

BUXTON RESOURCES

DEVELOPING & DISCOVERING CRITICAL MINERALS



Company Overview

October 31 2024

SET TO SUCCEED

MISSION STATEMENT

- Commercialise through development or part/full sale
- Be the preferred project generation partner to mid-tier & majors
- Provide exposure to the 'bang on discovery'
- Provide upward pressure on our valuation via multiple streams of news flow

GROWTH STRATEGY -> H2 2025

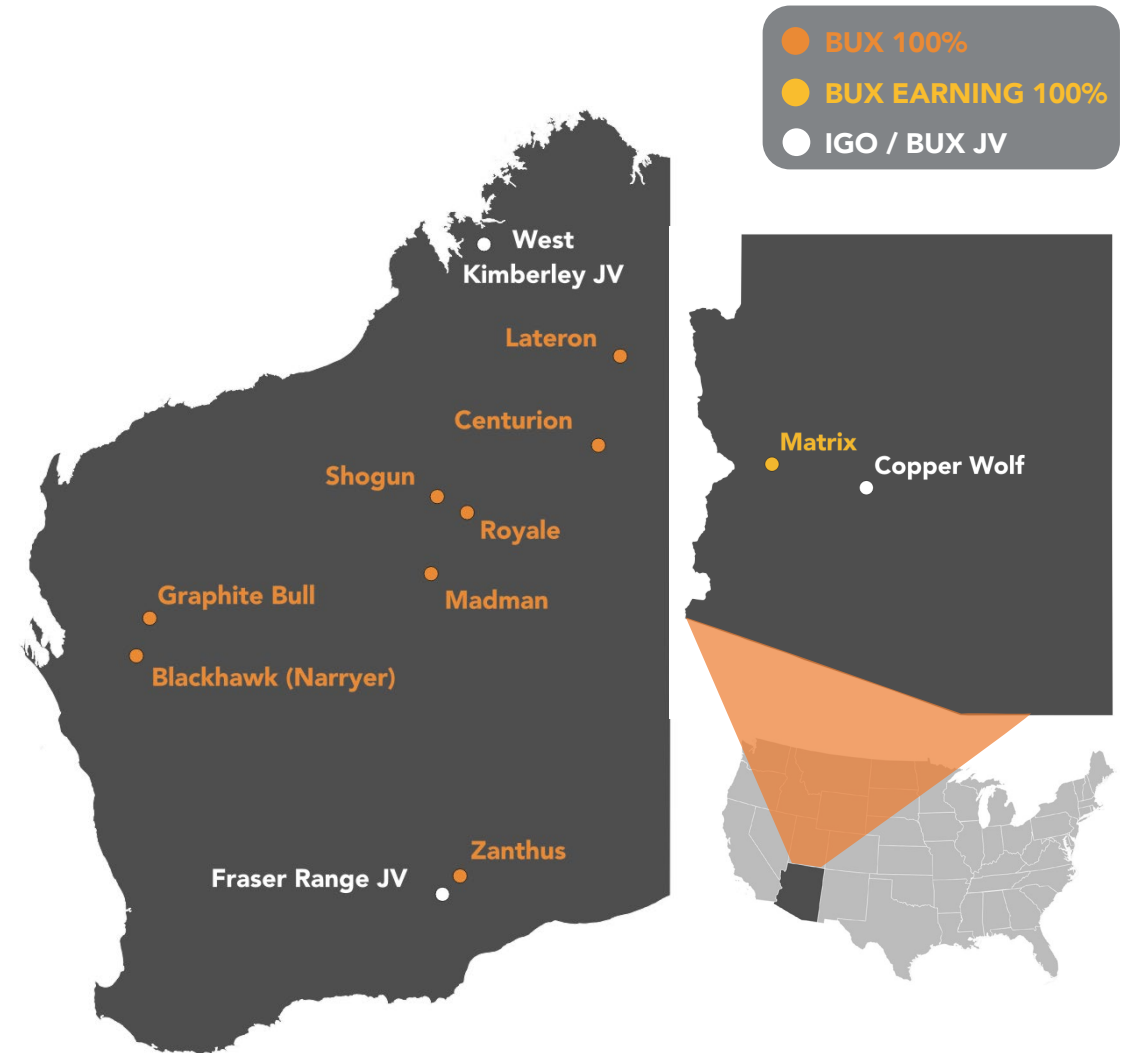
- Graphite Bull - Mineral Resource Upgrade & Scoping / Pre-feasibility Study
- Graphite Bull - Qualification testwork
- Copper Wolf JV Activities
- Permitting & Drilling at Matrix / Blackhawk (Narryer)
- Drilling at Centurion (co-funded grant up-to \$220k)

See also BUX CEO's Letter to Shareholders 25 Oct 2024

ASX: BUX 210.88M shares CAB: A\$1.6M (Sep 30 24)
 19.75M options Av 3M daily vol: 203k

Mkt Cap: A\$15.8M @ 7.5c 30/10/24

ASX: BUXO 19.37M listed options expiring 31/07/26



PROJECT PIPELINE

Committed JV forward spend ~\$3.5M

JV spend 2018-2024 ~\$32M

BUX's tenure interests > 8,250 km²

BUX Annual Tenement Commitments < \$1M



Centurion Cu/Au

Lateron Cu/Au

Madman Cu/Au

Shogun (Ni)*

Royale (Au/Cu)*

100%
BUX

Matrix Mn

BUX earning 100%

West Kimberly JV BUX 16-20%

DRILL TARGET DEFINITION



Porphyry Cu/Mo
exploration in
elephant country

100% BUX &
BUX 49% / IGO 51%

ADVANCED EXPLORATION



**Blackhawk
Graphite**

(+ magnetite, Nb / REE)

100% BUX

DISCOVERY DRILLING



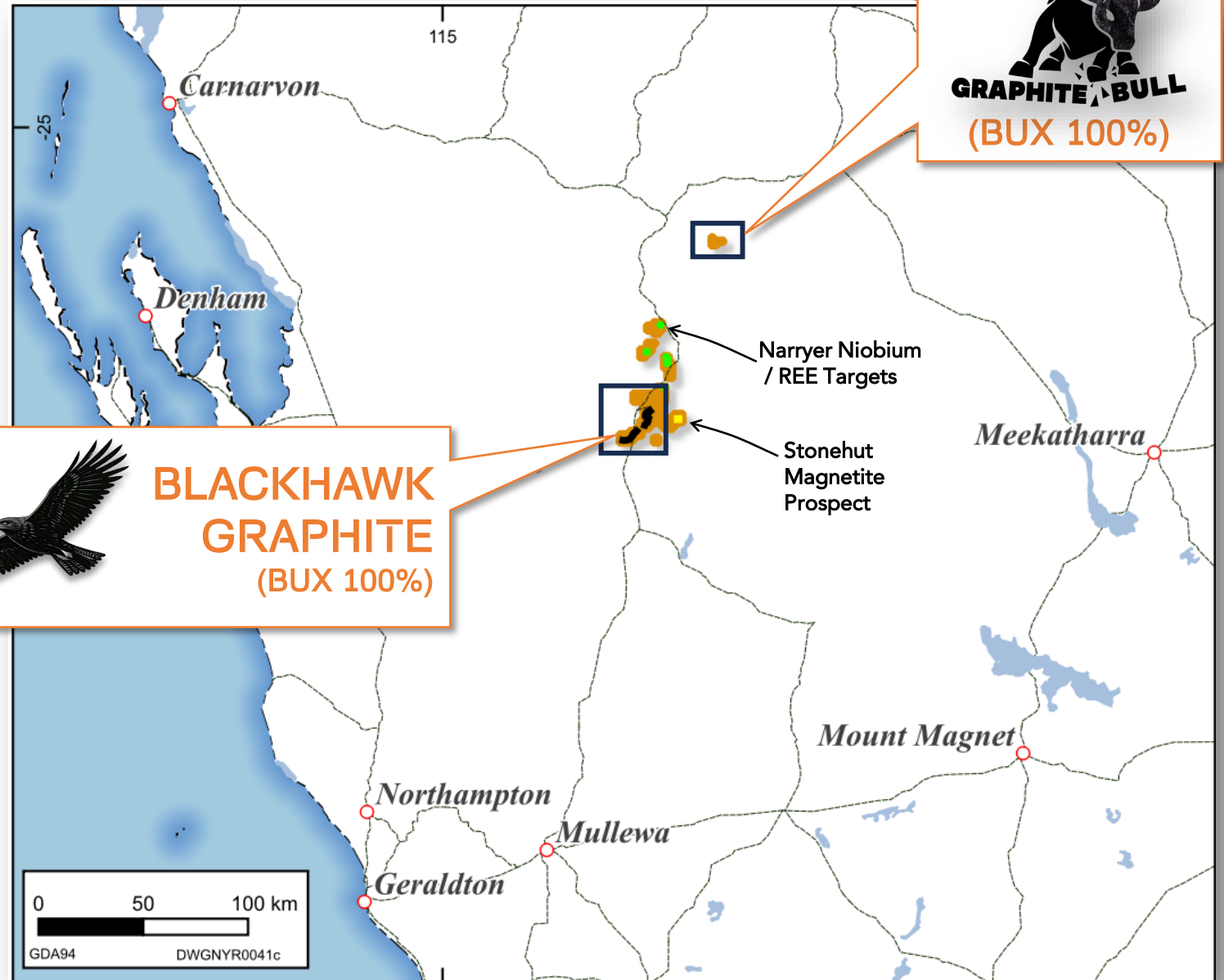
Tier 1 natural graphite
Tier 1 jurisdiction

100% BUX

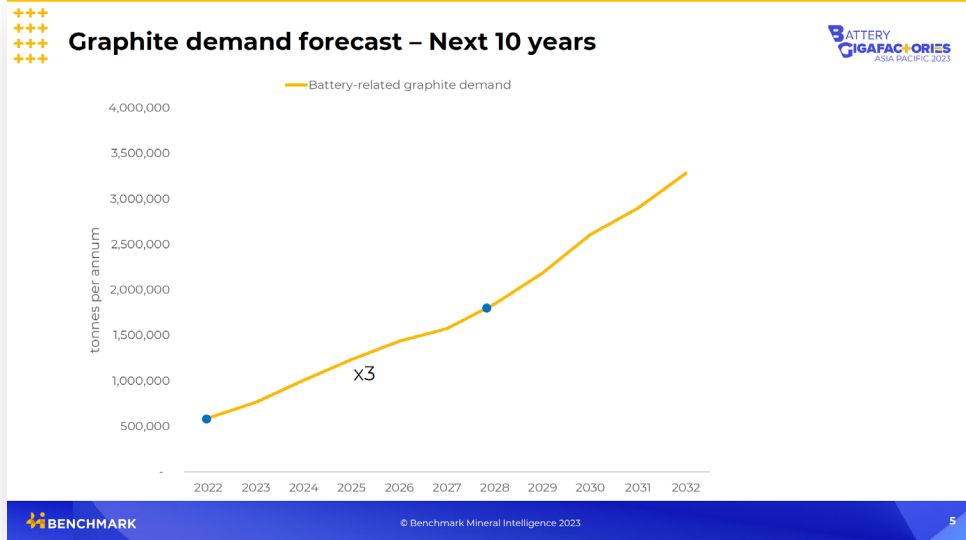
DEVELOPMENT

MID-WEST GRAPHITE POWERHOUSE

- Excellent Access
- Bulk export facility at Port of Geraldton
- Year-round field activities
- Abundant water and sunlight
- Minimal competition for land use
- Single Aboriginal Representative Body



NATURAL GRAPHITE - STRONG DEMAND DRIVERS



Natural and Synthetic

BATTERY GIGAFACORIES ASIA PACIFIC 2023



Natural graphite

- Mined, concentrated and screened (>94% C, -100 mesh typically preferred for batteries)
- Higher energy density
- Faster charging speeds
- Less carbon intensive



Synthetic Graphite

- Made from petroleum or pitch coke (oil refinery or coal byproduct) which is graphitised at high heat
- Longer cycle life
- Can be more uniform
- Energy intensive

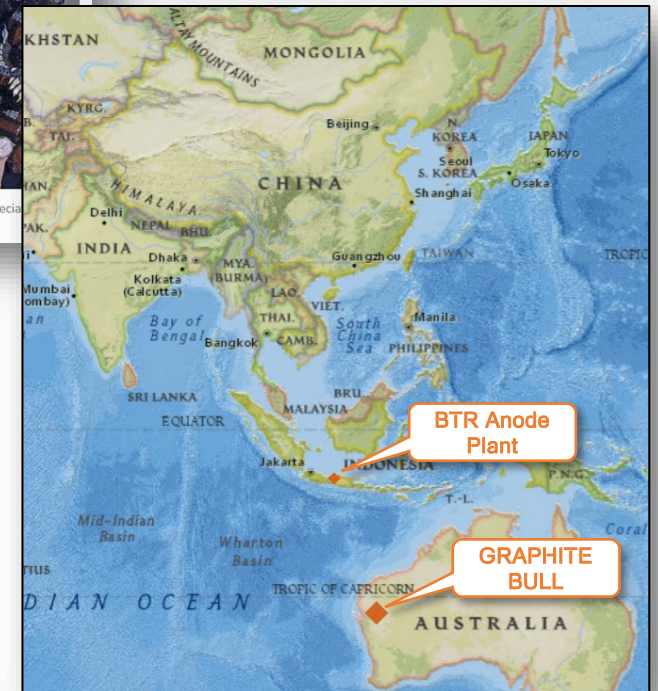
BENCHMARK © Benchmark Mineral Intelligence 2023 6

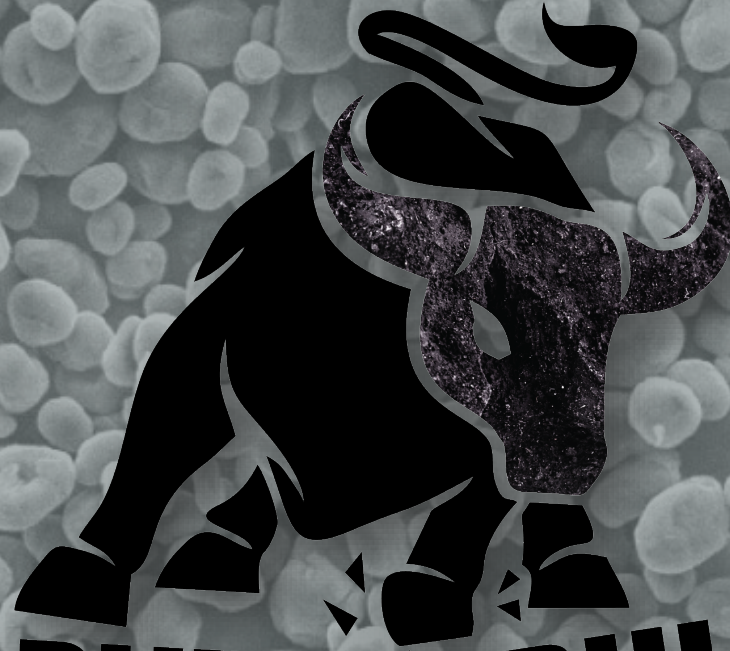
China's BTR Launches Lithium Battery Anode Plant in Central Java



President Joko "Jokowi" Widodo takes a look around BTR's freshly launched lithium battery anode plant in Kendal special economic zone, Central Java, on August 7, 2024. (Photo Courtesy of Presidential Press Bureau)

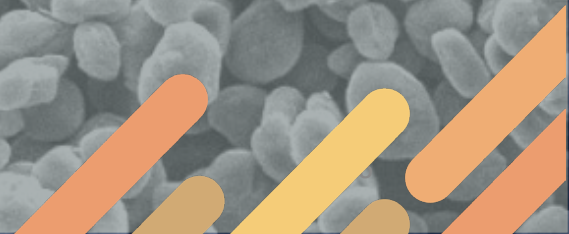
Jakarta Globe 7th August 2024





GRAPHITE BULL

BUX 100%



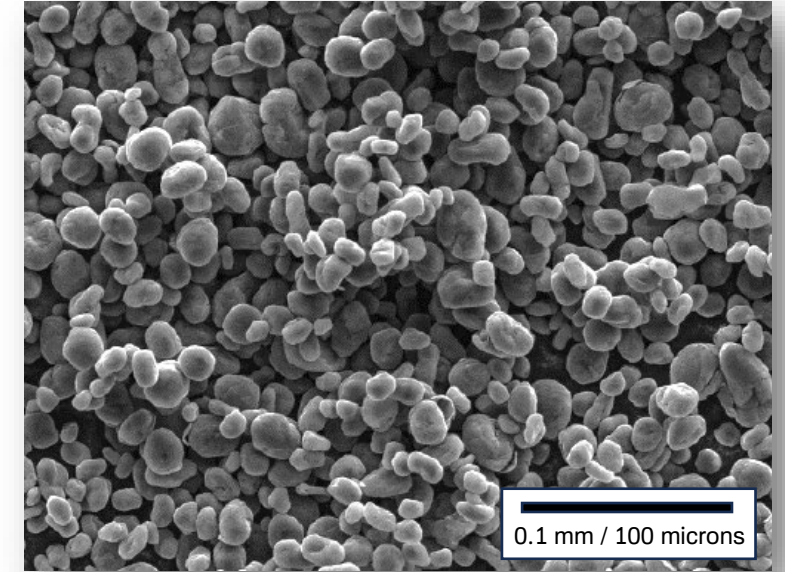
Not only Tier 1 location... also high grade & high quality



Exploration Drilling at GB003RC
(ASX 02/03/2023)



Bulk Concentrate Preparation
(ASX 20/09/2023)



SEM image of spheronised Graphite Bull concentrate
(ASX 07/08/2023)

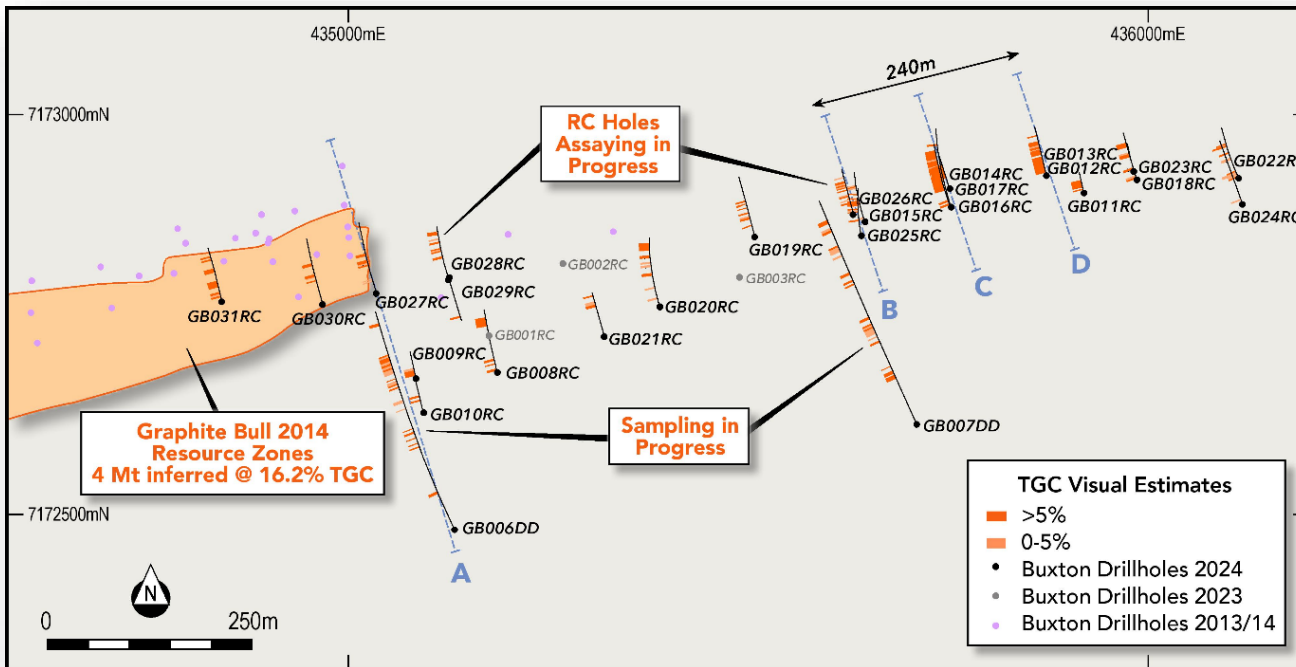
- 1) Substantial high-grade graphite intersects outside the current resource (4Mt @ 16.2@ TGC)
- 2) Simple floatation produces a high-grade concentrate (>95% TGC) with >90% recovery
- 3) GB concentrate works as Active Anode Material



(100% BUX)

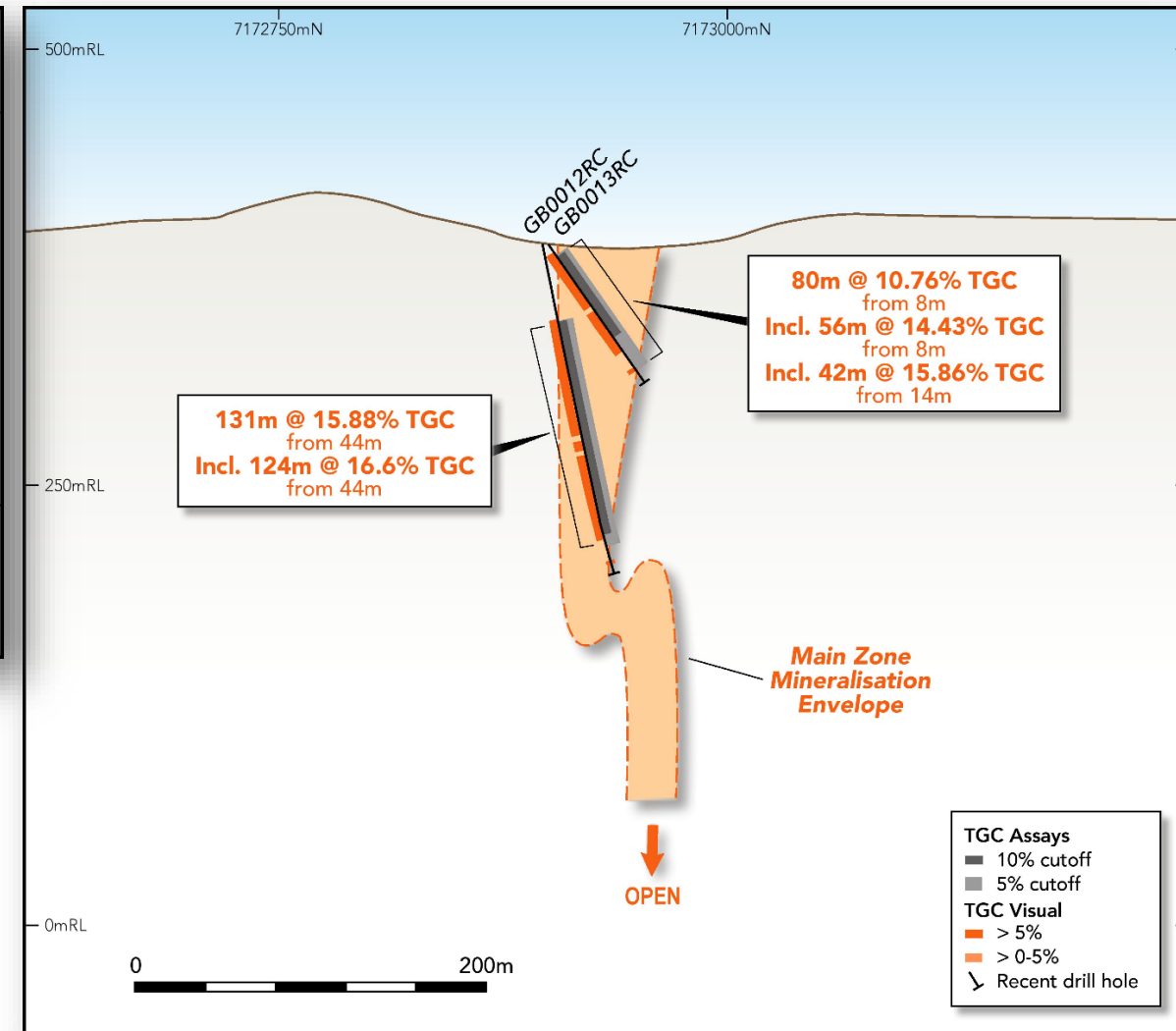


Stunning results from 2024 resource extension drilling



Plan of 2024 Drilling
(ASX 24/10/2024)

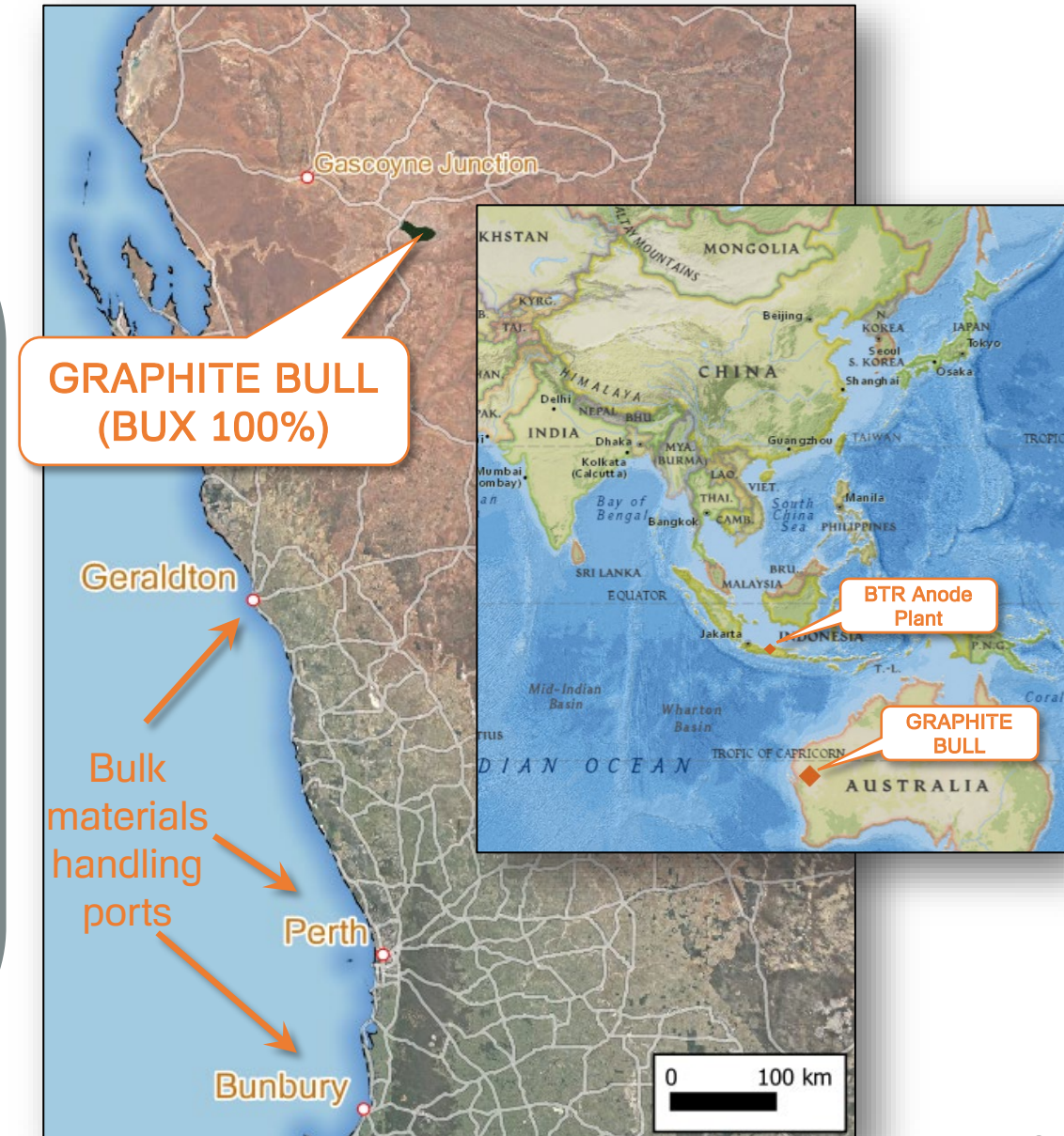
- Substantive upside to existing resource
- Mineral Resource Upgrade targeted for Dec 2024



Cross Section D
(ASX 24/10/2024)

Location, Location, Location

- Western Australia – consistently top 5 Fraser Institute ranking – developed, stable mining jurisdiction
- 28 km to major regional road, 500 km to Geraldton port
- Heritage, Flora and Fauna surveys completed
- Initial groundwater investigations indicate ample local supplies at <1,000 TDS
- Excellent engagement with stakeholders (Native Title, Pastoral and Local / State / Federal Government)
- Ideal project for US incentive programs such as ~US\$400B Inflation Reduction Act &/or supply new anode plants worldwide, including BTR's newly commissioned Kendal plant in Indonesia (320ktpa flake demand by 2026)



Current Focus...

1. Scoping / Pre-Feasibility Study

- Metallurgical & environmental studies complete
- Major drilling campaign just completed

• Updated MRE expected Q4 2024

- Scoping / PF Study Q1 2025

2. Fastest Aussie Project to Market via Partnership

• Qualification

- Technology, Offtake & Investment





Blackhawk Graphite

(+ Narryer Magnetite, Nb / REE)

BUX 100%



(100% BUX)

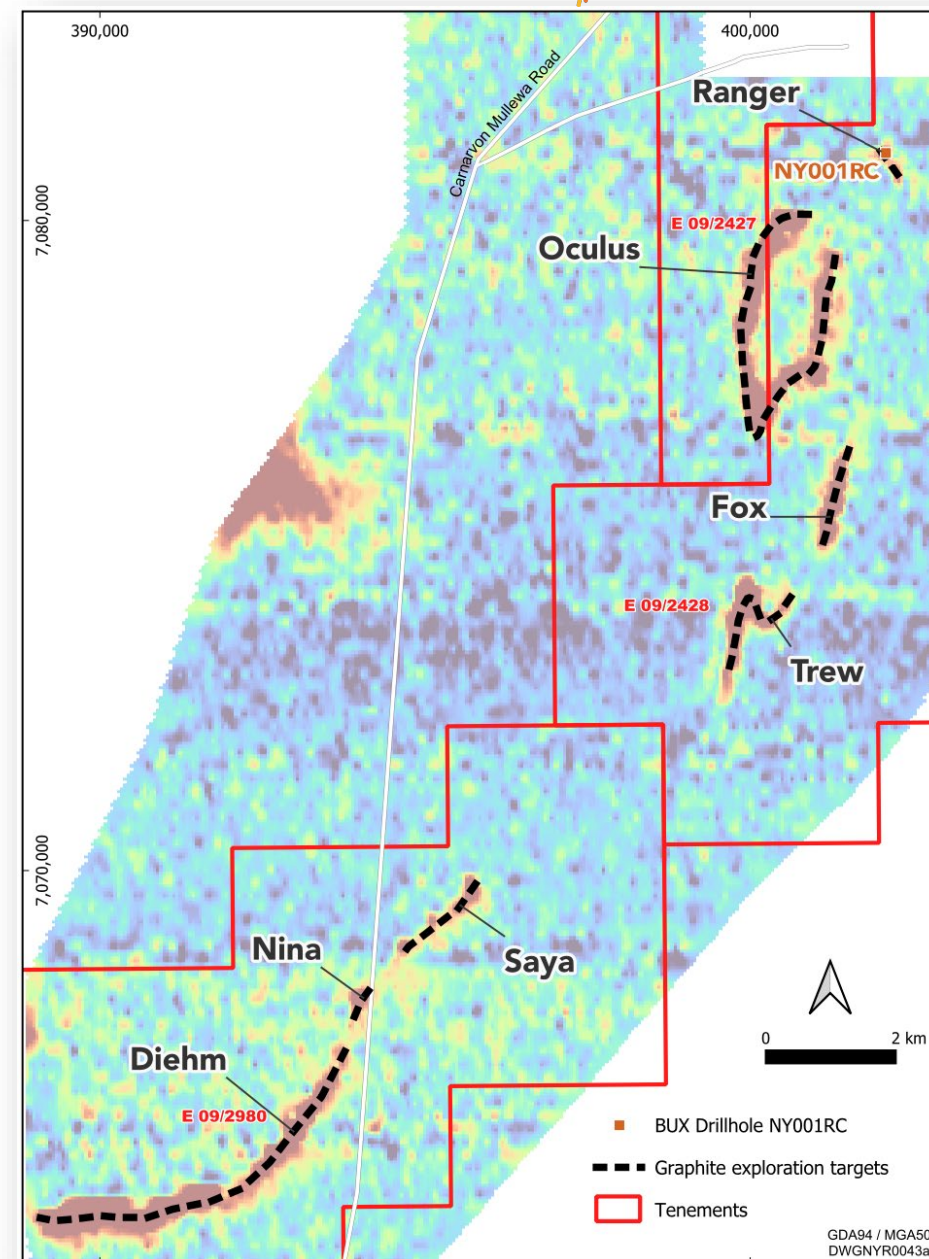
BLACKHAWK GRAPHITE

New graphite discovery, entire prospective setting
under 100% tenure, 100 km from Graphite Bull



NY001RC (ASX 04/10/2024)

- NY001RC: 60 metres @ 4.34% TGC from 192 m, including 20 metres @ 9.06% TGC from 231 m
- Ground EM indicates graphite mineralisation extends close to surface
- AEM defines 19.1 km prospective strike
- Two high conductance Ground EM targets at Oculus



AEM Image with Graphite Exploration Targets (ASX 04/10/2024)



CENTURION

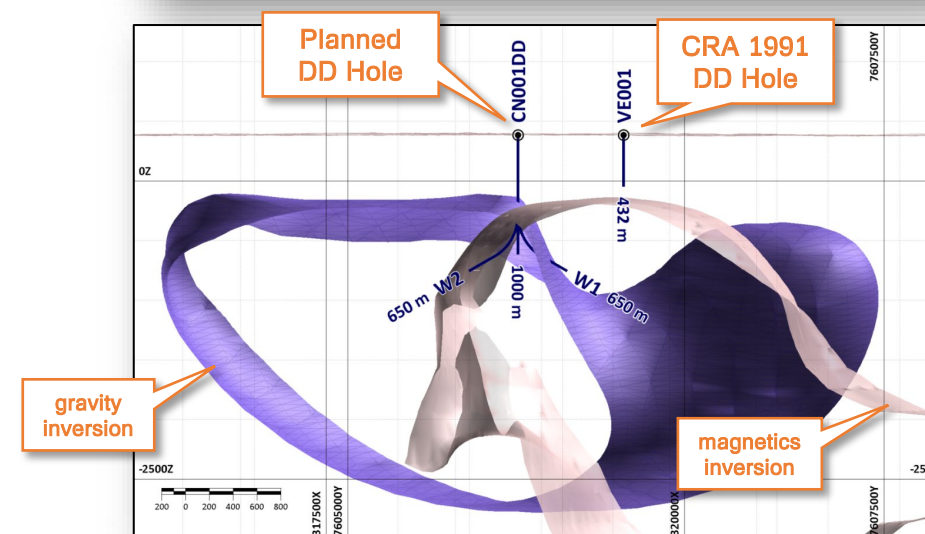
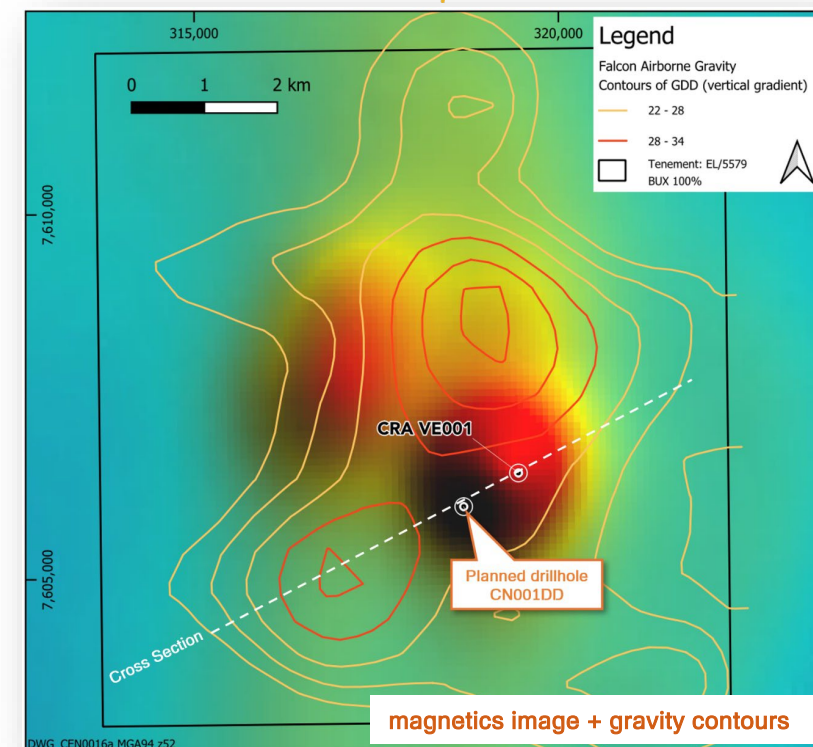
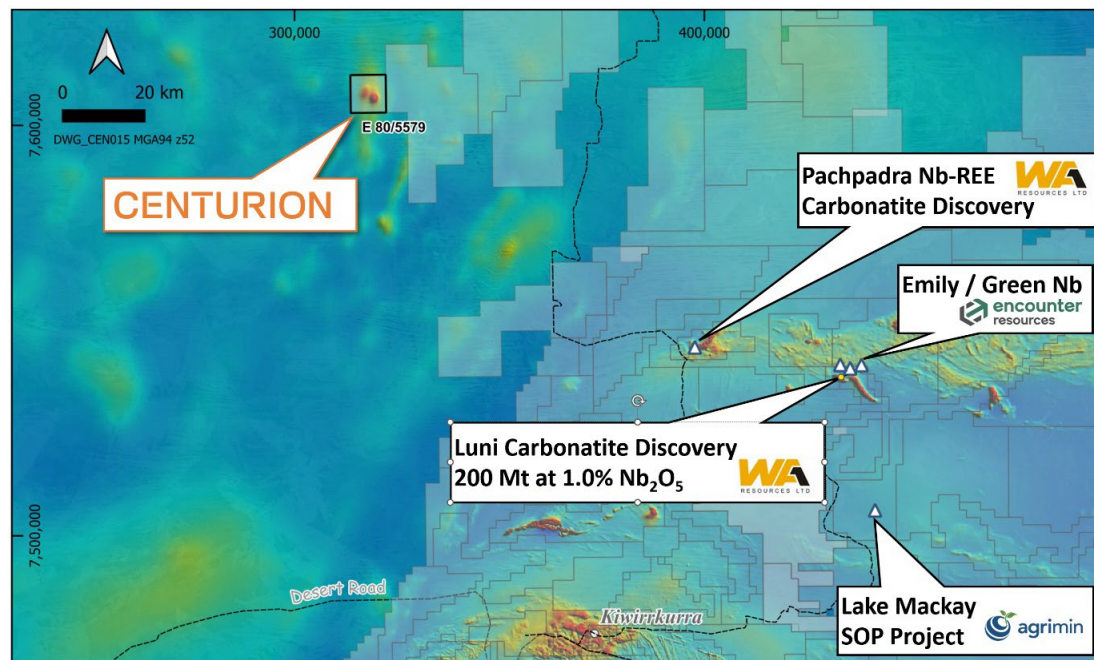
BUX 100%

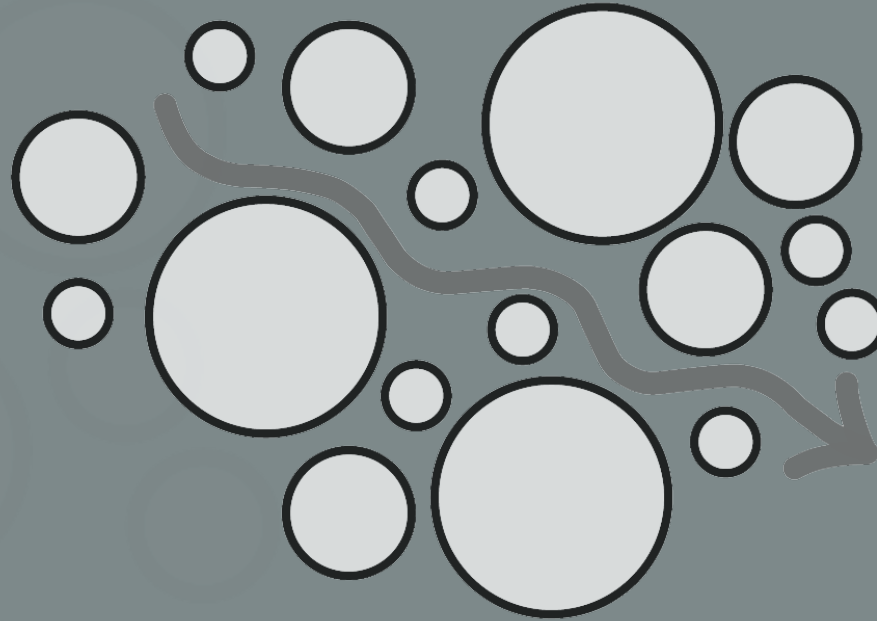


CENTURION

Giant Cu / Au geophysical target

- Coincident 1,500 nT magnetic & 10.1 mgal gravity anomaly over 3.5 x 5 km area
- CRA's 1991 hole failed to test the target, strongly pyritic & chlorite altered boulder-sized clasts were logged in Permian conglomerate towards the base of this hole
- 1,000m drillhole planned, EIS co-funding through Dec 2025, up to A\$220k rebate
- Heritage approvals and PoW in place





Matrix Mn

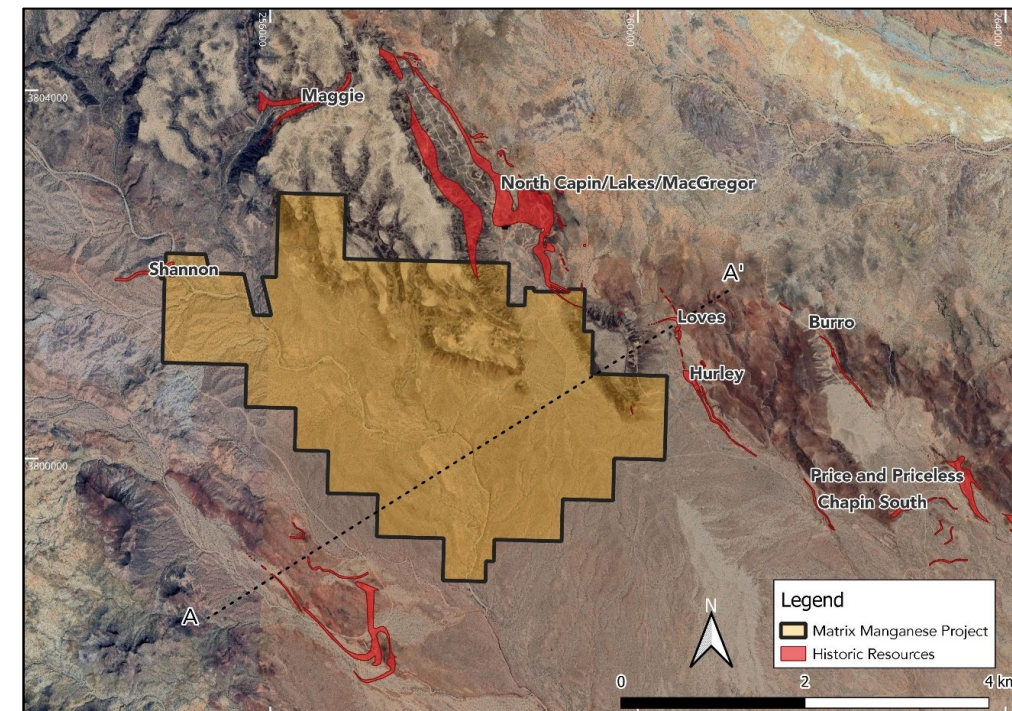
BUX earning 100%



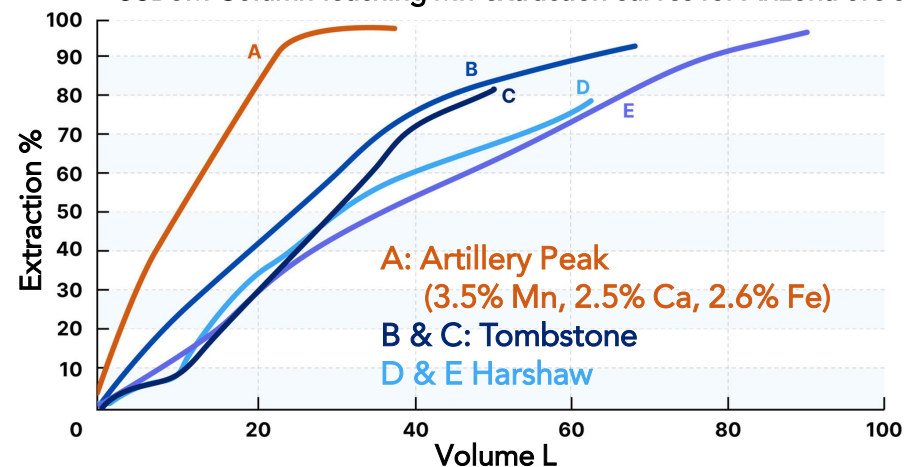
REVOLUTIONARY GREEN MANGANESE

- Low-cost brownfields exploration project acquisition covering 12 km²
- Adjacent to world's 6th largest resource by metal - 277 Mt @ 2.8% Mn
- These deposits are unique in being hosted by sandstone
- USA relies 100% on Mn imports
- Strong local demand predicted for battery-grade sulphate
- Testwork indicates exceptional leaching characteristics.
- ISR amenable manganese: potential for low CAPEX / OPEX battery grade Mn sulphate / EMM, Several ISR operations recently permitted in AZ

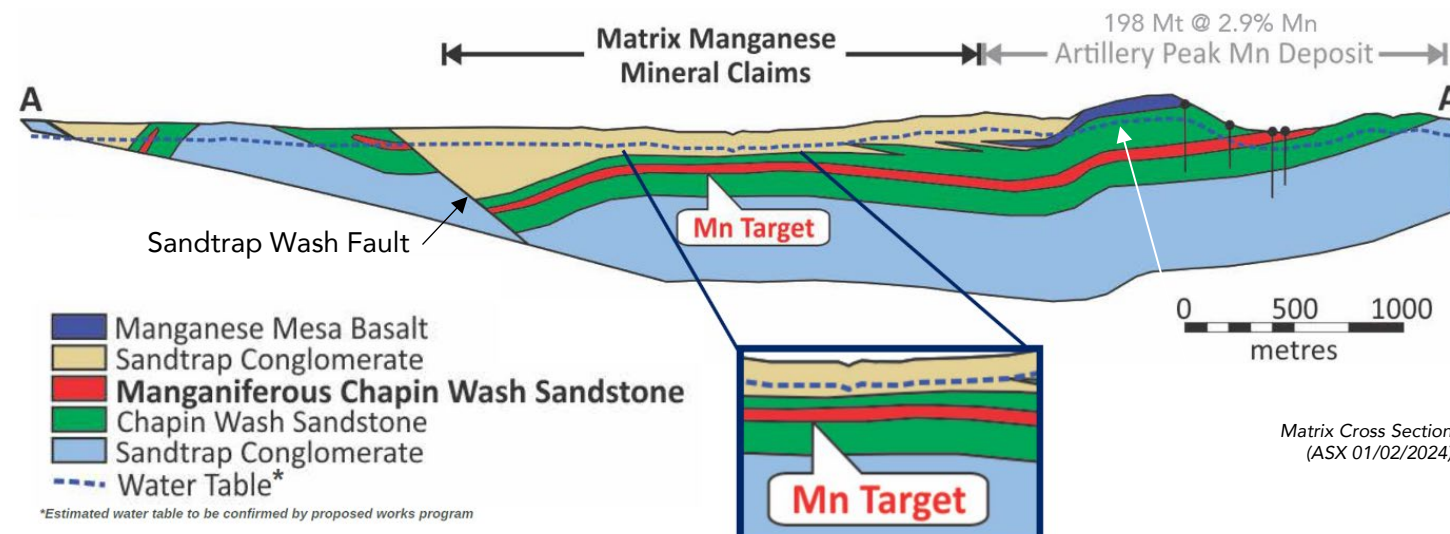
Matrix Project Claims Map (ASX 14/05/2024)



USBoM Column-leaching Mn-extraction curves for Arizona ore samples



Source: Pahlman & Khalafalla – 1988 - Leaching of Domestic Manganese Ores with Dissolved SO₂. U.S. Bureau of Mines.





COPPER WOLF

ARIZONA. USA

100% BUX &
BUX 49% / IGO 51%

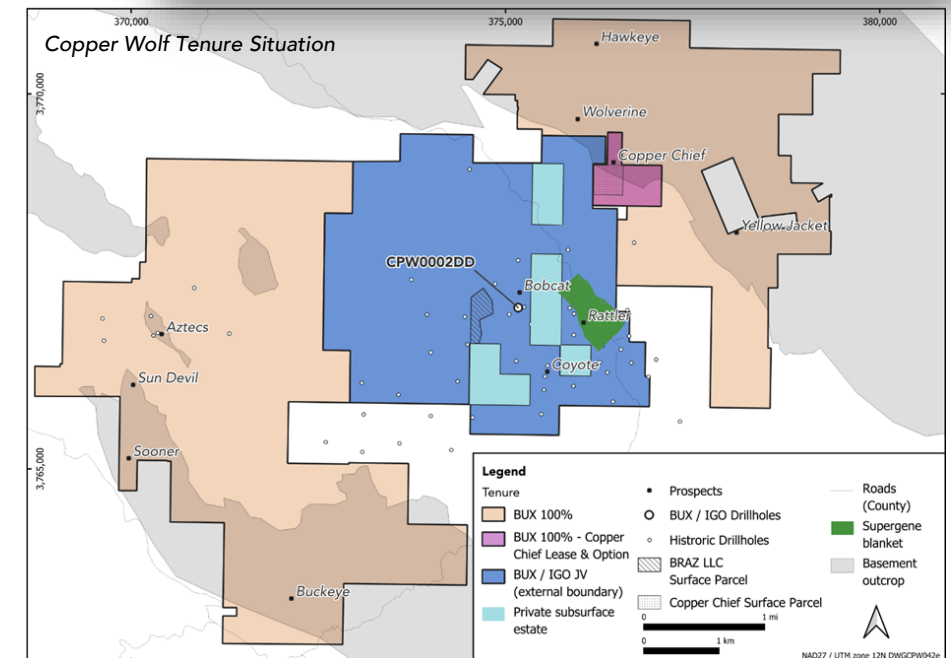
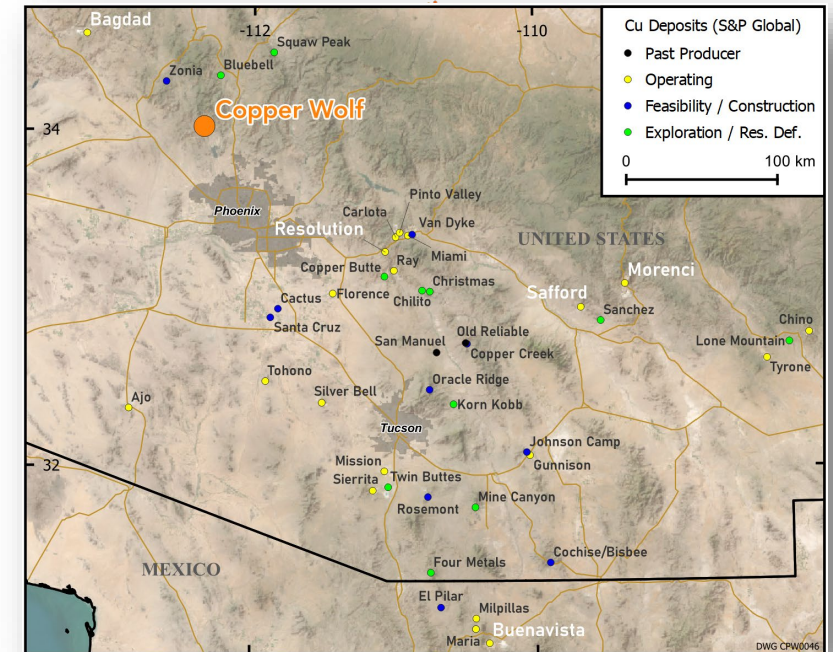
Extensive Foothold in a Giant Porphyry System

- Land of Giants – SW US / Northern Mexico Porphyry Belt
- Proven and huge porphyry Cu/Mo system
- Cu resources defined historically
- CPW0001DD: 83.76 metres at 0.40% Cu and 0.065% Mo for 0.77% CuEq* from 527.91 metres
- CPW0002DD: 405.38 metres at 0.35% Cu and 0.045% Mo for 0.61% CuEq* from 608.38 metres
- Geological Ingredients that can drive a high-grade system
- Aim to consolidate the execution of this asset in partnership with IGO



CPW0002DD at 619.70 m depth. The mafic schist on the left hosts a banded quartz-molybdenite vein which is cut by later veins of blebby sulphides. Disseminated sulphide is stronger in this mafic host compared with the chlorite altered felsic gneiss on the right of photo. Visually estimated sulphide abundances: 1.5% pyrite, 1.0% chalcopryite and 0.15% molybdenite. HQ3 core is 63.5 mm width. (ASX 06/09/2023)

* CuEq based on \$3.50/lb Cu and \$20/lb Mo (payability / recovery not considered). Copper Equivalent (%) = Cu (%) + (Mo (%) x 5.7)



Sign up to the BUX InvestorHub
for alerts and in-depth coverage



Forward Looking Statements

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Competent Persons Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr Martin Moloney, Member of the Australasian Institute of Geoscientists. Mr Moloney is a full-time employee of Buxton Resources Limited. Mr Moloney has sufficient experience which is relevant to the activity being undertaken to qualify as a “Competent Person”, as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moloney consents to the inclusion in this report of the matters based on the information in the form and context in which it appears. All exploration results and geological information has been previously reported in numerous Company ASX announcements under the 2012 JORC Code. This information has not materially changed since it was initially reported.

Validity of Referenced Results

Buxton confirms that it is not aware of any new information or data that materially affects the information from previous ASX announcements which has been referenced in this announcement.

AUTHORISED BY

The CEO on behalf of the Board of
Directors of Buxton Resources.

REGISTERED OFFICE

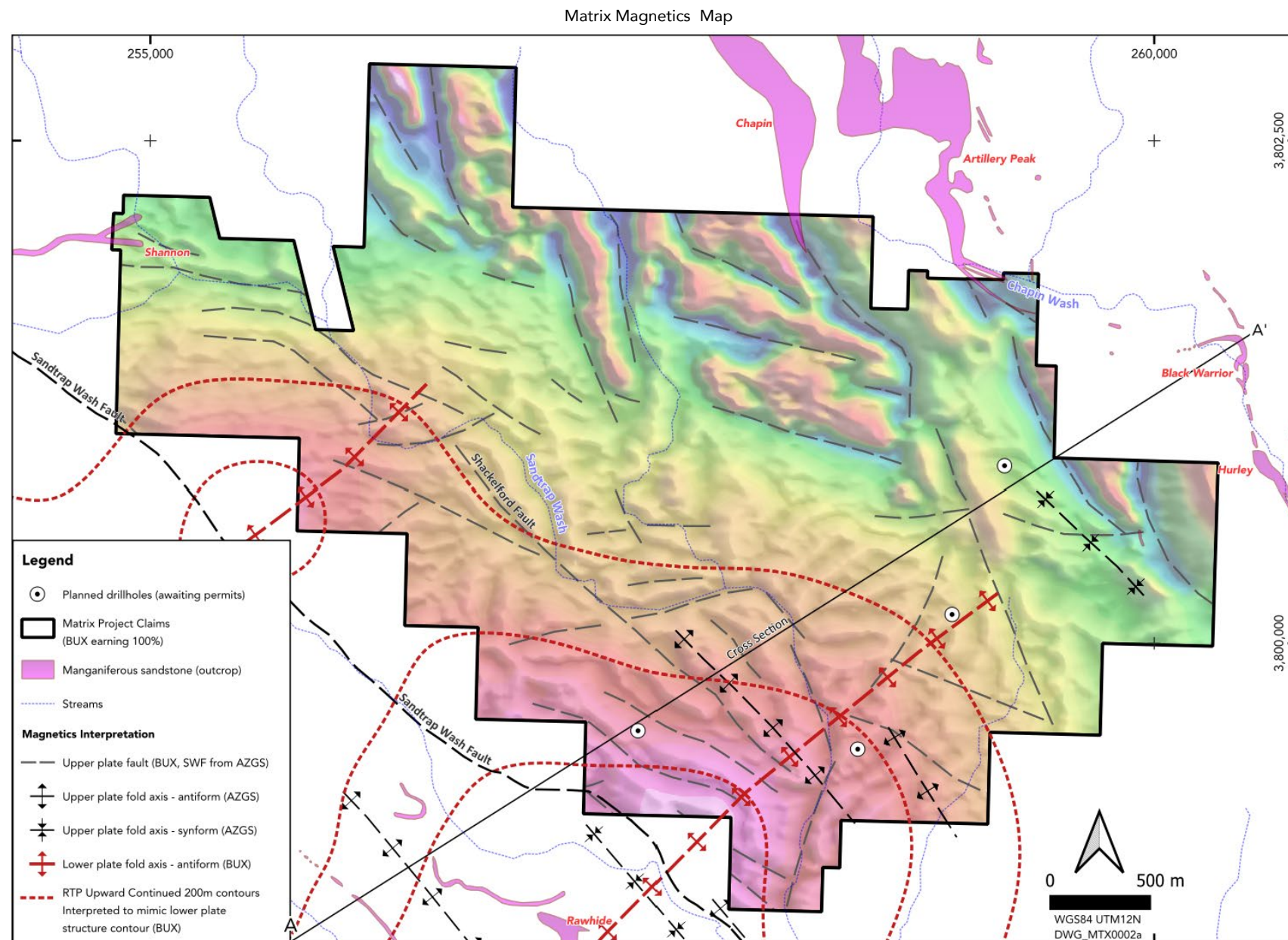
15 Robinson Avenue
Belmont WA 6104
Phone +61 (0)8 9380 6063
Postal Address PO Box 661 Nedlands WA 6909
Email: info@buxtonresources.com.au
Website: www.buxtonresources.com.au

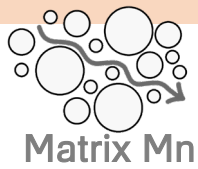


SUPPLEMENTARY SLIDES

PHASE 1 EXPLORATION PROGRAM

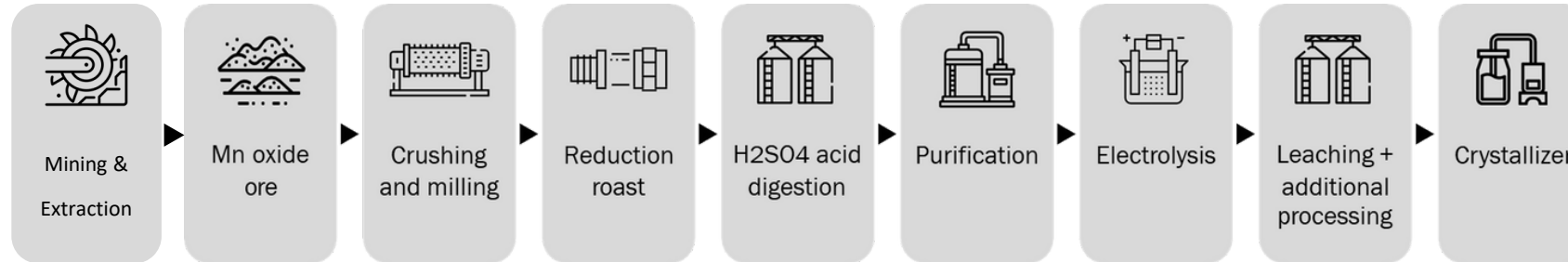
- Drone Magnetics
- Structural Mapping
- Drilling
- Success =
 - >100 %m Mn
 - right Mn mineralogy
 - saturated
 - high permeability
 - low Ca / Fe



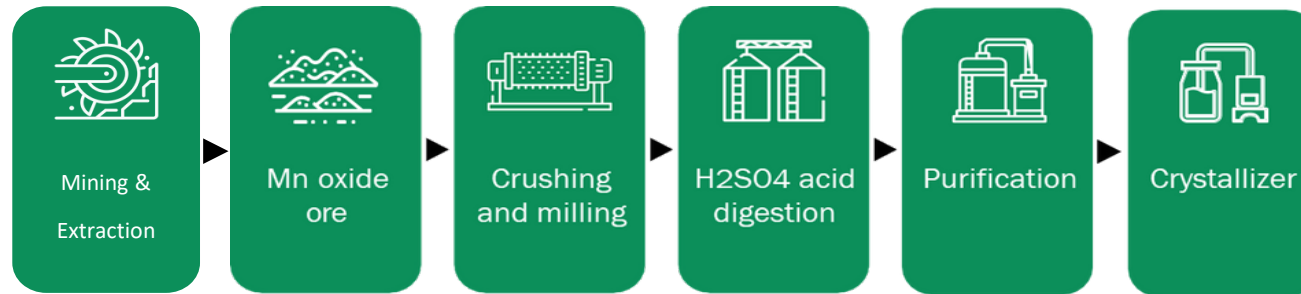


ISR OPEX ADVANTAGE

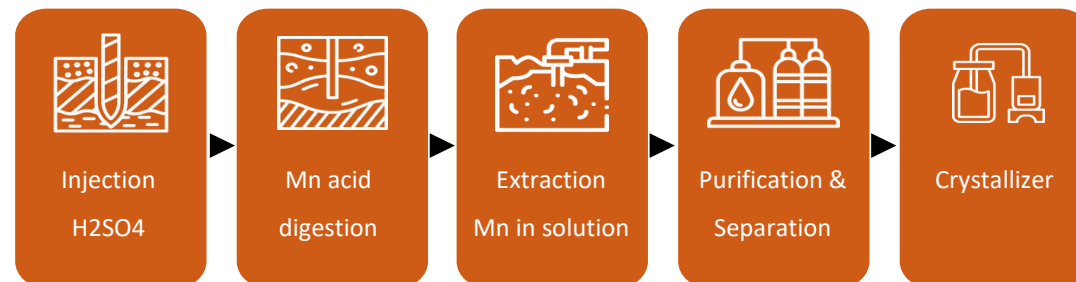
Traditional Processing of HPSM



Advanced Processing of HPSM



Potential ISR Processing of HPSM



In situ recovery (ISR) directly obtains metals from the subsurface without mining & extraction.

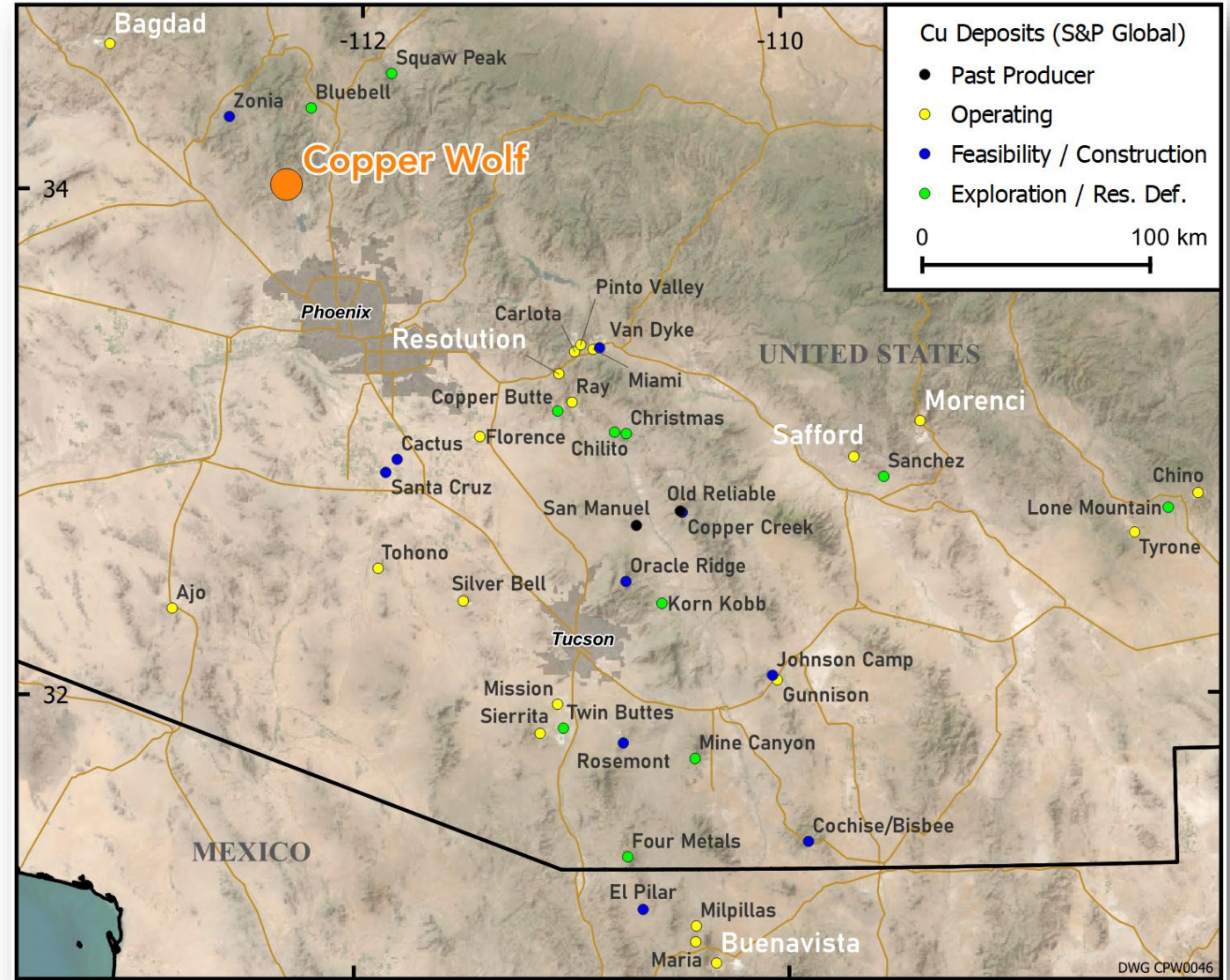
Uses vastly less water and electricity, offers the lowest mining costs, emissions intensity & environmental impact.



Southern Arizona - One of the World's Great Copper Districts

Deposit	Contained Cu (Mt)	Ore (Bt)	Grade (% Cu)
Buenavista	45	19.8	0.22
Morenci	43	20.1	0.22
Resolution	28	1.9	1.52
Safford	24	7.2	0.34
El Arco	18	4.7	0.37
Bagdad	17	6.1	0.28

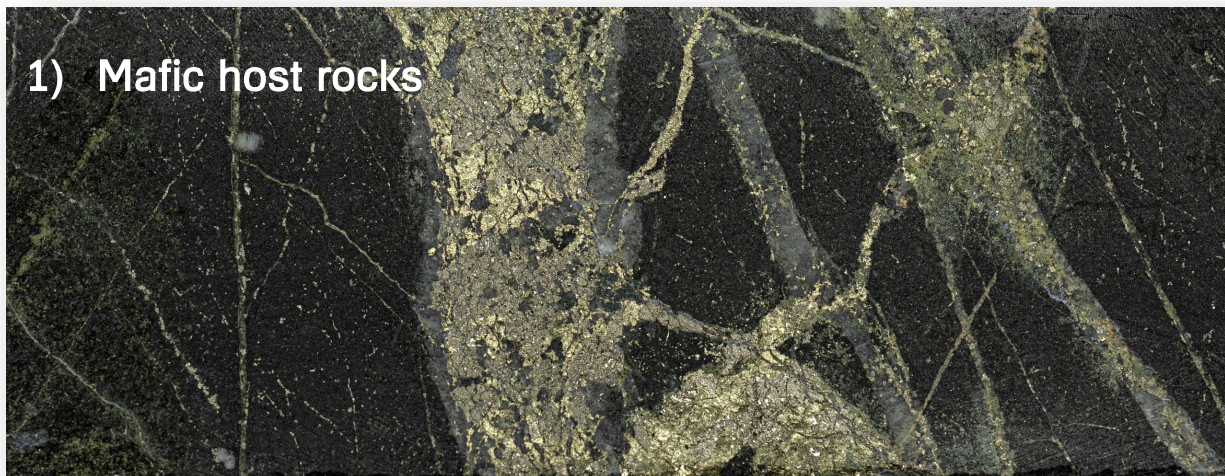
- Includes recently permitted deposits such as Cactus, Florence and Gunnison



Copper Projects of the SW USA and Northern Mexico

CPW0002DD – 2 elements of high-grade porphyry systems

1) Mafic host rocks

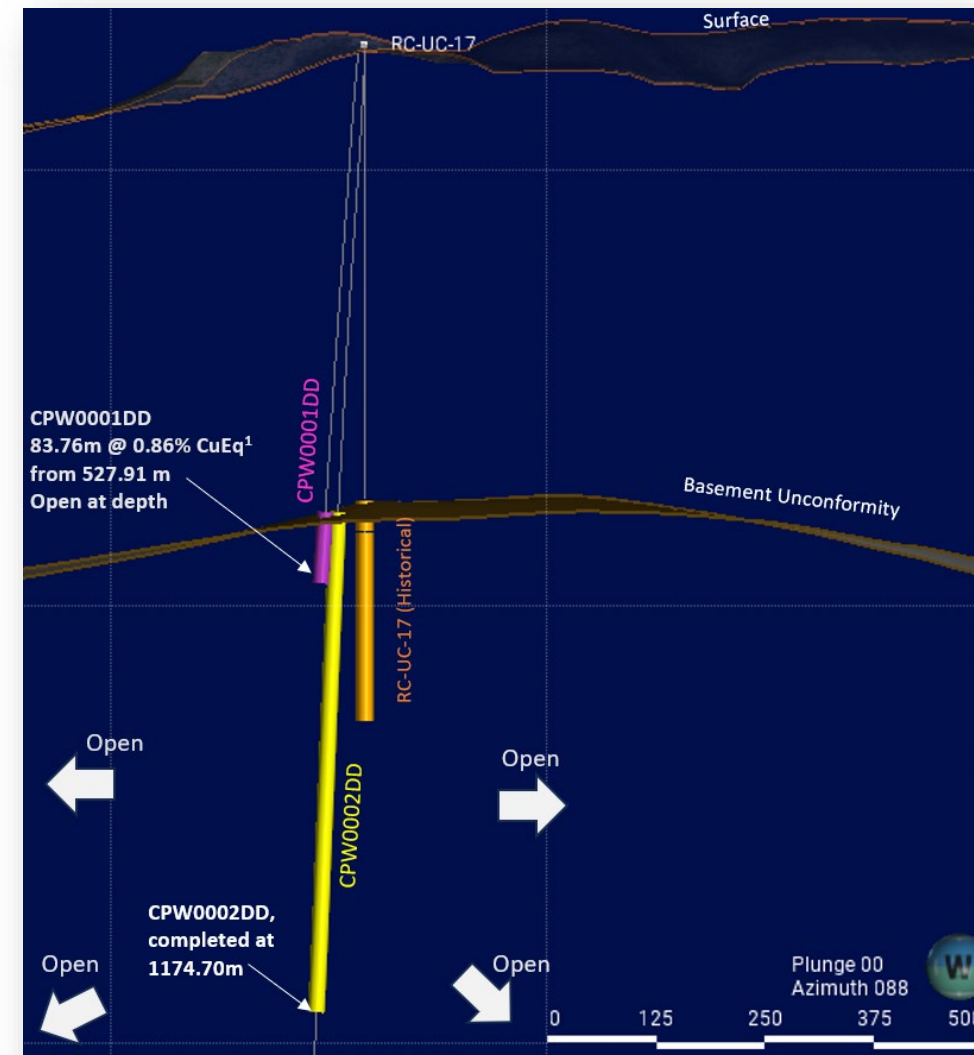


Cut HQ3 ½ core from 622.2 m in CPW0002DD. Metapelitic rock cut by multi-stage (stockwork) quartz-sulphide and sulphide-only veining. Secondary biotite forms as selvage to the veining but is so intense that it appears to completely flood the non-vein component of the sample. Visually estimated sulphide abundances: 6% pyrite, 2.5% chalcopyrite and 0.1% molybdenite. HQ core is 63.5 mm width. (ASX 06/09/2023).

2) Intense vein stockwork



Whole HQ3 core from 710.00 m in CPW0002DD. Medium grained intrusive rock cut by multi-stage (stockwork) quartz-sulphide veins. This sample illustrates strong fine grained molybdenite mineralisation in banded quartz veins and distinct K-feldspar selvages. Visually estimated sulphide abundances: 4% pyrite, 1.25% chalcopyrite, 0.5% molybdenite. HQ core is 63.5 mm width (ASX 06/09/2023).



Cross section looking East displaying BUX holes, CPW0001DD and CPW0002DD relative to historical exploration hole RC-UC-17. (ASX 06/09/2023)

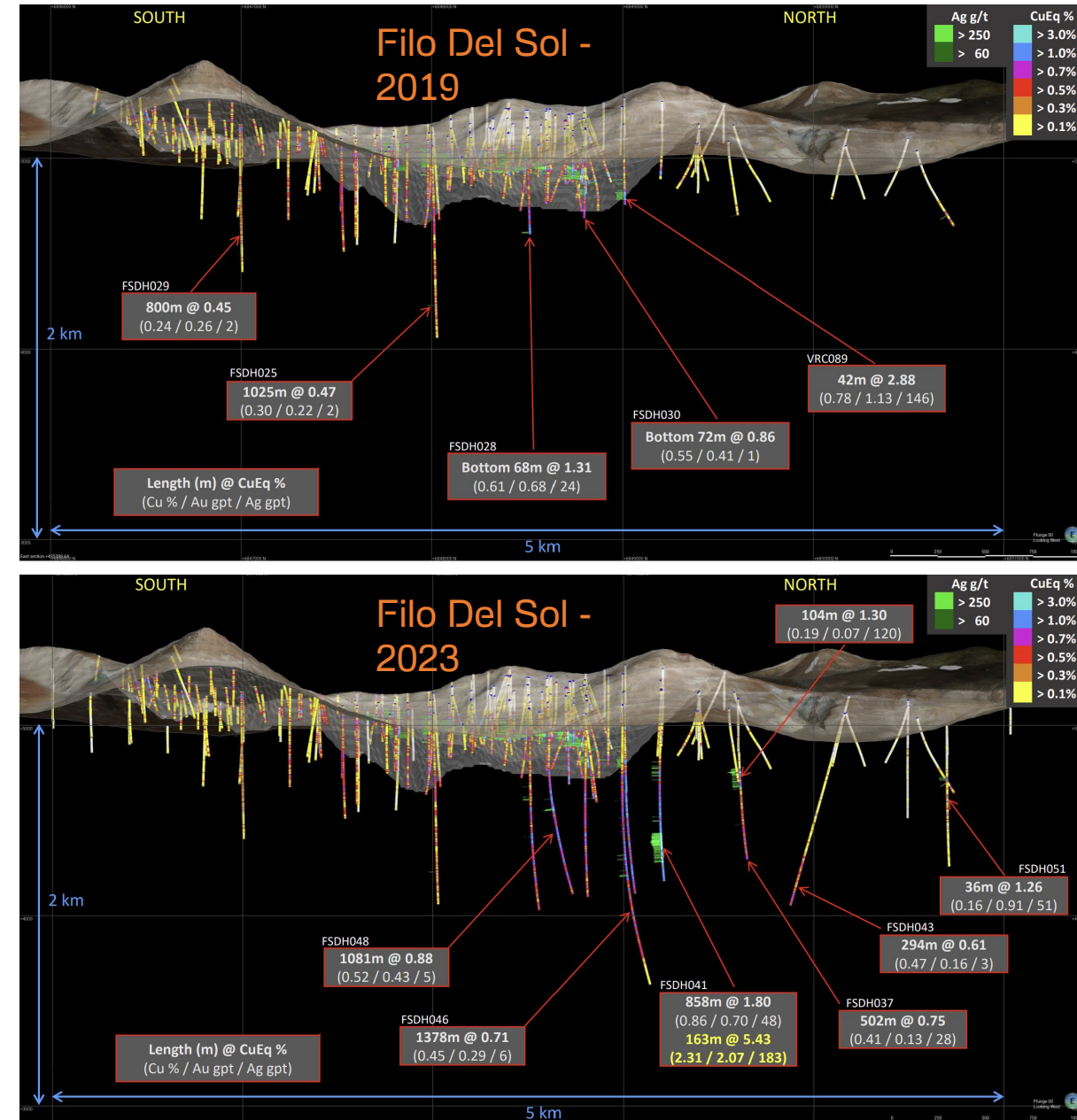


Comparison to Filo del Sol

At Filo del Sol project (Filo Corp – TSX:FIL) a widespread porphyry system had been drilled at shallow depths over 5km strike by 2019. Discovery of high-grade Aurora Zone in 2021 drove a >10x increase in FIL's market cap from CAD\$176M (31/12/19) to CAD\$2.8Bn (19/01/24).

The high grades at the Aurora Zone result from the combination of intense porphyry vein stockwork & overprinting epithermal system.

In CPW0002DD, the highest Cu grades are found intense porphyry vein stockwork overprints mafic host rocks. Exploration at Copper Wolf can now target where these two elements coincide.

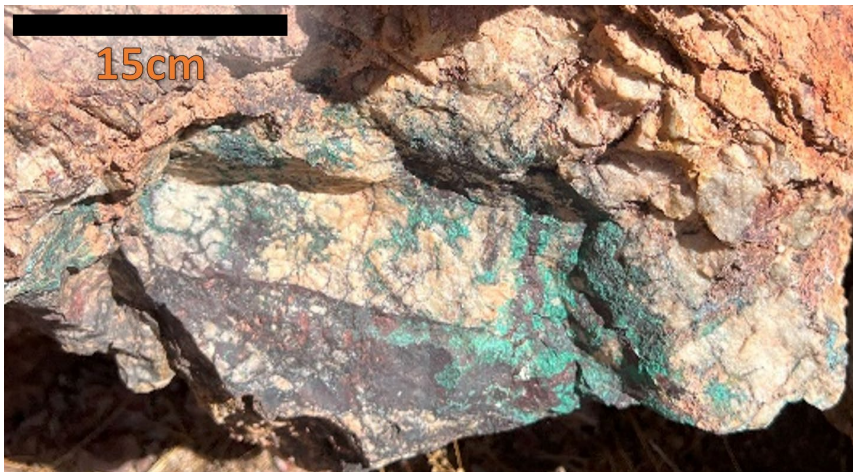
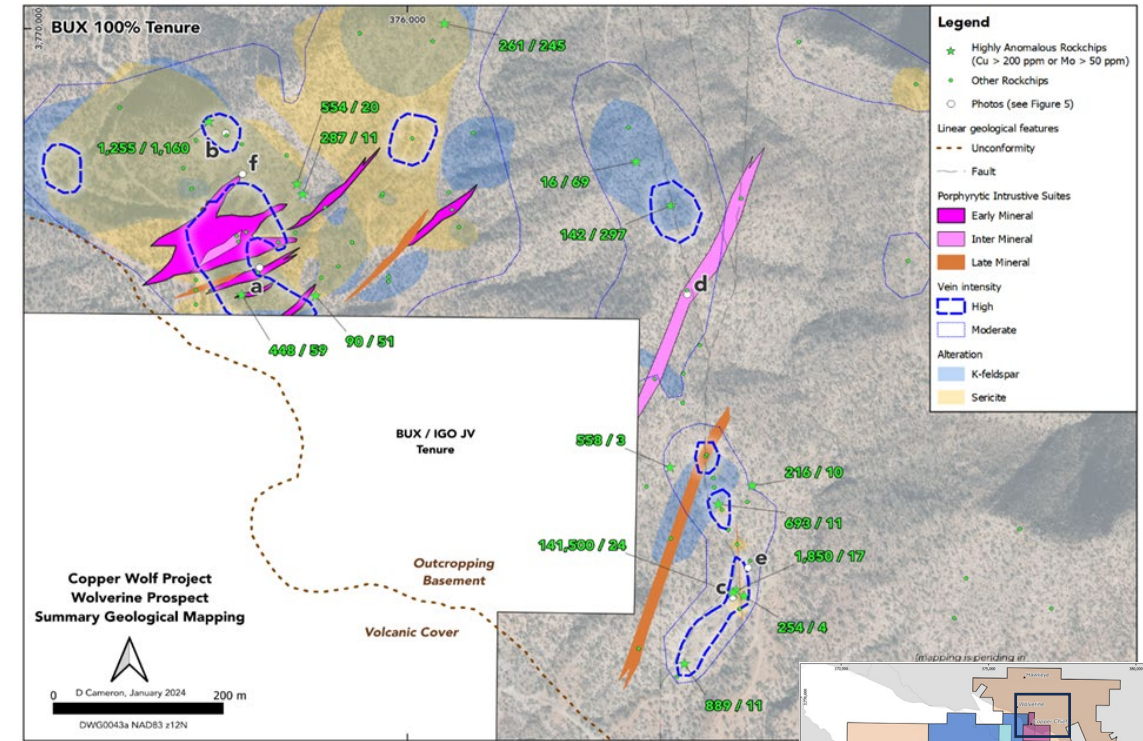


Wolverine – a fully permitted, walk-up drill target

Highly encouraging indications of a porphyry Cu-Mo system on 100% BUX tenure at the Wolverine Prospect with no volcanic cover.

Geologic mapping has revealed multiple surface exposures with:

- Porphyritic dykes comparable to CPW0002DD
- Coincident veining, k-feldspar & qtz-sericite-py alteration
- Significant Cu & Mo anomalies
- No historic drilling within the Wolverine Prospect area



Iron-oxide-malachite contained in leached outcrop proximal to mapped porphyries.



Chrysocolla staining inside iron-oxide fractures nearby to porphyritic dacitic dykes.



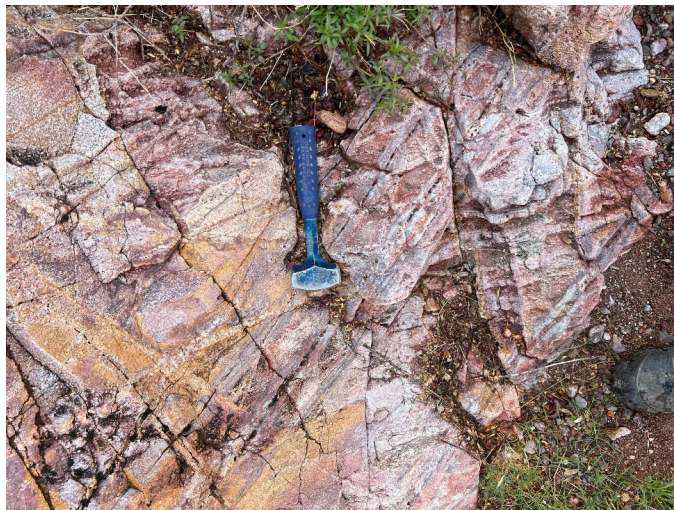
Leached plagioclase-phryic porphyry cut by quartz-iron oxide veins

Drill Targets Also Emerging on 100% Tenure In the Southwest

Similar targets emerging at Sun Devil and Aztecs, 7 km from Wolverine, also on 100% BUX tenure

Highly anomalous Cu, Mo and Ag confirmed at surface with lab assays up to 3.08% Cu, 156 ppm Mo and 9.34 ppm Ag

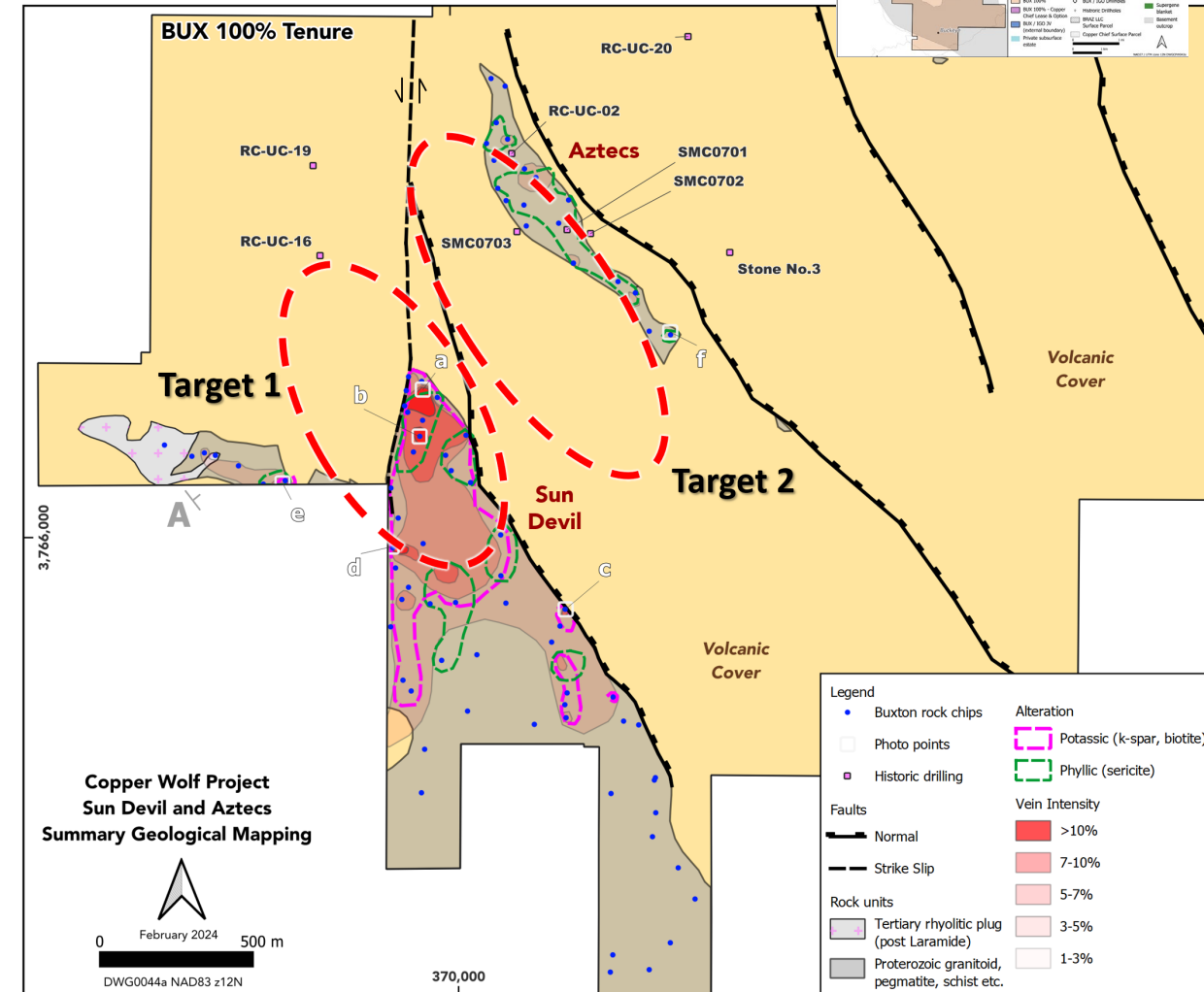
No previous drilling at Sun Devil



Outcrop dominated by quartz + iron oxide stockwork veining with k-feldspar alteration overprinted by sericite. (ASX 13/02/2024)



Sun Devil prospect sample DC0107 - 30,800 ppm (3.08%) Cu & 58 ppm Mo. Highly weathered ?Proterozoic intrusive rock with stockwork veining and supergene chrysocolla overprint. (ASX 11/03/2024)





DOGLEG

BUX 16% / IGO 64% / TT 20%



Extremely High Ni Tenor w/ Cobalt Credits

Intercept (m)			Estimated True Width (m)	Assay Results		
From	To	Length		Ni (pct)	Cu (pct)	Co (pct)
177.34	191.19	13.85	13.24	4.35	0.34	0.15
179.08	184.94	5.86	5.60	7.47	0.31	0.25

23WKDD003 Assay Results (ASX 6/11/2023)



23WKDD003 at 179.1 m - massive sulphide mineralisation with visually logged Ni and Cu sulphides (ASX 4/10/2023)

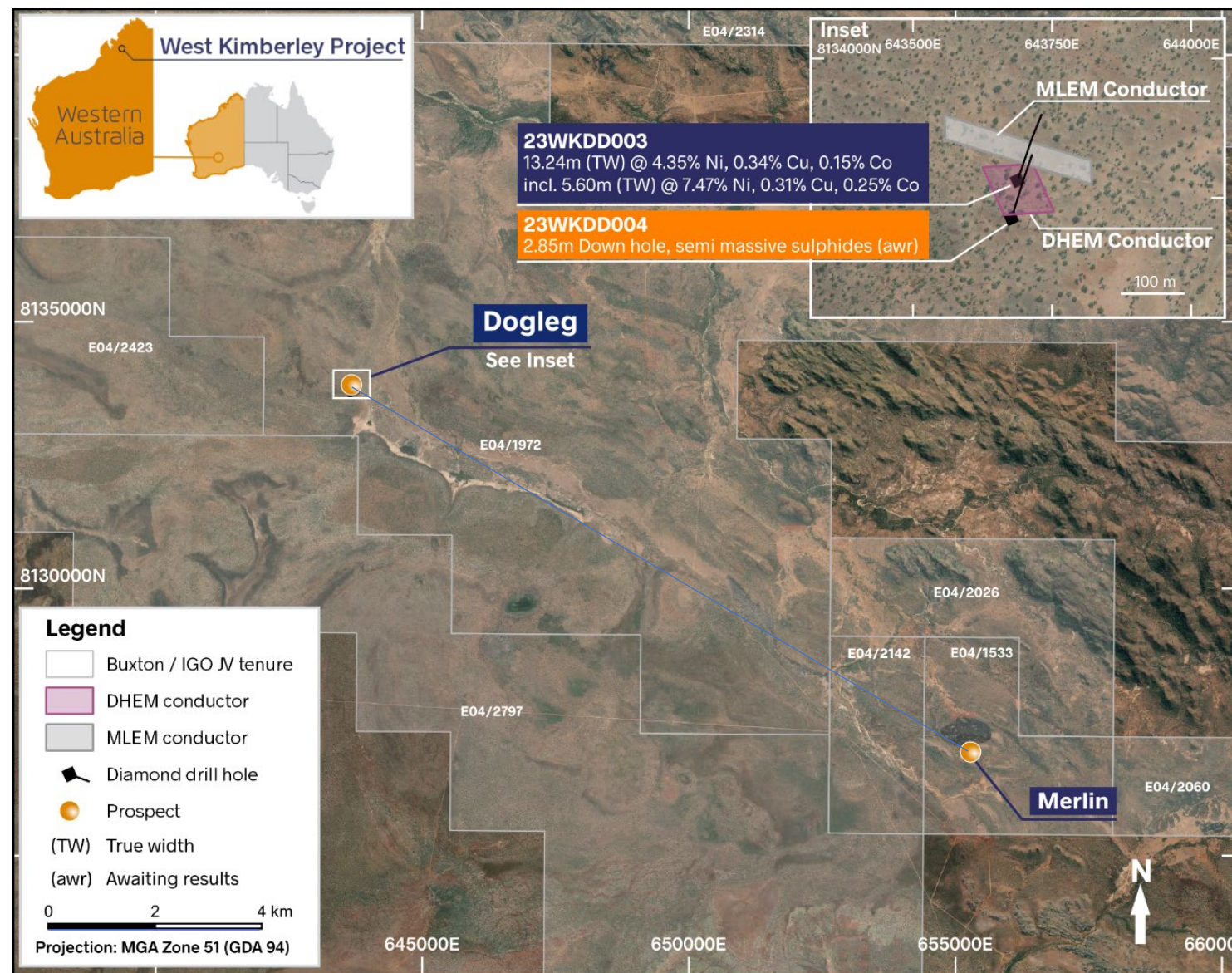


6.57 m of massive (>80%) sulphides intersected in hole 23WKDD003 at the Dogleg Prospect from 179.1 m, within a 14.7 m zone of mineralisation from 176.45 m (ASX 4/10/2023)

High tenor Ni sulphides discovered 2023 by IGO

Assay results returned from first diamond drillhole at the Dogleg Prospect: 13.85 m (True Width 13.24 m) at 4.35% Ni, 0.34% Cu, 0.15% Co from 177.34 m, Including: 5.86 m (True Width 5.60 m) at 7.47% Ni, 0.31% Cu, 0.25% Co from 179.08 m

Merlin Prospect: BUX discovery defines new magmatic nickel province West Kimberley – good grades, but too small for standalone operation. Various IGO JVs, BUX free carried through to Final Investment Decision at Merlin, Feasibility elsewhere. Merlin could conceivably provide satellite ore to an operation at Dogleg.



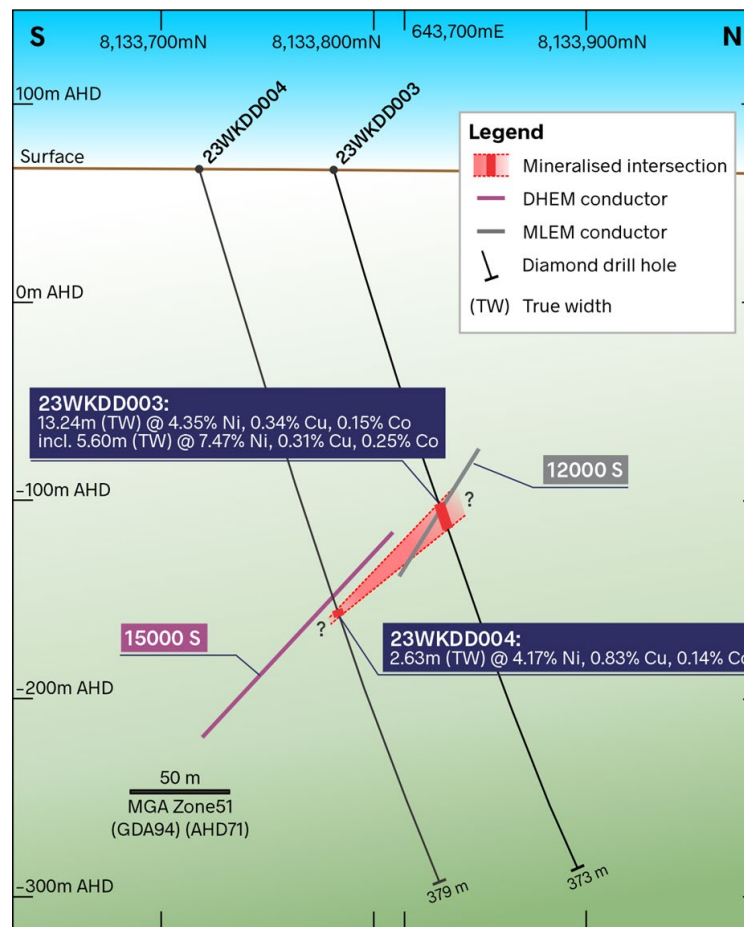
2023 DISCOVERY – EM + DRILLING

MLEM targeting magnetic features in 2022 identifies a 280 x 75 m, 12,000 Siemen conductor

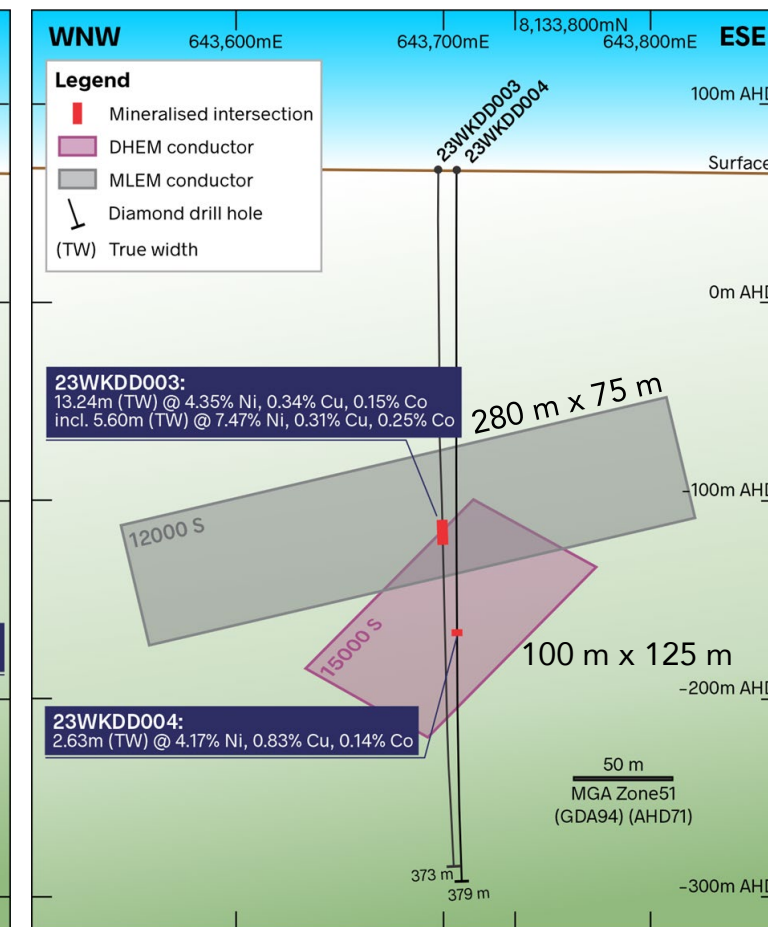
First hole (23WKDD003) intersects sulphide mineralisation hosted in the Ruins Dolerite, within Marboo Formation quartz-muscovite bearing metasediments - same geological setting as Merlin

A second hole (23WKDD004) drilled 65 m down-plunge of 23WKDD003, outside the area of the original MLEM conductor intersected 2.89 m (True Width 2.63 m) at 4.17% Ni, 0.83% Cu, 0.14% Co from 233.63 m (refer to BUX ASX announcement 01 February 2024).

23WKDD003 and 23WKDD004 show strong in-hole DHEM responses (limited effectiveness to see away from the holes). Combined interpretation of the DHEM data does suggest a potential extension of the MLEM conductor down-plunge. Modelling of the combined DHEM surveys has produced a 15,000 Siemen conductor with dimensions of 100 m x 125 m



Dogleg Cross Section (ASX 01/02/2024)



Dogleg Long Section (ASX 01/02/2024)



WA GREENFIELDS PORTFOLIO

BUX 100%



WA GREENFIELDS

100% BUX

LATERON

- Magmatic / hydrothermal Au-Cu
- Sulphide bearing quartz diorites, shallow cover
- IP surveys planned for H2 2024

SHOGUN

- Nova style Ni (Cu, PGE, Co)
- Shallow cover (<50m), No previous MLEM
- HPA negotiation ongoing

ROYALE

- Cu-Au/Mo porphyry model
- Belt scale, untested concept, shallow cover
- HPA negotiation ongoing

MADMAN

- Havieron-style Au
- Bullseye mag target
- No previous ground exploration

