### **ASX Announcement**

7 March 2023



# **Exploration Update: Atley North, Fairbairn, and Firebird Projects**

### **Highlights**

- Angus Target within the Atley North Project defined as a large Ultrafine+ soil anomaly, with RC Drilling planned.
- Angus is located within the Youanmi Shear Zone, host to both Youanmi (Rox Resources) and Penny West (Ramelius Resources) gold deposits.
- Ultrafine+ soil anomaly at Angus is extensive, extending 950m x 450m with bedrock obscured by colluvium cover, presenting a prospective blind potentially Archean Greenstone Target.
- Interpretation and target generation of Heli-borne EM data from the Fairbairn Nickel-Copper Project imminent.
- Planning for drill testing by Aircore/Slimline RC drilling well advanced at Firebird, testing the high tenor and extensive (3.7km x 450m) Ultrafine Soil anomaly at the project.

Great Western Exploration Limited (ASX: GTE) ("Great Western" or "the Company") is pleased to announce a drill programme to test an extensive Ultrafine+ soil anomaly at the Angus Target, within the Company's Atley North Project, and an update on the Fairbairn and Firebird Projects.

# **Atley North Project**

GTE 100% (E57/1130)

The Atley North Project is located along the Youanmi Shear, which hosts nearby gold deposits such as Youanmi (Rox Resources) and Penny West (Ramelius Resources), shown in Figure 1. The Angus Target within this project is a large Ultrafine+ soil anomaly, with extents of 950m x 450m (Figure 2). Government bedrock mapping interprets Archean granitoids at this location; however, bedrock is

obscured by transported cover, which potentially conceals Archean Greenstone units, which are prospective for large orogenic gold deposits.

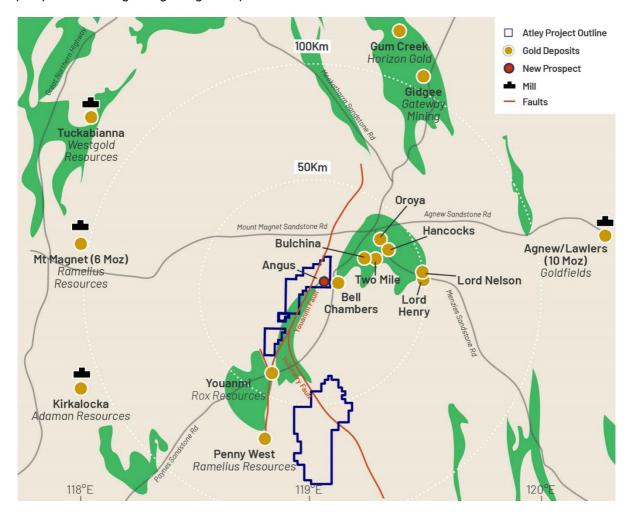


Figure 1: Location of the Atley North Project in proximity to nearby gold mines.

Recently returned float samples (rock-chips that are likely transported and not in-situ) returned results of 14.5g/t and 0.97 g/t Au. The transported nature of this style of samples means obtaining a specific location of mineralisation is difficult; however, the higher grade of the samples may indicate high-grade mineralisation is located within the shear zone at this location.

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 2. The anomalous contours are sub-parallel with faulting of the Youanmi Shear Zone, with drilling designed to test the anomalies below shallow colluvial

cover.

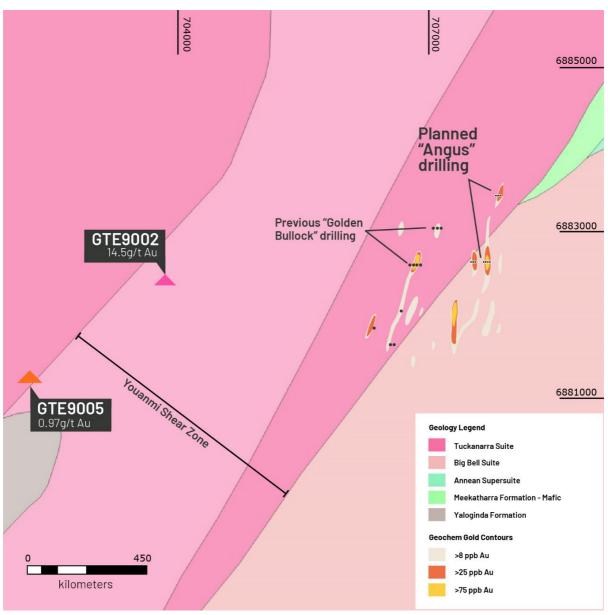


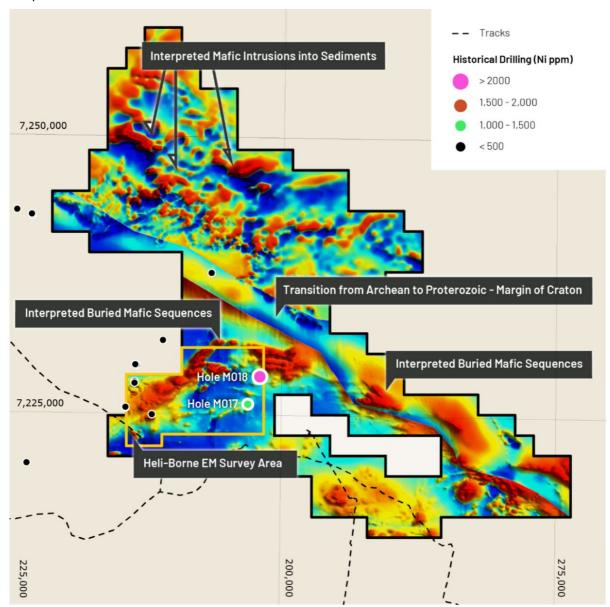
Figure 2: Anomalous soil contours, planned drilling, and float sample locations.

# **Fairbairn Nickel-Copper Project**

GTE 100% (E69/3443)

Results and interpreted targets from the Heli-borne Electromagnetic (EM) survey, completed in January 2023 (Figure 3) at the Fairbairn Nickel-Copper Project (GTE ASX Announcement 1 February 2023) are imminent. Fairbairn is located 900km north-east of Perth, on the northern margin of the Yilgarn Craton and within the Earaheedy Basin. The Yilgarn Craton margin is highly prospective for base metal deposits and host to both the Julimar and Nova Deposits. The Fairbairn Nickel-Copper Projects sits within a similar geological position as these two deposits, with little previous exploration completed at the project.

Geophysical consultants Newexco are currently interpretating the EM data, with this work near complete.



**Figure 3**: Previously drilled exploration holes exploring for diamonds assayed for nickel, overlayed on 40m State aeromagnetic data. Red magnetic highs are interpreted to be shallowly covered Archean mafic and ultramafic units, prospective for magmatic Ni-Cu deposits. Orange polygon is the completed EM survey covering anomalous drill-holes and coincident magnetic highs.

### **Firebird Gold Project**

GTE 100% (E53/2027, E53/1894), GTE earning 80% (E53/2129)

The Firebird Gold Project is located within the Youanmi Greenstone Belt, 2.5km west of Western Gold's Gold Duke Project which contains several Mineral Resources reported to JORC 2012 standard. As previously reported (GTE ASX Announcement 6 February 2023), the project contains a large high tenor Ultrafine+ soil anomaly, coincident with north-west trending subtle magnetic features (Figure 4), that

potentially reflect individual geological units within Archean Greenstone, prospective for orogenic gold deposits. Planning for an air-core/slim line RC programme is well advanced with approvals now in place.

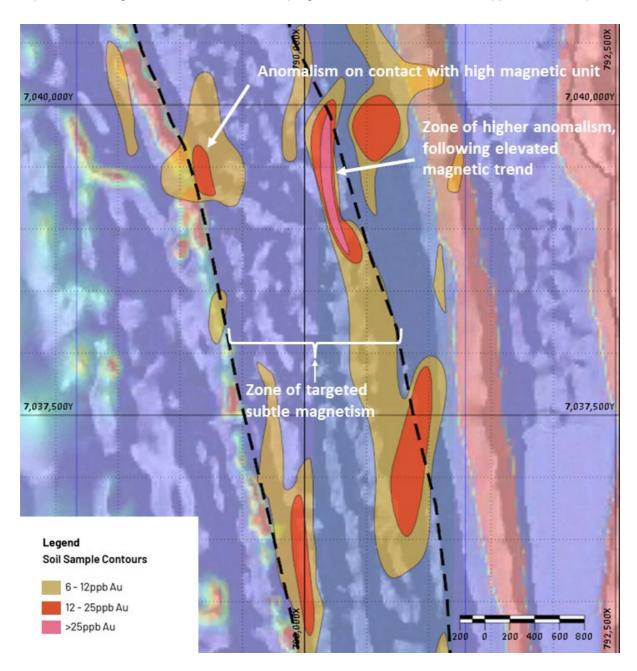


Figure 4: Ultrafine soil anomalism on first vertical derivative magnetic Image. Targeted subtle magnetic zone highlighted by black dotted lines.

Great Western looks forward to updating shareholders with progress of these high priority exploration programmes.

# **About Great Western Exploration**

Great Western Exploration (GTE.ASX) is a copper, gold and nickel explorer with a world class, large land position in prolific regions of Western Australia. Great Western's tenements have been underexplored or virtually unexplored (Figure 3).

Numerous field work programmes across multiple projects are currently underway and are well-funded with a tight capital structure, providing leverage upon exploration success.



Figure 5: Location of Great Western's Exploration Tenure.

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

Tony Walsh

Company Secretary

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Previous ASX Releases - GTE.ASX

1. 1 February 2023 Completion of Fairbairn Nickel-Copper Project EM Survey.

2. 6 February 2023 Geological Interpretation Significantly Enhances Firebird.

#### **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 (1/02/2023 and 6/02/2023) 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

# **Angus Rock-Chip Samples**

	Easting	Northing	Elevation			Notable	Intercept	:s		
Hole ID	(GDA94 Z50)	(GDA94 Z50)	RL	Au (g/t)	Ag (ppm )	Cu (ppm)	Ni (ppm)	Pb (ppm)	Zn (ppm)	Comments
GTE9002	703772	6882298	501	14.49	0.77	16.4	4.4	5.4	5	Quartz veins and ironstone, in silicified host rock
GTE9005	702149	6881136	501	0.97	0.2	26.8	12.4	9.2	37	Quartz, goethite, kaolin, felsic silicified saprock

NSA: No significant assay results

BD: Below analysis detection limit

# Appendix 2

# JORC Code, 2012 Edition (Table 1) - Angus Rock-Chip Sampling

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or</li> </ul>	Whole rock was collected from float samples.

	mineralisation tunes (ea submarine nedules)	
	mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.	
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open- hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face- sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	Not Applicable
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	Not Applicable.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul> <li>Rock-chips were geologically logged in the field, with regolith of the location of the float samples also noted.</li> </ul>
Sub-sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all subsampling stages to maximise representativity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected,</li> </ul>	<ul> <li>No sub-sampling undertaken.</li> <li>Samples were of float material and unlikely to represent in-situ metal values.</li> </ul>

Quality of assay data	<ul> <li>including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and</li> </ul>	<ul> <li>For QA/QC Standards, Blanks and Duplicates were inserted at regular intervals amongst samples sent to geochemical lab for analysis.</li> </ul>
and laboratory tests	<ul> <li>whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	
Verification of sampling and assaying	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	Anomalous and above limit of detection of assayed Au values were verified by repeat assays.
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Sample collection sites were marked using a handheld GPS with +/- 3-5m accuracy in plan. This accuracy is acceptable for early-stage exploration.</li> <li>Grid: MGA, Datum: GDA94, Zone: 50</li> <li>Sample elevations were assigned using the GSA SRTM digital elevation data.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul> <li>Irregular spacing, opportunistic sampling of float rock when found.</li> <li>Sampling will not be used for any Mineral Resource Estimate.</li> <li>No sample compositing was applied.</li> </ul>

Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	Not Applicable.
Sample security	The measures taken to ensure sample security.	<ul> <li>Samples were securely packed on site and either delivered to the laboratory (ALS Perth, WA) by a commercial freight carrier, or by GTE employees.</li> </ul>
Audits or reviews	<ul> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul> <li>No specific external audits or reviews have been undertaken on the drill data.</li> <li>The rock-chip sample data was reviewed internally by the Senior Exploration Geologist.</li> </ul>

# Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul> <li>Exploration lease E 57/1130 ("Atley North") is located 25km south-west of Sandstone, WA. GTE has 100% ownership of the lease.</li> <li>The tenement is currently outside any Native Title Claim or Determination.</li> <li>No other encumbrances are known.</li> <li>The tenement is in good standing.</li> </ul>
Exploration done by other parties	<u> </u>	<ul> <li>Previous exploration drilling within E57/1130 has been conducted by Troy Resources (RAB) and IC2 Global (RAB/RC) targeting gold, iron, titanium and vanadium. This drilling focused on the southern extent of the tenement, approximately 35km south of GTE's drill area.</li> <li>Previous MMI sampling testing for gold completed by ICC Global whilst exploring for uranium, that returned a robust anomalous response that was not subsequently followed up. Data previously provided to the market on 25th August 2020 by GTE</li> </ul>
Geology	Deposit type, geological setting and style of mineralisation.	GTE have targeted Archaean gold lode style mineralisation. The Project is located Youanmi Shear Zone. Government bedrock interpretation mapped Archean Granitoids throughout the tenement; however, bedrock is almost entirely concealed by colluvium cover.
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:         <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> </ul> </li> </ul>	Not Applicable.

	<ul> <li>down hole length and interception depth</li> <li>hole length.</li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	No data aggregation was completed.
Relationship between mineralisation widths and intercept lengths	<ul> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	Not applicable.
Diagrams	<ul> <li>Appropriate maps and sections (with scales)         and tabulations of intercepts should be         included for any significant discovery being         reported These should include, but not be         limited to a plan view of drill hole collar         locations and appropriate sectional views.</li> </ul>	Sample locations are displayed in Figure 2 (announcement body).
Balanced reporting	Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high	Relevant assay data is shown in Appendix 1.

Other substantive exploration data	grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.  • Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>Previously reported relevant data for Atley North has been made in the following ASX announcements:         <ul> <li>2 February 2021 – Large Gold Target Identified at Atley North</li> <li>17 March 2021 – Drilling of Multiple Greenfields Targets to Commence</li> <li>31 March 2021 – Drilling Complete at Finlayson, Rig Moves to Golden Bullock</li> <li>17 May 2021 – Golden Bullock Assays Received, New Drill Targets Identified</li> </ul> </li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul> <li>Further work at Angus may include further RC Drilling and/or Diamond Drilling.</li> <li>See Figure 2 within main body of announcement.</li> </ul>