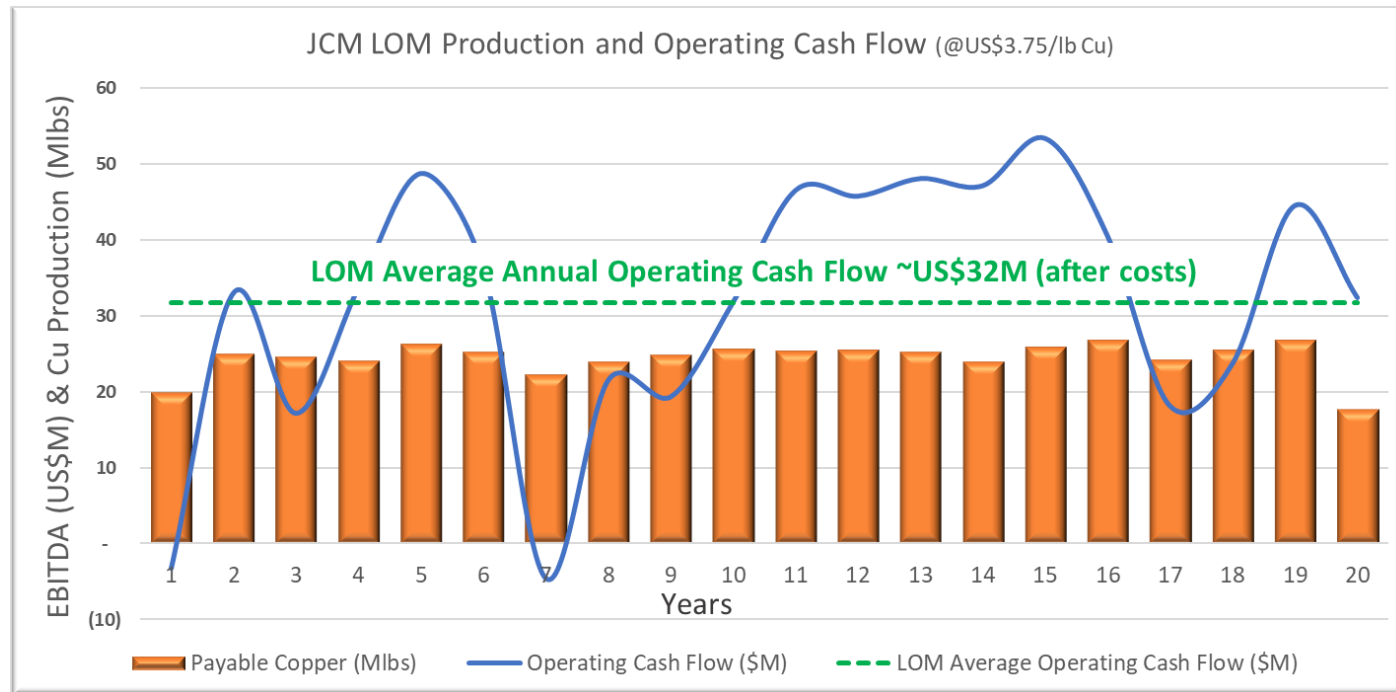


# JCM – Nuton™ Technologies: Sulfide Leaching

Cross Section 2200 Through Burro Open Pit

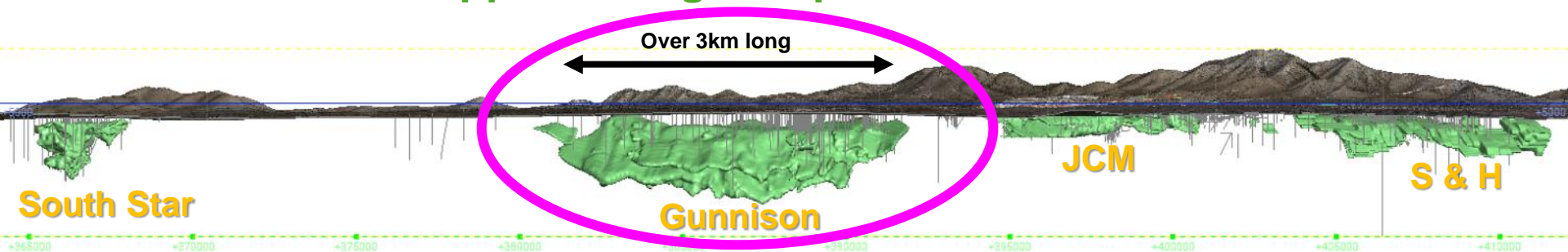


# JCM Production and Income Before Tax Profile (non-Nuton case\*)



The PEA is preliminary in nature and includes inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves. There is no certainty that the conclusions reached in the PEA will be realized. Mineral resources that are not mineral reserves do not have demonstrated economic viability. The PEA includes estimates of sulfide recovery but not Nuton™ Technologies.

# Our Multi-Asset Copper Mining Camp in Arizona



Project	Commodity	Resources (million lb)		After Tax Financial Metrics				Mining & Reporting		
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# Gunnison Upside: Sulfide & Transition

Cross section 392000'N looking north

ISR ~48%

~1,000m

OXIDE

TRANSITIONAL

SULFIDE

Tqm

TQal

PPu

Me

Dm

Cau



Cam

Cal

Cb

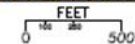
PCu

Mineralized Domains

-  High-Grade Domain
-  Low-Grade Domain

Drill Hole Assays (%CuT)

- 0.00 - 0.01
- 0.01 - 0.05
- 0.05 - 0.15
- 0.15 - 0.30
- 0.30 - 2.5
- > 2.5



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Gunnison Copper Project  
Section 392000  
(100 ft section window)



Respec Reno Office  
775.855.5700  
respec.com

DATE:

23 Sep 2015

SCALE:

As shown



# Optionality On an Open Pit

Cross section 392000'N looking north

Schematic Pit Concept

Open Pit  
~70-80%?

Open

Open

~1,000m

OXIDE

TRANSITIONAL

SULFIDE

Tqm

PCu

PPu

Me

Dm

Cau



Cam

Cal

Cb

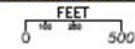
TQal

Mineralized Domains

-  High-Grade Domain
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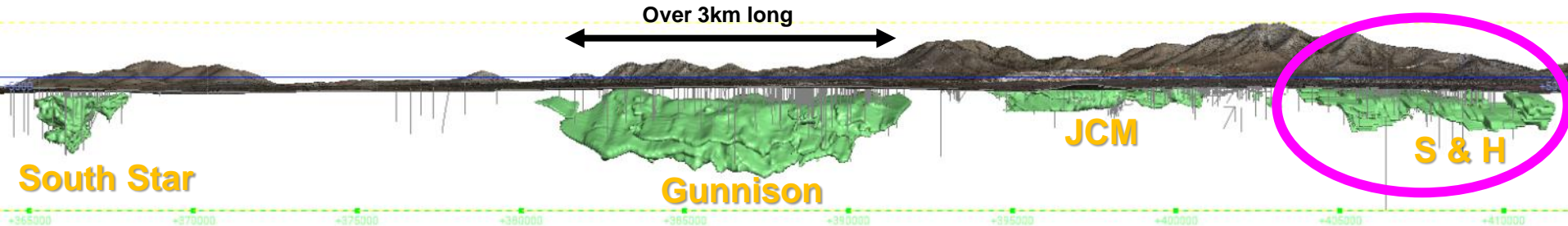
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Gunnison Copper Project  
Section 392000  
(100 ft section window)

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# Our Multi-Asset Copper Mining Camp in Arizona

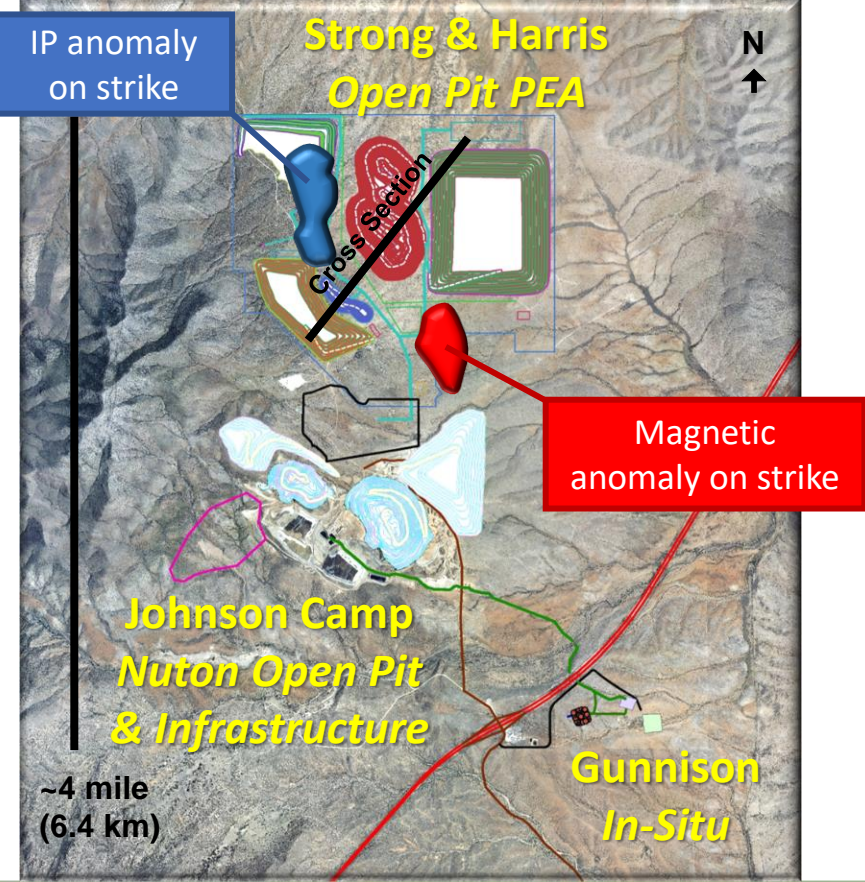


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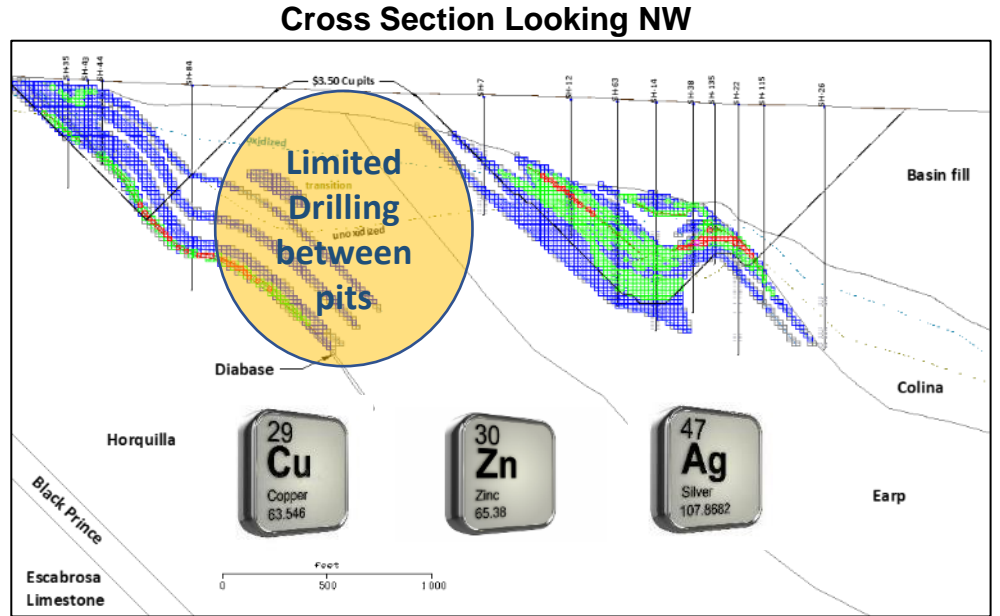
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# Strong & Harris Exploration Upside



- Limited drilling between the open pits
- Magnetic and IP anomalies along strike





# Great Long-Term Supporters

 **TRIPLEFLAG** : **US\$75M**  
MINING FINANCE LTD. (Stream & Equity)

 **GREENSTONE** : **US\$65.5M**  
RESOURCES (Equity, Royalty, Convertible)

 **ALTIUS** : **US\$9M**  
(Equity & Royalty)

 **NEBARI** : **US\$15M**  
(Debt)

TSX: **MIN** / OTCQX: **EXMGF** / FSE: **3XS**

**Shares I/O** **315.4 M**  
Fully Diluted 368.0 M  
Recent Price ~US\$0.14  
**Market Cap** ~**US\$46 M**

**Convertible Debt** US\$3 M @ \$0.19  
US\$2.4 M @ \$0.114

**Top Holders**  
Greenstone 45.4%  
Triple Flag 4.4%  
Management 4.0%  
**53.8%**

**US\$3.4 M cash balance as at December 31<sup>st</sup> 2023**

# Catalysts

- JCM Open Pits (Nuton™ Technologies )
  - Progress on construction and mining H2 2024
  - Copper production H1 2025
- Gunnison
  - Well Stimulation ASAP (on funding \$3-5M)
  - Alternate mining studies
- The Big Picture
  - Developing a long-life, multi-asset, mining camp in Arizona

# Investment Strengths

- Undervalued
- BIG catalysts in 2024
  - JCM – Nuton Production
  - Well Stimulation
- Supportive Partners, strong ESG & upside on all Projects



Excelsior Market  
Cap  $\sim 0.02 \times \text{NPV}^*$



Junior Producers  
 $\sim 0.5 \times \text{NAV}^{**}$

\* Based on February 2023 PFS After-tax US\$1,167 million NPV & 37.5% IRR (LOM US\$3.75/lb Cu price, 7.5% discount rate)

\*\* RBC Capital Markets Comparable as of October 20, 2022: Average Junior Copper Producers  $\sim 0.5 \times \text{P/NAV}$

# Key Team Members



## **Stephen Twyerould, Ph.D – CEO and President**

Over 35 years' experience in the mining industry across numerous early-to-late stage companies worldwide, with extensive track record performing in both technical and management roles.



## **Roland Goodgame, Ph.D. – Senior VP of Business Development**

Over 35 years' experience in the mining industry across numerous large companies worldwide, with strong technical and operating background.



## **Robert Winton, P.Eng – Senior VP/General Manager**

Over 20 years' experience in the mining industry across numerous early and mid-stage companies in North America, with strong technical and operating background.



## **Fred DuVal – Chairman of the Board**

Consultant to many American businesses, a member of Dentons Law (the largest law firm in the world), a senior advisor to Macquarie Infrastructure on public-private partnerships. Mr. DuVal was the Democratic nominee for Governor of Arizona in 2014 and served as Chairman of the Arizona Board of Regents and on the Arizona Commerce Commission.



## **Colin Kinley – Director of the Board**

Almost 40 years' experience in the mining industry across numerous early-to-late stage companies worldwide, with extensive track record in both technical and management roles in energy transition metals, oil and gas projects.



# Excelsior Quality refined.

## Gunnison Project Total Resources (Oxide + Transition + Sulfide)

Resource Class	Short Tons (millions)	Total Cu (%)	Cu Pounds (billions)
Measured	200.7	0.36	1.439
Indicated	710.8	0.27	3.875
Measured + Indicated	911.6	0.29	5.315
Inferred	240.9	0.22	1.070

0.05% TCu Cut-off for Oxide + Transitional; 0.30% TCu Cut-off for Sulfide

## Johnson Camp Mineral Resource 2023 (0.1% CuT cutoff)

Resource Class	Tons	% Cu	Lbs CuT
Measured	20,771,000	0.31	127,545,000
Indicated	87,166,000	0.32	550,118,000
M&I	107,932,000	0.32	677,663,000
Inferred	50,988,000	0.32	322,656,000

Table 1.1 Strong and Harris Mineral Resources  
(0.1% Cu cutoff)

Classification	Tons	% Cu	% CuOx	% Zn	oz Ag/ton	lbs Cu	lbs CuOx	lbs Zn	oz Ag
Inferred	76,161,000	0.52	0.33	0.56	0.12	794,049,000	500,155,000	858,425,000	9,515,000

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