

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

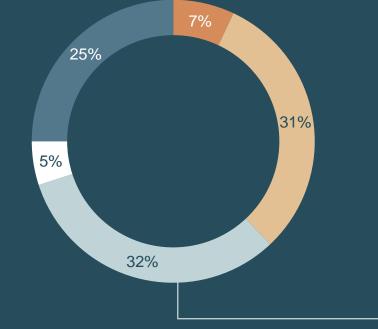
### **CAPITAL STRUCTURE**

Market Capitalization	C\$175M
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 Aug 14, 2023	US\$18M
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

Palos Manageme Empire Life

Sentry

TBF Global AM

Sprott COPJ ETF

### **ANALYST COVERAGE**











**Scotiabank** 















### 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

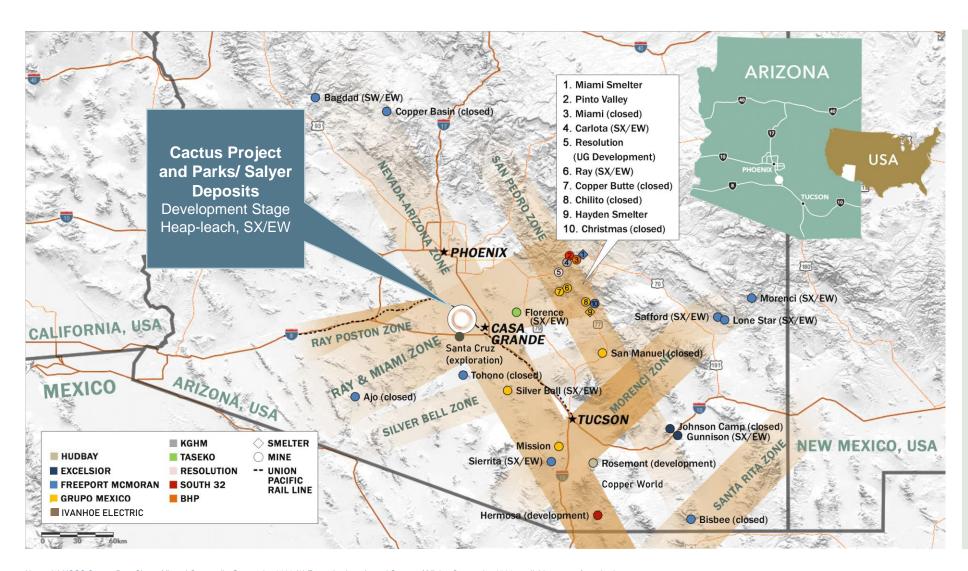


# Location Advantage

5,370 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. 7 for the year 2022 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

# Brownfield Site – Water rights and Surface Rights

Water Pond



### Infrastructure Valued at +\$30M

Offices, core shack and ancillary buildings

connected to Arizona Pub

- Power substation
- Onsite metallurgical testing

substation

- 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)



# 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 and Bond (MLRP)	Arizona State Mine Inspector
Industrial Air Permit	Pinal County

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

Permit	Permit Office	Status	
Radio Station License, Wireless Communication	FCC	Application post-PFS	
Notice of Intent to Clear Land	AZ Department of Agriculture		
Mining Construction Permits	Pinal County	Required pursuant to a	
Above-Ground Tank Storage	ADEQ	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** 

# MRE Update – 4.4B lbs of Leachable Copper

### **CONVERSION**



384% growth (tons) 316% growth (lbs)

### **CONTAINED METAL**



**5.17 Blbs**Measured & Indicated

### **SIMILAR GRADES**



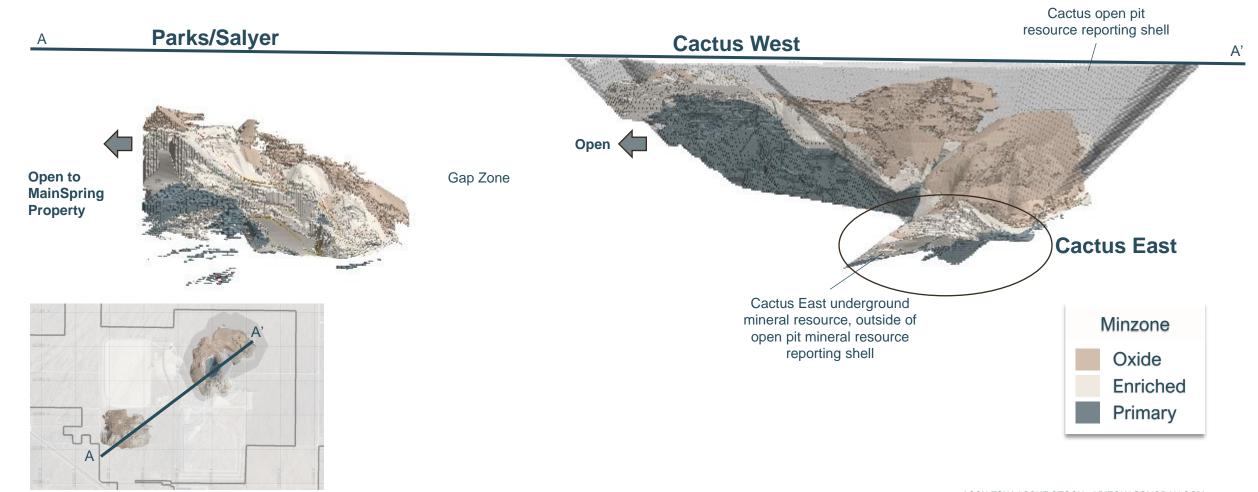
1.028% Parks/Salyer 1.057% Cactus East

					(As at August 31, 2023)		
	Tons	Grade	Pounds	Tons	Grade	Pounds	Cu Content
	kt	Cu%1	Cu Mlbs	kt	Cu%¹	Cu Mlbs	%
Total Measured				10,400	0.241	49.8	
Leachable		N/A		9,100	0.230	41.9	NEW
Primary				1,300	0.315	8.0	
Total Indicated	151,800	0.531	1,610.7	435,300	0.589	5,124.2	+218%
Leachable	73,900	0.723	1,065.2	348,500	0.629	4,387.2	+312%
Primary	77,900	0.350	545.5	86,800	0.425	737.0	+35%
Total M&I	151,800	0.531	1,610.7	445,700	0.580	5,174.0	+221%
Leachable	73,900	0.723	1,065.2	357,600	0.619	4,429.0	+316%
Primary	77,900	0.350	545.5	88,000	0.423	745.0	+37%
Total Inferred	449,900	0.544	4,894.2	233,800	0.472	2,207.9	-55%
Leachable	310,400	0.590	3,663.7	107,700	0.607	1,307.9	-64%
Primary	139,500	0.441	1,230.5	126,200	0.357	900.0	-27%

See slide 35, or PR dated October 16, 2023, for full notes and disclosures related to the MRE.

# Cactus Project Updated Mineral Resource Extents: Oblique View October 16, 2023

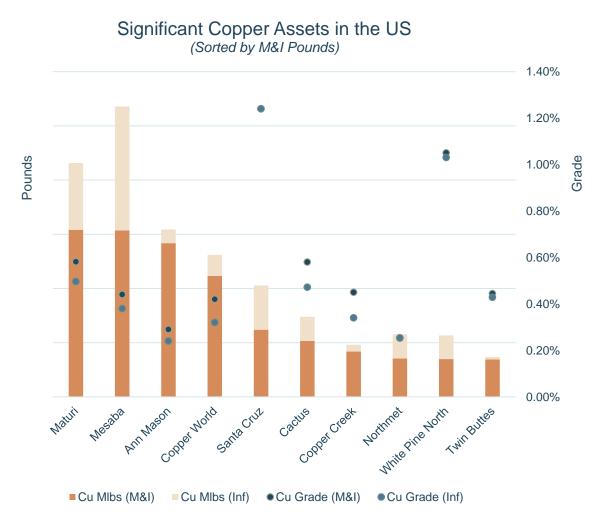
### **Looking West Northwest**



### Few Quality Development Assets in the USA

- Recent MRE strengthened ASCU's position among independent developers and assets owned by major miners
  - MRE grade of 0.58% TCu (M&I) exceeds most current Cu deposits in the US
  - Cactus West OP layback
  - Cactus East and Parks/Salyer +1% Soluble copper grades, tentative

Project	Company	N	1&1	Inf		
Project	Company	Mlbs	Cu Grade	Mlbs	Cu Grade	
Maturi	Antofagasta	15,415	0.58%	6,163	0.50%	
Mesaba	Teck / Glencore	15,344	0.44%	11,443	0.38%	
Ann Mason	Hudbay	14,183	0.29%	1,254	0.24%	
Copper World	Hudbay	11,154	0.42%	1,940	0.32%	
Santa Cruz	Ivanhoe Electric	6,196	1.24%	4,072	1.24%	
Cactus	Arizona Sonoran	5,174	0.58%	2,208	0.47%	
Copper Creek	Faraday Copper	4,184	0.45%	626	0.34%	
Northmet	Teck / Glencore	3,538	0.25%	2,240	0.25%	
White Pine North	Highland Copper / Kinterra	3,487	1.05%	2,188	1.03%	
Twin Buttes	Freeport McMoran	3,456	0.44%	214	0.43%	



Source: S&P, Removal of Pebble, Resolution and Upper Kobuk Mineral Projects, Sept. 2023

ASCU:TSX | ASCUF:OTCQX ARIZONASONORAN.COM

# 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

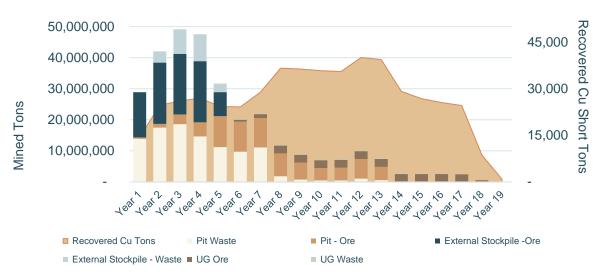
	Over the Life of Mine
Mine Life	1.27 B lbs of Cu over 18 years
Average Production	28 ktpa (56Mlbs); Peaks at 40 ktpa (80Mlbs) (see production schedule, right)
Operating Costs  • Avg OPEX over LOM (US\$/t milled)  • Avg C1 Cost over LOM (US\$/lb)  • Avg AISC over LOM (US\$/lb)	<ul><li>US\$9.06/t</li><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

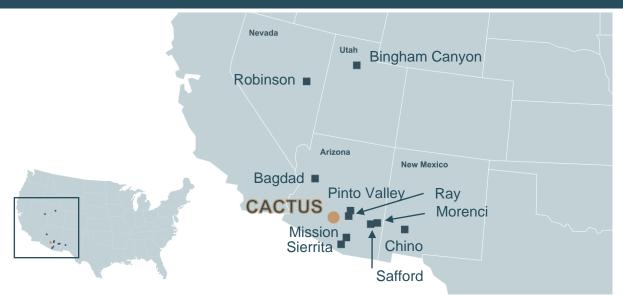
# Step-up PFS layers in Parks/Salyer over the Cactus PEA: Targeting 45-50 ktpa over approximately 30 years

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

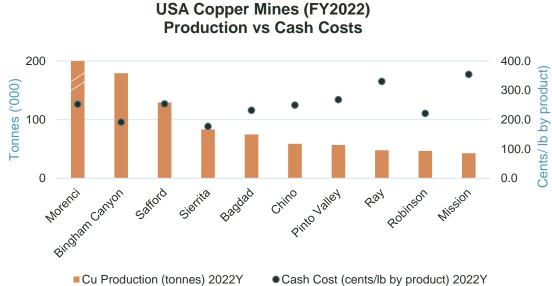


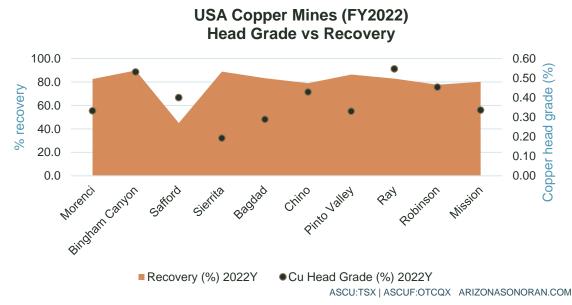
Sources/Notes: t or tons = Short Tons. (1) Integrated Cactus PEA, Table 1-6, 1-7 (2) ) The Integrated Cactus PEA is preliminary in nature, it includes inferred mineral resources that are considered too speculative geologically to have economic considerations applied to the them that would enable them 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



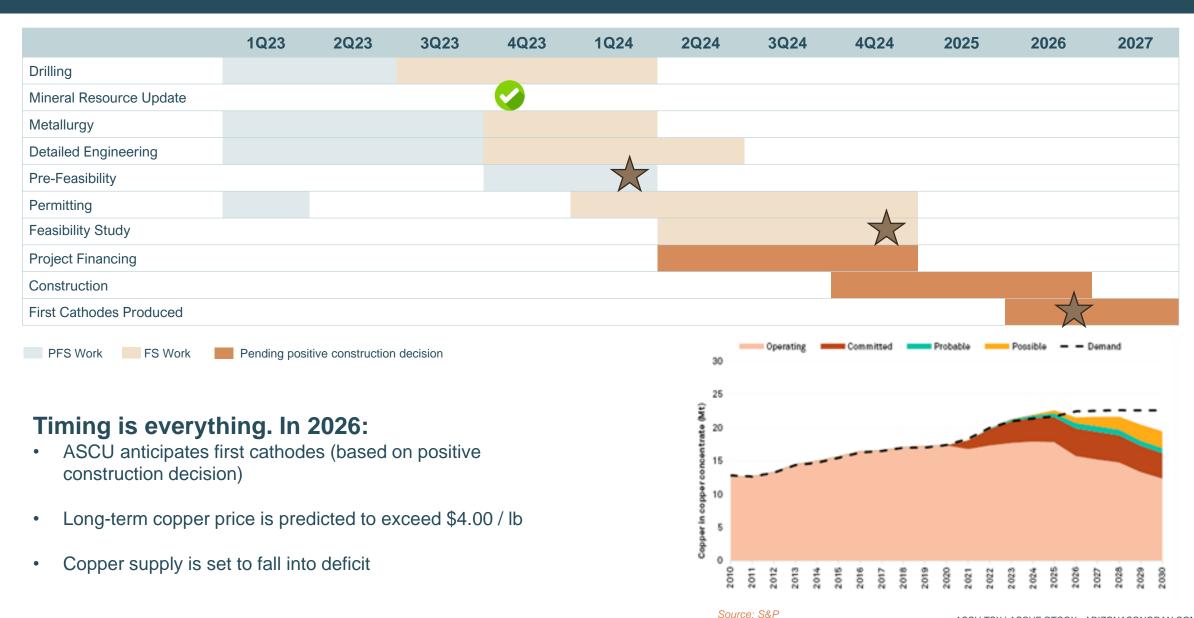
	Mine	County and State	Owner	Operation
1	Morenci	Greenlee, Arizona	Freeport-McMoRan (72%), Sumitomo Group (28%)	Open Pit
2	Bingham Canyon	Salt Lake, Utah	Rio Tinto	Long Hole Stoping, Open Pit, Sublevel Stoping
3	Safford	Graham, Arizona	Freeport-McMoRan	Open Pit
4	Sierrita	Pima, Arizona	Freeport-McMoRan	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





Beyond the Base Case

# Primary Sulphide Optionality - Preliminary Results Successful

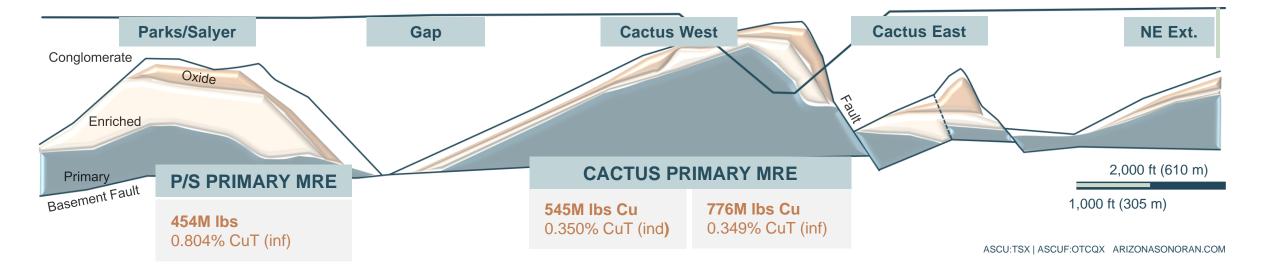
# Partnership with Rio Tinto's Nuton<sup>TM</sup> technologies, testing the leachability of the primary sulphides

- 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



## 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:

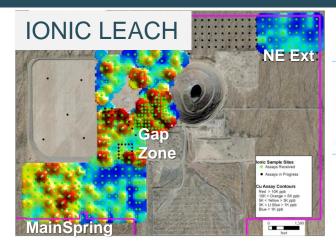
- Priority target, outlined by ionic leach and magnetics
- Historic condemnation drilling exists

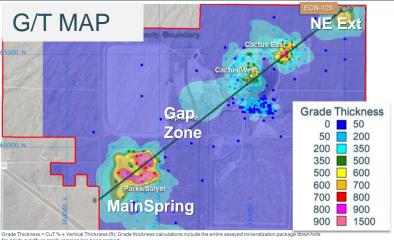
### • NE Extension:

- ECN-128 confirmed mineralization, similar to P/S and CE, 1 km NE of CE
- Historic drilling intercepted 3% Cu

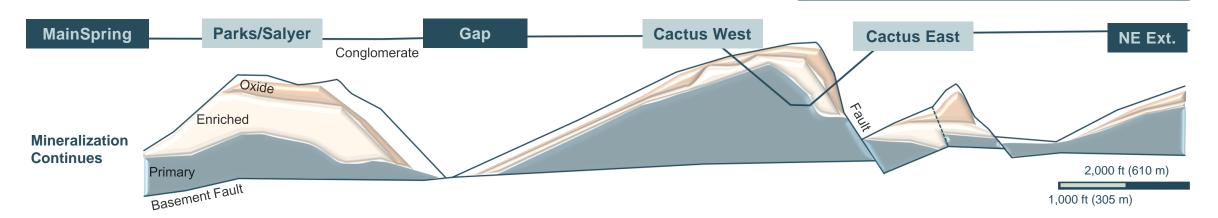
### MainSpring:

Southern extension of the Parks/Salyer deposit





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 and Summary

### 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

\$2,608 M Market Cap \$966 M NPV\* 20 yr, 556 Mlbs LOM 62,000 tpa; 40,000 oz/y

\*Analyst estimate, pre-resource update

\$1,086 M Market Cap \$466 M NPV<sub>7</sub> (after-tax) 18 yr, 1.2 Blbs LOM 29,500 tpa



\$172 M Market Cap \$312 M NPV<sub>8</sub> (after-tax) 18 yr, 1.2 Blbs LOM *PEA released Aug 2021* 28,000 tpa

# Benchmarking ASCU to Copper Developers

Similar future production profile to ASCU with a P/NAV of 0.34x

P/NAV: 1.16x

Acquired at a 23% premium<sup>(2)</sup>

ARIZONA SONORAN

















	SONORAN COPPER COMPANY	MINING	ELECTRIC	MINING CORPORATION	marimaca	50	FARADAY COPPER	COPPER	MINING CORPORATION
Market Capitalization (C\$M)	\$172	\$2,780	\$2,196	\$1,086	\$379	\$319	\$128	\$2,763	\$590 <sup>(2)</sup>
Asset Name	Cactus / Parks Salyer	Filo del Sol	Santa Cruz / Tintic	McIlvenna Bay	Marimaca	Kay	Cu Creek / Contact Cu	Caraiba	Copper Mountain
Economic Study Level	PEA	PFS	IA*	FS	PEA	Historic	PEA	Production	Production
Development Type (Greenfields or Brownfields)	Brownfields	Greenfields	Greenfields	Brownfields	Greenfields	Brownfields	Greenfields	n/a	n/a
Jurisdiction	Arizona	Argentina	Arizona / Utah	Sask.	Chile	Arizona	Arizona	Brazil	ВС
Fraser Institute Policy Perception Index (Rating Out of 100)	85	77	85 / 91	91	69	85	85	48	76
Measured & Indicated Attributable Resource (Mlbs CuEq)	5,174	6,161	6,197	2,096	1,984	-	4,456	2,868	7,296
Inferred Attributable Resource (MIbs CuEq)	2,208	2,552	4,073	337	312	-	669	1,063	2,599
Mine Life (Years)	18	13	20	18	12	-	32	16	31
Annual Attributable LOM Production (Mlbs CuEq Payable)	62	340	175	65	79	-	264	<b>102</b> <sup>(1)</sup>	64 <sup>(1)</sup>
LOM C1 Cash Cost (US\$/Ib CuEq)	\$1.55	\$1.54	1.36	\$1.79	\$1.22	-	\$1.67	\$1.36 <sup>(1)</sup>	\$3.88 <sup>(1)</sup>
Capital Intensity (US\$/Ib CuEq)	\$2.20	\$5.30	\$6.55	\$4.47	\$3.61	-	\$3.02	n/a	n/a
Headline After-Tax IRR (%)	33%	20%	23%	22%	34%	-	16%	n/a	n/a
Headline After-Tax NPV (US\$M)	\$312	\$1,310	\$1,317	\$370	\$524	-	\$713	663.7	\$1,245
Economic Study Long-Term Copper Price (US\$/Ib Cu)	\$3.75	\$3.65	\$3.80	\$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 July 26, 2023

<sup>\*</sup>IA is an Initial Assessment, compliant with US Securities rules

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# 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



# ARIZONA SONORAN

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# 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			

# 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

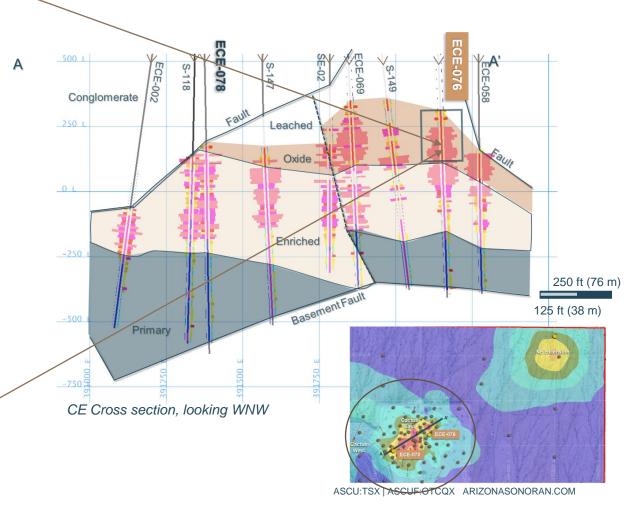
45 4.1 4.2 4.3 4.4 4.5 4.6 4.7 4.8 4.9 5 5 5.6 5.7 5.8 5.9 4 1 4 2 4 3 4 4 4 5 4 6 4 7 4 8 4 9 4 5 5 1 5 2 5 3 5 4 5 5 5 6 5 7 5 8 5 9

**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)

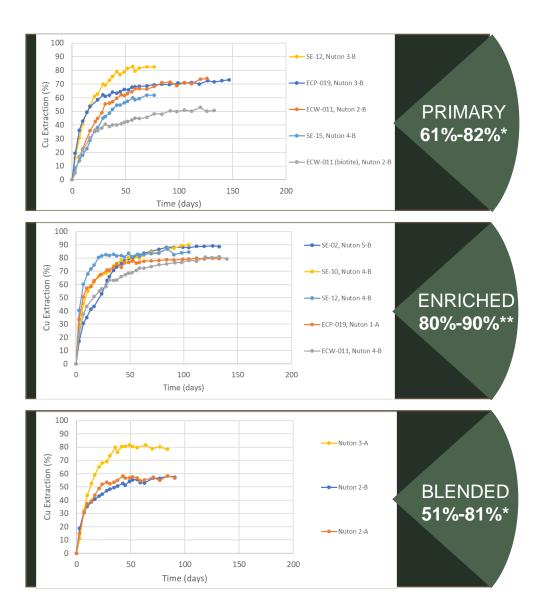
1.75% CuT | 1.65% Cu Tsol |

0.012% Mo



# Nuton Copper Extraction Column Data vs ASCU Data

		AS	NUTON™				
	Progr	ams 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% 1	40% <sup>1</sup>	81%	8			
Cactus West	92% <sup>1</sup>	73% <sup>1</sup>	88%	8	n	do.	
Cactus East	92% 1	73% <sup>1</sup>	90%	8	n/a		
Parks Salyer							
		Enriched	(Secondary S	ulphide)			
Cactus West	92% 1	73% 1	78%	(-) <sup>5</sup>	80% - 90%	2.2	
Cactus East	92% 1	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 (Primai	ry and Second	lary Sulphide)			
Flotation (ASCU)/ Leaching (Nuton)			91% <sup>2</sup>	(-) <sup>5</sup>	51% - 81% <sup>4</sup>	3.4	



# 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 committed 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**

We provide meaningful work 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

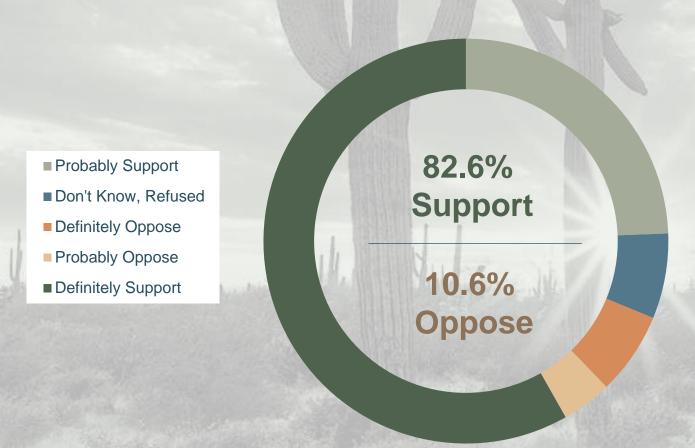
#### PART OF THE COMMUNITY

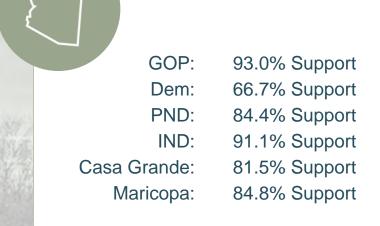
We are commited to open dialog with all stakeholders and supporting local economic development

- 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)



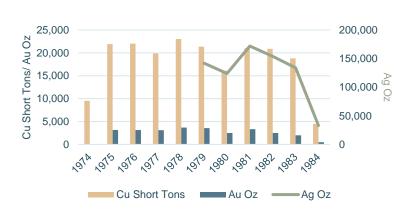


Source: (1) Integrated Cactus PEA 2021 for ASCU – Table 21-2; Copper Creek Project, Faraday Copper (Copper Creek Project PEA, Arizona, USA; Report Date: May 3, 2023); McIlvenna Bay Project, Foran Mining (FS for the McIlvenna Bay Project, Saskatchewan, Canada; Report Date: April 14 2022); Marimaca Project, Marimaca Copper (PEA for the Marimaca Project, Antofogasta, II Region, Chile; Report Date 4 August 2020); Filo del Sol, Filo Mining (Updated PFS for the Filo del Sol Project, San Juan Province, Argentina; Report Date: February 28, 2023); Arctic Project, Trilogy Metals (FS for the Arctic Project, Alaska, USA; Report Date: January 20, 2023); and Josemaria Copper-Gold Project, Josemaria Resources (FS for the Josemaria Copper-Gold Project, San Juan Province, Argentina; Report Date: September 28, 2020) (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 them that would enable them to be categorised as mineral reserves and there is no certainty that the PEA will be realised

# Reactivating a Brownfields Property Using New Technologies



### **HISTORICAL PRODUCTION (CONCENTRATE)**



- Issues PEA on Stockpile
- Raises US\$25M
- Acquires Parks/Salver
- Commencement of permitting process
- Validates historic holes and data
- Resource definition drilling complete

- Estimate for Cactus
- Integrated PEA with Cactus and Stockpile projects
- Water Permit and APP Stockpile Permit obtained
- IPO and C\$45m financing
- Land package consolidation

- Infill and exploration drilling at Cactus and P/S
- Improves Metallurgy
- Confirmation no Federal Nexus Water
- C\$35m Financing Includes Rio Tinto
- Declares 2.9B lb maiden resource at P/S
- Launches Metallurgical program

- **Expands operations** and development team
- Infill drilling: indicated program complete; measured program underway
- C\$32.5m Financing
- MLRP and Industrial Air Permit received
- Improves metallurgy - ASCU
- Preliminary Nuton results - Rio Tinto
- Building owner/operator team
- Min Resource Update

· PFS and FS Studies expected 2024

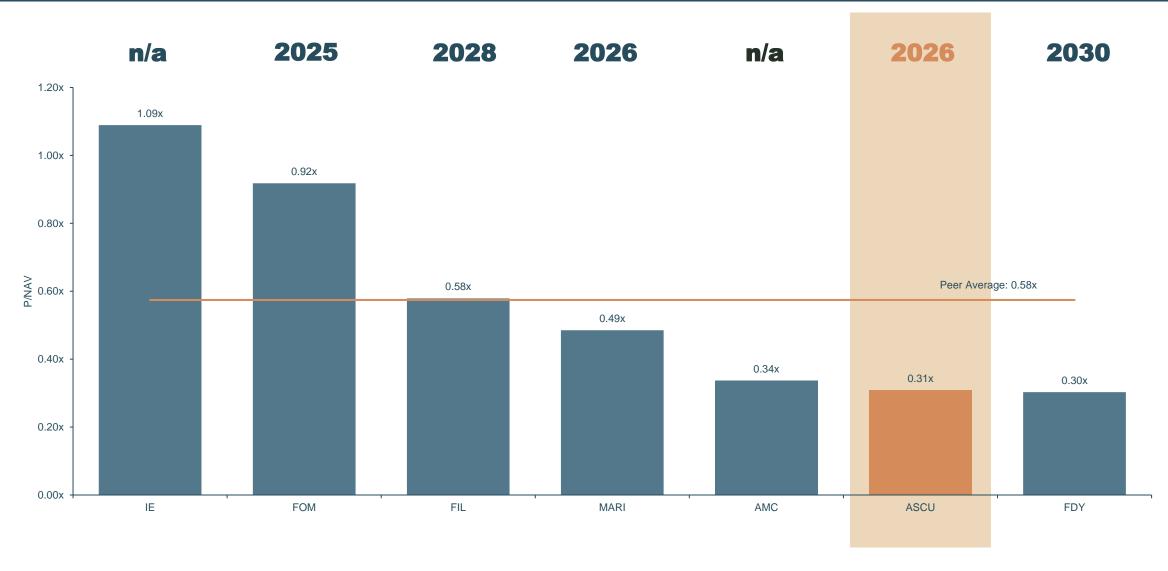
Next

Steps

- Permitting Based on PFS mine plan
- · Testing with Rio Tinto's **Nuton Technologies** in process
- Project Financing subject to PFS and FS outcomes
- Construction subject to PFS and FS outcomes, 18-24-month construction period (per 2021 PEA)
- Production upon positive construction decision

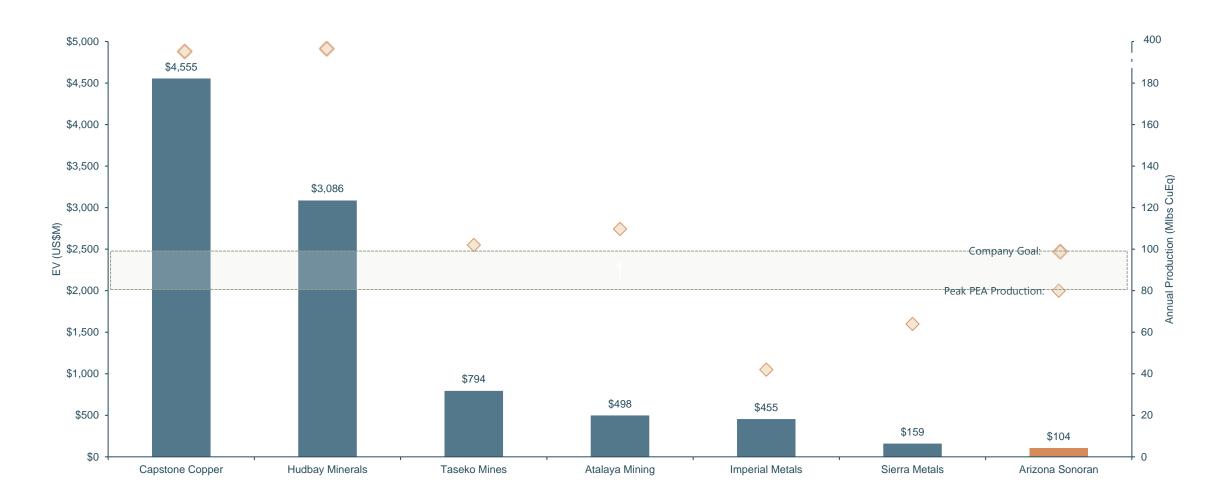
ASCU:TSX | ASCUF:OTCQX ARIZONASONORAN.COM

# Copper Development Peers (P/NAV)



Source: Company Filings, Capital IQ, August 31, 2023

# Junior Copper Producer Benchmarking (Enterprise Value and Production)



Source: Company Filings, Capital IQ - August 31, 2023

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

Material Type	KTons	CuT	TSol	Contained
2.	(Kt)	% MEASURED	%	Cu (Klbs)
		Cactus		
Oxide	200		0.137	500
Enriched	8,900		0.232	41,400
Total Leachable	9,100		0.230	41,900
Primary	1,300	0.315		8,000
Total Indicated	10,400		0.241	49,800
		INDICATED		
	70.000	Cactus	0.050	545,000
Oxide Enriched	73,300 73,900		0.352 0.661	515,800 977,400
Total Leachable	147,200		0.507	1,493,200
Primary	73,000	0.348		507,600
Total Indicated	220,300	Ctlu-il-	0.454	2,000,800
Oxide	71,100	Stockpile	0.153	217,300
Oxide	71,100	Parks/Salyer	0.133	217,300
Oxide	10,000	r arks/saryer	0.921	183,700
Enriched	120,200		1.037	2,493,000
Total Leachable	130,200		1.028	2,676,600
Primary	13,800	0.833		229,400
Total Indicated	143,900		1.009	2,906,100
		INFERRED		
	00.000	Cactus	0.000	044.000
Oxide	33,000		0.326	214,900
Enriched	29,000		0.374	216,800
Total Leachable	62,000		0.348	431,700
Primary	122,300	0.342		837,100
Total Inferred	184,300	0111	0.344	1,268,800
Oxide	1,200	Stockpile	0.127	3,000
Oxide	1,200	Parks/Salyer	U.121	3,000
Oxide	8,700		0.925	161,700
Enriched	35,700		0.996	711,500
Total Leachable	44,500		0.982	873,200
Primary	3,900	0.797		62,900
Total Inferred	48,400		0.967	936,100

### Notes to the Mineral Resource Estimate

- 1. Leachable copper grades are reported using sequential assaying to calculate the soluble copper grade. Primary copper grades are reported as total copper, Total category grades reported as weighted average copper grades of soluble copper grades for leachable material and total copper grades for primary material. Tons are reported as short tons.
- 2. Stockpile resource estimates have an effective date of 1st March, 2022, Cactus resource estimates have an effective date of 29th April, 2022, Parks/Salyer resource estimates have an effective date of 1st March, 2023. All resources use a copper price of US\$3.75/lb.
- 3. Technical and economic parameters defining resource pit shell: mining cost US\$2.43/t; G&A US\$0.55/t, 10% dilution, and 44°-46° pit slope angle.
- 4. Technical and economic parameters defining underground resource: mining cost US\$27.62/t, G&A US\$0.55/t, and 5% dilution,
- 5. Technical and economic parameters defining processing: Oxide heap leach (HL) processing cost of U\$\$2.24/t assuming 86.3% recoveries, enriched HL processing cost of U\$\$2.13/t assuming 90.5% recoveries, Primary mill processing cost of U\$\$8.50/t assuming 92% recoveries. HL selling cost of U\$\$0.27/lb; Mill selling cost of U\$\$0.62/lb.
- 6. Royalties of 3.18% and 2.5% apply to the ASCU properties and stateland respectively. No royalties apply to the MainSpring (Parks/Salyer South) property.
- 7. For Cactus: Variable cutoff grades were reported depending on material type, potential mining method, and potential processing method. Oxide material within resource pit shell = 0.099% TSol; enriched material within resource pit shell = 0.092% TSol; primary material within resource pit shell = 0.549% TSol; enriched underground material outside resource pit shell = 0.522% TSol; primary underground material outside resource pit shell = 0.691% CuT.
- 8. For Parks/Salyer: Variable cut-off grades were reported depending on material type, associated potential processing method, and applicable royalties. For ASCU properties Oxide underground material = 0.549% TSol; enriched underground material = 0.522% TSol; primary underground material = 0.691% CuT. For stateland property Oxide underground material = 0.545% TSol; enriched underground material = 0.518% TSol; primary underground material = 0.686% CuT. For MainSpring (Parks/Salyer South) properties Oxide underground material = 0.532% TSol; enriched underground material = 0.505% TSol; primary underground material = 0.669% CuT.
- 9. 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.
- 10. 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.
- 11. Totals may not add up due to rounding.

# 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)

