

ARIZONA SONORAN

# Invest in Sustainability

Developing an Arizona Copper Mine to Supply the Energy Transition

# Cautionary Information

This presentation ("Presentation") is being furnished on a confidential basis in order to provide readers certain information with respect to the business and operations of Arizona Sonoran Copper Company Inc. (the "Company" or "ASCU").

This presentation contains forward-looking information within the meaning of applicable Canadian and United States securities legislation. All information contained in this presentation, other than statements of current and historical fact, is forward-looking information. Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "budget", "guidance", "scheduled", "estimates", "forecasts", "strategy", "target", "intends", "objective", "goal", "understands", "anticipates" and "believes" (and variations of these or similar words) and statements that certain actions, events or results "may", "could", "would", "should", "might" "occur" or "be achieved" or "will be taken" (and variations of these or similar expressions). All of the forward-looking information in this presentation is qualified by this cautionary note.

Forward-looking information is not, and cannot be, a guarantee of future results or events. Forward-looking information is based on, among other things, opinions, assumptions, estimates and analyses that, while considered reasonable by the company at the date the forward-looking information is provided, inherently are subject to significant risks, uncertainties, contingencies and other factors that may cause actual results and events to be materially different from those expressed or implied by the forward-looking information. The risks, uncertainties, contingencies and other factors that may cause actual results to differ materially from those expressed or implied by the forward-looking information are described under the heading "Risk Factors" in the ASCU Final prospectus dated November 9, 2021 and filed on SEDAR, and recent financial disclosures. Should one or more risk, uncertainty, contingency or other factor materialize or should any factor or assumption prove incorrect, actual results could vary materially from those expressed or implied in the forward-looking information. Accordingly, you should not place undue reliance on forward-looking information. ASCU does not assume any obligation to update or revise any forward-looking information after the date of this presentation or to explain any material difference between subsequent actual events and any forward-looking information, except as required by applicable law. This presentation contains certain financial measures which are not recognized under IFRS, such as cash cost, sustaining and all-in sustaining cash cost per pound of copper. For a detailed description of each of the non-IFRS financial performance measures used in this presentation, please refer to ASCU's management's discussion and analysis for the nine months ended September 30, 2021 available on SEDAR at www.sedar.com. All amounts in this presentation are in U.S. dollars unless otherwise noted.

#### **Technical Information**

The scientific and technical information in this Presentation, other than in respect of metallurgy, was prepared under the supervision of Mr. Allan Schappert, Stantec. The scientific and technical information in this Presentation in respect of metallurgy was prepared under the supervision of Dr. Martin Kuhn, MAG. Each of Mr. Allan Schappert and Dr. Martin Kuhn is a Qualified Person as defined by National Instrument 43-101– Standards of Disclosure for Mineral Projects.

The potential quantity and grade presented in the Exploration Target ranges are conceptual and have insufficient exploration and drill density to define a Mineral Resource. At this stage, it is uncertain if further exploration will result in the targets being delineated as a Mineral Resource. Estimates of exploration targets are not Mineral Resources and are too speculative to meet the NI 43-101 reporting standards.

ASCU has conducted extensive exploration work to delineate the exploration target contained in this presentation. This work includes analysis and interpretations from four historical and the two recently drilled core holes into the project, similarities of mineralization intercepted to that of the adjacent Cactus project (for mineralization and alteration characteristics, and grade architecture), and review of geophysical and surface ionic leach programs to support realistic target ranges for extent, thickness, and grade. The Exploration Target ranges assume an underground target for exploration purposes.

#### Peers

The comparable information about other issuers was obtained from public sources and has not been verified by the Company. Comparable means information that compares an issuer to other issuers. The information is a summary of certain relevant operational and valuation attributes of certain mining and resource companies and has been included to provide the prospective investor an overview of the performance of what are expected to be comparable issuers. The comparables are considered to be an appropriate basis for comparison with the Company based on their industry, size, operating scale, commodity mix, jurisdiction, capital structure and additional criteria. The comparable issuers face different risks from those applicable to the Company. Investors are cautioned that there are risks inherent in making an investment decision based on the comparables, that past performance is not indicative of future performance and that the performance of the Company may be materially different from the comparable issuers. If the comparables contain a misrepresentation, investors do not have a remedy under securities legislation in any province in Canada. Accordingly, investors are cautioned not to put undue reliance on the comparables in making an investment decision.

## Developing the Next Copper Mine on Private Land in Arizona

To reach the Net Zero emissions goal, 9.7Mt of new copper supply to be added over the next decade. Meaning US\$23B investment per year will be needed over 30 years to deliver new copper projects to reach zero-carbon targets. — Wood Mackenzie, 2023

### **High Quality Project**

Low-geopolitical risk

Brownfields porphyry copper project, SX/EW

Water and surface rights

Top tier jurisdiction

### **Growth-focused**

Base-case economics on Cactus and Parks/Salyer

**Exploration upside** 

Primary Sulphide optionality

### **Experienced Management**

A proven track record of delivering successful mining projects

The team takes an environmental and socially conscious approach to project development

# Capital Structure & Ownership

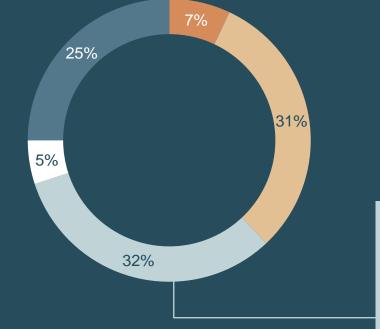
#### **CAPITAL STRUCTURE**

Market Capitalization	C\$190M
Shares Outstanding (M)	109.0
Warrants (M)	2.5
Options (M)	5.6
RSU's (M) <sup>(1)</sup>	0.2
DSU's (M)	0.5
Fully Diluted Share Capital (M)	117.9
Cash as at March 29, 2023	US\$25M
Debt	Debt Free

Notes:

(1) RSUs may be issued in shares or cash

#### **OWNERSHIP**



■ Rio Tinto

■ Tembo

■ Insitutional

■ Management

■ Retail

#### Including:

Beedie Capital Delbrook Konwave Macquarie

**Ixios** 

**US Global** 

Russell Investment Mgmt

Palos Management

**Empire Life** 

Sentry

TBF Global AM

Sprott COPJ ETF

#### **ANALYST COVERAGE**



CORMARK















## Management Team with Track Record of Execution



#### George Ogilvie, P.Eng. PRESIDENT, CEO & DIRECTOR

+30 years of management, operating and technical experience in the mining industry. Previously **President & CEO of Battle North** (sold to Evolution Mining), CEO of Kirkland Lake, and CEO of Rambler Metals



#### **Bernie Loyer SVP Projects**

+35 years building and delivering large scale mining projects. Prior positions at SolGold (Cascabel), Goldcorp (Penasquito and Cerro Negro), Torex Gold (Morelos and Media Luna), BHP (Escondida) and at FLSmidth Minerals.



#### Nick Nikolakakis, BASc, MBA **VP FINANCE AND CFO**

+27 years of North American executive mining finance experience. Former **VP** Finance and CFO of Battle North, Rainy River and Placer Dome, VP Corporate Finance at Barrick and other positions at North American Palladium and BMO **Nesbitt Burns.** 



#### Rita Adiani, LLB Hons **SVP STRATEGY & CORPORATE DEVELOPMENT**

+16 years of mining experience across strategy & business development, investment banking and corporate law. Previously EVP and Head of Business **Development** at Xiana Mining, MD at **NRG Capital Partners, VP at Societe Generale and Senior Corporate Finance** Manager at La Mancha



## **TEMBO** CAPITAL

Private equity fund investing in junior and mid-tier mining companies, with low cost, quality assets managed by high caliber teams

STRONG SPONSOR SUPPORT

Global leading diversified

Innovating technologies to

Shareholder since 2022

metals and mining company

advance the mining industry

with operations in 35 countries.

RioTinto

Shareholder since 2020



Corporate



#### Doug Bowden, MSc. **VICE PRESIDENT, EXPLORATION**

+40 years mining experience throughout North America and Mexico. Responsible for managing exploration programs for Amselco, BP Minerals, Kennecott and Western Uranium. Senior executive positions held at Gold Summit Corporation, **Western Uranium and Concordia** 



#### Travis Snider, B.Sc, Env Chem, SME **VICE PRESIDENT. SUSTAINABILITY** & EXTERNAL RELATIONS

+20 years experience in the mining industry in Arizona. Previously Mining Project Manager at **Engineering & Environmental Consultants**, **SVP of Operations for Sierra Resource Group** and VP of Mining & Oil operations for Wilcox



#### Alison Dwoskin, CPIR **DIRECTOR, INVESTOR RELATIONS**

+15 years in investor relations. Formerly Manager, Investor Relations of Klondex Mines and Eastmain Resources. Began her career at a Toronto-based IR firm, broadly specializing in mining

## **Experienced Board of Directors**



David Laing, B.Sc. Eng CHAIR OF THE BOARD OF DIRECTORS

+40 years experience in the mining industry with roles across operations, project development, mining finance & M&A. Previously EVP and Senior VP of Operations for Endeavour Mining, COO of Equinox Gold, True Gold and Quitana Resources. Currently Chair of Fortuna Silver and Director of Northern Dynasty Mineral, Blackrock Silver Corp and Amarillo Gold Corp



Alan Edwards, B.Sc. Eng, MBA DIRECTOR

+35 years of operational and executive experience in the mining sector. Previously CEO of Oracle Mining, President & CEO of Copper One and Frontera Copper, COO of Apex Corporation. Currently also director of Americas Gold and Silver, Entrée Resources & Orvana Minerals



George Ogilvie, P.Eng.
PRESIDENT, CEO & DIRECTOR

+30 years of management, operating and technical experience in the mining industry. Previously **President & CEO of Battle North (sold to Evolution Mining), CEO of Kirkland Lake, and CEO of Rambler Metals.** Began his career with AngloGold in South Africa, also held roles at Hudbay and served as Area Manager for Dynatek



Mark Palmer, B.Sc DIRECTOR

+30 years in the mining industry with roles in finance and industry. Currently Partner at Tembo. Previously at Rothschild and responsible for EMEA Mining Investment Banking at UBS. Also served as Vice Chair of Canaccord Genuity. Currently also serves on the board of Orion Minerals



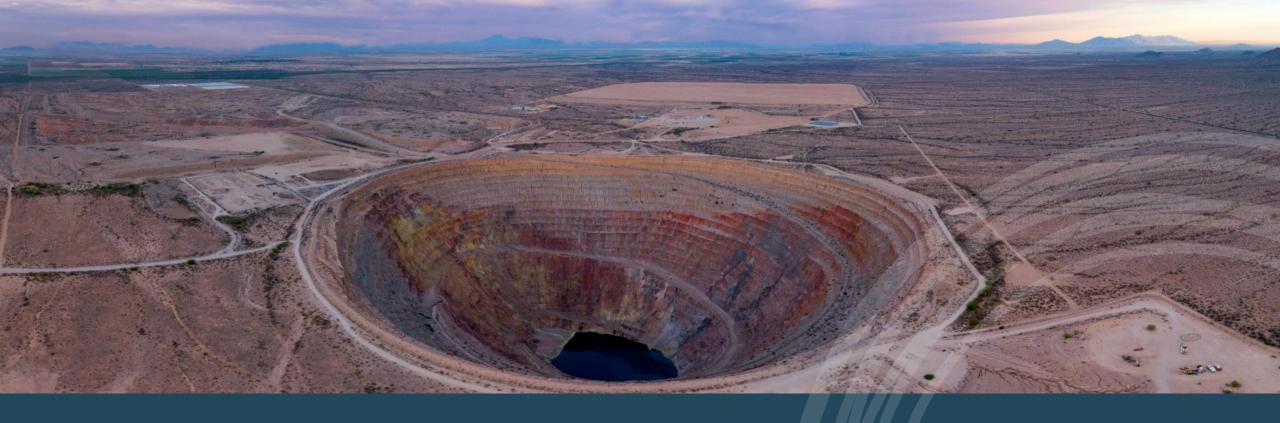
Isabella Bertani, FCPA, FCA
DIRECTOR

FCPA, FCA, +20 years accounting, auditing and advising the public and private sectors for manufacturing, food processing, technology, biotech, mining equipment and engineering consulting. Founder and Chief Strategist at BERTANI, senior positions at Deloitte LLP and a mid market firm. Former director of the McMichael Canadian Art Foundation and Toronto Parks and Trees Foundation. Leadership roles with CPA Canada, International Economic Development Council, Vaughan Chamber of Commerce and others.



Sarah Strunk
DIRECTOR

+37 years in the mining law, with commercial, legal and transactional experience. Currently Chair at Fennemore Craig and Director of Teck. Previously at Cyprus Amax Minerals Corporation. Also served on the Board of Arizona Mining Association, as Trustee of the Foundation for Natural Resource and Energy Law, and as Chair of Brio Gold

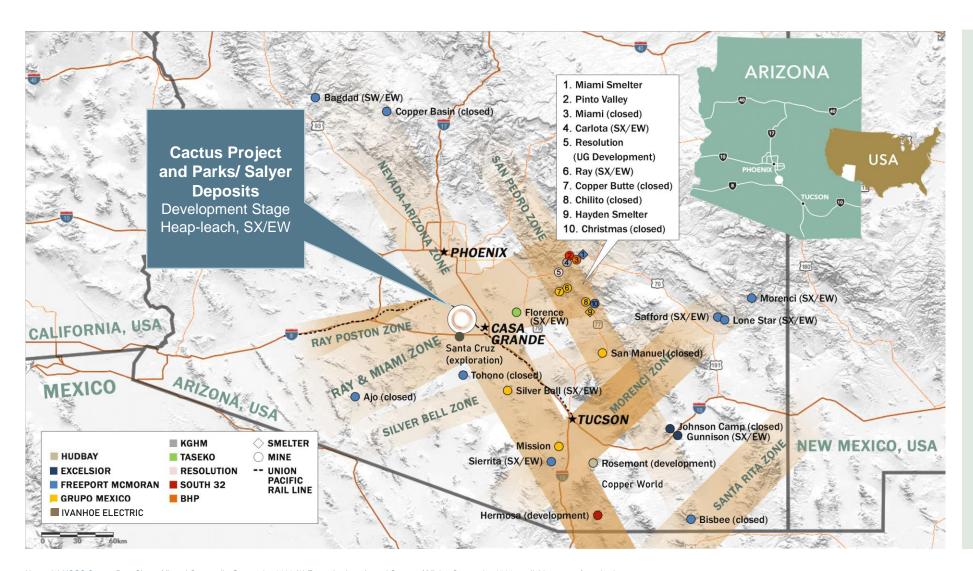


# Location Advantage

5,368 acres on a brownfield's property +\$30M in place infrastructure

# Low Geopolitical Risk and Community Support

Centrally located for Accessible Infrastructure and Skilled Labour-force





Arizona is the USA's leading copperproducing state which accounted for 70% of domestic output of copper in 2022<sup>(1)</sup>



Arizona ranked No. 5 for the year 2021 in Fraser Institute's Investment Attractiveness Index<sup>(2)</sup>

Notes: (1) USGS Copper Data Sheet- Mineral Commodity Summaries 2023 (2) Fraser Institute Annual Survey of Mining Companies 2021, available at www.fraserinstitute.org

# A Clear Path to Development with Major Permits in Place

#### **COMPLETED PERMITS**

Permit	Permit Office
Air Quality Dust Permit	Pinal County
Arizona Pollution Discharge Elimination System (402) (SWPPP)	ADEQ
Water Rights Use up to 3,800 acre-ft / yr	ADWR
Aquifer Protection Permit For Stockpile Project	ADEQ
General Plan Amendment Including development agreement and city zoning change from residential to industrial	Casa Grande
Aquifer Protection Permit Major amendment	ADEQ
Mined Lands Reclamation Permit (MLRP)	Arizona State Mine Inspector
Industrial Air Permit	Pinal County

#### **OUTSTANDING PERMITS - STREAMLINED PROCESS**

Permit	Permit Office	Status		
Reclamation Bond	AZ State Mine Inspector			
Radio Station License, Wireless Communication	FCC	Application post-PFS		
Notice of Intent to Clear Land	AZ Department of Agriculture			
Mining Construction Permits	ing Construction Permits Pinal County			
Above-Ground Tank Storage	ADEQ	Required pursuant to a construction decision		
State Notice of Startup/Miner Registration Number	AZ State Mine Inspector/MSHA			

Major permits are now in place, based on the Cactus PEA. Amendments may be required for certain permits based on the upcoming PFS



# **ASCU PFS Base Case**

# Brownfield Site – Water rights and Surface Rights





## Infrastructure Valued at +\$30M

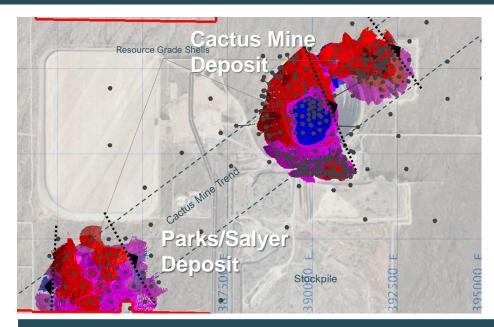
- Offices, core shack and ancillary buildings
- Power substation
- Onsite metallurgical testing
- Water wells and water pond permitted
- Permitted water access to the year 2070

- Rail line (to ship concentrate to refinery)
- Stockpile (part of Integrated Cactus PEA)
- Vent raise, shaft and underground workings (has not been upgraded)



# Large Scale Poprhyry Copper Mineral Resource Estimate

Close Proximity of Deposits



Porphyry copper deposits
Private land, brownfields mine site
Water rights (up to 3,800 ac ft./yr) and onsite wells

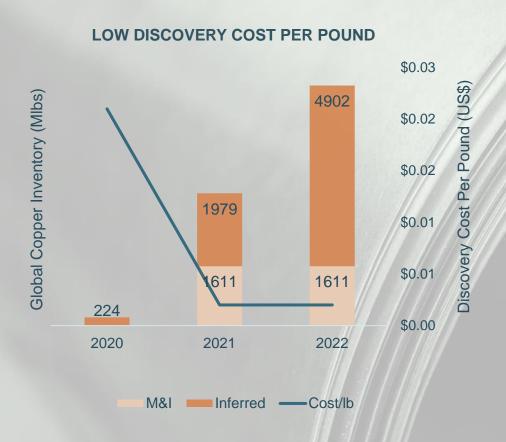
#### PFS Expected Q1 2024, programs include:

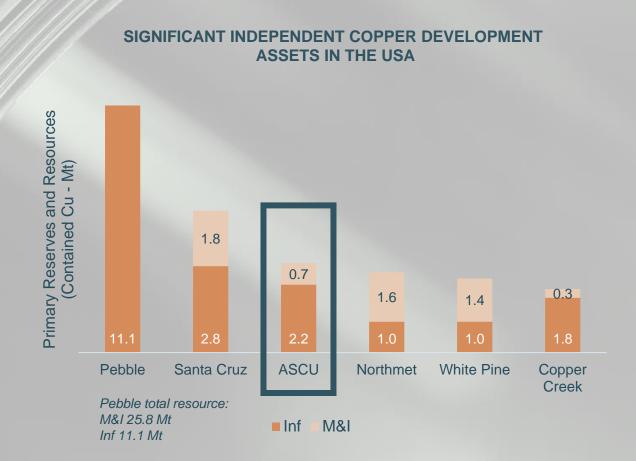
- Infill to indicated drilling program *complete*
- Metallurgy ongoing
- Permitting next applications will be based on the PFS
- Lead engineer Ausenco

#### FS infill to measured drilling has begun

	OXIDE AND ENRICHED MINERAL RESOURCE										
Total Leachable Resource		Parks/Salyer		Underground (CE)		Stockpile		Open Pit (CW)			
Indicated	1.1 B lbs	Updating for PFS (expecting high conversion)		<b>146,200 Klbs</b> 7.7 Mtons	0.954% Cu TSol	Updating for PFS		<b>919,700 Klbs</b> 66.2 Mtons	0.696% Cu TSol		
Inferred	3.6 B lbs	<b>2,460,900 Klbs</b> 115.4 Mtons	1.066% Cu TSol	<b>315,700 Klbs</b> 17.9 Mtons	0.881% Cu TSol	223,500 klbs 77.4 Mtons		<b>672,100 Klbs</b> 99.7 Mtons	0.334% Cu TSol		

# Among the Most Developed Independent US Development Copper Assets





Source: S&P Capital IQ USA and company reports| Metals and Mining Projects based on active, independent, development stage assets in the USA, as of Feb 15, 2022. Not including projects currently under JV. See PR dated Sept 28, 2022 for disclosures regarding the Cactus and Parks/Salyer MRE.

# Emerging Copper Developer in the USA via Heap Leach & SXEW

PEA Base Case + Parks/Salyer Oxide and Enriched Material

# 2021 PEA BASE CASE PROJECT METRICS<sup>(1)(2)</sup> Cactus Mine's Oxide and Enriched Material

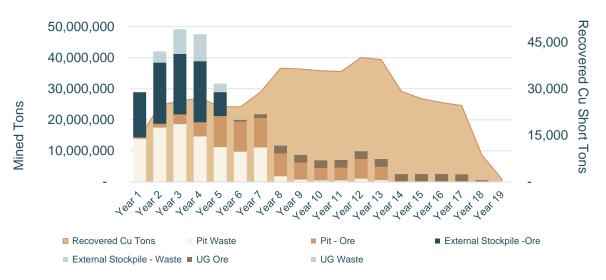
	Over the Life of Mine
Mine Life	1.27 B lbs of Cu over 18 years
Average Production	28 ktpa (56Mlbs); Peaks at 40 ktpa (80Mlbs) (see production schedule, right)
Operating Costs  • Avg OPEX over LOM (US\$/t milled)  • Avg C1 Cost over LOM (US\$/lb)  • Avg AISC over LOM (US\$/lb)	<ul><li>US\$9.06/t</li><li>US\$1.55/lb</li><li>US\$1.88/lb (incl. 3.18% royalty on Cactus)</li></ul>
Capex	<ul><li>Initial Construction Capex: US\$124M</li><li>Sustaining Capex over LOM: US\$340M</li></ul>
Free Cash Flow (Post tax Undiscounted)(US\$3.35/lb Cu)	• US\$960M
NPV8 Post-Tax	• \$312 M
IRR Post-Tax	• 33%

### Low capital intensity project: \$2.20/lb

US\$CAPEX/LOM average Cu production - per the Cactus PEA

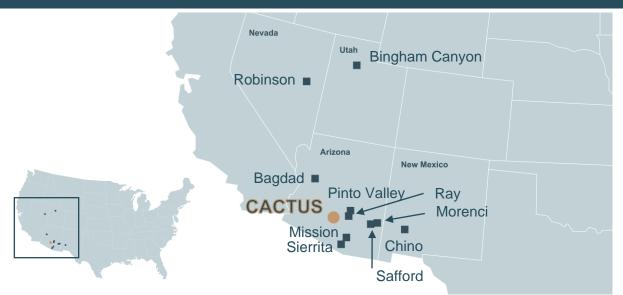
# Step-up PFS layers in Parks/Salyer over the Cactus PEA: Targeting 45-50 ktpa over approximately 30 years

#### CACTUS PEA PRODUCTION SCHEDULE(1)(2)

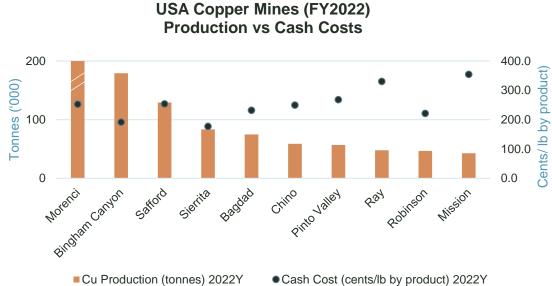


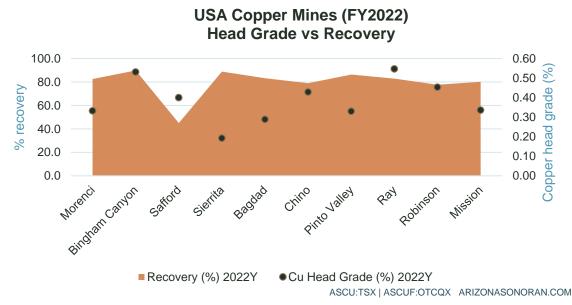
Sources/Notes: t or tons = Short Tons. (1) Integrated Cactus PEA, Table 1-6, 1-7 (2) ) The Integrated Cactus PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to the them that would enable them to be categorised as mineral reserves and there is no certainty that the preliminary economic assessment will be realized. Mineralized Material Sources: Stockpile, Cactus East, Cactus West, Parks/Salyer

# Top 10 USA Copper Mines



	Mine	County and State	Owner	Operation
1	Morenci	Greenlee, Arizona	Freeport-McMoRan (72%), Sumitomo Group (28%)	Open Pit
2	Bingham Canyon	Salt Lake, Utah	Rio Tinto	Long Hole Stoping, Open Pit, Sublevel Stoping
3	Safford	Graham, Arizona	Freeport-McMoRan	Open Pit
4	Sierrita	Pima, Arizona	Freeport-McMoRan	Open Pit
5	Bagdad	Yavapai, Arizona	Freeport-McMoRan	Open Pit
6	Chino	Grant, New Mexico	Freeport-McMoRan	Open Pit
7	Pinto Valley	Gila, Arizona	Capstone Copper.	Dump, Open Pit, Tailings
8	Ray	Pinal, Arizona	Grupo México	Open Pit
9	Robinson	White Pine, Nevada	KGHM Polska Miedź	Open Pit
10	Mission Complex	Pima, Arizona	Grupo México	Open Pit, Underground





Source: S&P Copper Production in 2022, ranked by tonnes produced. Morenci produced 401kt in 2022.

# Targeting First Cathodes in 2026 - Quick Path to Development



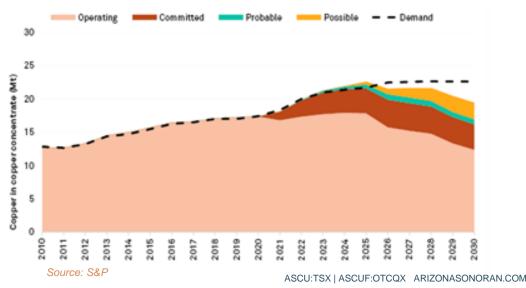
### Timing is everything. In 2026:

PFS Work FS Work

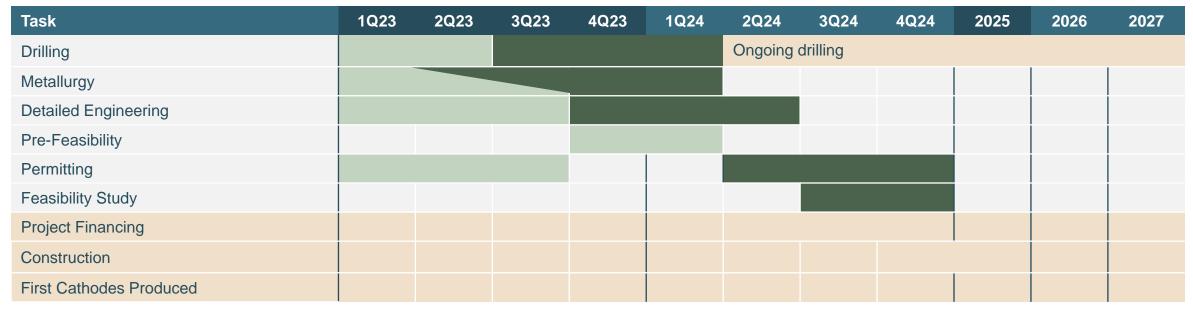
ASCU anticipates first cathodes (based on positive construction decision)

Pending positive construction decision

- Long-term copper price is predicted to exceed \$4.00 / lb
- Copper supply is set to fall into deficit



# Targeting First Cathodes in 2026 - Quick Path to Development



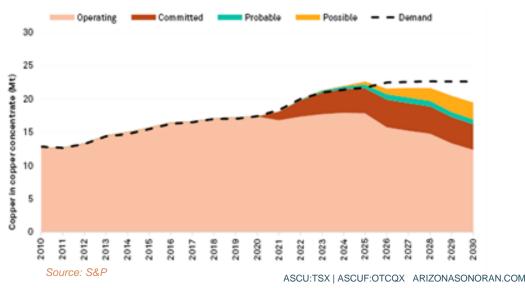
### Timing is everything. In 2026:

PFS Work FS Work

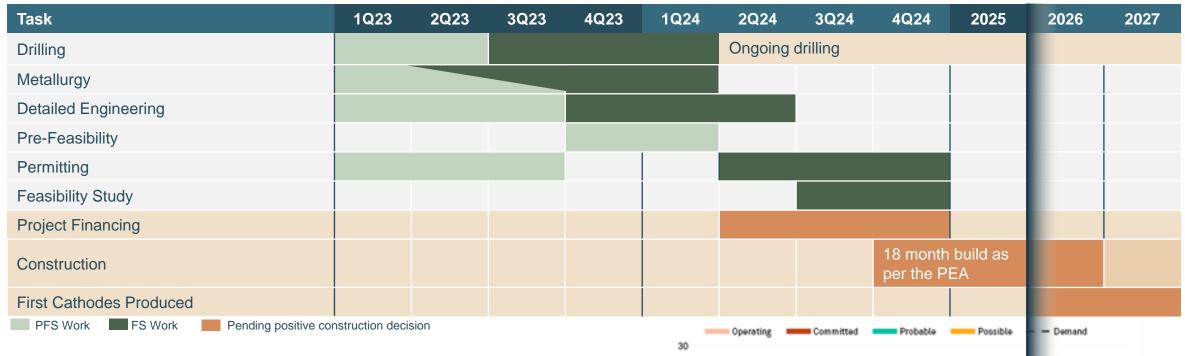
ASCU anticipates first cathodes (based on positive construction decision)

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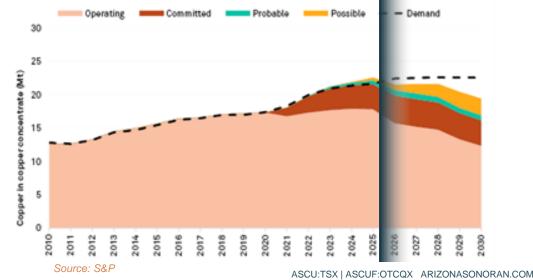


# Targeting First Cathodes in 2026 - Quick Path to Development



### Timing is everything. In 2026:

- ASCU anticipates first cathodes (based on positive construction decision)
- Long-term copper price is predicted to exceed \$4.00 / lb
- Copper supply is set to fall into deficit





Beyond the Base Case

# Primary Sulphide Optionality - Preliminary Results Successful

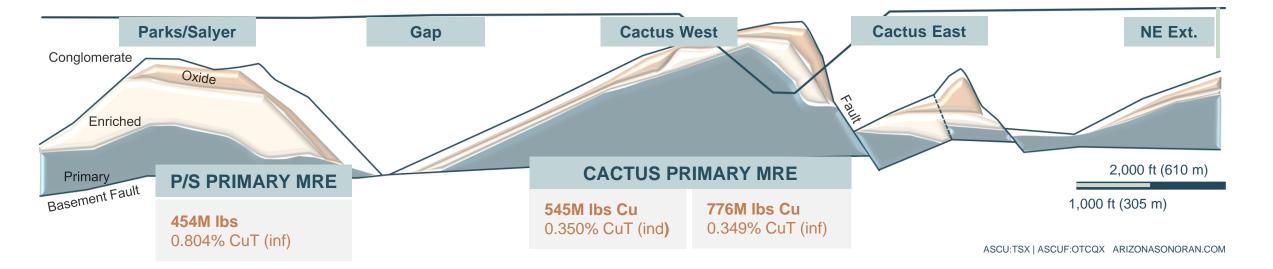
# Partnership with Rio Tinto's Nuton<sup>™</sup> technologies, testing the leachability of the primary sulphides

- Initial computer modelling: 72% Cu extraction
- Columns after 75-150 days: 61%-81% preliminary extraction rates
- Phase 2 under negotiation to advance testing parameters
  - May include commercial terms
  - Additional rigorous column tests
  - Infill and expansion drilling around Cactus West

#### ABOUT NUTON™

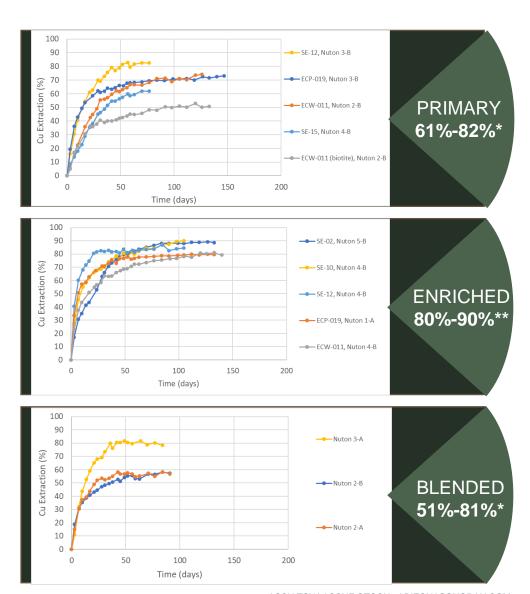
- Nuton<sup>TM</sup> is a proprietary suite of copper leach technologies
- Potential to unlock low-grade copper sulphide resources, copper bearing waste and tailings, and achieve higher copper recoveries on oxide and transitional material
- · Exothermic, bioleach heap leach flowsheet
- Potential to deliver leading environmental performance
- Testing material from: Los Azules, Argentina (McEwen Copper), Tantahuatay-AntaKori, Peru (Regulus Resources), Gunnison, Arizona (Excelsior)

### Primary sulphides comprise 25% of the total resource



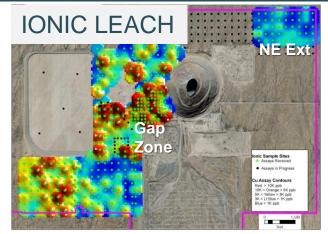
# Nuton Copper Extraction Column Data vs ASCU Data

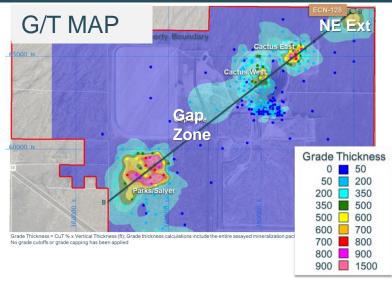
		AS	NUTON™					
	Progr	rams updated Fe	Preliminary Column Data					
Mineral Resource Location	Net Copper Extraction (% Cu AS)	Net Copper Extraction (% CuCN)	Blended Extraction (%)	Net Acid Consumption (kg/tonne)	Extraction (%)	Net Acid Consumption (kg/tonne)		
			Oxides					
Stockpile	90% <sup>1</sup>	40% <sup>1</sup>	81%	8				
Cactus West	92% <sup>1</sup>	73% <sup>1</sup>	88%	8	n/a			
Cactus East	92% <sup>1</sup>	73% <sup>1</sup>	90%	8				
Parks Salyer								
		Enriched	(Secondary S	ulphide)				
Cactus West	92% 1	73% <sup>1</sup>	78%	<b>(-)</b> <sup>5</sup>	80% - 90%	2.2		
Cactus East	92% <sup>1</sup>	73% <sup>1</sup>	76%	(-) <sup>5</sup>	80% - 90%	2.2		
Parks Salyer			80%	(-) <sup>5</sup>	80%	2.2		
		Prir	nary Sulphide	es .				
Flotation (ASCU)/ Leaching (Nuton)			86% <sup>2</sup>	(-) <sup>5</sup>	61% - 82% <sup>3</sup>	3.4		
	Е	Blended (Prima	ry and Second	lary Sulphide)				
Flotation (ASCU)/ Leaching (Nuton)			91% <sup>2</sup>	(-) <sup>5</sup>	51% - 81% <sup>4</sup>	3.4		



# Scalability via Exploration – Gap Zone and NE Extension

- Layering geophysics and drilling results show compelling drill targets along the 4 km porphyry copper mine trend:
- Gap Zone:
  - Priority target, outlined by ionic leach and magnetics
  - · Historic condemnation drilling exists
- NE Extension:
  - ECN-128 confirmed mineralization, similar to P/S and CE, 1 km NE of CE
  - Historic drilling intercepted 3% Cu
- A 20,000 ft (6,100 m) exploration program is being considered at Gap Zone



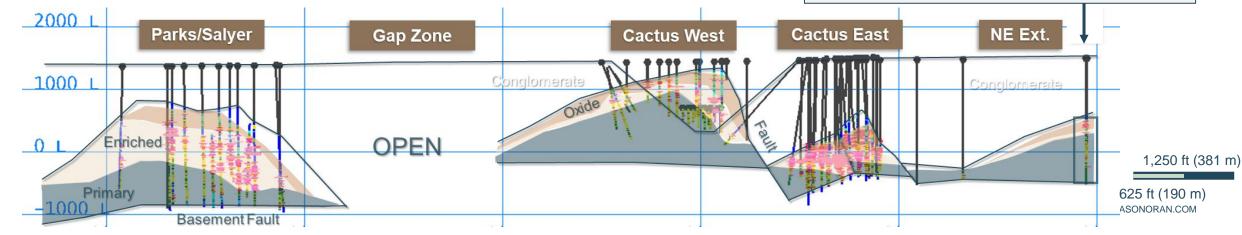


# ECN-128 CONTINUOUS MINERALIZATION: 997.4 ft @ 0.46% CuT, 0.20% Cu Tsol, 0.007% Mo

118.1 ft @ 0.97% CuT, 0.94% Cu Tsol (oxide)

151.4 ft @ 0.46% CuT, 0.38% Cu TSol (enriched)

653.4 ft @ 0.40% CuT, 0.008% Mo (primary)





Peer Benchmarking

### Path to Value Creation

### **Pre-Feasibility**

# **Arizona Sonoran Copper Company**

PFS expected in 1Q 2024
FS expected in 2H 2024
Mostly permitted
Project financing expected 2H 2024
Construction to 2H2024\*
First Cathodes 2026 \*

#### \*Pending positive construction decision



### Construction

### **Foran Mining**

Financing and permits in hand, in construction



# **Operations**



#### **ERO Copper**

In operations 270% Share Price Increase

\$2,461 M Market Cap \$966 M NPV\* 20 yr, 556 Mlbs LOM 62,000 tpa; 40,000 oz/y

\*Analyst estimate, pre-resource update

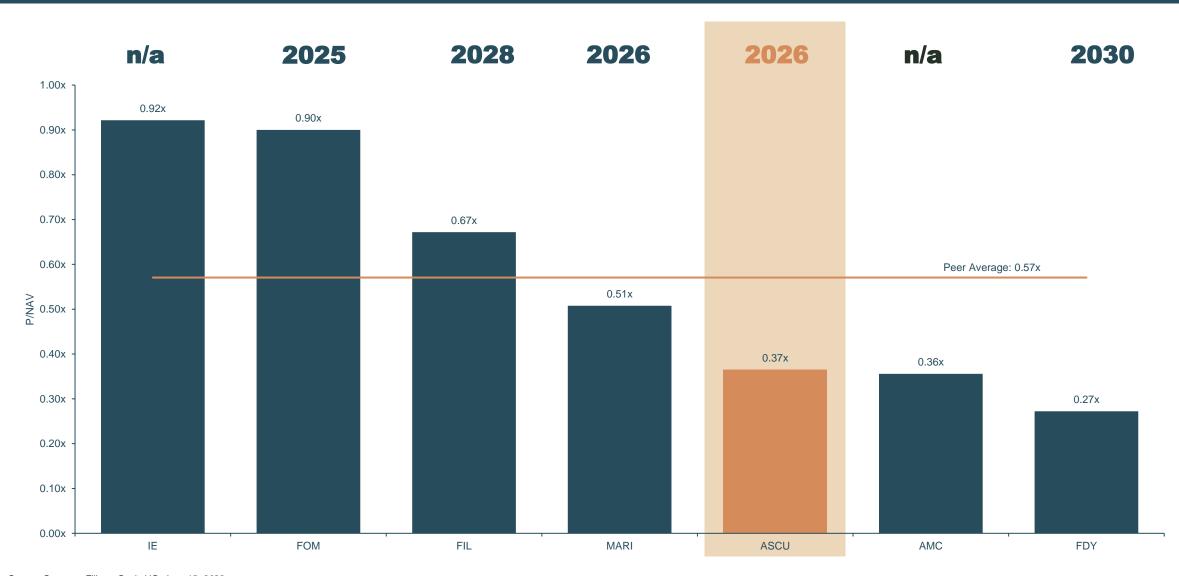
\$1,184 M Market Cap \$678 M NPV<sub>7</sub> (after-tax) 18 yr, 1.2 Blbs LOM 29,500 tpa





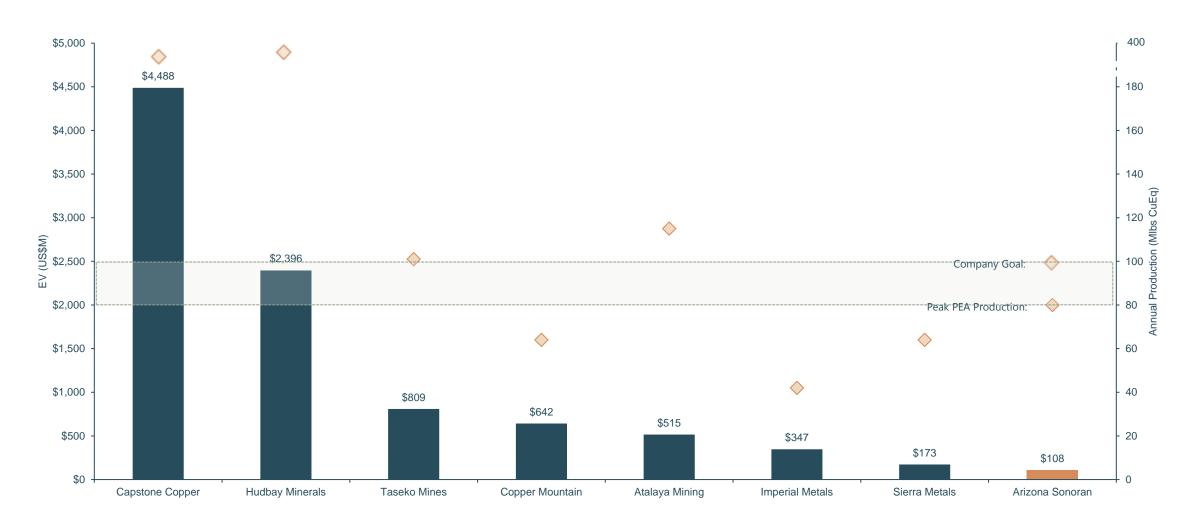
ASCU:TSX | ASCUF:OTCQX ARIZONASONORAN.COM

# Copper Development Peers (P/NAV)



Source: Company Filings, Capital IQ, June 15, 2023

# Junior Copper Producer Benchmarking (Enterprise Value and Production)



Source: Company Filings, Capital IQ - June 15, 2023

(1) Arizona Sonoran production shown as peak production of ~80 Mlbs, an additional data point is shown as the Company's goal of up to 100 Mlbs of annual copper production

# Benchmarking ASCU to Copper Developers

Similar future production profile to ASCU with a P/NAV of 0.45x

P/NAV: 1.06x

P/NAV: 0.77x

ARIZONA	

















	SONORAN	MINING	ELECTRIC	MINING CORPORATION		marimaca	FARADAY COPPER	COPPER	COPPER MOUNTAIN MINING CORPORATION
Market Capitalization (C\$M)	\$181	\$3,157	\$1,789	\$969	\$383	\$358	\$132	\$2,557	\$555
Asset Name	Cactus / Parks Salyer	Filo del Sol	Santa Cruz / Tintic	McIlvenna Bay	Kay	Marimaca	Cu Creek / Contact Cu	Caraiba	Copper Mountain
Economic Study Level	PEA	PFS	Resource	FS	Historic	PEA	Historic	Production	Production
Development Type (Greenfields or Brownfields)	Brownfields	Greenfields	Greenfields	Brownfields	Brownfields	Greenfields	Greenfields	n/a	n/a
Jurisdiction	Arizona	Argentina	Arizona / Utah	Sask.	Arizona	Chile	Arizona	Brazil	ВС
Fraser Institute Policy Perception Index (Rating Out of 100)	85	77	85 / 91	91	85	69	85	48	76
Measured & Indicated Attributable Resource (Mlbs CuEq)	1,611	6,259	6,197	2,096	-	1,477	4,126	2,868	7,296
Inferred Attributable Resource (MIbs CuEq)	4,894	2,545	4,073	337	-	712	673	1,063	2,599
Mine Life (Years)	18	13	-	18	-	12	32	16	31
Annual Attributable LOM Production (Mlbs CuEq Payable)	62	287	-	65	-	79	264	102 <sup>(1)</sup>	64 <sup>(1)</sup>
LOM C1 Cash Cost (US\$/Ib CuEq)	\$1.55	\$1.54	-	\$1.79	-	\$1.22	\$1.67	\$1.36 <sup>(1)</sup>	\$3.88 <sup>(1)</sup>
Capital Intensity (US\$/Ib CuEq)	\$2.20	\$7.01	-	\$4.47	-	\$3.61	\$3.02	n/a	n/a
Headline After-Tax IRR (%)	33%	20%	-	22%	-	34%	16%	n/a	n/a
Headline After-Tax NPV (US\$M)	\$312	\$1,310	-	\$370	-	\$524	\$713	663.7	\$1,245
Economic Study Long-Term Copper Price (US\$/Ib Cu)	\$3.35	\$3.65	\$3.70	\$3.50	-	\$3.15	\$3.80	\$3.00	\$3.60

Source: S&P Capital IQ. Company Filings. The Integrated Cactus PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to the them that would enable them to be categorized as mineral reserves and there is no certainty that the preliminary economic assessment will be realized. Data as of June 15, 2023

(1) Figures are 2022 actuals

# Key Investment Highlights

A Goal to Provide the US with Locally Sourced Copper



Brownfield
Exploration and
Development
Project in Tier 1
Jurisdiction



Private
Landownership =
State and County
Led Permitting
process



Proposed Copper Heap Leach, SXEW Operation(1)(2)



**Building Scalability** and **Growth** 



Experienced Leadership Team; Strong Supportive Sponsors



Supportive Copper Market Fundamentals ESG Framework in Place, Path to Net Zero



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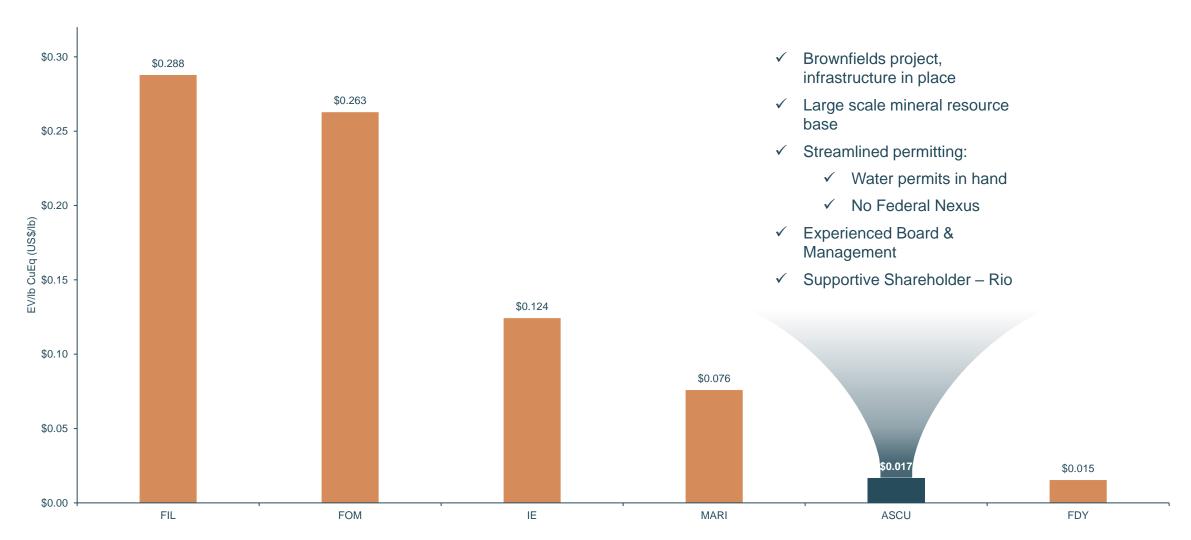
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# Value Proposition: Benchmarking to Copper Developers

Low-Risk Copper Developer in Top Tier Jurisdiction



Source: Company Filings, Capital IQ. June 15, 2023

# Positive Metallurgical Programs – Recovery Rates by Mineral Type

Cactus

# Cactus Programs complete with favourable leach cycles

 Enriched Material is acid generating, reducing reliance on external acid sources

P/S

# Parks/Salyer Met Programs currently underway in onsite facility

- 20 ft columns online (Stockpile, P/S, Cactus)
- Preliminary results indicate acid generating enriched material with high recoveries

Nuton

# Rio Tinto's Nuton division well underway testing primary sulphides

Life of mine optimized target of 80% extraction

Updated metallurgy, see press releases dated February 23, 2022 and May 2, 2023 and June 5, 2023. See slide 20 for details on Nuton

ASCU Recovery rates assume blended CuAS and CuCN recovery rate

	Mineral Resource Estimate and ASCU led Recovery Rates										
		Oxide			Enriched						
Category	Mineral Resource		Recovery Rates	Mineral Ro	esource	Recovery Rates					
		Parks/Salye	er (Proposed	Underground	)						
Inferred	14,100 kt	0.83% Cu Tsol	n/a	101,200 kt	1.10% Cu TSol	80%					
Cactus East - Underground											
Indicated	4,400 kt	0.84% Cu Tsol	90%	3,300 kt	1.10% Cu Tsol	76%					
Inferred	10,900 kt	0.72% Cu Tsol	90 /6	7,000 kt	1.14% Cu Tsol	7070					
		Cac	tus West - Op	en Pit							
Indicated	27,000 kt	0.51% Cu Tsol	88%	39,200 kt	0.41% Cu Tsol	78%					
Inferred	51,600 kt	0.27% Cu Tsol	00%	48,100 kt	0.82% Cu Tsol	70%					
		Sto	ckpile - Reha	ndling							
Inferred	77,400 kt	0.14% Cu TSol	90%		n/a						

# Benchmarking ASCU to Copper Developers

Similar future production profile to ASCU with a P/NAV of 0.45x

P/NAV: 1.07x

P/NAV: 0.77x

ARIZO	

















	SONORAN	ELECTRIC	FARADAY COPPER		MINING		marimaca	COPPER	MINING CORPORATION
Market Capitalization (C\$M)	\$190	\$1,536	\$198	\$1,184	\$3,006	\$504	\$365	\$2,461	\$568
Asset Name	Cactus / Parks Salyer	Santa Cruz / Tintic	Cu Creek / Contact Cu	McIlvenna Bay	Filo del Sol	Kay	Marimaca	Caraiba	Copper Mountain
Economic Study Level	PEA	Resource	Historic	FS	PFS	Historic	PEA	Production	Production
Development Type (Greenfields or Brownfields)	Brownfields	Greenfields	Greenfields	Brownfields	Greenfields	Brownfields	Greenfields	n/a	n/a
Jurisdiction	Arizona	Arizona / Utah	Arizona	Sask.	Argentina	Arizona	Chile	Brazil	ВС
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Measured & Indicated Attributable Resource (Mlbs CuEq)	1,611	6,197	4,126	2,096	6,259	-	1,477	2,868	7,296
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Mine Life (Years)	18	-	-	18	13	-	12	16	31
Annual Attributable LOM Production (Mlbs CuEq Payable)	56	-	-	65	287	-	79	<b>102</b> <sup>(1)</sup>	64 <sup>(1)</sup>
LOM C1 Cash Cost (US\$/Ib CuEq)	\$1.55	-	-	\$1.79	\$1.54	-	\$1.22	\$1.36 <sup>(1)</sup>	\$3.88 <sup>(1)</sup>
Capital Intensity (US\$/Ib CuEq)	\$2.20	-	-	\$4.47	\$7.01	-	\$3.61	n/a	n/a
Headline After-Tax IRR (%)	33%	-	-	22%	20%	-	34%	n/a	n/a
Headline After-Tax NPV (US\$M)	\$312	-	-	\$370	\$1,310	-	\$524	663.7	\$1,245
Economic Study Long-Term Copper Price (US\$/Ib Cu)	\$3.35	\$3.70	\$3.80	\$3.50	\$3.65	-	\$3.15	\$3.00	\$3.60

Source: S&P Capital IQ. Company Filings. The Integrated Cactus PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to the them that would enable them to be categorized as mineral reserves and there is no certainty that the preliminary economic assessment will be realized. Data as of April 19, 2023

(1) Figures are 2022 actuals

# Infill to Measured: ECE-076 - Oxide, Chrysocolla and Malachite in Granite

Results Support mine plan

3.08% CuT | 2.93% Cu Tsol | 0.019% Mo

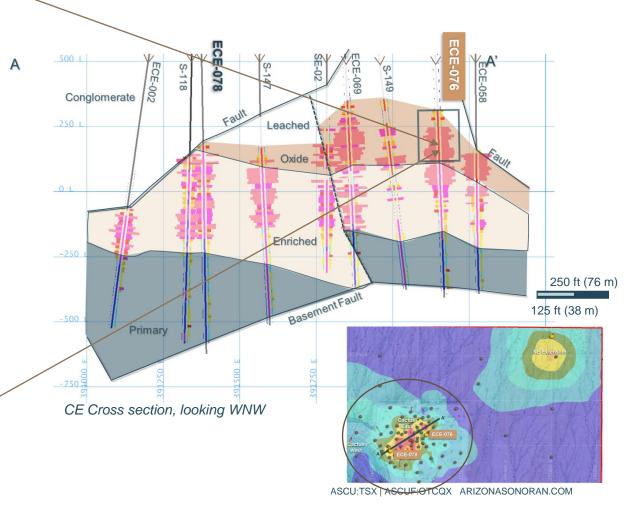
45 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5 5 5.6 5.7 5.8 5.9 4 1 4 2 4 3 4 4 4 5 4 6 4 7 4 8 4 9 4 5 5 1 5 2 5 3 5 4 5 5 5 6 5 7 5 8 5 9

**10.0** ft (3.0 m) Interval from **1,362.0** ft **- 1,372.0** ft (415.1 m - 418.2 m)

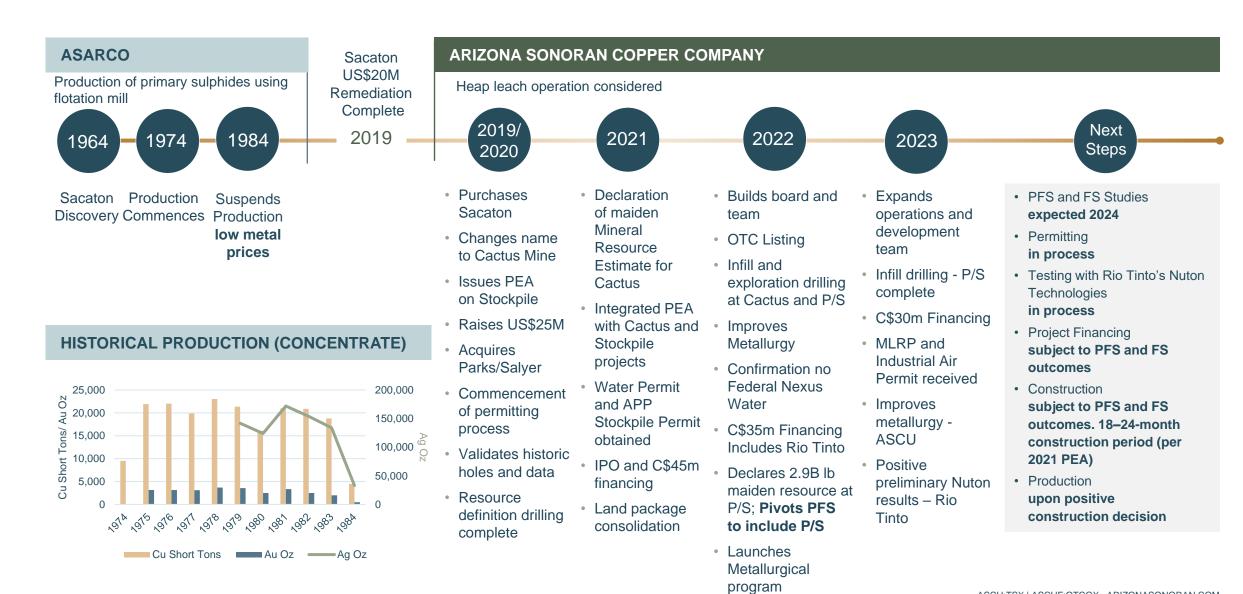
High grade interval within a 211 ft (64 m) intersect, at a depth of 1,204 ft (367 m)

1.75% CuT | 1.65% Cu Tsol |

0.012% Mo



# Reactivating a Brownfields Property Using New Technologies



# Our ESG Framework – Setting the Pace for Net Zero Carbon Emissions

- Revitalizing a brownfield site
- Reduced carbon footprint
- Proactive air quality management
- Careful and efficient water stewardship
- Zero discharge operation
- Concurrent reclamation
- Habitat restoration
- Waste management
- Plan for responsible closure



#### **RESPONSIBLE OPERATIONS**

We operate in an
environmentally responsible
manner, investing in low
carbon and water efficient
technologies



# A JOURNEY OF RENEWAL

We are commited to mining sustainably:
revitalizing a previously abandoned
site, contributing to local
economic development,
and powering a renewable
energy future

OUR CORE VALUES

**GOOD GOVERNANCE** 



#### **POSITIVE WORK CULTURE**

Ve provide meaningful vork opportunities and prioritize worker wellbeing and safety

- Meaningful and engaging opportunities
- Positive health and safety culture
- Diverse, equitable and inclusive workplace
- Competitive pay and benefits
- · Work-life balance
- Respect for human rights
- Ethical work environment

- Copper in renewable energy
- Copper in the electric vehicle sector
- Growing copper needs in the US

#### RENEWABLE ENERGY FUTURE

We will produce LME grade copper, a critical component in powering the renewable energy and electric vehicle sectors in the US

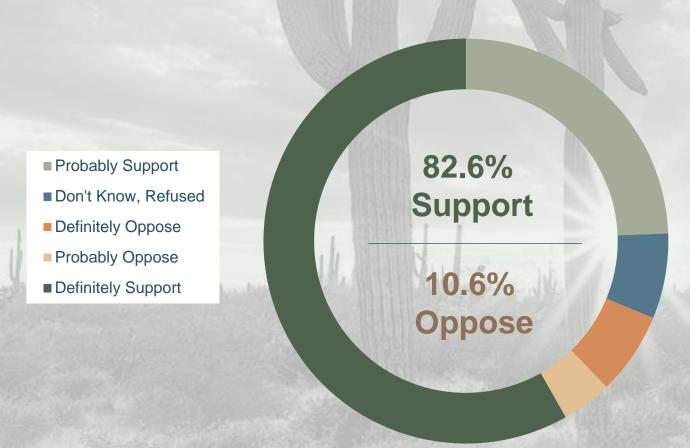
#### PART OF THE COMMUNITY

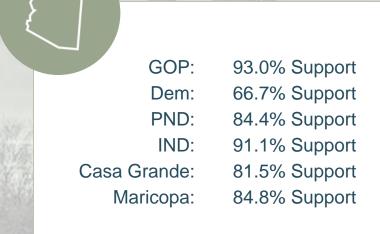
We are commited to open dialog with all stakeholders and supporting local economic development

- Commitment to open dialog
- Respecting local culture and traditions
- Supporting the local economy
- Leveraging local talent
- Building a talent pipeline
- Sourcing locally
- Supporting programs that improve quality of life in our host communities
- ASCU is actively exploring use of renewable energy for its operations with the goal of becoming a "Net Zero Carbon Emissions" copper producer
- Ability to also reduce carbon footprint by Arizona Public Service's transition to renewable resources (65% by 2030 and 100% by 2050)

# Local Support for the Cactus Mine

Overwhelming support for the Cactus Mine in Casa Grande – economic survey shows \$8.5 Billion of indirect and direct revenues to the local community.





Polling completed by Highground Public Affairs Consultants in December 2021

# Journey Towards Net Zero - Partnership with Minviro

#### PFS / FS

- Design parameters used to scope impact
- GHG inventory assessment (Scope 1, 2 and 3)
- Consideration of impact of diesel fuel, sulfuric acid, carbonate minerals, electricity, cement in operations across Scopes 1 and 2
- 100% renewable energy solutions
- Careful water use and management
- Waste and pollution management air quality, dust management and tailings management
- Establishing carbon trading and offset policies/trading to the extent required

#### PRODUCTION AND REPORTING

- Establishing reporting KPIs
- Reporting to international standards (e.g. SASB, TCFD)

#### Construction

- Investment in low carbon technologies and minimizing direct impacts (Scope 1 & 2)
- Supply chain management to minimize Scope 3 emissions
- Local procurement and workforce hiring generating positive social impact
- Compliance with global standards (e.g., Equator Principles) to align with debt financing

# Robust Returns from Lowest Capital Intensity vs Peer Group

Between the PEA and the upcoming Prefeasibility study, ASCU is reviewing the following:

- Mining inventory (potential to include P/S and Primary Material)
- Development plan sequencing
- Metallurgical recoveries
- Operating cost parameters
- Capital cost parameters
- Macro inputs

PEA CONSTRUCTION CAPEX BREAKDOWN (US\$M)						
Direct & Indirect Cost Components	Leach Pads, Ponds & Pipelines	SXEW Facility	Total Capital Cost			
Directs Subtotal	\$18.4	\$45.9	\$64.3			
Indirects Subtotal	\$3.1	\$19.1	\$22.2			
Contingency	\$3.0	\$9.0	\$12.0			
Total Process Construction Cost (22 ktpa)(Initial)	\$24.5	\$74.1	\$98.5			
Land Acquisitions			\$22.9			
Project Other Costs			\$2.6			
Total Initial Construction Cost			\$123.9			

- · Assumes contractor mining
- A contingency of 15% has been included in the capital cost for ancillary mine equipment, leach pad infrastructure and the SXEW facility



Sources: (1) Integrated Cactus PEA 2021 for ASCU - Table 21-2, McIlwenna Bay Project, Foran Mining (Pre-feasibility Study for the McIlwenna Bay Project, Report Date: 27 April 2020); Marimaca Project, Marimaca Copper (Preliminary Economic Assessment Marimaca Project Antofagasta, Italy Forester, Table 21-2, McIlwenna Bay Project, Foran Mining (Pre-feasibility Study for the McIlwenna Bay Project, Foran Mining (Pre-feasibility Study for the Filo del Sol Project; Report Date: Separate Superation (Arctic Feasibility Study for the McIlwenna Bay Project, Foran Mining (Pre-feasibility Study for the McIlwenna Project, Marimaca Project, Marimaca Copper (Preliminary Economic Assessment Marimaca Project, Antipaca Copper (Pold Project, Trilogy Metals (Arctic Feasibility Study for the McIlwenna Bay Project, Foran Mining (Pre-feasibility Study for the McIlwenna Project, Marimaca Project, Marimaca

Material Type	Tons (kt)	CuT %	TSol %	Contained Cu (k lbs)	Contained Cu (k Tons)		
INDICATED							
Cactus							
Oxide	31,400		0.559	349,700	176		
Enriched	42,500		0.844	715,500	359		
Total Leachable	73,900		0.723	1,065,200	534		
Primary	77,900	0.35		545,500	273		
Total Indicated	151,800	0.531		1,610,700	806		
INFERRED							
		Cactus					
Oxide	62,500		0.346	430,500	216		
Enriched	55,100		0.498	548,800	274		
Total Leachable	117,600		0.417	979,300	490		
Primary	111,300	0.349		776,000	388		
Total Inferred	228,900	0.38	4	1,755,300	879		
		Stockpil	е				
Oxide	77,400		0.144	223,500	111		
		Parks/Saly	yer				
Oxide	14,100		0.827	233,700	117		
Enriched	101,200		1.1	2,227,200	1,113		
Total Leachable	115,400		1.066	2,460,900	1,230		
Primary	28,300	0.804		454,400	228		
Total Inferred	143,600	1.01	5	2,915,400	1,458		
		Total Resou					
		INDICATE					
Total Leachable	73,900		0.723	1,065,200	534		
Total Indicated	151,800	0.53		1,610,700	806		
INFERRED							
Total Leachable	310,400		0.59	3,663,700	1,832		
Total Inferred	449,900	0.544		4,894,200	2,447		

### Notes to the Mineral Resource Estimate

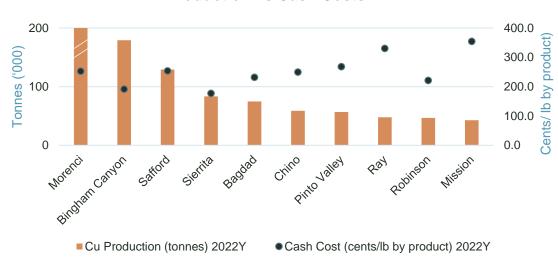
- 1. CuT means total copper and Tsol means total soluble copper as the addition of sequential acid soluble and sequential cyanide soluble copper assays. Tons are reported as short tons.
- 2. Cactus and Stockpile Resource estimates have an effective date of 31st August, 2021 and use a copper price of US\$3.15/lb. The assumptions in respect of the Cactus and Stockpile Resource estimates are as stated in the Preliminary Economic Assessment ("PEA") titled "Arizona Sonoran Copper Company, Inc. Cactus Project, Arizona, USA Preliminary Economic Assessment" with an effective date of filed in August 31, 2021; Parks/Salyer Resource estimate has an effective date of 7th September, 2022 and uses a copper price of US\$3.75/lb
- 3. Technical and economic parameters defining resource pit shell: mining cost US\$2.45/t; G&A US\$0.55/t, and 44°-46° pit slope angle.
- 4. Technical and economic parameters defining underground resource: mining cost US\$28.93/t, and G&A representing 7% of direct costs.
- 5. Technical and economic parameters defining processing: Heap leach (HL) processing cost including selling US\$1.77/t; HL recovery 83% of CuT; mill processing cost US\$8.50/t.
- 6. For Cactus: Variable cutoff grades were reported depending on material type, potential mining method, and potential processing method. Oxide material within resource pit shell = 0.096% TSol; enriched material within resource pit shell = 0.098% TSol; primary material within resource pit shell = 0.205% CuT; oxide underground material outside resource pit shell = 0.56% TSol; enriched underground material outside resource pit shell = 0.70% TSol; primary underground material outside resource pit shell = 0.70% CuT.
- 7. For Parks/Salyer: Variable cutoff grades were reported depending on material type associated potential processing method. Oxide underground material = 0.495% TSol; enriched underground material = 0.60% TSol; primary underground material = 0.586% CuT.
- 8. Mineral resources, which are not mineral reserves, do not have demonstrated economic viability. The estimate of mineral resources may be materially affected by environmental, permitting, legal, title, sociopolitical, marketing, or other relevant factors.
- 9. The quantity and grade of reported inferred mineral resources in this estimation are uncertain in nature and there is insufficient exploration to define these inferred mineral resources as an indicated or measured mineral resource; it is uncertain if further exploration will result in upgrading them to an indicated or measured classification.
- 10. Total may not add up due to rounding.

# Top 10 USA Copper Mines

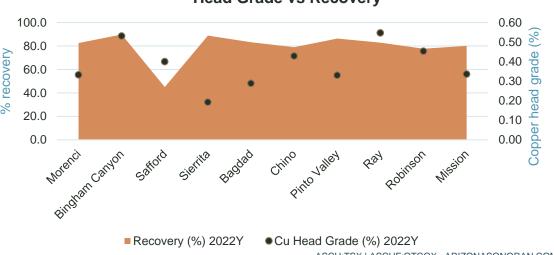


	Mine	County and State	Owner	Operation _
1	Morenci	Greenlee, Arizona	Freeport-McMoRan (72%), Sumitomo Group (28%)	Open Pit
2	Bingham Canyon	Salt Lake, Utah	Rio Tinto	Long Hole Stoping, Open Pit, Sublevel Stoping
3	Safford	Graham, Arizona	Freeport-McMoRan	Open Pit
4	Sierrita	Pima, Arizona	Freeport-McMoRan	Open Pit
5	Bagdad	Yavapai, Arizona	Freeport-McMoRan	Open Pit
6	Chino	Grant, New Mexico	Freeport-McMoRan	Open Pit
7	Pinto Valley	Gila, Arizona	Capstone Copper.	Dump, Open Pit, Tailings
8	Ray	Pinal, Arizona	Grupo México	Open Pit
9	Robinson	White Pine, Nevada	KGHM Polska Miedź	Open Pit
10	Mission Complex	Pima, Arizona	Grupo México	Open Pit, Underground

#### USA Copper Mines (FY2022) Production vs Cash Costs







Source: S&P Copper Production in 2022, ranked by tonnes produced. Morenci produced 401kt in 2022.

ASCU:TSX | ASCUF:OTCQX ARIZONASONORAN.COM

# Rediscovering the World-Class Santa Cruz Copper Porphyry System

Santa Cruz porphyry copper system extends northeast over P/S and beyond the Cactus Mine Project.

ASCU – active drilling (3 rigs) - IE – active drilling (6 rigs)

#### Ivanhoe Electric Mineral Resource Estimate

Source: Ivanhoe Electric Technical Report

- Indic 226 Mt of 1.24% CuT, 0.82% Cu TSol
- Inf 149 Mt of 1.24% CuT, 0.82% CuTSol
- (0.39% cut-off \$3.70/lb Cu)

