

Quarterly Report

21 July 2023



Great Western
EXPLORATION

Quarterly Activities Report for the Quarter ended 30 June 2023

Summary

- Encouraging assay results were received from a broad spaced aircore drilling programme at the Company's Firebird Gold Project.
- Pleasingly, assay results validate the large 3.7km x 450m Ultrafine+ soil anomaly at the Firebird Gold Project, confirming the soil anomalism as insitu.
- Following receipt of these encouraging assay results, planning is underway to undertake follow-up RC drill testing at Firebird, anticipated to commence late-July 2023.
- A passive seismic survey at Great Western's Lake Way Potash Project defined a major paleochannel, traversing 60km through the entire length of Great Western's tenure that measures 2.5 kilometres in width with the deepest calibrated depth section of 162 metres.
- This paleochannel is a downstream draining continuation from SO4's immediately adjacent potash development project.
- A ground electromagnetic (EM) survey programme was completed at the Fairbairn Nickel-Copper Project, refining the seven heliborne EM targets previously identified.
- The Fairbairn Nickel-Copper Project is prospective for magmatic nickel-copper deposits and located in a similar geological setting to both the Julimar and Nova Deposits.

Great Western Exploration Limited (ASX: GTE) ("the Company", "Great Western") is pleased to provide its Quarterly Activities Report for the Quarter ended 30 June 2023 (June 2023 Quarter).

Firebird Gold Project

GTE 100% (E53/1894, E53/2027) and GTE Earning up to 80% (E53/2129)

The Firebird Gold Project ("Firebird") is located within the Youanmi Greenstone Belt, comprised of 100% owned GTE tenure and the adjacent Great Western-Dynamic Metals (ASX:DYM) Joint Venture (Great Western earning 80%). Great Western has defined a very large, high tenor soil anomaly at Firebird in



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virgin untested terrane. Firebird is 2.5km west of Western Gold Resources' Gold Duke Project which contains several Mineral Resources reported to JORC 2012 standard (Figure 1), demonstrating the fertility and economic potential of the greenstone sequence.



Figure 1: Location of the Firebird Project, with the location of the Gold Duke JORC 2012 standard resources located west of the Firebird Project.

Great Western completed Phase 1 aircore drill programme during the June 2023 Quarter, with 3,040m drilling completed to test the large 3.7km x 400m soil anomalism at Firebird (shown in Figure 2). Subsequent to the end of the June 2023 Quarter, results from this drilling were received with assays confirming the soil anomalism as insitu, and mineralisation hosted by heavily weathered Archean Greenstones; rock units that host most of Western Australian's gold deposits. Assay results of note include (and shown in Figures 2, 3, 4, 5, and 6):

- 2m @ 1.20g/t Au from 42m (GFB045);
- 2m @ 0.88g/t Au from 2m (GFB047);
- 2m @ 0.88g/t Au from 48m (GFB031);
- 2m @ 0.34g/t Au from 58m (GFB061);
- 4m @ 0.22g/t Au from 48m (GFB061);
- 4m @ 0.21g/t Au from 42m (GFB027); and
- 4m @ 0.20g/t Au from 24m (GFB027).

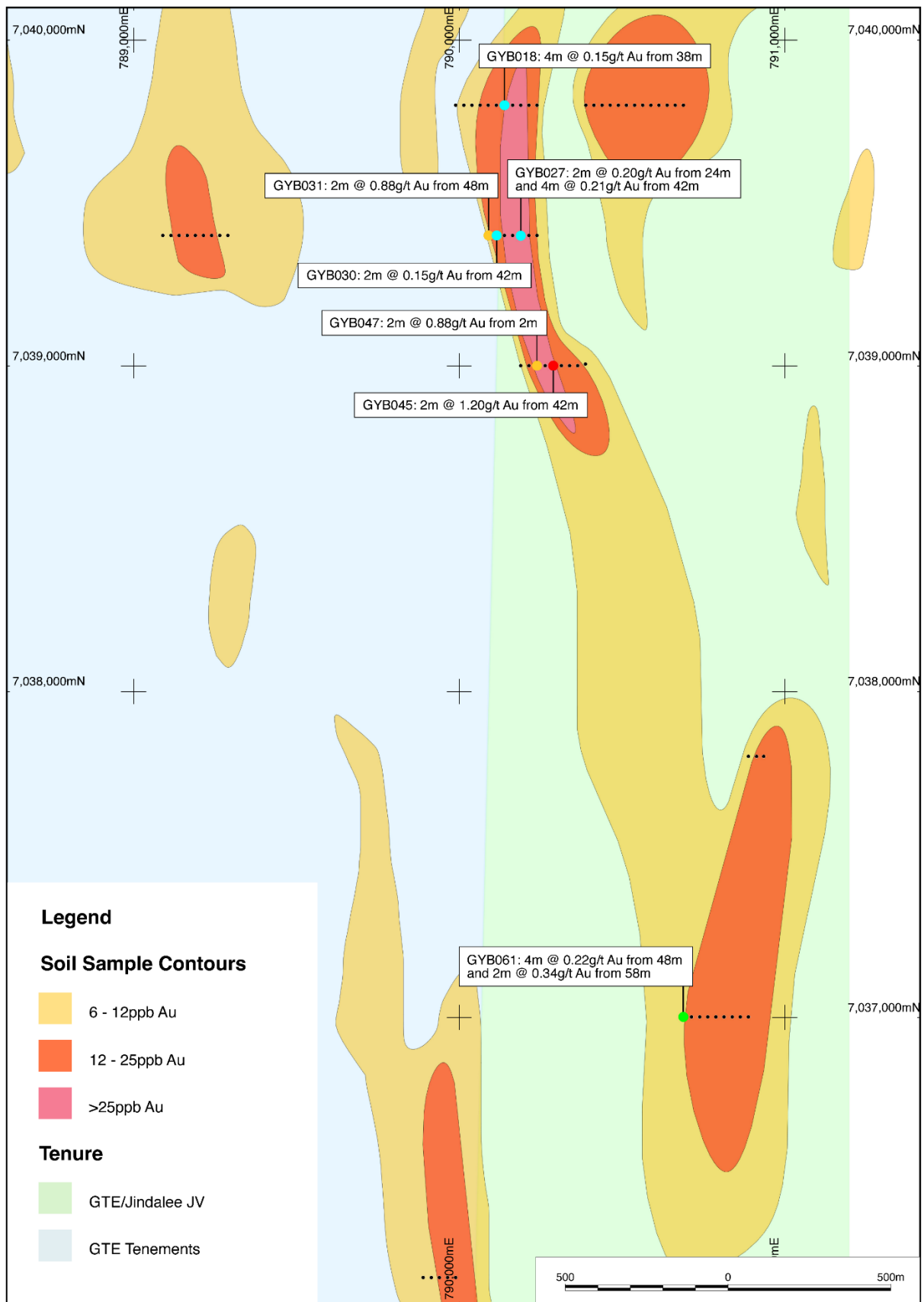


Figure 2: Plan section of soil anomalism, drilled aircore holes and associated anomalous assay results.

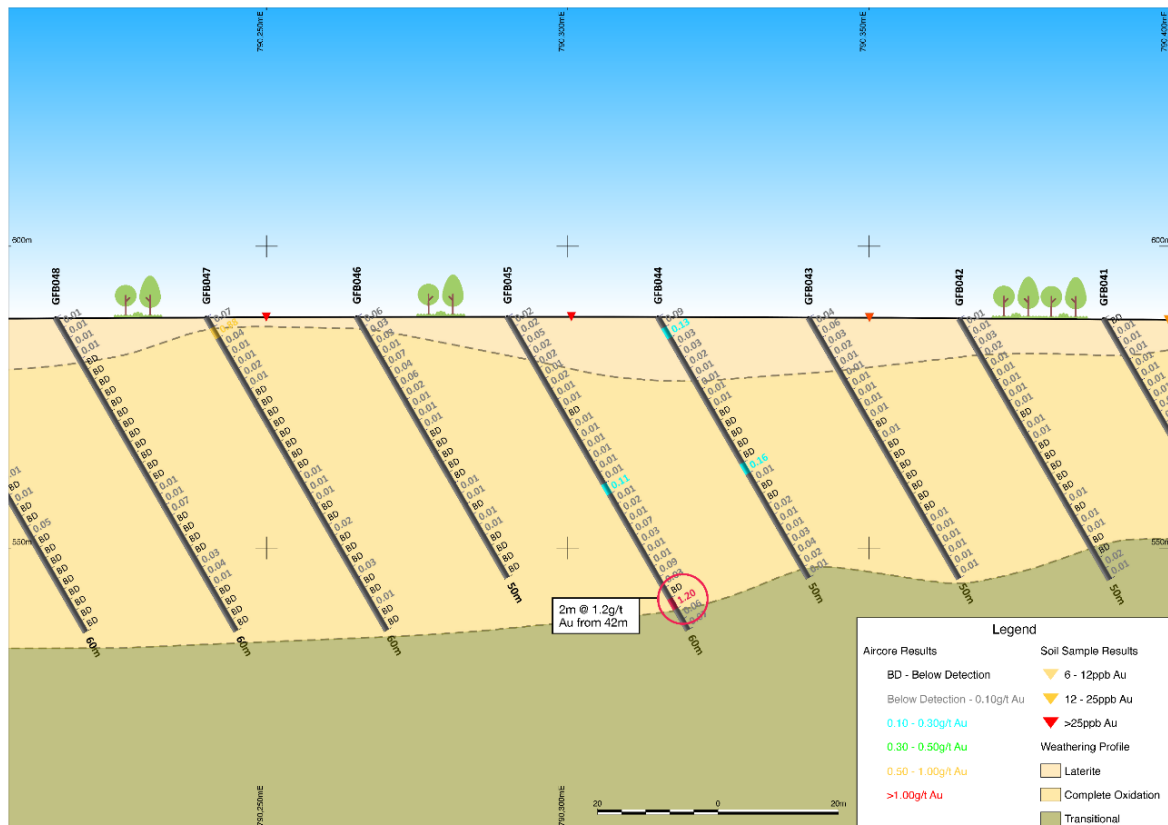


Figure 3: Cross section on 7,039,000N displaying anomalous result from drill-hole GFB045.

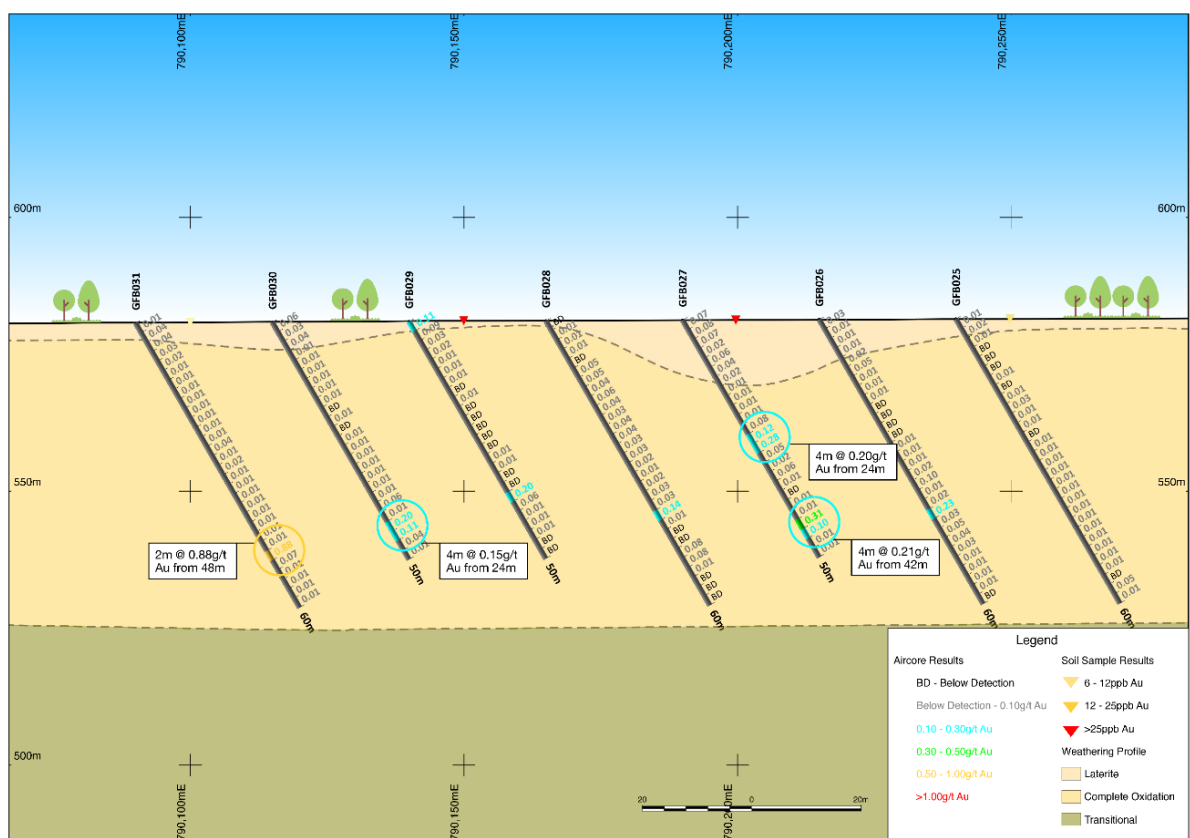


Figure 4: Cross section on 7,039,400N displaying anomalous aircore drill results of GFB027, GFB030, and GFB031.

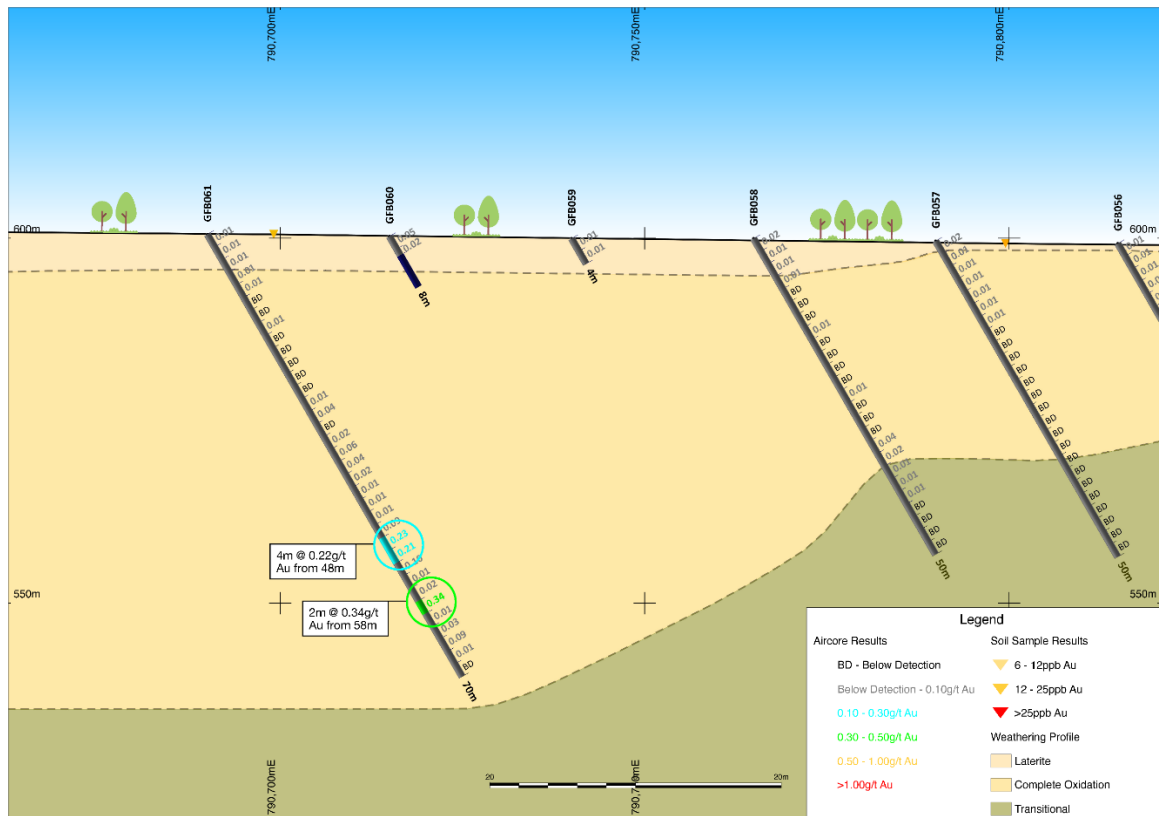


Figure 5: Cross section on 7,037,000N with anomalous assay result from drill-hole GFB061. Aircore holes GFB059 and 060 were abandoned due to hard ground.

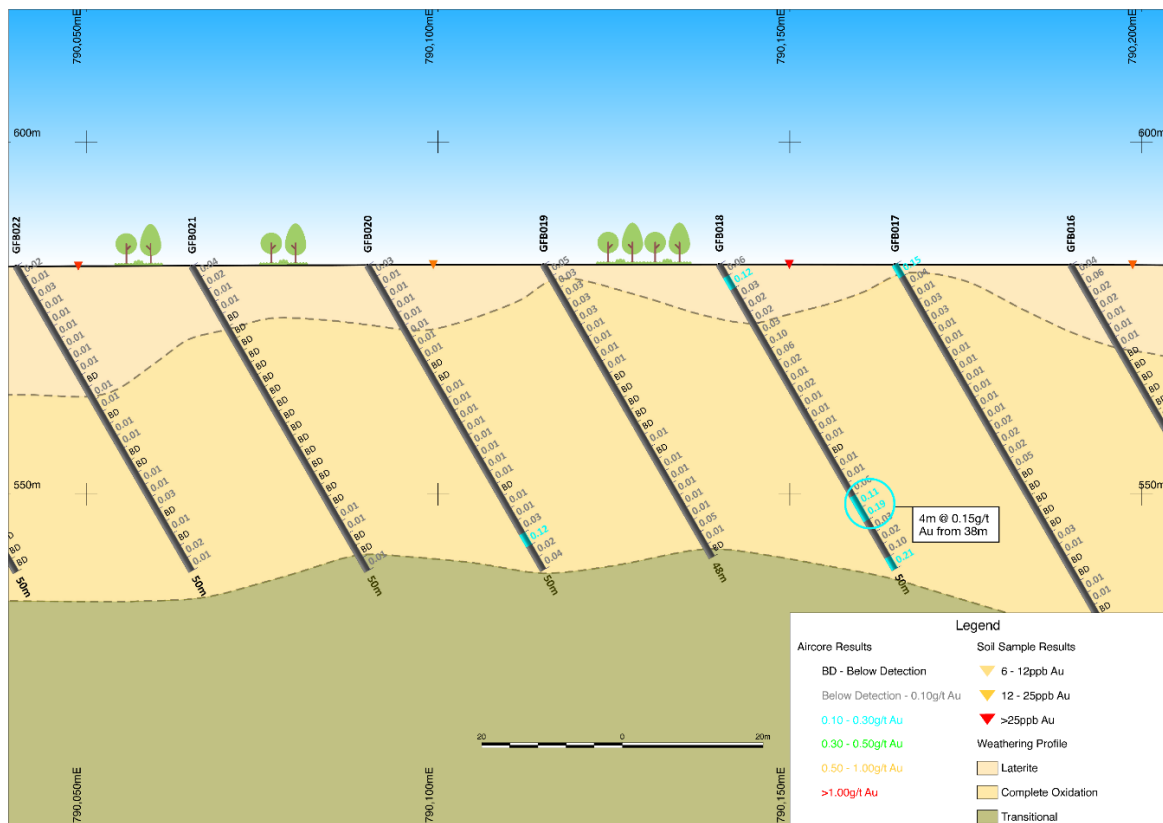


Figure 6: Cross Section of 7,039,800N and anomalous results from aircore drill-hole GFB018.

Planning for follow-up RC drill testing is advanced, with this future programme likely to focus on the anomalous results reported above, plus testing along the defined soil anomalism between the broad spaced (400-800m) aircore drill lines. RC follow-up drilling is anticipated to commence late-July 2023.

Fairbairn Nickel-Copper Project

GTE 100% (E69/3443)

The Fairbairn Nickel-Copper Project is located 900km north-east of Perth, on the northern margin of the Yilgarn Craton and within the Earraheedy Basin. The Yilgarn Craton margin is highly prospective for base metal deposits, and host to both the Julimar and Nova Deposits (Figure 7). Little previous exploration has been completed at Fairbairn, with work completed during the 1980s and early-1990s focussed on diamond exploration rather than magmatic nickel-copper style mineralisation.

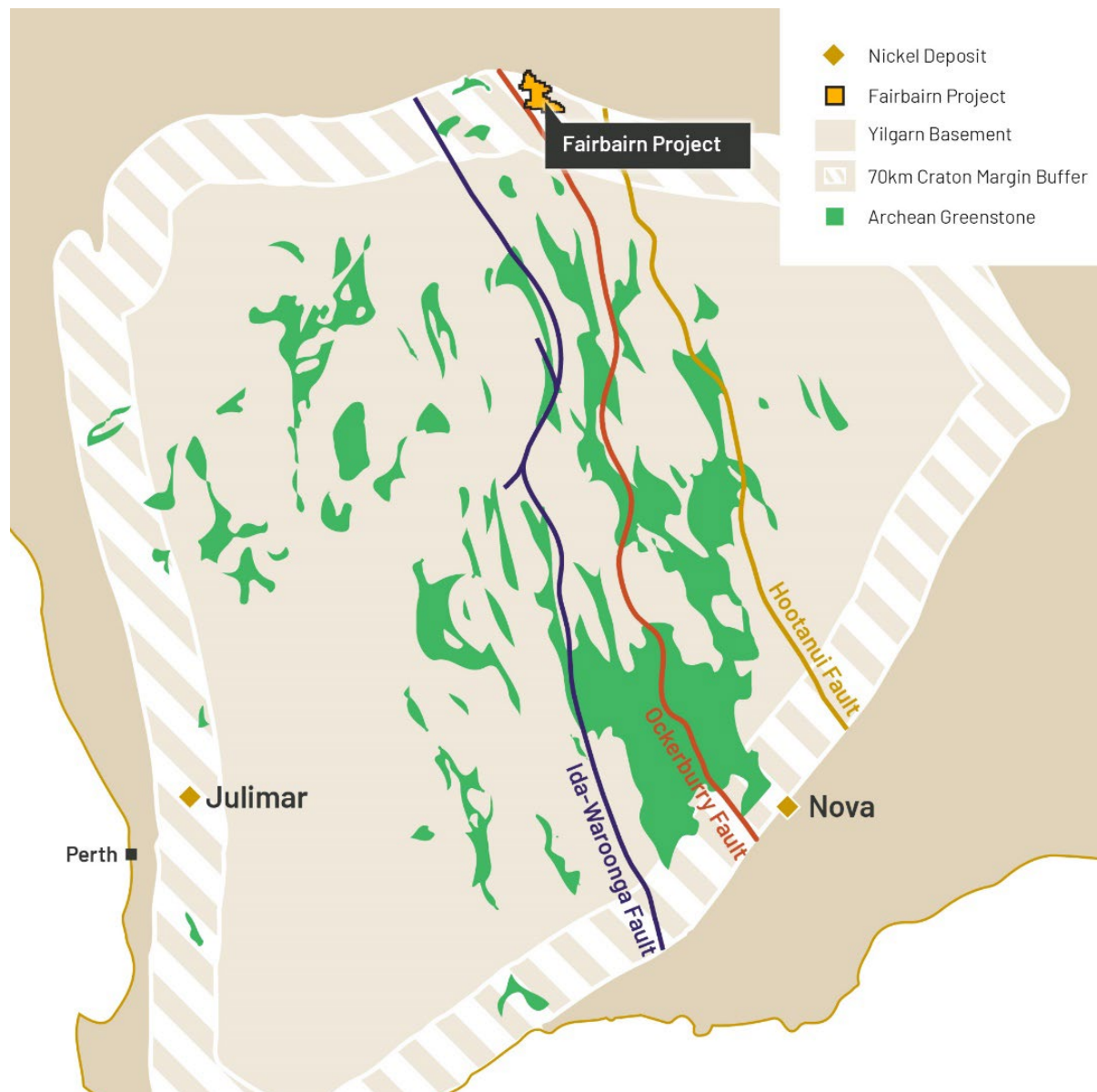


Figure 7: Location of the Fairbairn Base Metal Project on the margin of the Yilgarn Craton, and the interpreted “mantle tapping” Ockerburry Fault, a potential conduit for metal deposit formation.

A helicopter-borne electromagnetic (EM) survey was completed in January 2023 at the project (GTE ASX Announcement 11 February 2023), with the aim of delineating magmatic nickel-copper targets. Interpretation of this data identified seven targets, defining plates with significant lateral extents, measuring up to 900m along the plate's length (Figure 8). The plates sit below the government mapped and modelled sedimentary rocks of Earacheedy Basin, with basement interpreted to be mafic and ultramafic rocks of Archean Greenstone Terrain, prospective for magmatic nickel-copper deposits.

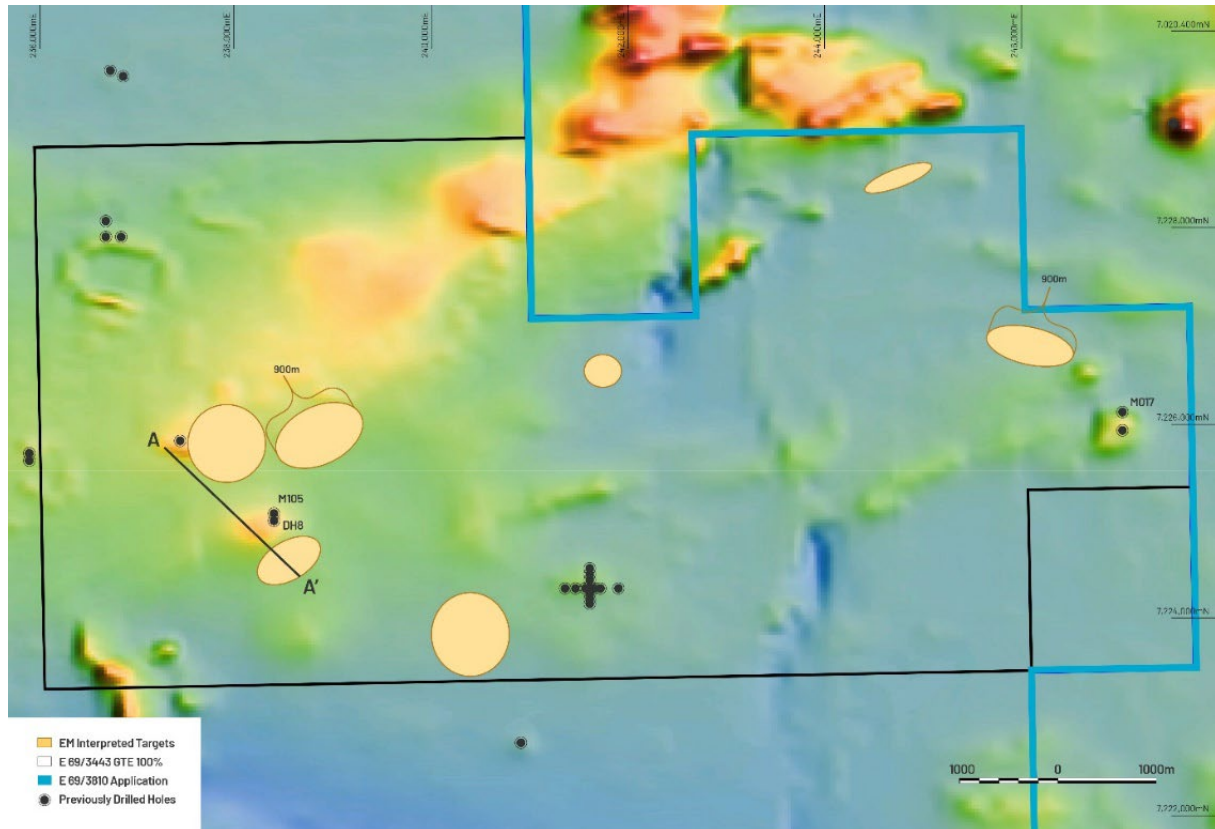


Figure 8: Location of interpreted plates from the helicopter-borne EM Survey in yellow, overlaid on reduced to pole magnetic data. Note location of previously drilled holes M017, M105, and DH8, in relation to the newly defined targets.

The magnetic highs shown in Figure 8 supports a greenstone basement interpretation, and legacy drilling completed in the 1990s intersected mafic and ultramafic rocks below basin cover. This drilling returned previously reported anomalous results of 20m @ 1,214ppm Ni from 28m (M017), from the limited suite of elements assayed at the time (GTE ASX Announcement 21 March 2022).

Review of government open file data found 1990s drilled holes M105 and DH8 (Figure 9) intersected ultramafic rocks with quartz-calcite veins and copper-sulphide mineralisation (described as chalcopryite - DH8), adjacent to two modelled EM plates; no assays are available for this interval. These drilled intercepts potentially represent distal mineralisation from a mineralised source.

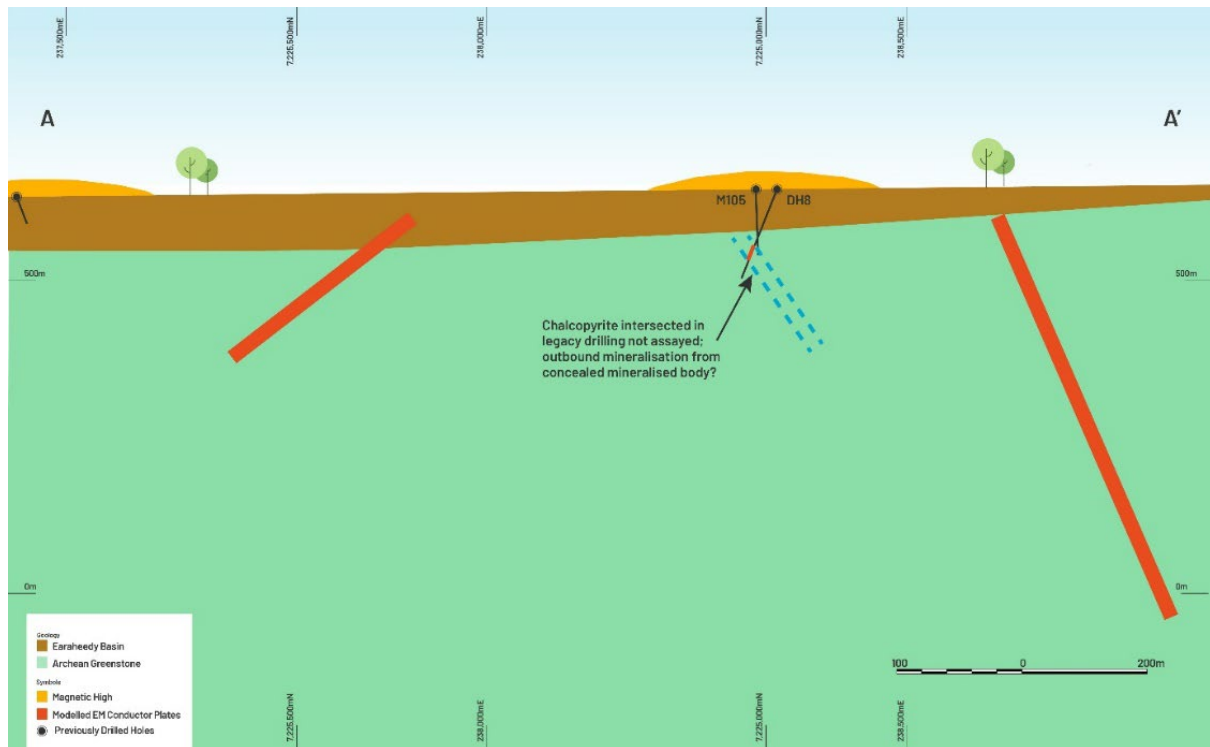


Figure 9: Cross Section (A-A', refer Figure 2) showing modelled EM plates and 1990s legacy drilling where copper-sulphide mineralisation was described.

Great Western has prioritised further exploration on this project, with a field inspection completed during the quarter, and subsequent to the end of the June 2023 Quarter, a ground electromagnetic (EM) survey was undertaken to further define the seven previously identified heliborne EM targets. Interpretation of the ground EM data is underway, which the Company anticipates will further refine the seven heliborne EM targets.

Atley North Project

GTE 100% (E57/1130)

The Atley North Project is located along the Youanmi Shear, host to nearby gold deposits such as Youanmi (Rox Resources) and Penny West (Ramelius Resources), shown in Figure 10. The Angus Target within this project is a large Ultrafine+ soil anomaly, with extents of 950m x 450m (Figure 11). Government bedrock mapping interprets Archean granitoids at this location; however, bedrock is obscured by transported cover, which potentially conceals Archean Greenstone units that are prospective for large orogenic gold deposits.

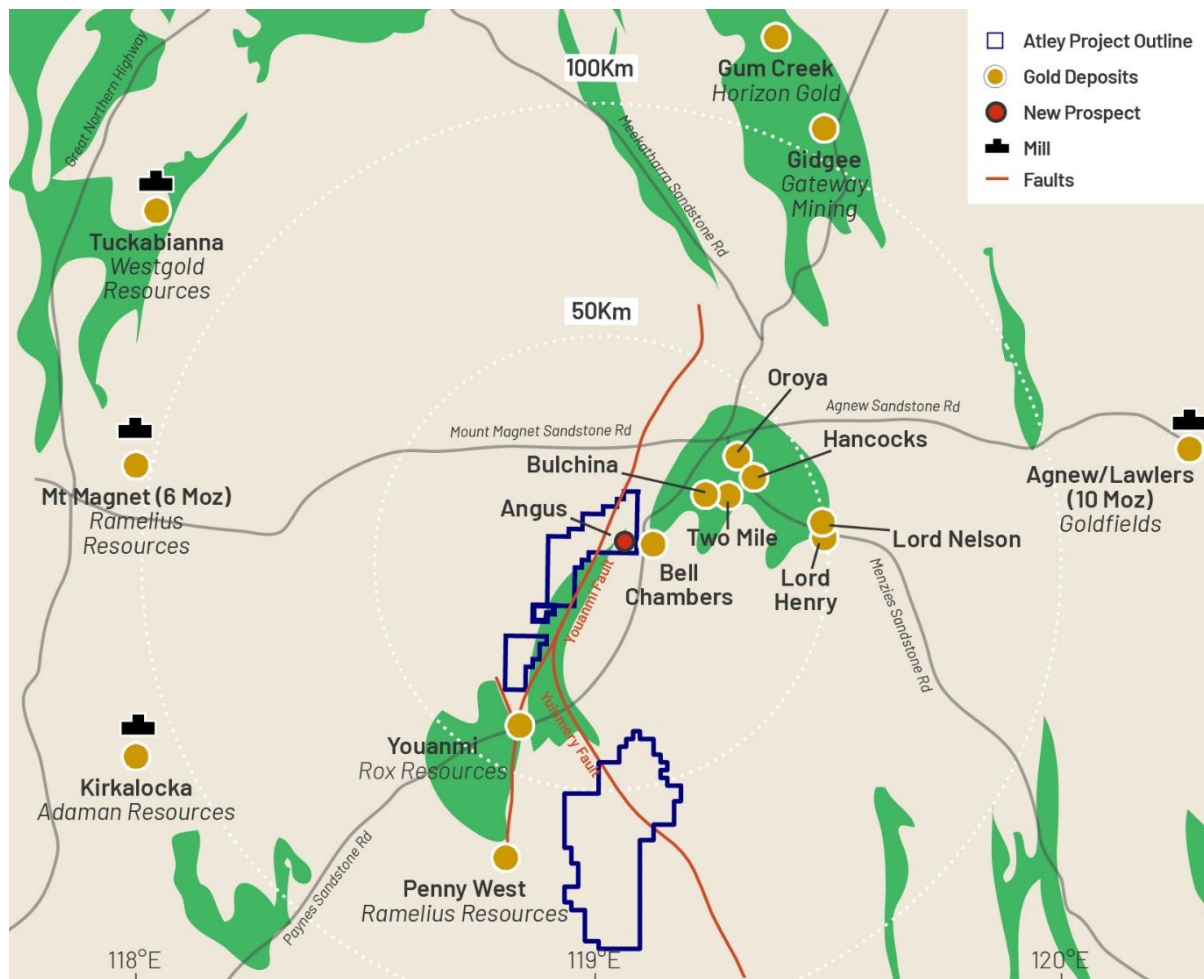


Figure 10: Location of the Atley North Project in proximity to nearby gold mines.

A reverse circulation (RC) drilling programme is planned to test the large 950m x 450m Ultrafine+ soil anomalism at the Angus Target, shown in Figure 11. The anomalous contours are sub-parallel with faulting of the Youanmi Shear Zone, with drilling designed to test the anomalies below shallow colluvial cover. The drilling programme is anticipated to commence late-July 2023.

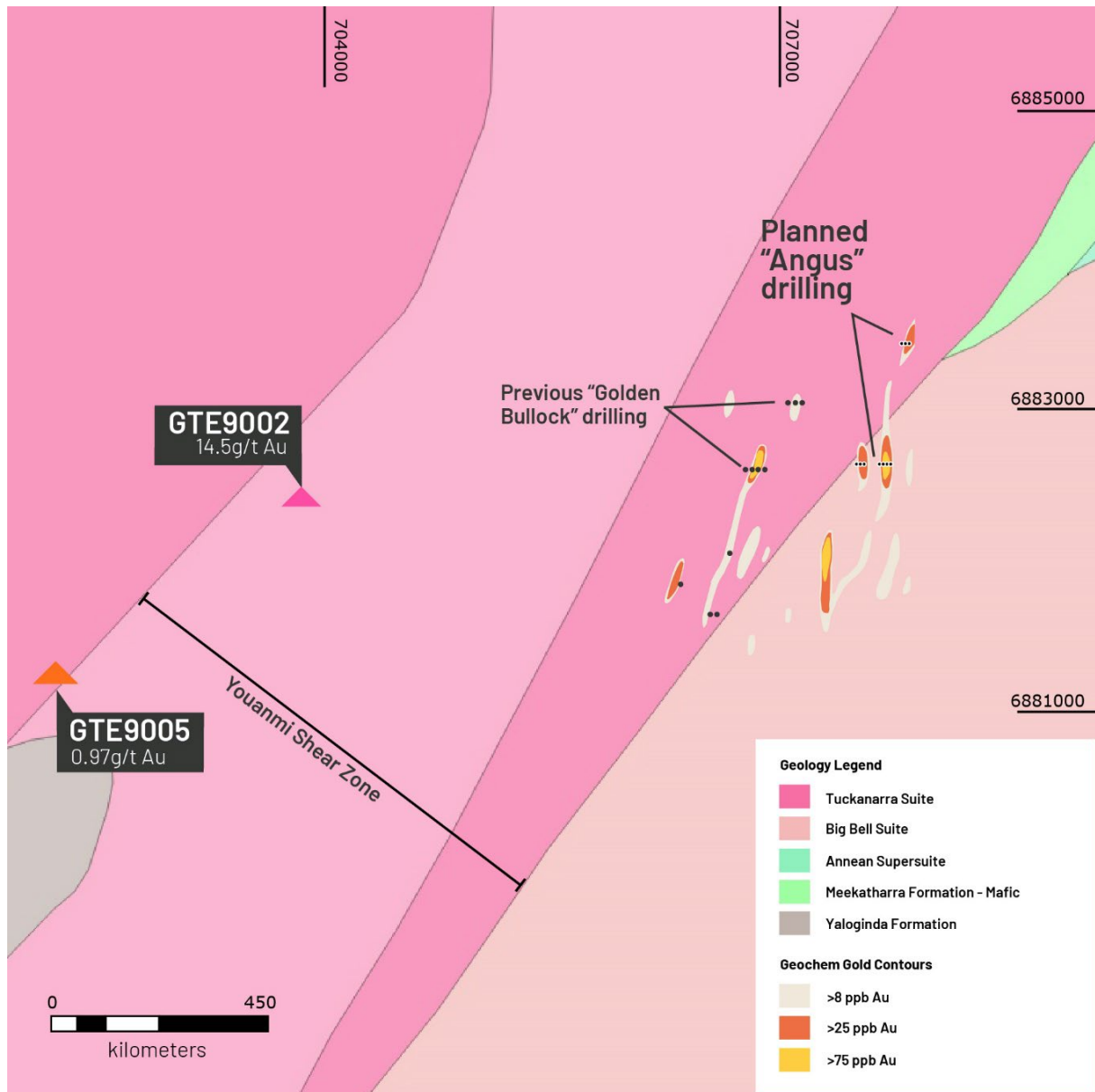


Figure 11: Atley North Project: anomalous soil contours, planned drilling, and float sample locations.

Lake Way Potash Project

GTE 100% (E53/1949, E53/2017, E53/2026, E53/2146, E53/2206)

Great Western's Lake Way Potash Project is located approximately 50km south-east from Wiluna and adjoins SO4's potash development project. The majority of SO4's potash resources are hosted within a single paleochannel which continues downstream into Great Western's tenure (Figure 12).

Previously completed test work indicates that the potash brine within the basalt sands of the paleochannel remains high grade (>5,000mg/l potash) as it enters Great Western's Lake Way Potash Project area (ASX Announcements by SO4 on 28th March 2018 and Great Western on 6th February 2020 and 1 July 2021).

Company data was reviewed by hydrogeologist KH Morgan of KH Morgan and Associates. In Mr Morgan's preliminary assessment of Great Western's Lake Way Project (GTE ASX Announcement 1

July 2021), he advised Great Western that: “A comprehensive test pumping programme by WMC defined the hydraulic properties of the aquifer providing useful data for any evaluation of brine abstraction from the Great Western land. The WMC report also provides a range of potassium values. The higher potassium values occur in both shallow and deep aquifers.” (GTE ASX Announcement 1 July 2021).

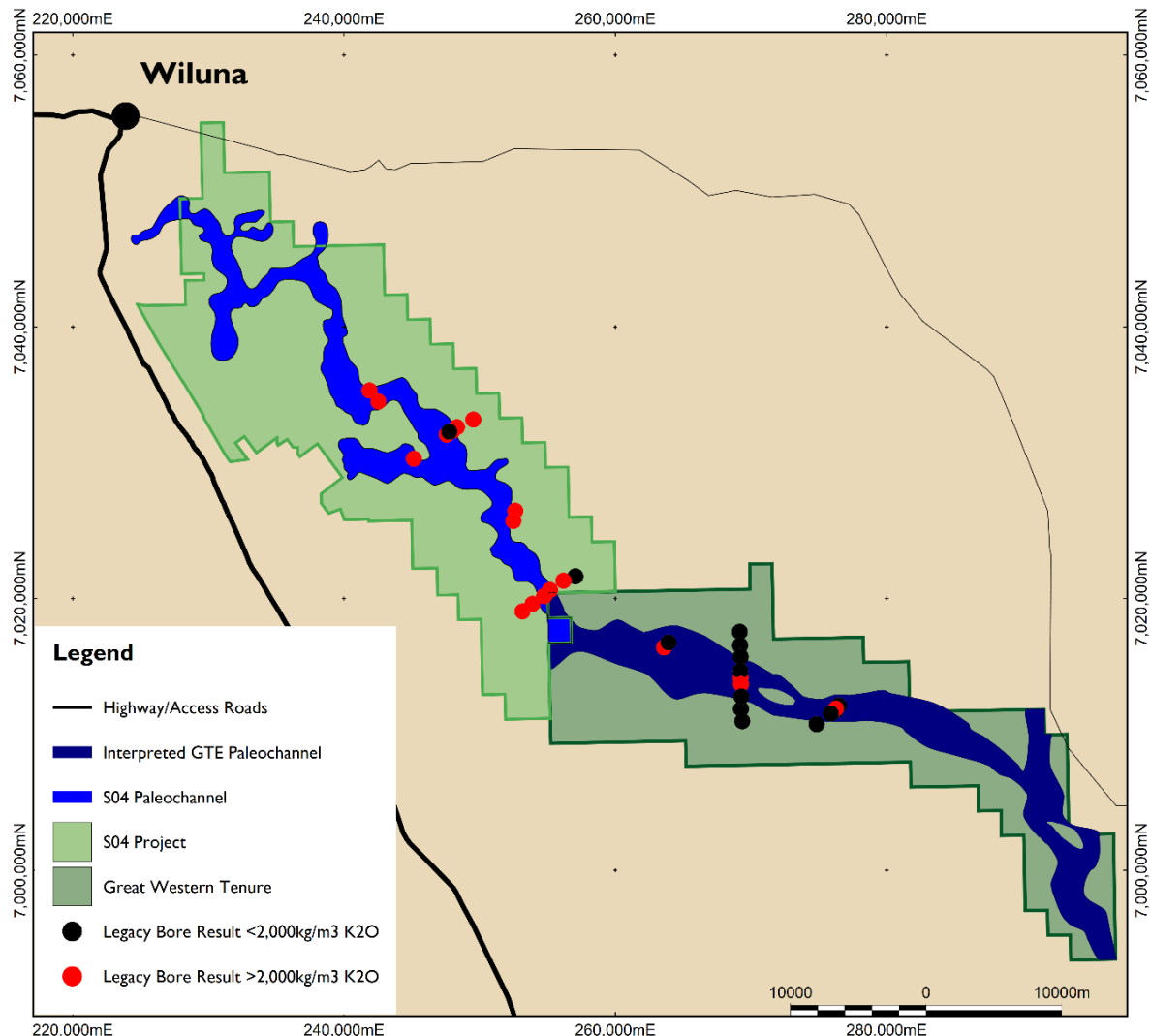


Figure 12: Interpreted continuation of SO4's Lake Way high grade potash paleochannel leading downstream into GTE's Lake Way Potash Project.

A passive seismic survey, a non-ground disturbing, low impact geophysical survey technique, was recently completed over the interpreted position of the paleochannel. Modelling of the horizontal to vertical (HVSr) survey data by Resource Potentials confirmed the paleochannel extends approximately 60km through the Company's held tenure, with central widths of up to 2.5km, with the deepest calibrated depth section being 162 metres near the western side of the tenure (illustrated in Figure 13 and 14).

In KH Morgan's assessment of the recently acquired survey data, he described the paleochannel as forming initially from a centralised inset valley, which would have filled with lateritic and boulder colluvium from the valley slopes. He interprets “Many of these sediments have high hydraulic conductive properties providing ideal targets for high yield brine production bores” (GTE ASX Announcement 22 May 2023). The inset channel is overlain by a thinner sequence of potential brine yielding sediment, in places more than 10 kilometres in width.”

Mr Morgan advised “The principal conclusion from combined passive seismic surveys is the potential presence of a major brine saturated palaeochannel system extending the full sixty-kilometre length through the Great Western tenements, clearly requiring ongoing evaluation for SOP resources”.

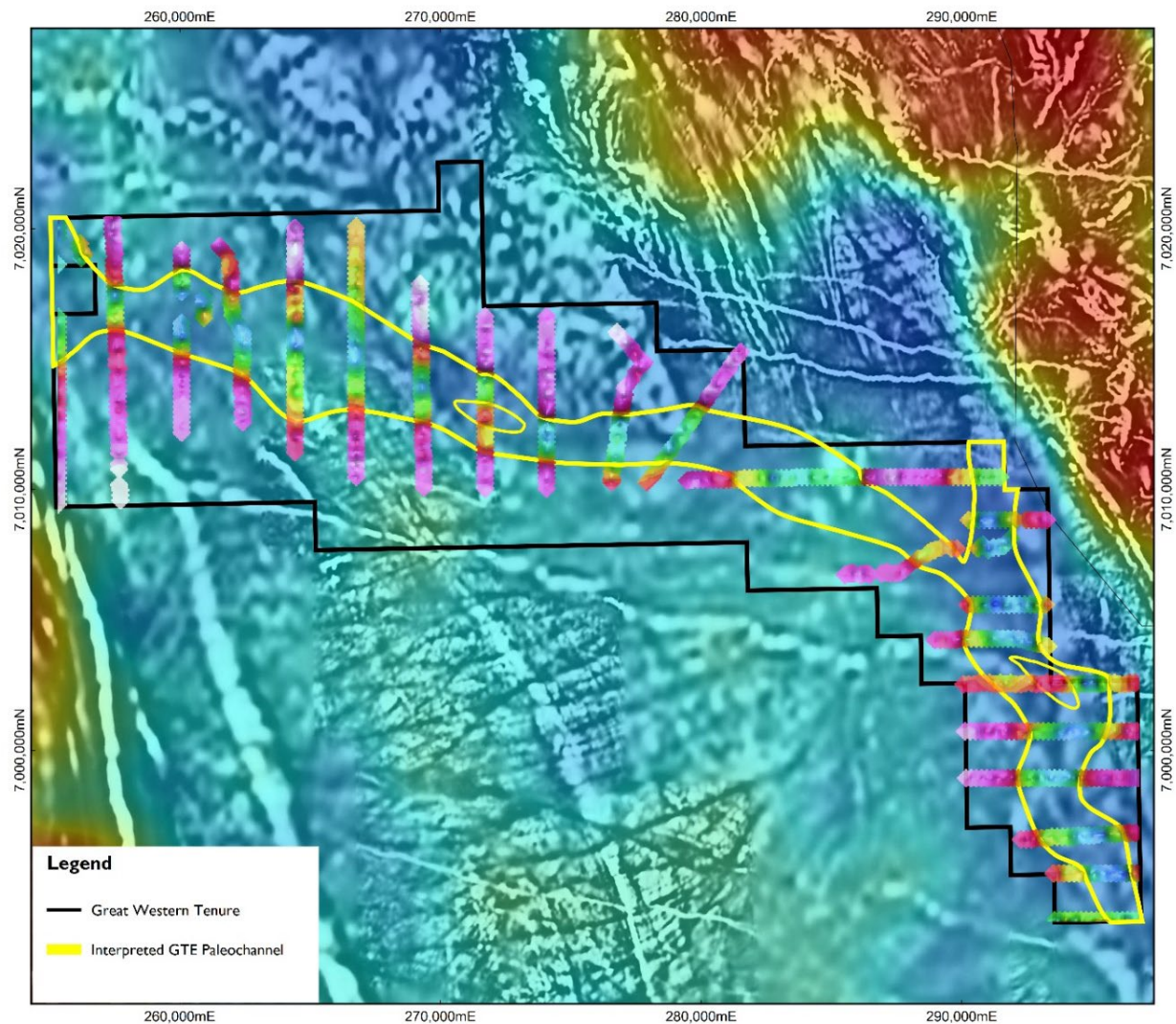


Figure 13: Coloured passive seismic sections overlain on state-wide pseudo-colour gravity and greyscale aeromagnetic imagery.

Great Western believes that the magnitude of the paleochannel presents an opportunity for the Company to unlock significant shareholder value. The services of Mr Morgan have been retained on a Consultancy basis to continue working with the Company to advance the Project to report a brine resource to equivalent standards as the JORC Code 2012 Code, which would potentially allow progress to a prefeasibility study.

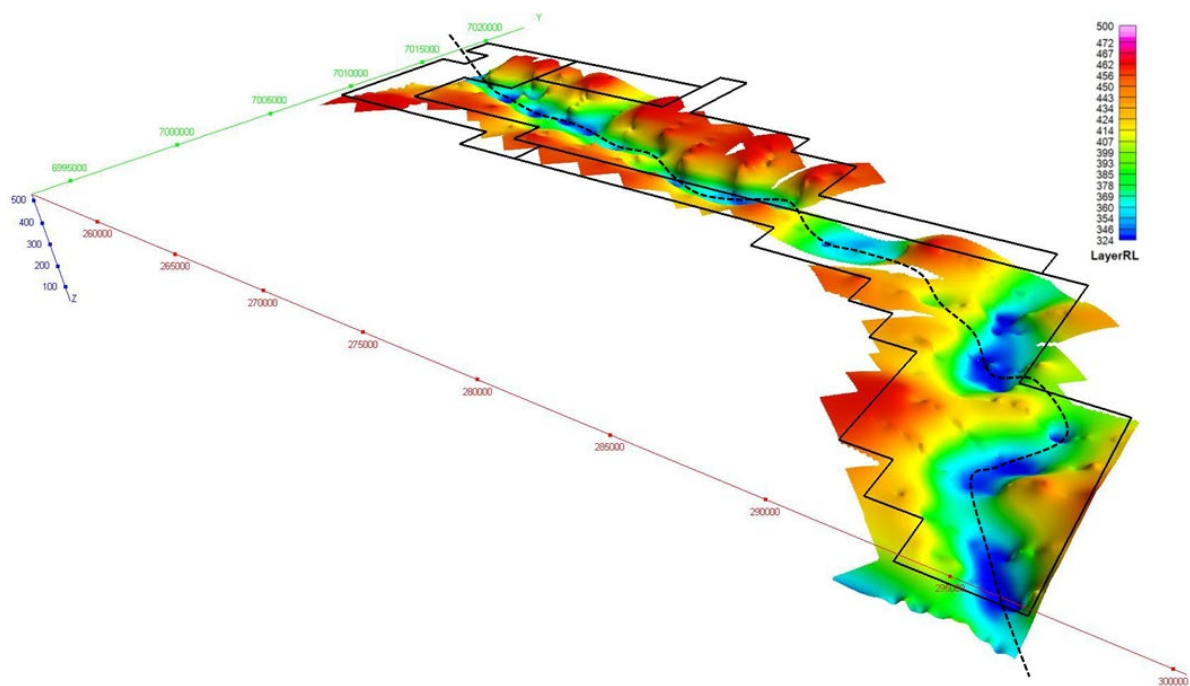


Figure 14: Three-dimensional view of the interpreted paleochannel pathway (thalweg) (after Resource Potential, March 2023).

The Company is also pleased to report that the 26D Water Licences held over the Company's Lake Way Tenements have been renewed for a further two years to May 2025. These water licences allow up to 50 exploration bores to be drilled and to undertake sampling and test pumping of bore capability.

Yerrida North Joint Venture

(Sandfire Resources ASX:SFR earning 70%)

The final interpretation of the airborne gravity gradiometry (AGG) survey across the Yerrida North Joint Venture was completed during the quarter by Peter Kovac, an industry expert in AGG interpretation. The survey and subsequent basin structural interpretation was wholly funded by Sandfire Resources (ASX:SFR, "Sandfire") and combined AGG, magnetic and airborne electromagnetic data. The interpretation described two structural domains within the basin: (1) western compressional, and (2) eastern extensional/transensional domains.

Sandfire completed an extensive data collation and interpretation of previously completed exploration across the Yerrida North Joint Venture. The collated and interpreted data was integrated with the basin model described above, with field reconnaissance completed on areas of interest. This resulted in a number of new targets identified that warrant further exploration.

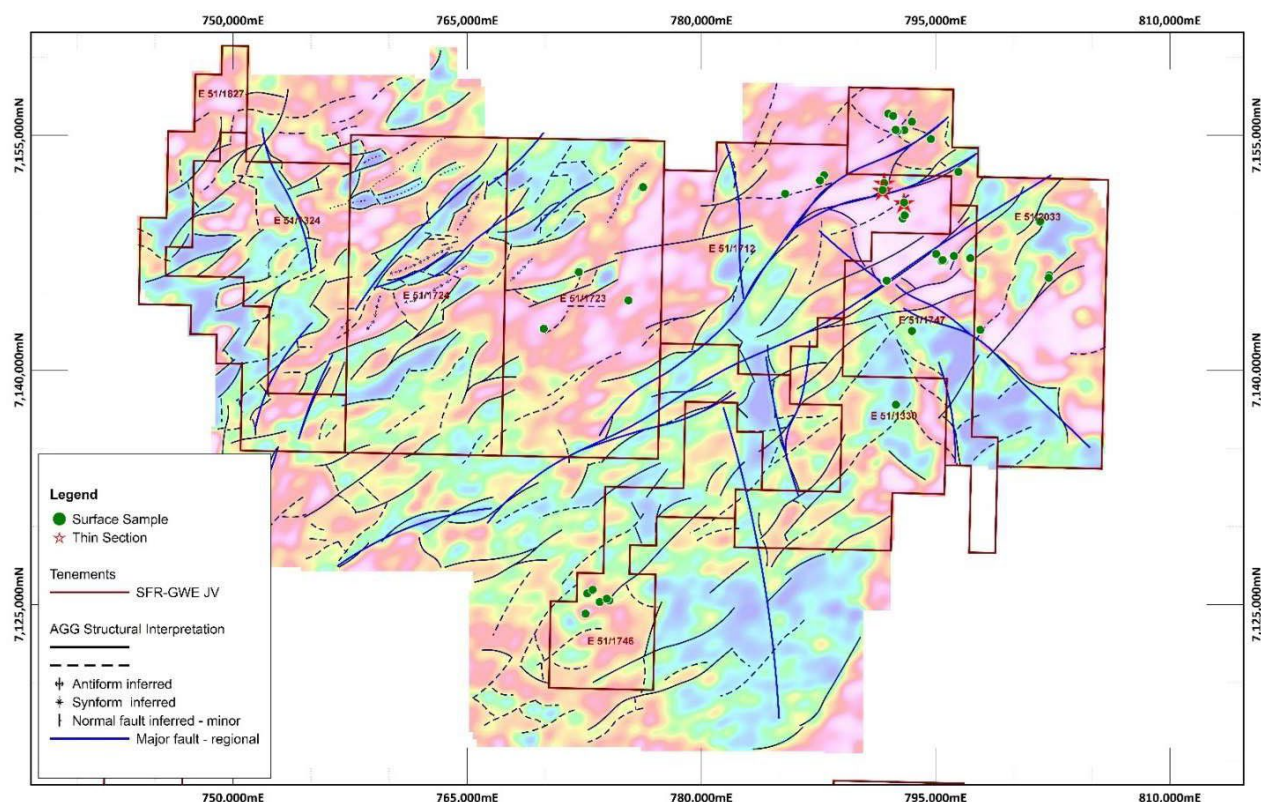


Figure 15: Airborne gravity and gradiometry with interpreted major tectonic zones.

Fieldwork Summary

Great Western is currently progressing several field work programmes across areas of the Company's substantial tenure that it expects will result in drill ready targets. This work includes:

- Soil sampling at a number of areas considered prospective for copper, nickel and/or gold;
- Follow-up RC drill testing of the aircore drill results expected late-July 2023 at the Firebird Gold Project;
- RC drill testing of the large soil anomaly at the Angus Target within the Atley North Project, scheduled for late-July 2023;
- Awaiting results from the ground electromagnetic (EM) survey at the Fairbairn Nickel-Copper Project that aims to further refine the seven heliborne-EM targets previously identified;
- Golden Corridor diamond drilling programme, testing gold in soil anomalies and modelled basement targets (refer ASX announcement 25 September 2022), with dates to be advised.

Great Western looks forward to keeping the market updated and providing results of the exploration programmes in due course.

Corporate

Placement Completed

During the June 2023 Quarter, the Company completed a fund raising of \$2.85 million (before costs) by way of a placement of 71,250,000 ordinary shares at an issue price of \$0.04 per share ("Placement") to professional and sophisticated investors in two tranches. The Placement ensures that Great Western is well funded for its exploration program.

Euroz Hartleys Limited and Peloton Capital acted as Joint Lead Managers for the Placement. Great Western directors, Kevin Somes, Ross Williams and Grey Egerton-Warburton participated in Tranche 2 of the Placement following shareholder approval at a General Meeting held on 16 May 2023.

Junior Mineral Exploration Incentive

Subsequent to the end of the June 2023 Quarter, the Company was successful in its application for participation in the Federal Government's Junior Mineral Exploration Incentive ("JMEI") Scheme for the 2023/2024 tax year. Great Western has received an allocation of up to \$1,050,000 in JMEI credits for the 2023/2024 tax year.

The Federal Government's JMEI scheme encourages investment in exploration companies that carry out greenfields mineral exploration in Australia, by allowing these exploration companies to forgo a portion of their carried forward tax losses that have arisen from allowable expenditure on "greenfield" exploration for potential distribution to eligible investors. Great Western wish to acknowledge the support of the Federal Government in making the JMEI credit available.

ASX Additional Information

- ASX Listing Rule 5.3.1: Exploration & Evaluation Expenditure during the June 2023 Quarter was \$717,000. Full details of exploration activity during the June 2023 Quarter are in this report.
- ASX Listing Rule 5.3.2: There were no substantive mining production and development activities during the June 2023 Quarter.
- ASX Listing Rule 5.3.5: Payments to related parties of the Company and their associates during the June 2023 Quarter: \$85,000 in aggregate is for executive directors' salaries only.

Authorised for release by the board of directors of Great Western Exploration Limited.

Tony Walsh
Company Secretary
Great Western Exploration Limited
Tel: 08 6311 2852
Email: enquiries@greatwestex.com.au

Competent Person Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr. Shane Pike who is a member of the Australian Institute of Mining and Metallurgy. Mr. Pike is an employee of Great Western Exploration Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Pike consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Company's Exploration Results is a compilation of Results previously released to ASX by Great Western Exploration (23 March 2018, 6 February 2020, 1 July 2021, 23 August 2021, 12 January 2023, 1 February 2023, 7 February 2023, 7 March 2023, 9 May 2023, 19 May 2023, 22 May 2023, 5 July 2023) Mr. Shane Pike consents to the inclusion of these Results in this report. Mr. Pike has advised that this consent remains in place for subsequent releases by the Company of the same information in the same form and context, until the consent is withdrawn or replaced by a subsequent report and accompanying consent. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Appendix 1: Tenement Schedule at 30 June 2023

Project	Tenement	Status	Holder	Ownership	Comments
Atley	E 57/1130	Live	Great Western Exploration Limited	100%	
Atley	E 57/1131	Live	Great Western Exploration Limited	100%	
Atley	E 57/1160	Live	Great Western Exploration Limited	100%	
Atley	E 57/1161	Live	Great Western Exploration Limited	100%	
Atley	E 57/1162	Live	Great Western Exploration Limited	100%	
Atley	E 57/1164	Live	Great Western Exploration Limited	100%	
Atley	E 57/1165	Live	Great Western Exploration Limited	100%	
Atley	E 57/1166	Live	Great Western Exploration Limited	100%	
Atley	E 57/1204	Live	Great Western Exploration Limited	100%	
Fairbairn	E 69/3443	Live	Vanguard Exploration Ltd	100%	100% Owned Subsidiary
Fairbairn	E 69/3810	Pending	Great Western Exploration Limited	100%	
Fairbairn	E 69/3899	Live	Great Western Exploration Limited	100%	
Fairbairn	E 69/3903	Pending	Great Western Exploration Limited	100%	
Fairbairn	E 69/3906	Live	Great Western Exploration Limited	100%	
Fairbairn	E 69/4065	Pending	Great Western Exploration Limited	100%	Reapplication of E 69/3903
Fairbairn	E 69/4150	Pending	Great Western Exploration Limited	100%	
Fairbairn	E 69/4151	Pending	Great Western Exploration Limited	100%	
Forrestania South	E 74/603	Live	Western Areas Ltd	10%	Free Carried To PFS
Firebird	E 53/2129	Live	Jindalee Resources Limited	0%	JV with Dynamic Resources Ltd, GTE Earning 80%
Golden Corridor	E 51/1855	Live	Great Western Exploration Limited	100%	
Golden Corridor	E 51/2046	Live	Great Western Exploration Limited	100%	
Golden Corridor	E51/2010	Live	Great Western Exploration Limited	90%	Westex Resources Free Carried to BFS
Golden Corridor	E 53/1983	Live	Great Western Exploration Limited	100%	
Golden Corridor	E 53/2124	Live	Great Western Exploration Limited	100%	
Golden Corridor	E 53/2138	Live	Great Western Exploration Limited	100%	
Golden Corridor	E 53/2139	Live	Great Western Exploration Limited	100%	
Golden Corridor	E 53/2141	Live	Great Western Exploration Limited	100%	
Golden Corridor	E 53/2142	Live	Great Western Exploration Limited	100%	
Lake Way Potash	E 53/1949	Live	Great Western Exploration Limited	100%	
Lake Way Potash	E 53/2017	Live	Great Western Exploration Limited	100%	
Lake Way Potash	E 53/2026	Live	Great Western Exploration Limited	100%	
Lake Way Potash	E 53/2146	Live	Great Western Exploration Limited	100%	

Project	Tenement	Status	Holder	Ownership	Comments
Yandal West	E 53/1369	Live	Vanguard Exploration Ltd	100%	100% Owned Subsidiary
Yandal West	E 53/1612	Live	Diversified Asset Holdings Pty Ltd	80%	Diversified Free Carried To BFS,
Yandal West	E 53/1816	Live	Diversified Asset Holdings Pty Ltd	80%	Diversified Free Carried To BFS
Yandal West	E 53/2206	Pending	Great Western Exploration Limited	100%	Competing Application, second drawn in ballot
Copper Ridge	E 51/1727	Live	Great Western Exploration Limited	100%	
Copper Ridge	E 51/1734	Live	Great Western Exploration Limited	100%	
Copper Ridge	E 51/1856	Live	Great Western Exploration Limited	100%	
Copper Ridge	E 53/1894	Live	Great Western Exploration Limited	100%	
Copper Ridge	E53/2156	Live	Great Western Exploration Limited	100%	
Yerrida South	E 51/1732	Live	Great Western Exploration Limited	100%	
Yerrida South	E 51/1733	Live	Great Western Exploration Limited	100%	
Yerrida South	E 51/1993	Live	Great Western Exploration Limited	100	
Yerrida South	E51/2062	Live	Great Western Exploration Limited	100%	
Yerrida South	E51/2063	Live	Great Western Exploration Limited	100%	
Yerrida South	E 53/2027	Live	Great Western Exploration Limited	100%	
Yerrida South	E 53/2077	Live	Great Western Exploration Limited	100%	
Yerrida South	E 53/2196	Live	Great Western Exploration Limited	100%	
Yerrida South	E 51/2078	Live	Great Western Exploration Limited	100%	
Yerrida North	E 51/2127	Pending	Great Western Exploration Limited	100%	
Yerrida North	E 51/2128	Pending	Great Western Exploration Limited	100%	
Yerrida North	E 51/2129	Pending	Great Western Exploration Limited	100%	
Calyerup	E 70/6032	Live	Great Western Exploration Limited	100%	
Weld Spring	E 69/4021	Pending	Great Western Exploration Limited	100%	
Weld Spring	E 69/4022	Pending	Great Western Exploration Limited	100%	
Weld Spring	E 69/4023	Pending	Great Western Exploration Limited	100%	
Weld Spring	E 69/4024	Pending	Great Western Exploration Limited	100%	
Weld Spring	E 69/4025	Pending	Great Western Exploration Limited	100%	
Weld Spring	E 69/4026	Pending	Great Western Exploration Limited	100%	
Weld Spring	E 69/4027	Pending	Great Western Exploration Limited	100%	
Joint Venture with Sandfire Resources Limited (1)					
Yerrida North JV	E 51/1324	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1330	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1560	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%

Project	Tenement	Status	Holder	Ownership	Comments
Yerrida North JV	E 51/1712	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1723	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1724	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1728	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1746	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1747	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1819	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/1827	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/2033	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%
Yerrida North JV	E 51/2068	Live	Great Western Exploration Limited	100%	Sandfire Earning 70%