



ICENI GOLD
LIMITED

QUARTERLY REPORT

QUARTERLY ACTIVITIES REPORT

FOR THE QUARTER ENDED 30 JUNE 2022

ASX RELEASE

29 July 2022

COMPANY

ASX: ICL
ACN: 639 626 949

CAPITAL STRUCTURE

Shares: 208,571,428
Options: 19,706,857

BOARD

Brian Rodan
Executive-Chairman

David Nixon
Technical Director

Hayley McNamara
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Iceni Gold Limited (ASX: ICL) (**Iceni** or the **Company**) is pleased to report on its activities during the quarter ended 30 June 2022 (**Quarter 4**).

Highlights

- Strong alteration and Volcanogenic Massive Sulphide (VMS) potential identified at target Claypan
- Gold anomalism in Air Core (AC) drilling at Deep Well, TOTK and Danjo NE
- Gold identified in diamond drilling (DD) at Everleigh Well
- Southern half of Guyer Well AC campaign completed
- Received all results from the CSIRO Ultra Fine Fraction (UFF+) soil sampling campaign and associated Machine Learning (ML) analysis

Projects and Activities

Claypan

Drill testing commenced at the **Claypan** target area. Drilling during the quarter intersected significant widths of **strong alteration** with **sulphides** within this target area.

DD in the **Claypan** target area has intersected **strong alteration** over a broad area. The observed alteration, mineralisation and stratigraphic position are consistent with a **VMS** exploration model, which is further supported by the observation of known **VMS deposits** within the district.

The **VMS** exploration model is well developed with defined alteration patterns and mineral zonation. This type of model can be used to guide exploration to locate the focus of the hydrothermal activity and any associated mineralisation.

The **VMS** style of mineralisation was not considered by the Company in the prospectus dated 3 March 2021. Identifying the potential for **VMS** mineralisation within the **14 Mile Well** project is an unexpected positive result.



Figure 1: Claypan FMDD0040 ~140m, sulphidic zone associated with SCT/BIF.



Figure 2: Location of the 14 Mile Well project within the Eastern Goldfields of Western Australia.

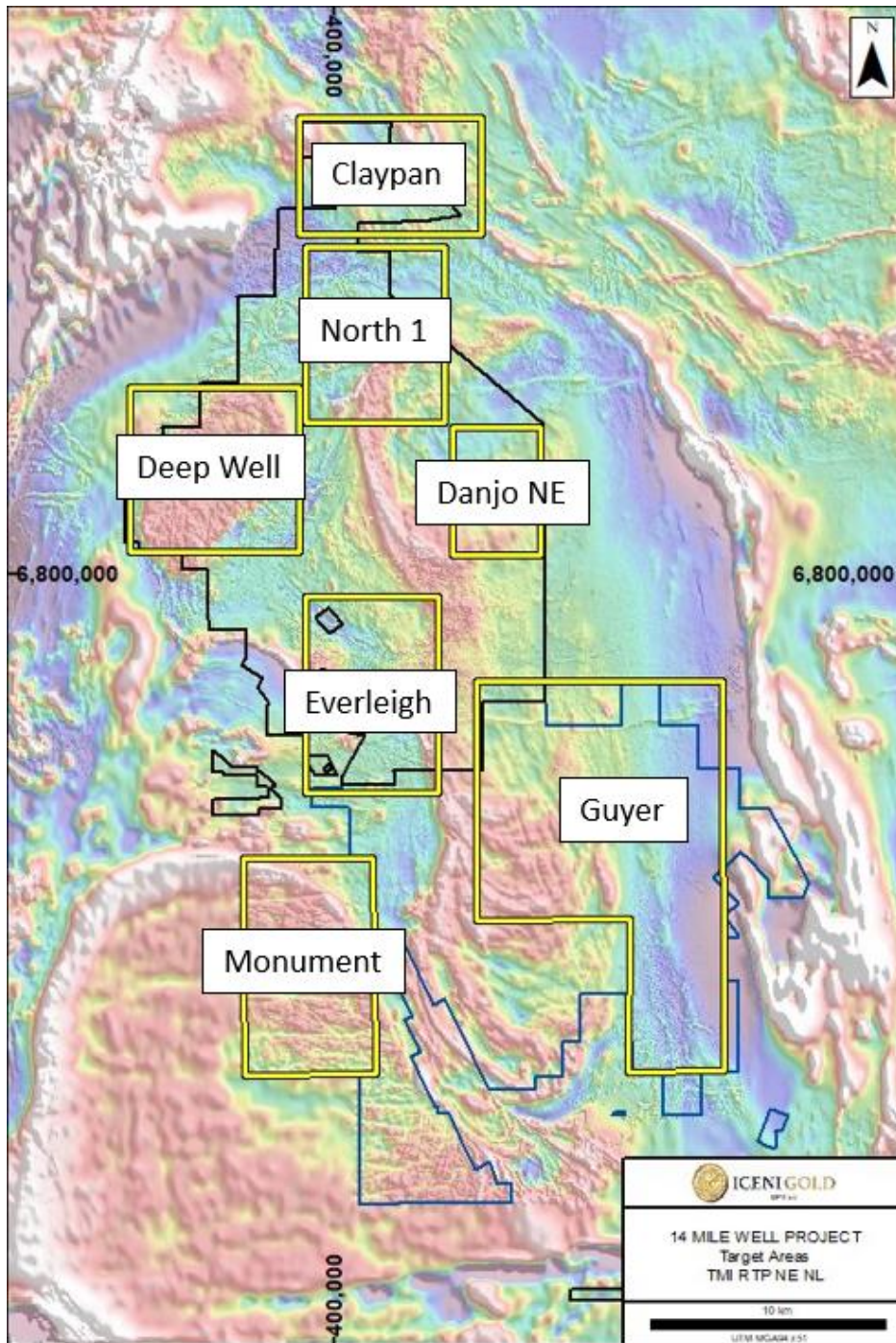


Figure 3: 14 Mile Well project area, showing the seven key target areas. DD was completed in the **Claypan** and **North 1** target areas and AC drilling was undertaken in the **Guyer** target area. Image is Total Magnetic Intensity (TMI) Reduced to Pole (RTP) (after GSWA).

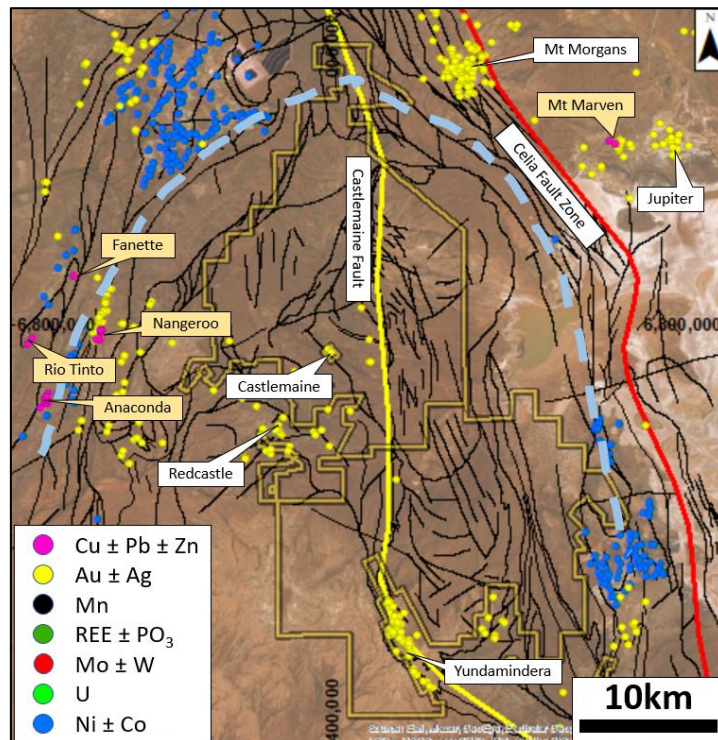


Figure 5: Metallogenic plan of the **14 Mile Well** project. Known **VMS** mineralisation at the **Anaconda** group of mines exists immediately to the west of the **14 Mile Well** project. The underlying stratigraphy associated with this mineralisation is interpreted to extend through the **Claypan** target area (blue dashed line).

Dr Walter Witt was engaged by the Company to undertake a study on the drill core from the **Claypan** area. Dr Witt identified the bimodal association of andesite and rhyolite in the volcanic sequence. The sequence is pervasively silica-sericite altered, crystal fragments and vitric clasts in the andesite have been chloritized, and the combination of the alteration styles is interpreted as strata-bound or semi-conformable alteration. This is significant because this would be the kind of alteration produced in a sub-seafloor hydrothermal system (Witt 2022).

During the study Dr Witt noted “more intense chloritization in the form of chlorite stringers that overprints the sericitic alteration and may represent the outer or distal parts of a chloritic feeder pipe” (Witt 2022). This is significant because it is the style of alteration commonly found beneath **VMS deposits** (Witt 2022). “Sericite-chloritoid formed during metamorphism of alkali depleted andesite with a bulk peraluminous composition, peraluminous assemblages, including sericite-chloritoid, are described in the vicinity of shallow, **precious metal-rich VMS systems**” (Witt 2022).

An alteration vector has been proposed towards potential mineralisation from hole FMDD0035 to the east, based on the increasing abundance of chlorite stringers and the sericite-chloritoid association in this direction (Witt 2022).

In the modern geological environment **VMS systems** have been observed forming from **Black Smokers** associated with volcanic activity on the sea floor. The hydrothermal system is driven by a shallow magma and the heat drives the circulation of seawater through the rock mass. The heated seawater strips metals, including gold, from the basement volcanics and carries them up through the central feeder structures. The metal laden fluid discharges at or near the sea floor; the sudden change in temperature, pressure and chemistry causes the metals to precipitate out of solution and crystallise as sulphides.

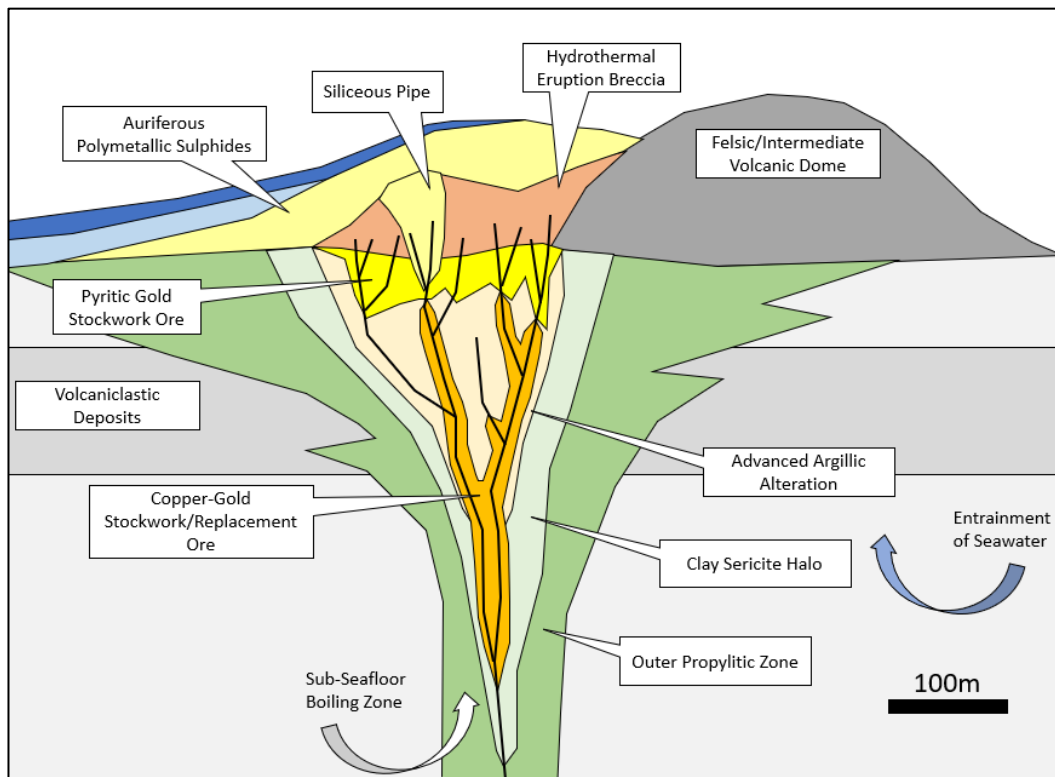


Figure 6: Schematic section through a gold rich VMS hydrothermal system (after Dube et al 2007.)

The sulphide zone vertically within the feeder structures, with a copper-gold stockwork at depth giving way to a pyritic-gold stockwork zone beneath the polymetallic sulphide mound. The sulphide mound also displays zonation with a central copper rich core that zones outwards to lead-zinc polymetallic sulphides.

The alteration forms a large cone beneath the sulphide mound. The outer propylitic zone is characterised by chlorite-carbonate, which transitions into increasing sericite alteration and continues into the central advanced argillic alteration zone, which is dominated by clays. The central upper part of the system is dominated by silica.

The sulphide mounds tend to form in clusters. They can form across the palaeo-seafloor surrounding the heat source and can also form and reform through the stratigraphic sequence like a stack of pancakes.

The regular patterns presented by the alteration and mineralisation can be utilised by explorers to focus in on the prized gold rich cores that may be found within these systems.

The identification of BIF associated with gold anomalism and strong alteration zones is very significant. BIF is a chemical sediment, known to be associated with VMS systems, the lithology can vary along strike with SCT. BIF is a chemically reactive lithology because it is rich in iron bearing minerals. These minerals will react strongly with mineralising fluids and deposit metals, including gold.

BIF is a brittle lithology, so when it interacts with structures it tends to fracture rather than flex. This creates open pathways that mineralising fluids can access.

Examples of BIF associated gold mineralisation in the Laverton District include **Sunrise Dam** and **Mt Morgans**.

DD Holes FMDD0038-41 and 43-45 were designed to test beneath the coincident targets C5, 14UF014 and the mapped SCT/BIF horizon, while holes FMDD0035 and 37 to the west were designed to test beneath geophysical and geochemical anomalies coincident with targets C6, CSA01 and 14UF014. Holes FMDD0038-41 and 43-45 are oriented to the southwest (towards 225°), perpendicular to the trend of local stratigraphy and to optimise the intersection with anticipated structures.

The observed geology in the holes FMDD0038-41 and 43-45 is dominated by strongly altered volcanoclastics and sediments (including SCT/BIF) with a number of porphyries intruding the sequence. The alteration assemblage is characterised by white mica-silica-carbonate-sulphide throughout all holes. This is a common alteration assemblage known to be associated with gold mineralisation within the Laverton District, across the Yilgarn Craton and in greenstone belts globally.

The geological observations of veining, alteration and sulphides from this drilling program are highly encouraging.

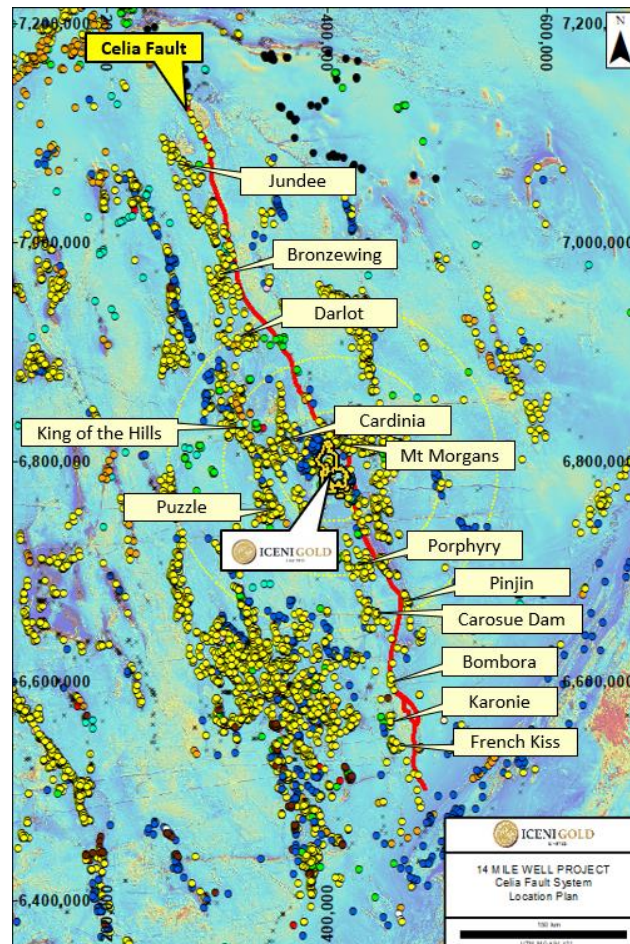


Figure 7: The **Celia Fault** is a major crustal structure known to extend across the **Yilgarn Craton** for ~700km. Significant gold deposits spatially related to the **Celia Fault** include: **Jundee, Bronzewing, Darlot, Mt Morgans, Carosue Dam and Karonie**.

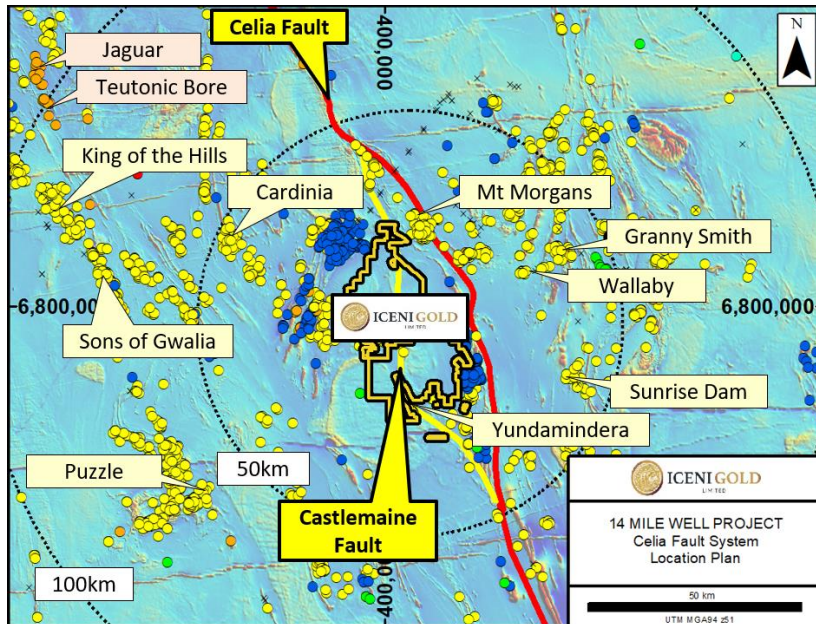


Figure 8: The **Celia Fault zone** passes along the eastern margin of the 14 Mile Well project, while a splay off this fault, the **Castlemaine Fault**, passes through the centre of the project area. In the **Claypan** area the **Celia Fault** has a significant change in orientation where it interacts with the Castlemaine Fault.

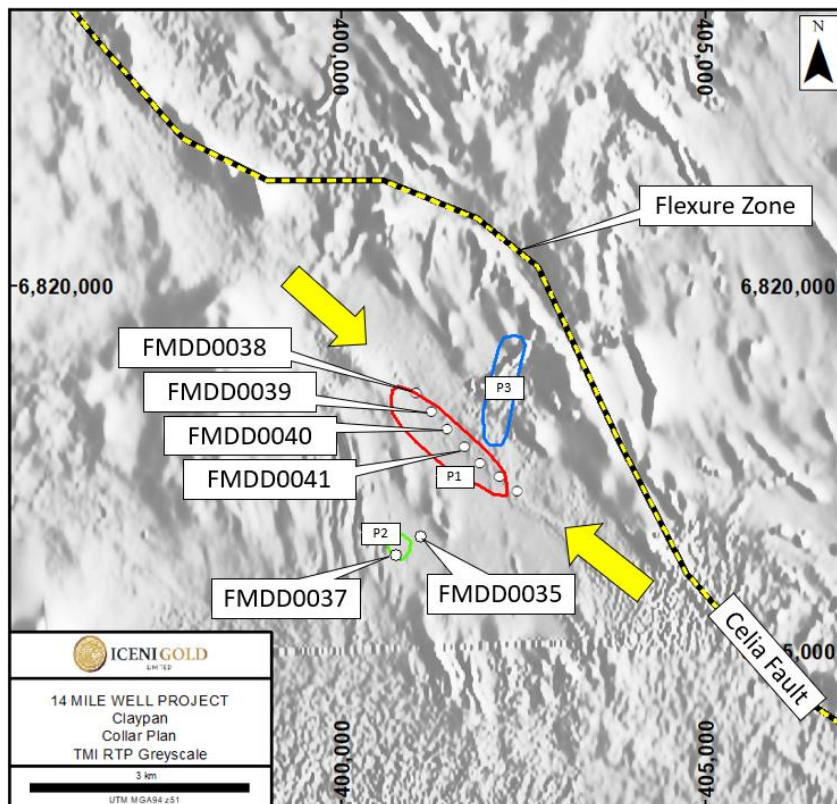


Figure 9: **Claypan** collar plan showing completed and planned drilling relative to the flexure in the **Celia Fault** and the 14UF014 Au anomaly priority zones. Arrows highlight the trend of the sub-cropping SCT/BIF beneath thin aeolian cover. Background image TMI RTP Greyscale.

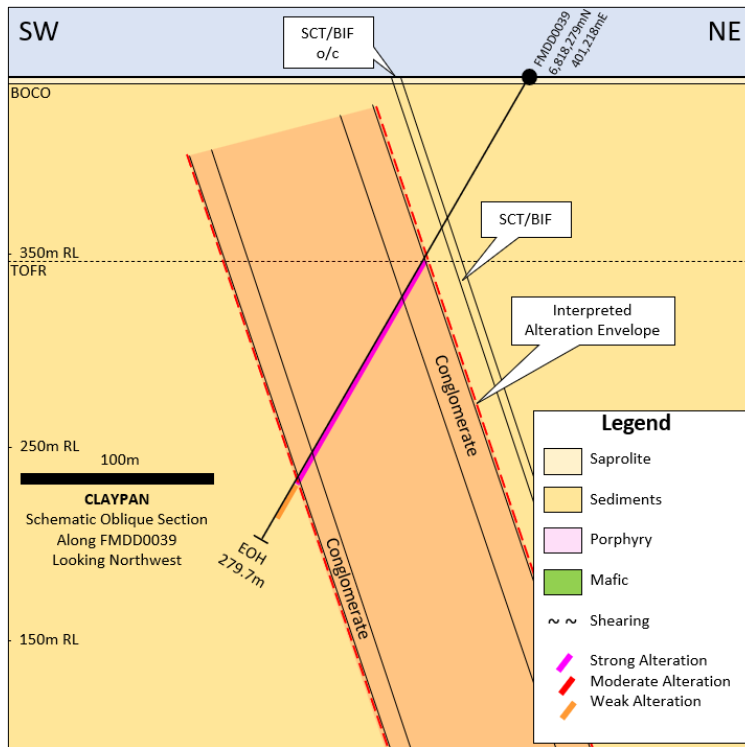


Figure 10: Oblique schematic section along the trace of hole FMDD0039, looking northwest. The strong to intense alteration envelope is focussed along the coarser clastic sediments/volcaniclastics.

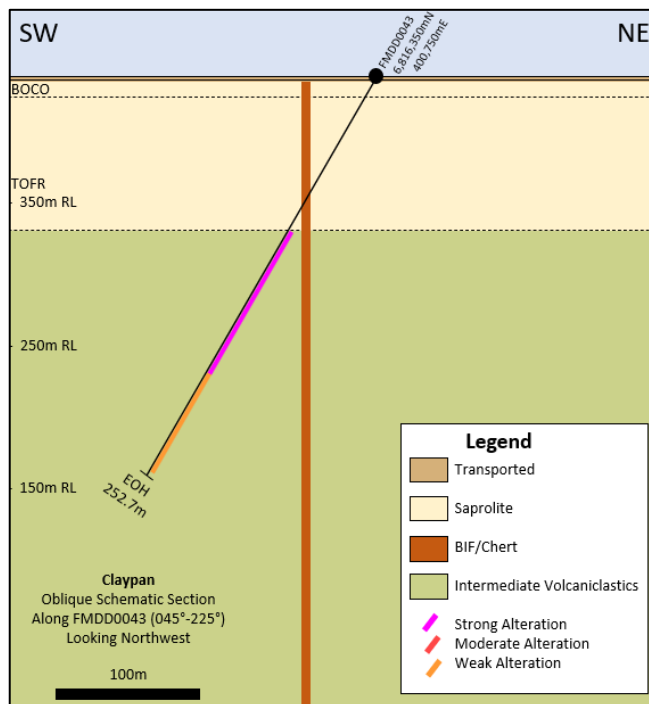


Figure 11: Oblique schematic section along the trace of hole FMDD0043, looking northwest. The strong alteration zone is located to the west of the BIF/SCT.

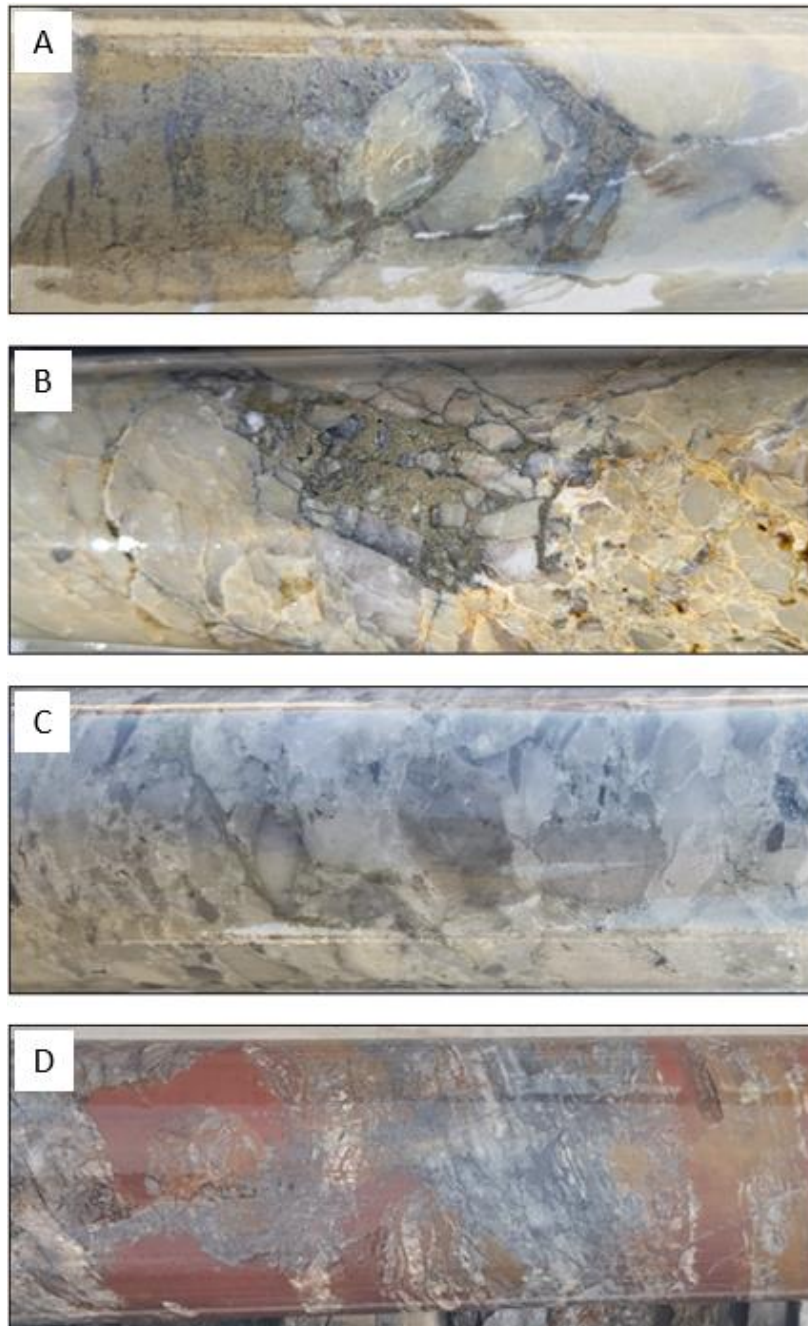


Figure 12: Observed alteration in diamond drilling beneath UFF+ Au anomaly at **Claypan**;
A) FMDD0038 ~ 199m strongly altered sulphidic chert;
B) FMDD0039 ~ 229m brecciated and strongly altered sediments with sulphidic quartz veining;
C) FMDD0040 ~ 195m Strongly white mica-silica-carbonate altered polymictic conglomerate. The matrix between the clasts has been replaced by carbonate and chalcedonic silica, reminiscent locally of the alteration at **Wallaby**.
D) FMDD0040 ~ 119m structurally disrupted chert/BIF in the sedimentary sequence.

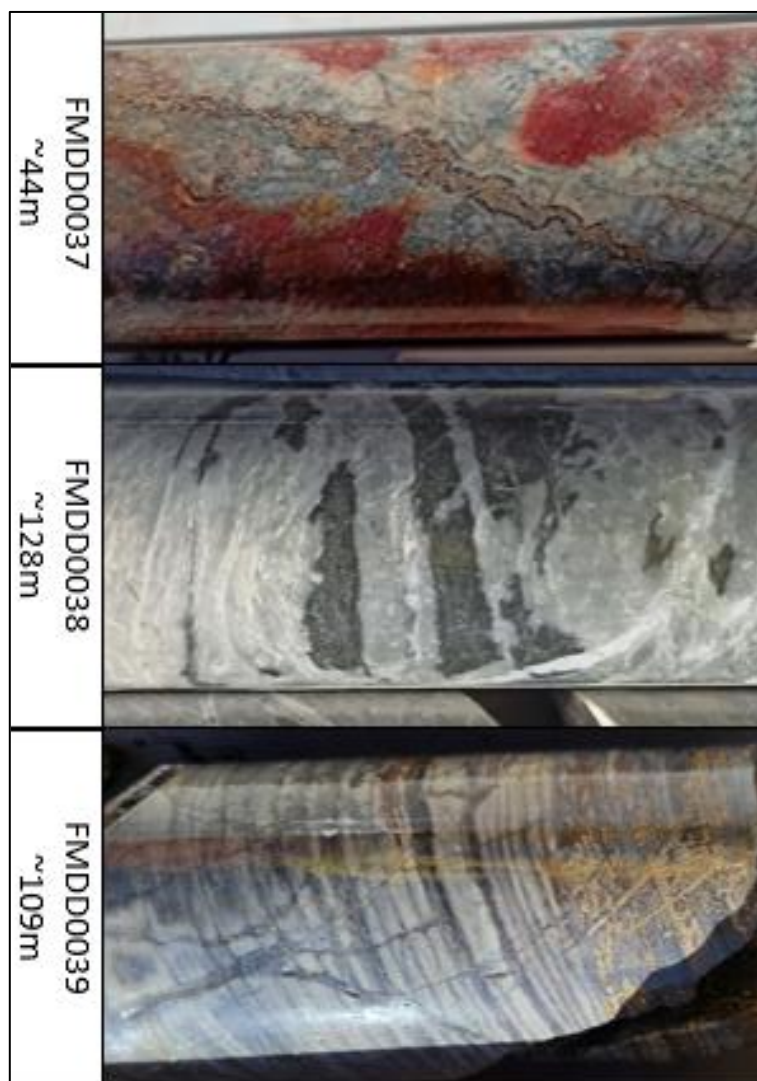


Figure 13: Examples of observed alteration styles in drill core from the **Claypan** target area:

FMDD0037 ~44m: Pyrite-white mica-chloritoid-carbonate altered intermediate volcanoclastics. This assemblage is diagnostic of early alteration that has been subsequently metamorphosed. It is well established that this alteration is known to be associated with metamorphosed VMS deposits (like **Teutonic Bore** and **Gossan Hill** in the **Yilgarn**, **Bousquet-LaRonde** and **Horne-Noranda** in the Abitibi) and Orogenic deposits (like the **Kalgoorlie Superpit**, **Tower Hill**, **Wallaby** and **Kundana** in the Yilgarn).

FMDD0038 ~128m: White mica-carbonate alteration overprinting earlier disseminated pyrite alteration (dark patches).

FMDD0039 ~109m: BIF with pyrite alteration forming telegraph textures as it infiltrates the more porous beds and along fractures. These textures were present in the upper parts of the **Sunrise Dam** deposit. BIF/chert units are known to form as exhalites related to a **VMS** hydrothermal vent on the seafloor.

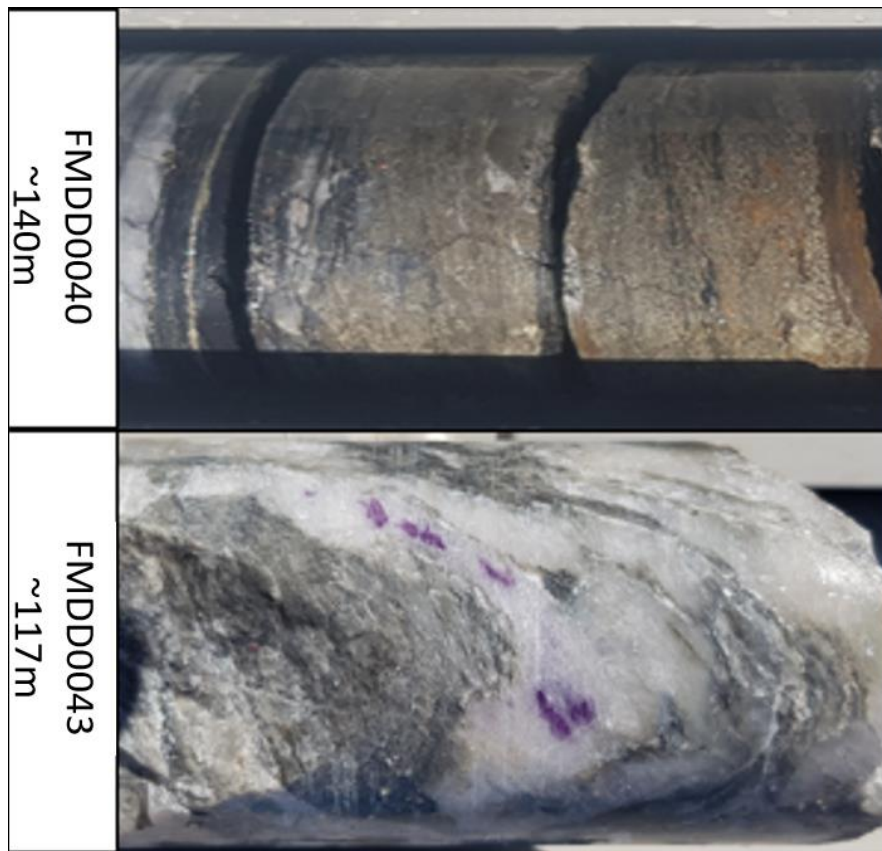


Figure 14: Examples of observed alteration styles in drill core from the **Claypan** target area:

FMDD0040 ~140m: Strongly pyritic zone associated with the chert/BIF horizon. These sulphides may be exhalites or a distal part of a sulphide mound that has formed at or near the palaeo-seafloor.

FMDD0043 ~117m: Purple fluorite bearing veins in a strong silica-white mica alteration zone. The presence of fluorite is diagnostic of fluids and volatiles being sourced from a nearby magma, possibly of syenitic composition. Fluorite is known to be associated with magmatic VMS systems in the Abitibi (like **Kidd Creek and Val d'Or**) and within the Yilgarn (like the **Teutonic Bore VMS camp**). Some orogenic gold deposits in the Yilgarn are known to have a fluorite association (for example **Enterprise** at Ora Banda, **Songvang** at Agnew and **Invincible** at Kambalda).

This result opens up the **potential for VMS mineralisation within the 14 Mile Well project**, particularly the **Claypan** target area where geological features consistent with a VMS environment have been observed. The areas surrounding the syn-volcanic Danjo intrusion also have potential, as do the structures that communicate with it, particularly the 30km long **Castlemaine Fault**.

Deep Well

The Company has received all assay results from the 132-hole AC drilling program at Deep Well, totalling 6,860m, surrounding the initial DD program.

The DD program was following up gold anomalism identified in historic exploration work and was designed to test down dip and along strike. The DD had previously intersected a sulphide bearing alteration zone adjacent to a significant north trending shear zone and intersected hydrothermally altered alkaline intrusions. The DD did not intersect economic gold mineralisation at these specific locations.

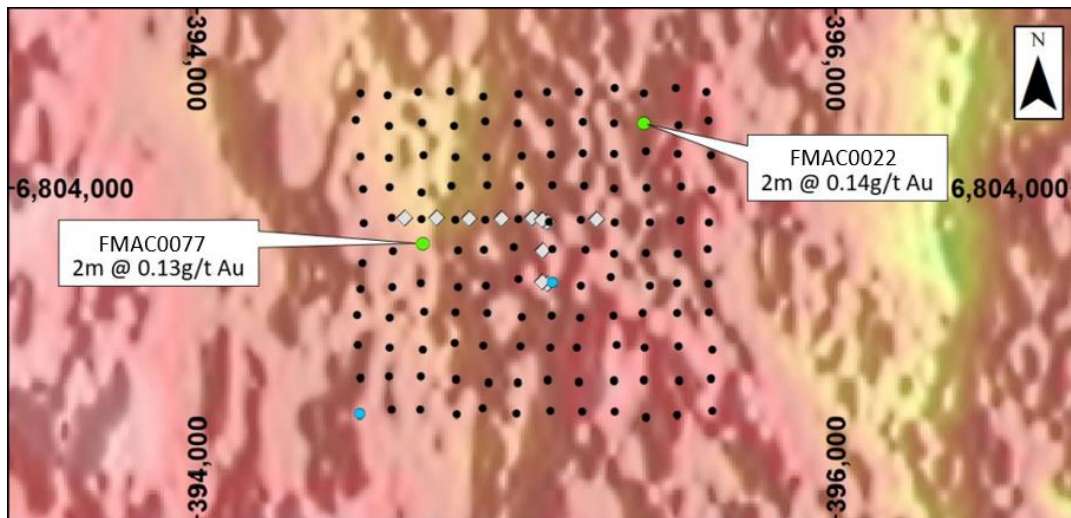


Figure 15: Deep Well target FMW44 with gold results from AC drilling. Background image is TMI RTP magnetics.

Significant historic drill results at target **FMW44** at Deep Well included:¹

- KOW013 with **4m @ 0.66g/t Au**, **4m @ 0.14g/t Au** & **5m @ 3.32g/t Au**
- KOW014 with **4m @ 0.16g/t Au**, **8m @ 0.25g/t Au** & **4m @ 0.55g/t Au**

Recent AC drilling at target **FMW44** identified two significant gold intersections (see **Figure 15**) with a similar tenor to the historic results:

- FMAC0022 with **2m @ 0.14g/t Au** from 34-36m
- FMAC0077 with **2m @ 0.13g/t Au** from 8-10m

All AC drilling assay results have now been received and reviewed by consulting Geochemist Chris Salt from SRK. Those results will now be integrated with the CSIRO UFF Machine Learning (ML) outputs.

¹ Refer to Independent Geologist Report in IPO prospectus dated 3 March 2021.

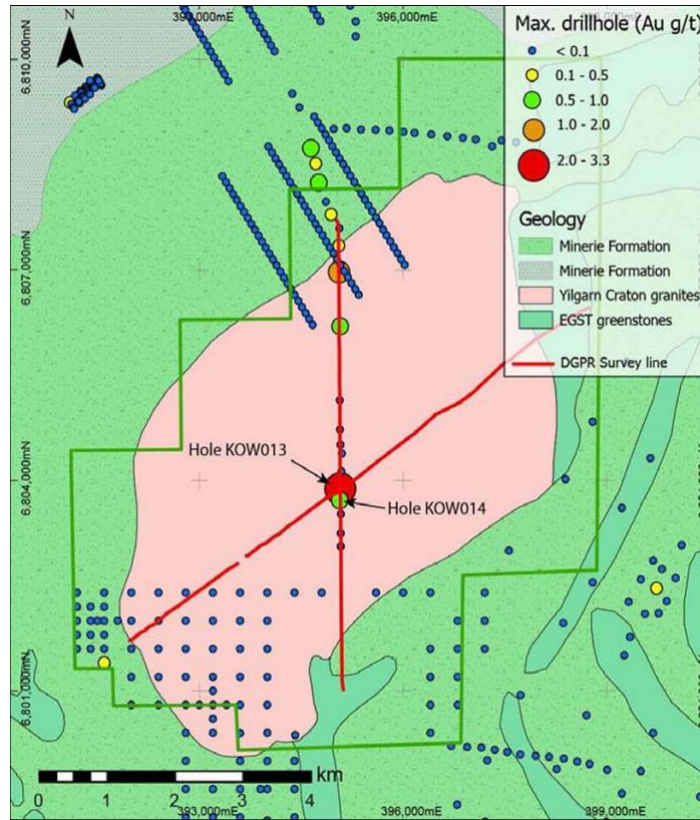


Figure 16: Location of historic drilling at target FMW44. The red traces indicate the positions of Deep Ground Penetrating Radar (DGPR) survey lines.

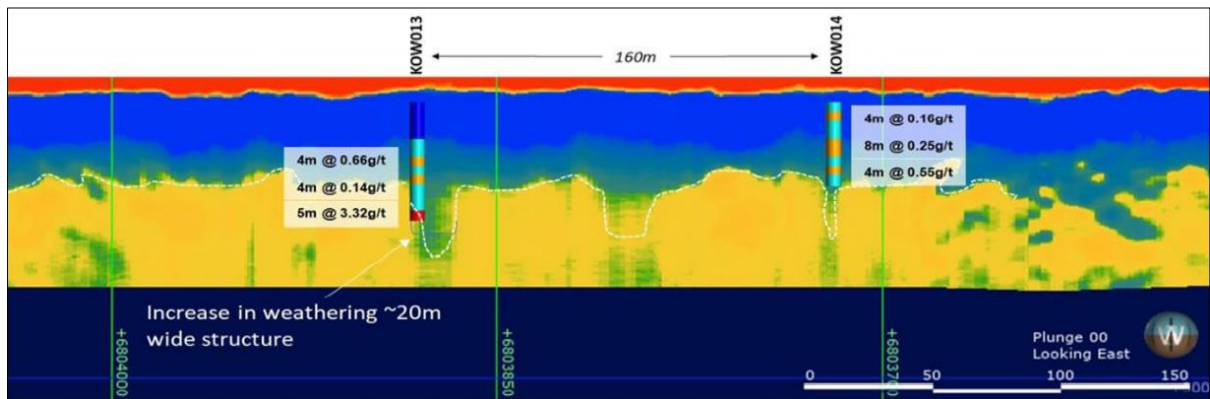


Figure 17: North-South DGPR section through historic RAB drilling at FMW44-Deep Well, showing historic gold intercepts.

All AC holes were subjected to a comprehensive bottom of hole interrogation, which included analyses for a broad suite of 64 elements and Short-Wave Infra-Red (SWIR) hyperspectral analysis to identify alteration minerals.

A spatial association has been established between the significant gold result in FMAC0022 and white micas, carbonate and biotite alteration minerals interpreted from SWIR analysis.

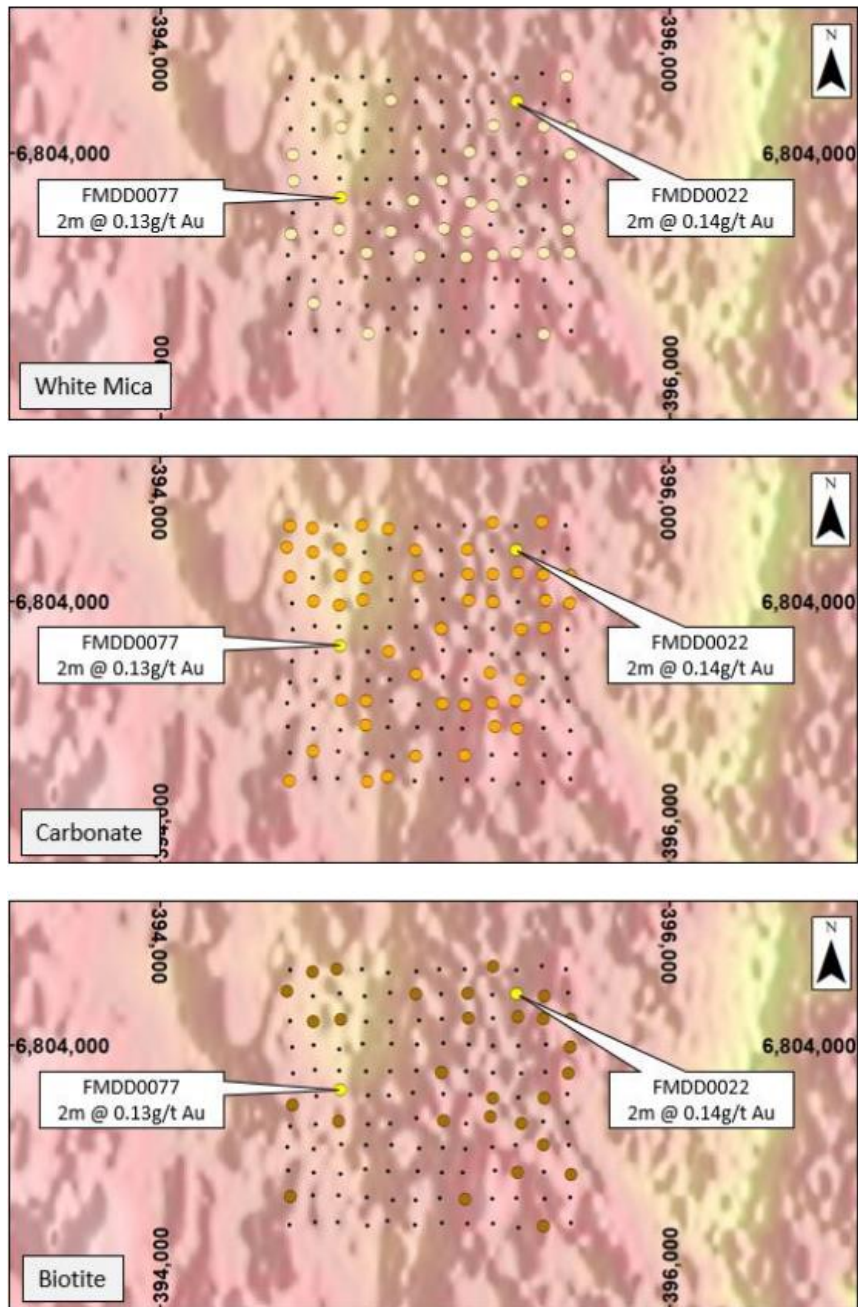


Figure 18: SWIR alteration mineral distribution relative to the two gold anomalies defined in the AC drilling at FMW44-Deep Well.

Multielement geochemistry and hyperspectral SWIR analyses were conducted along the full length of FMDD0008 to understand the geochemical distributions at **FMW44**. The major element distributions (see **Figure 19**) clearly demonstrated the weathering and regolith processes.

The ultramafic shear zone at ~360m in FMDD0008 displayed characteristic elevated Ni, Cr and Mg expected of an ultramafic rock. Surrounding the shear zone is a ~25m wide envelope of sodic alteration.

This is significant as it demonstrates the nature of this shear zone as a conduit for hydrothermal fluids.

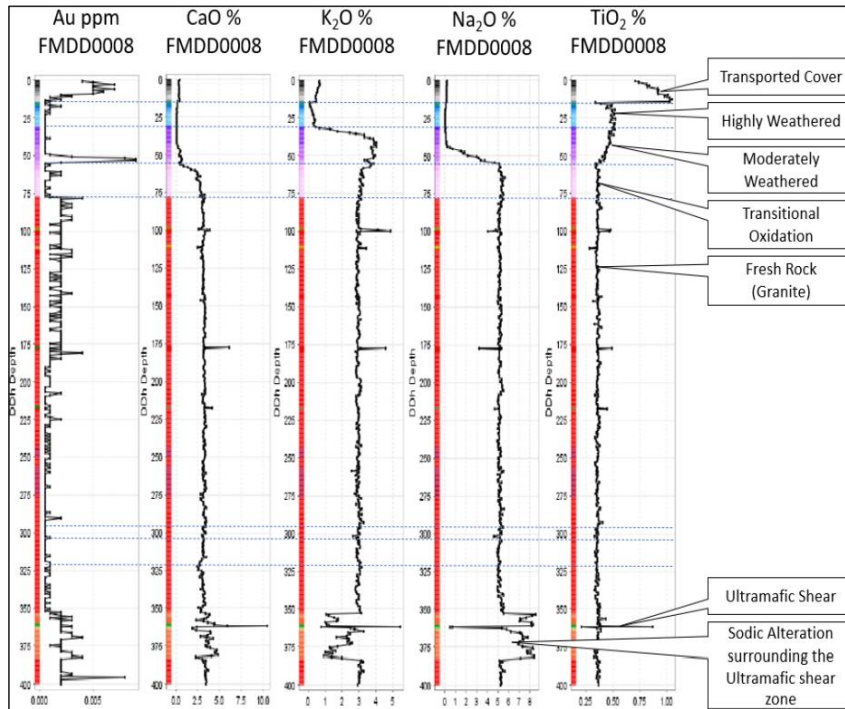


Figure 19: Examples of downhole geochemical patterns in FMDD0008 at target FMW44. A sodic alteration envelope is apparent surrounding the ultramafic shear, suggesting the shear zone was a conduit for the alteration fluids.

The gold anomalies identified in the AC drilling at target **FMW44** (see **Figure 20**) further reinforce the potential for the discovery of gold mineralisation within the 14 Mile Well Project, particularly within structures cross cutting the Deep Well intrusion (targets FMW43 & FMW46) or along its margins (targets FMW40, FMW41 & FMW42).

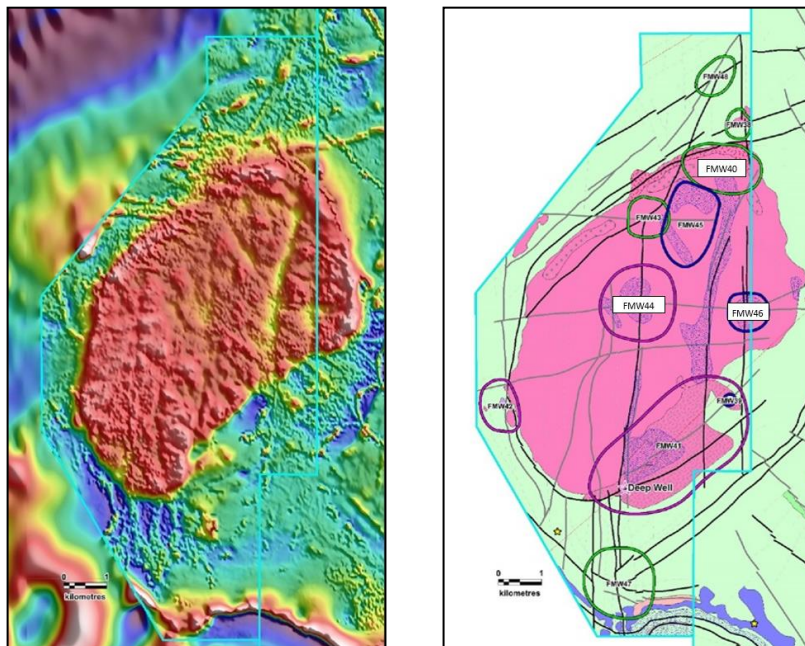


Figure 20: Targeting completed on the **Deep Well** Target Area by Southern Geoscience Consultants. The image on the left is TMI RTP Magnetics. The image on the right is the interpretation by Southern Geoscience Consultants showing prioritised target areas associated with the **Deep Well** Intrusion.

North 1 – Recon 1

The **Recon 1** target within the **North 1 Target Area** was previously identified as a potential target by SGC1 who described it as an “interpreted late (magnetic) intrusive proximal to a major structural intersection and a granite-greenstone contact”.

Surface rock chip sampling returned elevated Ba/V, Au, Ag, Te and Bi results. This geochemical association suggests a syenitic relationship. The anomaly is located immediately adjacent to the Castlemaine Fault, which is known to be associated with gold mineralisation.

The magnetic bulls-eye anomaly at **Recon 1** has been modelled using 3D magnetic inversion techniques to better define the drill target. The magnetic signature is similar to the magnetic signatures of syenite related deposits in the district (Jupiter, Cameron Well, Wallaby).

The first DD hole at North 1 FMDD0030 has been completed to a depth of 417.8m. The geology in the hole was dominated by pillowed andesitic lavas (see **Figure 21**).

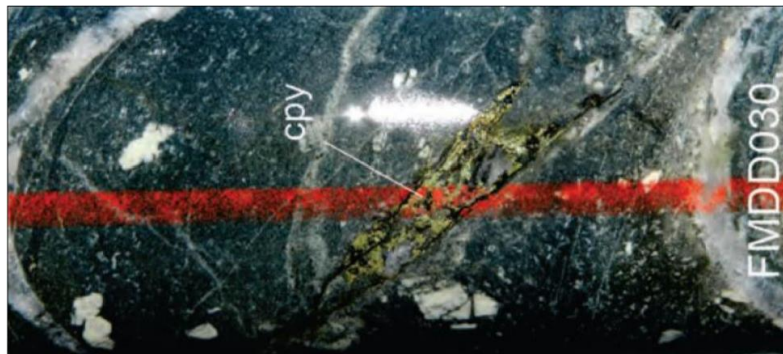


Figure 21: FMDD0030 ~80m, chalcopyrite veining in brecciated andesite

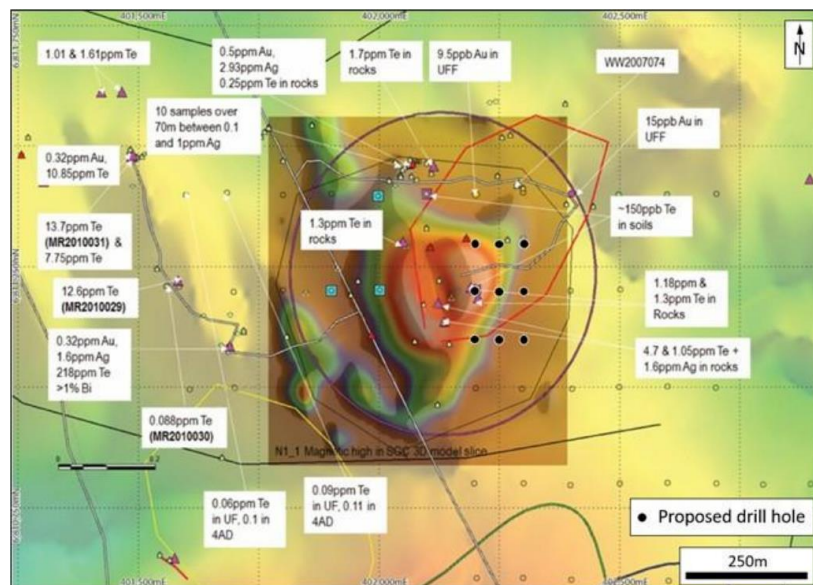


Figure 22: Surface rock chip results at Recon 1 are anomalous in Ba/V, Au, Ag, Te and Bi. This geochemical association suggests that a potential syenite intrusion at depth may be the source.

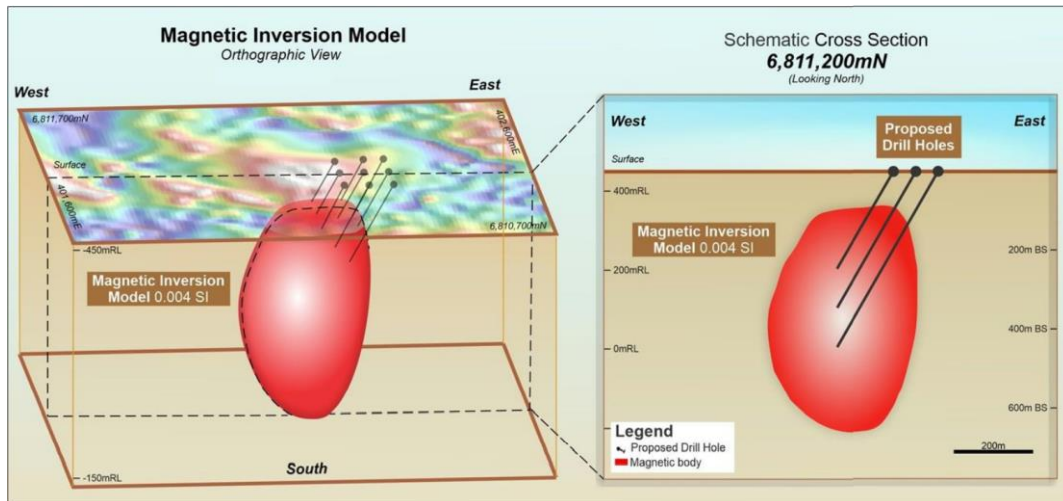


Figure 23: Magnetic anomaly and magnetic inversion model at Recon 1.

Sulphides observed in FMDD0030 were associated with zones of increased brecciation and veining. The sulphide assemblage is dominated by pyrrhotite and also includes pyrite, chalcopyrite and lesser arsenopyrite.

A drill core study was completed by Dr Walter Witt, specifically to identify vectors to ore. The predominance of biotite in the pillow margins may be an expression of syenite associated potassic alteration but the expected syenite and associated magnetite alteration were not observed in the core.

The interpreted syenite or a synvolcanic massive sulphide deposit may be deeper in the section, beneath FMDD0030. Measurements of petrophysical properties will be taken along the drill core. These measurements will be fed back into the geophysical model to refine it and better predict the location of the modelled body.

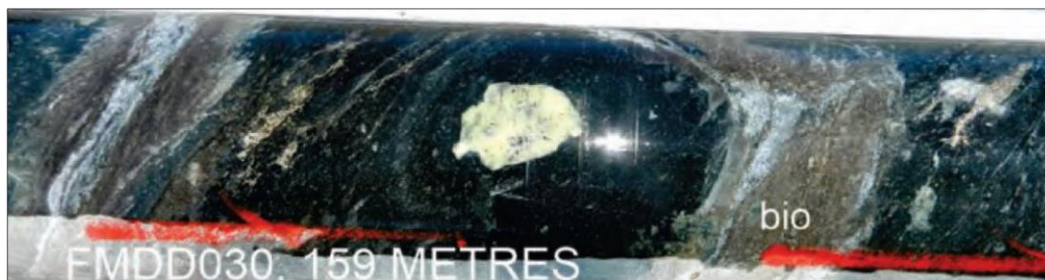


Figure 24: FMDD0030 ~159m Biotite dominated alteration assemblage around andesite pillow margins



Figure 25: FMDD0030 ~93m Possible gold related alteration with several % pyrrhotite (visual estimate) in biotite-chlorite altered andesite.



The presence of sulphides and potassic alteration (biotite) in the drill core is very promising. Additional holes have been planned to test for the magnetic body beneath FMDD0030.

North 1 – TOTK

The Company has received the assay results from the 127-hole AC drilling program at **TOTK**, totalling 3,488m, surrounding the initial DD program. The DD program was following up gold anomalism identified in surface rock chips and was designed to test down dip and along strike.

The DD intersected a sulphide bearing alteration zone within the Danjo Granite. The final DD results for the program are pending.

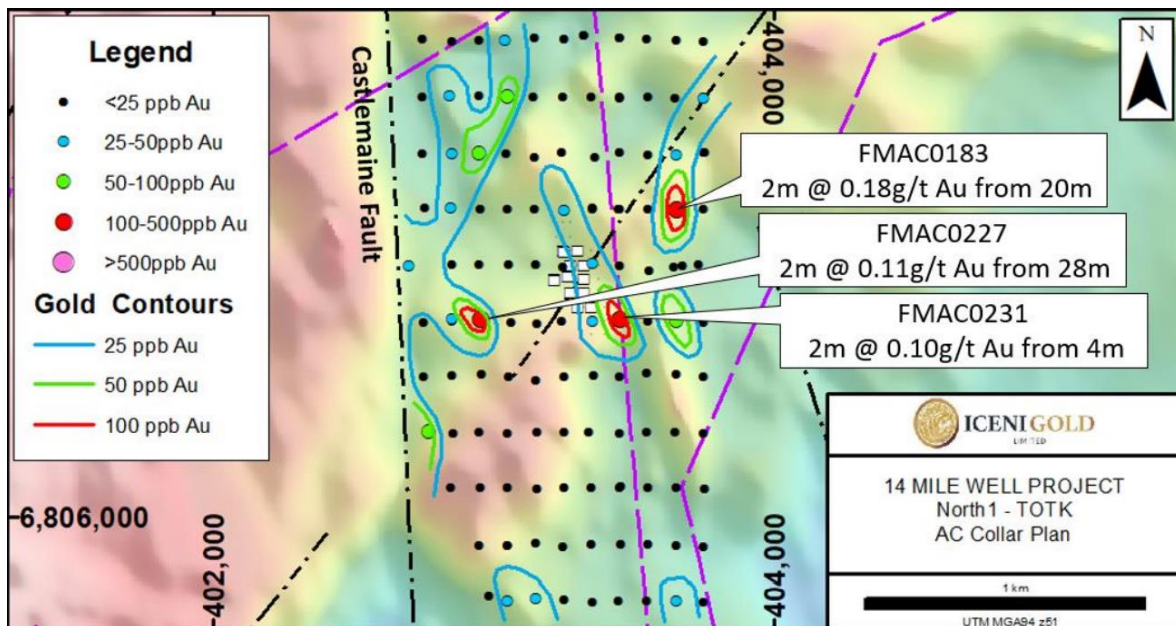


Figure 26: North 1 target TOTK with gold results from AC drilling.

Significant surface rock chip results at TOTK at North-1 included:¹

- 135g/t Au, 1,220g/t Ag & 0.66g/t Te
- 101g/t Au, 548g/t Ag & 1.26g/t Te
- 61.8g/t Au, 507g/t Ag & 2.06g/t Te
- 22.5g/t Au, 57.8g/t Ag & 0.34g/t Te

Recent AC drilling at **TOTK** identified three significant gold intersections (see **Figure 26**):

- FMAC0183 with 2m @ 0.18g/t Au from 20-22m
- FMAC0227 with 2m @ 0.11g/t Au from 28-30m
- FMAC0231 with 2m @ 0.10g/t Au from 4-6m

All assay results have been received and reviewed by the Company's geological team. These results will be integrated with the CSIRO UFF Machine Learning (ML) outputs.



All AC holes were subjected to a comprehensive bottom of hole interrogation, which included analyses for a broad suite of 64 elements and Short-Wave Infra-Red (SWIR) and Near Infra-Red (NIR) hyperspectral analysis to identify alteration minerals.

A spatial association has been established within the SWIR/NIR and geochemical data. The broader alteration pattern is intensifying towards the north-northwest. This is significant as it suggests a focus for hydrothermal activity and potentially mineralisation may be located north-northwest of the AC drilling.

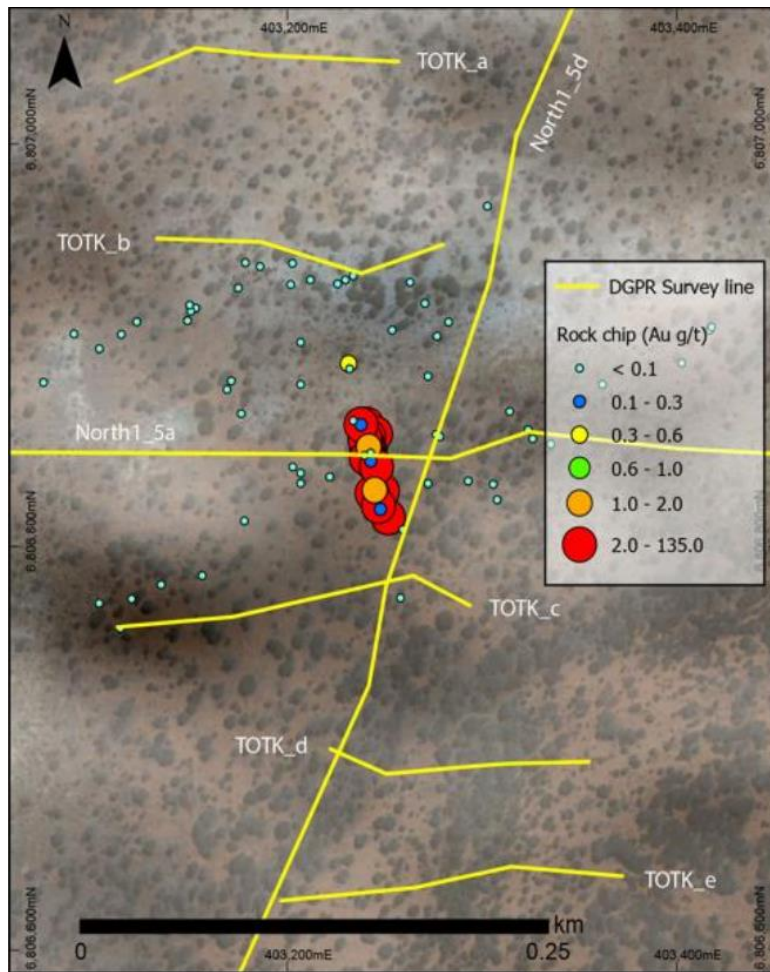


Figure 27: Location of surface rock chip sampling at TOTK.

The gold anomalies identified in the AC drilling at **TOTK** further reinforce the **significant potential for the discovery of gold mineralisation within the 14 Mile Well project**, particularly within structures cross cutting the margin of the Danjo intrusion or associated with the Castlemaine Fault along the western margin.

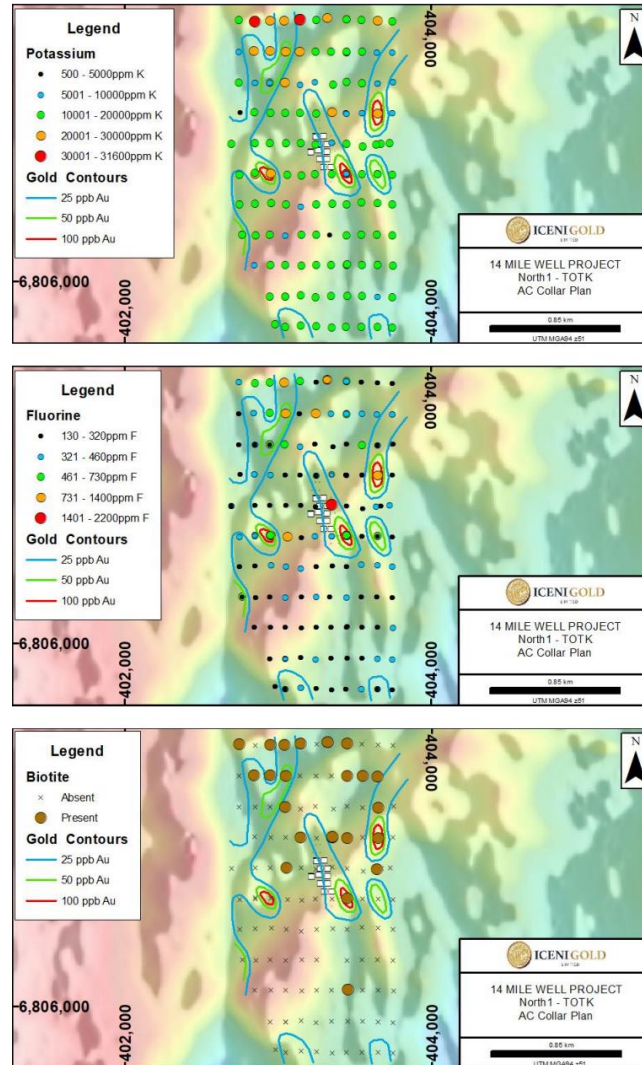


Figure 28: Geochemistry and alteration mineral distribution relative to the gold anomalies defined in the AC at TOTK.

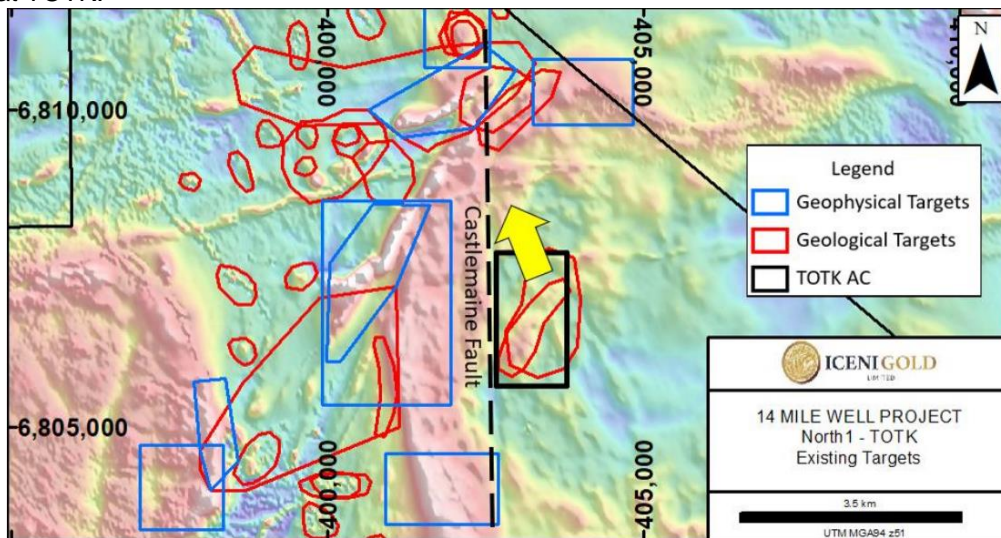


Figure 29: Targeting completed on the North 1 Target Area. The geochemical and mineralogical alteration vector is indicated by the arrow pointing towards the north-northwest.

Danjo NE

The Company has received the assay results from the 121-hole AC drilling program at **Danjo NE**, totalling 4,524m, surrounding the initial DD program. The DD program was following up gold anomalism identified in surface rock chips and was designed to test down dip and along strike.

The DD intersected sulphide bearing quartz-tourmaline veins within a broader alteration zone in the Danjo Granite. The final DD results for the program are pending.

Significant surface rock chip results at **Danjo NE** included:¹

- 24.6g/t Au, 14.5g/t Ag and 7.33g/t Te
- 5.07g/t Au, 78.7g/t Ag and 56.4g/t Te
- 3.67g/t Au, 4.02g/t Ag and 25.3g/t Te

Recent AC drilling at Danjo NE identified four holes with significant gold intersections (see **Figures 1 & 3**), being:

- FMAC0261 with **8m @ 0.21g/t Au from 8-16m** and **4m @ 0.17g/t Au from 20-24m**
- FMAC0262 with **4m @ 0.76g/t Au from 12-16m**
- FMAC0330 with **4m @ 0.22g/t Au from 28-32m**
- FMAC0345 with **4m @ 0.37g/t Au from 0-4m**

All assay results have been received and reviewed by the Company's geological team.

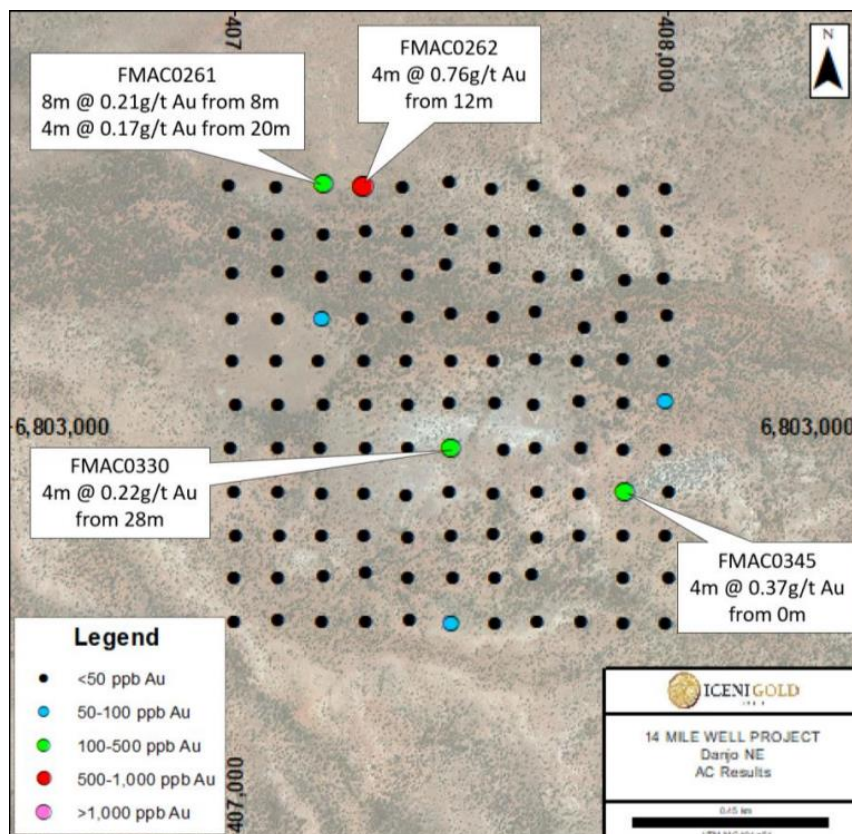


Figure 30: Target area at **Danjo NE** with gold results from AC drilling.

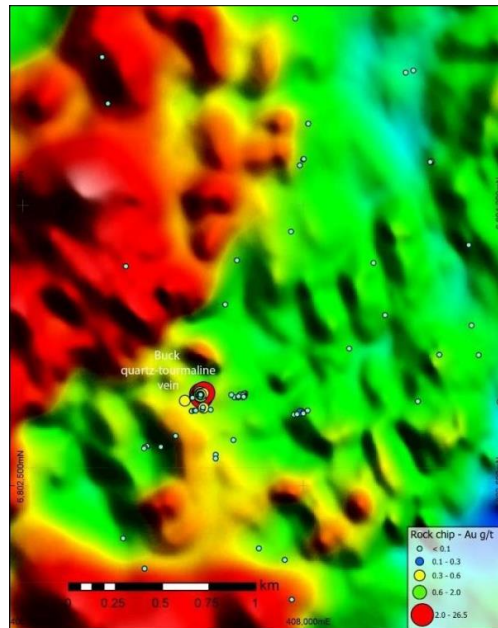


Figure 31: Location of surface rock chip sampling at Danjo NE. Gold anomalism is focussed around a series of outcropping, sulphide bearing, quartz tourmaline veins. Background image is TMI RTP magnetics. The clustered gold anomalism identified in AC drilling is associated with the highly magnetic body located to the north-northeast.

The gold results display clustering (where elevated results group together spatially). The results in AC holes FMAC0261 and FMAC0262 are located adjacent to each other on the northern edge of the drilling pattern (see **Figures 30 & 32**). Clustered results tend to indicate a more robust anomaly, particularly where there are higher grade values or with multi-element support.

All AC holes were subjected to a comprehensive bottom of hole interrogation, which included analyses for a broad suite of 64 elements and Short-Wave Infra-Red (SWIR) and Near Infra-Red (NIR) hyperspectral analysis to identify alteration minerals.

A spatial association has been established within the SWIR/NIR and geochemical data. The clustered gold anomalism on the northern edge of the drilling pattern is supported by clustered silver anomalism (see **Figure 32**). This is significant as it supports the interpretation that the gold anomaly is not transported (washed in from elsewhere) but is residual (formed in place) and potentially mineralised.

The gold anomalies identified in the AC drilling at Danjo NE further reinforce the significant potential for the discovery of gold mineralisation within the 14 Mile Well project, particularly where gold anomalism is clustering, supported by multi-element geochemistry, and associated with a geophysical feature.

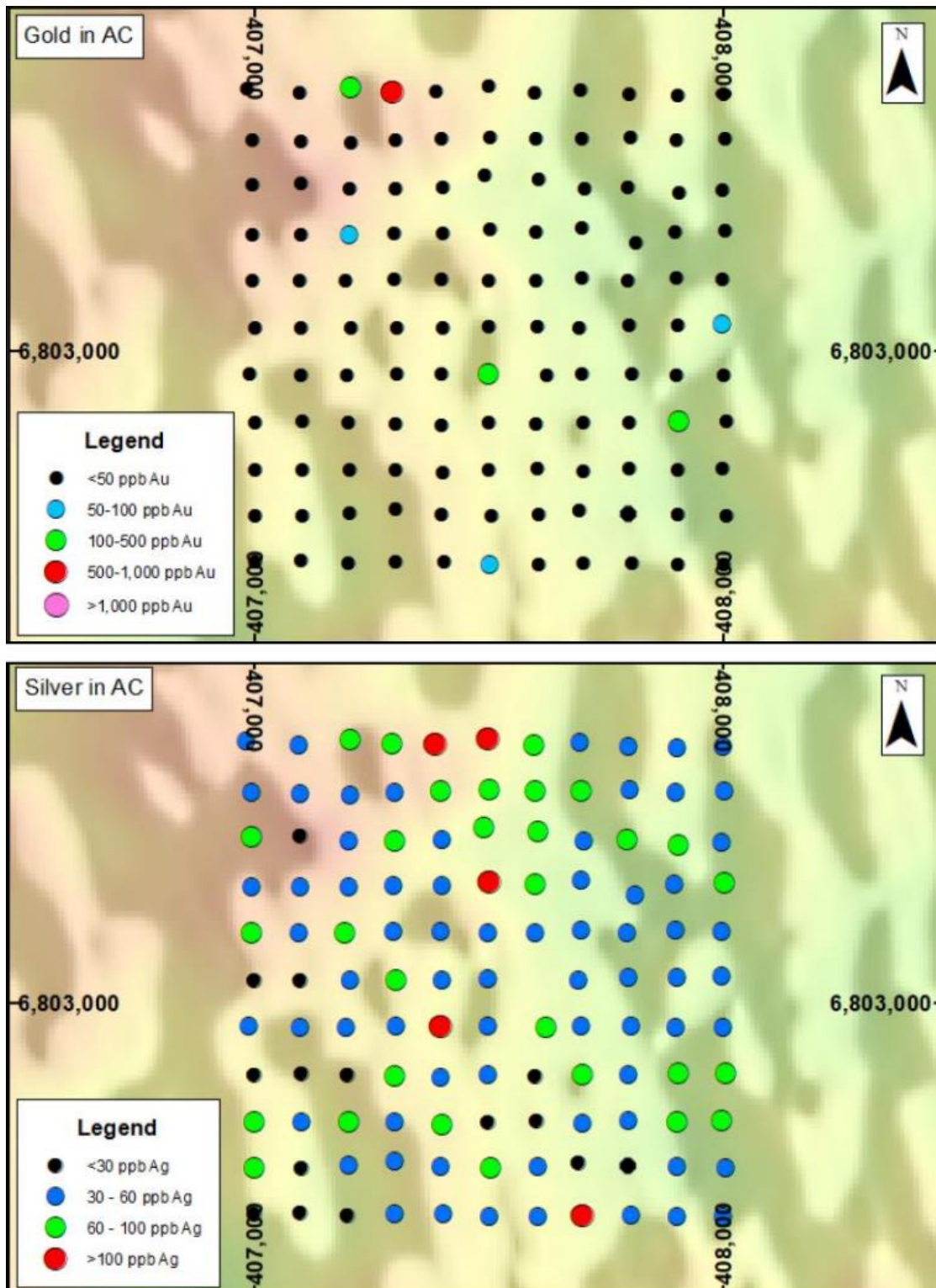


Figure 32: AC geochemistry results at Danjo NE. Gold anomalism is clustering on the northern edge of the AC drilling grid, silver anomalism supports the gold anomalism, they form coincident anomalies at the same location. The anomalism is associated with a magnetic geophysical feature that forms a coherent body to the north of the drilling grid. The gold anomaly remains open with the potential to expand to the north.



Everleigh Well

The **Everleigh Well** key target area is located on the western contact of the Danjo Monzogranite, classified as a prospective Mafic Group intrusion (Cassidy 2019). This is significant because Mafic Group intrusions are known to be spatially and temporally associated with gold mineralisation in the Kalgoorlie-Kurnalpi Rift.

The **Everleigh Well** target area formed part of the historic **Redcastle** gold mining centre which was discovered in 1894. The **Everleigh** area also contains a number of pits and shafts that were previously explored, 25 years ago, by BHP among others. The **Tatong prospect**, located nearby, was discovered by BHP as one of many large soil anomalies which were drill tested by Rotary Air Blast (RAB) and Reverse Circulation (RC) drilling.

The **Everleigh Well** area was targeted due to positive field mapping observations made by CSA Pty Ltd geologists in 2018 and 2020, which includes the following positive geological prospectivity indicators:

- Presence of a prominent fault and cross structures, evident in magnetic and gravity data sets.
- Albite alteration identified in litho-geochemistry.
- Interpreted Everleigh Embayment on the margin of the Danjo Batholith (see **Figure 33**).
- Alteration zonation identified in previous exploration vectoring towards the embayment.
- Historic workings trending towards the structural intersection.

At this location a number of primary targets are coincident. The targets were developed using a variety of exploration disciplines and include FMD21 (geophysics), EW27 (geophysics), CSA04 (geology) and 14UF009 (geochemistry).

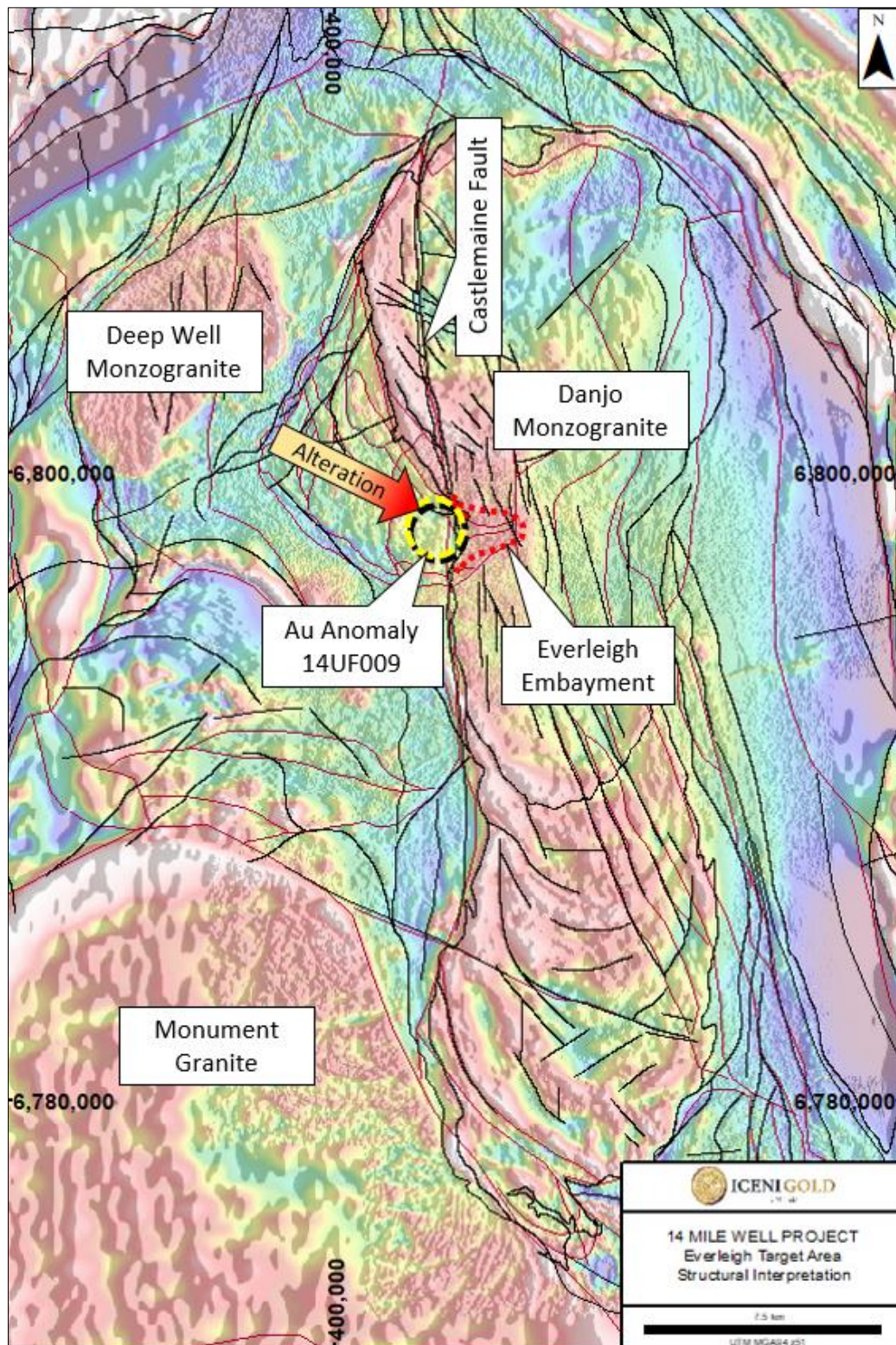


Figure 33: Structures in the Everleigh Well target area and the Everleigh Embayment on the margin of the Danjo Batholith. Historic work identified alteration vectoring towards the embayment. Background image is TMI RTP magnetics with structural interpretation overlays.

The initial drill testing into the **Castlemaine Fault** (see **Figure 34**), at the **Everleigh Well** (Everleigh) target area has been completed with 2 DD holes.

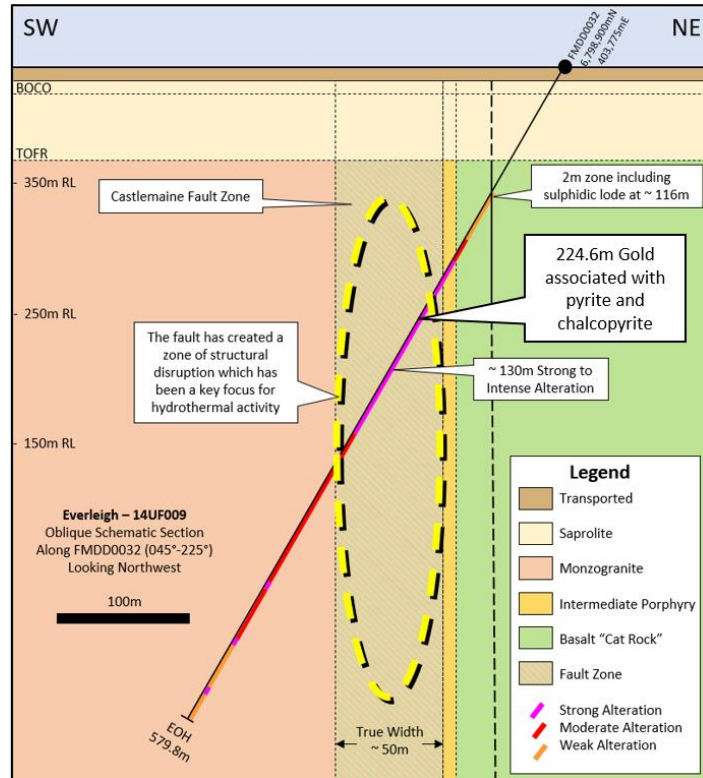


Figure 34: Oblique schematic section along the trace of the hole FMDD0032, through the Castlemaine Fault. Gold was identified at a depth of 224.6m, within the ~130m thick zone of strong alteration in hole FMDD0032 through the Castlemaine Fault.

Gold has been identified in DD core from the Everleigh Well target area (see **Figures 34 and 35**).

Drillhole FMDD0032 was designed to test coincident targets associated with the Castlemaine Fault. The hole was initially drilled to 445m, but after geological evaluation it was re-entered and extended to 579.8m. It intersected a broad zone of structural disruption, interpreted as the Castlemaine Fault. That broad zone was associated with strong alteration and gold was observed at a downhole depth of 224.6m in FMDD0032 (see **Figure 35**).

The observation of native gold associated with sulphides is significant as it demonstrates the structures at this location are carrying gold mineralisation.

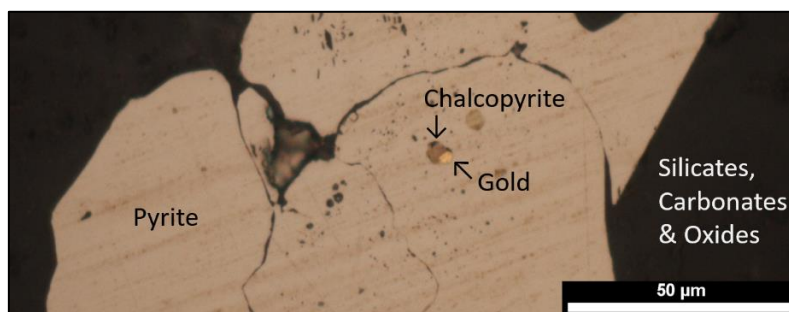


Figure 35: Photomicrograph of **gold** observed at 224.6m in FMDD0032 at the **Everleigh** target area



Figure 36: Sulphide bearing lode in FMDD0032 at ~116m.

Dr Walter Witt (ex. GSWA & UWA) was engaged by the Company to complete a geological study on the drill core from **FMDD0032**. Dr Witt's study included petrographic analysis of a sample from 224.6m downhole in FMDD0032. This work confirmed the volcanic texture of the protolith was completely destroyed, with the sample presenting a brecciated texture with quartz-carbonate-pyrite infill in a quartz-muscovite-pyrite host. Stringers of chlorite and rutile were observed, with aggregates of rutile interpreted as replacing igneous titanomagnetite. Disseminated pyrite contained inclusions of chalcopyrite, pyrrhotite and **native gold** (**Figure 35**).

The geological observations of structures, alteration and gold associated with sulphides is highly encouraging. Further analysis of the drill core from FMDD0032 will be conducted to gain insights into the geology and mineral system present within the **Everleigh** Target Area.

This result opens up the potential for the **Castlemaine Fault** to host gold. The 30km long segment within the 14 Mile Well project is considered prospective for gold mineralisation.

Guyer Well

AC drilling within the southern half of the Guyer Target Area continued through the quarter. The Guyer Target Area hosts the Guyer Fault, which is interpreted to be a splay off the Celia Fault immediately to the east.

Several coincident targets along the **Guyer structural corridor** were developed using multiple exploration disciplines, including geophysics, geochemistry, structure, geology and regolith. The entire campaign (North and South Guyer) is anticipated to test the UFF+ soil anomalies 14UF003, 4, 5 and 6 that are located ~ **25km to the west of the Sunrise Dam gold deposit**.

Observations from the drilling indicate a deep paleochannel system has exploited the underlying **structural corridor related to the Guyer Shear**. The UFF soil technique was designed by the **CSIRO** to see through deeper cover like this paleochannel system.

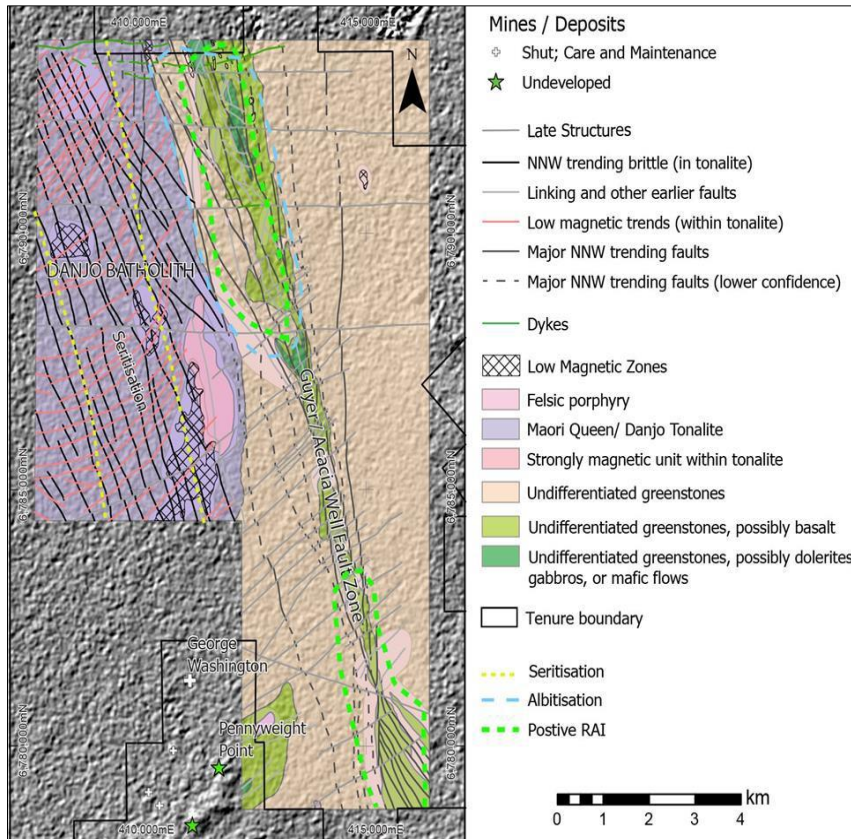


Figure 37: Interpreted geology and alteration zones within the Guyer Target Area. The main structural corridor has a length of ~15km within the **14 Mile Well** project area.

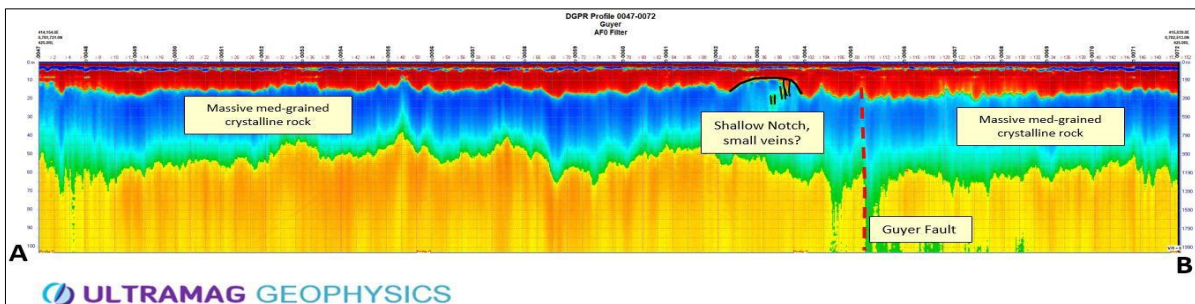


Figure 38: DGPR Survey line across the **Guyer Fault**, where the deepening of the overlying cover sequence has been confirmed by recent AC drilling.

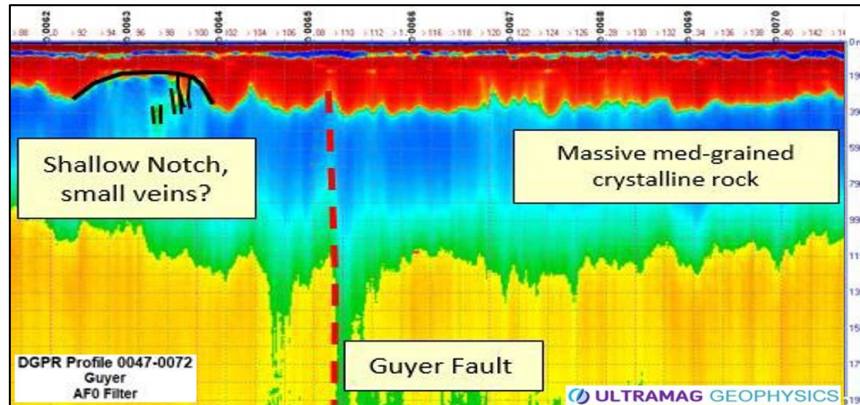


Figure 39: Close up view of a portion of the DGPR section shown in **Figure 16**, to demonstrate the anomalous geophysical response across the structural zone of the **Guyer Fault**.

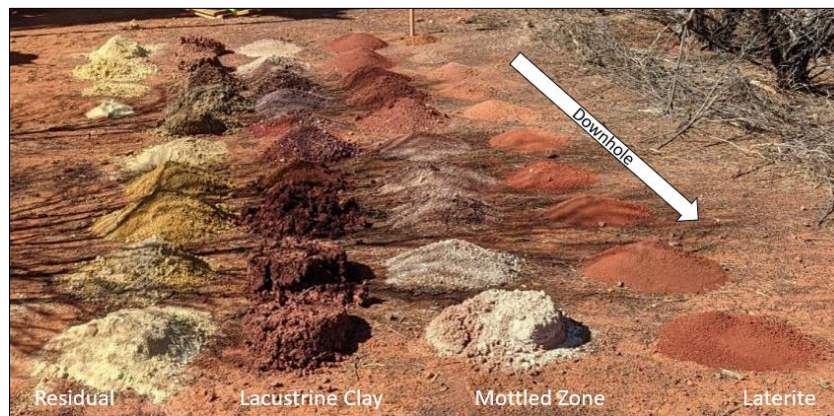


Figure 40: Close up view of the drill samples from the first hole in the **Guyer Target Area**. At this location the transported cover is ~30m thick. The thick cover has been a considerable deterrent for previous explorers, a significant reason why this area has remained untested.

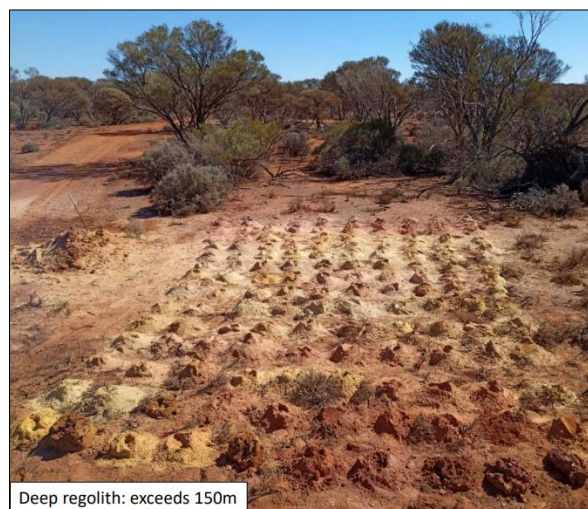


Figure 41: Example of very deep regolith cover exceeding 150m in downhole thickness in the Guyer AC drilling.



The AC drilling program has completed 235 AC holes to date. The Bottom of Hole (BOH) geology has been dominated by weakly to strongly foliated and altered andesite. In places drilling has encountered very deep regolith cover, in some instances exceeding 150m in downhole thickness (see **Figure 41**).

Encouraging results include a syenite intrusion identified in BOH chips in the southeastern part of the Guyer Target Area and a number of zones of quartz veining and sulphide alteration identified in BOH chips (see **Figure 42**).



Figure 42: Examples of a favourable syenite intrusion and sulphide altered andesite intersected by AC drilling in the Guyer Target Area.

This specific reconnaissance AC drilling program is expected to deliver data that will be used to focus follow-up drilling programs on centres of hydrothermal activity along the Guyer Fault zone.

Assay results from this drilling program are expected to be received during Q3 2022.

UFF+ Soil Sampling Campaign

The Ultra Fine Fraction (UFF+) process was developed by **CSIRO** and is optimised for soil particles less than two microns in size. The workflow involves a physical step to retain the fine microparticles, then a chemical step to test for the presence of gold and other elements.

Fine particles (clays and iron oxides) in the soil have more surface area to accumulate gold and other metals that move through the environment. This accumulation process forms the geochemical signatures above orebodies lying deep below. This allows the Company to generate new exploration targets that were previously unknown.

Iceni, in conjunction with the CSIRO, has conducted a project wide UFF+ soil sampling campaign. Analysis of the UFF+ samples has provided measurements of 52 elements, Near Infra-Red (NIR) and Fourier Transform Infra-Red (FTIR) spectral data, Electrical Conductivity (EC), soil acidity (pH), soil colour and sizing.



Element	Measure	Element	Measure	Element	Measure	Element	Measure	Property	Measure
Ag	ppm	Cs	ppm	Mn	ppm	Sn	ppm	Colour	HSI
Al	ppm	Cu	ppm	Mo	ppm	Sr	ppm	EC	uS/cm
As	ppm	Fe	ppm	Nb	ppm	Ta	ppm	Soil Acidity	pH
Au	ppb	Ga	ppm	Ni	ppm	Te	ppm	Grain Size Distribution	wt%
Ba	ppm	Ge	ppm	Pb	ppm	Th	ppm	FTIR Minerals	wt%
Be	ppm	Hf	ppm	Pd	ppb	Ti	ppm	FTIR TOC	wt%
Bi	ppm	Hg	ppm	Pt	ppb	Tl	ppm	NIR Minerals	wt%
Br	ppm	I	ppm	Rb	ppm	U	ppm	NIR Mineral Properties	
Ca	ppm	In	ppm	Re	ppm	V	ppm		
Cd	ppm	K	ppm	S	ppm	W	ppm		
Ce	ppm	La	ppm	Sb	ppm	Y	ppm		
Co	ppm	Li	ppm	Sc	ppm	Zn	ppm		
Cr	ppm	Mg	ppm	Se	ppm	Zr	ppm		

Table 1: Summary of the results provided by UFF+ analysis.

CSIRO UFF+ soil sampling began on the 14 Mile Well Project over four years ago as part of an ongoing research program. Sampling was completed in the 2021 field season, with over 11,000 UFF+ samples being collected. There are now over 16,000 UFF+ samples in the 14 Mile Well data set (see **Figure 43**).

Sampling was conducted under contract by **OMNI GeoX Pty Ltd**. Samples were taken on a project wide regular grid with a nominal spacing of 100m x 400m. Sampling in areas of interest was conducted at tighter sample spacings. Sample points were located using handheld GPS with a nominal accuracy of 3m. The samples were collected using a shovel at a nominal depth of 0.1m. The soil was sieved in the field to recover the -2mm size fraction and stored in individually numbered soil sample packets. The soil samples were aggregated into sampling batches and delivered to LabWest Minerals Analysis Pty Ltd (LabWest) in Malaga (Perth) for analysis.

On receiving the samples LabWest checked and sorted them prior to drying. The samples are subjected to a battery of tests to measure their physical, hyperspectral and chemical properties. The samples are then treated to separate out the ultra-fine (-2µm) particle size fraction. The ultra-fine fraction is subjected to hot mixed acid digestion before being measured on an Inductively Coupled Plasma – Mass Spectrometer (ICP-MS). The ICP-MS measures the concentrations of the 52 chemical elements in each sample (see Table 1).

Numerous companies are now utilising the UFF+ process; a comprehensive listing is available on the LabWest website <https://www.labwest.net/asx-releases-referencing-uff/>.

Iceni has received all of the gold and multi-element analyses from LabWest for the 14 Mile Well Project.

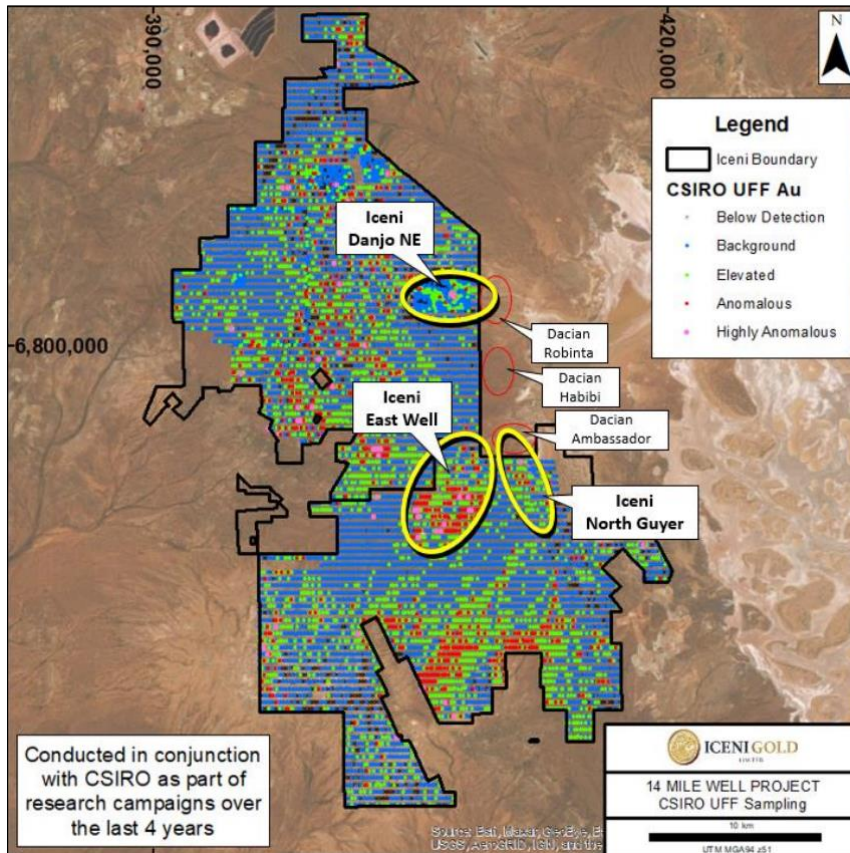


Figure 43: UFF+ gold anomalism identified within the **14 Mile Well Project** in relation to the targets identified by Dacian within the neighbouring Mt Morgans Project. The natural eastern extension of the **Danjo NE** gold anomaly is Dacian’s Robinta prospect and the natural extension of the North Guyer anomalies is Dacian’s Ambassador prospect.

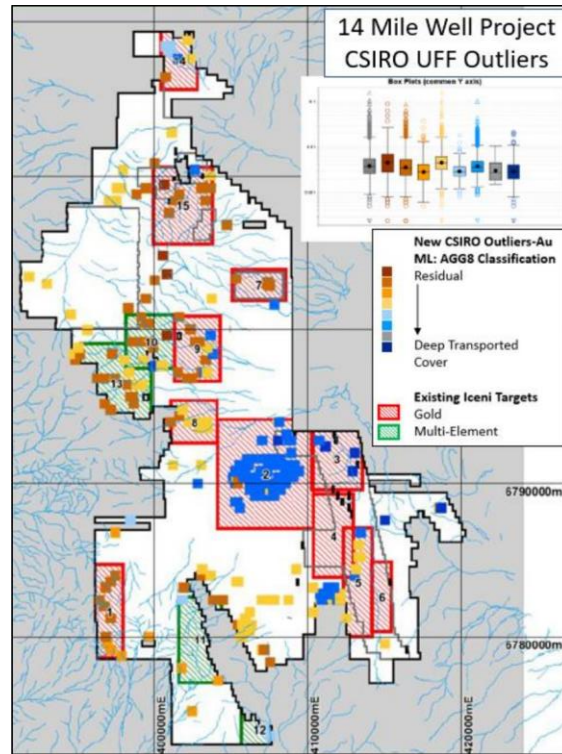


Figure 44: Location of soil anomalies already identified by the Company from the UFF+ data.

CSIRO UFF+ Next Gen Analytics uses Machine Learning (ML) to combine spatial data to build detailed landscape maps, free of human bias and at finer scales than currently available regolith maps (see **Figure 45**). The landscape classifications are critical. Soil samples within similarly classified regions are compared with each other but not against samples within regions classified differently. This method compares like with like and allows subtle anomalies that would otherwise be hidden in the background to become visible. It is these sorts of anomalies that may be found percolating through deep transported cover.

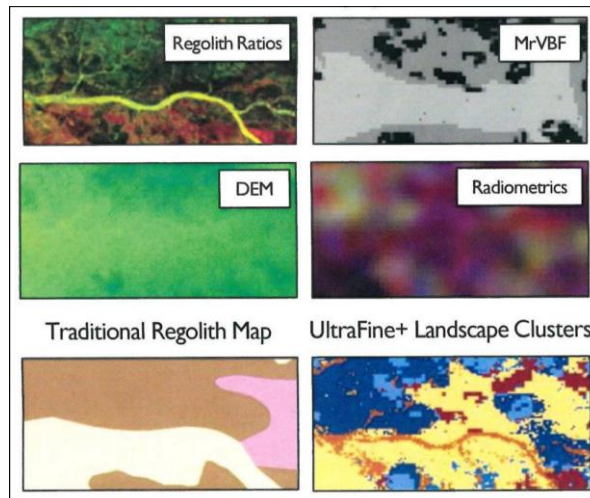


Figure 45: ML inputs include Digital Elevation Model (DEM) generated from the Shuttle Radar Topography Mission (SRTM), regolith ratios derived from the Advanced Spaceborne Thermal Emission and Reflection Radiometer (ASTER), Radiometrics and Multi-Resolution Valley Bottom



Flatness (MrVBF). The aim is to generate a landscape classification, similar to a regolith map but with an improved resolution free of human bias (after CSIRO 2021).

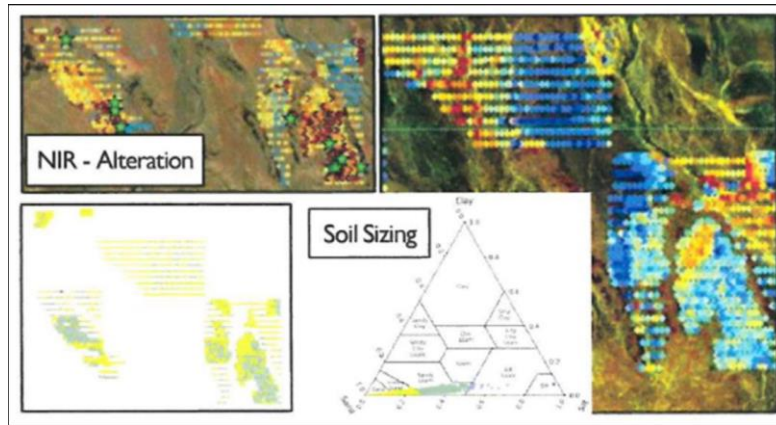


Figure 46: Examples of the CSIRO UFF+ Next Gen Analytics providing comprehensive soil property analyses for additional context. Outputs include pH, EC, sizing and hyperspectral analyses (after CSIRO 2021).

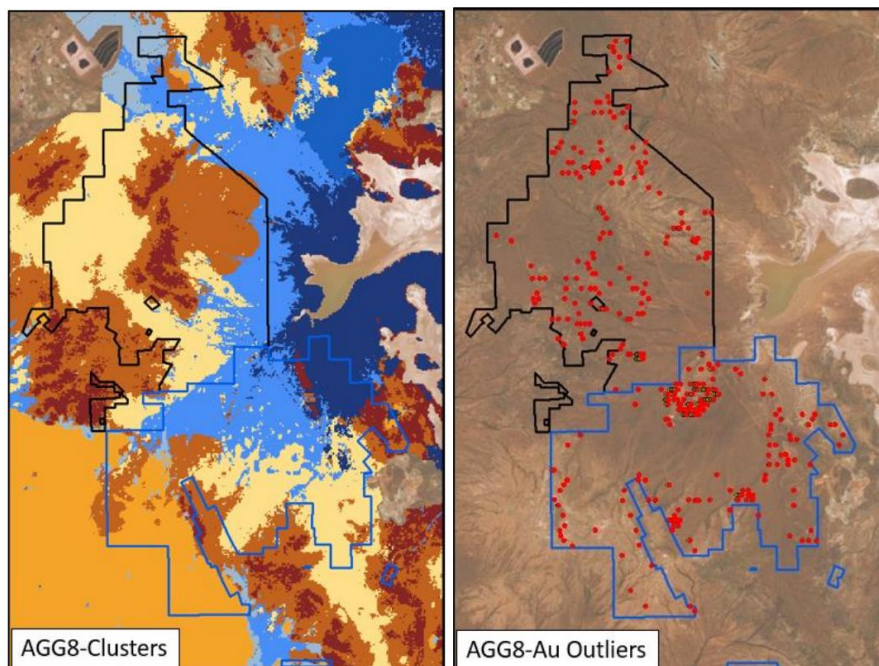


Figure 47: Example of the 14 Mile Well landscape classification generated by CSIRO ML using the AGG8 algorithm and the gold outliers identified within those landscape classifications.

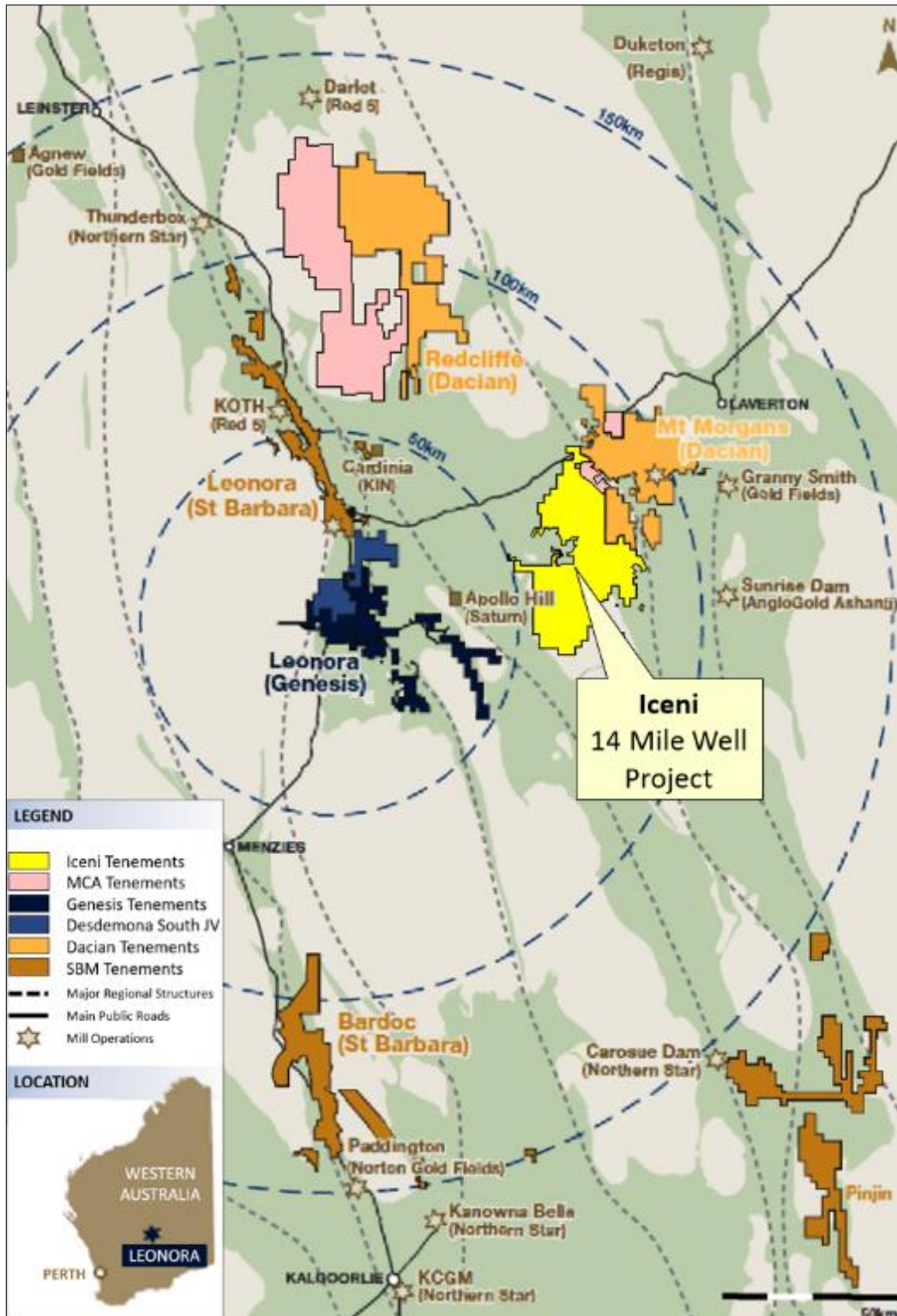


Figure 48: Plan showing the location of Icen's 14 Mil Well Project relative to the neighbouring Mt Morgans Project operated by Dacian (after Genesis Minerals Ltd ASX announcement dated 5 July 2022). A number of UFF+ anomalies extend across the 14 Mile Well project boundary into the Mt Morgans Project (see Figure 49).

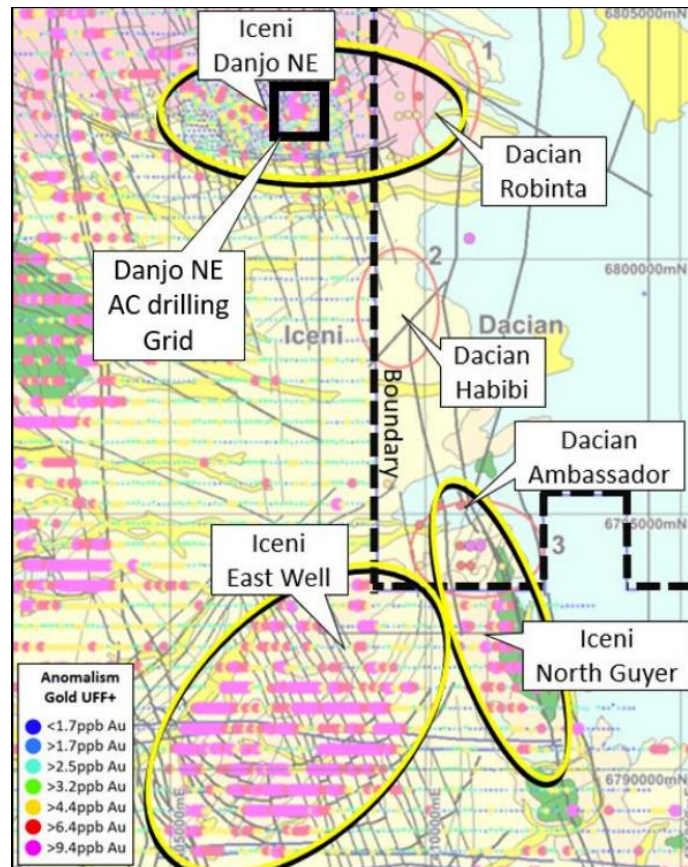


Figure 49: Gold anomalies identified within the UFF+ results extend across Iceni's 14 Mile Well Project boundary into ground operated by Dacian. The eastern extension of the Danjo NE gold anomaly is Dacian's Robinta Prospect. Iceni's recent AC drilling at Danjo NE is shown for reference.

The UFF+ gold anomaly at **Danjo NE** is associated with the Danjo Granite, which covers an area of ~230km². A number of large UFF+ gold anomalies are now known to be located within this granite or associated with its margins, particularly when cross cut by structures.

These UFF+ gold anomalies are considered positive indicators for the possible presence of **Intrusion Related Gold** or **Orogenic Gold** mineralisation.

Iceni has received all of the ML outputs and Next Gen Analytics from CSIRO. The Company's geological team and technical consultants will now integrate the new data with the existing body of knowledge.

The Company now has the ability to image the distribution of over 60 parameters, including elements, minerals and physical properties, across the entire 14 Mile Well tenement package.

A review of the CSIRO UFF ML analysis is underway and it is anticipated that these results will assist the Company with prioritising existing targets and new UFF+ targets identified within the 14 Mile Well tenement package.



Tenement Status

The Company confirms that all of its tenements remain in good standing. During the quarter, the Company acquired tenements set out in the table below.

Tenement ID	Holder	Interest (%)	Current Area	Area Unit	Grant Date	Expiry Date
P39/5648	14 Mile Well Gold Pty Ltd	100	111	ha	1/2/2017	31/01/2025
P39/5851	14 Mile Well Gold Pty Ltd	100	156	ha	03/05/2018	02/05/2022 (Extension of term lodged 02/05/2022 – still pending)
P39/5852	14 Mile Well Gold Pty Ltd	100	199	ha	03/05/2018	02/05/2022 (Extension of term lodged 02/05/2022 – still pending)
P39/6165	14 Mile Well Gold Pty Ltd	100	164	ha	11/11/2020	10/11/2024

The Company has not disposed of any tenements during the quarter. The Company confirms that, as at the end of the quarter, the beneficial interest held by the Company in the various tenements has not changed. Details of the tenements and their locations are set out in detail in the Company's annual report dated 29 September 2021.

Corporate

The cash flows relating to the quarter included \$1.73 million spent on exploration and evaluation expenditure, which is primarily associated with the costs of exploration activities at the 14 Mile Well project.

The Company had a closing cash balance of \$7.798 million.

Finance and Use of Funds

Pursuant to ASX listing rule 5.3.4, the Company provides a comparison of its actual expenditure against the estimated expenditure on items set out in in section 5.4 of the Company's Prospectus.

Activity Description	Funds Allocated (\$)	Actual to Date (\$)
Exploration (2 years)	13,000,000	10,146,467
Administration (2 years)	3,500,000	2,964,498
Expenses of the Offer	1,350,000	1,219,824

For the purposes of section 6 of the Appendix 5B, all payments made to related parties are for director fees, office rent, administration services and geological consulting services.

For further information regarding Iceni Gold Limited please visit our website www.icenigold.com.au

Authorised by the Board of Iceni Gold Limited.

For further information, please contact:

Brian Rodan
Executive Chairman
admin@icenigold.com.au

David Nixon
Technical Director



ABOUT ICENI GOLD LIMITED

Iceni Gold Limited is a Perth based exploration company that operates the 14 Mile Well Gold project in the Laverton Greenstone Belt.

The project consists of a ~600km² tenement package on the western side of Lake Carey, the majority of which has never been subject to modern systematic geological investigation.

Competent Person Statement

The information in this announcement that relates to exploration results fairly represents information and supporting documentation prepared by Mr David Nixon, a competent person who is a member of the Australasian Institute of Mining and Metallurgy. Mr Nixon has a minimum of twenty-five years' 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 Joint Ore Reserves Committee Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Nixon is a related party of the Company, being the Technical Director, and holds securities in the Company. Mr Nixon has consented to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

Appendix 5B

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Name of entity

Iceni Gold Limited

ABN

98 639 626 949

Quarter ended ("current quarter")

30 June 2022

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers		-
1.2 Payments for		
(a) exploration & evaluation	(1,734)	(7,428)
(b) development	-	-
(c) production	-	-
(d) staff costs	(315)	(1,383)
(e) administration and corporate costs	(162)	(1,020)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	15	15
1.5 Interest and other costs of finance paid	(20)	(83)
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
1.9 Net cash from / (used in) operating activities	(2,216)	(9,899)

2. Cash flows from investing activities		
2.1 Payments to acquire or for:		
(a) entities	-	-
(b) tenements	(92)	(271)
(c) property, plant and equipment	(2)	(489)
(d) exploration & evaluation	-	-
(e) investments	-	-
(f) other non-current assets	-	-

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
2.2	Proceeds from the disposal of:		
	(a) entities	-	-
	(b) tenements	-	-
	(c) property, plant and equipment	-	-
	(d) investments	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	(94)	(760)
3.	Cash flows from financing activities		
3.1	Proceeds from issues of equity securities (excluding convertible debt securities)	-	2,025
3.2	Proceeds from issue of convertible debt securities	-	-
3.3	Proceeds from exercise of options	-	-
3.4	Transaction costs related to issues of equity securities or convertible debt securities	-	(9)
3.5	Proceeds from borrowings		
3.6	Repayment of borrowings	(231)	(927)
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	(231)	1,089
4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	10,339	17,368
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,216)	(9,899)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(94)	(760)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	(231)	1,089

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period	7,798	7,798

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	2,783	5,339
5.2	Call deposits	5,015	5,000
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	Cash and cash equivalents at end of quarter (should equal item 4.6 above)	7,798	10,339

6.	Payments to related parties of the entity and their associates	Current quarter \$A'000
6.1	Aggregate amount of payments to related parties and their associates included in item 1	260
6.2	Aggregate amount of payments to related parties and their associates included in item 2	-
<i>Note: if any amounts are shown in items 6.1 or 6.2, your quarterly activity report must include a description of, and an explanation for, such payments.</i>		

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

7.	Financing facilities	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
	<i>Note: the term "facility" includes all forms of financing arrangements available to the entity. Add notes as necessary for an understanding of the sources of finance available to the entity.</i>		
7.1	Loan facilities	2,700	1,493
7.2	Credit standby arrangements	-	-
7.3	Other (please specify)	-	-
7.4	Total financing facilities	2,700	1,493
7.5	Unused financing facilities available at quarter end		1,207
7.6	Include in the box below a description of each facility above, including the lender, interest rate, maturity date and whether it is secured or unsecured. If any additional financing facilities have been entered into or are proposed to be entered into after quarter end, include a note providing details of those facilities as well.		
	A finance facility of \$2.7 million is held with Toyota Australia and relates to equipment financing at various terms and rates. Terms range up to 36 months and interest rates range from 2.8% - 5.34%. The facility is secured by the equipment purchased under the various equipment finance agreements and a further company guarantee in favour of Toyota Finance from 100% owned subsidiary 14 Mile Well Gold Pty Ltd. In addition, Icen Gold Limited has provided a bank guarantee to Toyota Finance for \$150,000.		

8.	Estimated cash available for future operating activities	\$A'000
8.1	Net cash from / (used in) operating activities (item 1.9)	(2,216)
8.2	(Payments for exploration & evaluation classified as investing activities) (item 2.1(d))	-
8.3	Total relevant outgoings (item 8.1 + item 8.2)	(2,216)
8.4	Cash and cash equivalents at quarter end (item 4.6)	7,798
8.5	Unused finance facilities available at quarter end (item 7.5)	-
8.6	Total available funding (item 8.4 + item 8.5)	7,798
8.7	Estimated quarters of funding available (item 8.6 divided by item 8.3)	3.5
	<i>Note: if the entity has reported positive relevant outgoings (ie a net cash inflow) in item 8.3, answer item 8.7 as "N/A". Otherwise, a figure for the estimated quarters of funding available must be included in item 8.7.</i>	
8.8	If item 8.7 is less than 2 quarters, please provide answers to the following questions:	
8.8.1	Does the entity expect that it will continue to have the current level of net operating cash flows for the time being and, if not, why not?	
	Answer: N/A	
8.8.2	Has the entity taken any steps, or does it propose to take any steps, to raise further cash to fund its operations and, if so, what are those steps and how likely does it believe that they will be successful?	
	Answer: N/A	

Mining exploration entity or oil and gas exploration entity quarterly cash flow report

8.8.3 Does the entity expect to be able to continue its operations and to meet its business objectives and, if so, on what basis?

Answer: N/A

Note: where item 8.7 is less than 2 quarters, all of questions 8.8.1, 8.8.2 and 8.8.3 above must be answered.

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Date: 29 July 2022

Authorised by: The Board of Directors
(Name of body or officer authorising release – see note 4)

Notes

1. This quarterly cash flow report and the accompanying activity report provide a basis for informing the market about the entity's activities for the past quarter, how they have been financed and the effect this has had on its cash position. An entity that wishes to disclose additional information over and above the minimum required under the Listing Rules is encouraged to do so.
2. If this quarterly cash flow report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 6: Exploration for and Evaluation of Mineral Resources* and *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly cash flow report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.
4. If this report has been authorised for release to the market by your board of directors, you can insert here: "By the board". If it has been authorised for release to the market by a committee of your board of directors, you can insert here: "By the [name of board committee – eg Audit and Risk Committee]". If it has been authorised for release to the market by a disclosure committee, you can insert here: "By the Disclosure Committee".
5. If this report has been authorised for release to the market by your board of directors and you wish to hold yourself out as complying with recommendation 4.2 of the ASX Corporate Governance Council's *Corporate Governance Principles and Recommendations*, the board should have received a declaration from its CEO and CFO that, in their opinion, the financial records of the entity have been properly maintained, that this report complies with the appropriate accounting standards and gives a true and fair view of the cash flows of the entity, and that their opinion has been formed on the basis of a sound system of risk management and internal control which is operating effectively.