

ASX Release

31 July 2021

Quarterly Activities Report for period ending 30 June 2021

Buxton Resources Limited (ASX: BUX or “Buxton”) is pleased to release the quarterly activities report and Appendix 5B for the period ended 30 June 2021 (the Quarter).

West Kimberley JV (BUX/IGO)

- Heritage protection agreements were ratified with two NT groups
- 2021 field season has now commenced
- All activities 100% funded by IGO

Narryer Project (100% BUX)

- Grant of all three EL applications is expected during the upcoming quarter
- Regional infill gravity survey expected to commence in Q3

Yalbra Project (100% BUX)

- Metallurgical studies by Elmore Ltd

Centurion Project (100% BUX)

- Magnetic Vector Inversion indicates target at approximately 700 m depth

Shogun Project (100% BUX)

- Additional application E45/5961 lodged
- Ni-Cu-PGE targets identified

New Projects (100% BUX)

- Applications for Exploration Licenses lodged at the new Chopper and Fatboy Projects

Corporate

- Cash balance (30 June 2021) of approximately \$2.8 million

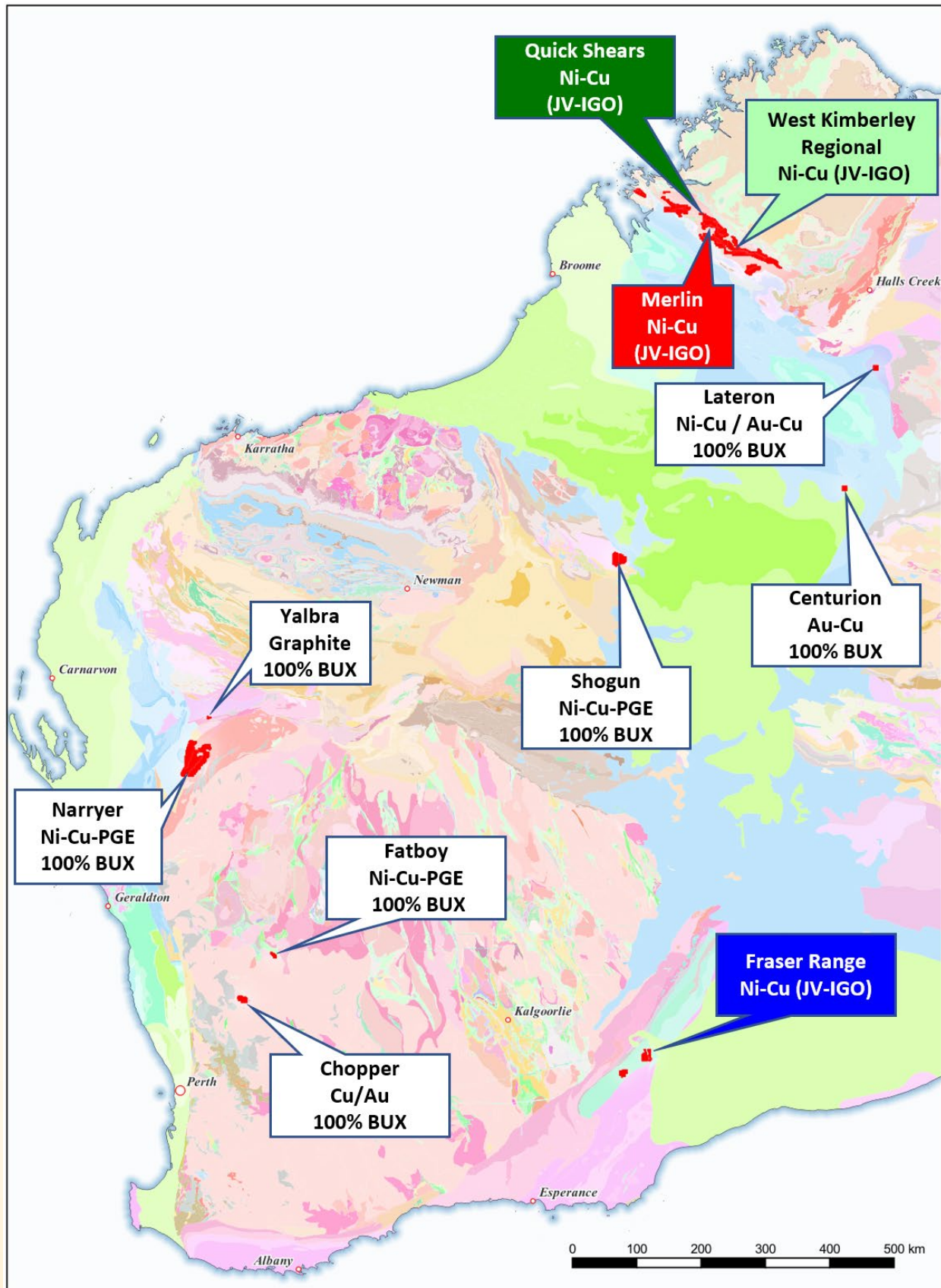


Figure 1: Buxton's WA exploration project portfolio overlaid on GSWA's 1:500k bedrock geology. Buxton has pegged several new, 100% owned portfolios in WA as a direct result of rigorous generative work over past Quarters. This has been achieved despite the very competitive landholding situation in the State. Buxton would like to thank our tenement management team at MMWC for their assistance in securing these license applications.

West Kimberley Project (BUX/IGO JV)

The West Kimberley Project is targeting Nova-style magmatic Ni-Cu sulphide mineralisation in Proterozoic belts of the West Kimberley Region of Western Australia.

During the current quarter, heritage protection agreements were ratified with two Native Title groups in the West Kimberley.

Fieldwork has now commenced in the West Kimberley with soil sampling and stream sampling underway over target areas identified from airborne geophysics flown previously.

Narryer Project (100% BUX)

The Narryer Project is targeting magmatic Ni-Cu-PGE sulphide mineralisation along the Yilgarn Craton margin in a similar setting to DM1's recent sulphide discoveries at Innouendy and Irrida Hill prospects. During the current quarter Buxton continued to progress the three applications to grant which is expected in the following quarter.

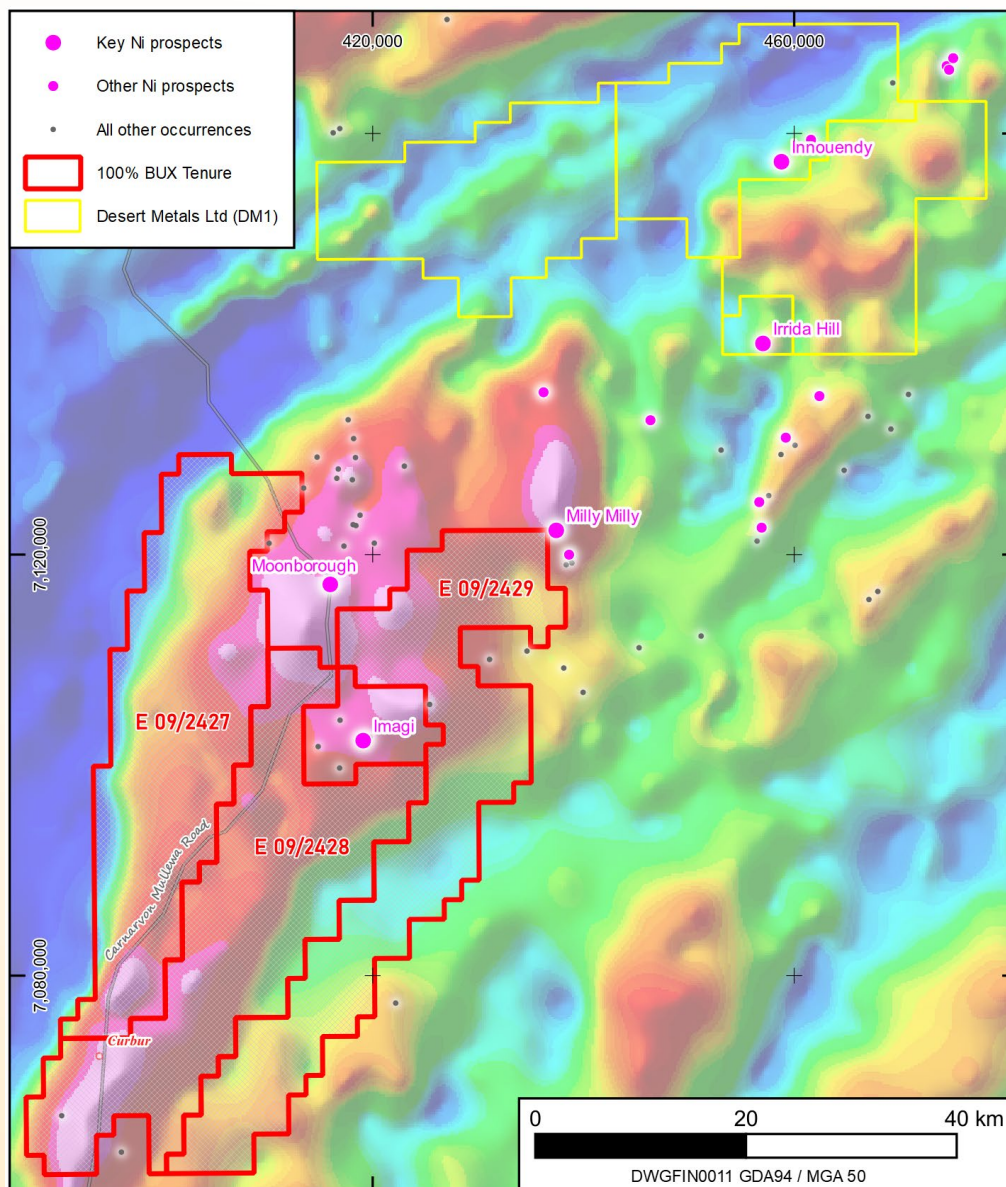


Figure 2: Narryer Project tenements on gravity image

Yalbra Project (BUX 100%)

The Yalbra Graphite Project is located 250km northwest of Meekatharra and 280km East of Carnarvon, Western Australia. In July 2014, Buxton completed the most recent of a series of RC and Diamond drilling programs. An updated JORC compliant Mineral Resource Estimate was calculated for the main zone of graphite mineralisation located within the boundaries of E09/1985. The Inferred Mineral Resource at Yalbra is 4.0Mt @ 16.2% TGC, using a 4% TGC cut-off (see ASX announcement 24th October 2014).

During the current Quarter, Elmore Ltd have reviewed Buxton's extensive library of sample material and undertaken flotation test work with a view to utilising their process equipment and technical expertise to develop an optimised metallurgical process for the Yalbra Project. This work will continue over the coming Quarter.

Lateron Project (BUX 100%)

The Lateron Project presently consists of application for Exploration License E80/5545 on unclaimed crown land approximately 10 km East of Billiluna and 150 km South of Halls Creek in Western Australia.

This application covers magnetic anomalies related to sulphide bearing mafic / ultramafic intrusions intersected during historic exploration in the early 1980s which for which assays were not reported at the time, and which have not since been followed-up.

Historic diamond drilling by AFMECO in 1982 targeted roll front uranium mineralization in Paleozoic sediments. One of these holes intersected shallow "basement" rocks at 77.5 m vertical depth in hole S-19. The drill logs for this hole indicate the basement lithology consists of "basic, foliated, coarse grained pyroxenite containing abundant pyrite, hematitic quartz veins and dolerite differentiations". AFMECO reported no geochemical assay results for any of their drill holes which were instead systematically logged by a geophysical tool sensitive only to uranium mineralisation.

Detailed (150 m line spaced) airborne magnetic surveys indicate that this suite of mafic-ultramafic intrusive rocks is partially remnantly magnetised and underlies an area of approximately 7 km².

Recent (2017) airborne gravity surveying indicates that a discrete gravity anomaly is also associated with these intrusions (Figure 3).

Buxton intends to investigate the potential for magmatic and/or hydrothermal base & precious metal mineralisation associated with these sulphide bearing intrusions. During the current Quarter, Buxton continued desktop compilation, data analysis and local stakeholder engagement with a view to conducting a field reconnaissance in the following Quarter.

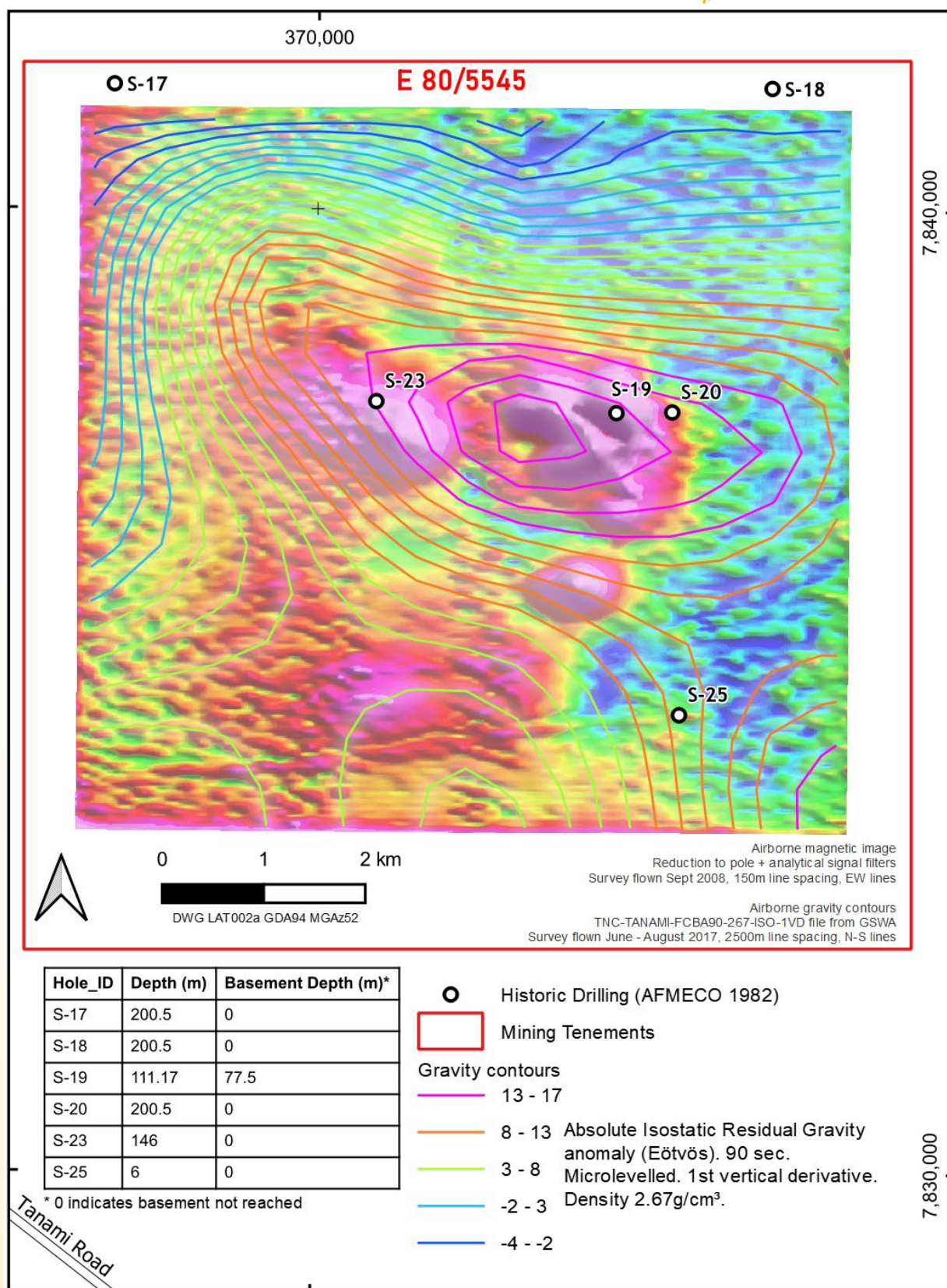


Figure 3: Lateron Project airborne magnetic image (analytical signal filter) with airborne gravity contours. Historic diamond drilling by AFMECO in 1982 targeting roll front uranium mineralization intersected shallow “basement” rocks at 77.5 m vertical depth in hole S-19 comprising a “basic foliated coarse grained pyroxenite containing abundant pyrite, hematitic quartz veins and dolerite differentiations”. No assays were reported, and the other AFMECO drillholes in the tenement did not penetrate the cover sequence.

Centurion Project (BUX 100%)

Buxton previously lodged an application for Exploration License E80/5545 located approximately 180 km south-southwest of Balgo Western Australia on unclaimed crown land and accessible via shire roads and several 1960s-1980s seismic lines.

This license covers a prominent dipolar magnetic anomaly exceeding 1,500 nanoteslas in amplitude and 3,500 m by 5,000 m in extent. The GSWA have recently released data from a 2017 Falcon airborne gravity gradiometer survey which reveals a similarly dipolar gravity high in a slightly offset position to the magnetic feature (Figure 4). Such relationships between magnetic and gravity features is characteristic of Iron Oxide Copper Gold deposits including Olympic Dam and Prominent Hill.

During the current Quarter Buxton was provided results from Magnetic Vector Inversion of open file 400 m line spaced magnetic data thanks to IGO Ltd (Figure 5). This inversion indicates that the target is remnantly magnetised and is approximately 700 metres below ground level.

Buxton intends to incorporate analysis of gravity and seismic datasets, along with progressing access agreements to support infill ground gravity and magneto-telluric surveys and a co-funded drilling grant proposal.

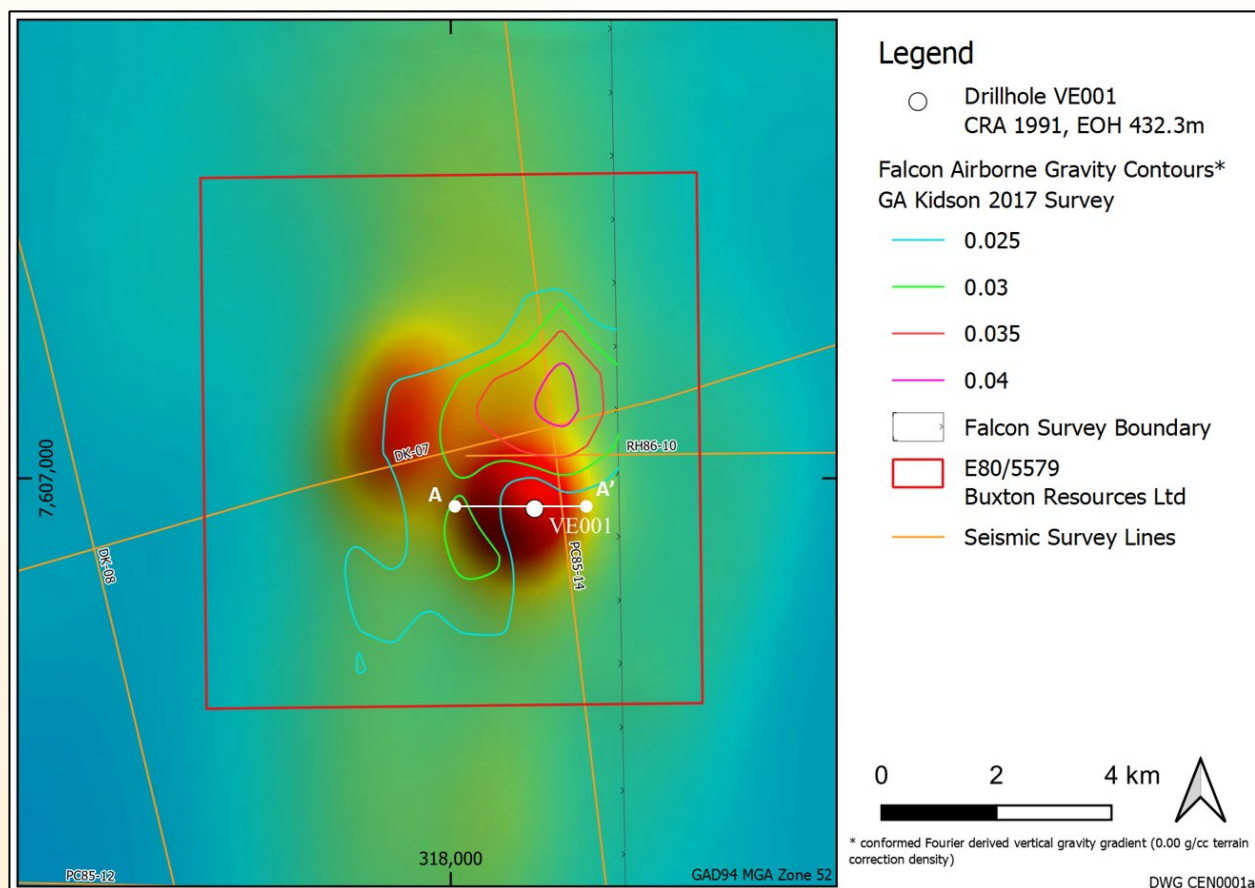


Figure 4: Centurion Project summary geophysical target map showing CRA drillhole VE001, contoured 1VD airborne gravity gradiometer data from the recently released Kidson 2017 survey on GSWA's open-file magnetic imagery. Note that the airborne gravity survey only partially covers the Exploration License.

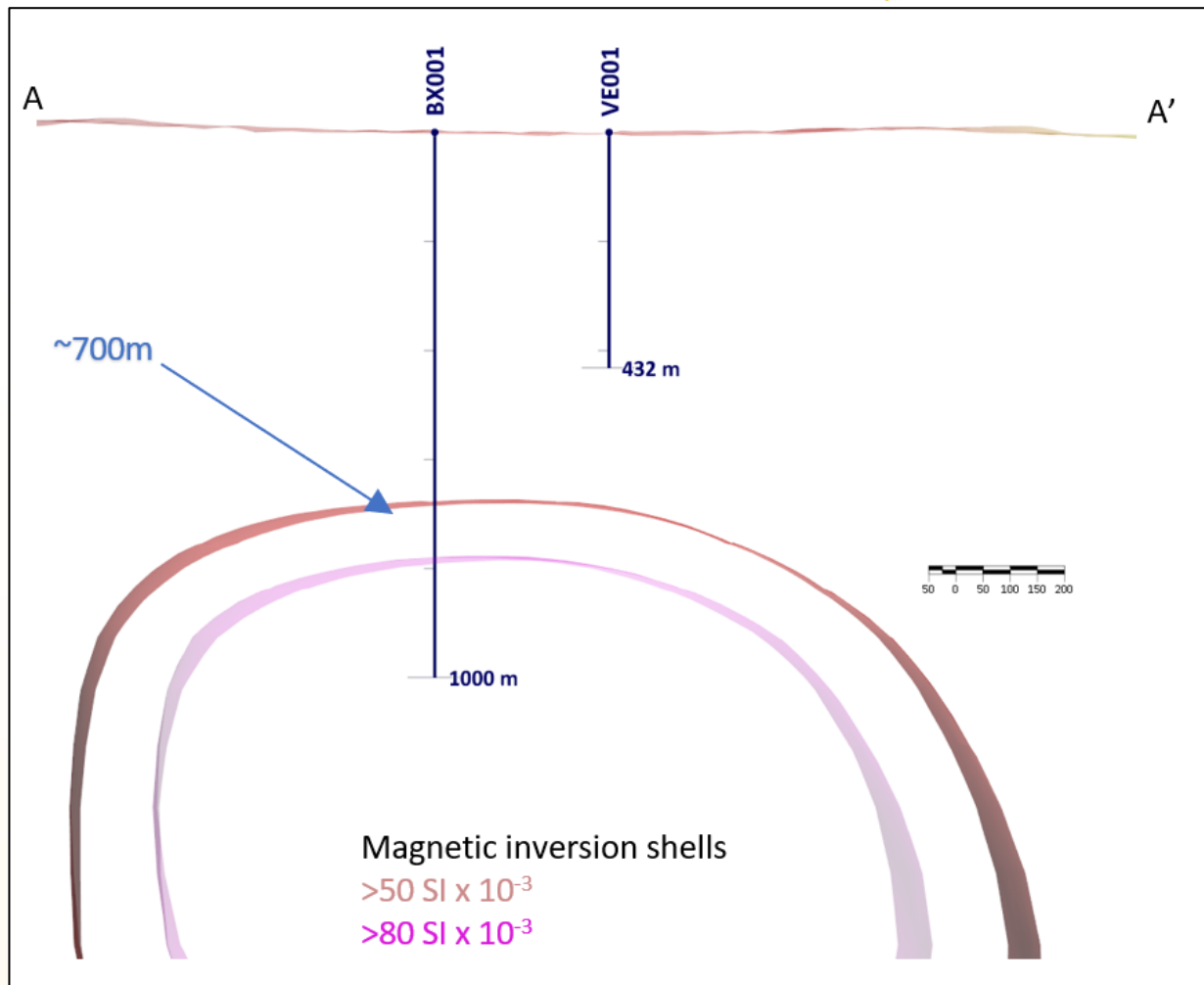


Figure 5: Centurion Project cross section A-A' (see Figure 1 for location). The airborne magnetic data inversion by IGO Ltd is presented as shells with the historic CRA hole VE001 and an indicative planned hole BX001.

Shogun Project (BUX 100%)

Buxton lodged application for Exploration License E45/5961 on 21st July 2021. The new application is contiguous with Buxton's application E45/5892 lodged in previous Quarter. Together these two applications cover an area of 451 km² approximately 170 km southeast of Telfer in Western Australia on unclaimed crown land adjacent to the Canning Stock Route (Figure 6).

The Shogun Project is located within the Tabletop Terrane of the Rudall Province and the Paterson Orogen. The Rudall Province forms a northwest trending belt of deformed and metamorphosed Proterozoic sedimentary and igneous rocks which are located along the West Australian Craton margin.

Unconsolidated windblown and alluvial sediments cover virtually the entire Tabletop Terrane, however historic exploration, including regional airborne magnetic and electromagnetic data along with exploration company mapping and shallow drilling indicate that this cover sequence is typically <20m thick in the Project area.

Previous exploration in this area by MIM in the late 1970s-early 1980s targeted diamondiferous kimberlites and tin. During this phase of work the nearby shear-hosted Cu-Ag-Au-Pt-Pd

mineralization at Copper Hills was discovered and this prospect has subsequently experienced the most exploration activity.

Buxton has identified a series of high amplitude density anomalies from a recently released Falcon helicopter gravity gradiometer survey flown by GSWA in 2017 (Figure 7). These anomalies cover an aggregate area of 33.5 km².

MIM's work within the Shogun Project area included soil geochemistry, heavy mineral concentrate (HMC) sampling, and shallow (maximum 24 m depth) percussion drilling. MIM's HMC sampling identified an unusual emerald-green spinel (the precise mineralogy was not confirmed), red spinel and enstatite (orthopyroxene) close to one of the new gravity gradiometry anomalies. MIM's soil sampling included assays for nickel, and the highest nickel assay (183 ppm) correlates with the highest amplitude gravity gradiometry anomaly despite the surficial dune systems that blanket the Project area. Elsewhere in the district, MIM's HMC sample analysis identified tremolite, platinoids and chromite. Of the five drillholes in the Project area, only one (TP 170) penetrated the cover sequence at 10 m depth to intersect a doleritic lithology which was not sampled for geochemistry or petrology. These data from MIM's work indicate that substantial volumes of magic-ultramafic intrusive rocks are located within the Project area.

One of the gravity gradiometry anomalies is also a prominent magnetic feature. This was baptised the "Blaine Plug" by Marengo Mining who were also targeting diamonds. Marengo drilled hole BLC001 in 2004 and this RC hole intersected serpentinised peridotite below 33 m of unconsolidated cover sediments.

Marengo's assays suggest that this peridotite is tholeiitic and highly depleted in nickel and PGE (Figure 8). The two least weathered samples (solid squares on the graphs below) average ~0.2% sulphur, and petrological analysis of drill chips from this interval report traces of chalcopyrite and violarite (copper and nickel bearing sulphide minerals). This geochemical signature is highly encouraging for Ni-Cu-PGE exploration as it suggests that a sulphur saturation event may have occurred close to the present erosional level and is presently within reach of modern high powered electrical geophysical tools.

Serpentinisation is a post-magmatic alteration process that commonly affects ultramafic rocks and typically results in the formation of magnetite. This explains the Blain Plug magnetic anomaly. However, these alteration zones may be structurally controlled and localised. Any unaltered zones within the mafic-ultramafic intrusions would therefore not form prominent airborne magnetic anomalies although they will likely be evident as prominent gravity anomalies. Given the recent availability of high-resolution gravity in the area, such intrusions may now be readily apparent for the first time as depicted on Figure 7.

In summary, the Shogun Project presents several excellent regional and prospect-scale prospectivity indicators for magmatic nickel-copper-PGE mineralisation related to the Proterozoic-Cambrian Large Igneous Provinces in the region.

Buxton will continue to progress these applications toward grant during the coming Quarters. Field reconnaissance will be conducted when access to the Canning Stock Route Track becomes possible.



Figure 6: Shogun Project location map showing BUX's EL applications, several other major mineral deposits related to the Paterson Orogen / Tabletop Terrane (GSWA, 2017), the nearby Copper Hills prospect, and the inferred trace of the West Australian Craton margin (GA, 2018).

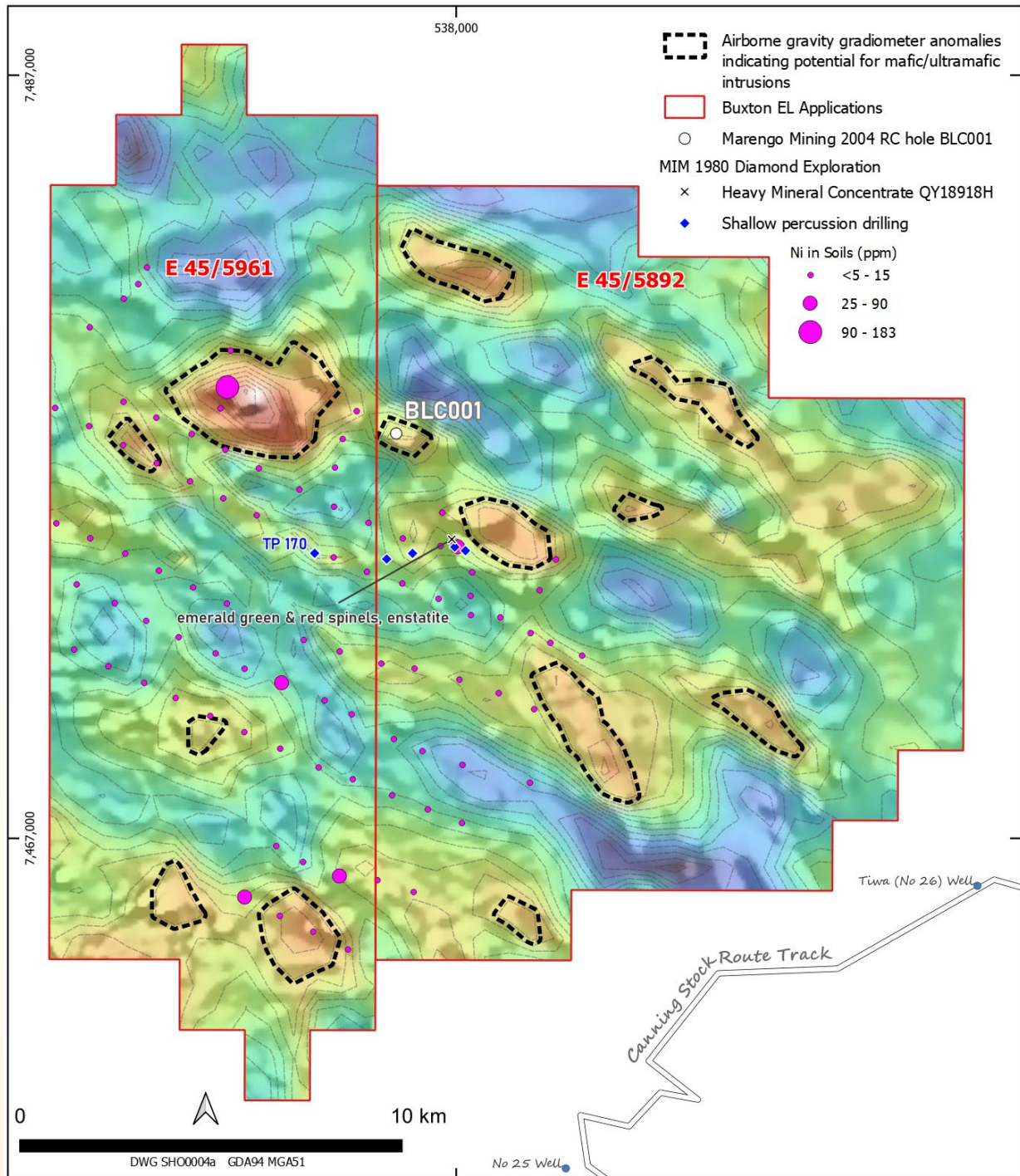


Figure 7: Gravity contours / colour image (1VD of gdd) on 1VD magnetic greyscale background. Application E45/5961 was submitted during the current Quarter. The map shows several of the factors supporting Ni-Cu-PGE prospectivity, including chalcophile depleted ultramafic rocks intersected in BLC001, mafic rocks in TP 170 (other holes did not reach basement), mafic-ultramafic indicator minerals in HMC sampling (including unusual spinel colours) and elevated nickel in soils. All drilling and soils data are shown. No additional historical sampling has been undertaken in any of the gravity anomalies. The project is readily accessible along the Canning Stock Route Track.

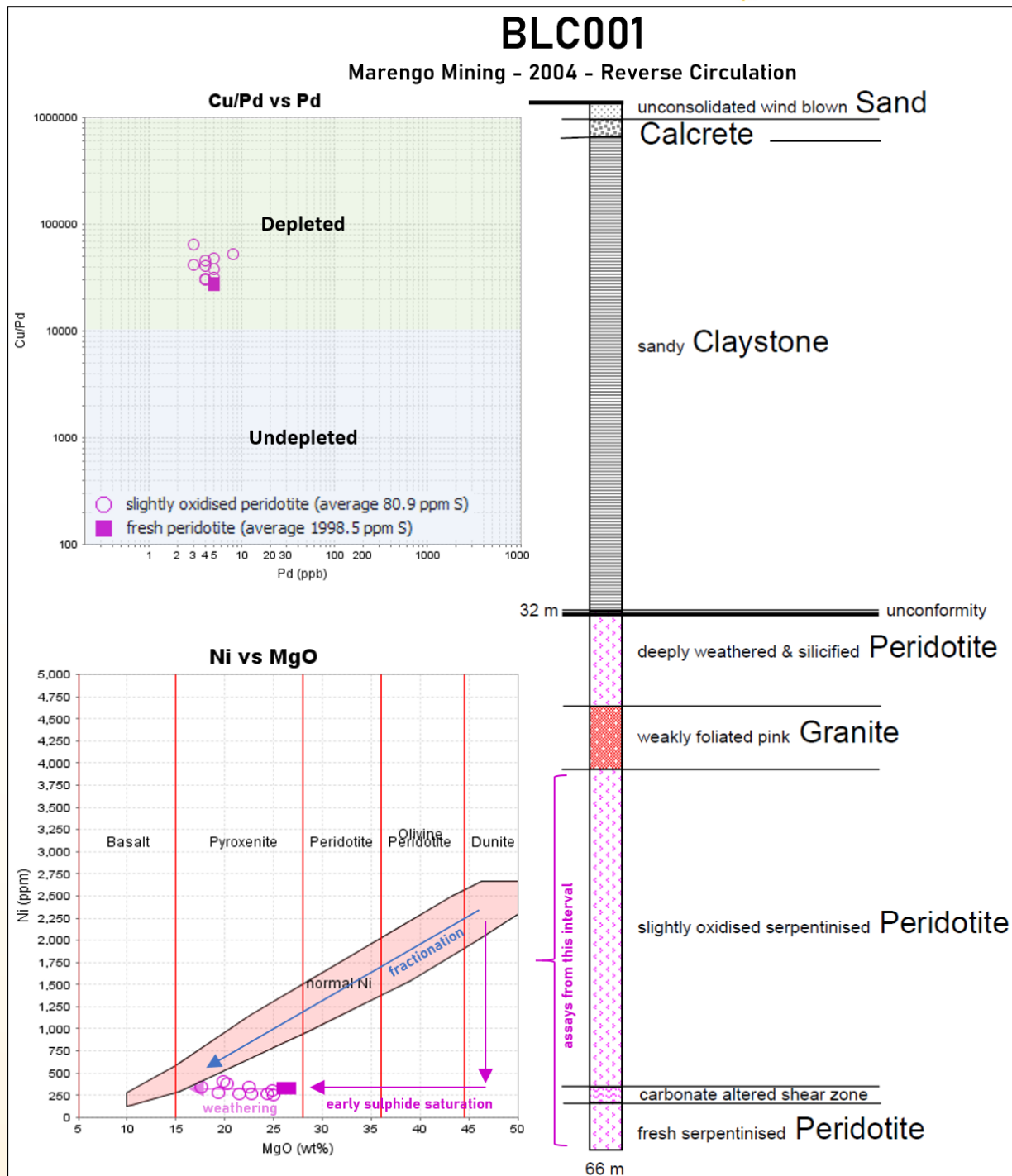


Figure 8: Buxton's compilation of drill log with assay data from below 42m for Marengo Mining 2004 RC hole BLC001. The assays indicate the peridotite is highly depleted in Ni-Cu-PGE. A sulphide saturation and segregation event has therefore occurred during the magmatic emplacement of the Blaine peridotite. These "missing" metals have potentially been concentrated and preserved as a massive sulphide deposit associated with ultramafic intrusive rocks nearby.

New Projects

Chopper Project (BUX 100%)

During the current Quarter, Buxton lodged application for Exploration License E 70/5819, located near Dalwallinu in Western Australia. The application covers a drainage basin that hosts water bores with highly anomalous copper analyses in sampling by the WA Department of Water (Figure 9).

Buxton considers the area to have potential for skarn/porphyry style copper-gold mineralisation related to porphyritic and magnetite/amphibole bearing granitoids and tightly folded metasediments similar to the Caravel Copper Project. Buxton will undertake further data review, compilation and field assessment during the coming Quarter.

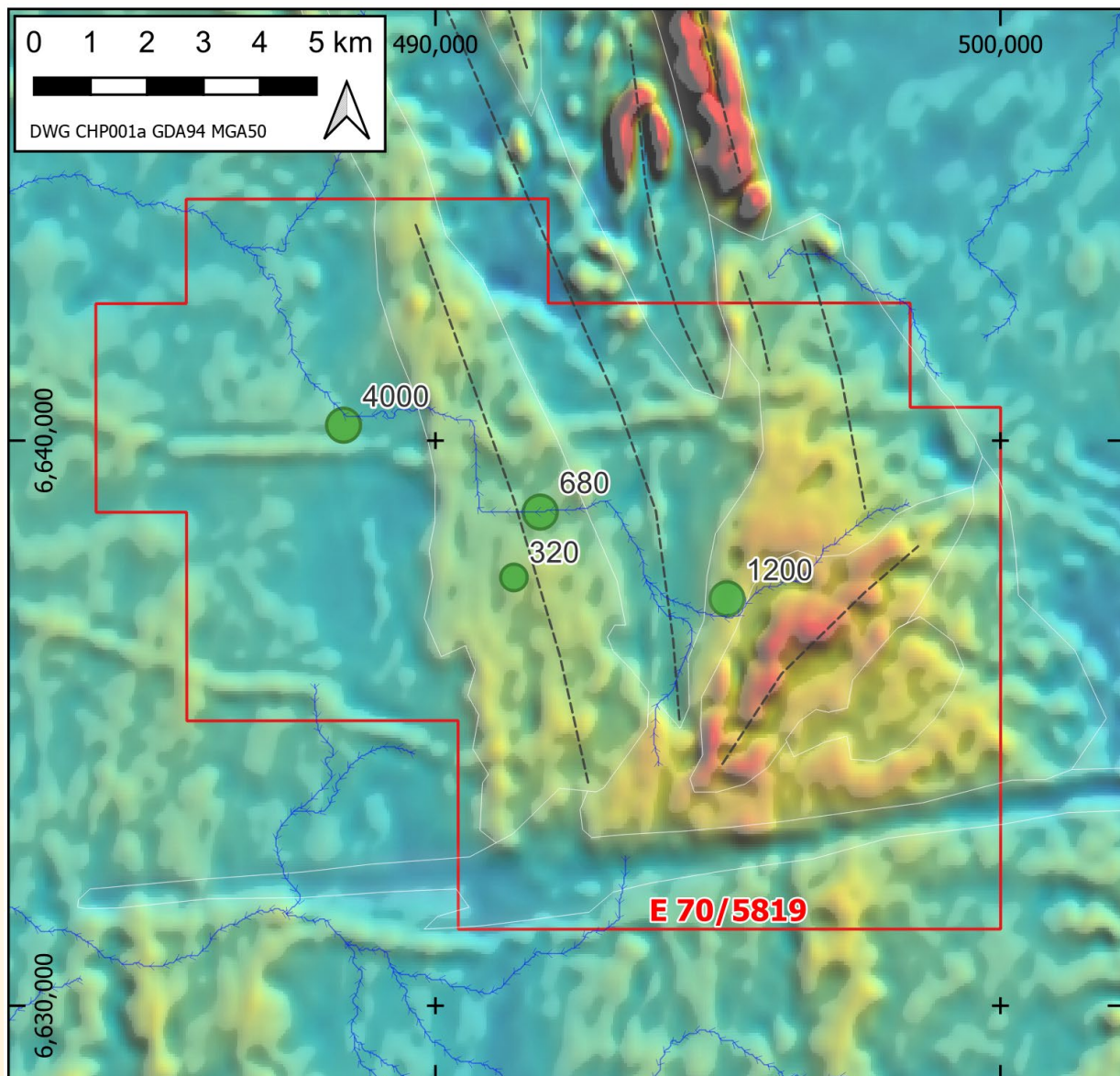


Figure 9: Chopper Project E70/5819 with copper (ug/l) in DoW water monitoring bores, drainage vectors and open file magnetic imagery with interpreted fold axes and generalised magnetic units. Groundwaters become more acidic in the lower reaches of the drainage, resulting in higher copper solubility / abundances (4,000 ug/l result). More neutral groundwaters occur in the upper reaches where 1,200 ug/l Cu was recorded. This pattern suggests a potentially proximal source for the copper in the southeast of the license application where an anomalous structural orientation is evident in the mag.

Fatboy Project (BUX 100%)

Buxton lodged application for Exploration License E 59/2595, located 90 km northeast of Wubin in Western Australia, on 12th July 2021.

The Fatboy application covers a structurally anomalous “keel zone” in the mafic-ultramafic Singleton Formation, which is part of the Yalgoo-Singleton greenstone belt. The keel zone consists of a ultramafic rocks which GSWA 1:250,000 scale mapping indicates form the basal part of the Mt Singleton Syncline mafic / ultramafic sequence. These rocks may represent the feeder system to the large volumes of mafic/ultramafic rock found in the syncline.

The tenement covers an area where the keel zone appears to have been structurally dislocated from its basal position and juxtaposed against the main body of the syncline at the current erosional level. Several gravity anomalies are apparent in this area and unconsolidated sediments appear to cover the southernmost portion of the keel zone (Figure 10).

The only previous exploration in the tenement was undertaken by Dragon Energy in 2013 targeting Mt Gibson style gold mineralisation. Their work was limited to stream sediment sampling which highlights the keel structure zone as being most anomalous in Cu/Ni. Dragon surrendered the license as the gold results were not anomalous.

Buxton considers the tenement to be prospective for Ni-Cu-PGE deposits. Further data review, compilation, stakeholder engagement and field assessment will be conducted during the coming Quarter.

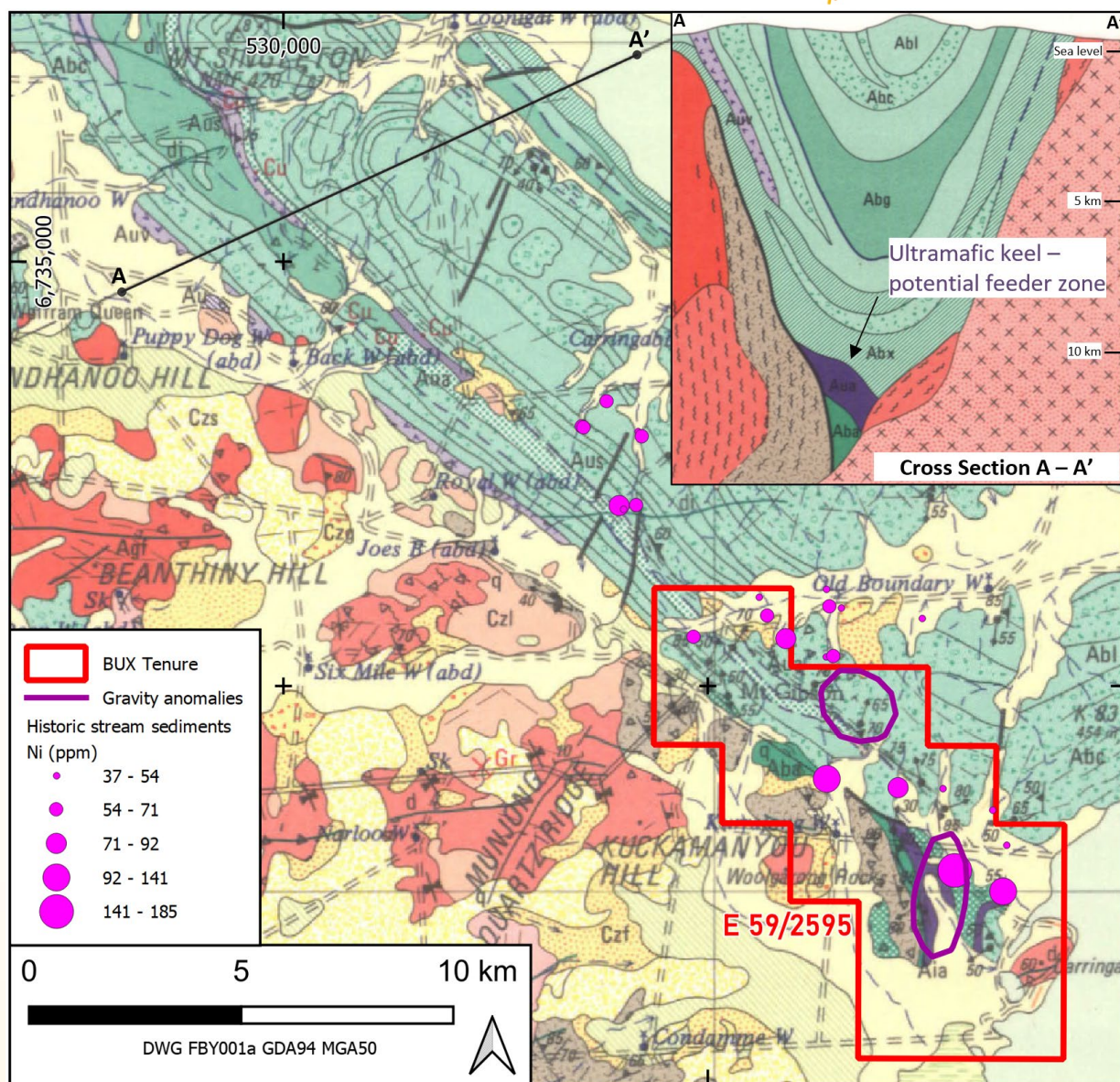


Figure 10: Fatboy Project geological map and section (from GSWA Ninghan 1:250,000 sheet) with BUX tenure, open-file gravity anomalies, Dragon Energy stream sediments.

Corporate

The Company's Quarterly Cashflow Report (Appendix 5B) follows this activities report. The Company had \$2.8 million in cash as 30 June 2021.

Exploration Expenditure for the quarter was \$83k with most of this expenditure being associated with project generation and desktop assessment activities in support of the Narryer, Lateron and Centurion Projects, along with the tenement applications at the Shogun and Chopper Projects, and other ongoing project assessment. Buxton is also continuing to actively pursue copper opportunities in the USA.

The aggregate amount of payments to related parties and their associates included in the current quarter cash flows from operating activities were approximately \$74k comprising directors fees, salaries and superannuation.

Corporate and other administration expenditure was \$50k for the quarter which represents general costs associated with running the Company, including ASX fees, legal fees, rent, etc..

Cash outflows for the quarter were in line with management expectations. The company is adequately funded to continue its current activities and will continue to demonstrate appropriate fiscal restraint.

This announcement is authorised by the Board.

For further information please contact:

Eamon Hannon
Managing Director
ehannon@buxtonresources.com.au

Sam Wright
Company Secretary
sam@buxtonresources.com.au

Competent Persons

The information in this report that relates to Exploration Results is based on information compiled by Mr. Eamon Hannon Fellow of the Australian Institute of Geoscientists. Mr. Hannon is a full-time employee of Buxton. Mr. Hannon 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. Hannon consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Appendix 1: Changes in interests in mining tenements - Buxton Resources Ltd

01/04/21 – 30/06/21

Interests in mining tenements relinquished, reduced or lapsed	Tenement	Location	% at beginning of quarter	% at end of quarter
	E15/1719	Goldmember Project*	100	0
	E28/2922	Goldmember Project*	100	0
	E28/2620	Woodline Project*	100	0

Interest in mining tenements acquired or increased	Tenement	Location	% at beginning of quarter	% at end of quarter
	ELA45/5961	Shogun Project*	0	100
	ELA78/5819	Chopper Project	0	100
	ELA59/2595	Fatboy Project*	0	100

** applications / surrenders lodged after the end of the Quarter*

	E04/1533	Merlin - IGO JV	49	49
	E04/2026	Merlin - IGO JV	49	49
	E04/2142	Merlin - IGO JV	49	49
	E04/2451	West Kimberley - Baracus / IGO JV	0	0 (earning 16%)
	E04/2462	West Kimberley - Baracus / IGO JV	0	0 (earning 16%)
	E04/2060	West Kimberley Regional - IGO JV	20	20
	E04/2407	West Kimberley Regional - IGO JV	20	20
	E04/2408	West Kimberley Regional - IGO JV	20	20
	E04/2411	West Kimberley Regional - IGO JV	20	20
	E04/2466	West Kimberley Regional - IGO JV	20	20
	E04/2467	West Kimberley Regional - IGO JV	20	20
	E04/2468	West Kimberley Regional - IGO JV	20	20
	E04/2469	West Kimberley Regional - IGO JV	20	20
	E04/2480	West Kimberley Regional - IGO JV	20	20
	E04/2527	West Kimberley Regional - IGO JV	20	20
	E04/2530	West Kimberley Regional - IGO JV	20	20
	E04/2536	West Kimberley Regional - IGO JV	20	20
	E04/2549	West Kimberley Regional - IGO JV	20	20
	E04/2550	West Kimberley Regional - IGO JV	20	20
	E04/2578	West Kimberley Regional - IGO JV	20	20
	E04/2579	West Kimberley Regional - IGO JV	20	20
	E04/2580	West Kimberley Regional - IGO JV	20	20
	E04/2581	West Kimberley Regional - IGO JV	20	20
	E04/2583	West Kimberley Regional - IGO JV	20	20
	E04/2584	West Kimberley Regional - IGO JV	20	20
	E04/2585	West Kimberley Regional - IGO JV	20	20
	E04/2609	West Kimberley Regional - IGO JV	20	20
	E04/2610	West Kimberley Regional - IGO JV	20	20
	E04/2611	West Kimberley Regional - IGO JV	20	20
	E04/2612	West Kimberley Regional - IGO JV	20	20
	E04/2613	West Kimberley Regional - IGO JV	20	20

	E04/2614	West Kimberley Regional - IGO JV	20	20
	E04/2615	West Kimberley Regional - IGO JV	20	20
	E04/2617	West Kimberley Regional - IGO JV	20	20
	E04/2629	West Kimberley Regional - IGO JV	20	20
	E04/2630	West Kimberley Regional - IGO JV	20	20
	E04/2631	West Kimberley Regional - IGO JV	20	20
	E04/2636	West Kimberley Regional - IGO JV	20	20
	E04/2648	West Kimberley Regional - IGO JV	20	20
	E04/2649	West Kimberley Regional - IGO JV	20	20
	E04/2650	West Kimberley Regional - IGO JV	20	20
	E04/2651	West Kimberley Regional - IGO JV	20	20
	E04/1972	West Kimberley – IGO/NWC/TT JV	16	16
	E04/2314	West Kimberley – IGO/NWC/TT JV	16	16
	E04/2423	West Kimberley – IGO/NWC/TT JV	20	20
	E28/1959	Fraser Range - IGO JV	10	10
	E28/2201	Fraser Range - IGO JV	10	10
	ELA09/2427	Narryer Project	100	100
	E09/2428	Narryer Project	100	100
	ELA09/2429	Narryer Project	100	100
	E09/1985	Yalbra Project	100	100
	ELA45/5892	Shogun Project	100	100
	ELA80/5579	Centurion Project	100	100
	SM-01 through SM-054 inclusive	Yavapai Co, Arizona (Federal Lode Mining Claims)	100	100

Abbreviations and Definitions used in Tenement Schedule:

E Exploration Licence ELA Exploration Licence Application P Prospecting Licence