Great Boulder
RESOURCES LIMITED

ASX Announcement
26 October 2021

Quarterly Report to 30 September 2021

ASX Code: GBR

Capital Structure

Ordinary Shares: 357m

Unlisted Options: 27.1m

Current Share Price: 17.5¢

Market Capitalisation: A$62.5m

Cash: A$5.4m

Debt: Nil

Board of Directors

Greg Hall
Non-Executive Chairman

Andrew Paterson
Managing Director

Melanie Leighton
Non-Executive Director

Melanie Ross
Company Secretary

Projects

Side Well

Whiteheads

Wellington

Yamarna (Mt Venn - Eastern Mafic)

Winchester

Highlights

- **Exploration continues to unlock the potential of the Mulga deposit, with more high-grade drilling intersections and a comprehensive, close-spaced gravity survey completed**
- **Recent high grade reverse circulation (RC) results include:**
  - **14m @ 36.12g/t Au from 91m in 21MBRC034, including 3m @ 149.89g/t Au from 91m**
  - **6m @ 24.33g/t Au from 132m, also in 21MBRC034, including 4m @ 34.86g/t Au from 134m**
  - **2m @ 9.61g/t Au from 100m in 21MBRC036**
  - **8m @ 3.63g/t Au from 72m in 21MBRC040**
- **Regional air-core (AC) drilling south of Mulga Bill extended the mineralised footprint by 1.4km, bringing the total strike extent to over 5km**
- **The Side Well gravity survey highlights large-scale untested potential at the southern end of Mulga Bill, with coincident EM and gravity anomalies extending to depth**
- **A new gold discovery 1.5km east of Mulga Bill highlights the area's potential for further greenfield exploration success**
- **At Whiteheads RC drilling at the Blue Poles discovery intersected higher-grade primary gold mineralisation at the southern end of the defined mineralisation**
- **Regional auger sampling and AC drilling programs are ongoing at Whiteheads on a campaign basis**
- **Strong cash balance with $5.4M in cash reserves as at 30 September 2021**

Executive Summary

During the quarter Great Boulder continued its aggressive field campaigns with an ongoing focus on the high-grade Mulga Bill gold prospect at Side Well, near Meekatharra in Western Australia. A total of 14,563m of RC and AC drilling was completed, on par with the June quarter (Table 1).

Two phases of RC drilling were completed at Side Well as well as a WA Government co-funded EIS program of five diamond holes. A regional AC program successfully extended Mulga Bill south by 1.4km – bringing the overall strike to over 5km – and confirmed a new discovery, the Ironbark prospect, in ultramafic rocks 1.5km east of Mulga Bill. Late in the quarter a regional AC program commenced at Whiteheads, testing a range of targets over the eastern half of the project. Assay results for this program are pending.

A detailed gravity survey was completed over the entire Side Well tenement during the quarter to improve our understanding of the project-scale architecture. The results of this survey have highlighted the southern end of Mulga Bill as a high priority target for deep drilling.

At the end of September, the Company had a cash balance of $5.4 million.

FIGURE 1: DIAMOND DRILLING AT MULGA BILL

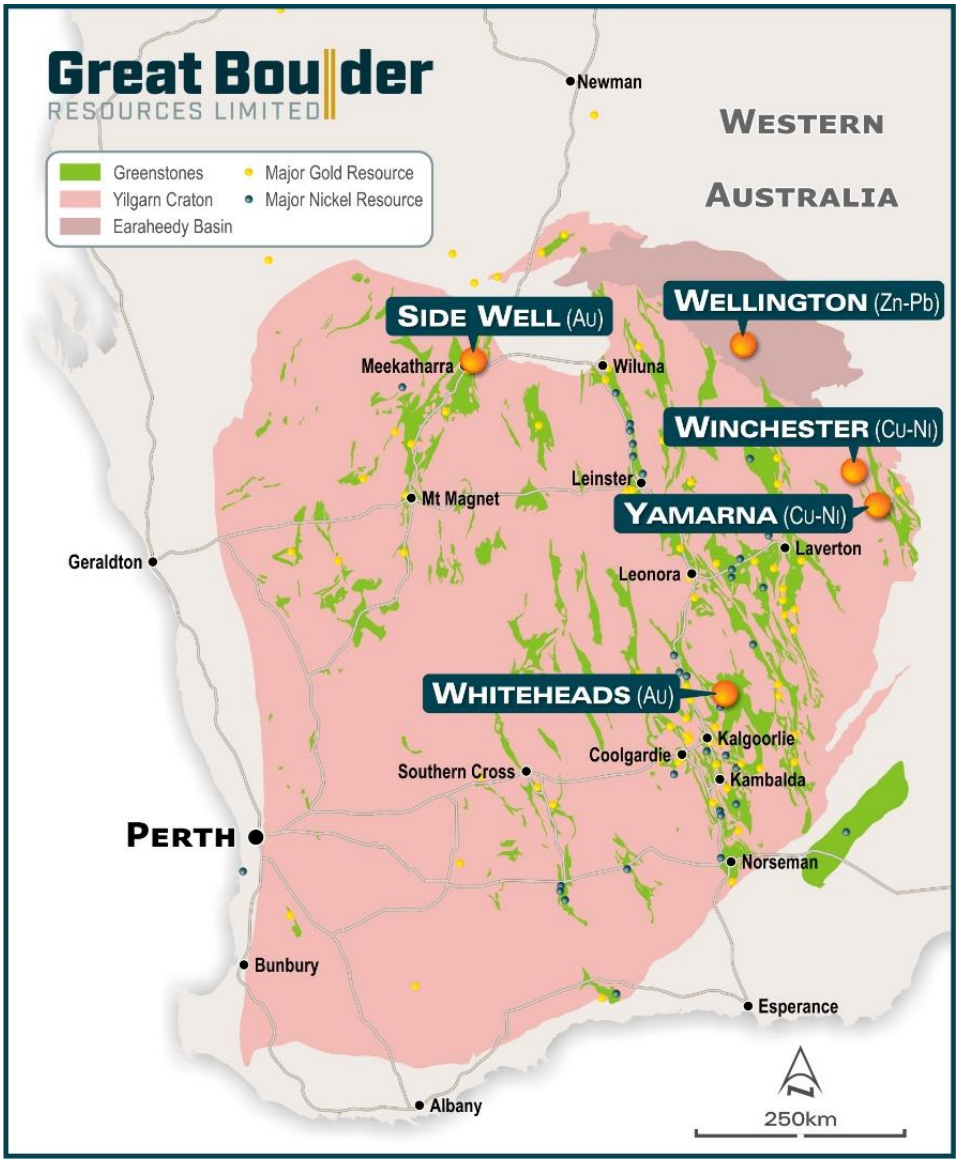


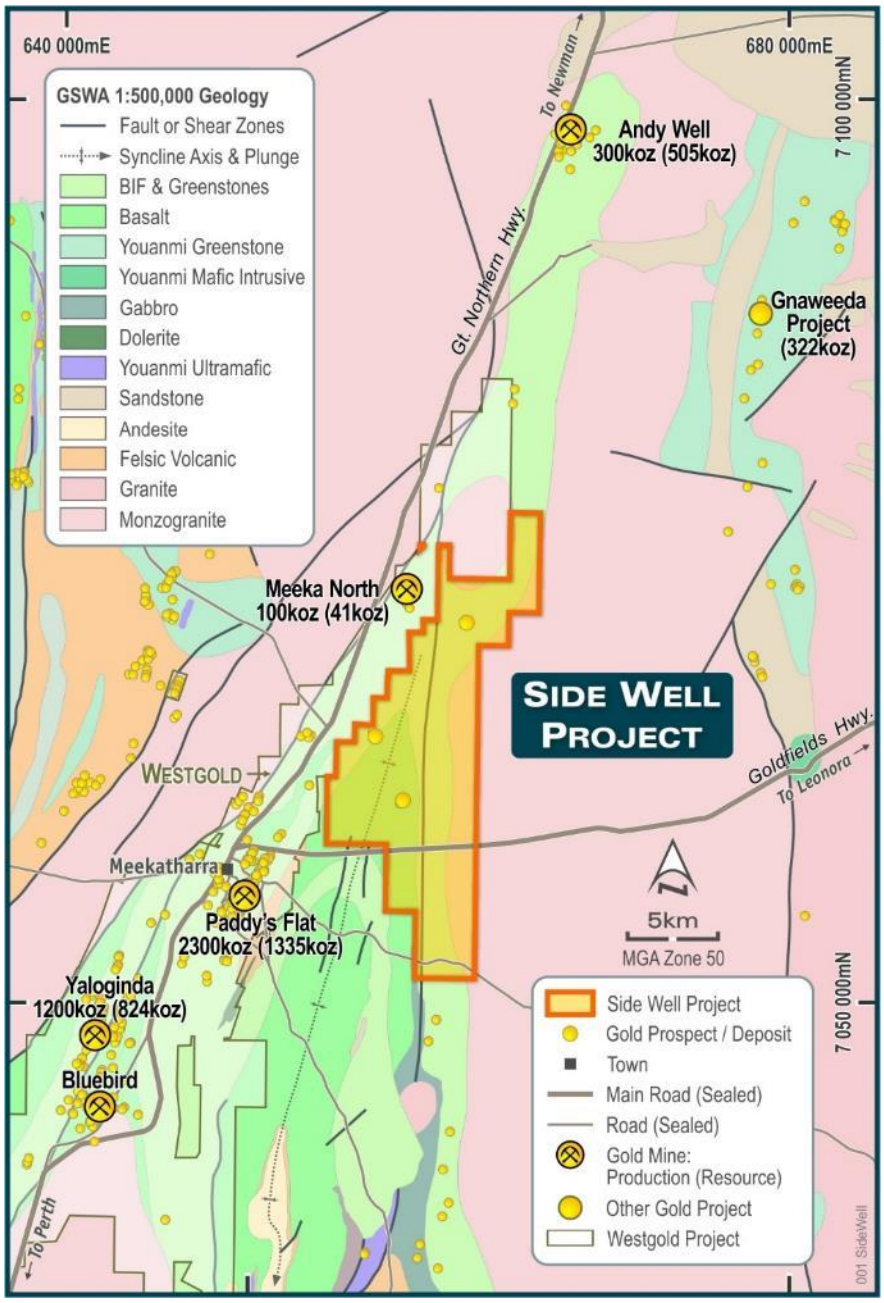
FIGURE 2: GREAT BOULDER RESOURCES' PROJECTS IN WESTERN AUSTRALIA

Project	Program	Holes Drilled	Metres
Side Well	Mulga Bill phase 3 RC	6	955
	Mulga Bill RC/DD	5	1,411
	Mulga Bill Phase 4 RC	11*	2,048
	Regional AC	63	5,949
Whiteheads	Regional AC	101	4,200
	All drilling programs	**186**	**14,563**

TABLE 1: SEPTEMBER 2021 QUARTERLY DRILLING SUMMARY

Side Well Gold Project (GBR 75%)

Side Well is a 75% joint venture with a private company Zebina Minerals Pty Ltd. Side Well consists of a single tenement, E51/1905, which contains approximately 132km^2 of the highly prospective Meekatharra – Wydgee greenstone belt over 25km of strike length.



Side Well

The Side Well project is centrally located in an area that has produced almost 4 million ounces of gold, with over 2.7 million ounces remaining in resources. Despite this, large areas of the project remain unexplored.

FIGURE 3: SIDE WELL LOCATION

Drilling

21 RC holes were drilled in the central area of Mulga Bill in two phases during the quarter, following earlier success in the Phase 1 and Phase 2 RC programs. Four of these holes were drilled as RC pre-collars for a subsequent diamond program.

During July and August five diamond holes were completed, with hole depths ranging from 231m to 369.5m. Drilling tested a range of positions within the known high-grade zones at Mulga Bill. All holes were logged for structure as well as lithology and alteration and then submitted to ALS for cutting, specific gravity measurements and assays for gold (all samples) and multi-elements (selected sample intervals).

Significant results during the quarter include:

- **14m @ 36.12g/t Au** from 91m in 21MBRC034[1], including 3m @ 149.89g/t Au from 91m
- **6m @ 24.33g/t Au** from 132m in 21MBRC034, including **4m @ 34.86g/t Au** from 134m
- **2m @ 9.61g/t Au** from 100m in 21MBRC036
- 8m @ 3.63g/t Au from 72m in 21MBRC040[2]
- 1m @ 11.01g/t Au from 89m in 21MBRC037
- 4m @ 3.34g/t Au from 88m and 3m @ 5.34g/t Au from 105m in 21MBRC039
- 8m @ 2.39g/t Au from 40m in 21SWAC101 (Ironbark prospect)

Diamond drill core revealed multiple vein orientations within a package of sub-vertical intermediate volcaniclastics. Correlation of the veins with assay data indicates the high-grade quartz veins have a shallow westerly dip and sit within a broad, sub-vertical north-south trending mineralised corridor. This vein orientation had not been recognised prior to drilling and logging the diamond holes, the design for which was based upon the presumption of steep-dipping lode structures concordant with stratigraphy. All holes drilled to this point have been oriented towards the west.

Subsequent to the end of September the Company received assays for one RC hole, 21MBRC050, which was drilled as a “scissor” hole towards the east to confirm continuity of the high-grade vein intersected in 21MBRC034 (14m @ 36.12g/t Au from 91m) and 21MBRC002 (6m @ 31.25g/t Au from 130m[3]). Hole 21MBRC050 intersected **6m @ 39.15g/t Au** from 101m[4], including **3m @ 74.51g/t Au**. This appears to support the west-dipping vein orientation. Other vein intersections in the diamond holes include **0.65m @ 42.20g/t Au** from 253.2m and **0.61m @ 41.30g/t Au** from 289.09m in 21MBRCD042.

It is worth noting that because the diamond holes were planned to intersect steep-dipping lode positions they were not drilled in an optimal location to intersect the stacked, flatter veins, and hence only hole 21MBRCD042 intersected significant high-grade mineralisation. Ongoing drilling campaigns are now taking the revised interpretation into account.

[1] ASX announcement 2/9/2021: “150g/t gold intersection at Mulga Bill”
[2] ASX announcement 28/9/2021: “New discovery at Side Well as Mulga Bill grows to 1.5km”
[3] ASX announcement 5 May 2021: “Exceptional gold grades intersected at Mulga Bill”
[4] ASX announcement 25 October 2021: “Mulga Bill high grades & geophysics upgrades size potential”

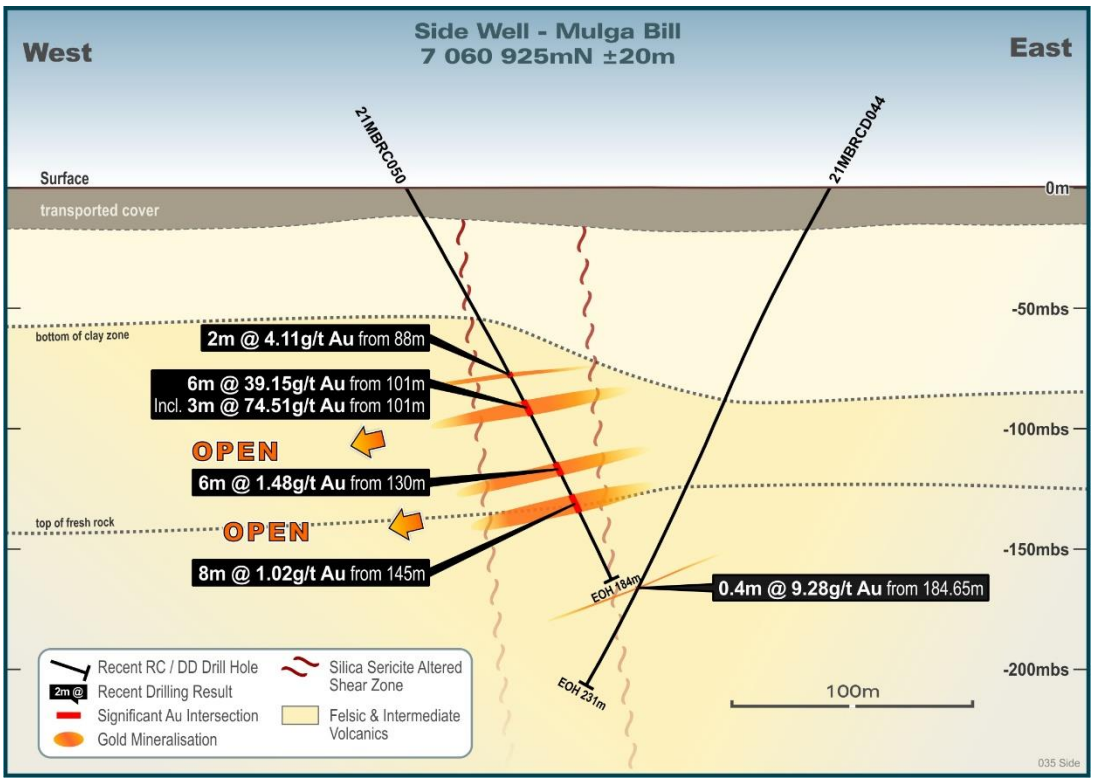


FIGURE 4: SHALLOW-DIPPING HIGH-GRADE VEIN INTERSECTIONS IN 21MBRC050

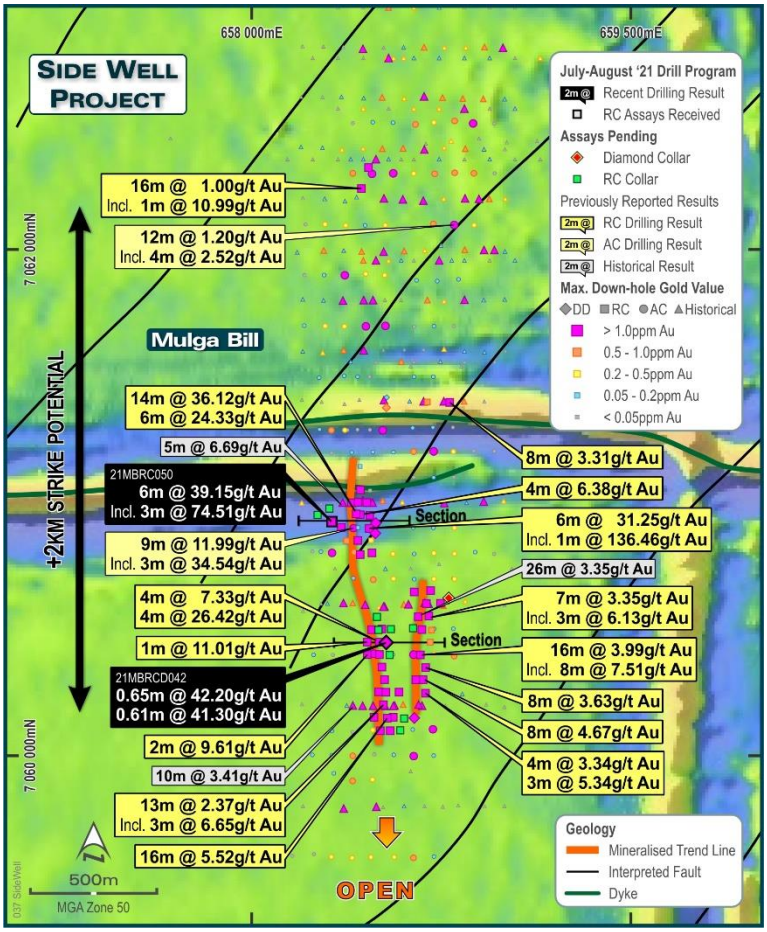


FIGURE 5: RECENT RC DRILL RESULTS AT MULGA BILL

Ironbark prospect

A new gold discovery at Ironbark is significant for several reasons. Firstly, it is the first discovery away from the known mineralisation at Mulga Bill and Matilda, and secondly the discovery resulted from auger sampling. As residual soils in the Meekatharra area tend to be strongly leached, anomalous gold values are an order of magnitude lower than those seen at Whiteheads, meaning a soil result of 2 or 3ppb Au can be significant. The Ironbark prospect was discovered beneath a two-point gold anomaly coincident with broader anomalous zones of silver and copper.

Gold mineralisation at Ironbark is hosted within ultramafic rocks in a zone stretching across three 100m-spaced lines of drilling. The prospect has been defined to date with AC drilling, with RC holes currently being planned to test deeper mineralisation within the fresh rock.

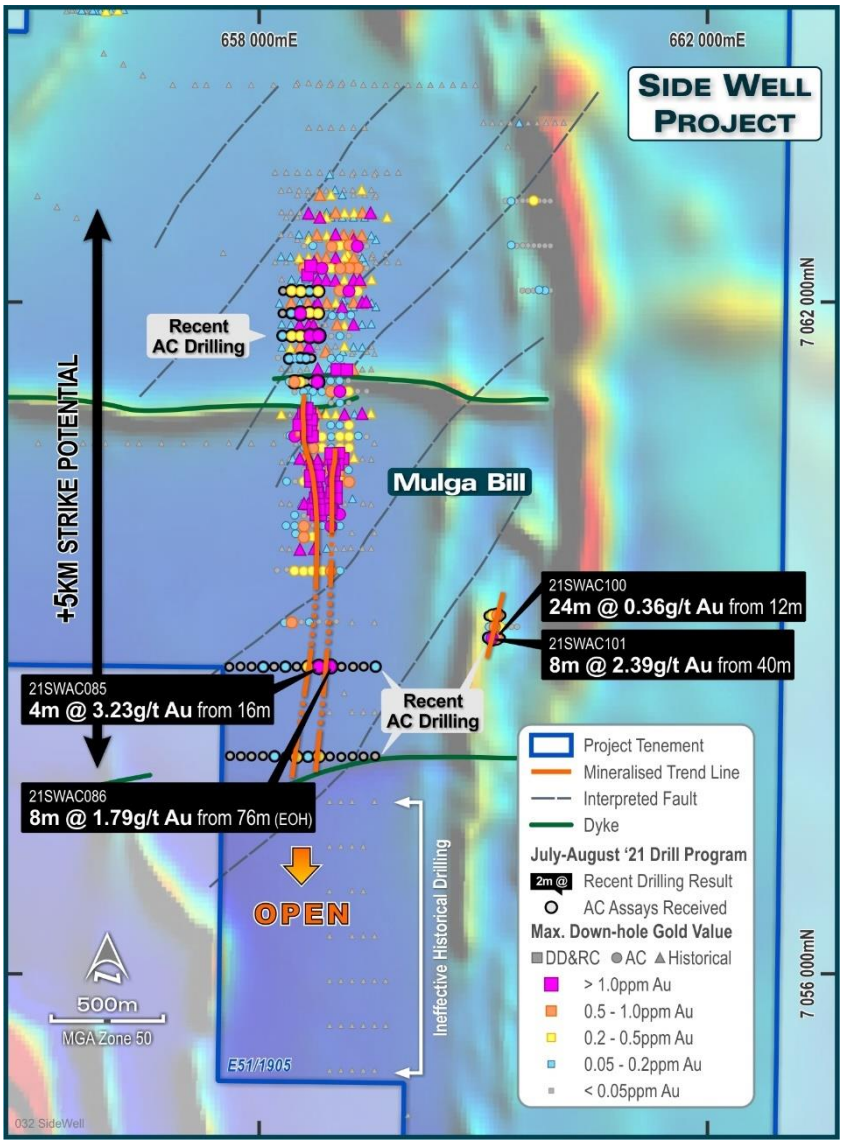


FIGURE 6: THE IRONBARK DISCOVERY IS APPROXIMATELY 1.5KM EAST OF MULGA BILL

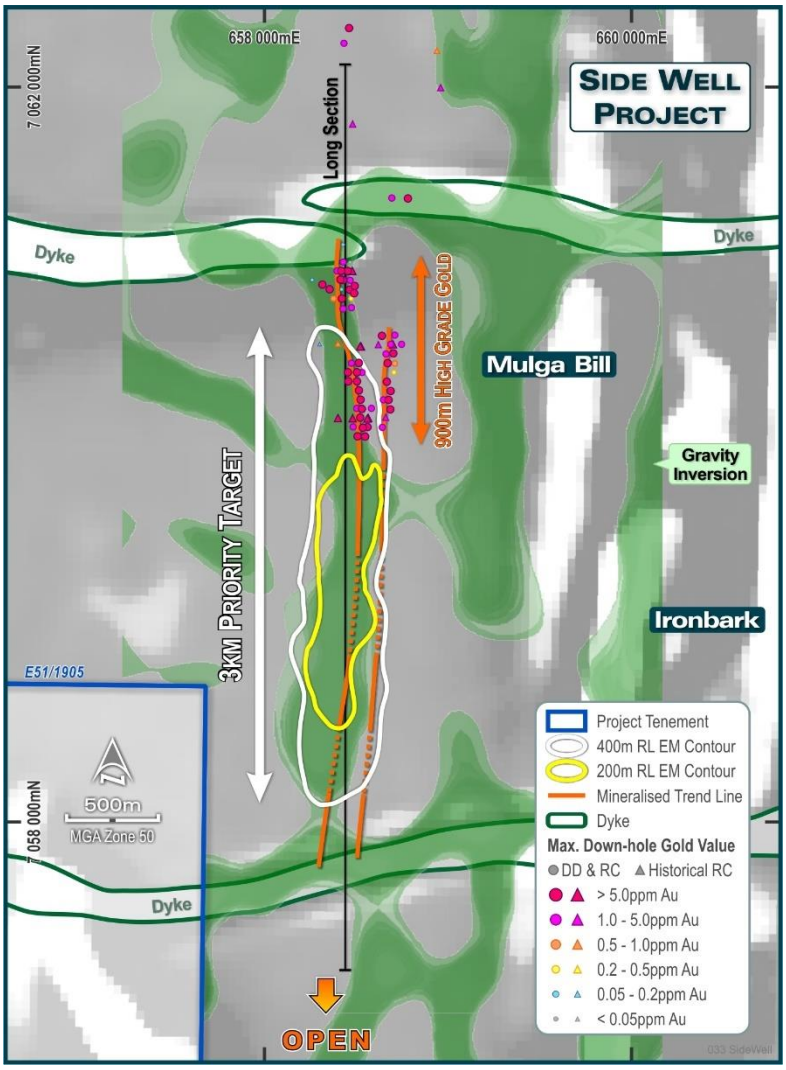
Geophysics

During August a gravity survey was completed over the entire Side Well project area by Atlas Geophysics. The survey comprised a grid of lines 400m apart (north – south) with stations spaced at 200m (east – west). Some areas were infilled to 200m by 200m spacing for a total of 1,792 data points. Data processing was completed by Terra Resources, who used the Side Well VTEM data to model and remove the effect of overburden depth from the gravity data. Terra then processed inversions of the gravity and EM datasets to produce a set of images for interpretation.

THE GEOPHYSICAL DATA REVEALED A NORTH-SOUTH CORRIDOR RUNNING THROUGH MULGA BILL WHERE A CONDUCTIVE ANOMALY COINCIDES WITH A ZONE OF INCREASED GRAVITY. AS THE PROSPECT IS HOSTED BY GEOPHYSICALLY UNIFORM INTERMEDIATE LITHOLOGIES, THE VOLUME OF SULPHIDE MINERALS OCCURRING AS MASSIVE PYRITE WITHIN THE HIGH-GRADE VEINS AND ALSO AS DISSEMINATED PYRITE AND CHALCOPYRITE WITHIN THE MINERALISED CORRIDOR APPEARS TO BE SUFFICIENT TO ALTER THE DENSITY AND CONDUCTIVE PROPERTIES OF THE MULGA BILL TREND. THE COINCIDENT EM-GRAVITY FEATURE IS STRONGEST IN THE CENTRAL MULGA BILL AREA, PARTICULARLY WITHIN THE 3KM ZONE BOOKENDED BY CROSS-CUTTING PROTEROZOIC DYKES (

Figure 7).

FIGURE 7: THE NEW GRAVITY INVERSION (GREEN SHADING) AND EM CONTOURS OVER A GREY-SCALE MAGNETIC BACKGROUND. RC DRILLING TO DATE HAS ONLY TESTED THE SHALLOWER AREA OF THE ANOMALY.



The scale and depth of the high-priority target area identified in the geophysics is readily apparent in the long section shown below (Figure 8). This is a compelling target, particularly as it is an area with the deepest EM response, overlain by Great Boulder AC drilling demonstrating continuity of gold and pathfinder elements but untested by any RC drilling to date.

RC drill testing along this target will commence as soon as DMIRS drilling approvals are in place.

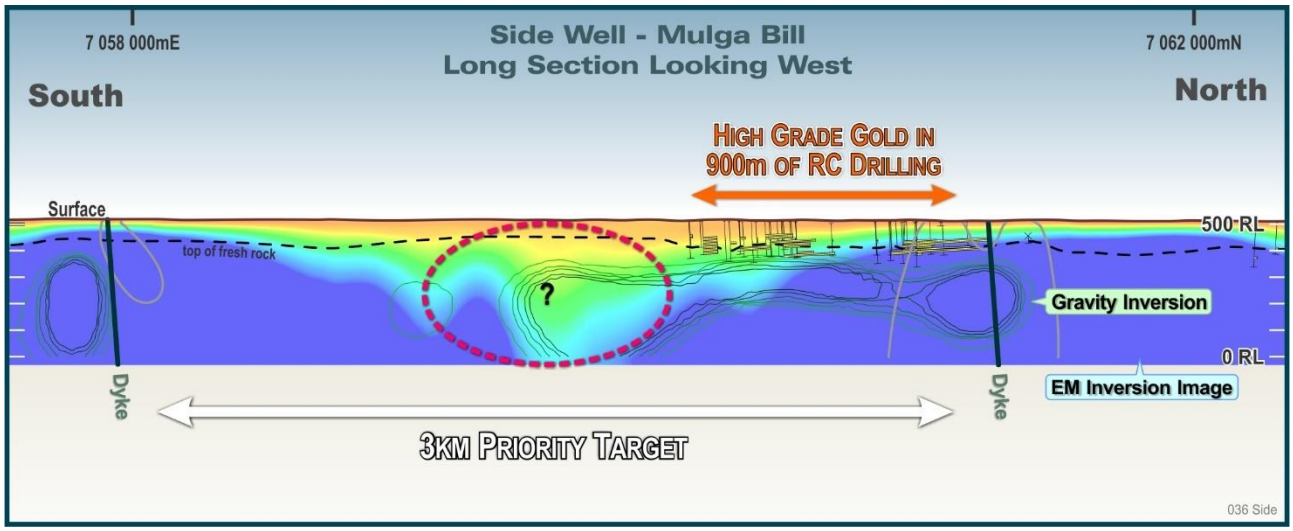


FIGURE 8: A LONG SECTION THROUGH THE COINCIDENT GRAVITY-EM ANOMALY SHOWING A DEEP UNTESTED TARGET IMMEDIATELY SOUTH OF CURRENT RC DRILL COVERAGE.

The gravity survey was completed in collaboration with Great Boulder's southern neighbour, Sensore Ltd, thus allowing both companies to benefit from a more holistic interpretation of the central greenstone trend running south from Mulga Bill into Sensore's Sandstone Road project. Great Boulder intends to build upon this collaborative approach with further regional geophysical and geochemical surveys where possible.

Copper-Gold Mineralisation

Multi-element analysis of previous drilling has confirmed a strong copper-gold-silver association at Mulga Bill, with intersections such as 15m @ 2.53g/t Au, 1.54% Cu and 12.0g/t Ag from 100m in 21MBRC017.This metal assemblage is related to pyrite-chalcopyrite rich stringer veins and disseminations within a subvertical zone that is approximately parallel to stratigraphy and in the direct hangingwall to the regional shear zone at Mulga Bill. This sulphide zone may be related to the north-south density anomaly observed in the gravity survey and represents a unique style of mineralisation at Mulga Bill when compared to the previously identified high grade gold veins (Figure 4). The Company is now re-submitting other sections of holes where portable XRF (pXRF) scans have indicated elevated copper grades to build up a comprehensive data set for base metals and silver through this zone (Figure 9).

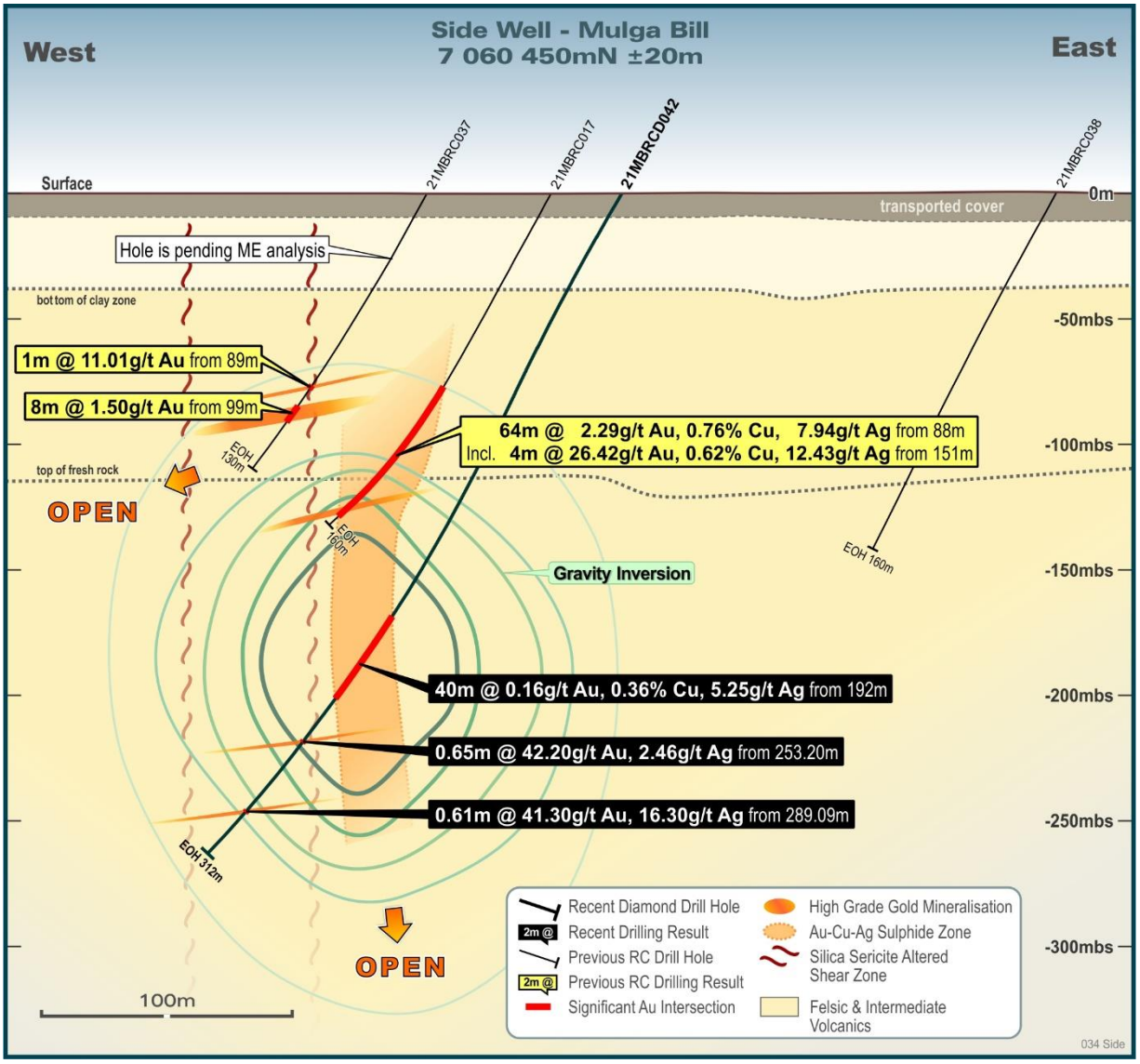


FIGURE 9: AN EXAMPLE OF COPPER-GOLD-SILVER MINERALISATION ADJACENT TO HIGH-GRADE GOLD IN VEINS WITHIN 21MBRCD042

Soil Sampling – Jones Well

Field technicians have started infilling soil anomalies identified in the initial sampling program at Jones Well. This work is being conducted in conjunction with drilling programs and is ongoing. Updated results are expected in the coming quarter, with drill testing of priority areas to follow.

Next Steps

Phase 5 RC drilling commenced at Mulga Bill in mid-October, with a program of 4,000 to 5,000m planned for completion by the middle of November. During this phase of drilling the Company intends to confirm its geological interpretation through the central area of Mulga Bill and continue extending primary mineralisation to the south.

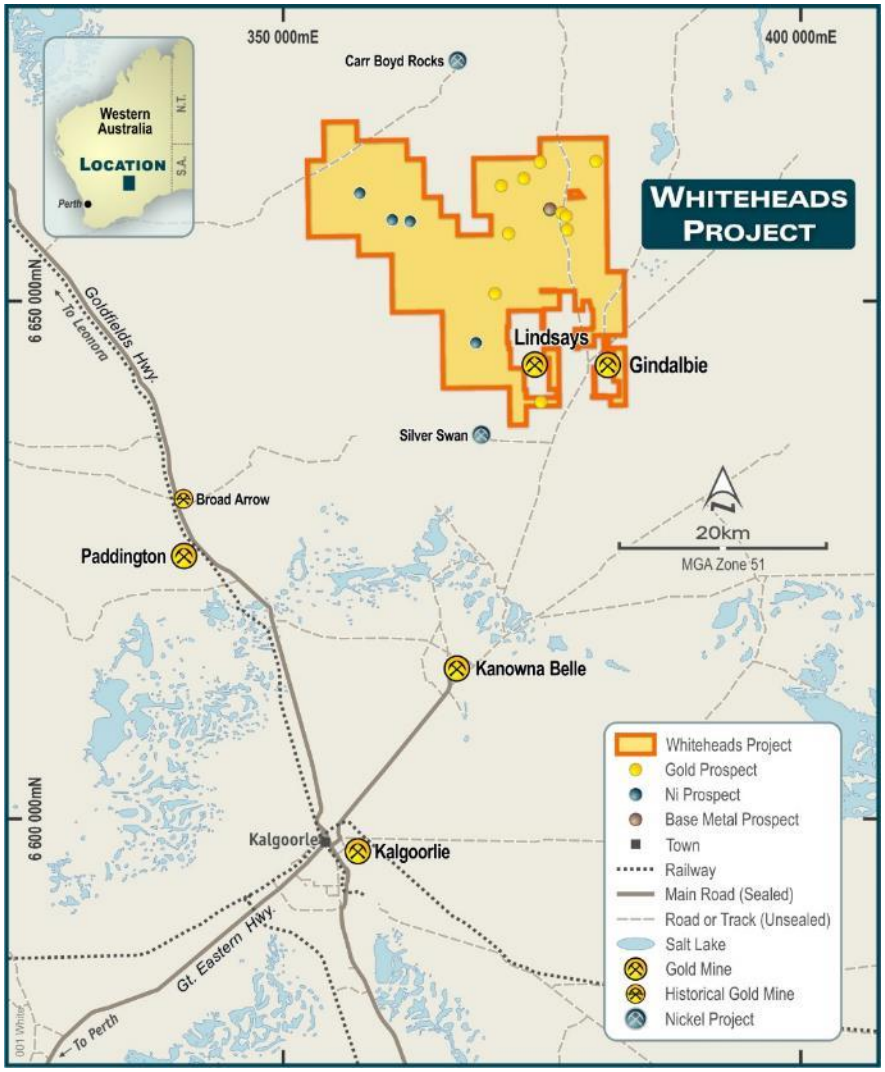
Drilling approvals have also been lodged to test the coincident conductive gravity feature at Mulga Bill, an area already highlighted by results in AC drilling but untested by deeper RC holes.

The Company will also conduct petrophysical tests and hyperspectral scans on remaining Mulga Bill core to optimise future geophysical surveys with an initial focus on IP testing and drilling.

Whiteheads Project (GBR 75%)

Whiteheads is located approximately 45km north of Kalgoorlie and north of the nearby Kanowna Belle gold mine. The project covers an area of 488km^2 between the Silver Swan and Carr Boyd nickel projects straddling the boundary between the Kalgoorlie terrane to the west and the Kurnalpi terrane to the east.

Whiteheads comprises two different tenement packages. The western half, consisting of E27/538, E27/582 and E27/584 is a farm-in agreement with Mithril Resources Ltd whereby Great Boulder will earn up to 80% of the project. The eastern half, primarily consisting of tenements E27/544 and E27/588, is a 75% joint venture with Zebina Minerals Pty Ltd.



Whiteheads

At Whiteheads GBR has accumulated a large project footprint over highly prospective geology with a historical focus on gold and nickel exploration.

Whiteheads straddles the geological boundary between the Kalgoorlie and Kurnalpi terranes. With several old mine workings, and large, coherent gold-in-soil anomalies Whiteheads has massive potential for significant discoveries.

FIGURE 10: WHITEHEADS LOCATION PLAN

AC Drilling

Drilling resumed at Whiteheads in mid-September with a regional AC program designed to test the Tektite, Jubilee North, Reception Hill and Seven Leaders areas. By the end of September 101 holes of a 122-hole program had been drilled. Assay results are expected by early December.

RC Drilling

There has been no further RC drilling at Whiteheads following the third round of RC coverage at Blue Poles, results of which were announced in August. Deeper primary gold mineralisation, including 5m @ 3.52g/t Au from 181m in 21BPRC026[5], will be followed up in the next round of RC drilling at Blue Poles.

Auger Geochemistry

During July and August, a local contractor completed 1,589 auger samples across a number of areas within the Whiteheads project, including Wishbone, Hillsborough, the southern Arsenal Trend and also an area between the historic workings at Jubilee and Eclipse known as Jubilee South. The Company is using this data to plan the next round of AC drilling.

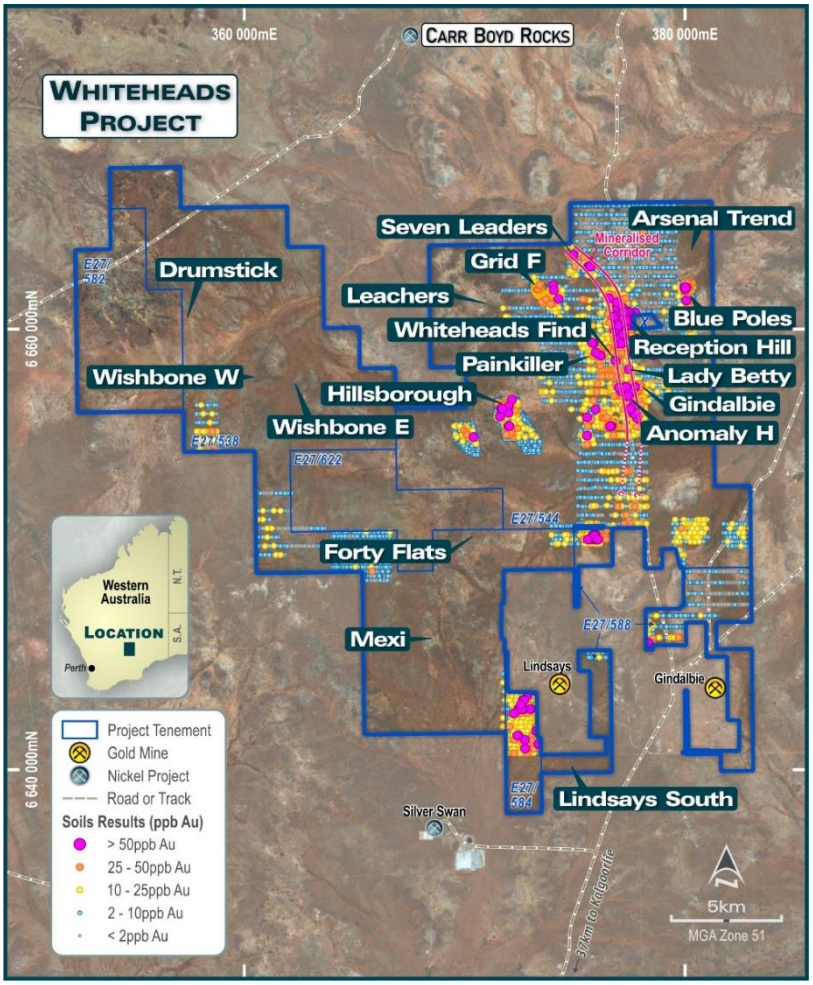


FIGURE 11: WHITEHEADS PROSPECTS SHOWING GOLD IN SOIL GEOCHEMISTRY OVER LANDSAT IMAGE.

[5] ASX announcement 12/8/2021: "RC drilling extends mineralisation at Blue Poles"

Geophysical Surveys

The Company is currently planning an aerial EM survey to detect conductive bodies and assist with mapping within the project area. Timing and size of this survey are yet to be confirmed.

Next Steps

Target generation and drill testing will continue at Whiteheads on a campaign basis. The next round of drilling will build upon results from the recent auger and AC drilling, and will continue testing south along the Arsenal Trend as well as following up recent encouraging results at Jubilee North.

The Company also intends to continue target generation on the western half of Whiteheads with a particular focus on the Wishbone area. Despite extensive previous exploration for nickel sulphides in this area there has been very little work done on the gold potential.

Wellington Zn-Pb Project (GBR 100%)

The Wellington tenements overlie the prospective Frere Formation within the Proterozoic Earaheedy Basin. This basin has the potential to become a world-class Mississippi Valley-type (MVT) Zn-Pb province. This potential has been demonstrated by both Rumble Resources' recent exploration success at their Chinook and Magazine discoveries and by Strickland Resources in adjacent tenements. GBR's project covers 1,134km^2 of prospective stratigraphy including more than 60km of strike highlighted by anomalous pathfinder geochemistry.

Exploration will commence at Wellington once the tenements are granted and necessary approvals are in place.

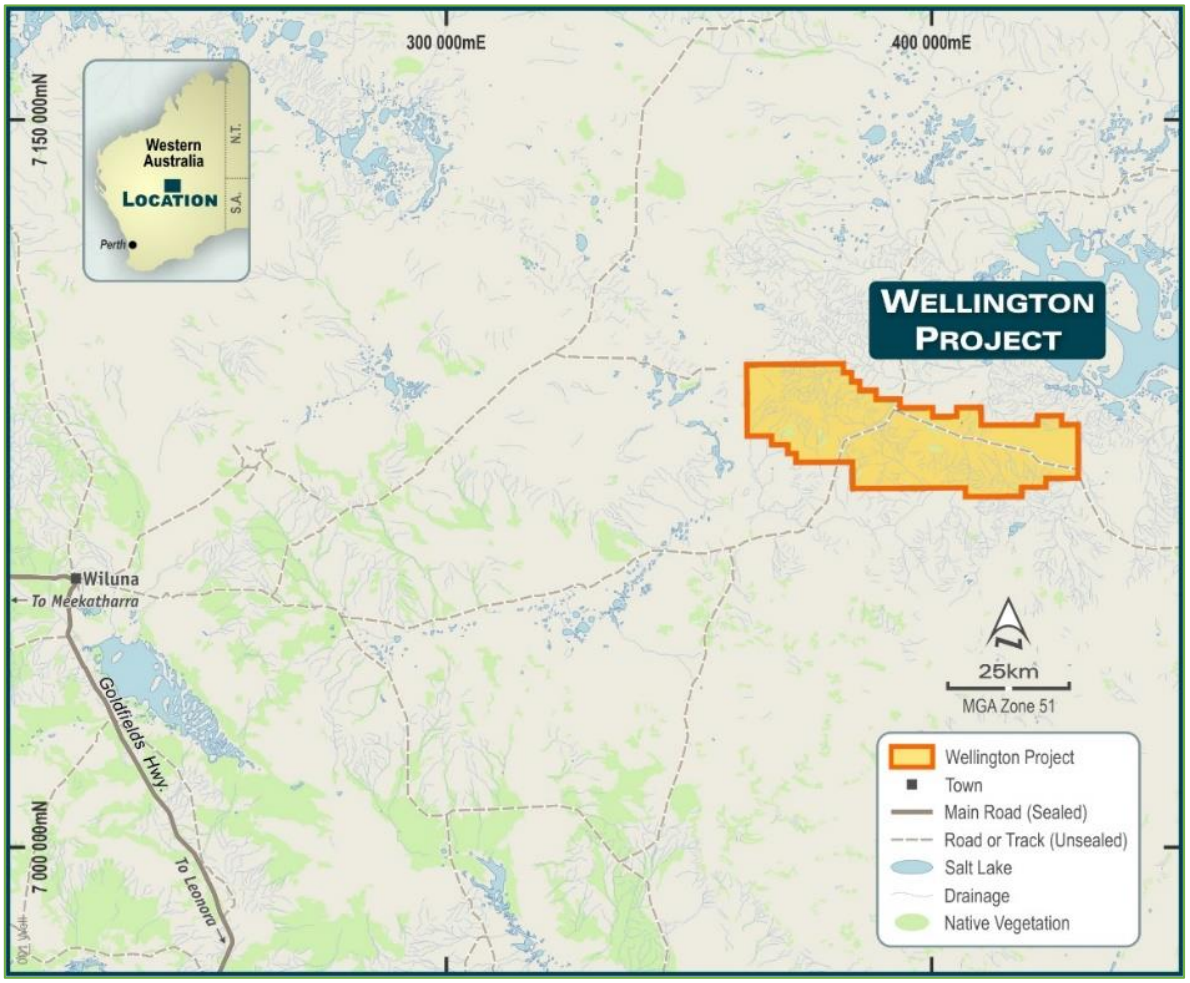


FIGURE 12: THE WELLINGTON PROJECT IS LOCATED 170KM EAST OF WILUNA IN WESTERN AUSTRALIA

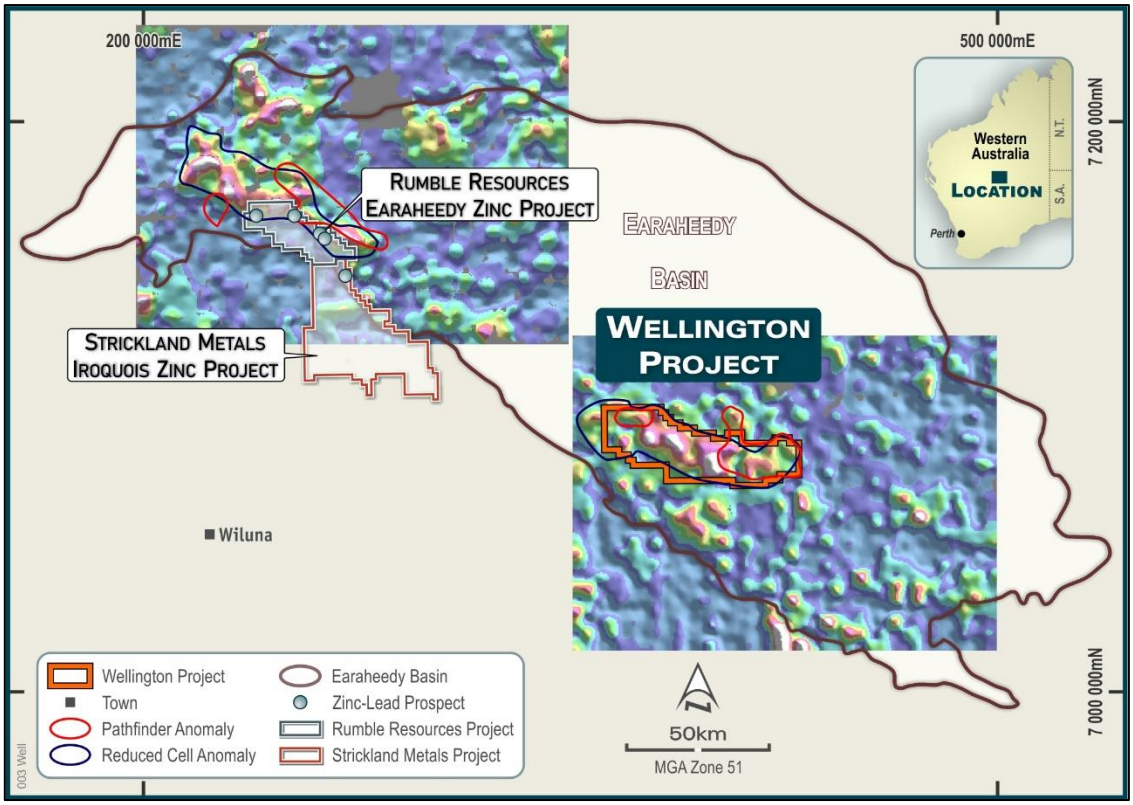


FIGURE 13: THE WELLINGTON PROJECT WAS IDENTIFIED FROM ANALYSIS OF GEOLOGICAL SURVEY OF WA SURFACE SAMPLING DATA. BACKGROUND IMAGE IS WEIGHTED SUM AS-SB-BI-W.

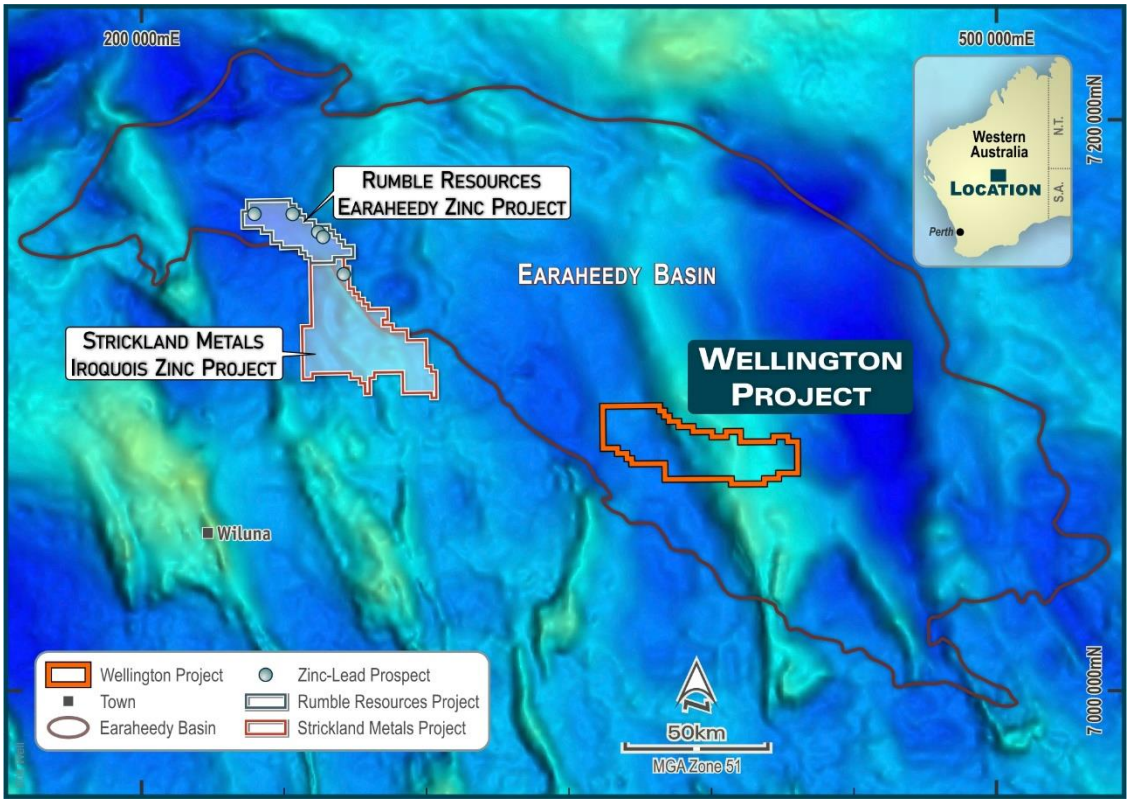


FIGURE 14: REGIONAL GRAVITY DATA SHOWS A GRAVITY RIDGE EXTENDING NORTH BENEATH THE BASIN FROM THE ARCHAEAN YILGARN PROVINCE. DEEP STRUCTURES ARE LIKELY TO BE IMPORTANT IN LOCALISING MINERALISATION WITHIN THE CARBONATE HOST UNIT.

Yamarna Cu-Ni Project (GBR 100%)

DMIRS tenement transfers have now been processed on the tenements formerly within the Yamarna joint venture with Eastern Goldfields Mining Company and the project is now officially consolidated under GBR ownership.

The Company is working to demerge its Yamarna and Winchester assets into a new company, Cosmo Metals Ltd. This process is well advanced, and updates will be provided to the market in due course.

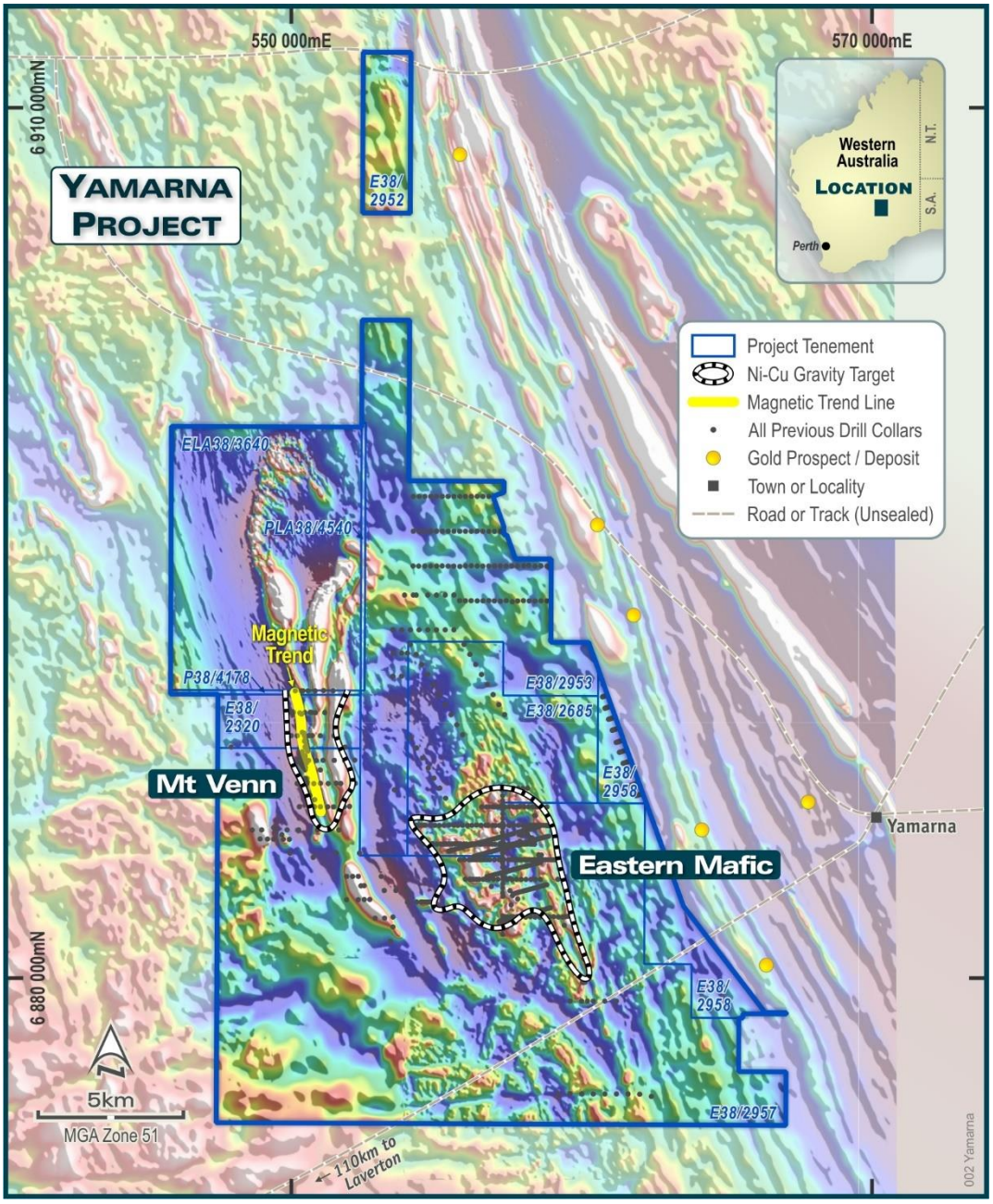


FIGURE 15: THE NEW TENEMENT APPLICATION E38/3640 INCLUDES THE NORTHERN CONTINUATION OF THE MT VENN IGNEOUS COMPLEX

Winchester Project (GBR 75% – 100%)

There was no work conducted on the Winchester project during the quarter.

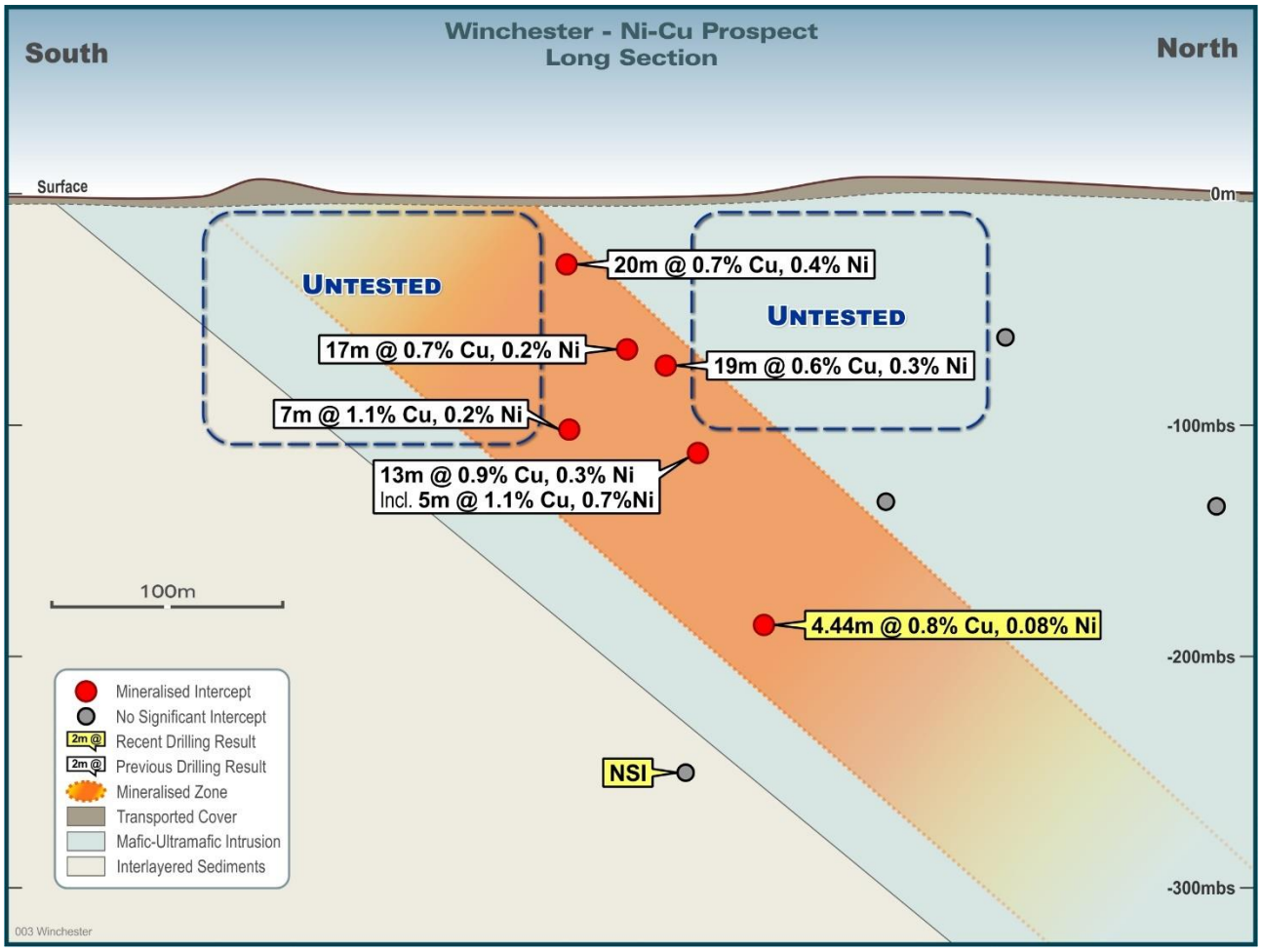


FIGURE 16: WINCHESTER PROSPECT LONG SECTION.

Corporate

During the quarter, the Company received $193,498 from option holders to exercise 1,964,769 unlisted options at various exercise prices.

During the quarter, the Company made payments of approximately $96,000 to related party entities for directors' fees and superannuation (refer to section 6 of the Appendix 5B), of which approximately $71,000 was allocated to time spent on project management.

During the quarter, the Company paid $1,565,000 for exploration expenditure which included drilling and associated costs with drilling activities, assay work and various exploration consulting fees.

At the end of the quarter Great Boulder had $5.4 million in cash.

Class of Securities	Issued Capital
Ordinary fully paid shares	**357,235,809**
Unlisted Options (exercisable at $0.20 & expiring 18/3/2022)	250,000
Unlisted Options (exercisable at $0.10 and expiring 30/6/2022)	4,000,000
Unlisted Options (exercisable at $0.04 and expiring 30/6/2022)	2,000,000
Unlisted Options (exercisable at $0.075 and expiring 28/8/2023)	799,000
Unlisted Options (exercisable at $0.10 and expiring 30/09/2023)	600,000
Unlisted Options (exercisable at $0.074 and expiring 30/06/2023)	4,000,000
Unlisted Options (exercisable at $0.0525 and expiring 31/03/2024)	4,565,515
Unlisted Options (exercisable at $0.0542 and expiring 19/05/2024)	5,714,286
Unlisted Options (exercisable at $0.12 and expiring 31/05/2024)	3,010,000
Unlisted Options (exercisable at $0.1108 and expiring 16/07/2024)	2,194,403

This announcement has been approved by the Board

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TABLE 2: TENEMENT SCHEDULE

Tenement ID	Project	Status	Holder	GBR Interest %
E27/538	Whiteheads	Granted	Minex (Aust) Pty Ltd	0%
E27/544	Whiteheads	Granted	Zebina Minerals Pty Ltd	75%
E27/582	Whiteheads	Granted	Minex (Aust) Pty Ltd	0%
E27/584	Whiteheads	Granted	Minex (Aust) Pty Ltd	0%
E27/588	Whiteheads	Application	Zebina Minerals Pty Ltd	75%
E27/622	Whiteheads	Granted	Zebina Minerals Pty Ltd	75%
E27/636	Whiteheads	Application	Great Boulder Resources Ltd	75%
E27/644	Whiteheads	Application	Great Boulder Resources Ltd	75%
E27/645	Whiteheads	Application	Zebina Minerals Pty Ltd	75%
P27/2439	Whiteheads	Application	Zebina Minerals Pty Ltd	75%
E38/2129	Winchester	Granted	Ausgold Exploration Pty Ltd	75%
E38/3340	Winchester	Granted	Great Boulder Resources Ltd	100%
E38/2320	Yamarna	Granted	Great Boulder Resources Ltd	100%
E38/2685	Yamarna	Granted	Great Boulder Resources Ltd	100%
E38/2952	Yamarna	Granted	Great Boulder Resources Ltd	100%
E38/2953	Yamarna	Granted	Great Boulder Resources Ltd	100%
E38/2957	Yamarna	Granted	Great Boulder Resources Ltd	100%
E38/2958	Yamarna	Granted	Great Boulder Resources Ltd	100%
P38/4178	Yamarna	Granted	Great Boulder Resources Ltd	100%
P38/4540	Yamarna	Application	Great Boulder Resources Ltd	100%
E38/3640	Yamarna	Application	Great Boulder Resources Ltd	100%
E51/1905	Side Well	Granted	Zebina Minerals Pty Ltd	75%
E51/1974	Mirra Well	Application	Great Boulder Resources Ltd	100%
E53/2172	Wellington	Application	Great Boulder Resources Ltd	100%
E38/3621	Wellington	Application	Great Boulder Resources Ltd	100%
E38/3622	Wellington	Application	Great Boulder Resources Ltd	100%