



RENISON EXPLORATION UPDATE

November 2022



RENISON 2022 EXPLORATION UPDATE

- Drilling DHEM Targets
- New exploration tenement
- Geophysics ANSWT
- Geochemistry ridge and spur and drilling
- Forward program



LOCATION AND SETTING





Renison Tin mine is located in the early trough deposits of the Palaeozoic Dundas Trough.

Base of Crimson Creek Group:

- Dreadnought Hill Member
- Upper Contorted Unit
- Carbonate unit No1 dolomite
- Red Rock Member sand, silt and conglomerate

Top of Success Creek Group:

- Carbonate unit No2 dolomite
- Renison Bell member (dolomitic siltstone)
- Carbonate unit No3 dolomite
- Dalcoath Member (dolomitic siltstone, shale, nodular dolomite, tuff)

Oonah Formation



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DHEM TARGET DRILLING

- 2019 DHEM survey of 7 historic drill holes and 9 surface loops
- Number of conductors identified with several off-hole conductors
- Generated drill targets based on conductors with supporting geological/structural evidence
- Initial 3-hole program (Phase 1) completed earlier this year intersected zones of sulphide mineralisation associated with modelled conductors. Assays pending for 2 holes.
- First drill hole of follow up drilling program (*Phase 2*) intersected significant zone of massive sulphide mineralisation returning: 26.93m @ 4.57% Sn from 225.07m (6.03m @ 2.98% Sn from 233.97m and 4.97m @ 18.22%Sn from 247.03m.





DHEM TARGET DRILLING – Phase 1

- Two of the interpreted conductor plates associated with QPD's
- Anomalous Sn zone associated with QPD contact zone (9m @ 0.05%Sn, 125ppm W from 252m) – first conductor zone
- Anomalous Sn zone associated with Argent Fault zone stockwork breccia with semi-massive sulphides (5.2m @0.06%Sn, 630ppm Pb from 276.8m)
- Anomalous Sn associated with a stockwork breccia/semi-massive sulphide zone associated with a fault (4.1m @ 0.165% Sn, 0.3% As from 393.92m)





DHEM TARGET DRILLING – Phase 2

- Total of 6 holes planned
- First of Phase 2 DHEM target drilling intersected 26m of massive to semi-massive sulphide coincident with modelled conductor







DHEM TARGET DRILLING – Phase 2: S1671





NEW EXPLORATION LEASE – WESTERN HILLS



- Relatively under-explored
- Mapped as Oonah Fm unknown depth to granite
- > Need to explore undercover





EXPLORATION MODEL AND STRATEGY

- Geophysical methods required to determine
 - Depth to granite
 - Large-scale structures
- Previous regional magnetic show vague features
- Broad-spaced litho-geochemical and pathfinder geochemistry
 - to identify alteration/potential structures tapping granite
 - characterise lithologies in stratigraphy and compare with RMS



10 * MRT Rosebery-Lyell 2016 3D model lithology and faults



AMBIENT NOISE SURFACE WAVE TOMOGRAPHY - ANSWT





- Array of small, wireless seismic stations/nodes (several 100), placed in shallow holes or spiked into the ground at 400m
- Nodes turned on with magnetic switch and left for several weeks collecting passive/ambient seismic data
- Nodes are retrieved and data processed by IMS
- Data used to generate 3D velocity model to identify changes in sub-surface geology: map top of granite and identify major structures





RENISON ANSWT – NODE DEPLOYMENT

- Helicopter, boat, 4WD and on foot
- 7 teams of 2 people
- 9 days 512
 nodes
 deployed



















GEOCHEMISTRY

Aims:

- Identify fluid up-flow to the surface through deep seated fractures (faults, shears and joints) by using pathfinder elements such as Cs and Li – new fertile structures and hanging wall alteration halos;
- Identify geochemical zonation for vectoring to Sn mineralisation using pathfinder elements associations such as Sn-As-Bi-Sb-In (W);
- > Characterise litho-stratigraphic units (surface and drilling).

Strategy:

- Ridge and spur soil sampling 4 areas, approximately 1000 samples
- > Broad-spaced soil samples ~400m x 400m completed with collection of ANSWT sensors
- > Full LGC suite on soils, new exploration drill holes and selected historic core
- Follow-up closer spaced soils







GEOCHEMISTRY

- > Cs is elevated in the Federal HW
- On a regional scale, may help to identify other fertile structures and HW alteration haloes



- Typical basalts have 30 to 50ppm Sc. Geochemically confirms the mafic provenance for the Crimson Creek Formation.
- Dark green points are more like typical tholeiitic basalt.
- The Dalcoath Member plots as a distinct geochemically different population compared with the CCF but is similar to the RBM population, indicating similar provenance.

Cs-Li fluid up-flow vectors











FORWARD PROGRAM 2023

- > DHEM follow-up drilling and interpretation
- > ANSWT velocity model interrogation, interpretation, target generation
- Ongoing historic data compilation and review geophysics
- Surface geochemical anomaly follow-up mapping and further sampling
- Building geochemical datasets, targeting and litho-geochemical understanding applying to new areas
- Geophysics DHEM, VTEM
- > Target generation, review, ranking
- Drill testing new targets